



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1244684  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover
- Oil       WSW       SWD       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic       Other (Core, Expl., etc.): \_\_\_\_\_

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

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

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

Datum:  NAD27       NAD83       WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1244684

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

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

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

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

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

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

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR. \_\_\_\_\_ Producing Method:  
 Flowing    Pumping    Gas Lift    Other *(Explain)* \_\_\_\_\_

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Palomino Petroleum, Inc.
Well Name	Dyer-Tammen 1
Doc ID	1244684

Tops

Name	Top	Datum
Base Anhy.	1047	(+958)
Topeka	2994	(-989)
Heebner	3234	(-1229)
Toronto	3250	(-1245)
Brown Lime	3304	(-1299)
Lansing	3318	(-1313)
BKC	3531	(-1526)
Cong.	3564	(-1559)
Cong. Sd.	3592	(-1587)
Reagan Se.	3604	(-1599)
LTD	3737	(-1732)



RECEIVED

OCT 20 2014

# INVOICE

PO Box 93999  
Southlake, TX 76092

Invoice Number: 146274

Invoice Date: Oct 7, 2014

Page: 1

Voice: (817) 546-7282

Fax: (817) 246-3361

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	63996	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Great Bend	Oct 7, 2014	11/6/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Dyer Tammen #1		
150.00	CEMENT MATERIALS	Class A Common	17.90	2,685.00
282.00	CEMENT MATERIALS	Gel	0.50	141.00
1,467.00	CEMENT MATERIALS	Chloride	1.10	1,613.70
400.00	CEMENT MATERIALS	65/35/6% Gel Blend	19.88	7,952.00
615.51	CEMENT SERVICE	Cubic Feet Charge	2.48	1,526.46
448.29	CEMENT SERVICE	Ton Mileage Charge	2.75	1,232.80
1.00	CEMENT SERVICE	Surface	2,213.75	2,213.75
17.00	CEMENT SERVICE	Pump Truck Mileage	7.70	130.90
1.00	CEMENT SERVICE	Manifold Rental	275.00	275.00
17.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	74.80
1.00	EQUIPMENT SALES	8-5/8 Rubber Plug	131.00	131.00
1.00	EQUIPMENT SALES	8-5/8 AFU Insert	447.00	447.00
1.00	EQUIPMENT SALES	8-5/8 Saw Tooth Shoe	496.00	496.00
1.00	CEMENT SUPERVISOR	Charles Kinyon		
1.00	CEMENT SUPERVISOR	Kevin Eddy		
1.00	OPERATOR ASSISTANT	Marlyn Spangenberg		
1.00	EQUIPMENT OPERATOR	Daniel Casper		

ALL PRICES ARE NET, PAYABLE  
30 DAYS FOLLOWING DATE OF  
INVOICE. 1 1/2% CHARGED  
THEREAFTER. IF ACCOUNT IS  
CURRENT, TAKE DISCOUNT OF

\$ 3,783.88

ONLY IF PAID ON OR BEFORE  
Nov 6, 2014

Subtotal	18,919.41
Sales Tax	828.14
Total Invoice Amount	19,747.55
Payment/Credit Applied	
<b>TOTAL</b>	<b>19,747.55</b>

# ALLIED OIL & GAS SERVICES, LLC

063996

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:  
Great Bend KS

DATE <u>10-07-14</u> <u>Dyer</u>	SEC. <u>12</u>	TWP. <u>19</u>	RANGE <u>16</u>	CALLED OUT	ON LOCATION <u>1:30 PM</u>	JOB START <u>8:00 PM</u>	JOB FINISH <u>9:00 PM</u>
LEASE <u>TAMMCO</u>	WELL # <u>1</u>	LOCATION <u>Albert 2 1/2 South 1 1/2 West</u>			COUNTY <u>Kush</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one) <u>into</u>							

CONTRACTOR Pickrell Drilling  
TYPE OF JOB Surface  
HOLE SIZE 12 1/4 T.D. 1092.44  
CASING SIZE 8 5/8 DEPTH 1035.00  
TUBING SIZE DEPTH  
DRILL PIPE DEPTH  
TOOL DEPTH  
PRES. MAX MINIMUM  
MEAS. LINE SHOE JOINT  
CEMENT LEFT IN CSG. 42.04  
PERFS.  
DISPLACEMENT 63.25 Fresh H2O

OWNER  
CEMENT  
AMOUNT ORDERED 400 Sx 65/35 + 1% + 3% CC  
150 Sx 5 CLASS A + 3% CC + 2% Gel  
COMMON 150 @ 17.90 2,685.00  
POZMIX @  
GEL 282 @ .50 141.00  
CHLORIDE 1.1467 @ 1.10 1,261.37  
ASC @  
400 Sx 65/35 + 6% + 3% @ 19.88 7,952.00  
+ 3% Material Total 12,391.70  
Disc 20% 2,478.34  
HANDLING 615.51 @ 2.48 1,526.46  
MILEAGE 26.87 x 17 x 2.75 1,232.80

EQUIPMENT

Charles King Kevin Brunyard  
PUMP TRUCK CEMENTER Kevin Eddy  
# 517/597 HELPER WAYNE DAVIS / MAYLEN SPANBERG  
BULK TRUCK  
# 870/844 DRIVER DAN CASPER  
BULK TRUCK  
# 603 DRIVER Tony Alejandro

REMARKS:

on location, held safety meeting, Rig up -  
Rig Run 8 5/8 @ 1035.00ft casing, Hook To Head  
and broke circ w/ Rig mud. Drop Ball, Pump  
5 Ahead - mix 400 Sx 65/35 + 1% + 3% CC - mix  
150 Sx 5 CLASS A 3% CC 2% Gel. Shut Down Release  
Plug, Displace 63.25 BBS Fresh H2O - Land  
Plug Cement Did Circ - Rig Down

DEPTH OF JOB  
PUMP TRUCK CHARGE 2213.75  
EXTRA FOOTAGE @  
MILEAGE Hum 17 @ 7.70 130.90  
MANIFOLD @ 275.00 275.00  
Hum 17 @ 4.40 74.80  
@

CHARGE TO: Palomino Petroleum  
STREET  
CITY STATE ZIP

TOTAL 5,453.71  
Disc 20% 1,090.74

PLUG & FLOAT EQUIPMENT

1 Rubber Plug @ 131.00 131.00  
1 AFU insert @ 447.00 447.00  
1 SAW Tooth Shoe @ 496.00 496.00  
@  
Head + manifold @

TOTAL 1,074.00  
Disc 20% 214.80

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.

SALES TAX (If Any)  
TOTAL CHARGES 18,919.41  
DISCOUNT 20% 3,783.88 (20/20/20) IF PAID IN 30 DAYS  
15,135.53

PRINTED NAME Mike Kern  
SIGNATURE Mike Kern

RECEIVED

NOV 10 2014



PO Box 93999  
Southlake, TX 76092

Voice: (817) 546-7282  
Fax: (817) 246-3361

# INVOICE

Invoice Number: 146754

Invoice Date: Oct 29, 2014

Page: 1

Federal Tax I.D.#: 20-8651475

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

Customer ID	Field Ticket #	Payment Terms	
Palo	63943	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-09	Great Bend	Oct 29, 2014	11/28/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Dyer Tammes #1		
1.00	CEMENT SERVICE	Gas Kill	2,600.47	2,600.47
17.00	CEMENT SERVICE	Pump Truck Mileage	7.70	130.90
17.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	74.80
1.00	CEMENT SUPERVISOR	Charles Kinyon		
1.00	OPERATOR ASSISTANT	Kevin Weighous		

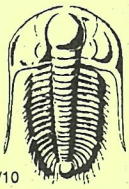
ALL PRICES ARE NET, PAYABLE  
30 DAYS FOLLOWING DATE OF  
INVOICE. 1 1/2% CHARGED  
THEREAFTER. IF ACCOUNT IS  
CURRENT, TAKE DISCOUNT OF

\$ 280.62

ONLY IF PAID ON OR BEFORE  
Nov 28, 2014

Subtotal	2,806.17
Sales Tax	172.58
Total Invoice Amount	2,978.75
Payment/Credit Applied	
<b>TOTAL</b>	<b>2,978.75</b>





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 60602

4/10

Well Name & No. Dyer-Tammen #1 Test No. 4 Date 10-13-14  
 Company Palomino Petroleum Inc. Elevation 2005 KB 1998 GL  
 Address 4924 SE 84th St. Newton KS 67114-8827  
 Co. Rep / Geo. Andrew Stenzel Rig Pickrell #10  
 Location: Sec. 12 Twp. 19S Rge. 16W Co. Rush State KS

Interval Tested 3609-3621 Zone Tested Reagan Sand  
 Anchor Length 12 Drill Pipe Run 3595 Mud Wt. 9.25  
 Top Packer Depth 3604 Drill Collars Run Ø Vis 62  
 Bottom Packer Depth 3609 Wt. Pipe Run Ø WL 10.4  
 Total Depth 3621 Chlorides 5800 ppm System LCM 0

Blow Description IFP- BOB in 10 sec.  
ISIP- Surface Blow Building to 4 1/2 in.  
FFP- BOB in 1 min.  
FSIP- BOB in 3 min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>248</u>	<u>mcw</u>		<u>95</u>	<u>5</u>	
<u>124</u>	<u>QWmco</u>	<u>30</u>	<u>40</u>	<u>10</u>	<u>20</u>
<u>45</u>	<u>Qmco</u>	<u>20</u>	<u>40</u>		<u>40</u>
	<u>QTS 7min.</u>				

Rec Total 417 BHT 121 Gravity \_\_\_\_\_ API RW .350 @ 50 ° F Chlorides 27000 ppm

(A) Initial Hydrostatic 1778  Test \_\_\_\_\_ T-On Location 18:30  
 (B) First Initial Flow 78  Jars \_\_\_\_\_ T-Started 18:34  
 (C) First Final Flow 95  Safety Joint \_\_\_\_\_ T-Open 20:57  
 (D) Initial Shut-In 1080  Circ Sub \_\_\_\_\_ T-Pulled 23:27  
 (E) Second Initial Flow 115  Hourly Standby \_\_\_\_\_ T-Out 01:47  
 (F) Second Final Flow 197  Mileage \_\_\_\_\_  
 (G) Final Shut-In 1120  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1762  Straddle \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_

Initial Open 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 30  Extra Recorder \_\_\_\_\_ Sub Total \_\_\_\_\_  
 Final Flow 30  Day Standby \_\_\_\_\_ Total \_\_\_\_\_  
 Final Shut-In 60  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total \_\_\_\_\_

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**

# DRILL STEM TEST REPORT

Palomino Petroleum Inc

**12 19s 16w Rush**

4924 SE 84th St  
New ton KS 67114-8827

**Dyer-Tammen # 1**

Job Ticket: 60602 **DST#: 4**

ATTN: Andrew Stenzel

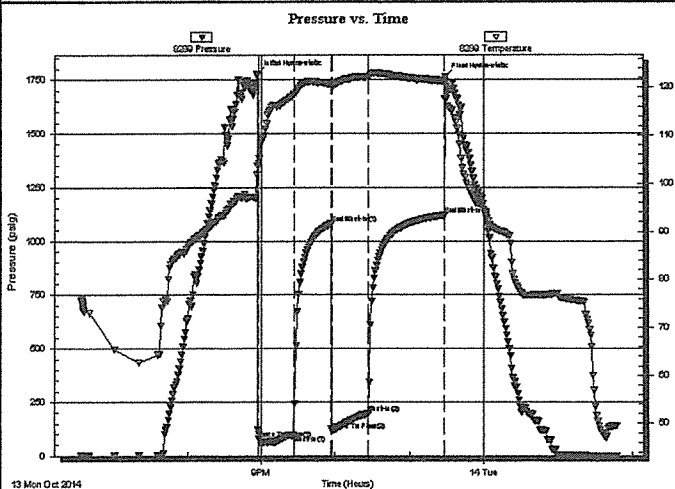
Test Start: 2014.10.13 @ 18:34:00

## GENERAL INFORMATION:

Formation: **Reagan Sand**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 20:57:45  
 Time Test Ended: 01:47:00  
 Interval: **3609.00 ft (KB) To 3621.00 ft (KB) (TVD)**  
 Total Depth: 3621.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Jim Svaty  
 Unit No: 76  
 Reference Elevations: 2005.00 ft (KB)  
 1998.00 ft (CF)  
 KB to GR/CF: 7.00 ft

**Serial #: 8289 Outside**  
 Press@RunDepth: 197.77 psig @ 3615.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.10.13 End Date: 2014.10.14 Last Calib.: 2014.10.14  
 Start Time: 18:34:00 End Time: 01:47:00 Time On Btm: 2014.10.13 @ 20:56:45  
 Time Off Btm: 2014.10.13 @ 23:28:30

**TEST COMMENT:** 30-IFP- BOB in 10sec.  
 30-ISIP- Surface Blow Building to 4 1/2in.  
 30-FFP- BOB in 1min.  
 60-FSIP- BOB in 3min.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1778.51	103.70	Initial Hydro-static
1	78.70	104.16	Open To Flow (1)
30	95.26	118.60	Shut-In(1)
60	1080.97	120.64	End Shut-In(1)
61	115.92	120.26	Open To Flow (2)
90	197.77	122.17	Shut-In(2)
151	1120.03	121.33	End Shut-In(2)
152	1762.00	121.04	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
248.00	MCW 5% m 95% w	3.48
124.00	GMCO 30% g 10% w 20% m 40% o	1.74
45.00	GMCO 20% g 40% m 40% o	0.63

\* Recovery from multiple tests

## Gas Rates

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

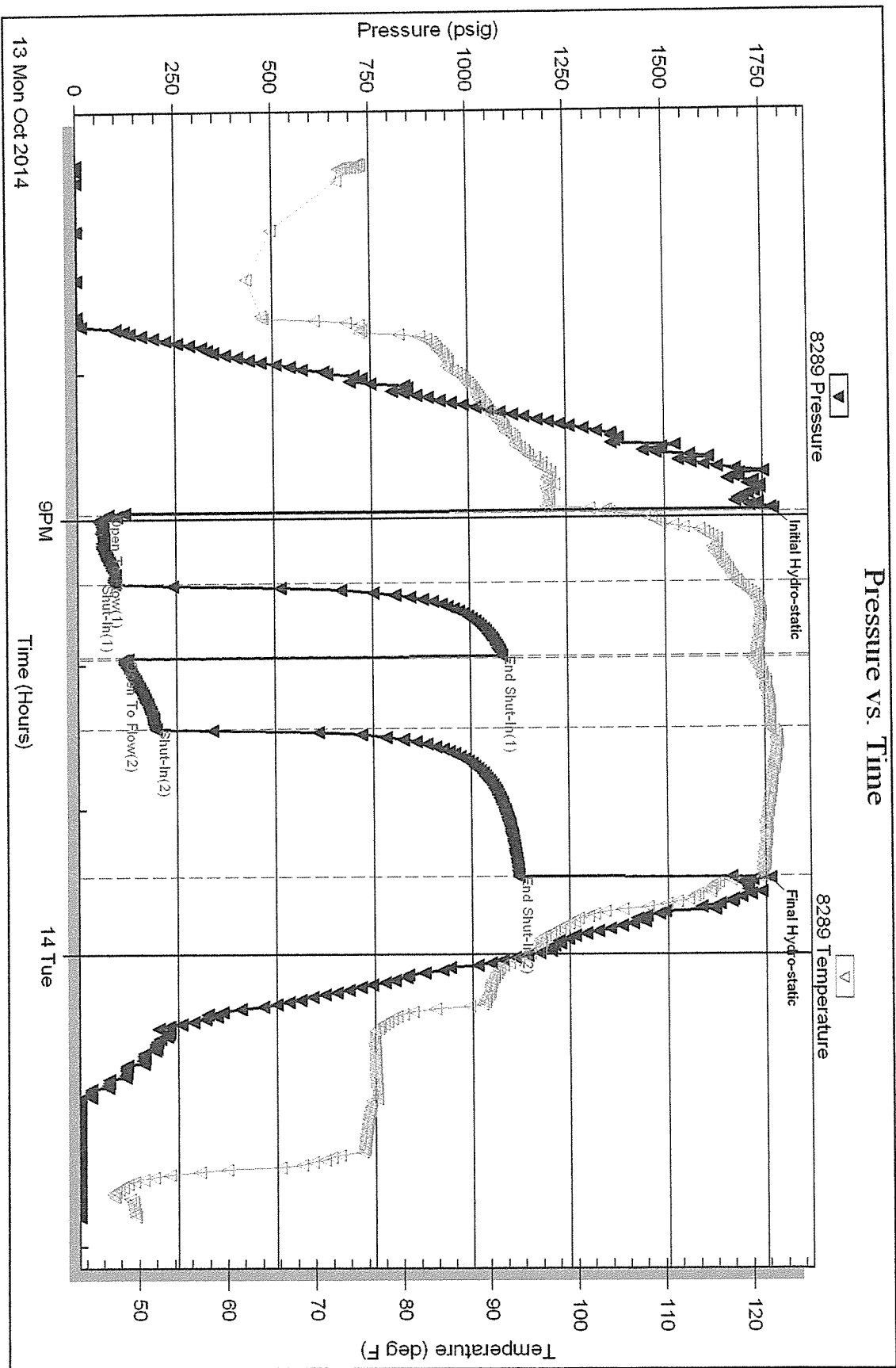
Serial #: 8289

Outside Palomiro Petroleum Inc

Dyer-Tammen # 1

DST Test Number: 4

### Pressure vs. Time



Triblodge Testing, Inc

Ref. No: 60602

Printed: 2014.10.14 @ 01:55:31

# Mud-Co / Service Mud. Inc.

100 S. Main St., Suite #310, Wichita, Ks. 67202

Report: **9**

## Daily Drilling Mud Report

Date: **10/14/14** Depth: **3681**

Operator <b>Palomino Petroleum</b>		Contractor <b>Pickrell Drilling</b>		Rig No. <b>10</b>	
Address <b>Rig</b>		Address <b>Rig</b>		Spud Date <b>10/02/14</b>	
Report for Mr. <b>Nick Gerstner</b>		Report for Mr. <b>Mike Kern</b>		Section <b>12</b> Twp <b>19S</b> Range <b>16W</b>	
Well Name & No. <b>Dyer Tammen #1</b>		County <b>Rush</b>		State <b>Kansas</b>	

Operation <b>drilling</b>		Casing <b>8 5/8 in. at 1020</b>		Mud Volume (BBL) Hole <b>313</b> Pits <b>400</b>		Circulation Data	
Present Activity		Intermediate <b>in. at</b>		Total Circulating Vol. <b>713</b>		Opposite Drill Pipe <b>203</b>	
Bit Size (in.) <b>7 7/8</b>	No <b>2</b>	Production / Liner <b>in. at</b>		Volume in Storage <b>0</b>		Opposite Drill Collars <b>369</b>	
Drill pipe sz <b>4 1/2</b>	Type <b>XH</b>	Drilling mud type <b>chemical</b>		BBL/ Strk <b>0.137</b>		Bottoms Up (Min.) <b>32</b>	
Drill Collar size <b>6 1/4</b>	<b>503</b>			Strk / Min. <b>60</b>		Pump Pressure <b>700</b>	
				BBL/Min. <b>8.2</b>		Pump Make <b>Emsco</b>	
				GAL/Min. <b>345</b>		Pump Model <b>D-375</b>	
				System Total (Min) <b>87</b>		Critical GPM DC/DP <b>260 337</b>	

Sample from Flowline _x_ or Pit _		Daily Mud Cost <b>590.65</b>		Cumulative Mud Cost <b>11,892.35</b>	
Flowline Temperature		Mud Properties		MUD PROPERTIES SPECIFICATIONS	
				Mud Wt.(lbs/gal.) <b>9.0-9.4</b>	Viscosity <b>46-50</b>
				Filtrate <b>8-10.0cc</b>	LCM <b>as needed</b>

Time Sample Taken	8:25 AM
Depth (Ft.)	<b>3,681</b>
Weight (lb/gal.)	<b>9.0</b>
Mud Gradient (psi/ft.)	<b>0.468</b>
Funnel Viscosity (Sec/qt. API)	<b>68</b>
Plastic Viscosity cp	<b>16</b>
Yield Point (lb/100 sq.ft.)	<b>13</b>
Gel Strength 10 sec/10 min.	<b>10/59</b>
pH	<b>10.0</b>
Filtrate API (ml/30 min.)	<b>10.8</b>
Cake Thickness 32nd	<b>1</b>
Alkalinity, Mud (Pm)	<b>-</b>
Alkalinity, Filtrate (Pf/Mf)	<b>.44/-</b>
Chloride Content, ppm	<b>6,500</b>
Calcium, ppm	<b>20</b>
Sand Content (% by Vol)	<b>Tr</b>
Solids Content (% by Vol.)	<b>4.7</b>
Oil Content (% by Vol.)	<b>0.0</b>
Water Content (% by Vol.)	<b>95.3</b>
LCM, lbs/bbl.	<b>Tr</b>
Reynold's #DP	<b>2,067</b>
Reynold's # DC	<b>2,946</b>
ECD lb/gal	<b>9.54</b>

Suggest...

Run small stream of water at flowline while drilling to control mud wt. 9.0-9.4 #/gal.

Maintain 46-50 sec/qt. viscosity with the following premix  
100 bbls fresh water

1 Soda Ash

2 Caustic

1 1/2 sx Lignite

1/2 sx Pac

Gel f/ 50 vis

\*Add premix after DST #2, then as needed for vis or to control mud wt.

Jet and add over 1 1/2 hours

Gel only as needed, no need for extremely high viscosity

LCM as needed with c/s hulls

Tourly while drilling: 1 sx Caustic  
1/2 sx Lignite

\*Add tourly at chemical bbl, add to system over 2 hours every tour that no premix is added

Trip slowly and don't shake pipe, break circulation on all TIH w/ bit

Circulate hole clean prior to all trips and keep hole full

Divert all DST recovery to reserve pit

If viscosity begins to climb, do not run an excessive amount of water to thin back, jet volume and clean a pit and add above premix with Gel f/ 45-50 sec/qt. viscosity

Please keep all material covered as needed... Thanks!

DRILLING MUD INVENTORY					
Products:	Prior Day	Delivery	On Hand	Used	Cost
Premium Gel	115		95	20	368.00
Lime	6		6		
Soda Ash	14		13	1	25.85
Caustic Soda	5		3	2	132.30
Lignite	5		4	1	28.60
C/S Hulls	58		56	2	35.90
Drill Pak	2		2		
Desco	3		3		
Poly Plus	2		2		
Florigel					
Xoide					
Sapp	2		2		
Barite					
MilGuard					

Mud-Co / Service Mud Representative  
**Jason Whiting**

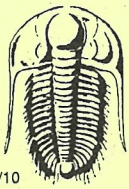
Home Address  
**Great Bend, Kansas**

Telephone Number  
**620-792-4544**

Cell: **620-282-0556**

Warehouse Location  
**Hays, Kansas**

Telephone Number  
**785-621-4232**



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 60601

4/10

Well Name & No. Dyer - Tammen #1 Test No. 3 Date 10-13-14  
 Company PALOMINO Petroleum, Inc. Elevation 2005 KB 1998 GL  
 Address 4924 SE 84th St. Newton KS. 67114-8827  
 Co. Rep / Geo. Andrew Stenzel Rig Pickrell #10  
 Location: Sec. 12 Twp. 19S Rge. 16W Co. Rush State KS

Interval Tested 3531-3607 Zone Tested Conglomerate Sand.  
 Anchor Length 76 Drill Pipe Run \_\_\_\_\_ Mud Wt. 9.25  
 Top Packer Depth 3526 Drill Collars Run 0 Vis 62  
 Bottom Packer Depth 3531 Wt. Pipe Run 0 WL 10.4  
 Total Depth 3607 Chlorides 5800 ppm System LCM 0  
 Blow Description FSIP - Bled off in 17min Weak Surface Blow  
IFP BOB in 40sec  
ISIP - Bled off in 14min. Weak Surface Blow  
FFP - BOB in 3sec.

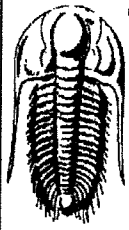
Rec	Feet of	%gas	%oil	%water	%mud
<u>112</u>	<u>mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 112 BHT 111 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>1764</u>	<input checked="" type="checkbox"/> Test _____	T-On Location <u>03:35</u>
(B) First Initial Flow <u>474</u>	<input checked="" type="checkbox"/> Jars _____	T-Started <u>04:55</u>
(C) First Final Flow <u>433</u>	<input checked="" type="checkbox"/> Safety Joint _____	T-Open <u>07:10</u>
(D) Initial Shut-In <u>1082</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>10:10</u>
(E) Second Initial Flow <u>466</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>12:16</u>
(F) Second Final Flow <u>414</u>	<input checked="" type="checkbox"/> Mileage _____	Comments _____
(G) Final Shut-In <u>1049</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1679</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 _____
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	Total _____
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total _____	

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.**

## DRILL STEM TEST REPORT

**GAS RATES**

Palomino Petroleum Inc

**12 19s 16w Rush**

4924 SE 84th St  
New ton KS 67114-8827

**Dyer-Tammen # 1**

Job Ticket: 60601

**DST#: 3**

ATTN: Andrew Stenzel

Test Start: 2014.10.13 @ 04:55:00

### Gas Rates Information

Temperature: 59 (deg F)  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
1	10	1.00	70.00	2426.40
2	10	1.00	80.00	2713.89
3	10	1.00	75.00	2570.14
4	10	1.00	73.00	2512.65
5	10	1.00	73.00	2512.65



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Palomino Petroleum Inc  
 4924 SE 84th St  
 Newton KS 67114-8827  
 ATTN: Andrew Stenzel

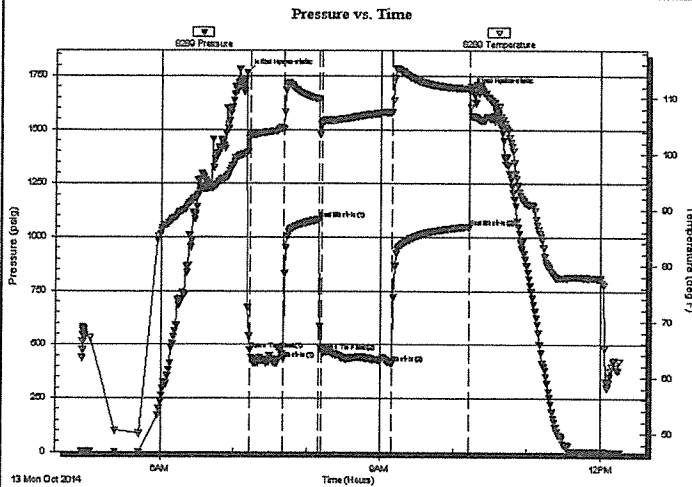
**12 19s 16w Rush**  
**Dyer-Tammen # 1**  
 Job Ticket: 60601 **DST#: 3**  
 Test Start: 2014.10.13 @ 04:55:00

## GENERAL INFORMATION:

Formation: **Conglomerate Sand**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 07:13:00  
 Time Test Ended: 12:16:00  
 Interval: **3531.00 ft (KB) To 3607.00 ft (KB) (TVD)**  
 Total Depth: 3607.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Jim Svaty  
 Unit No: 76  
 Reference Elevations: 2005.00 ft (KB)  
 1998.00 ft (CF)  
 KB to GR/CF: 7.00 ft

**Serial #: 8289 Outside**  
 Press@RunDepth: 414.03 psig @ 3541.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.10.13 End Date: 2014.10.13 Last Calib.: 2014.10.13  
 Start Time: 04:55:00 End Time: 12:16:00 Time On Btm: 2014.10.13 @ 07:10:15  
 Time Off Btm: 2014.10.13 @ 10:12:30

**TEST COMMENT:** 30-IFP- BOB in 40sec.  
 30-ISIP- Bled off in 14min. Weak Surface Blow  
 60-FFP- BOB in 3sec.  
 60-FSIP- Bled off in 17min. Weak Surface Blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1764.88	100.15	Initial Hydro-static
3	474.69	103.34	Open To Flow (1)
31	433.21	104.48	Shut-In(1)
59	1082.46	109.82	End Shut-In(1)
62	466.74	105.42	Open To Flow (2)
120	414.03	107.50	Shut-In(2)
182	1049.98	111.72	End Shut-In(2)
183	1679.28	111.73	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
112.00	Mud 100%	1.57

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	1.00	70.00	2426.40
Last Gas Rate	1.00	73.00	2512.65
Max. Gas Rate	1.00	80.00	2713.89

\* Recovery from multiple tests

Serial #: 8289

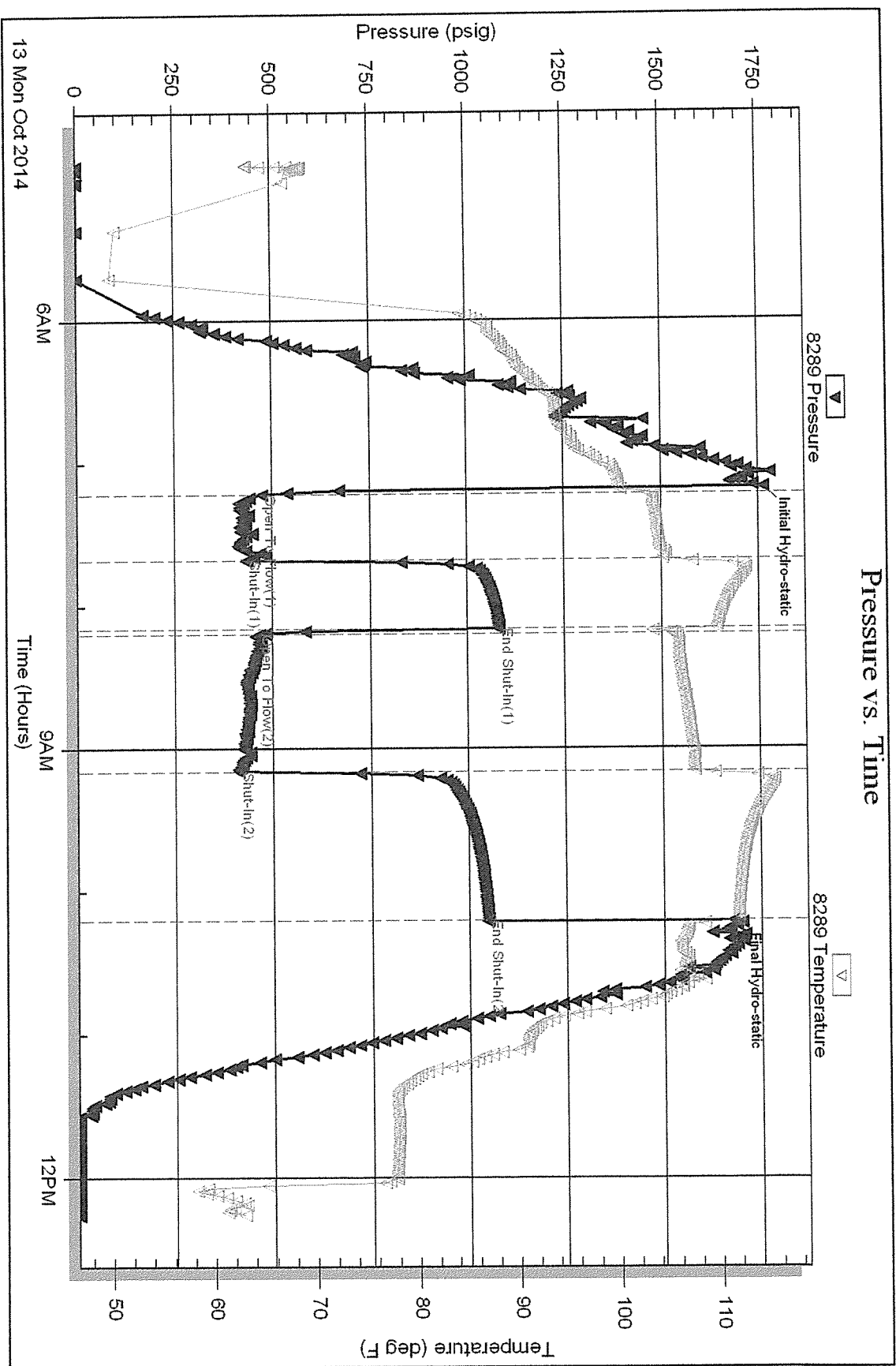
Outside

Palomino Petroleum Inc

Dyer-Tammen # 1

DST Test Number: 3

### Pressure vs. Time





# Mud-Co / Service Mud. Inc.

100 S. Main St., Suite #310, Wichita, Ks. 67202

Report: **8**

## Daily Drilling Mud Report

Date: **10/13/14** Depth: **3607**

Operator <b>Palomino Petroleum</b>	Contractor <b>Pickrell Drilling</b>	Rig No. <b>10</b>
Address <b>Rig</b>	Address <b>Rig</b>	Spud Date <b>10/02/14</b>
Report for Mr. <b>Nick Gerstner</b>	Report for Mr. <b>Mike Kern</b>	Section <b>12</b> Twp <b>19S</b> Range <b>16W</b>
Well Name & No. <b>Dyer Tammen #1</b>	County <b>Rush</b>	State <b>Kansas</b>

Operation Present Activity <b>DST 3</b>	Casing <b>8 5/8 in. at 1020</b>	Mud Volume (BBL) Hole <b>307</b> Pits <b>400</b>	Circulation Data	
Bit Size (in.) <b>7 7/8</b>	No <b>2</b>	Total Circulating Vol. <b>707</b>	Liner Size <b>6</b>	Stroke <b>14</b>
Drill pipe sz <b>4 1/2</b>	Type <b>XH</b>	Volume in Storage <b>0</b>	Opposite Drill Pipe <b>203</b>	Pump Pressure <b>-</b>
Drill Collar size <b>6 1/4</b>	Drilling mud type <b>chemical</b>	Est. Hole/DS capacities <b>8.5 2.4747</b>	Opposite Drill Collars <b>369</b>	Pump Make <b>Emsco</b>
		BBL/Strk <b>0.137</b>	Strk / Min. <b>60</b>	Bottoms Up (Min.) <b>32</b>
		BBL./Min. <b>8.2</b>	GAL/Min. <b>345</b>	System Total (Min) <b>86</b>
				Critical GPM DC/DP <b>261 334</b>

Sample from Flowline ___ or Pit _x_	Daily Mud Cost <b>880.05</b>	Cumulative Mud Cost <b>11,301.70</b>
Flowline Temperature _____	MUD PROPERTIES SPECIFICATIONS	
Mud Properties	Mud Wt. (lbs/gal.) <b>9.0-9.4</b>	Viscosity <b>46-50</b>
	Filtrate <b>8-10.0cc</b>	LCM <b>as needed</b>

Time Sample Taken	8:10 AM
Depth (Ft.)	<b>3,607</b>
Weight (lb/gal.)	<b>9.25</b>
Mud Gradient (psi/ft.)	<b>0.481</b>
Funnel Viscosity (Sec/qt. API)	<b>62</b>
Plastic Viscosity cp	<b>17</b>
Yield Point (lb/100 sq.ft.)	<b>13</b>
Gel Strength 10 sec/10 min.	<b>11/65</b>
pH	<b>10.5</b>
Filtrate API (ml/30 min.)	<b>10.4</b>
Cake Thickness 32nd	<b>1</b>
Alkalinity, Mud (Pm)	<b>-</b>
Alkalinity, Filtrate (Pf/Mf)	<b>.55/-</b>
Chloride Content, ppm	<b>5,800</b>
Calcium, ppm	<b>20</b>
Sand Content (% by Vol)	<b>Tr</b>
Solids Content (% by Vol.)	<b>6.8</b>
Oil Content (% by Vol.)	<b>0.0</b>
Water Content (% by Vol.)	<b>93.2</b>
LCM, lbs/bbl.	<b>0</b>
Reynold's #DP	<b>2,090</b>
Reynold's # DC	<b>2,924</b>
ECD lb/gal	<b>9.81</b>

Suggest...

Run small stream of water at flowline while drilling to control mud wt. 9.0-9.4 #/gal.

Maintain 46-50 sec/qt. viscosity with the following premix  
100 bbls fresh water

1 Soda Ash  
2 Caustic \*Add premix after DST #2, then as needed for vis or to control mud wt.  
1 1/2 sx Lignite  
1/2 sx Pac

Gel f/ 50 vis Jet and add over 1 1/2 hours  
Gel only as needed, no need for extremely high viscosity

LCM as needed with c/s hulls

Tourly while drilling: 1 sx Caustic  
1/2 sx Lignite

\*Add tourly at chemical bbl, add to system over 2 hours every tour that no premix is added

Trip slowly and don't shake pipe, break circulation on all TIH w/ bit

# Circulate hole clean prior to all trips and keep hole full

# Divert all DST recovery to reserve pit

# If viscosity begins to climb, do not run an excessive amount of water to thin back, jet volume and clean a pit and add above premix with Gel f/ 45-50 sec/qt. viscosity

# Please keep all material covered as needed... Thanks!

DRILLING MUD INVENTORY					
Products:	Prior Day	Delivery	On Hand	Used	Cost
Premium Gel	145		115	30	552.00
Lime	6		6		
Soda Ash	15		14	1	25.85
Caustic Soda	8		5	3	198.45
Lignite	8		5	3	85.80
C/S Hulls	59		58	1	17.95
Drill Pak	2		2		
Desco	3		3		
Poly Plus	2		2		
Florigel					
Xcide					
Sapp	2		2		
Barite					
MilGuard					

Mud-Co / Service Mud Representative  
**Jason Whiting**

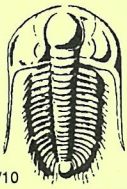
Home Address  
**Great Bend, Kansas**

Telephone Number  
**620-792-4544**

Cell: **620-282-0556**

Warehouse Location  
**Hays, Kansas**

Telephone Number  
**785-621-4232**



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 56150

4/10

Well Name & No. Duc-Tammen #1 Test No. 2 Date 10-12-14  
 Company Palomino Petroleum, Inc. Elevation 2005 KB 1998 GL  
 Address 4924 SE 84th St, Newton KS 67114-8827  
 Co. Rep / Geo. Andrew Stepezel Rig Pickrell #10  
 Location: Sec. 12 Twp. 19<sup>s</sup> Rge. 16<sup>w</sup> Co. Rush State KS

Interval Tested 3448-3501 Zone Tested LKC "I+J"  
 Anchor Length 53 Drill Pipe Run 3440 Mud Wt. 9.4  
 Top Packer Depth 3443 Drill Collars Run 0 Vis 72  
 Bottom Packer Depth 3448 Wt. Pipe Run 0 WL 10.8  
 Total Depth 3501 Chlorides 7200 ppm System LCM 0

Blow Description IFF - BOB in 6min.  
ISIP - Surface Blow in 3min.  
FFP - BOB in 10min.  
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>110</u>	<u>WCM</u>		<u>30</u>	<u>70</u>	
<u>560</u>	<u>MCW</u>		<u>95</u>	<u>5</u>	

Rec Total 670 BHT 116 Gravity \_\_\_\_\_ API RW .195 @ 63 °F Chlorides 42000 ppm

(A) Initial Hydrostatic 1724  Test \_\_\_\_\_ T-On Location 06:35  
 (B) First Initial Flow 32  Jars \_\_\_\_\_ T-Started 07:02  
 (C) First Final Flow 179  Safety Joint \_\_\_\_\_ T-Open 08:57  
 (D) Initial Shut-In 1072  Circ Sub \_\_\_\_\_ T-Pulled 10:57  
 (E) Second Initial Flow 184  Hourly Standby \_\_\_\_\_ T-Out 13:12  
 (F) Second Final Flow 307  Mileage \_\_\_\_\_ Comments \_\_\_\_\_  
 (G) Final Shut-In 1046  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1644  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total \_\_\_\_\_  
 Day Standby \_\_\_\_\_ Total \_\_\_\_\_  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total \_\_\_\_\_

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

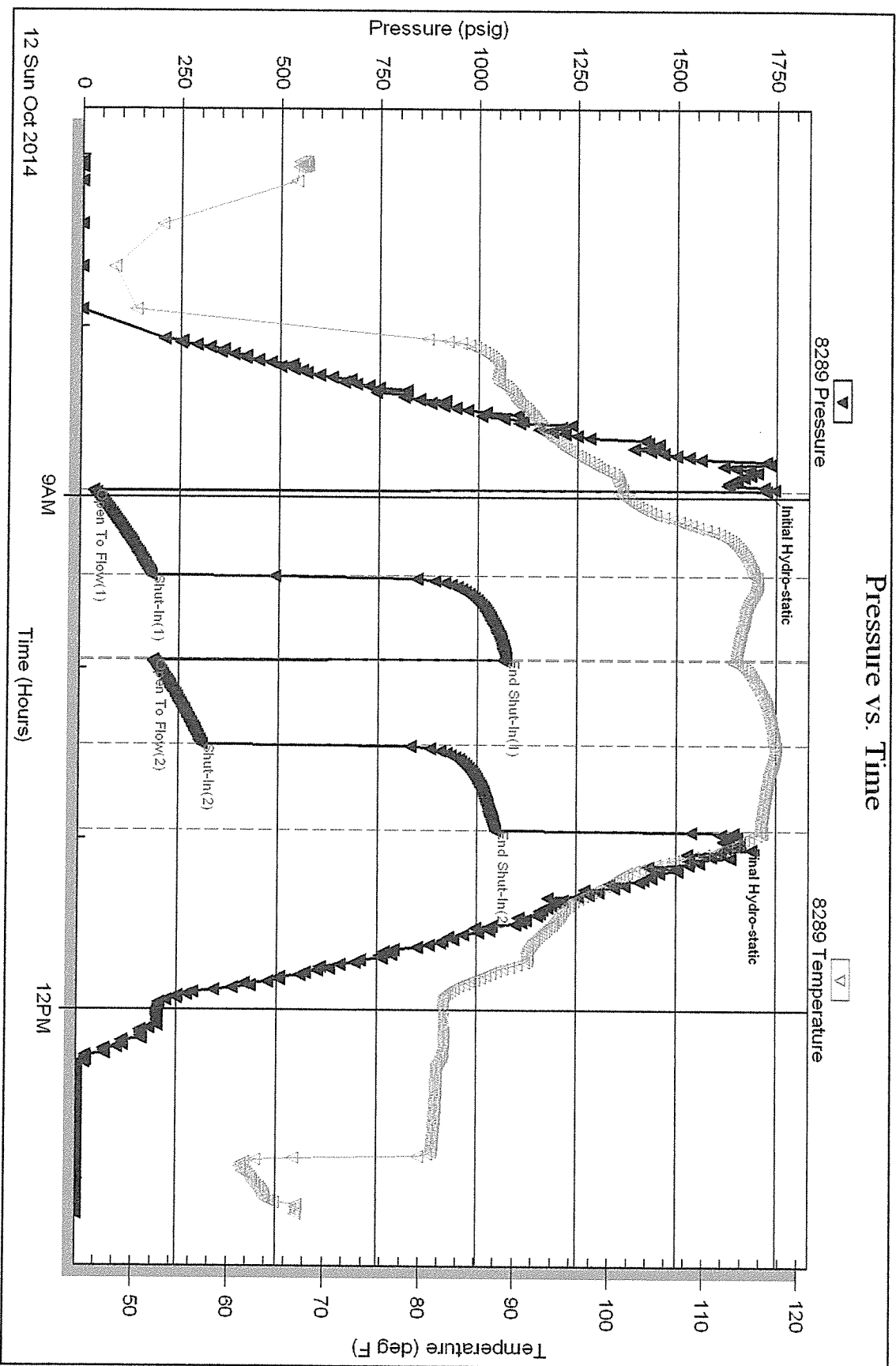
Approved By \_\_\_\_\_ Our Representative [Signature]  
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements 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.

Serial #: 8289

Outside Palomiro Petroleum Inc

Dyer-Tannen # 1

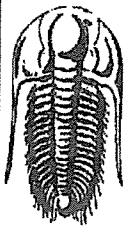
DST Test Number: 2



Triobrite Testing, Inc

Ref. No: 56150

Printed: 2014.10.12 @ 13:20:50



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Palomino Petroleum Inc  
 4924 SE 84th St  
 Newton KS 67114-8827  
 ATTN: Andrew Stenzel

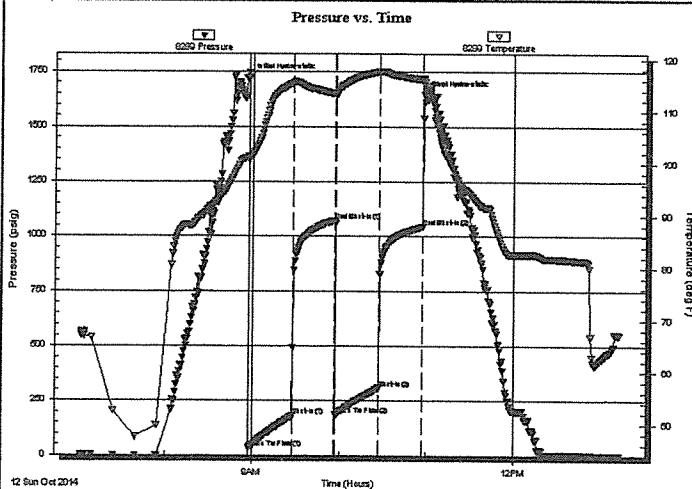
**12 19s 16w Rush**  
**Dyer-Tammen # 1**  
 Job Ticket: 56150 **DST#: 2**  
 Test Start: 2014.10.12 @ 07:02:00

## GENERAL INFORMATION:

Formation: **LKC "I & J"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 08:57:30  
 Time Test Ended: 13:12:00  
 Interval: **3448.00 ft (KB) To 3501.00 ft (KB) (TVD)**  
 Total Depth: 3501.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Jim Svaty  
 Unit No: 76  
 Reference Elevations: 2005.00 ft (KB)  
 1998.00 ft (CF)  
 KB to GR/CF: 7.00 ft

**Serial #: 8289 Outside**  
 Press@RunDepth: 307.56 psig @ 3450.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.10.12 End Date: 2014.10.12 Last Calib.: 2014.10.12  
 Start Time: 07:02:00 End Time: 13:12:00 Time On Btm: 2014.10.12 @ 08:57:15  
 Time Off Btm: 2014.10.12 @ 10:57:45

**TEST COMMENT:** 30-IFP- BOB in 6min.  
 30-ISIP- Surface Blow in 3min.  
 30-FFP- BOB in 10min.  
 30-FSIP- No Blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1724.85	101.45	Initial Hydro-static
1	32.68	100.79	Open To Flow (1)
30	179.77	115.42	Shut-In(1)
60	1072.11	113.43	End Shut-In(1)
60	184.60	113.09	Open To Flow (2)
90	307.56	117.55	Shut-In(2)
120	1046.00	116.09	End Shut-In(2)
121	1644.32	116.15	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
110.00	WCM 30%w 70%w	1.54
560.00	MCW 5%w 95%w	7.86

\* Recovery from multiple tests

## Gas Rates

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

# Mud-Co / Service Mud, Inc.

100 S. Main St., Suite #310, Wichita, Ks. 67202

Report: **5**

## Daily Drilling Mud Report

Date: **10/10/14** Depth: **2925**

Operator <b>Palomino Petroleum</b>		Contractor <b>Pickrell Drilling</b>		Rig No. <b>10</b>	
Address <b>Rig</b>		Address <b>Rig</b>		Spud Date <b>10/02/14</b>	
Report for Mr. <b>Nick Gerstner</b>		Report for Mr. <b>Mike Kern</b>		Section <b>12</b>	
Well Name & No. <b>Dyer Tammen #1</b>		County <b>Rush</b>		Twp <b>19S</b>	
		State <b>Kansas</b>		Range <b>16W</b>	

Operation <b>drilling</b>		Casing <b>8 5/8 in. at 1020</b>		Mud Volume (BBL) Hole <b>252</b> Pits <b>400</b>		Circulation Data	
Present Activity		Intermediate in. at		Total Circulating Vol. <b>652</b>		Opposite Drill Pipe <b>203</b>	
Bit Size (in.) <b>7 7/8</b>		Production / Liner in. at		Volume in Storage <b>0</b>		Opposite Drill Collars <b>369</b>	
No <b>2</b>		Drill pipe sz <b>4 1/2</b>		BB/ Strk <b>0.137</b>		Pump Pressure <b>700</b>	
Type <b>XH</b>		Drill Collar size <b>6 1/4</b>		Strk / Min. <b>60</b>		Pump Make <b>Emsco</b>	
Drilling mud type <b>chemical</b>		BBL/Min. <b>8.2</b>		GAL/Min. <b>345</b>		Bottoms Up (Min.) <b>26</b>	
		System Total (Min.) <b>79</b>		Critical GPM DC/DP <b>169</b>		Pump Model <b>D-375</b>	

Sample from Flowline _x_ or Pit _		Daily Mud Cost <b>751.85</b>		Cumulative Mud Cost <b>6,008.15</b>	
Flowline Temperature		Mud Properties		MUD PROPERTIES SPECIFICATIONS	

Time Sample Taken 8:20 AM		Mud Wt. (lbs/gal.) <b>9.0-9.4</b>		Viscosity <b>46-50</b>		Filtrate <b>8-10.0cc</b>		LCM <b>as needed</b>	
------------------------------	--	--------------------------------------	--	---------------------------	--	-----------------------------	--	-------------------------	--

Depth (Ft.)	<b>2,925</b>
Weight (lb/gal.)	<b>8.5</b>
Mud Gradient (psi/ft.)	<b>0.442</b>
Funnel Viscosity (Sec/qt. API)	<b>37</b>
Plastic Viscosity cp	<b>8</b>
Yield Point (lb/100 sq.ft.)	<b>7</b>
Gel Strength 10 sec/10 min.	<b>5/20</b>
pH	<b>10.5</b>
Filtrate API (ml/30 min.)	<b>12.0</b>
Cake Thickness 32nd	<b>1</b>
Alkalinity, Mud (Pm)	<b>-</b>
Alkalinity, Filtrate (Pf/Mf)	<b>1.07/-</b>
Chloride Content, ppm	<b>3,300</b>
Calcium, ppm	<b>20</b>
Sand Content (% by Vol)	<b>Tr</b>
Solids Content (% by Vol.)	<b>2.0</b>
Oil Content (% by Vol.)	<b>0.0</b>
Water Content (% by Vol.)	<b>98.0</b>
LCM, lbs/bbl.	<b>0</b>
Reynold's #DP	<b>3,693</b>
Reynold's # DC	<b>5,385</b>
ECD lb/gal	<b>9.07</b>

Suggest...

Run small stream of water at flowline while drilling to control mud wt. 9.0-9.4 #/gal.

Mix the following premix, add to system over 1 1/2 hours today on daylites for vis and volume

- 120 bbls fresh water
- 2 Soda Ash
- 1 Caustic
- 1 Lignite
- 1 sx Pac
- Gel as needed

After above premix is added, maintain 46-50 sec/qt. viscosity with the following premix

- 50 bbls fresh water/ 50 bbls pit mud
- 2 Soda Ash
- 2 Caustic
- 1 Lignite
- 1/2 sx Pac
- Gel as needed

\*Add premix as needed for vis, add as needed over 1 1/2 hours

DRILLING MUD INVENTORY					
Products:	Prior Day	Delivery	On Hand	Used	Cost
Premium Gel	270		260	10	184.00
Lime	6		6		
Soda Ash	25		23	2	51.70
Caustic Soda	19		17	2	132.30
Lignite	15		15		
C/S Hulls	79		76	3	53.85
Drill Pak	6		5	1	330.00
Desco	3		3		
Poly Plus	2		2		
Florigel					
Xcide					
Sapp	2		2		
Barite					
MilGuard					

# LCM as needed with c/s hulls

# Tourly while drilling: 1 sx Caustic  
1/2 sx Lignite

\*Add tourly at chemical bbl, add to system over 2 hours every tour that no premix is added

# Suggest short trip prior to DST #1, trip slowly and don't shake pipe, break circulation on all TIH w/ bit

# Circulate hole clean prior to all trips and keep hole full

# Please keep all material covered as needed... Thanks!

Mud-Co / Service Mud Representative  
**Jason Whiting**

Home Address  
**Great Bend, Kansas**

Telephone Number  
**620-792-4544**

Cell: **620-282-0556**

Warehouse Location  
**Hays, Kansas**

Telephone Number  
**785-621-4232**

# Mud-Co / Service Mud, Inc.

100 S. Main St., Suite #310, Wichita, Ks. 67202

Report: **6**

## Daily Drilling Mud Report

Date: **10/11/14** Depth: **3402**

Operator <b>Palomino Petroleum</b>	Contractor <b>Pickrell Drilling</b>	Rig No. <b>10</b>
Address <b>Rig</b>	Address <b>Rig</b>	Spud Date <b>10/02/14</b>
Report for Mr. <b>Nick Gerstner</b>	Report for Mr. <b>Mike Kern</b>	Section <b>12</b> Twp <b>19S</b> Range <b>16W</b>
Well Name & No. <b>Dyer Tammen #1</b>	County <b>Rush</b>	State <b>Kansas</b>

Operation Present Activity <b>CTCH</b>	Casing <b>8 5/8 in. at 1020</b>	Mud Volume (BBL) Hole <b>289</b> Pits <b>400</b>	Liner Size <b>6</b> Stroke <b>14</b>	Circulation Data Opposite Drill Pipe <b>203</b> Pump Pressure <b>900</b>	
Bit Size (in.) <b>7 7/8</b> No <b>2</b>	Intermediate in. at	Total Circulating Vol. <b>689</b>	Est. Hole/DS capacities <b>8.5 2.4747</b>	Opposite Drill Collars <b>369</b>	Pump Make <b>Emsco</b>
Drill pipe sz <b>4 1/2</b> Type <b>XH</b>	Production / Liner in. at	Volume in Storage <b>0</b>	BBL/ Strk <b>0.137</b> Strk / Min. <b>60</b>	Bottoms Up (Min.) <b>30</b>	Pump Model <b>D-375</b>
Drill Collar size <b>6 1/4</b> <b>503</b>	Drilling mud type <b>chemical</b>	BBL./Min. <b>8.2</b> GAL/Min. <b>345</b>	System Total (Min) <b>84</b>	Critical GPM DC/DP <b>261 343</b>	

Sample from Flowline x__ or Pit __	Daily Mud Cost <b>3,955.75</b>	Cumulative Mud Cost <b>9,963.90</b>
Flowline Temperature _____	Mud Properties	

Time Sample Taken	8:35 AM
Depth (Ft.)	<b>3,402</b>
Weight (lb/gal.)	<b>9.3</b>
Mud Gradient (psi/ft.)	<b>0.484</b>
Funnel Viscosity (Sec/qt. API)	<b>62</b>
Plastic Viscosity cp	<b>16</b>
Yield Point (lb/100 sq.ft.)	<b>14</b>
Gel Strength 10 sec/10 min.	<b>13/65</b>
pH	<b>9.5</b>
Filtrate API (ml/30 min.)	<b>10.8</b>
Cake Thickness 32nd	<b>1</b>
Alkalinity, Mud (Pm)	<b>-</b>
Alkalinity, Filtrate (Pf/Mf)	<b>.26/-</b>
Chloride Content, ppm	<b>5,600</b>
Calcium, ppm	<b>30</b>
Sand Content (% by Vol)	<b>Tr</b>
Solids Content (% by Vol.)	<b>6.8</b>
Oil Content (% by Vol.)	<b>0.0</b>
Water Content (% by Vol.)	<b>93.2</b>
LCM, lbs/bbl.	<b>0</b>
Reynold's #DP	<b>2,020</b>
Reynold's # DC	<b>2,946</b>
ECD lb/gal	<b>9.88</b>

MUD PROPERTIES SPECIFICATIONS			
Mud Wt. (lbs/gal.)	Viscosity	Filtrate	LCM
<b>9.0-9.4</b>	<b>46-50</b>	<b>8-10.0cc</b>	<b>as needed</b>

Suggest...

Run small stream of water at flowline while drilling to control mud wt. 9.0-9.4 #/gal.

Maintain 46-50 sec/qt. viscosity with the following premix  
 100 bbls fresh water  
 1 SODa Ash  
 1 Caustic \*Add premix as needed for vis or to control mud wt.  
 1 1/2 sx Lignite  
 1/2 sx Pac  
 Gel f/ 50 vis Add as needed over 1 1/2 hours  
 Gel only as needed, no need for extremely high viscosity

LCM as needed with c/s hulls

Tourly while drilling: 1 sx Caustic  
 1/2 sx Lignite  
 \*Add tourly at chemical bbl, add to system over 2 hours every tour that no premix is added

Trip slowly and don't shake pipe, break circulation on all TIH w/ bit

# Circulate hole clean prior to all trips and keep hole full

# Divert all DST recovery to reserve pit

# If viscosity begins to climb, do not run a big amount of water to thin back, jet volume and clean a pit and add above premix with Gel f/ 45-50 sec/qt. viscosity

# Please keep all material covered as needed... Thanks!

DRILLING MUD INVENTORY					
Products:	Prior Day	Delivery	On Hand	Used	Cost
Premium Gel	260		165	95	1,748.00
Lime	6		6		
Soda Ash	23		15	8	206.80
Caustic Soda	17		8	9	595.35
Lignite	15		8	7	200.20
C/S Hulls	76		64	12	215.40
Drill Pak	5		2	3	990.00
Desco	3		3		
Poly Plus	2		2		
Florigel					
Xcide					
Sapp	2		2		
Barite					
MiiGuard					

Mud-Co / Service Mud Representative  
**Jason Whiting**

Home Address  
**Great Bend, Kansas**

Telephone Number  
**620-792-4544**

Cell: 620-282-0556

Warehouse Location  
**Hays, Kansas**

Telephone Number  
**785-621-4232**

# Mud-Co / Service Mud. Inc.

100 S. Main St., Suite #310, Wichita, Ks. 67202

Report: 7

## Daily Drilling Mud Report

Date: **10/12/14** Depth: **3501**

Operator <b>Palomino Petroleum</b>	Contractor <b>Pickrell Drilling</b>	Rig No. <b>10</b>
Address <b>Rig</b>	Address <b>Rig</b>	Spud Date <b>10/02/14</b>
Report for Mr. <b>Nick Gerstner</b>	Report for Mr. <b>Mike Kern</b>	Section <b>12</b> Twp <b>19S</b> Range <b>16W</b>
Well Name & No. <b>Dyer Tammen #1</b>	County <b>Rush</b>	State <b>Kansas</b>

Operation		Casing		Mud Volume (BBL)		Circulation Data			
Present Activity				Hole	Pits	Liner Size	Stroke	Opposite Drill Pipe	Pump Pressure
<b>TIH w/ DST 1</b>		<b>8 5/8</b>	<b>in. at 1020</b>	<b>298</b>	<b>400</b>	<b>6</b>	<b>14</b>	<b>203</b>	<b>-</b>
Bit Size (in.)	No	Intermediate		Total Circulating Vol.		Est.Hole/DS capacities		Opposite Drill Collars	Pump Make
<b>7 7/8</b>	<b>2</b>	<b>in. at</b>		<b>698</b>		<b>8.5</b>	<b>2.4747</b>	<b>369</b>	<b>EmSCO</b>
Drill pipe sz	Type	Production / Liner		Volume in Storage		BBI/ Strk	Strk / Min.	Bottoms Up (Min.)	Pump Model
<b>4 1/2</b>	<b>XH</b>	<b>in. at</b>		<b>40 bbls</b>		<b>0.137</b>	<b>60</b>	<b>31</b>	<b>D-375</b>
Drill Collar size	Drilling mud type		BBL/Min.		GAL/Min.	System Total (Min)		Critical GPM DC/DP	
<b>6 1/4</b>	<b>503</b>	<b>chemical</b>		<b>8.2</b>	<b>345</b>	<b>85</b>		<b>258</b>	<b>330</b>

Sample from Flowline ___ or Pit _x_	Daily Mud Cost	Cumulative Mud Cost
Flowline Temperature _____	<b>457.75</b>	<b>10,421.65</b>

MUD PROPERTIES SPECIFICATIONS			
Mud Wt.(lbs/gal.)	Viscosity	Filtrate	LCM
<b>9.0-9.4</b>	<b>46-50</b>	<b>8-10.0cc</b>	<b>as needed</b>

Mud Properties	
Time Sample Taken	8:25 AM
Depth (Ft.)	3,501
Weight (lb/gal.)	9.4
Mud Gradient (psi/ft.)	0.489
Funnel Viscosity (Sec/qt. API)	72
Plastic Viscosity cp	17
Yield Point (lb/100 sq.ft.)	13
Gel Strength 10 sec/10 min.	12/65
pH	9.5
Filtrate API (ml/30 min.)	10.8
Cake Thickness 32nd	1
Alkalinity, Mud (Pm)	-
Alkalinity, Filtrate (Pf/Mf)	.31/-
Chloride Content, ppm	7,200
Calcium, ppm	40
Sand Content (% by Vol)	Tr
Solids Content (% by Vol.)	7.4
Oil Content (% by Vol.)	0.0
Water Content (% by Vol.)	92.6
LCM, lbs/bbl.	0
Reynold's #DP	2,123
Reynold's # DC	2,972
ECD lb/gal	9.98

Suggest...

Run small stream of water at flowline while drilling to control mud wt. 9.0-9.4 #/gal.

Maintain 46-50 sec/qt. viscosity with the following premix  
100 bbls fresh water

1 Soda Ash

2 Caustic

1 1/2 sx Lignite

1/2 sx Pac

Gel f/ 50 vis

\*Add premix after DST #2, then as needed for vis or to control mud wt.

Jet and add over 1 1/2 hours

Gel only as needed, no need for extremely high viscosity

LCM as needed with c/s hulls

Tourly while drilling: 1 sx Caustic  
1/2 sx Lignite

\*Add tourly at chemical bbl, add to system over 2 hours every tour that no premix is added

Trip slowly and don't shake pipe, break circulation on all TIH w/ bit

# Circulate hole clean prior to all trips and keep hole full

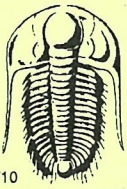
# Divert all DST recovery to reserve pit

# If viscosity begins to climb, do not run an excessive amount of water to thin back, jet volume and clean a pit and add above premix with Gel f/ 45-50 sec/qt. viscosity

# Please keep all material covered as needed... Thanks!

DRILLING MUD INVENTORY					
Products:	Prior Day	Delivery	On Hand	Used	Cost
Premium Gel	165		145	20	368.00
Lime	6		6		
Soda Ash	15		15		
Caustic Soda	8		8		
Lignite	8		8		
C/S Hulls	64		59	5	89.75
Drill Pak	2		2		
Desco	3		3		
Poly Plus	2		2		
Florigel					
Xoide					
Sapp	2		2		
Barite					
MilGuard					

Mud-Co / Service Mud Representative <b>Jason Whiting</b>	Home Address <b>Great Bend, Kansas</b>	Telephone Number <b>620-792-4544</b>
Cell: <b>620-282-0556</b>	Warehouse Location <b>Hays, Kansas</b>	Telephone Number <b>785-621-4232</b>



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 56149

4/10

Well Name & No. Dyer-Jammen #1 Test No. 1 Date 10-11-14  
 Company Palomino Petroleum, Inc. Elevation 2005 KB 1998 GL  
 Address 4924 SE 84th St, Newton KS 67114-8827  
 Co. Rep / Geo. Andrew Stenzel Rig Pickrell #10  
 Location: Sec. 12 Twp. 19S Rge. 16W Co. Rush State KS

Interval Tested 3372 - 3402 Zone Tested LKC  
 Anchor Length 30 Drill Pipe Run 3376 Mud Wt. 9.3  
 Top Packer Depth 3367 Drill Collars Run 0 Vis 62  
 Bottom Packer Depth 3372 Wt. Pipe Run 0 WL 10.8  
 Total Depth 3402 Chlorides 5600 ppm System LCM 0

Blow Description IFP - Surface Blow Building to 2 3/4 in.  
ISIP - No Blow  
FFP - Surface Blow Building to 3 3/4 in.  
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>80</u>	<u>MCW</u>			<u>85</u>	<u>15</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 80 BHT 111 Gravity \_\_\_\_\_ API RW .305 @ 65 ° F Chlorides 24500 ppm

(A) Initial Hydrostatic 1700  Test \_\_\_\_\_ T-On Location 09:10  
 (B) First Initial Flow 20  Jars \_\_\_\_\_ T-Started 12:43  
 (C) First Final Flow 30  Safety Joint \_\_\_\_\_ T-Open 14:30  
 (D) Initial Shut-In 988  Circ Sub \_\_\_\_\_ T-Pulled 17:30  
 (E) Second Initial Flow 31  Hourly Standby \_\_\_\_\_ T-Out 19:35  
 (F) Second Final Flow 53  Mileage 102 RT Comments \_\_\_\_\_  
 (G) Final Shut-In 956  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1598  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_

Initial Open 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 30  Extra Recorder \_\_\_\_\_ Sub Total \_\_\_\_\_  
 Final Flow 60  Day Standby \_\_\_\_\_ Total \_\_\_\_\_  
 Final Shut-In 60  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total \_\_\_\_\_

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**

# DRILL STEM TEST REPORT

Palomino Petroleum Inc

**12 19s 16w Rush**

4924 SE 84th St  
New ton KS 67114-8827

**Dyer-Tammen # 1**

ATTN: Andrew Stenzel

Job Ticket: 56149

**DST#: 1**

Test Start: 2014.10.11 @ 12:43:00

## GENERAL INFORMATION:

Formation: **LKC**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:30:45

Time Test Ended: 19:35:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jim Svaty

Unit No: 76

Interval: **3372.00 ft (KB) To 3402.00 ft (KB) (TVD)**

Reference Elevations: 2005.00 ft (KB)

Total Depth: 3402.00 ft (KB) (TVD)

1998.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

**Serial #: 8289 Outside**

Press@RunDepth: 53.25 psig @ 3374.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.10.11

End Date:

2014.10.11

Last Calib.:

2014.10.11

Start Time: 12:43:00

End Time:

19:35:00

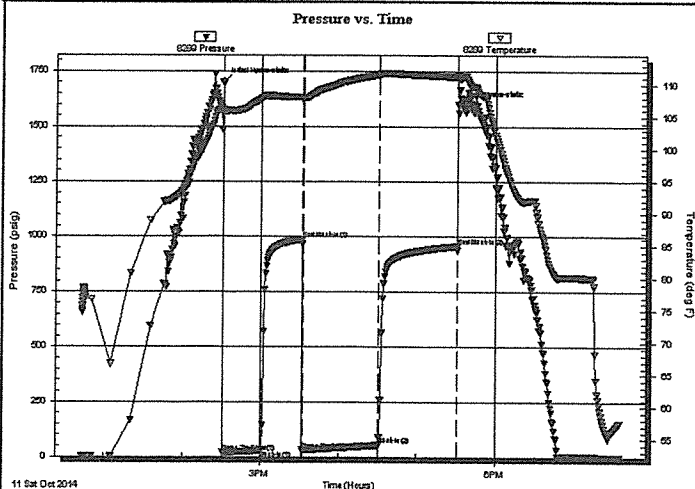
Time On Btm:

2014.10.11 @ 14:30:30

Time Off Btm:

2014.10.11 @ 17:31:15

**TEST COMMENT:** 30-IFP- Surface Blow Building to 2 3/4in.  
30-ISIP- No Blow  
60-FFP- Surface Blow Building to 3 3/4in.  
60-FSIP- No Blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1700.36	106.22	Initial Hydro-static
1	20.02	105.72	Open To Flow (1)
30	30.23	107.87	Shut-In(1)
61	988.19	108.10	End Shut-In(1)
62	31.02	107.48	Open To Flow (2)
120	53.25	111.56	Shut-In(2)
181	956.28	111.22	End Shut-In(2)
181	1598.75	111.43	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
80.00	MCW 15% m 85% w	1.12

## Gas Rates

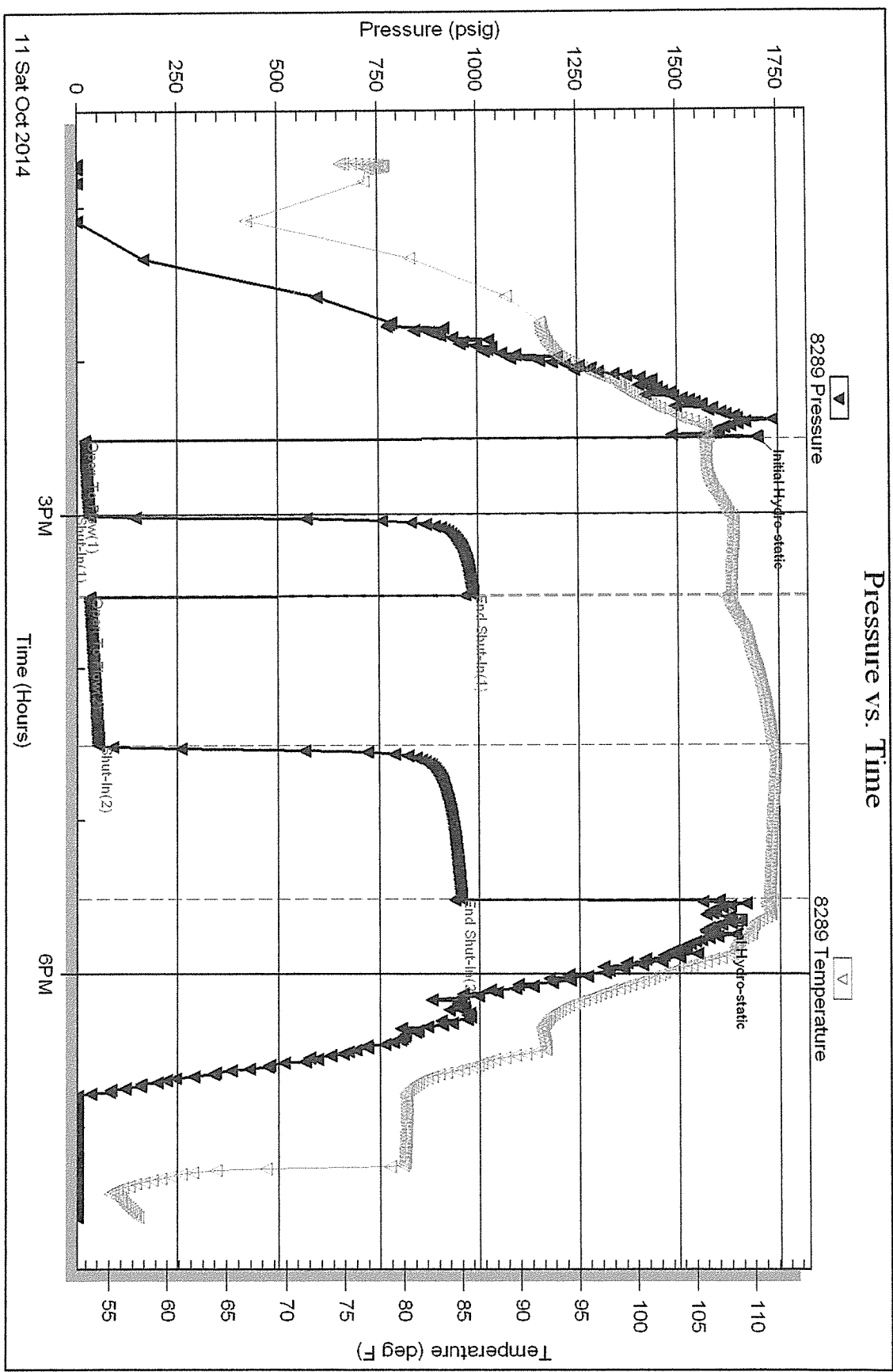
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

Serial #: 8289

Outside Palomino Petroleum Inc

Dye-Tamman # 1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 56149

Printed: 2014.10.11 @ 19:42:35

14-T19S-R15W 8-19-T19S-R15W Kansas Geological Survey | Esri | HERE | DeLorme, Intermap

2009  
629 m  
Egiblin  
Baker 1-2

1982

626 m

1984

1947

1983

Orcutt  
Harsh  
1982/1982

Hart-Harkin

1946

IceT Addis  
1979 Dyer B 1

1983

1982

633 m

IceT Addis  
1976 Damm

Damm  
1975

Woodman Damm 1  
1971/1966/1977/1955/1958-R15W

IceT Addis  
1975 Dyer 1  
Curtis  
Dyer 1 1985

Tested Larsen  
2 times  
Curtis  
1975  
Dyer 1  
1985

637 m  
1977

Edvinson  
Peterson 1

Edvinson  
Peterson 1

Vicki  
Miller  
1983

IceT Addis  
1976 Miller  
1985

Bradson  
Peterson

637 m  
1974

Bradson  
Peterson

Tipton  
Miller  
1983

Tipton  
Miller  
1973

Schraeder  
1  
1968

Tipton  
Miller  
1973

S. Miller  
1973

C.H. Newell  
Schraeder 2

14-T19S-R15W 8-19-T19S-R15W Kansas Geological Survey | Esri | HERE | DeLorme, Intermap