

RECEIVED

OCT 05 2015



P.O. Box 205803  
Dallas, TX 75320-5803

Voice: (832) 482-3742  
Fax: (832) 482-3738

# INVOICE

Invoice Number: 150913  
Invoice Date: Sep 28, 2015  
Page: 1

Federal Tax I.D.#: 20-8651475

<b>Bill To:</b>
Palomino Petroleum, Inc. 4924 SE 84th St. Newton, KS 67114-8827

Customer ID	Field Ticket #	Payment Terms	
Palo	67733	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	Sep 28, 2015	10/28/15

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Duff #1		
160.00	CEMENT MATERIALS	Class A Common	17.90	2,864.00
301.00	CEMENT MATERIALS	Gel	0.50	150.50
451.00	CEMENT MATERIALS	Chloride	1.10	496.10
173.01	CEMENT SERVICE	Cubic Feet Charge	2.48	429.06
197.51	CEMENT SERVICE	Ton Mileage Charge	2.75	543.15
1.00	CEMENT SERVICE	Surface	1,512.25	1,512.25
25.00	CEMENT SERVICE	Heavy Vehicle Mileage	7.70	192.50
25.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	110.00
1.00	JOB DISCOUNT	Job Discount if paid within terms -- Material	2,106.36	-2,106.36
1.00	JOB DISCOUNT	Job Discount if paid within terms -- Cement Service	1,672.19	-1,672.19
1.00	CEMENT SUPERVISOR	Paul Beaver		
1.00	EQUIPMENT OPERATOR	Brandon Wilkinson		
1.00	EQUIPMENT OPERATOR	Darren Racette		

ALL PRICES ARE NET, PAYABLE  
30 DAYS FOLLOWING DATE OF  
INVOICE. ONLY IF PAID ON OR  
BEFORE

**Oct 28, 2015**

1 1/2% CHARGED  
THEREAFTER.

Subtotal	2,519.01
Sales Tax	112.34
Total Invoice Amount	2,631.35
Payment/Credit Applied	
<b>TOTAL</b>	<b>2,631.35</b>



RECEIVED

OCT 22 2015



# INVOICE

P.O. Box 205803  
Dallas, TX 75320-5803

Invoice Number: 150961  
Invoice Date: Oct 8, 2015  
Page: 1

Voice: (832) 482-3742  
Fax: (832) 482-3738

Federal Tax I.D.#: 20-8651475

<b>Bill To:</b>
Palomino Petroleum, Inc. 4924 SE 84th St. Newton, KS 67114-8827

Customer ID	Field Ticket #	Payment Terms	
Palo	67668	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-03	Oakley	Oct 8, 2015	11/7/15

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Duff #1		
240.00	CEMENT MATERIALS	60/40/4% Gel Blend	18.92	4,540.80
60.00	CEMENT MATERIALS	Flo Seal	2.97	178.20
257.76	CEMENT SERVICE	Cubic Feet Charge	2.48	639.24
269.00	CEMENT SERVICE	Ton Mileage Charge	2.75	739.75
1.00	CEMENT SERVICE	Plug to Abandon	2,483.59	2,483.59
25.00	CEMENT SERVICE	Pump Truck Mileage	7.70	192.50
25.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	110.00
1.00	EQUIPMENT SALES	8-5/8 Dry Hole Plug	110.00	110.00
1.00	JOB DISCOUNT	Job Discount if paid within terms -- Material	2,897.40	-2,897.40
1.00	JOB DISCOUNT	Job Discount if paid within terms -- Cement Service	2,499.05	-2,499.05
1.00	CEMENT SUPERVISOR	Andrew Forslund		
1.00	CEMENT SUPERVISOR	Paul Beaver		
1.00	EQUIPMENT OPERATOR	Darren Racette		

ALL PRICES ARE NET, PAYABLE  
30 DAYS FOLLOWING DATE OF  
INVOICE. ONLY IF PAID ON OR  
BEFORE

**Nov 7, 2015**

1 1/2% CHARGED  
THEREAFTER.

Subtotal	3,597.63
Sales Tax	287.81
Total Invoice Amount	3,885.44
Payment/Credit Applied	
<b>TOTAL</b>	<b>3,885.44</b>

# ALLIED OIL & GAS SERVICES, LLC

Federal Tax I.D. #20-5975804

067668

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT:

Dakley

DATE <u>10-8-15</u>	SEC. <u>9</u>	TWP. <u>15</u>	RANGE <u>32</u>	CALLED OUT	ON LOCATION <u>7:00pm</u>	JOB START <u>9:00pm</u>	JOB FINISH <u>10:00pm</u>
LEASE <u>Duff</u>	WELL# <u>1</u>	LOCATION <u>Dakley 215 Winto</u>			COUNTY <u>Logan</u>	STATE <u>Ks</u>	
OLD OR NEW (Circle one)							

CONTRACTOR Wtw 2 OWNER same

TYPE OF JOB PTA

HOLE SIZE 7 7/8 T.D. 4510'

CASING SIZE DEPTH

TUBING SIZE DEPTH

DRILL PIPE 4 1/2 DEPTH 2150'

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG.

PERFS.

DISPLACEMENT

**EQUIPMENT**

PUMP TRUCK CEMENTER Andrew Horslund

# 431 HELPER Paul Beaver

BULK TRUCK

# 898 DRIVER Darren Racette

BULK TRUCK

# DRIVER

**REMARKS:**

50 sks @ 2150'  
100 sks @ 1125'  
50 sks @ 225'  
10 sks @ 40'  
30 sks Ret hole

Thank you

CHARGE TO: Palamino Petroleum

STREET

CITY STATE ZIP

To: Allied Oil & Gas Services, LLC.  
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME

SIGNATURE [Signature]

CEMENT

AMOUNT ORDERED 240 sks 4040

496gel 4460-seal

COMMON @

POZMIX @

GEL @

CHLORIDE @

ASC @

690 496 240 sks @ 18.92 4540.80

@

@

@

Flu-seal 60" @ 2.97 178.20

@

@

@

@

TOTAL 4,719.00

DISCOUNT 60% 2831.40

**SERVICE**

HANDLING 250.26 @ 2.48 639.24

MILEAGE 2.25 ton/mile 10.26 ton 239.25

DEPTH OF JOB 2150'

PUMP TRUCK CHARGE 2483.59

EXTRA FOOTAGE @

HV MILEAGE 25 miles @ 7.70 192.50

LV MILEAGE 25 miles @ 4.40 110.00

@

@

TOTAL 4,165.08

DISCOUNT 60% 2499.04

**PLUG & FLOAT EQUIPMENT**

858

1 Dry hole plug @ 110.00

@

@

@

@

@

TOTAL 110.00

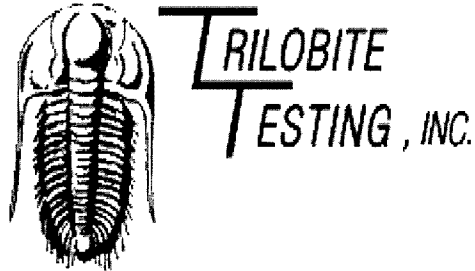
DISCOUNT 60% 66.00

SALES TAX (If Any)

TOTAL CHARGES 8,994.08

DISCOUNT 5,396.44 (60%) IF PAID IN 30 DAYS

NET TOTAL 3,597.63 IF PAID IN 30 DAYS



## DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum, Inc**

4924 SE 84th St.  
Newton, KS 67114

ATTN: John Goldsmith

### **Duff #1**

### **9-15s-32w Logan,KS**

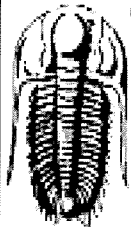
Start Date: 2015.10.02 @ 18:39:00

End Date: 2015.10.03 @ 00:16:45

Job Ticket #: 61830                      DST #: 1

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

Printed: 2015.10.09 @ 11:32:18



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Palomino Petroleum, Inc  
4924 SE 84th St.  
New ton, KS 67114  
ATTN: John Goldsmith

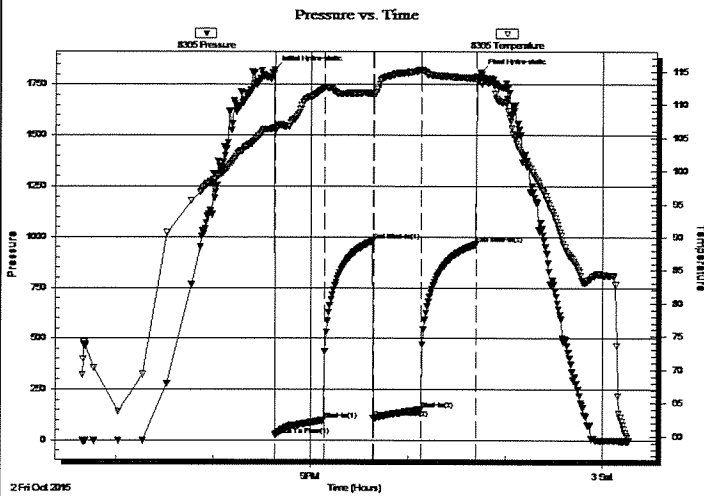
**9-15s-32w Logan,KS**  
**Duff #1**  
Job Ticket: 61830 **DST#: 1**  
Test Start: 2015.10.02 @ 18:39:00

## GENERAL INFORMATION:

Formation: **LKC D**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 20:38:00  
Time Test Ended: 00:16:45  
Interval: **3723.00 ft (KB) To 3752.00 ft (KB) (TVD)**  
Total Depth: 3752.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Reference Elevations: 2708.00 ft (KB)  
2703.00 ft (CF)  
KB to GR/CF: 5.00 ft  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Bradley Walter  
Unit No: 69

**Serial #: 8365** Inside  
Press@RunDepth: 152.00 psig @ 3724.00 ft (KB)  
Start Date: 2015.10.02 End Date: 2015.10.03  
Start Time: 18:39:05 End Time: 00:16:44  
Capacity: 8000.00 psig  
Last Calib.: 2015.10.03  
Time On Btm: 2015.10.02 @ 20:37:45  
Time Off Btm: 2015.10.02 @ 22:44:00

TEST COMMENT: IF: 7" blow.  
IS: No return.  
FF: 8" blow.  
FS: No return.



## PRESSURE SUMMARY

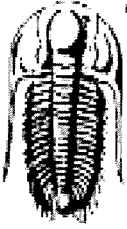
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1824.14	106.46	Initial Hydro-static
1	25.21	105.87	Open To Flow (1)
31	98.39	112.50	Shut-In(1)
60	980.02	111.63	End Shut-In(1)
61	108.34	111.47	Open To Flow (2)
90	152.00	115.17	Shut-In(2)
124	964.03	113.92	End Shut-In(2)
127	1809.47	113.34	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	mcw 30m 70w	0.30
245.00	mcw 10m 90w (oil Spots in tool)	2.92

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Palomino Petroleum, Inc  
 4924 SE 84th St.  
 Newton, KS 67114  
 ATTN: John Goldsmith

**9-15s-32w Logan, KS**

**Duff #1**

Job Ticket: 61830

**DST#: 1**

Test Start: 2015.10.02 @ 18:39:00

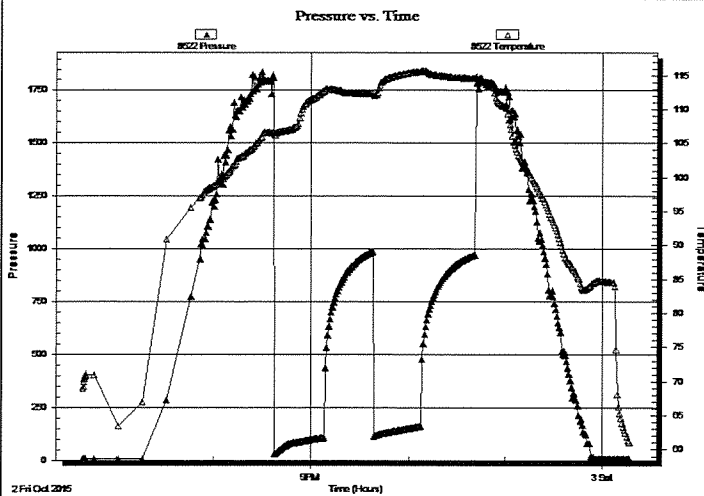
### GENERAL INFORMATION:

Formation: **LKC D**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 20:38:00  
 Tester: Bradley Walter  
 Time Test Ended: 00:16:45  
 Unit No: 69  
 Interval: **3723.00 ft (KB) To 3752.00 ft (KB) (TVD)**  
 Reference Elevations: 2708.00 ft (KB)  
 Total Depth: 3752.00 ft (KB) (TVD)  
 2703.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 KB to GR/CF: 5.00 ft

**Serial #: 8522** Outside

Press@RunDepth: psig @ 3724.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2015.10.02 End Date: 2015.10.03 Last Calib.: 2015.10.03  
 Start Time: 18:39:05 End Time: 00:17:29 Time On Btm:  
 Time Off Btm:

TEST COMMENT: IF: 7" blow.  
 IS: No return.  
 FF: 8" blow.  
 FS: No return.



### PRESSURE SUMMARY

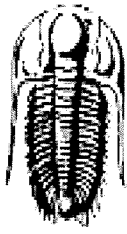
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

### Recovery

Length (ft)	Description	Volume (bbl)
60.00	mcw 30m 70w	0.30
245.00	mcw 10m 90w (oil Spots in tool)	2.92

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Palomino Petroleum, Inc  
4924 SE 84th St.  
New ton, KS 67114  
ATTN: John Goldsmith

**9-15s-32w Logan,KS**  
**Duff #1**  
Job Ticket: 61830 **DST#: 1**  
Test Start: 2015.10.02 @ 18:39:00

### Tool Information

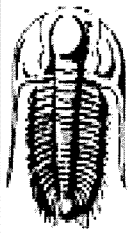
Drill Pipe:	Length: 3610.00 ft	Diameter: 3.80 inches	Volume: 50.64 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 51.22 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 59000.00 lb
Depth to Top Packer:	3723.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	29.00 ft			
Tool Length:	56.00 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			3697.00	
Shut In Tool	5.00			3702.00	
Hydraulic tool	5.00			3707.00	
Jars	5.00			3712.00	
Safety Joint	2.00			3714.00	
Packer	5.00			3719.00	27.00 Bottom Of Top Packer
Packer	4.00			3723.00	
Stubb	1.00			3724.00	
Recorder	0.00	8365	Inside	3724.00	
Recorder	0.00	8522	Outside	3724.00	
Perforations	25.00			3749.00	
Bullnose	3.00			3752.00	29.00 Bottom Packers & Anchor

**Total Tool Length: 56.00**





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Palomino Petroleum, Inc  
4924 SE 84th St.  
New ton, KS 67114  
ATTN: John Goldsmith

**9-15s-32w Logan,KS**  
**Duff #1**  
Job Ticket: 61830      **DST#: 1**  
Test Start: 2015.10.02 @ 18:39:00

## Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	48000 ppm
Viscosity:	54.00 sec/qt	Cushion Volume:	bbbl		
Water Loss:	6.39 in <sup>3</sup>	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2500.00 ppm				
Filter Cake:	1.00 inches				

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	mcw 30m 70w	0.295
245.00	mcw 10m 90w (oil Spots in tool)	2.917

Total Length: 305.00 ft      Total Volume: 3.212 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments: rw is .180 @ 60F = 48,000ppm

Serial #: 8365

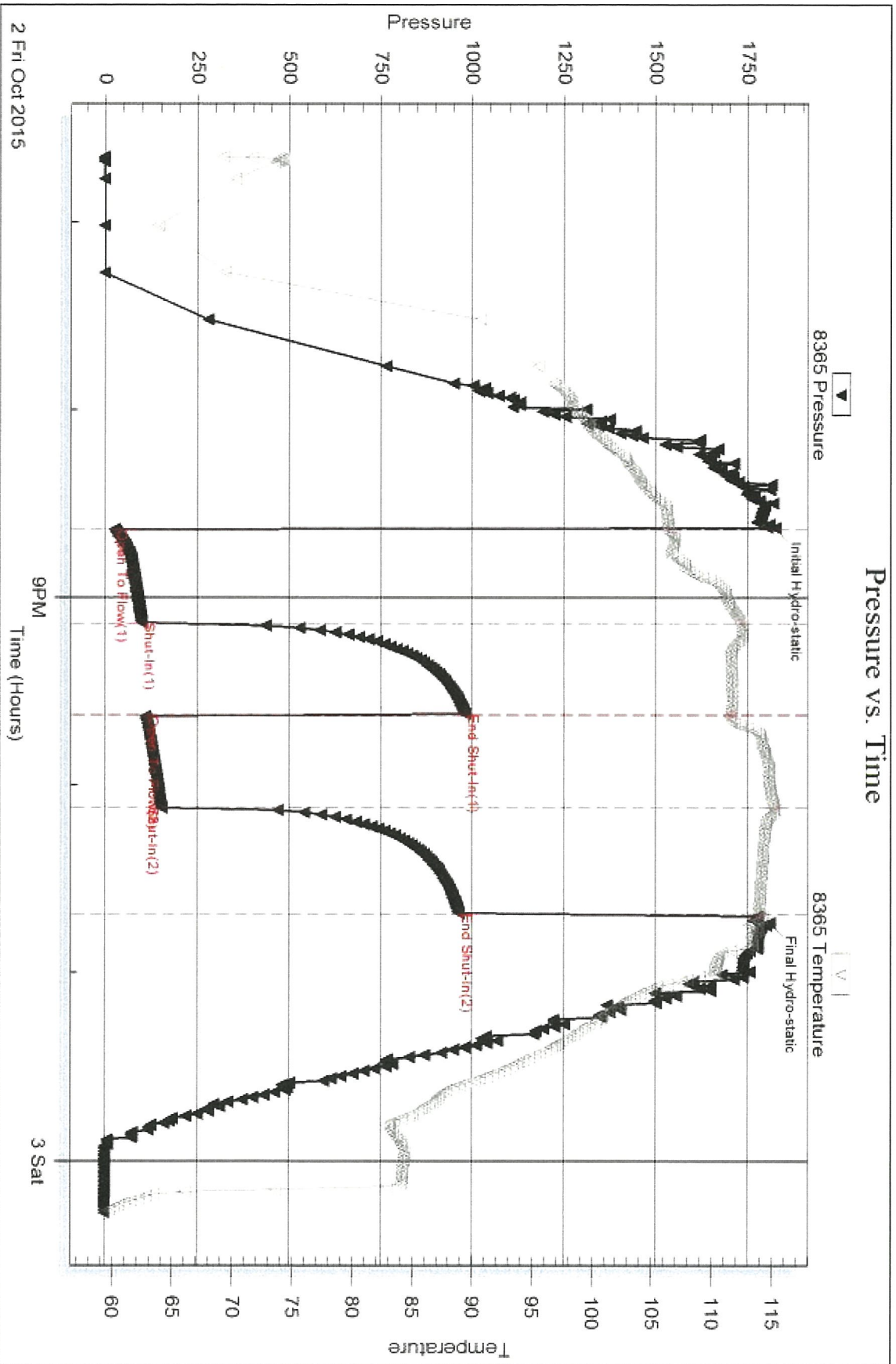
Inside

Palomino Petroleum, Inc

Duff #1

OST Test Number: 1

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 61830

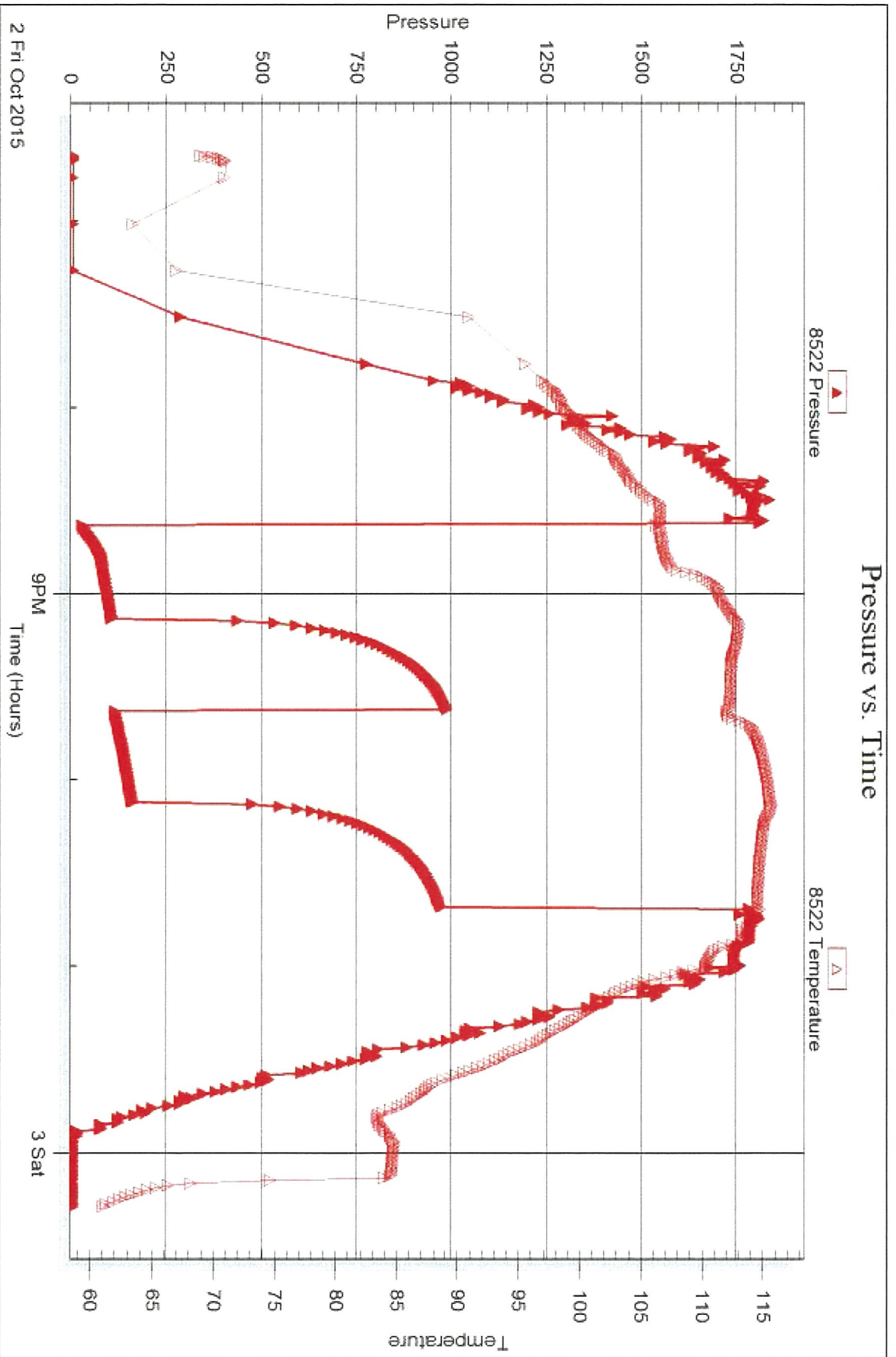
Printed 2015 10 09 @ 11:32:19

Serial #: 8522

Outside Palomino Petroleum, Inc

Duff #1

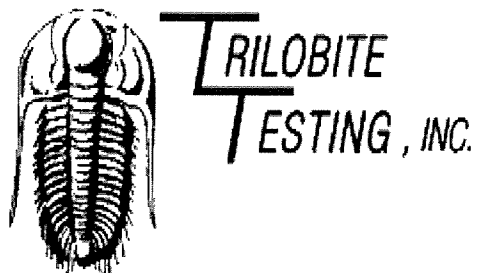
DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 61830

Printed: 2015-10-09 @ 11:32:19



## DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum, Inc**

4924 SE 84th St.  
Newton, KS 67114

ATTN: John Goldsmith

### **Duff #1**

### **9-15s-32w Logan,KS**

Start Date: 2015.10.03 @ 07:12:00

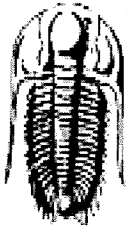
End Date: 2015.10.03 @ 12:02:00

Job Ticket #: 61831                      DST #: 2

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

Printed: 2015.10.09 @ 11:31:57

Palomino Petroleum, Inc  
9-15s-32w Logan,KS  
Duff #1  
DST # 2  
LKC E - F  
2015.10.03



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Palomino Petroleum, Inc

**9-15s-32w Logan,KS**

4924 SE 84th St.  
Newton, KS 67114

**Duff #1**

Job Ticket: 61831

**DST#: 2**

ATTN: John Goldsmith

Test Start: 2015.10.03 @ 07:12:00

### GENERAL INFORMATION:

Formation: **LKC E - F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:37:00

Time Test Ended: 12:02:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

Interval: **3754.00 ft (KB) To 3786.00 ft (KB) (TVD)**

Reference Elevations: 2708.00 ft (KB)

Total Depth: 3786.00 ft (KB) (TVD)

2703.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8365**

**Inside**

Press@RunDepth: 40.94 psig @ 3755.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.10.03

End Date:

2015.10.03

Last Calib.: 2015.10.03

Start Time: 07:12:05

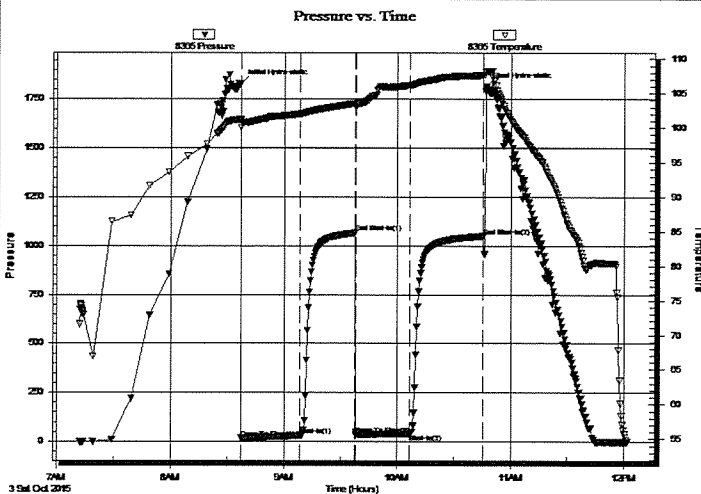
End Time:

12:01:59

Time On Btm: 2015.10.03 @ 08:36:45

Time Off Btm: 2015.10.03 @ 10:47:00

TEST COMMENT: IF: 1" blow.  
ISI: No return.  
FF: Surface blow.  
FSI: No return.



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1829.22	101.22	Initial Hydro-static
1	16.47	100.05	Open To Flow (1)
32	30.90	102.02	Shut-In(1)
61	1065.61	103.56	End Shut-In(1)
62	33.40	103.34	Open To Flow (2)
90	40.94	106.18	Shut-In(2)
129	1050.29	107.67	End Shut-In(2)
131	1817.42	108.10	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
60.00	w cm 10w 90m (oil spots)	0.30
0.00	30' GIP	0.00

\* Recovery from multiple tests

### Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Palomino Petroleum, Inc

**9-15s-32w Logan, KS**

4924 SE 84th St.  
New ton, KS 67114

**Duff #1**

Job Ticket: 61831

**DST#: 2**

ATTN: John Goldsmith

Test Start: 2015.10.03 @ 07:12:00

## GENERAL INFORMATION:

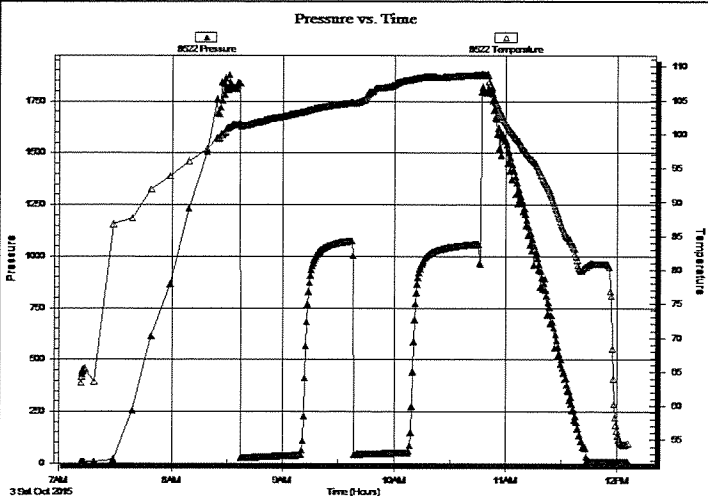
Formation: <b>LKC E - F</b>		Test Type: Conventional Bottom Hole (Reset)
Deviated: No Whipstock:	ft (KB)	Tester: Bradley Walter
Time Tool Opened: 08:37:00		Unit No: 69
Time Test Ended: 12:02:00		Reference Elevations: 2708.00 ft (KB)
<b>Interval: 3754.00 ft (KB) To 3786.00 ft (KB) (TVD)</b>		2703.00 ft (CF)
Total Depth: 3786.00 ft (KB) (TVD)		KB to GR/CF: 5.00 ft
Hole Diameter: 7.88 inches	Hole Condition: Good	

## Serial #: 8522

**Outside**

Press@RunDepth:	psig @	3755.00 ft (KB)	Capacity:	8000.00 psig	
Start Date:	2015.10.03	End Date:	2015.10.03	Last Calib.:	2015.10.03
Start Time:	07:12:05	End Time:	12:05:44	Time On Btm:	
				Time Off Btm:	

TEST COMMENT: IF: 1" blow .  
IS: No return.  
FF: Surface blow .  
FS: No return.



## PRESSURE SUMMARY

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

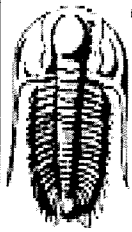
## Recovery

Length (ft)	Description	Volume (bbl)
60.00	w cm 10w 90m (oil spots)	0.30
0.00	30' 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  
4924 SE 84th St.  
New ton, KS 67114  
ATTN: John Goldsmith

**9-15s-32w Logan,KS**

**Duff #1**

Job Ticket: 61831

**DST#: 2**

Test Start: 2015.10.03 @ 07:12:00

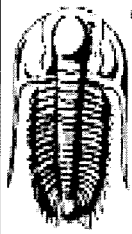
### Tool Information

Drill Pipe:	Length: 3641.00 ft	Diameter: 3.80 inches	Volume: 51.07 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 51.65 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3754.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	32.00 ft			
Tool Length:	59.00 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			3728.00	
Shut In Tool	5.00			3733.00	
Hydraulic tool	5.00			3738.00	
Jars	5.00			3743.00	
Safety Joint	2.00			3745.00	
Packer	5.00			3750.00	27.00 Bottom Of Top Packer
Packer	4.00			3754.00	
Stubb	1.00			3755.00	
Recorder	0.00	8365	Inside	3755.00	
Recorder	0.00	8522	Outside	3755.00	
Perforations	28.00			3783.00	
Bullnose	3.00			3786.00	32.00 Bottom Packers & Anchor

**Total Tool Length: 59.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Palomino Petroleum, Inc

**9-15s-32w Logan,KS**

4924 SE 84th St.  
New ton, KS 67114

**Duff #1**

Job Ticket: 61831

**DST#: 2**

ATTN: John Goldsmith

Test Start: 2015.10.03 @ 07:12:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	w cm 10w 90m (oil spots)	0.295
0.00	30' GIP	0.000

Total Length: 60.00 ft

Total Volume: 0.295 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



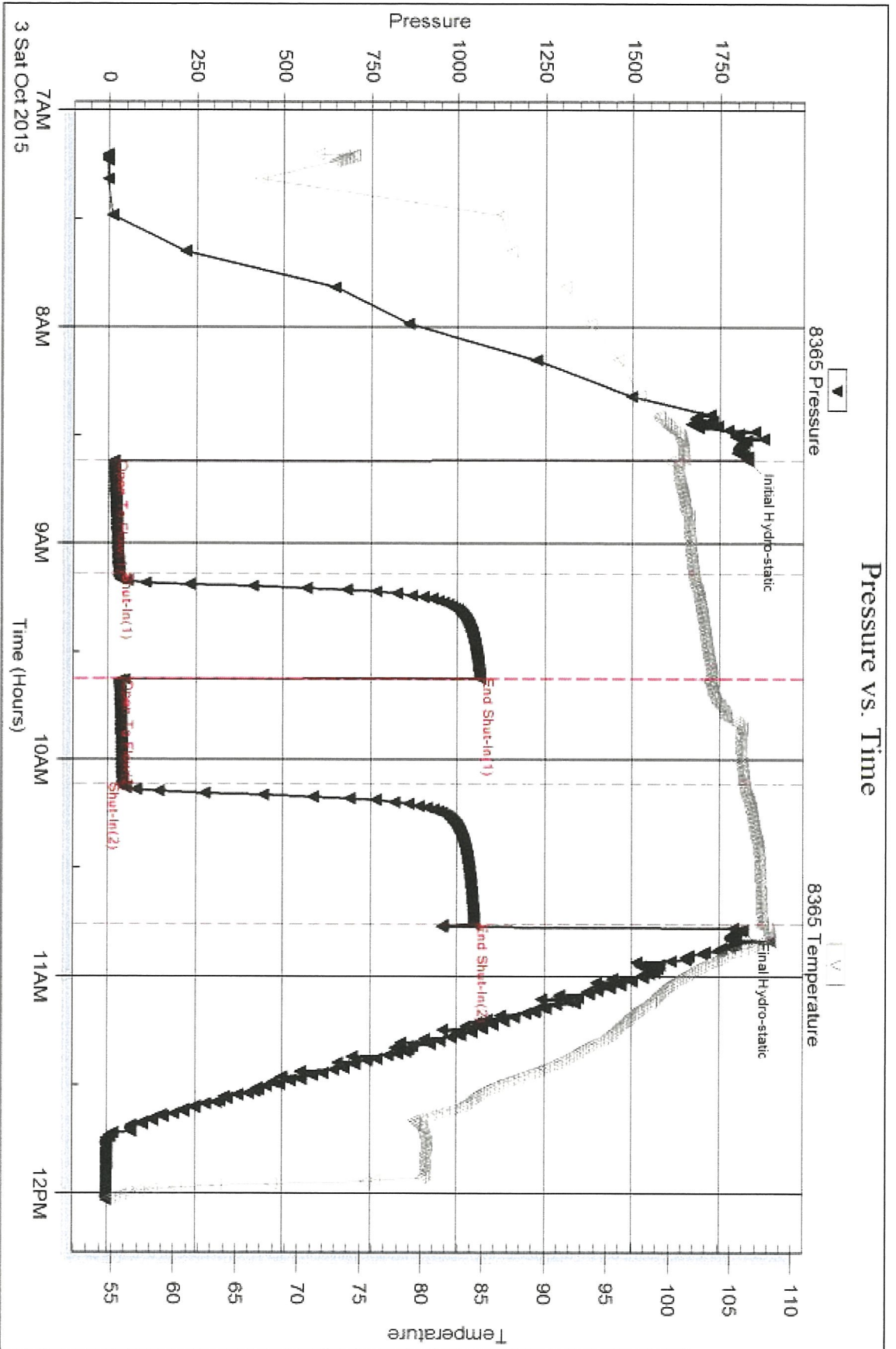
Serial #: 8365

Inside

Palomino Petroleum, Inc

Duff #1

DST Test Number: 2

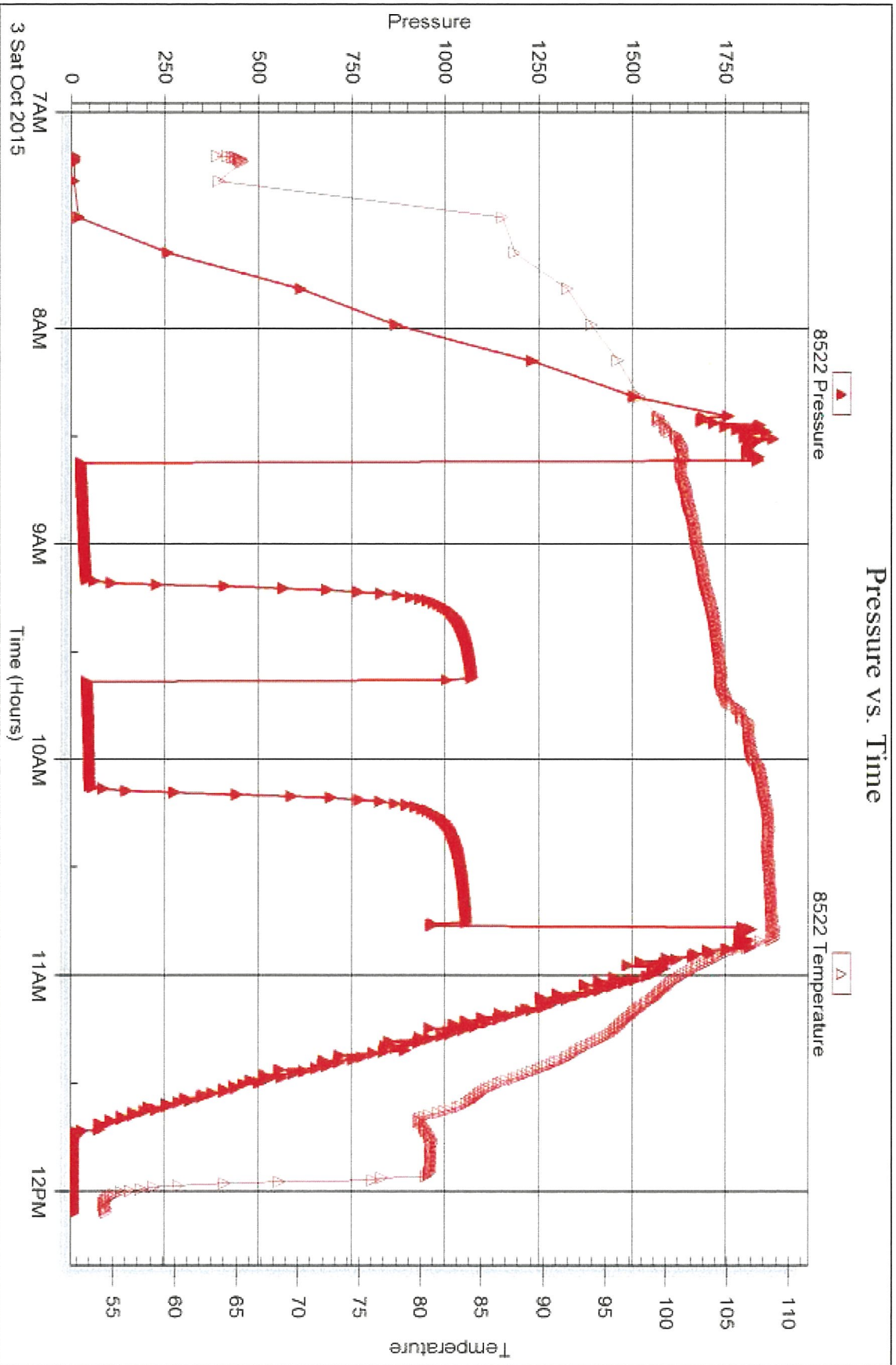


Serial #: 8522

Outside Palomino Petroleum, Inc

Duff #1

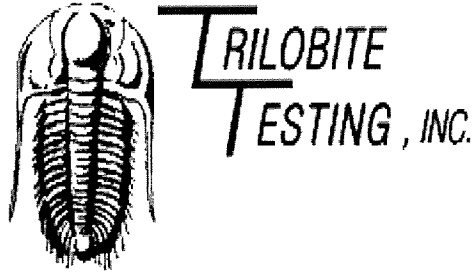
DST Test Number: 2



Tribble Testing, Inc

Ref. No: 61831

Printed 2015 10 09 @ 11 31 58



## DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum, Inc**

4924 SE 84th St.  
Newton, KS 67114

ATTN: John Goldsmith

### **Duff #1**

### **9-15s-32w Logan,KS**

Start Date: 2015.10.04 @ 03:15:00

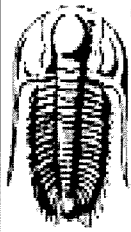
End Date: 2015.10.04 @ 08:07:30

Job Ticket #: 61832                      DST #: 3

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

Printed: 2015.10.09 @ 11:31:34

Palomino Petroleum, Inc  
9-15s-32w Logan,KS  
Duff #1  
DST # 3  
LKC H - J  
2015.10.04



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Palomino Petroleum, Inc  
4924 SE 84th St.  
New ton, KS 67114  
ATTN: John Goldsmith

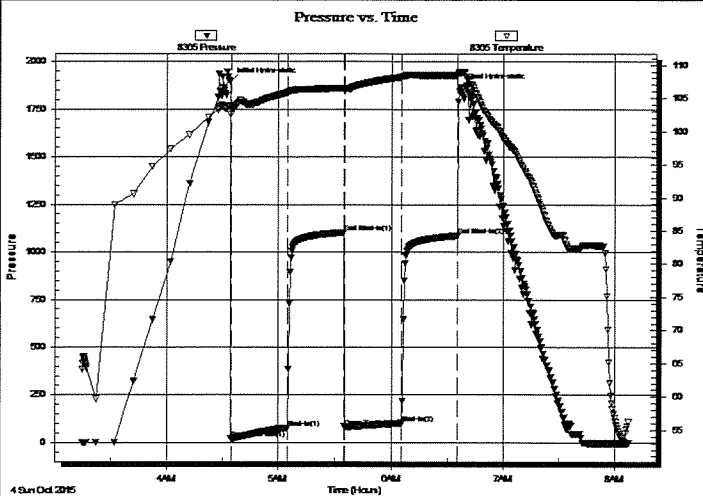
**9-15s-32w Logan,KS**  
**Duff #1**  
Job Ticket: 61832      **DST#: 3**  
Test Start: 2015.10.04 @ 03:15:00

## GENERAL INFORMATION:

Formation: **LKC H - J**  
Deviated: No Whipstock:                      ft (KB)  
Time Tool Opened: 04:34:15  
Time Test Ended: 08:07:30  
Interval: **3832.00 ft (KB) To 3923.00 ft (KB) (TVD)**  
Total Depth: 3752.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Bradley Walter  
Unit No: 69  
Reference Elevations: 2708.00 ft (KB)  
2703.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 8365**      **Inside**  
Press@RunDepth: 102.27 psig @ 3833.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2015.10.04      End Date: 2015.10.04      Last Calib.: 2015.10.04  
Start Time: 03:15:05      End Time: 08:07:29      Time On Btm: 2015.10.04 @ 04:34:00  
Time Off Btm: 2015.10.04 @ 06:36:45

TEST COMMENT: IF: 3 1/2" blow.  
IS: No return.  
FF: 3" blow.  
FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1896.08	103.82	Initial Hydro-static
1	18.38	102.56	Open To Flow (1)
31	76.59	105.81	Shut-in(1)
61	1102.82	106.50	End Shut-In(1)
62	82.33	106.03	Open To Flow (2)
92	102.27	108.18	Shut-In(2)
121	1085.67	108.43	End Shut-In(2)
123	1863.65	108.87	Final Hydro-static

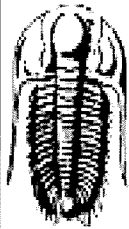
## Recovery

Length (ft)	Description	Volume (bbl)
180.00	w cm 10w 90m	1.46

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Palomino Petroleum, Inc

9-15s-32w Logan, KS

4924 SE 84th St.  
New ton, KS 67114

Duff #1

Job Ticket: 61832

DST#: 3

ATTN: John Goldsmith

Test Start: 2015.10.04 @ 03:15:00

### GENERAL INFORMATION:

Formation: LKC H - J

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:34:15

Time Test Ended: 08:07:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

Interval: 3832.00 ft (KB) To 3923.00 ft (KB) (TVD)

Reference Elevations: 2708.00 ft (KB)

Total Depth: 3752.00 ft (KB) (TVD)

2703.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8522 Outside

Press@RunDepth: psig @ 3833.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.10.04

End Date: 2015.10.04

Last Calib.: 2015.10.04

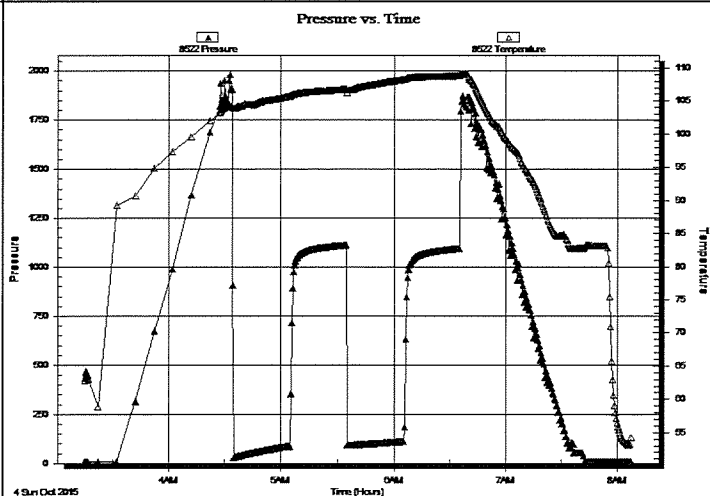
Start Time: 03:15:05

End Time: 08:07:29

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: 3 1/2" blow.  
IS: No return.  
FF: 3" blow.  
FSI: No return.



### PRESSURE SUMMARY

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

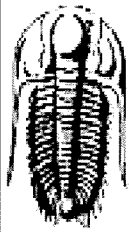
### Recovery

Length (ft)	Description	Volume (bbl)
180.00	w cm 10w 90m	1.46

\* 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

9-15s-32w Logan, KS

4924 SE 84th St.  
New ton, KS 67114

Duff #1

Job Ticket: 61832

DST#: 3

ATTN: John Goldsmith

Test Start: 2015.10.04 @ 03:15:00

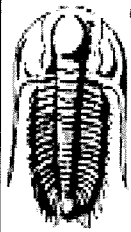
### Tool Information

Drill Pipe:	Length: 3703.00 ft	Diameter: 3.80 inches	Volume: 51.94 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 73000.00 lb
			Total Volume: 52.52 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3832.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	91.00 ft			
Tool Length:	118.00 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			3806.00	
Shut In Tool	5.00			3811.00	
Hydraulic tool	5.00			3816.00	
Jars	5.00			3821.00	
Safety Joint	2.00			3823.00	
Packer	5.00			3828.00	27.00 Bottom Of Top Packer
Packer	4.00			3832.00	
Stubb	1.00			3833.00	
Recorder	0.00	8365	Inside	3833.00	
Recorder	0.00	8522	Outside	3833.00	
Perforations	23.00			3856.00	
Change Over Sub	1.00			3857.00	
Drill Pipe	62.00			3919.00	
Change Over Sub	1.00			3920.00	
Bullnose	3.00			3923.00	91.00 Bottom Packers & Anchor

**Total Tool Length: 118.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Palomino Petroleum, Inc

**9-15s-32w Logan,KS**

4924 SE 84th St.  
New ton, KS 67114

**Duff #1**

Job Ticket: 61832

**DST#: 3**

ATTN: John Goldsmith

Test Start: 2015.10.04 @ 03:15:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	w cm 10w 90m	1.459

Total Length: 180.00 ft

Total Volume: 1.459 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8365

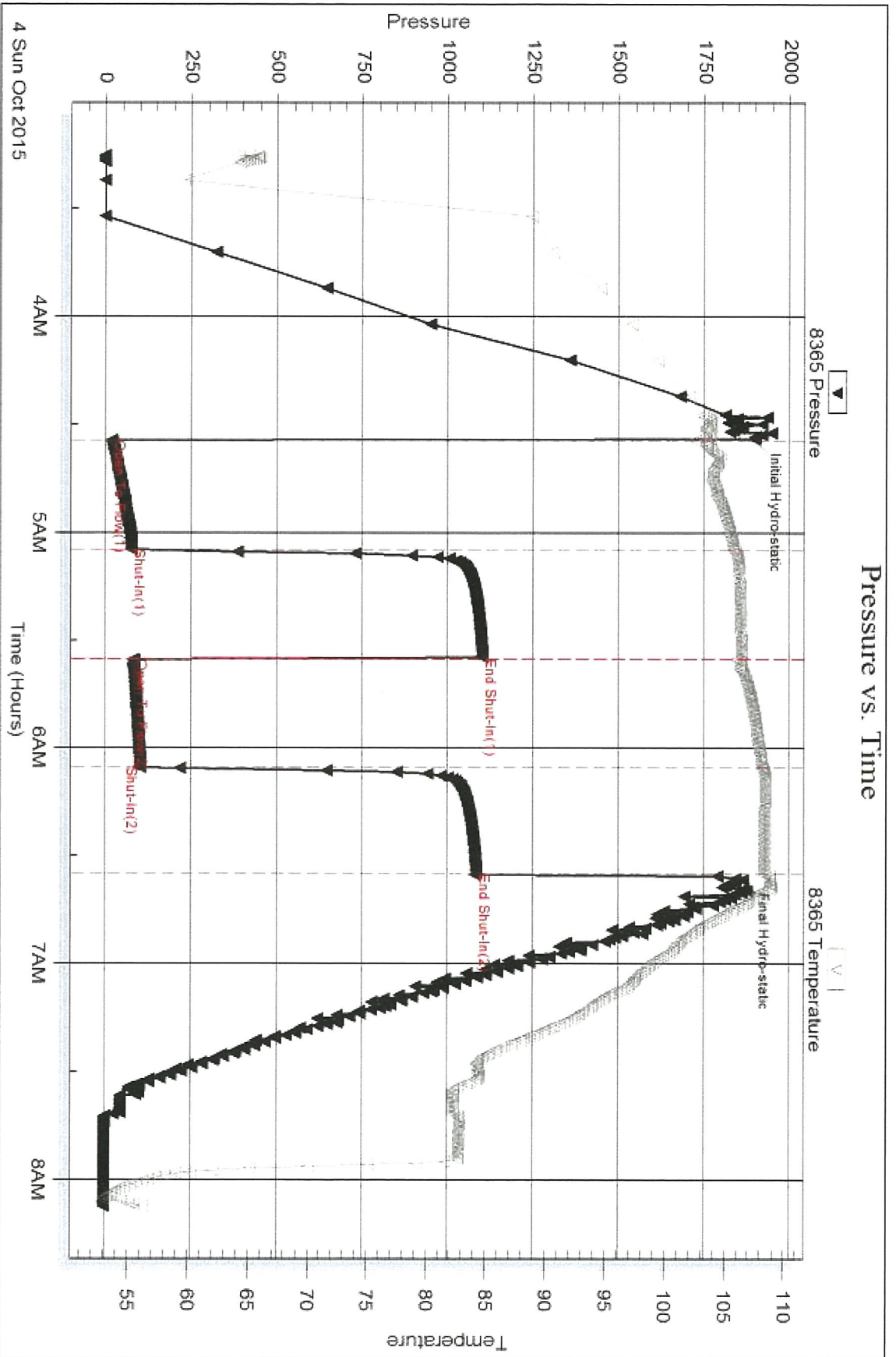
Inside

Palomino Petroleum, Inc

Duff #1

DST Test Number: 3

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 61832

Printed 2015 10 09 @ 11:31:35

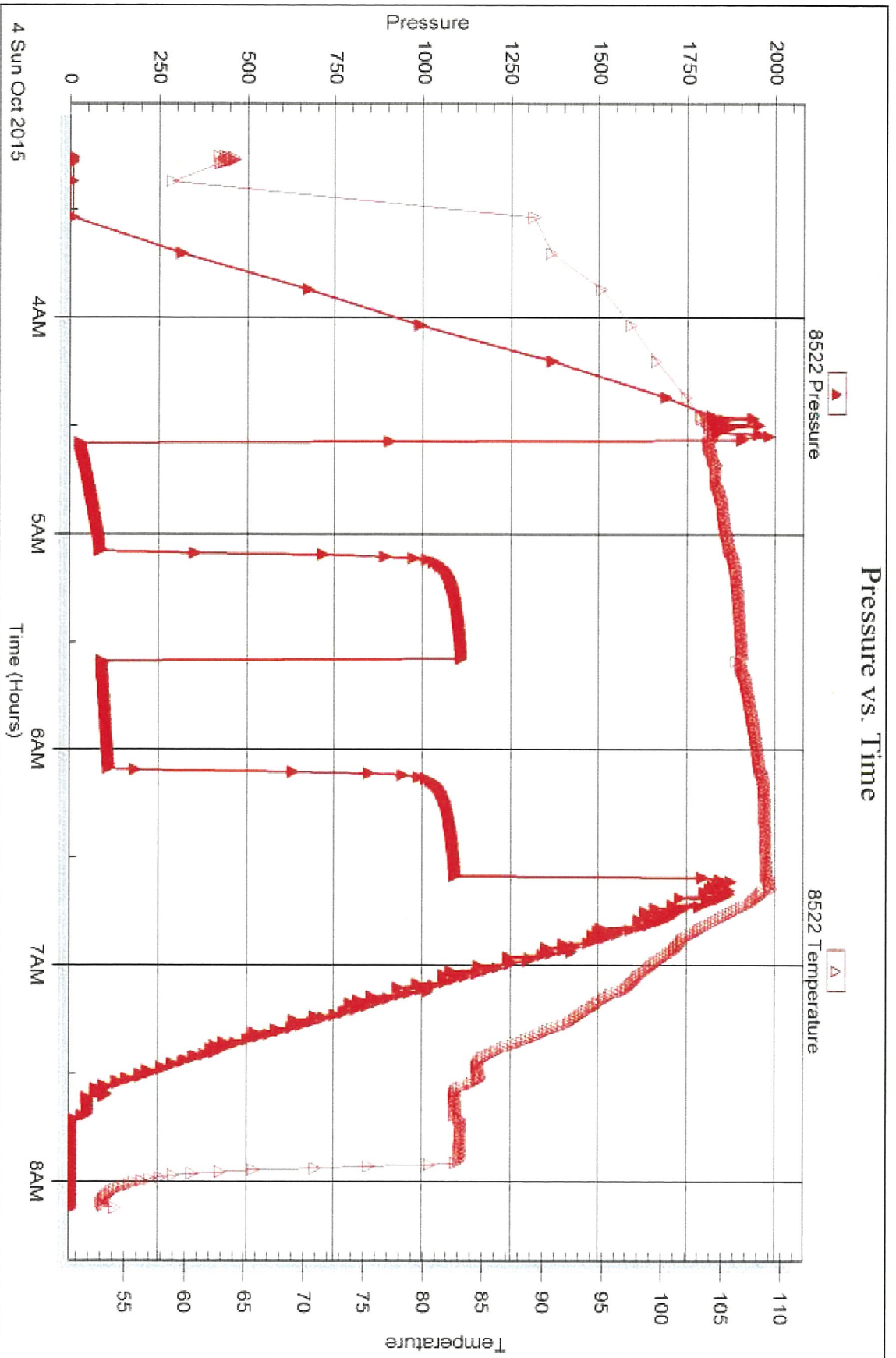


Serial #: 8522

Outside Palomino Petroleum, Inc

Duff #1

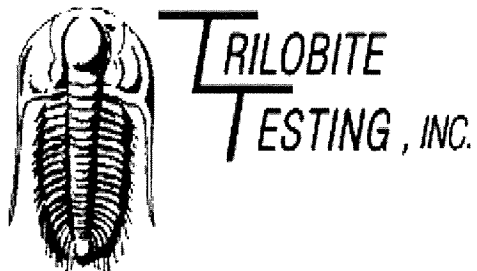
DST Test Number: 3



Triobite Testing, Inc

Ref. No: 61832

Printed 2015 10 09 @ 11:31:36



## DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum, Inc**

4924 SE 84th St.  
Newton, KS 67114

ATTN: John Goldsmith

### **Duff #1**

### **9-15s-32w Logan,KS**

Start Date: 2015.10.04 @ 14:40:00

End Date: 2015.10.04 @ 20:50:45

Job Ticket #: 61833                      DST #: 4

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

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

Printed: 2015.10.09 @ 11:31:10

Palomino Petroleum, Inc 9-15s-32w Logan,KS Duff #1 DST # 4 LCK K 2015.10.04



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Palomino Petroleum, Inc

**9-15s-32w Logan, KS**

4924 SE 84th St.  
Newton, KS 67114

**Duff #1**

Job Ticket: 61833

**DST#: 4**

ATTN: John Goldsmith

Test Start: 2015.10.04 @ 14:40:00

## GENERAL INFORMATION:

Formation: **LCK K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:01:30

Time Test Ended: 20:50:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

Interval: **3921.00 ft (KB) To 3963.00 ft (KB) (TVD)**

Reference Elevations: 2708.00 ft (KB)

Total Depth: 3963.00 ft (KB) (TVD)

2703.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8365**

**Inside**

Press@RunDepth: 100.82 psig @ 3922.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.10.04

End Date: 2015.10.04

Last Calib.: 1899.12.30

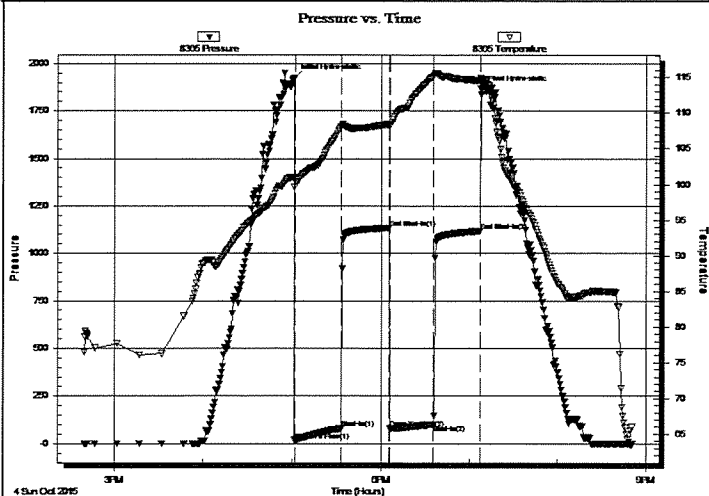
Start Time: 14:40:05

End Time: 20:50:44

Time On Btm: 2015.10.04 @ 17:01:15

Time Off Btm: 2015.10.04 @ 19:07:45

TEST COMMENT: IF: 4" blow.  
ISI: No return.  
FF: 2 1/2" blow.  
FSI: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1921.19	101.01	Initial Hydro-static
1	15.19	99.63	Open To Flow (1)
32	76.98	108.02	Shut-In(1)
65	1134.06	108.38	End Shut-In(1)
65	78.17	108.13	Open To Flow (2)
94	100.82	115.20	Shut-In(2)
127	1117.62	114.53	End Shut-In(2)
127	1864.57	114.92	Final Hydro-static

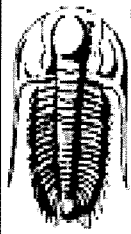
## Recovery

Length (ft)	Description	Volume (bbl)
190.00	w cm 10w 90m	1.60

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

Palomino Petroleum, Inc  
 4924 SE 84th St.  
 Newton, KS 67114  
 ATTN: John Goldsmith

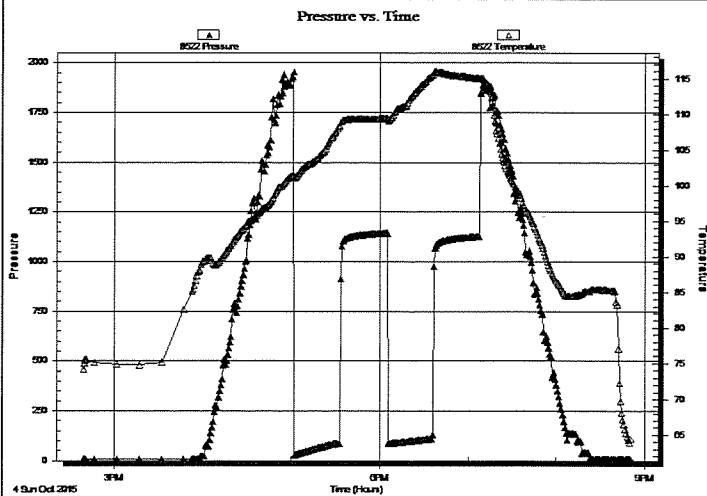
**9-15s-32w Logan,KS**  
**Duff #1**  
 Job Ticket: 61833 **DST#: 4**  
 Test Start: 2015.10.04 @ 14:40:00

**GENERAL INFORMATION:**

Formation: LCK K  
 Deviated: No Whipstock: ft (KB)      Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 17:01:30      Tester: Bradley Walter  
 Time Test Ended: 20:50:45      Unit No: 69  
 Interval: 3921.00 ft (KB) To 3963.00 ft (KB) (TVD)      Reference Elevations: 2708.00 ft (KB)  
 Total Depth: 3963.00 ft (KB) (TVD)      2703.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Good      KB to GR/CF: 5.00 ft

**Serial #: 8522 Outside**  
 Press@RunDepth:      psig @ 3922.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2015.10.04      End Date: 2015.10.04      Last Calib.: 2015.10.04  
 Start Time: 14:40:05      End Time: 20:50:44      Time On Btm:  
    Time Off Btm:

TEST COMMENT: IF: 4" blow.  
 ISI: No return.  
 FF: 2 1/2" blow.  
 FSI: No return.



**PRESSURE SUMMARY**

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

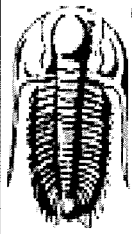
**Recovery**

Length (ft)	Description	Volume (bbl)
190.00	w cm 10w 90m	1.60

\* 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  
4924 SE 84th St.  
New ton, KS 67114  
ATTN: John Goldsmith

**9-15s-32w Logan,KS**  
**Duff #1**  
Job Ticket: 61833      **DST#: 4**  
Test Start: 2015.10.04 @ 14:40:00

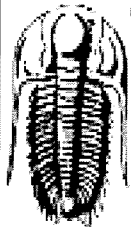
**Tool Information**

Drill Pipe:	Length: 3800.00 ft	Diameter: 3.80 inches	Volume: 53.30 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 53.88 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 61000.00 lb
Depth to Top Packer:	3921.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	42.00 ft			
Tool Length:	69.00 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			3895.00	
Shut In Tool	5.00			3900.00	
Hydraulic tool	5.00			3905.00	
Jars	5.00			3910.00	
Safety Joint	2.00			3912.00	
Packer	5.00			3917.00	27.00      Bottom Of Top Packer
Packer	4.00			3921.00	
Stubb	1.00			3922.00	
Recorder	0.00	8365	Inside	3922.00	
Recorder	0.00	8522	Outside	3922.00	
Perforations	5.00			3927.00	
Change Over Sub	1.00			3928.00	
Drill Pipe	31.00			3959.00	
Change Over Sub	1.00			3960.00	
Bullnose	3.00			3963.00	42.00      Bottom Packers & Anchor

**Total Tool Length: 69.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Palomino Petroleum, Inc  
4924 SE 84th St.  
New ton, KS 67114  
ATTN: John Goldsmith

**9-15s-32w Logan,KS**  
**Duff #1**  
Job Ticket: 61833      **DST#: 4**  
Test Start: 2015.10.04 @ 14:40:00

### Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.99 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4000.00 ppm			
Filter Cake: 1.00 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
190.00	w cm 10w 90m	1.599

Total Length: 190.00 ft      Total Volume: 1.599 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:

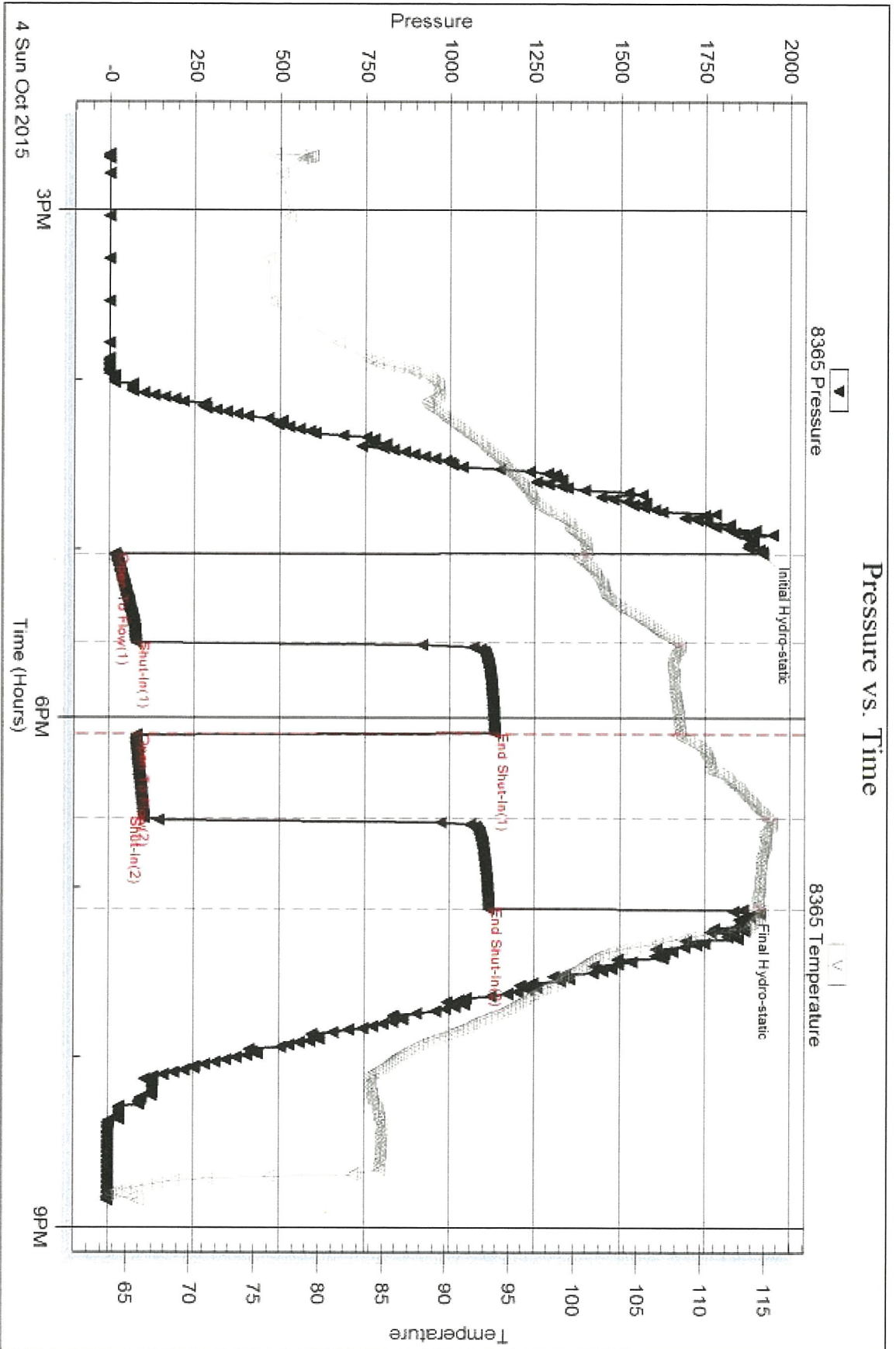
Serial #: 8365

Inside

Palomino Petroleum, Inc

Duff #1

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 61833

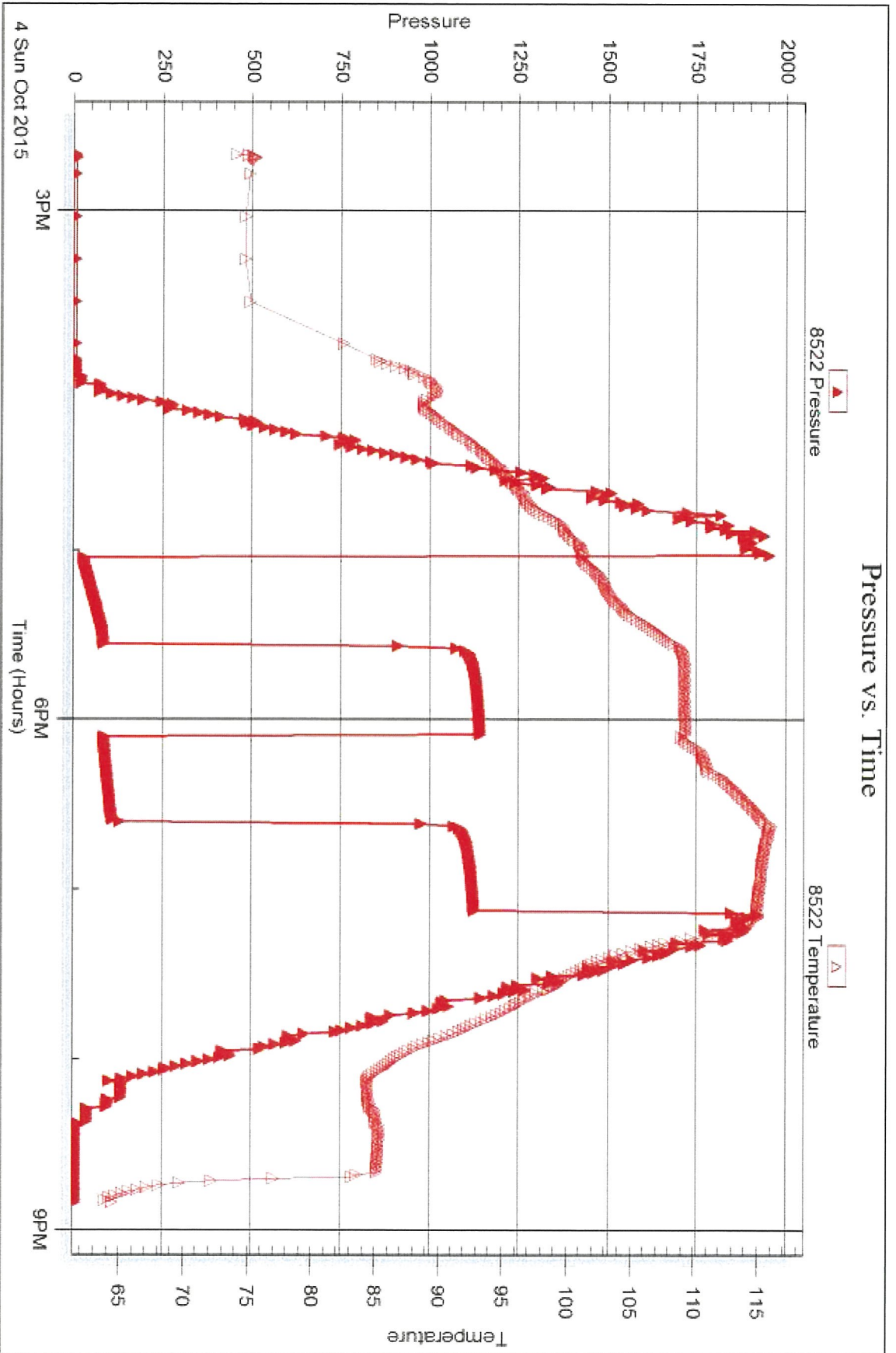
Printed 2015 10 09 @ 11:31:11

Serial #: 8522

Outside Palomino Petroleum, Inc

Duff #1

OST Test Number: 4

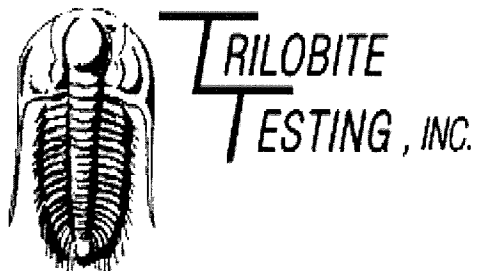


Triobite Testing, Inc

Ref. No: 61833

Printed 2015 10 09 @ 11:31:11





## DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum, Inc**

4924 SE 84th St.  
Newton, KS 67114

ATTN: John Goldsmith

### **Duff #1**

### **9-15s-32w Logan,KS**

Start Date: 2015.10.05 @ 04:19:00

End Date: 2015.10.05 @ 09:37:45

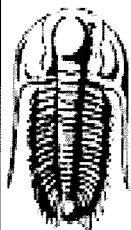
Job Ticket #: 61834                      DST #: 5

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

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

Printed: 2015.10.09 @ 11:30:48



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Palomino Petroleum, Inc

**9-15s-32w Logan, KS**

4924 SE 84th St.  
New ton, KS 67114

**Duff #1**

Job Ticket: 61834

**DST#: 5**

ATTN: John Goldsmith

Test Start: 2015.10.05 @ 04:19:00

## GENERAL INFORMATION:

Formation: **LKC L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:56:00

Time Test Ended: 09:37:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

Interval: **3962.00 ft (KB) To 3968.00 ft (KB) (TVD)**

Reference Elevations: 2708.00 ft (KB)

Total Depth: 3998.00 ft (KB) (TVD)

2703.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8365**

Inside

Press@RunDepth: 555.24 psig @ 3963.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.10.05

End Date:

2015.10.05

Last Calib.: 2015.10.05

Start Time: 04:19:05

End Time:

09:37:44

Time On Btm: 2015.10.05 @ 05:55:45

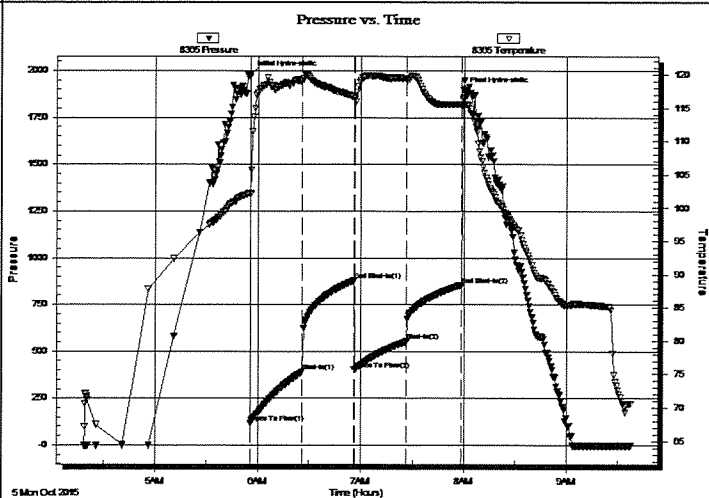
Time Off Btm: 2015.10.05 @ 07:59:30

TEST COMMENT: IF: BOB @ 1 1/2 min.

ISI: No return.

FF: BOB @ 2 min.

FSI: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1979.12	102.26	Initial Hydro-static
1	116.25	102.04	Open To Flow (1)
31	389.92	119.06	Shut-In(1)
61	877.05	116.61	End Shut-In(1)
61	400.48	116.34	Open To Flow (2)
91	555.24	119.43	Shut-In(2)
123	855.30	115.53	End Shut-In(2)
124	1895.12	116.57	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1320.00	mcw 5m 95w	17.45

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE**  
TESTING, INC

## DRILL STEM TEST REPORT

Palomino Petroleum, Inc

**9-15s-32w Logan, KS**

4924 SE 84th St.  
Newton, KS 67114

**Duff #1**

Job Ticket: 61834

**DST#: 5**

ATTN: John Goldsmith

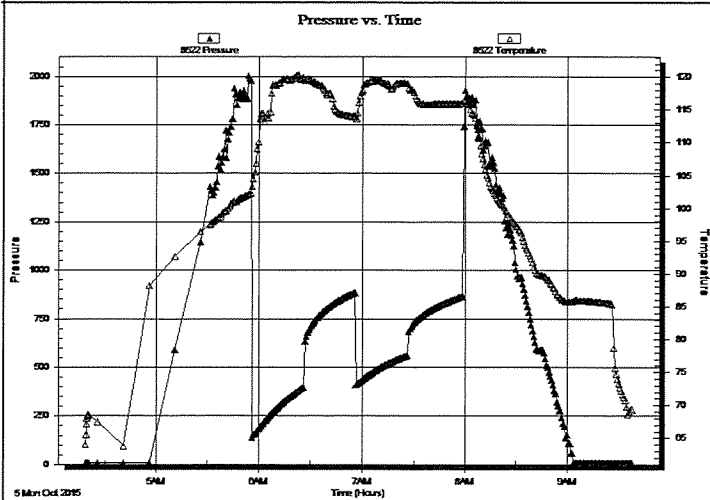
Test Start: 2015.10.05 @ 04:19:00

### GENERAL INFORMATION:

Formation: **LKC L**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 05:56:00 Tester: Bradley Walter  
 Time Test Ended: 09:37:45 Unit No: 69  
 Interval: **3962.00 ft (KB) To 3968.00 ft (KB) (TVD)** Reference Elevations: 2708.00 ft (KB)  
 Total Depth: 3998.00 ft (KB) (TVD) 2703.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

**Serial #: 8522 Outside**  
 Press@RunDepth: psig @ 3963.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2015.10.05 End Date: 2015.10.05 Last Calib.: 2015.10.05  
 Start Time: 04:19:05 End Time: 09:37:44 Time On Btm:  
 Time Off Btm:

TEST COMMENT: IF: BOB @ 1 1/2 min.  
 IS: No return.  
 FF: BOB @ 2 min.  
 FS: No return.



### PRESSURE SUMMARY

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

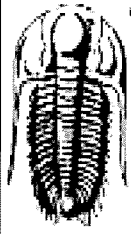
### Recovery

Length (ft)	Description	Volume (bbl)
1320.00	mcw 5m 95w	17.45

\* 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  
4924 SE 84th St.  
New ton, KS 67114  
ATTN: John Goldsmith

**9-15s-32w Logan,KS**  
**Duff #1**  
Job Ticket: 61834      **DST#: 5**  
Test Start: 2015.10.05 @ 04:19:00

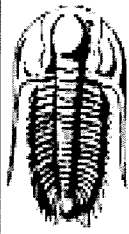
### Tool Information

Drill Pipe:	Length: 3828.00 ft	Diameter: 3.80 inches	Volume: 53.70 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 54.28 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 61000.00 lb
Depth to Top Packer:	3962.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	36.00 ft			
Tool Length:	63.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3936.00	
Shut In Tool	5.00			3941.00	
Hydraulic tool	5.00			3946.00	
Jars	5.00			3951.00	
Safety Joint	2.00			3953.00	
Packer	5.00			3958.00	27.00      Bottom Of Top Packer
Packer	4.00			3962.00	
Stubb	1.00			3963.00	
Recorder	0.00	8365	Inside	3963.00	
Recorder	0.00	8522	Outside	3963.00	
Perforations	32.00			3995.00	
Bullnose	3.00			3998.00	36.00      Bottom Packers & Anchor

**Total Tool Length: 63.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Palomino Petroleum, Inc  
4924 SE 84th St.  
New ton, KS 67114  
ATTN: John Goldsmith

**9-15s-32w Logan,KS**  
**Duff #1**  
Job Ticket: 61834      **DST#: 5**  
Test Start: 2015.10.05 @ 04:19:00

### Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	65000 ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.79 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4000.00 ppm			
Filter Cake: 1.00 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1320.00	mcw 5m 95w	17.450

Total Length: 1320.00 ft      Total Volume: 17.450 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: rw is .137 @ 60F = 65,000ppm

Serial #: 8365

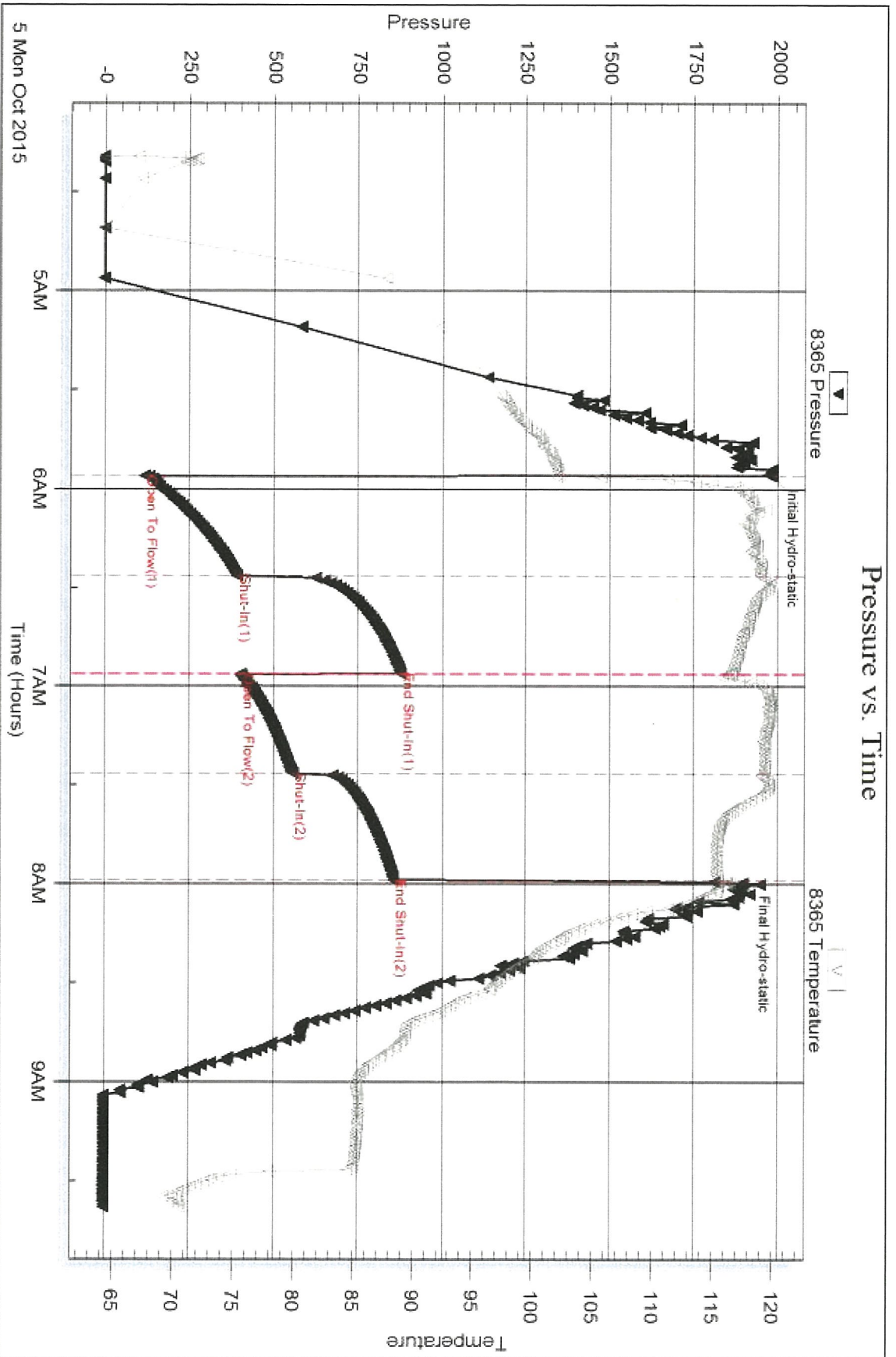
Inside

Palomino Petroleum, Inc

Duff #1

OST Test Number: 5

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 61834

Printed 2015 10 09 @ 11 30 50

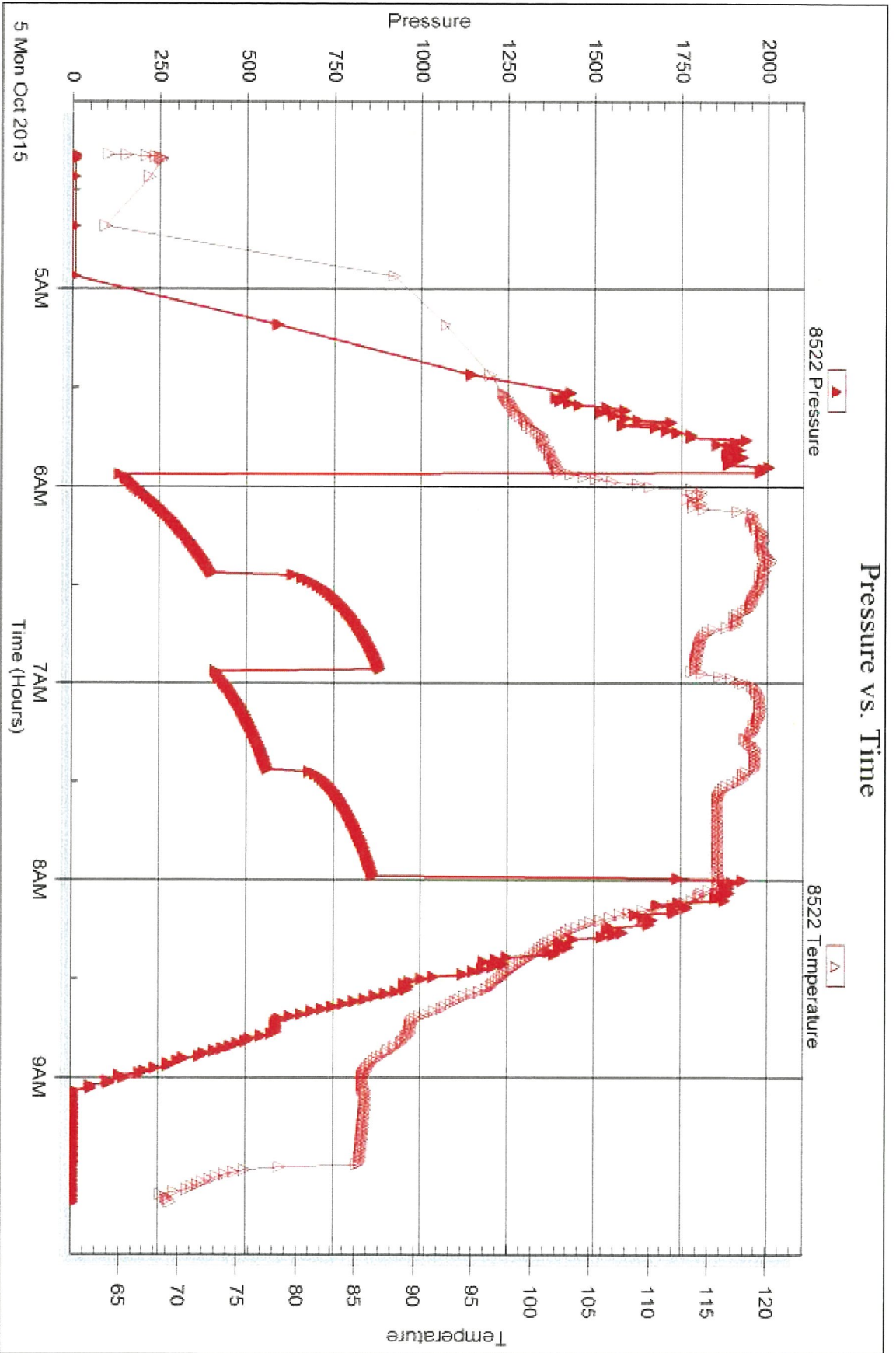
Serial #: 8522

Outside

Palomino Petroleum, Inc

Duff #1

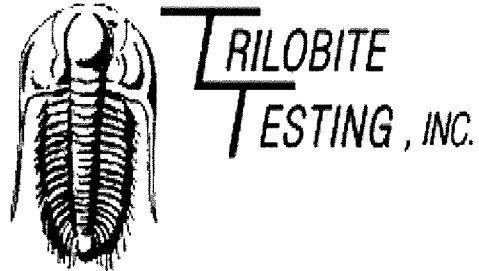
DST Test Number: 5



Triobite Testing, Inc

Ref. No: 61834

Printed 2015 10 09 @ 11:30:50



## DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum, Inc**

4924 SE 84th St.  
Newton, KS 67114

ATTN: John Goldsmith

### **Duff #1**

### **9-15s-32w Logan,KS**

Start Date: 2015.10.06 @ 12:42:00

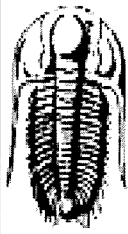
End Date: 2015.10.06 @ 20:03:30

Job Ticket #: 61835                      DST #: 6

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

Printed: 2015.10.09 @ 11:30:05





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Palomino Petroleum, Inc  
 4924 SE 84th St.  
 Newton, KS 67114  
 ATTN: John Goldsmith

**9-15s-32w Logan, KS**

**Duff #1**

Job Ticket: 61835

**DST#: 6**

Test Start: 2015.10.06 @ 12:42:00

## GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:46:45

Time Test Ended: 20:03:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

Interval: **4185.00 ft (KB) To 4285.00 ft (KB) (TVD)**

Reference Elevations: 2708.00 ft (KB)

Total Depth: 4185.00 ft (KB) (TVD)

2703.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8365**

**Inside**

Press@RunDepth: 125.66 psig @ 4186.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.10.06

End Date: 2015.10.06

Last Calib.: 2015.10.06

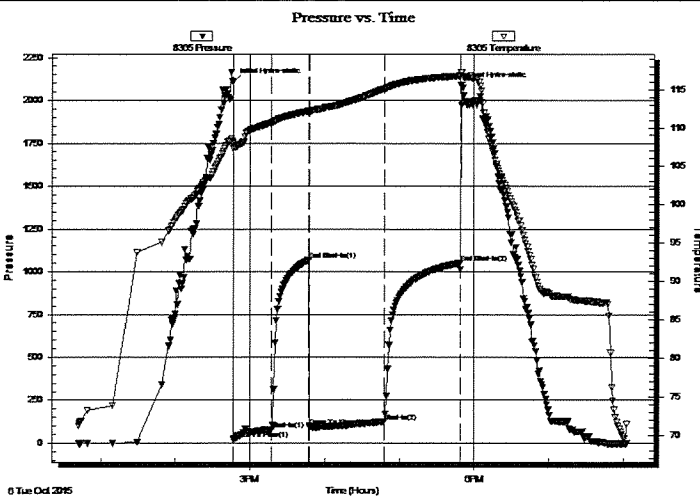
Start Time: 12:42:05

End Time: 20:03:29

Time On Btm: 2015.10.06 @ 14:46:30

Time Off Btm: 2015.10.06 @ 17:49:15

TEST COMMENT: IF: 4 1/2" blow.  
 IS: No return.  
 FF: 3 1/2" blow.  
 FSI: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2108.54	108.08	Initial Hydro-static
1	21.37	107.30	Open To Flow (1)
31	80.17	110.67	Shut-In(1)
61	1069.23	112.15	End Shut-In(1)
61	94.54	112.00	Open To Flow (2)
121	125.66	115.04	Shut-In(2)
182	1050.05	116.76	End Shut-In(2)
183	2087.20	117.22	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	gw ocm 10g 20o 20w 50m	0.62
120.00	gw ocm 10g 25o 10w 55m	1.68
0.00	60' GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC.**

## DRILL STEM TEST REPORT

Palomino Petroleum, Inc  
 4924 SE 84th St.  
 Newton, KS 67114  
 ATTN: John Goldsmith

**9-15s-32w Logan, KS**

**Duff #1**

Job Ticket: 61835

**DST#: 6**

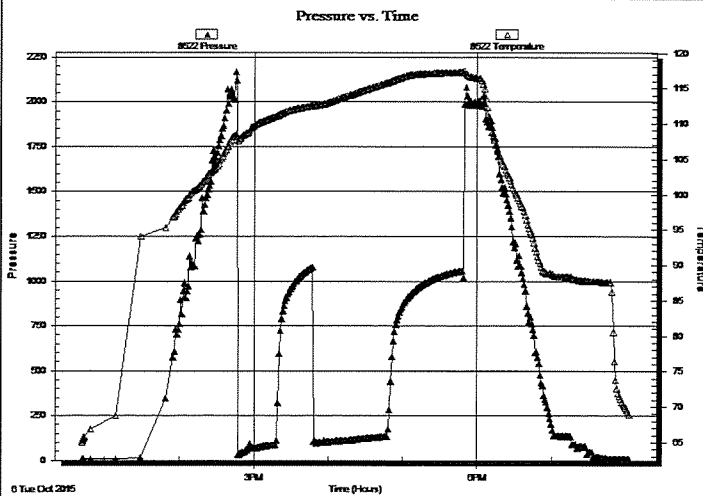
Test Start: 2015.10.06 @ 12:42:00

### GENERAL INFORMATION:

Formation:	<b>Johnson</b>	Test Type:	Conventional Bottom Hole (Reset)
Deviated:	No Whipstock:          ft (KB)	Tester:	Bradley Walter
Time Tool Opened:	14:46:45	Unit No:	69
Time Test Ended:	20:03:30		
Interval:	<b>4185.00 ft (KB) To 4285.00 ft (KB) (TVD)</b>	Reference Elevations:	2708.00 ft (KB)
Total Depth:	4185.00 ft (KB) (TVD)		2703.00 ft (CF)
Hole Diameter:	7.88 inches Hole Condition: Good	KB to GR/CF:	5.00 ft

<b>Serial #: 8522</b>	<b>Outside</b>		
Press@RunDepth:	psig @ 4186.00 ft (KB)	Capacity:	8000.00 psig
Start Date:	2015.10.06	End Date:	2015.10.06
Start Time:	12:42:05	End Time:	20:03:29
		Time On Btm:	
		Time Off Btm:	

TEST COMMENT: IF: 4 1/2" blow.  
 IS: No return.  
 FF: 3 1/2" blow.  
 FS: No return.



### PRESSURE SUMMARY

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

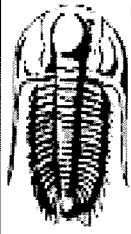
### Recovery

Length (ft)	Description	Volume (bbl)
120.00	gw ocm 10g 20o 20w 50m	0.62
120.00	gw ocm 10g 25o 10w 55m	1.68
0.00	60' GIP	0.00

### 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  
4924 SE 84th St.  
New ton, KS 67114  
ATTN: John Goldsmith

**9-15s-32w Logan,KS**  
**Duff #1**  
Job Ticket: 61835      **DST#: 6**  
Test Start: 2015.10.06 @ 12:42:00

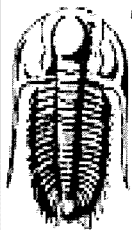
### Tool Information

Drill Pipe:	Length: 4048.00 ft	Diameter: 3.80 inches	Volume: 56.78 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 57.36 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	4185.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	100.00 ft			
Tool Length:	127.00 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			4159.00	
Shut In Tool	5.00			4164.00	
Hydraulic tool	5.00			4169.00	
Jars	5.00			4174.00	
Safety Joint	2.00			4176.00	
Packer	5.00			4181.00	27.00      Bottom Of Top Packer
Packer	4.00			4185.00	
Stubb	1.00			4186.00	
Recorder	0.00	8365	Inside	4186.00	
Recorder	0.00	8522	Outside	4186.00	
Perforations	32.00			4218.00	
Change Over Sub	1.00			4219.00	
Drill Pipe	62.00			4281.00	
Change Over Sub	1.00			4282.00	
Bullnose	3.00			4285.00	100.00      Bottom Packers & Anchor

**Total Tool Length: 127.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Palomino Petroleum, Inc

**9-15s-32w Logan,KS**

4924 SE 84th St.  
New ton, KS 67114

**Duff #1**

Job Ticket: 61835

**DST#: 6**

ATTN: John Goldsmith

Test Start: 2015.10.06 @ 12:42:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in<sup>3</sup>

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
120.00	gw ocm 10g 20o 20w 50m	0.617
120.00	gw ocm 10g 25o 10w 55m	1.683
0.00	60' GIP	0.000

Total Length: 240.00 ft

Total Volume: 2.300 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8365

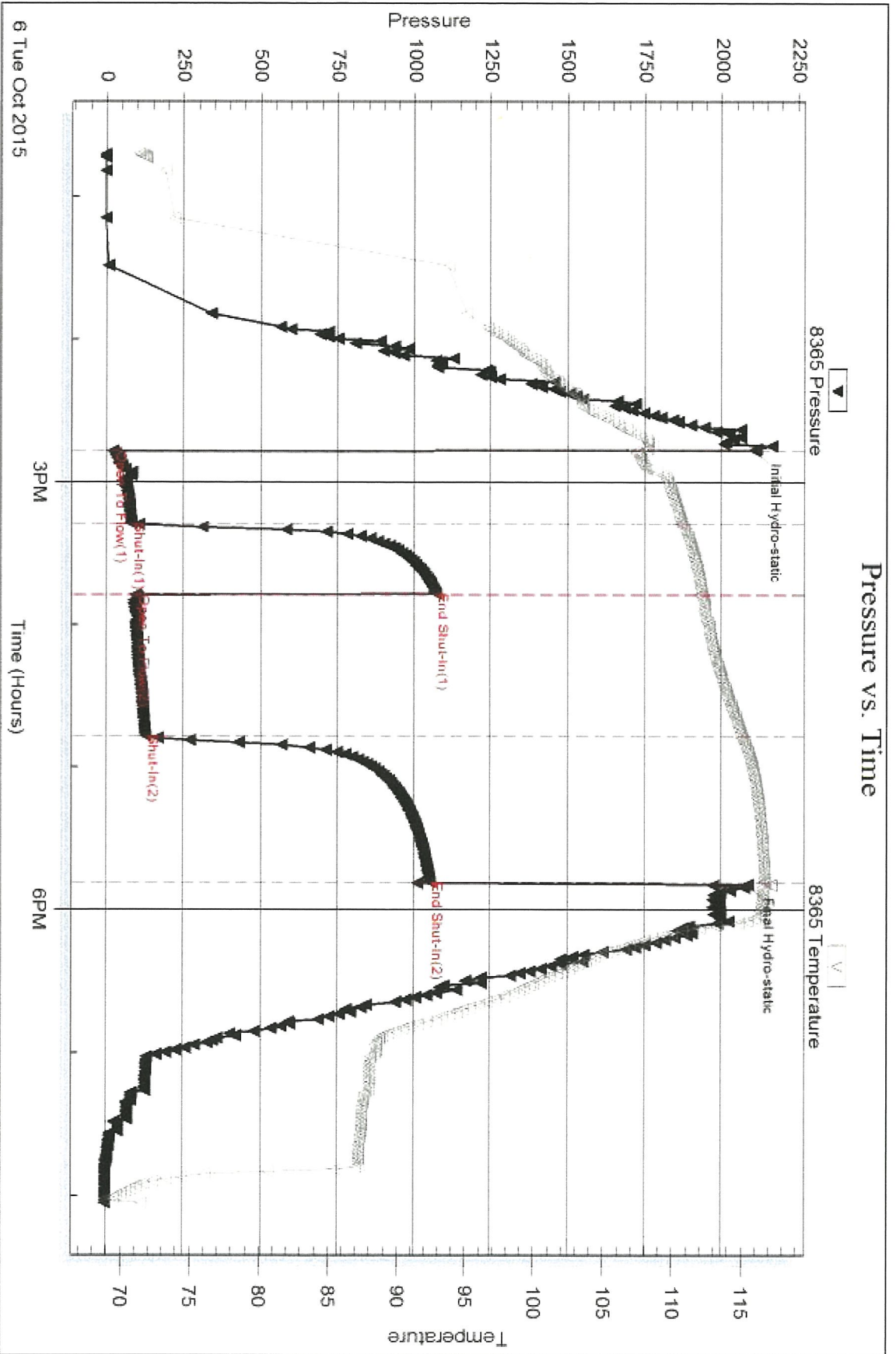
Inside

Palomino Petroleum, Inc

Duff #1

DST Test Number: 6

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 618335

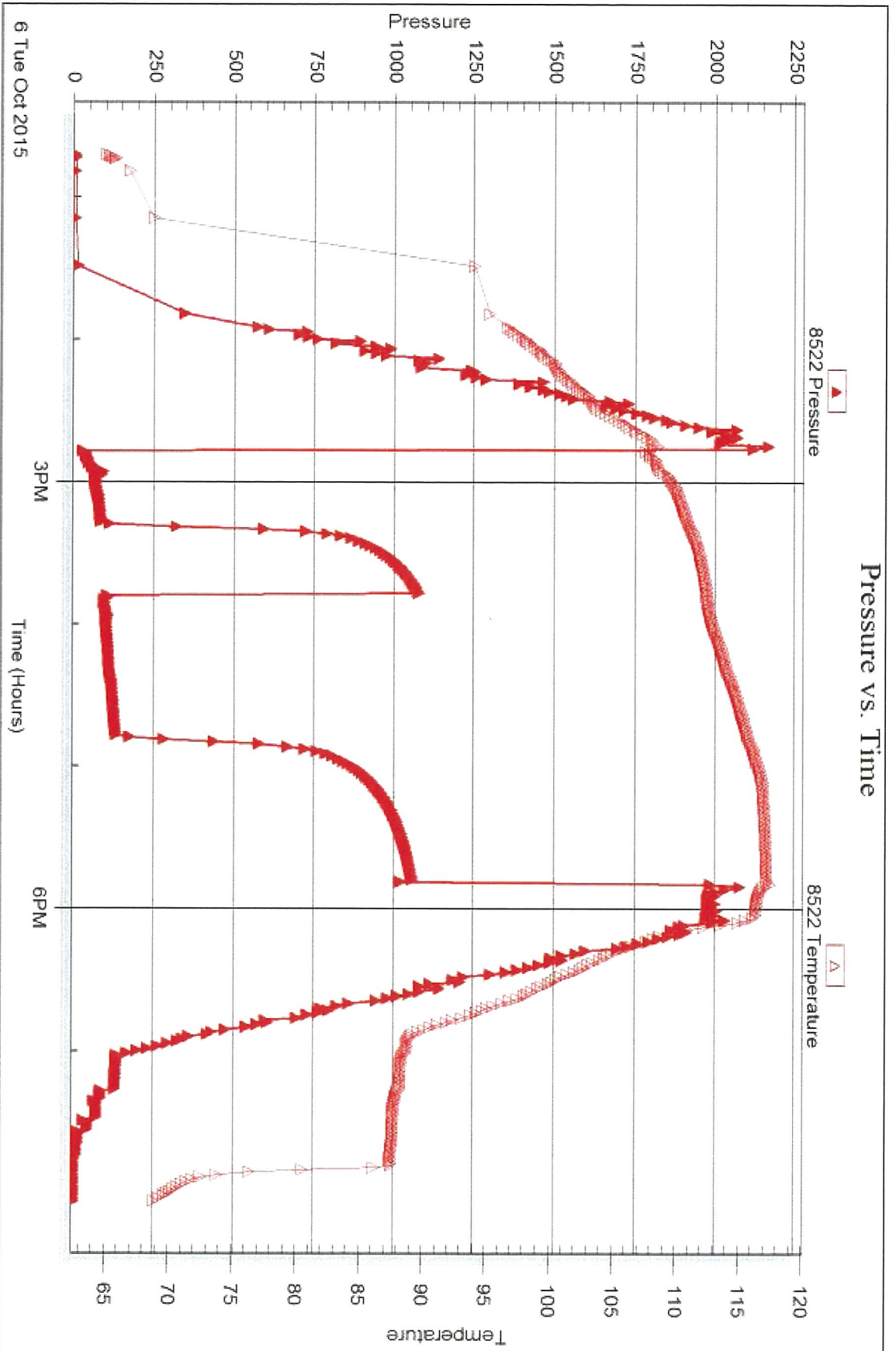
Printed 2015 10 09 @ 11:30:07

Serial #: 8522

Outside Palomino Petroleum, Inc

Duff #1

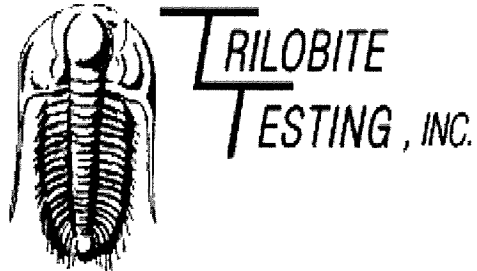
DST Test Number: 6



Tribolite Testing, Inc

Ref. No: 61835

Printed 2015 10 09 @ 11:30:07



## DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum, Inc**

4924 SE 84th St.  
Newton, KS 67114

ATTN: John Goldsmith

### **Duff #1**

### **9-15s-32w Logan,KS**

Start Date: 2015.10.07 @ 03:08:00

End Date: 2015.10.07 @ 10:14:30

Job Ticket #: 61836                      DST #: 7

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

Printed: 2015.10.09 @ 11:29:43



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Palomino Petroleum, Inc  
4924 SE 84th St.  
New ton, KS 67114  
ATTN: John Goldsmith

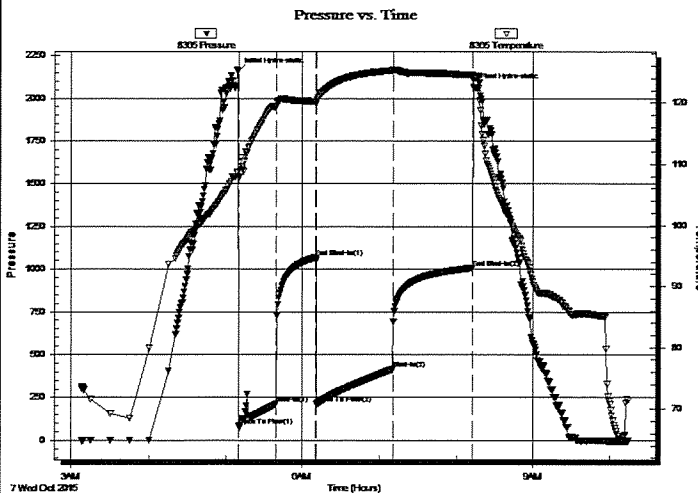
**9-15s-32w Logan,KS**  
**Duff #1**  
Job Ticket: 61836 **DST#: 7**  
Test Start: 2015.10.07 @ 03:08:00

## GENERAL INFORMATION:

Formation: **Morrow**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 05:10:00  
Time Test Ended: 10:14:30  
Interval: **4288.00 ft (KB) To 4340.00 ft (KB) (TVD)**  
Total Depth: 3752.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Reference Elevations: 2708.00 ft (KB)  
2703.00 ft (CF)  
KB to GR/CF: 5.00 ft  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Bradley Walter  
Unit No: 69

**Serial #: 8365** **Inside**  
Press@RunDepth: 414.16 psig @ 4289.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2015.10.07 End Date: 2015.10.07 Last Calib.: 2015.10.07  
Start Time: 03:08:05 End Time: 10:14:29 Time On Btm: 2015.10.07 @ 05:09:00  
Time Off Btm: 2015.10.07 @ 08:13:00

TEST COMMENT: IF: BOB @ 8 min.  
IS: No return.  
FF: BOB @ 10 min.  
FS: 2" return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2157.28	108.78	Initial Hydro-static
1	82.26	107.82	Open To Flow (1)
31	211.20	119.36	Shut-In(1)
62	1067.76	120.22	End Shut-In(1)
62	214.90	119.88	Open To Flow (2)
122	414.16	125.32	Shut-In(2)
183	1006.83	124.54	End Shut-In(2)
184	2064.42	123.73	Final Hydro-static

## Recovery

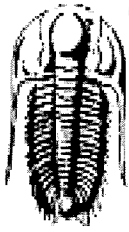
Length (ft)	Description	Volume (bbl)
380.00	socw 2o 98w	4.26
570.00	gw mco 15g 25w 30m 30o	8.00
0.00	180' GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE**  
**TESTING, INC**

**DRILL STEM TEST REPORT**

Palomino Petroleum, Inc  
4924 SE 84th St.  
New ton, KS 67114  
ATTN: John Goldsmith

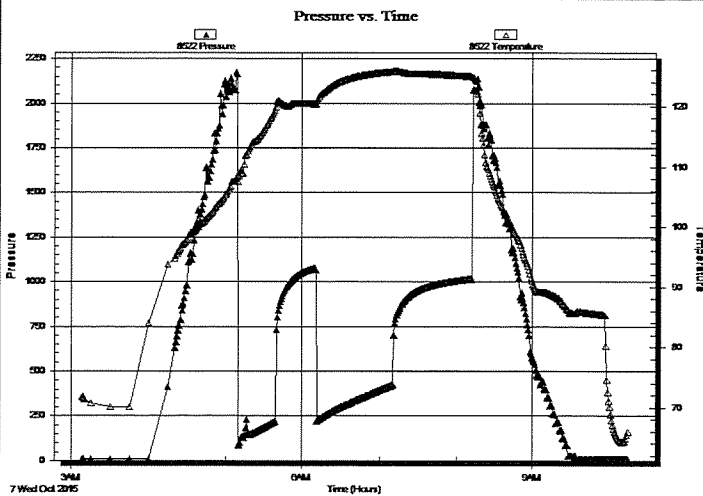
**9-15s-32w Logan,KS**  
**Duff #1**  
Job Ticket: 61836      **DST#: 7**  
Test Start: 2015.10.07 @ 03:08:00

**GENERAL INFORMATION:**

Formation: **Morrow**  
Deviated: No Whipstock:      ft (KB)  
Time Tool Opened: 05:10:00  
Time Test Ended: 10:14:30  
Interval: **4288.00 ft (KB) To 4340.00 ft (KB) (TVD)**  
Total Depth: 3752.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Reference Elevations: 2708.00 ft (KB)  
2703.00 ft (CF)  
KB to GR/CF: 5.00 ft  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Bradley Walter  
Unit No: 69

**Serial #: 8522      Outside**  
Press@RunDepth:      psig @ 4289.00 ft (KB)  
Start Date: 2015.10.07      End Date: 2015.10.07  
Start Time: 03:08:05      End Time: 10:14:29  
Capacity: 8000.00 psig  
Last Calib.: 2015.10.07  
Time On Btm:  
Time Off Btm:

TEST COMMENT: IF: BOB @ 8 min.  
IS: No return.  
FF: BOB @ 10 min.  
FSI: 2" return.



**PRESSURE SUMMARY**

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

**Recovery**

Length (ft)	Description	Volume (bbl)
380.00	socw 2o 98w	4.26
570.00	gw mco 15g 25w 30m 30o	8.00
0.00	180' 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

**9-15s-32w Logan,KS**

4924 SE 84th St.  
Newton, KS 67114

**Duff #1**

Job Ticket: 61836

**DST#: 7**

ATTN: John Goldsmith

Test Start: 2015.10.07 @ 03:08:00

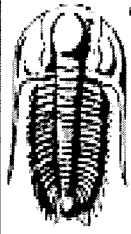
### Tool Information

Drill Pipe:	Length: 4174.00 ft	Diameter: 3.80 inches	Volume: 58.55 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 59.13 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	4288.00 ft			Final 67000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	52.00 ft			
Tool Length:	79.00 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			4262.00	
Shut In Tool	5.00			4267.00	
Hydraulic tool	5.00			4272.00	
Jars	5.00			4277.00	
Safety Joint	2.00			4279.00	
Packer	5.00			4284.00	27.00 Bottom Of Top Packer
Packer	4.00			4288.00	
Stubb	1.00			4289.00	
Recorder	0.00	8365	Inside	4289.00	
Recorder	0.00	8522	Outside	4289.00	
Perforations	15.00			4304.00	
Change Over Sub	1.00			4305.00	
Drill Pipe	31.00			4336.00	
Change Over Sub	1.00			4337.00	
Bullnose	3.00			4340.00	52.00 Bottom Packers & Anchor

**Total Tool Length: 79.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Palomino Petroleum, Inc  
4924 SE 84th St.  
New ton, KS 67114  
ATTN: John Goldsmith

**9-15s-32w Logan,KS**  
**Duff #1**  
Job Ticket: 61836      **DST#: 7**  
Test Start: 2015.10.07 @ 03:08:00

### Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	36000 ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.99 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3300.00 ppm			
Filter Cake: 1.00 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
380.00	socw 2o 98w	4.265
570.00	gw mco 15g 25w 30m 30o	7.996
0.00	180' GIP	0.000

Total Length: 950.00 ft      Total Volume: 12.261 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments: rw is .215 @ 65F = 36,000ppm

Serial #: 8365

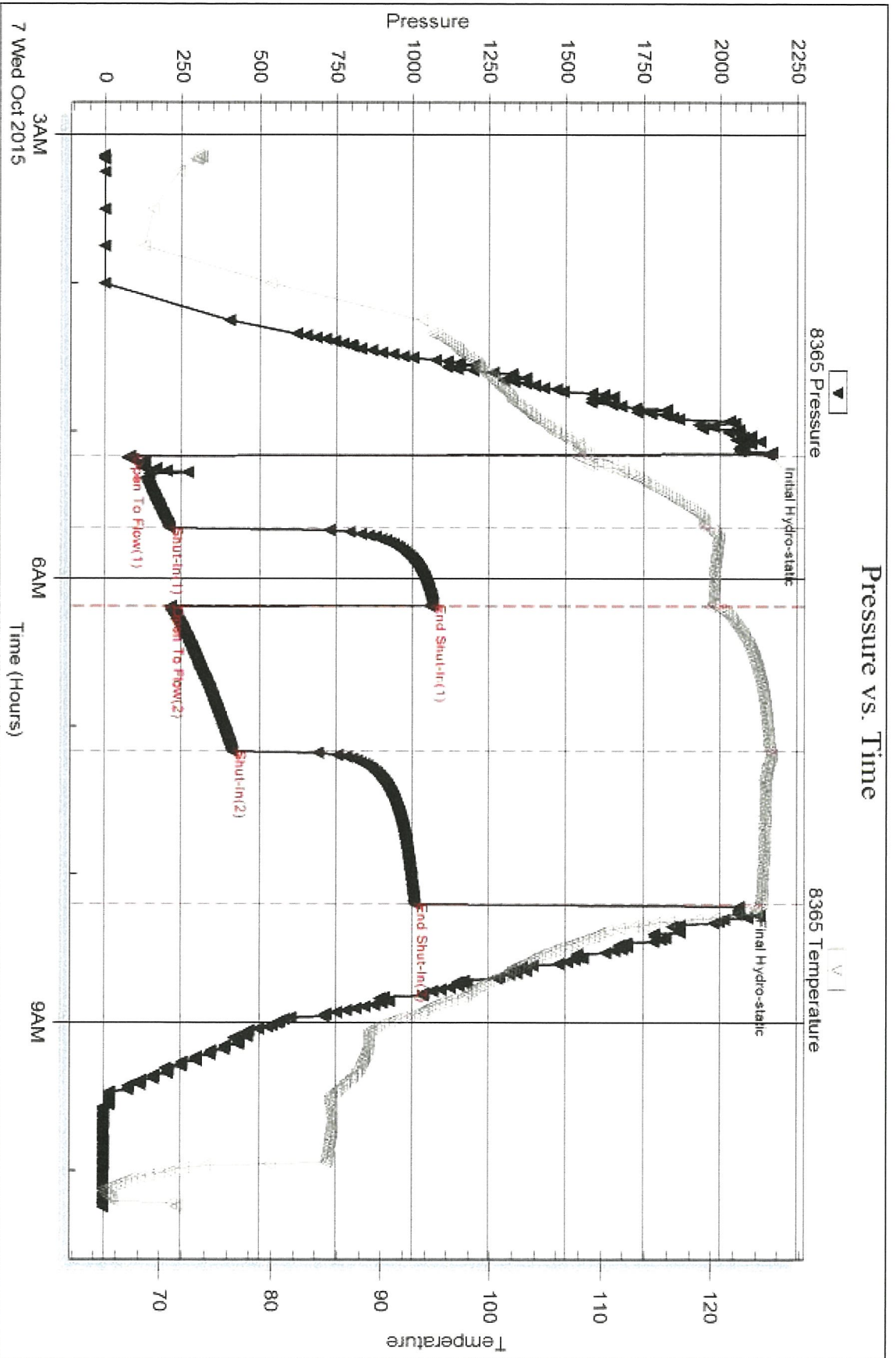
Inside

Palomino Petroleum, Inc

Duff #1

OST Test Number: 7

### Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 61836

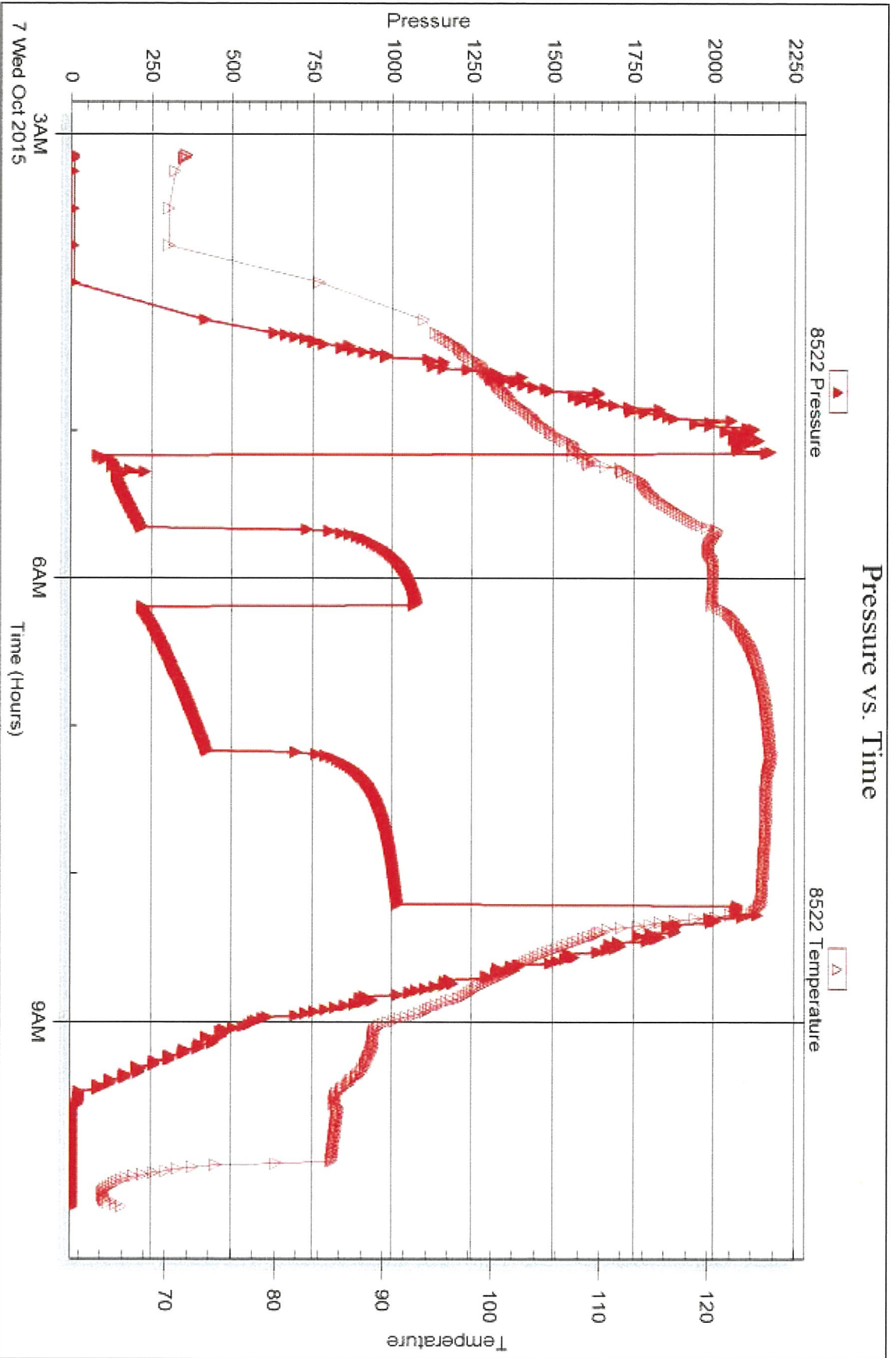
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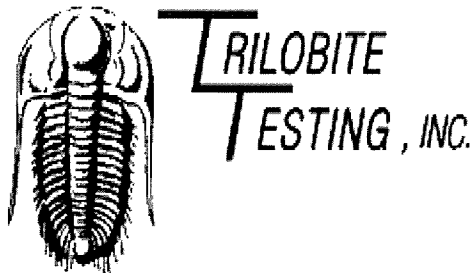
Serial #: 8522

Outside Palomino Petroleum, Inc

Duff #1

OST Test Number: 7





## DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum, Inc**

4924 SE 84th St.  
Newton, KS 67114

ATTN: John Goldsmith

### **Duff #1**

### **9-15s-32w Logan,KS**

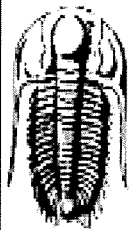
Start Date: 2015.10.08 @ 09:51:00

End Date: 2015.10.08 @ 15:38:00

Job Ticket #: 61837                      DST #: 8

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

Printed: 2015.10.09 @ 11:29:06



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Palomino Petroleum, Inc

**9-15s-32w Logan,KS**

4924 SE 84th St.  
New ton, KS 67114

**Duff #1**

Job Ticket: 61837

**DST#: 8**

ATTN: John Goldsmith

Test Start: 2015.10.08 @ 09:51:00

## GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:58:00

Time Test Ended: 15:38:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

Interval: **4056.00 ft (KB) To 4152.00 ft (KB) (TVD)**

Reference Elevations: 2708.00 ft (KB)

Total Depth: 4510.00 ft (KB) (TVD)

2703.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8365** Outside

Press@RunDepth: 120.00 psig @ 4057.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.10.08

End Date: 2015.10.08

Last Calib.: 2015.10.08

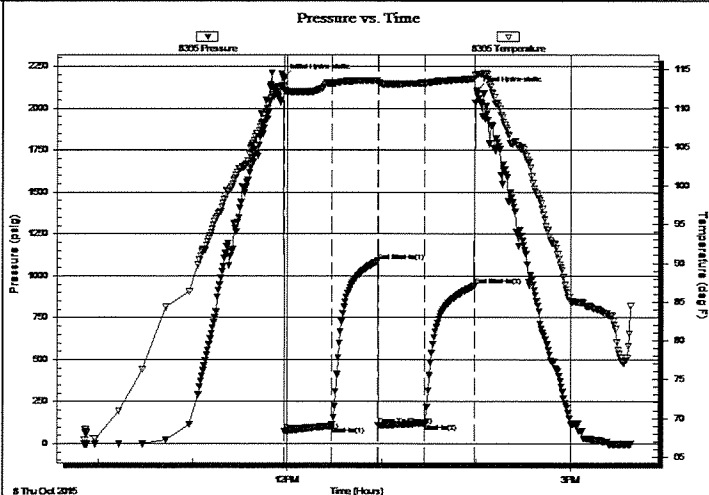
Start Time: 09:51:05

End Time: 15:37:59

Time On Btm: 2015.10.08 @ 11:57:00

Time Off Btm: 2015.10.08 @ 14:00:00

TEST COMMENT: IF: 1" blow.  
IS: No return.  
FF: 1" blow.  
FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2183.74	112.87	Initial Hydro-static
1	73.61	112.17	Open To Flow (1)
31	106.37	113.16	Shut-In(1)
60	1087.85	113.58	End Shut-In(1)
60	108.25	113.20	Open To Flow (2)
90	120.00	113.24	Shut-In(2)
122	939.48	113.80	End Shut-In(2)
123	2106.23	114.39	Final Hydro-static

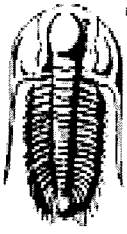
## Recovery

Length (ft)	Description	Volume (bbl)
125.00	Mud 100m (oil spots on top)	0.69

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Palomino Petroleum, Inc  
 4924 SE 84th St.  
 Newton, KS 67114  
 ATTN: John Goldsmith

**9-15s-32w Logan, KS**

**Duff #1**  
 Job Ticket: 61837      **DST#: 8**  
 Test Start: 2015.10.08 @ 09:51:00

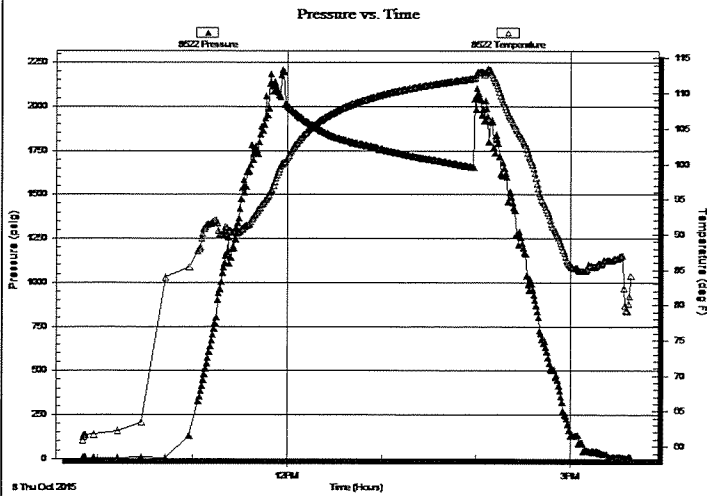
**GENERAL INFORMATION:**

Formation: **Marmaton**  
 Deviated: No Whipstock:                      ft (KB)  
 Time Tool Opened: 11:58:00  
 Time Test Ended: 15:38:00  
 Interval: **4056.00 ft (KB) To 4152.00 ft (KB) (TVD)**  
 Total Depth: 4510.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Bradley Walter  
 Unit No: 69  
 Reference Elevations: 2708.00 ft (KB)  
    2703.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8522 Below (Straddle)**

Press@RunDepth:                      psig @ 4167.00 ft (KB)  
 Start Date: 2015.10.08      End Date: 2015.10.08      Capacity: 8000.00 psig  
 Start Time: 09:51:05      End Time: 15:37:59      Last Calib.: 2015.10.08  
 Time On Btm:  
 Time Off Btm:

TEST COMMENT: IF: 1" blow.  
 IS: No return.  
 FF: 1" blow.  
 FS: No return.



**PRESSURE SUMMARY**

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

**Recovery**

Length (ft)	Description	Volume (bbl)
125.00	Mud 100m (oil spots on top)	0.69

**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: John Goldsmith

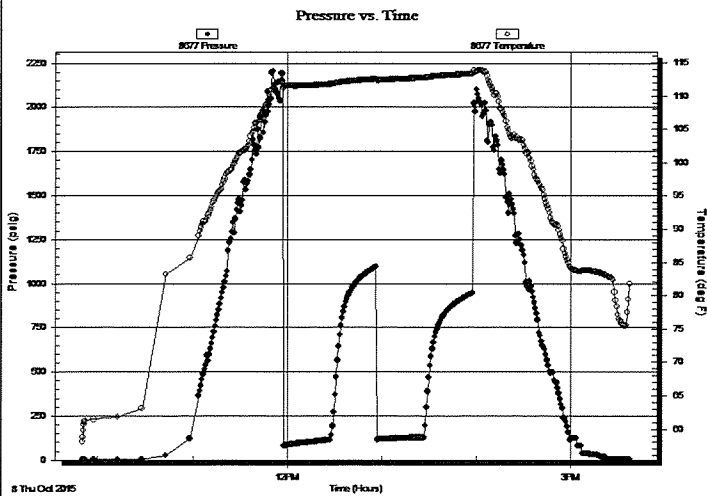
**9-15s-32w Logan,KS**  
**Duff #1**  
 Job Ticket: 61837 **DST#: 8**  
 Test Start: 2015.10.08 @ 09:51:00

## GENERAL INFORMATION:

Formation: **Marmaton**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 11:58:00  
 Time Test Ended: 15:38:00  
 Interval: **4056.00 ft (KB) To 4152.00 ft (KB) (TVD)**  
 Total Depth: 4510.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Bradley Walter  
 Unit No: 69  
 Reference Elevations: 2708.00 ft (KB)  
 2703.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8677** Inside  
 Press@RunDepth: psig @ 4057.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2015.10.08 End Date: 2015.10.08 Last Calib.: 2015.10.08  
 Start Time: 09:51:05 End Time: 15:37:14 Time On Btm:  
 Time Off Btm:

TEST COMMENT: IF: 1" blow.  
 IS: No return.  
 FF: 1" blow.  
 FS: No return.



## PRESSURE SUMMARY

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

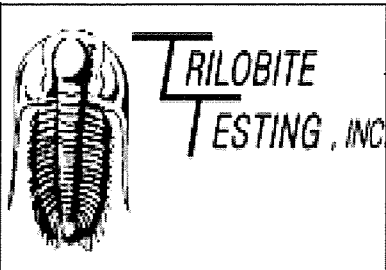
## Recovery

Length (ft)	Description	Volume (bbl)
125.00	Mud 100m (oil spots on top)	0.69

\* Recovery from multiple tests

## Gas Rates

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

Palomino Petroleum, Inc  
 4924 SE 84th St.  
 Newton, KS 67114  
 ATTN: John Goldsmith

**9-15s-32w Logan,KS**  
**Duff #1**  
 Job Ticket: 61837      **DST#: 8**  
 Test Start: 2015.10.08 @ 09:51:00

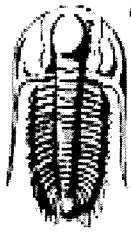
**Tool Information**

Drill Pipe:	Length: 3925.00 ft	Diameter: 3.80 inches	Volume: 55.06 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 55.64 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 71000.00 lb
Depth to Top Packer:	4056.00 ft			Final 71000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	454.00 ft			
Tool Length:	481.00 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			4030.00	
Shut In Tool	5.00			4035.00	
Hydraulic tool	5.00			4040.00	
Jars	5.00			4045.00	
Safety Joint	2.00			4047.00	
Packer	5.00			4052.00	27.00      Bottom Of Top Packer
Packer	4.00			4056.00	
Stubb	1.00			4057.00	
Recorder	0.00	8677	Inside	4057.00	
Recorder	0.00	8365	Outside	4057.00	
Perforations	1.00			4058.00	
Change Over Sub	1.00			4059.00	
Drill Pipe	93.00			4152.00	
Change Over Sub	1.00			4153.00	
Perforations	5.00			4158.00	
Blank Off Sub	1.00			4159.00	454.00      Tool Interval
Packer	3.00			4162.00	
Blank Spacing	1.00			4163.00	
Perforations	3.00			4166.00	
Change Over Sub	1.00			4167.00	
Recorder	0.00	8522	Below	4167.00	
Drill Pipe	343.00			4510.00	1000480.00      Bottom Packers & Anchor

**Total Tool Length: 481.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Palomino Petroleum, Inc

**9-15s-32w Logan,KS**

4924 SE 84th St.  
New ton, KS 67114

**Duff #1**

Job Ticket: 61837

**DST#: 8**

ATTN: John Goldsmith

Test Start: 2015.10.08 @ 09:51:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3400.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
125.00	Mud 100m (oil spots on top)	0.688

Total Length: 125.00 ft

Total Volume: 0.688 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8365

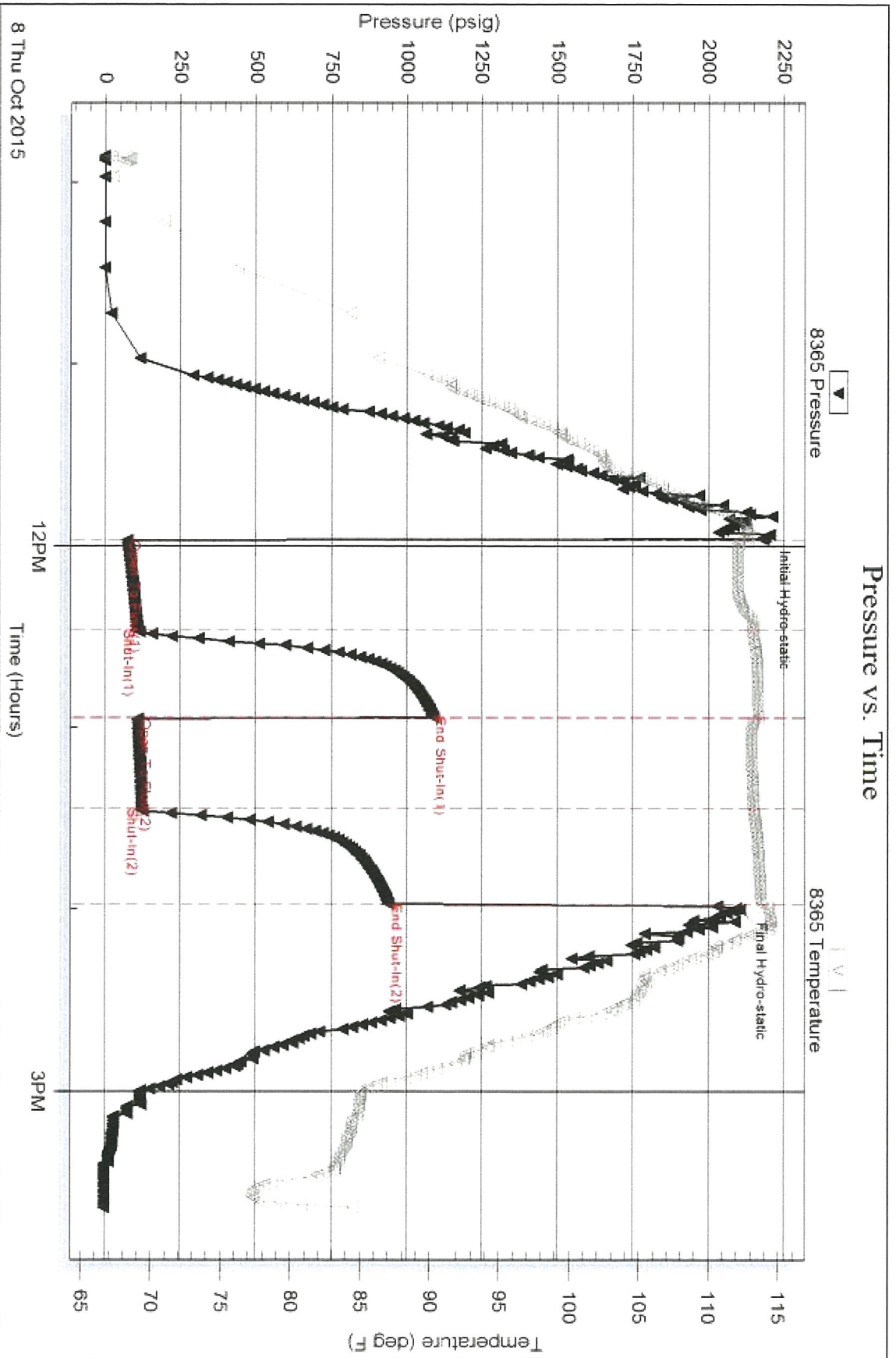
Outside

Palomino Petroleum, Inc

Duff #1

OST Test Number: 8

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 61837

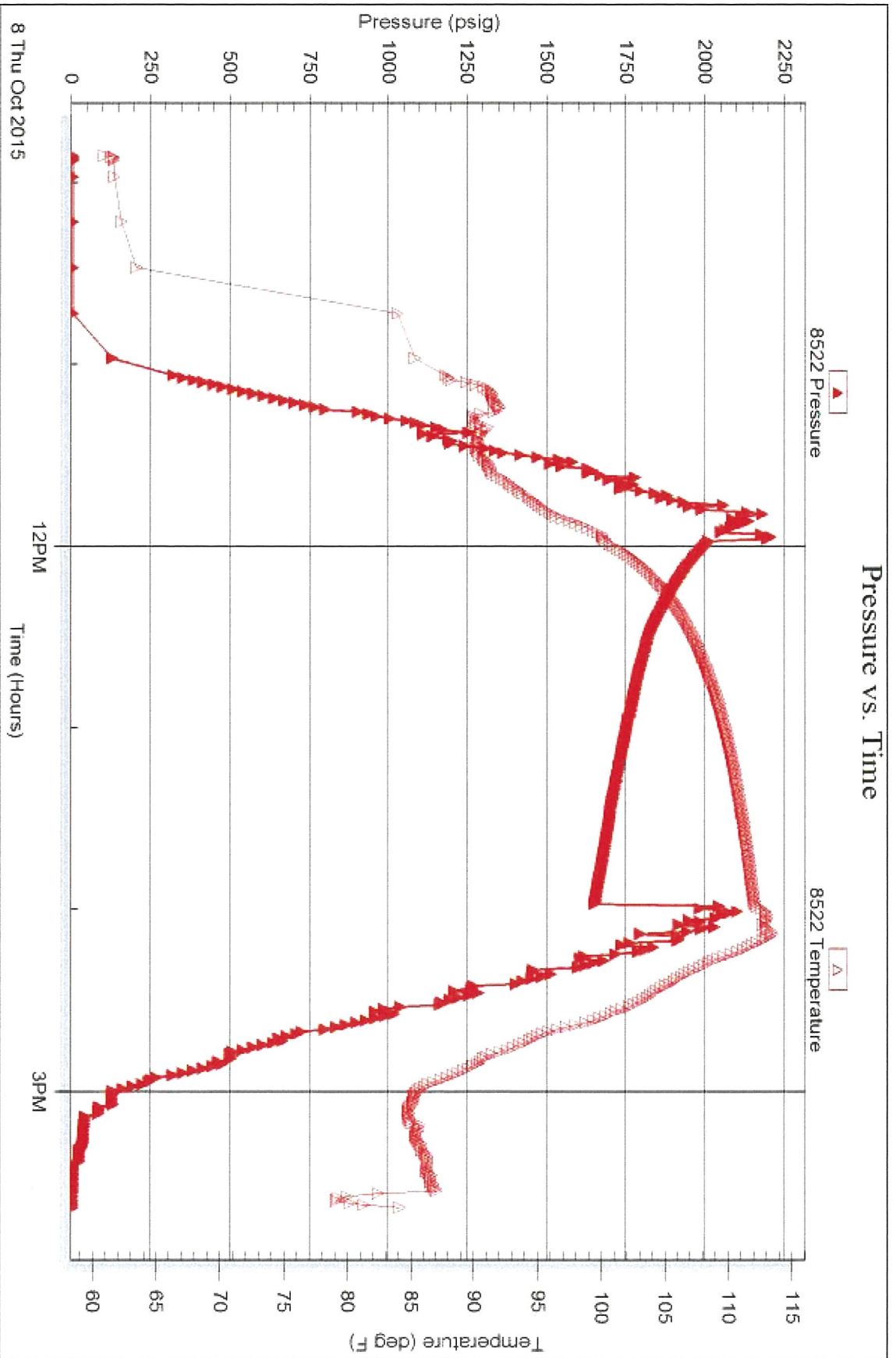
Printed 2015 10 09 @ 11:29:08

Serial #: 8522

Below (Stratton) Petroleum, Inc

Duff #1

DST Test Number: 8



Tricobite Testing, Inc

Ref. No: 61837

Printed 2015 10 09 @ 11:29:08

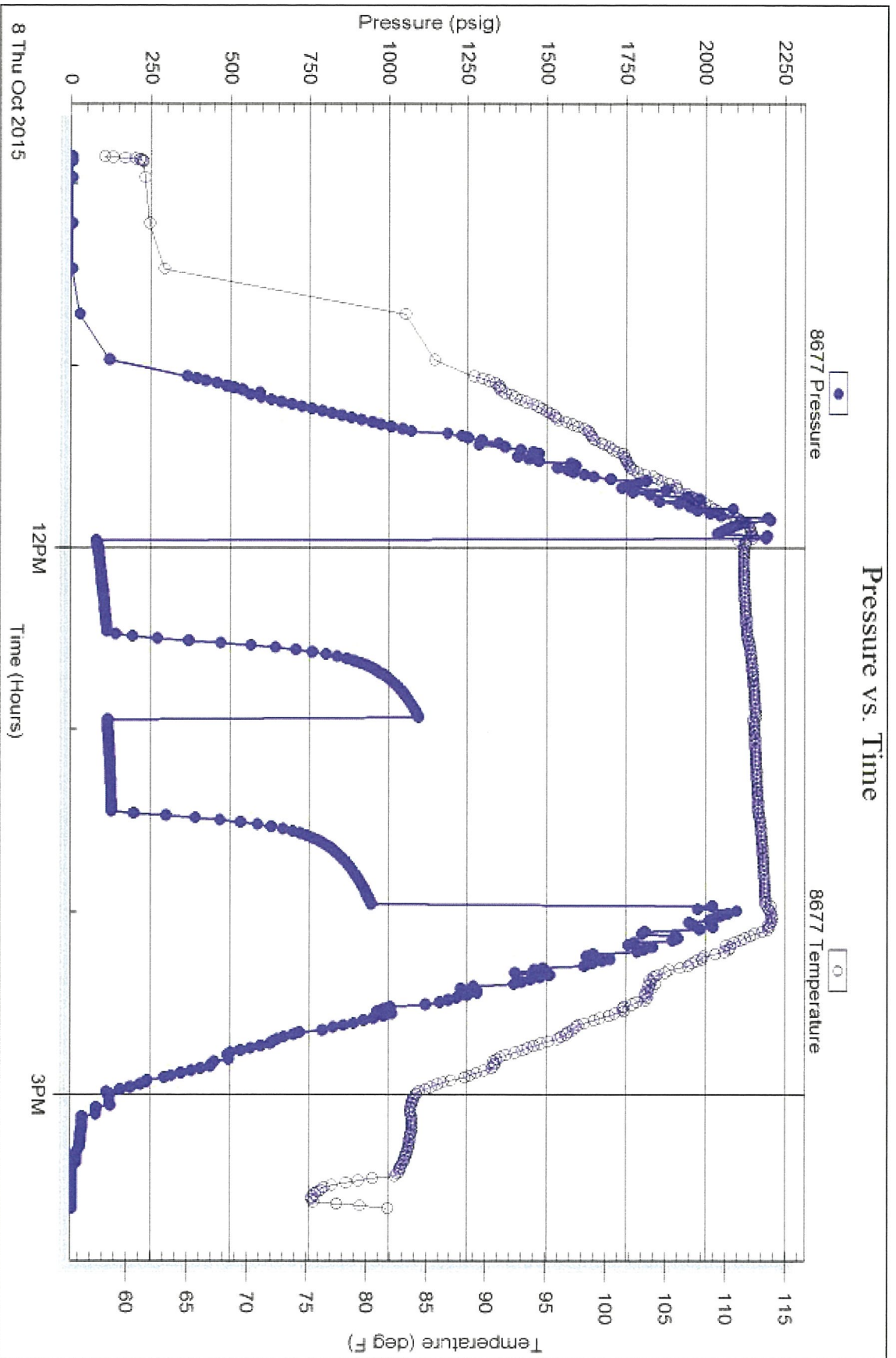
Serial #: 8677

Inside

Palomino Petroleum, Inc

Duff #1

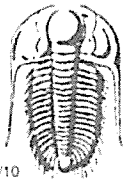
OST Test Number: 8



Triobite Testing, Inc

Ref. No: 61837

Printed 2015 10 09 @ 11 29 08



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 61830

Well Name & No. D.H. #1 Test No. 1 Date 10/02/2015  
 Company Palomino Petroleum, Inc Elevation 2708 KB 2703 GL  
 Address 4924 SE 84th St. Newton, KS 67114  
 Co. Rep / Geo. John Goldsmith Rig WW #2  
 Location: Sec. 9 Twp. 15s Rge. 32w Co. Logan State KS

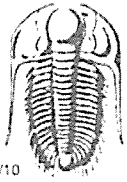
Interval Tested 3723 - 3752 Zone Tested LKC D  
 Anchor Length 29 Drill Pipe Run 3610 Mud Wt. 9.0  
 Top Packer Depth 3718 Drill Collars Run 117 Vis 54  
 Bottom Packer Depth 3723 Wt. Pipe Run 8 WL 6.4  
 Total Depth 3752 Chlorides 2500 ppm System LCM 1#  
 Blow Description IF: 7" blow  
ISI: No return.  
FF: 8" blow  
FSZ: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>245</u>	<u>MCW</u>		<u>70</u>	<u>30</u>	
<u>60</u>	<u>MCW</u>		<u>90</u>	<u>10</u>	
	<u>OTL SPOTS IN TOOL</u>				

Rec Total 305 BHT 114 Gravity — API RW 1190 @ 60 °F Chlorides 48,000 ppm

(A) Initial Hydrostatic <u>1874</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>1748</u>
(B) First Initial Flow <u>25</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1839</u>
(C) First Final Flow <u>98</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>2038</u>
(D) Initial Shut-In <u>980</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>2238</u>
(E) Second Initial Flow <u>108</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0018</u>
(F) Second Final Flow <u>152</u>	<input checked="" type="checkbox"/> Mileage <u>47 RT 47</u>	Comments
(G) Final Shut-In <u>964</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1809</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1422</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1422</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.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 61831

Well Name & No. Duff #1 Test No. 2 Date 10/03/2015  
 Company Palomino Petroleum, Inc Elevation 2708 KB 2703 GL  
 Address 4924 SE 84<sup>th</sup> St. Newton, KS 67114  
 Co. Rep / Geo. John Goldsmith Rig WW #2  
 Location: Sec. 9 Twp. 15S Rge. 32W Co. Logan State Ks

Interval Tested 3754 - 3786 Zone Tested LKC E&F  
 Anchor Length 32' Drill Pipe Run 3641 Mud Wt. 9.1  
 Top Packer Depth 3749 Drill Collars Run 117 Vis 53  
 Bottom Packer Depth 3754 Wt. Pipe Run Ø WL 8.0  
 Total Depth 3786 Chlorides 3000 ppm System LCM 1#  
 Blow Description IF: 1" blow  
ISI: No return.  
FF: Surface blow  
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>w.c.m (OTL SPOTS)</u>		<u>10</u>	<u>90</u>	
	<u>30' GID</u>				

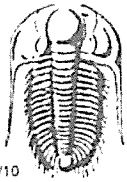
Rec Total 60 BHT 108 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>1829</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>0708</u>
(B) First Initial Flow <u>16</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0712</u>
(C) First Final Flow <u>31</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0838</u>
(D) Initial Shut-In <u>1066</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>1038</u>
(E) Second Initial Flow <u>33</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1206</u>
(F) Second Final Flow <u>41</u>	<input checked="" type="checkbox"/> Mileage <u>47 RT 47</u>	Comments
(G) Final Shut-In <u>1050</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1817</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1422</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1422</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.





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 61832

Well Name & No. PJAF #1 Test No. 3 Date 10/04/2015  
 Company Palomnu Petroleum, Inc Elevation 2705 KB 2703 GL  
 Address 4924 SE 84<sup>th</sup> St. Newton, KS 67114  
 Co. Rep / Geo. John Goldsmith Rig WW #2  
 Location: Sec. 9 Twp. 15S Rge. 32W Co. Logan State KS

Interval Tested 3832 - 3923 Zone Tested LKC H/I/S  
 Anchor Length 91 Drill Pipe Run 3703 Mud Wt. 9.2  
 Top Packer Depth 3827 Drill Collars Run 117 Vis 54  
 Bottom Packer Depth 3832 Wt. Pipe Run 0 WL 8.0  
 Total Depth 3923 Chlorides 4000 ppm System LCM 2<sup>nd</sup>  
 Blow Description IF: 3 1/2" blow  
IST: No return  
FF: 3" blow  
HST: No return

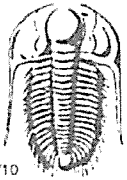
Rec	Feet of	%gas	%oil	%water	%mud
<u>180</u>	<u>Wcm</u>		<u>10</u>	<u>90</u>	

Rec Total 180 BHT 108 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>1896</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>0300</u>
(B) First Initial Flow <u>18</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0315</u>
(C) First Final Flow <u>1877</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0435</u>
(D) Initial Shut-In <u>1107</u>	<input checked="" type="checkbox"/> Circ Sub <u>vt</u>	T-Pulled <u>0635</u>
(E) Second Initial Flow <u>82</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0808</u>
(F) Second Final Flow <u>102</u>	<input checked="" type="checkbox"/> Mileage <u>47 RT 47</u>	Comments
(G) Final Shut-In <u>1086</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1864</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1422</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1422</u>	

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 61833

Well Name & No. Duff #1 Test No. 4 Date 10/04/2015  
 Company Palomino Petroleum, Inc Elevation 2708 KB 2703 GL  
 Address 4924 84<sup>th</sup> St Newton, KS 67114  
 Co. Rep / Geo. John Goldsmith Rig WW #2  
 Location: Sec. 9 Twp. 15s Rge. 32w Co. Logan State KS

Interval Tested ~~3832 - 3925~~ Zone Tested LKC "K"  
3921 - 3963  
 Anchor Length 42 Drill Pipe Run 3800 Mud Wt. 9.0  
 Top Packer Depth 3910 Drill Collars Run 117 Vis 50  
 Bottom Packer Depth 3921 Wt. Pipe Run 0 WL 8.0  
 Total Depth 3963 Chlorides 4,000 ppm System LCM 1<sup>st</sup>  
 Blow Description IF: 4" blow  
ISF: No return  
PF: 2 1/2" blow  
FSI: No return

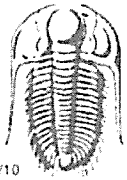
Rec	Feet of	%gas	%oil	%water	%mud
<u>190</u>	<u>Wc m</u>			<u>10</u>	<u>90</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 190 BHT 109 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>1921</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>1400</u>
(B) First Initial Flow <u>15</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1440</u>
(C) First Final Flow <u>77</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1705</u>
(D) Initial Shut-In <u>1134</u>	<input checked="" type="checkbox"/> Circ Sub <u>4/c</u>	T-Pulled <u>1905</u>
(E) Second Initial Flow <u>78</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2051</u>
(F) Second Final Flow <u>101</u>	<input checked="" type="checkbox"/> Mileage <u>47.67</u> <u>47</u>	Comments
(G) Final Shut-In <u>1118</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1566</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>20</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1422</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1422</u>	

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 61884

Well Name & No. Duff #1 Test No. 5 Date 10/05/2015  
 Company Palomare Petroleum, Inc Elevation 2708 KB 2703 GL  
 Address 4924 24<sup>th</sup> St, Newton, KS 67114  
 Co. Rep / Geo. John Goldsmith Rig WW #2  
 Location: Sec. 9 Twp. 15s Rge. 32w Co. Logan State KS

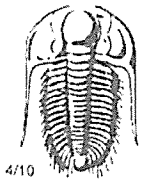
Interval Tested 3962-3998 Zone Tested LKC L  
 Anchor Length 36' Drill Pipe Run 3828 Mud Wt. 9.1  
 Top Packer Depth 3957 Drill Collars Run 117 Vis 53  
 Bottom Packer Depth 3962 Wt. Pipe Run 0 WL 8.8  
 Total Depth 3998 Chlorides 5000 ppm System LCM 1.5 #  
 Blow Description IF: BOB @ 1 1/2 min.  
JIC: No return.  
FF: BOB @ 2 min.  
FCI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>1320</u>	<u>mcw</u>			<u>95</u>	<u>5</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1320 BHT 116 Gravity — API RW 137 @ 60 °F Chlorides 65000 ppm

(A) Initial Hydrostatic <u>1979</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>0400</u>
(B) First Initial Flow <u>116</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0419</u>
(C) First Final Flow <u>390</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0556</u>
(D) Initial Shut-In <u>877</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>0756</u>
(E) Second Initial Flow <u>400</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0938</u>
(F) Second Final Flow <u>555</u>	<input checked="" type="checkbox"/> Mileage <u>47.5</u> <u>47</u>	Comments
(G) Final Shut-In <u>635</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1895</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1422</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1422</u>	

Approved By \_\_\_\_\_ Our Representative [Signature]  
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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 61835

Well Name & No. Duff #1 Test No. 6 Date 10/06/2015  
 Company Palomares Petroleum, Inc Elevation 2708 KB 2703 GL  
 Address 4924 84th St Newton, KS 67114  
 Co. Rep / Geo. John Goldsmith Rig WW #2  
 Location: Sec. 9 Twp. 15S Rge. 32W Co. Scott Logan State KS

Interval Tested 4185 - 4285 Zone Tested Johnson  
 Anchor Length 100 Drill Pipe Run 4045 Mud Wt. 9.2  
 Top Packer Depth 4190 Drill Collars Run 117 Vis 54  
 Bottom Packer Depth 4165 Wt. Pipe Run 0 WL 8.0  
 Total Depth 4285 Chlorides 4500 ppm System LCM 1st

Blow Description IF: 4 1/2" blow  
TSI: No return.  
FF: 3 1/2" blow  
FST: No return.

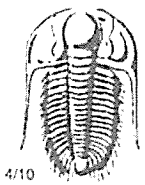
Rec	Feet of	%gas	%oil	%water	%mud
120	6 WOCM	10	25	10	55
120	6 WOCM	10	20	20	50
	60' CTP				

Rec Total 240 BHT 117 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2109</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1930</u>
(B) First Initial Flow <u>21</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1242</u>
(C) First Final Flow <u>80</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1448</u>
(D) Initial Shut-In <u>1069</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>1748</u>
(E) Second Initial Flow <u>95</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2004</u>
(F) Second Final Flow <u>126</u>	<input checked="" type="checkbox"/> Mileage <u>47.25</u> <u>47</u>	Comments
(G) Final Shut-In <u>1050</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>7097</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1522</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1522</u>	

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 61836

Well Name & No. Duff #1 Test No. 7 Date 10/07/2015  
 Company Palomino Petroleum, Inc Elevation 2708 KB 2703 GL  
 Address 4924 84<sup>th</sup> St Newton, ks 67114  
 Co. Rep / Geo. John Goldsmith Rig WW#2  
 Location: Sec. 9 Twp. 15s Rge. 32w Co. Scott Logan State Ks

Interval Tested 4288 4340 Zone Tested Morrow  
 Anchor Length 52 Drill Pipe Run 4177 Mud Wt. 9.1  
 Top Packer Depth 4283 Drill Collars Run 117 Vis 51  
 Bottom Packer Depth 4288 Wt. Pipe Run 0 WL 8.0  
 Total Depth 4340 Chlorides 3300 ppm System LCM 2#

Blow Description IF: BOB @ 8 min  
ISI: No return  
FF: BOB @ 10 min  
FSI: 2" return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>570</u>	<u>CW MCD</u>	<u>15</u>	<u>30</u>	<u>30</u>	<u>25</u>
<u>380</u>	<u>SOCW</u>		<u>2</u>	<u>98</u>	
	<u>180' GIP</u>				

Rec Total 950' BHT 125 Gravity — API RW 216 @ 65 °F Chlorides 36,000 ppm

(A) Initial Hydrostatic 2157  Test 1150 T-On Location 0300  
 (B) First Initial Flow 82  Jars 250 T-Started 0308  
 (C) First Final Flow 211  Safety Joint 75 T-Open 0508  
 (D) Initial Shut-In 1068  Circ Sub N/C T-Pulled 0808  
 (E) Second Initial Flow 215  Hourly Standby \_\_\_\_\_ T-Out 1015  
 (F) Second Final Flow 414  Mileage 47R- 47 Comments \_\_\_\_\_  
 (G) Final Shut-In 1007  Sampler \_\_\_\_\_ Thanks  
 (H) Final Hydrostatic 2064  Straddle \_\_\_\_\_

Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer 320  
 Extra Copies \_\_\_\_\_  
 Initial Open 30  Extra Packer \_\_\_\_\_  
 Initial Shut-In 30  Extra Recorder \_\_\_\_\_  
 Final Flow 60  Day Standby \_\_\_\_\_  
 Final Shut-In 60  Accessibility \_\_\_\_\_  
 Sub Total 1522

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 61837

Well Name & No. POA # Test No. 8 Date 10/08/2015  
 Company Palomino Petroleum, Inc Elevation 2708 KB 2703 GL  
 Address 4924 84<sup>th</sup> St Newton, KS 67114  
 Co. Rep / Geo. John Goldsmith Rig WW #2  
 Location: Sec. 9 Twp. 15S Rge. 32W Co. Logan State KS

Interval Tested 4056 - 4162 Zone Tested Marmaton  
 Anchor Length 106' Anchor 348 Tail Drill Pipe Run 3425 Mud Wt. 9.0  
 Top Packer Depth 4051 Drill Collars Run 117 Vis 50  
 Bottom Packer Depth 4056 / 4162 straddle Wt. Pipe Run 0 WL 9.0  
 Total Depth 4510 Chlorides 3400 ppm System LCM 2 #

Blow Description TF: 1" blow  
TSI: No return.  
FF: 1" blow  
ISI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>120</u>	<u>Mud 100 m</u>				

Rec Total 120 BHT 114 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2184</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>0940</u>
(B) First Initial Flow <u>74</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0951</u>
(C) First Final Flow <u>106</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1158</u>
(D) Initial Shut-In <u>104.3</u>	<input checked="" type="checkbox"/> Circ Sub <u>—</u>	T-Pulled <u>1358</u>
(E) Second Initial Flow <u>108</u>	<input type="checkbox"/> Hourly Standby <u>—</u>	T-Out <u>1537</u>
(F) Second Final Flow <u>120</u>	<input checked="" type="checkbox"/> Mileage <u>47 RT 47</u>	Comments <u>Loaded after test</u>
(G) Final Shut-In <u>93.9</u>	<input type="checkbox"/> Sampler <u>—</u>	
(H) Final Hydrostatic <u>2106</u>	<input checked="" type="checkbox"/> Straddle <u>600</u>	<input type="checkbox"/> Ruined Shale Packer <u>—</u>
	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Packer <u>—</u>
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer <u>—</u>	<input type="checkbox"/> Extra Copies <u>—</u>
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Recorder <u>—</u>	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby <u>—</u>	Total <u>2372</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Accessibility <u>—</u>	MP/DST Disc't <u>—</u>
	Sub Total <u>2372</u>	

Approved By \_\_\_\_\_ Our Representative [Signature]

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Thanks