

Confidentiality Requested:

Yes No

### Kansas Corporation Commission Oil & Gas Conservation Division

1259928

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 #			API No. 15		
Name:			Spot Description:		
Address 1:			SecTwp S. R		
Address 2:			Feet from North / South Line of Section		
City:	State: Z	ip:+	Fe	eet from East /	West Line of Section
Contact Person:			Footages Calculated from I	Nearest Outside Section C	Corner:
Phone: ()			□ NE □ NW	V □SE □SW	
CONTRACTOR: License #			GPS Location: Lat:	, Long: _	
Name:				(e.g. xx.xxxxx)	(e.gxxx.xxxxx)
Wellsite Geologist:			Datum: NAD27	NAD83 WGS84	
Purchaser:			County:		
Designate Type of Completion:			Lease Name:	W	/ell #:
	e-Entry	Workover	Field Name:		
	_		Producing Formation:		
☐ Oil ☐ WSW ☐ D&A	☐ SWD	∐ SIOW □ SIGW	Elevation: Ground:	Kelly Bushing:	:
	GSW	Temp. Abd.	Total Vertical Depth:	Plug Back Total C	Depth:
CM (Coal Bed Methane)	dow	Temp. Abd.	Amount of Surface Pipe Se	et and Cemented at:	Feet
☐ Cathodic ☐ Other (Co	ore, Expl., etc.):		Multiple Stage Cementing	Collar Used? Yes	No
If Workover/Re-entry: Old Well I			If yes, show depth set:		Feet
Operator:			If Alternate II completion, c	cement circulated from:	
Well Name:			feet depth to:	w/	sx cmt.
Original Comp. Date:					
Deepening Re-perf	•	NHR Conv. to SWD	Drilling Fluid Managemer	nt Plan	
☐ Plug Back	Conv. to G		(Data must be collected from the		
Commingled	Pormit #:		Chloride content:	ppm Fluid volume	e: bbls
Dual Completion			Dewatering method used: _		
SWD			Location of fluid disposal if	hauled offsite	
☐ ENHR			1		
GSW	Permit #:		Operator Name:		
_ <del>_</del>			Lease Name:	License #:_	
Spud Date or Date R	eached TD	Completion Date or	Quarter Sec	TwpS. R	East _ West
Recompletion Date		Recompletion Date	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:					

Page Two



Operator Name:				_ Lease I	Name: _			Well #:	
Sec Twp	S. R	East	West	County	:				
INSTRUCTIONS: Shopen and closed, flow and flow rates if gas to	ring and shut-in press o surface test, along v	ures, whe	ther shut-in pre chart(s). Attach	ssure reac extra shee	hed stati	c level, hydrosta space is neede	tic pressures, b d.	ottom hole temp	erature, fluid recov
Final Radioactivity Lo files must be submitte						ogs must be ema	alled to kcc-well-	logs@kcc.ks.go	v. Digital electronic
Drill Stem Tests Taker (Attach Additional		Y	es No					Sample	
Samples Sent to Geological Survey			es No		Nam	е		Тор	Datum
Cores Taken         ☐ Yes         ☐ No           Electric Log Run         ☐ Yes         ☐ No									
List All E. Logs Run:									
				RECORD	Ne				
	0: 11.1					ermediate, product		" 0 1	T 15
Purpose of String	Size Hole Drilled		ze Casing t (In O.D.)	Weig Lbs.		Setting Depth	Type of Cement	# Sacks Used	Type and Percer Additives
			ADDITIONAL	CEMENTI	NG / SQL	JEEZE RECORD			
Purpose:	Depth Top Bottom	Туре	of Cement	# Sacks	Sacks Used Type and Percent Additives				
Perforate Protect Casing	Top Dottom								
Plug Back TD Plug Off Zone									
1 lug 0 li 20 lio									
Did you perform a hydrau	ulic fracturing treatment	on this well	?			Yes	No (If No, s	skip questions 2 a	nd 3)
Does the volume of the t			-		-			skip question 3)	
Was the hydraulic fractur	ing treatment informatio	n submitted	to the chemical of	disclosure re	gistry?	Yes	No (If No, i	ill out Page Three	of the ACO-1)
Shots Per Foot			RD - Bridge Plug Each Interval Perl				cture, Shot, Ceme	nt Squeeze Recor	rd Depth
						(* *			200
TUBING RECORD:	Size:	Set At:		Packer A	t·	Liner Run:			
		0017111				[	Yes N	o	
Date of First, Resumed	Production, SWD or EN	HR.	Producing Meth	nod:	g 🗌	Gas Lift (	Other (Explain)		
Estimated Production Per 24 Hours	Oil	Bbls.	Gas	Mcf	Wat	er B	bls.	Gas-Oil Ratio	Gravity
DIODOCITI	01.05.040			4ETUOD 05	. 00145/	TION:		DDOD! ICT!	
DISPOSITION Solo	ON OF GAS:  Used on Lease		N Open Hole	∥ETHOD OF Perf.			mmingled	PRODUCTION	ON INTERVAL:
	bmit ACO-18.)		Other (Specify)		(Submit		mit ACO-4)		

Form	ACO1 - Well Completion		
Operator	Palomino Petroleum, Inc.		
Well Name	Osage-Nemaha 1		
Doc ID	1259928		

## Tops

Name	Тор	Datum
Heebner	1497	(-134)
Douglas Sh.	1530	(-167)
Brown Lime	1837	(-474)
Lansing	1886	(-523)
Miss.	2440	(-1077)
Hunton	2720	(-1357)
Viola	2780	(-1417)
LTD	3009	(-1646)



ET NUMBER	46095
LOCATION EL	TERMGBATOD
FOREMAN FUR	in consideration of ce

PO Box 884, Chanute, KS 66720 620-431-9210 or 800-467-8676

# FIELD TICKET & TREATMENT REPORT

020 101 02.0			OFINE	SHORE	O DHE SHIPS BUILD	DECE TO SEE TO SOO!	BR TOTHER OF
DATE	CUSTOMER#	WELL NAME & NUME	BER	SECTION	TOWNSHIP	RANGE	COUNTY
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CUSTOMER	ole to enarantee	hed by others. COWS is unal	Florence				stab ostovni
Polon.	no per	ny chart interpretation, 7	Moun 10	TRUCK#	DRIVER	TRUCK#	DRIVER
MAILING ADDRE		imendation or other data fur-	May 59	446	Josh	n rate allowed	the maximu
tering such	efforts in gath	nnel will use their best indee	To gat	681	Tracey	o icialità all al	O tampage
CITY soldie	I not be respon	STATE ZIP CODE	I w		ows.	es incurred by (	attorney's fe
except where	sh information e	ge arising from the use of su	5-10	a use occupation	ate or incal sale	ble federal st	Silnos vn A
JOB TYPE 5	Page	HOLE SIZE 1211	HOLE DEPTH	102640100	CASING SIZE & W	EIGHT 851	consumer
CASING DEPTH		DRILL PIPE	TUBING	paid to others	es required to be	OTHER	price. All pr
SLURRY WEIGH	T 1407	SLURRY VOL 41.1	WATER gal/s	k 6.5	CEMENT LEFT in	CASING 2	O TIME
DISPLACEMENT	end San Stand	DISPLACEMENT PSI	MIX PSI	out notice.	RATE grado of to	prices are subject	All COWS:
REMARKS: 5	alor lot 12.3	et nos on Sout	hwind	#8, Ric	oup and	derreula	Lewans
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5 Ko, nono	Duspla	ce 15,50 BAN	rels An	al shut	6 No bas strube	mans marine	the sentices
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naterials, and	s. supplies and n	S warrants title to the product	WOO ot	engli ha neagant	of the Customer	tenrecentative	alqisuoqea
manship and	efects in work	the same are free from d	ce that	ed for any servi	or materials use	ths, pressures,	specify dep
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ACCOUNT	QUANITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
54015	a of warranty on otherwise.) a	PUMP CHARGE	87000	87000
5406	sky limited Othe replacem	image and surface damage arising services SPASIIM	439	16800
5407	nator (4 671 8 or their ren	Tow Mileare Delivery	( ub ost	45120
credit for the	n, an allowance to Customer of	alt of the sole willful misconduct or of at CADWS optic	claim is the real	(b) Unless:
11045	1705 KS	Class A. Consider the control of the	1530	266900
1102	500#	Calcium Chloride or demand une or or	los 8 Camage.	39000
:1118B	350=	Gel liew ell and/or a well	11801, 212 1g	7700
1107	100+	Poly, Chake more recovered to the arising them a service operation of the Roll	247	24700
	*	jury to or death of persons, other	y-COWS; (3) a	performed b
		Job 20 8 or any damages	ted to initial	487220
	1	b cess out of or in any way	rount room	101490
		Hoactive material in the well hole;	nth the use of the	connected v
		minding themes Subjects	cement invasion	385730
		s wells with loss of circulation,	ement plugs on	cement or
		ace plug to proper depth. (ii) sub-	tainer to displ	meluding tr
		ding dehydration of cement share	ment plag inch	es to tremen
1/1		e, annulus bridging or plagging, or	lugged float sho	or flashing,
		ost or ten in the wen, or neconning	nell for services	a trwop (111)
Ravin 3737		t may capply cappanain for the	SALES TAX	ezofi deimið
14VIII 3/3/	,7-11	ch tools but will not be liable for caused by the use of such tools.	TOTAL	tumning and
AUTHORIZTION	William	TITLE TITLE	DATE	

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



ET NUMBER	46096
LOCATION EL	TERMS BASOL
FOREMAN	In consideration of the

PO Box 884, Chanute, KS 66720 620-431-9210 or 800-467-8676

# FIELD TICKET & TREATMENT REPORT

20-431-9210 or solidwing terms and conditions.								
DATE	CUSTOMER #	WEL	L NAME & NUME	BER	SECTION	TOWNSHIP	RANGE	COUNTY
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PAloty		201400	by chart or	west 10	TRUCK#	DRIVER	TRUCK #	DRIVER
MAILING ADDRE	nished by C(223	other data fur		TOSHAK	760	Chris	n rate allowed	the maximu
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JOB TYPE P	TA	HOLE SIZE	7718	HOLE DEPTH	30101	CASING SIZE & W	VEIGHT TO TO	consumer's
CASING DEPTH		DRILL PIPE	11,15 X	TUBING	paid to omers	es required to be	OTHER	price. All pu
SLURRY WEIGH	IT 1 MG	SLURRY VOL_	31.3	WATER gal/s	k > ( )	CEMENT LEFT in	CASING	SDER SOUTH
DISPLACEMENT	ackers, and Cus	DISPLACEMEN	IT PSI Hoo tree	MIX PSI	out notice.	RATE	orices are subject	All COMS'
REMARKS: 5	12 th The	eting on	South	# Buin	8. Ris	op and ei	revale-	+ load hole
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ACCOUNT	QUANITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
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		or certaining admitted by physical or content of the content of th	cernent invasiv	noite(main
		n wells with loss of circulation.	cement plugs	cement or
		slace ping to propor depth, (ii) sub-	e failure to dis	moluding ti
		ading dehydration of cement shurv	ment play inc	o to Ingenso
		oe, annulus bridging or plueging, or	dugged float si	or flasking.
		lost or left in the well, or becoming	ole tools being	d (rwob (nr)
		her all of any value. On the line he	SALES TAX	om in agaise
Ravin 3737	1 9	such tools but will not be liable for caused by the use of such tools:	ESTIMATED TOTAL	running and

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



Prepared For: Palomino Petroleum

4924 SE 84th St Newton, KS 67114

ATTN: Sean Deenihan

## Osage-Nemaha #1

## 35-21S-2E Marion,KS

Start Date: 2015.06.06 @ 12:43:55 End Date: 2015.06.06 @ 17:28:10 Job Ticket #: 59766 DST #: 1

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

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



Palomino Petroleum

35-21S-2E Marion, KS

4924 SE 84th St New ton, KS 67114 Osage-Nemaha #1

Job Ticket: 59766

DST#: 1

ATTN: Sean Deenihan

Test Start: 2015.06.06 @ 12:43:55

#### GENERAL INFORMATION:

Formation:

Interval: Total Depth: Hunton

Deviated:

Time Tool Opened: 14:11:25

Time Test Ended: 17:28:10

No Whipstock: ft (KB)

Conventional Bottom Hole (Initial) Test Type:

Leal Cason

Tester: Unit No:

1363.00 ft (KB)

Reference Elevations:

1354.00 ft (CF)

7.88 inches Hole Condition: Good

2540.00 ft (KB) To 2687.00 ft (KB) (TVD)

KB to GR/CF:

9.00 ft

Serial #: 6798 Press@RunDepth:

Hole Diameter:

Inside

18.72 psig @

2687.00 ft (KB) (TVD)

2541.00 ft (KB)

Capacity:

8000.00 psig

Start Date: Start Time:

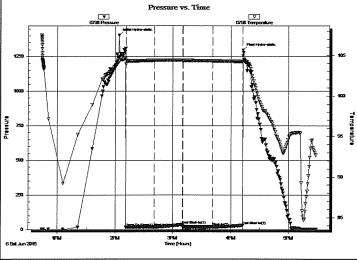
2015.06.06 12:43:56 End Date: End Time: 2015.06.06 17:28:10 Last Calib.:

2015.06.06

Time On Btm: Time Off Btm: 2015.06.06 @ 14:04:10 2015.06.06 @ 16:12:40

TEST COMMENT: IF: Weak Surface Blow

ISI: No Blow Back FF: Weak Surface Blow FSI: No Blow Back



## PRESSURE SUMMARY

	THEOGORE COMMITTEE								
	Time	Pressure	Temp	Annotation					
	(Min.)	(psig)	(deg F)						
	0	1404.41	104.28	Initial Hydro-static					
	8	16.33	103.89	Open To Flow (1)					
	37	17.07	104.35	Shut-ln(1)					
	66	35.47	104.36	End Shut-In(1)					
•	67	17.03	104.35	Open To Flow (2)					
	97	18.72	104.29	Shut-In(2)					
	129	30.33	104.22	End Shut-In(2)					
	129	1296.68	104.90	Final Hydro-static					

#### Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud	0.03

#### Gas Rates

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

Trilobite Testing, Inc

Ref. No: 59766



Palomino Petroleum

35-21S-2E Marion, KS

4924 SE 84th St

Osage-Nemaha #1

New ton, KS 67114

Job Ticket: 59766

DST#: 1

ATTN: Sean Deenihan

Test Start: 2015.06.06 @ 12:43:55

#### GENERAL INFORMATION:

Formation:

Interval:

Hunton

Deviated:

Time Tool Opened: 14:11:25

Time Test Ended: 17:28:10

No Whipstock: ft (KB)

Test Type: Conventional Bottom Hole (Initial)

74

Tester: Leal Cason

Unit No:

1363.00 ft (KB)

Reference Elevations:

1354.00 ft (CF)

2687.00 ft (KB) (TVD)

Total Depth: Hole Diameter:

7.88 inches Hole Condition: Good

2540.00 ft (KB) To 2687.00 ft (KB) (TVD)

KB to GR/CF:

9.00 ft

Serial #: 8367 Press@RunDepth: Outside

psig @

2541.00 ft (KB)

Capacity:

8000.00 psig

Start Date: Start Time:

2015.06.06 12:43:56 End Date: End Time:

2015.06.06 17:28:40

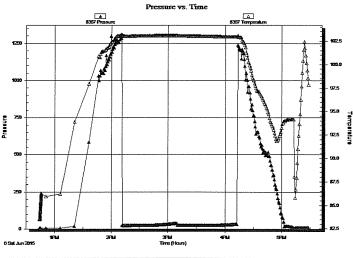
Time

Last Calib .: Time On Btm: 2015.06.06

Time Off Btm:

TEST COMMENT: IF: Weak Surface Blow

ISI: No Blow Back FF: Weak Surface Blow FSI: No Blow Back



### PRESSURE SUMMARY Pressure Temp Annotation

	(Min.)	(psig)	(deg F)	
Tamasatis				
•				

#### Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud	0.03
		***************************************

#### Gas Rates

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

Trilobite Testing, Inc

Ref. No: 59766



Length:

## DRILL STEM TEST REPORT

**TOOL DIAGRAM** 

Palomino Petroleum

35-21S-2E Marion, KS

4924 SE 84th St

ATTN: Sean Deenihan

Osage-Nemaha #1

New ton, KS 67114

Job Ticket: 59766 DST#:1

Test Start: 2015.06.06 @ 12:43:55

Tool Information

Drill Collar:

Drill Pipe: Heavy Wt. Pipe: Length:

Length: 2528.00 ft Diameter: 0.00 ft Diameter:

0.00 ft Diameter:

3.80 inches Volume: 0.00 inches Volume: 2.25 inches Volume:

Total Volume:

35.46 bbi 0.00 bbl 0.00 bbl

35.46 bbl

Tool Weight: 2100.00 lb Weight set on Packer: 25000.00 lb

Weight to Pull Loose: 46000.00 lb Tool Chased ft

String Weight: Initial 32000.00 lb

Drill Pipe Above KB: Depth to Top Packer:

Number of Packers:

7.00 ft 2540.00 ft

ft

Final 32000.00 lb

Depth to Bottom Packer: Interval between Packers: 147.00 ft Tool Length:

166.00 ft

2 Diameter:

6.75 inches

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			2526.00		
Hydraulic tool	5.00			2531.00		
Packer	5.00			2536.00	19.00	Bottom Of Top Packer
Packer	4.00			2540.00		
Stubb	1.00			2541.00		
Recorder	0.00	6798	Inside	2541.00		
Recorder	0.00	8367	Outside	2541.00		
Perforations	4.00			2545.00		
Change Over Sub	1.00			2546.00		
Drill Pipe	127.00			2673.00		
Change Over Sub	1.00			2674.00		
Perforations	10.00			2684.00		
Bulinose	3.00			2687.00	147.00	Bottom Packers & Anchor

Total Tool Length: 166.00

Trilobite Testing, Inc Ref. No: 59766 Printed: 2015.06.10 @ 13:48:27



**FLUID SUMMARY** 

Palomino Petroleum

35-21S-2E Marion, KS

4924 SE 84th St Newton, KS 67114 Osage-Nemaha #1

Job Ticket: 59766

DST#: 1

ATTN: Sean Deenihan

Test Start: 2015.06.06 @ 12:43:55

#### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight:

10.00 lb/gal

Cushion Length: Cushion Volume: Water Salinity:

Viscosity: Water Loss: 60.00 sec/qt 8.98 in<sup>3</sup>

Gas Cushion Type:

ppm

Resistivity:

ohm.m

Gas Cushion Pressure:

psig

ft

bbl

Salinity: 1900.00 ppm Filter Cake: 0.02 inches

#### **Recovery Information**

#### Recovery Table

Length ft	Description	Volume bbl
2.00	Mud	0.028

Total Length:

2.00 ft

Total Volume:

0.028 bbl

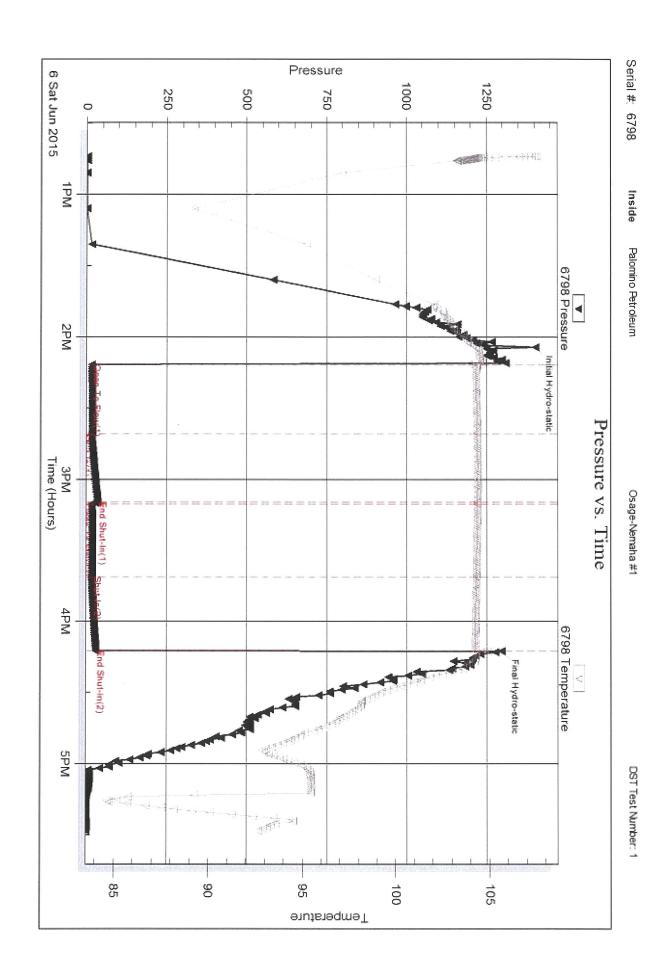
Num Fluid Samples: 0

Num Gas Bombs: Laboratory Location: Serial #:

Laboratory Name:

Recovery Comments:

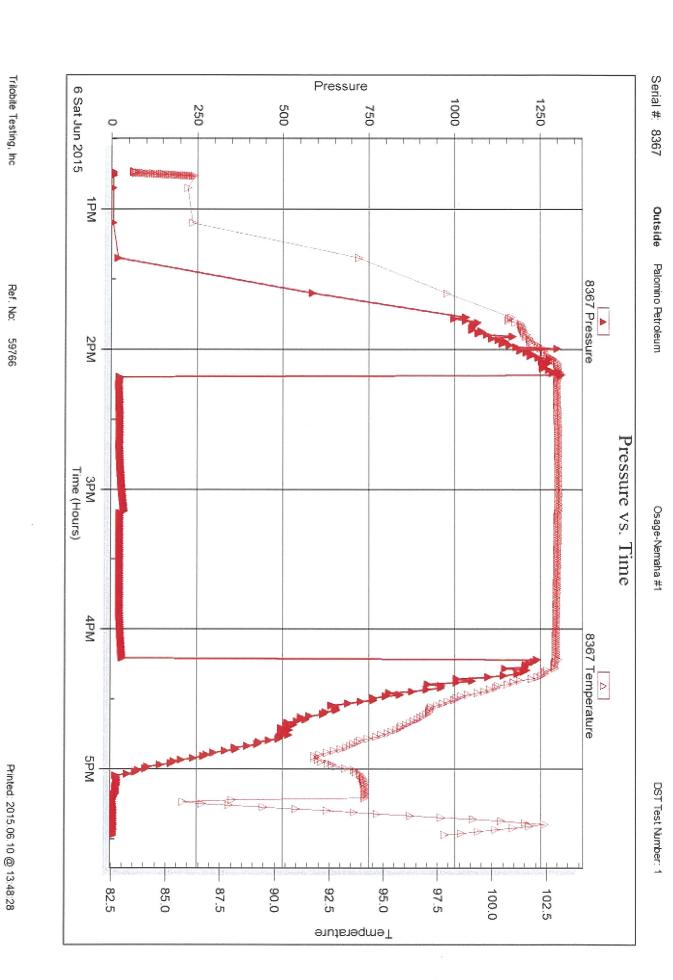
Ref. No: 59766 Trilobite Testing, Inc Printed: 2015.06.10 @ 13:48:28



Tritobite Testing, Inc.

Ref. No:

59766





Prepared For: Palomino Petroleum

4924 SE 84th St Newton, KS 67114

ATTN: Sean Deenihan

### Osage-Nemaha #1

### 35-21S-2E Marion, KS

Start Date: 2015.06.07 @ 03:08:42 End Date: 2015.06.07 @ 08:42:42 Job Ticket #: 59767 DST #: 2

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



Palomino Petroleum

35-21S-2E Marion, KS

4924 SE 84th St Newton, KS 67114 Osage-Nemaha #1

ATTN: Sean Deenihan

Job Ticket: 59767 DST#: 2

Test Start: 2015.06.07 @ 03:08:42

#### GENERAL INFORMATION:

Formation:

Hunton

Deviated: No Time Tool Opened: 04:31:27

Time Test Ended: 08:42:42

Whipstock:

ft (KB)

Tester:

Test Type: Conventional Bottom Hole (Reset) Leal Cason

Unit No:

2540.00 ft (KB) To 2755.00 ft (KB) (TVD) Interval:

Total Depth:

Reference Elevations:

1363.00 ft (KB)

2755.00 ft (KB) (TVD)

1354.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF:

9.00 ft

Serial #: 6798 Press@RunDepth: Inside

989.49 psig @

2541.00 ft (KB)

Capacity:

8000.00 psig

Start Date: Start Time:

2015.06.07 03:08:43 End Date: End Time: 2015.06.07 08:42:42 Last Calib.:

2015.06.07

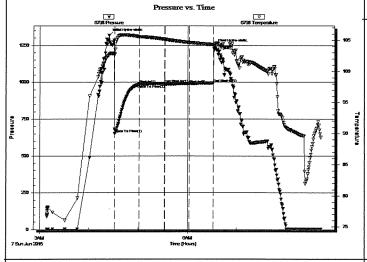
Time On Btm: Time Off Btm: 2015.06.07 @ 04:24:27 2015.06.07 @ 06:33:12

TEST COMMENT: IF: Strong Blow, BOB in 30 seconds

ISI: No Blow Back

FF: Weak Surface Blow , Dead @ 5 minutes

FSI: No Blow Back



#### PRESSURE SUMMARY

Time	Pressure	Temp	Annotation	
(Min.)	(psig)	(deg F)		
0	1318.46	102.68	Initial Hydro-static	
7	653.01	102.78	Open To Flow (1)	
37	987.25	105.55	Shut-ln(1)	
68	991.97	105.16	End Shut-In(1)	
68	986.11	105.15	Open To Flow (2)	
98	989.49	104.64	Shut-ln(2)	
127	994.20	104.27	End Shut-In(2)	
129	1246.94	104.35	Final Hydro-static	
			:	

#### Recovery

Length (ft)	Description	Volume (bbl)
1519.00	Water	21.31
126.00	MCW 10%M 90%W	1.77
567.00	WCM 30%W 70%M	7.95
* Recovery from r	nultinle tests	+

#### Gas Rates

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

Trilobite Testing, Inc Ref. No: 59767 Printed: 2015.06.10 @ 13:48:06



Palomino Petroleum

35-21S-2E Marion, KS

4924 SE 84th St Newton, KS 67114

ATTN: Sean Deenihan

Osage-Nemaha #1

Job Ticket: 59767

Test Start: 2015.06.07 @ 03:08:42

#### GENERAL INFORMATION:

Formation:

Interval:

Total Depth:

Hole Diameter:

Hunton

Deviated: No

Time Tool Opened: 04:31:27

Time Test Ended: 08:42:42

Whipstock:

ft (KB)

Test Type: Conventional Bottom Hole (Reset)

Tester:

Leal Cason

Unit No: 74

1363.00 ft (KB)

DST#: 2

Reference Elevations:

1354.00 ft (CF)

KB to GR/CF:

9.00 ft

7.88 inches Hole Condition: Good

2540.00 ft (KB) To 2755.00 ft (KB) (TVD)

Serial #: 8367

Outside

2755.00 ft (KB) (TVD)

Press@RunDepth:

psig @

2541.00 ft (KB)

2015.06.07

Capacity: Last Calib.: 8000.00 psig

Start Date:

2015.06.07 03:08:43 End Date:

Time On Btm:

2015.06.07

Start Time:

End Time:

08:42:42

Time (Min.)

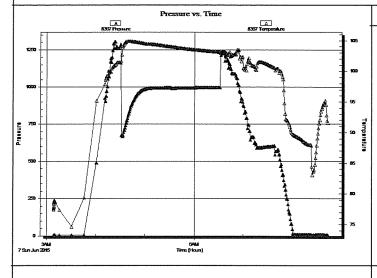
Time Off Btm:

TEST COMMENT: IF: Strong Blow, BOB in 30 seconds

ISI: No Blow Back

FF: Weak Surface Blow, Dead @ 5 minutes

FSI: No Blow Back



PRESSU	JRE SU	JMMARY
--------	--------	--------

Pressure	Temp	Annotation
(psig)	(deg F)	

#### Recovery

Length (ft)	Description	Volume (bbl)
1519.00	Water	21.31
126.00	MCW 10%M 90%W	1.77
567.00	WCM 30%W 70%M	7.95
* Recovery from r	nultiple tests	

### Gas Rates

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

Trilobite Testing, Inc

Ref. No: 59767



**TOOL DIAGRAM** 

Palomino Petroleum

35-21S-2E Marion, KS

4924 SE 84th St New ton, KS 67114 Osage-Nemaha #1

Job Ticket: 59767

DST#: 2

ATTN: Sean Deenihan

Test Start: 2015.06.07 @ 03:08:42

Tool Information

Drill Pipe: Length: Heavy Wt. Pipe: Length:

Length: 2527.00 ft Diameter: Length: 0.00 ft Diameter:

0.00 ft Diameter:

Diameter:

3.80 inches Volume: 0.00 inches Volume: 2.25 inches Volume:

Total Volume:

35.45 bbl 0.00 bbl 0.00 bbl

35.45 bbl

Tool Weight: 2100.00 lb Weight set on Packer: 25000.00 lb

Weight to Pull Loose: 45000.00 lb Tool Chased ft

String Weight: Initial 32000.00 lb

Final 40000.00 lb

Drill Pipe Above KB: Depth to Top Packer:

Drill Collar:

6.00 ft 2540.00 ft

Depth to Bottom Packer: ft Interval between Packers: 215.00 ft

Length:

Tool Length:
Number of Packers:

234.00 ft 2

6.75 inches

Tool Comments: Dropped Bar

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			2526.00		
Hydraulic tool	5.00			2531.00		
Packer	5.00			2536.00	19.00	Bottom Of Top Packer
Packer	4.00			2540.00		
Stubb	1.00			2541.00		
Recorder	0.00	6798	Inside	2541.00		
Recorder	0.00	8367	Outside	2541.00		
Perforations	4.00			2545.00		
Change Over Sub	1.00			2546.00		
Drill Pipe	190.00			2736.00		
Change Over Sub	1.00			2737.00		
Perforations	15.00			2752.00		
Bullnose	3.00		···	2755.00	215.00	Bottom Packers & Anchor

Total Tool Length: 234.00

Trilobite Testing, Inc Ref. No: 59767 Printed: 2015.06.10 @ 13:48:06



**FLUID SUMMARY** 

deg API

27000 ppm

Palomino Petroleum

35-21S-2E Marion, KS

4924 SE 84th St Newton, KS 67114 Osage-Nemaha #1

Job Ticket: 59767

DST#: 2

ATTN: Sean Deenihan

Test Start: 2015.06.07 @ 03:08:42

Oil API:

Water Salinity:

#### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: Viscosity:

8.97 in<sup>3</sup>

Water Loss: Resistivity: Salinity:

Filter Cake:

1900.00 ppm

10.00 lb/gal 60.00 sec/qt

ohm.m

0.02 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

psig

ft

bbl

#### **Recovery Information**

#### Recovery Table

Length ft	Description	Volume bbl
1519.00	Water	21.308
126.00	MCW 10%M 90%W	1.767
567.00	WCM 30%W 70%M	7.954

Total Length:

2212.00 ft

Total Volume:

31.029 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW w as .22 @ 81 degrees

Trilobite Testing, Inc

Ref. No: 59767

Temperature

Inside

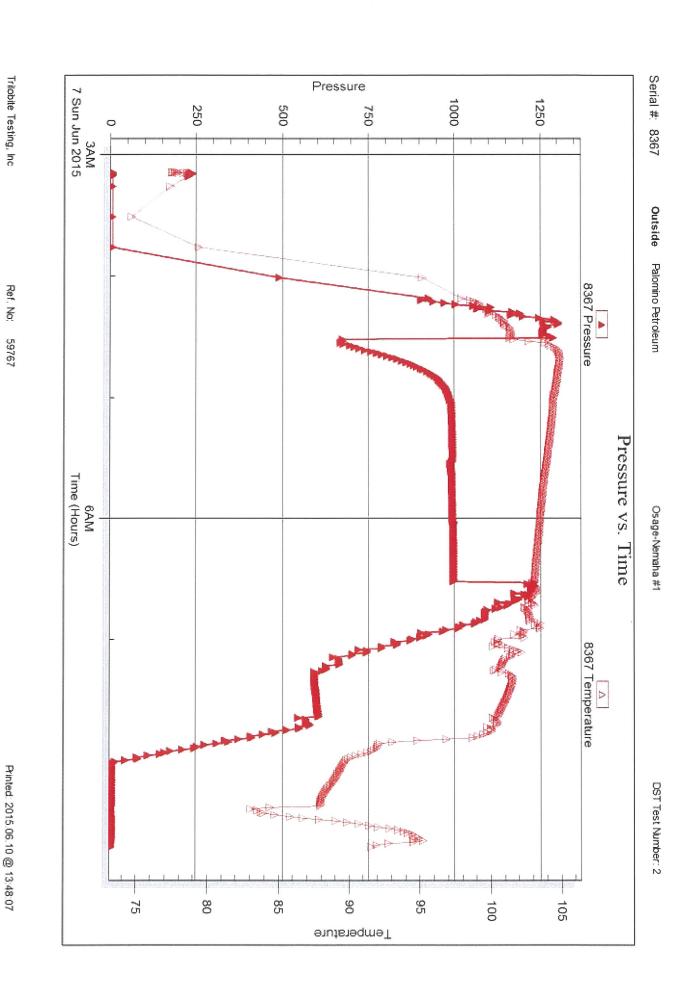
Palomino Petroleum

DST Test Number: 2

Trilobite Testing, Inc.

Ref. No:

59767





Prepared For:

**Palomino Petroleum** 

4924 SE 84th St Newton, KS 67114

ATTN: Sean Deenihan

## Osage-Nemaha #1

## 35-21S-2E Marion,KS

Start Date: 2015.06.07 @ 22:49:59 End Date: 2015.06.08 @ 04:42:44 Job Ticket #: 59768 DST #: 3

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

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



Palomino Petroleum

35-21S-2E Marion, KS

4924 SE 84th St Newton, KS 67114 Osage-Nemaha #1

Job Ticket: 59768

DST#: 3

ATTN: Sean Deenihan

Test Start: 2015.06.07 @ 22:49:59

#### GENERAL INFORMATION:

Formation:

Interval:

Total Depth:

Hole Diameter:

Sim pson

Deviated:

Time Tool Opened: 00:10:59

Time Test Ended: 04:42:44

No

Whipstock:

ft (KB)

Test Type: Conventional Bottom Hole (Reset)

Tester:

Leal Cason

Unit No:

Reference Elevations:

1363.00 ft (KB)

1354.00 ft (CF)

KB to GR/CF:

9.00 ft

7.88 inches Hole Condition: Good

2847.00 ft (KB) To 2898.00 ft (KB) (TVD)

Serial #: 6798 Press@RunDepth: Inside

501.30 psig @

2898.00 ft (KB) (TVD)

2848.00 ft (KB)

Capacity:

8000.00 psig

Start Date: Start Time:

2015.06.07 22:50:00 End Date: End Time: 2015.06.08 04:42:44 Last Calib.:

2015.06.08

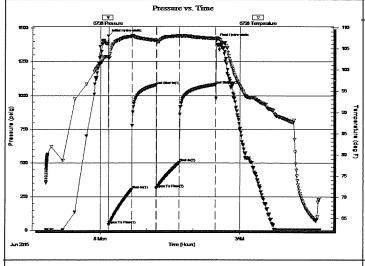
Time On Btm: Time Off Btm: 2015.06.08 @ 00:10:14 2015.06.08 @ 02:29:44

TEST COMMENT: IF: Weak Blow, BOB in 10 minutes

ISI: No Blow Back

FF: Weak Blow, Built to 7", Died Off to 3" by 30 minutes

FSI: No Blow Back



#### PRESSURE SUMMARY

====				
	Time	Pressure	Temp	Annotation
	(Min.)	(psig)	(deg F)	
	0	1441.76	103.06	Initial Hydro-static
	1	43.11	102.61	Open To Flow (1)
	31	302.28	107.88	Shut-ln(1)
	62	1078.72	106.96	End Shut-In(1)
	62	309.88	106.69	Open To Flow (2)
	92	501.30	108.01	Shut-ln(2)
	139	1082.10	107.39	End Shut-In(2)
	140	1406.84	107.55	Final Hydro-static

#### Recovery

Length (ft)	Description	Volume (bbl)
882.00	Water	12.37
262.00	MCW 30%M 70%W	3.68
* Recovery from r	nultiple tests	

### Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mct/d)
۰			

Ref. No: 59768 Trilobite Testing, Inc Printed: 2015.06.10 @ 13:41:33



Palomino Petroleum

35-21S-2E Marion, KS

4924 SE 84th St

Osage-Nemaha #1

Newton, KS 67114

Job Ticket: 59768

DST#: 3

ATTN: Sean Deenihan

Test Start: 2015.06.07 @ 22:49:59

#### **GENERAL INFORMATION:**

Formation:

Sim pson

Deviated:

Time Tool Opened: 00:10:59

No Whipstock: ft (KB)

Test Type: Conventional Bottom Hole (Reset)

Tester: Unit No: 74

Leal Cason

Time Test Ended: 04:42:44

2847.00 ft (KB) To 2898.00 ft (KB) (TVD)

Reference Elevations:

1363.00 ft (KB)

Interval: Total Depth:

2898.00 ft (KB) (TVD)

1354.00 ft (CF)

Hole Diameter:

7.88 inches Hole Condition: Good

KB to GR/CF:

9.00 ft

Serial #: 8367 Press@RunDepth: Outside

psig @

2848.00 ft (KB)

Capacity:

8000.00 psig

Start Date:

2015.06.07

End Date:

2015.06.08

Last Calib.:

2015.06.08

Start Time:

22:50:00

End Time:

04:42:44

Time

Time On Btm:

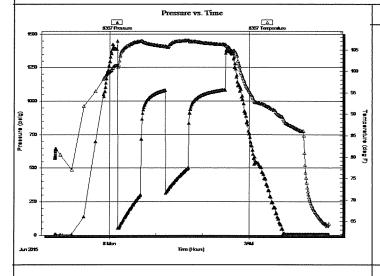
Time Off Btm:

TEST COMMENT: IF: Weak Blow, BOB in 10 minutes

ISI: No Blow Back

FF: Weak Blow, Built to 7", Died Off to 3" by 30 minutes

FSI: No Blow Back



#### PRESSURE SUMMARY

Pressure Temp Annotation

Min.)	(psig)	(deg F)	, motaton
	i	ı	

#### Recovery

Length (ft)	Description	Volume (bbl)
882.00	Water	12.37
262.00	MCW 30%M 70%W	3.68
* Recovery from n	nultiple tests	

#### Gas Rates

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

Ref. No: 59768 Trilobite Testing, Inc Printed: 2015.06.10 @ 13:41:34



Length:

## DRILL STEM TEST REPORT

**TOOL DIAGRAM** 

Palomino Petroleum

35-21S-2E Marion, KS

4924 SE 84th St Newton, KS 67114 Osage-Nemaha #1

Job Ticket: 59768

DST#: 3

ATTN: Sean Deenihan

Test Start: 2015.06.07 @ 22:49:59

Tool Information

Drill Pipe Above KB:

Drill Pipe: Heavy Wt. Pipe: Length: Drill Collar:

Length: 2845.00 ft Diameter: 0.00 ft Diameter: 0.00 ft Diameter:

3.80 inches Volume: 39.91 bbl 0.00 inches Volume: 0.00 bbl 2.25 inches Volume: 0.00 bbl Tool Weight: 2100.00 lb Weight set on Packer: 25000.00 lb Weight to Pull Loose: 40000.00 lb

Total Volume: 39.91 bbl Tool Chased ft

String Weight: Initial 32000.00 lb Final 37000.00 lb

Depth to Top Packer: 2847.00 ft Depth to Bottom Packer: Interval between Packers:

ft 51.00 ft

17.00 ft

70.00 ft

2

Diameter:

6.75 inches

Number of Packers: Tool Comments:

Tool Length:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			2833.00		
Hydraulic tool	5.00			2838.00		
Packer	5.00			2843.00	19.00	Bottom Of Top Packer
Packer	4.00			2847.00		
Stubb	1.00			2848.00		
Recorder	0.00	6798	Inside	2848.00		
Recorder	0.00	8367	Outside	2848.00		
Perforations	4.00			2852.00		
Change Over Sub	1.00			2853.00		
Drill Pipe	31.00			2884.00		
Change Over Sub	1.00			2885.00		
Perforations	10.00			2895.00		
Bullnose	3.00			2898.00	51.00	Bottom Packers & Anchor

**Total Tool Length:** 

70.00

Trilobite Testing, Inc Ref. No: 59768 Printed: 2015.06.10 @ 13:41:34



**FLUID SUMMARY** 

Palomino Petroleum

35-21S-2E Marion, KS

4924 SE 84th St New ton, KS 67114 Osage-Nemaha #1

Job Ticket: 59768

DST#: 3

ATTN: Sean Deenihan

Test Start: 2015.06.07 @ 22:49:59

#### **Mud and Cushion Information**

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight:

10.00 lb/gal

Cushion Length:

Water Salinity:

8500 ppm

Viscosity:

60.00 sec/qt

Cushion Volume: Gas Cushion Type:

Water Loss:

Filter Cake:

8.98 in<sup>3</sup> ohm.m

Gas Cushion Pressure:

psig

ft

bbl

Resistivity: Salinity:

1900.00 ppm 0.02 inches

#### **Recovery Information**

#### Recovery Table

Length ft	Description	Volume bbl	
882.00	Water	12.372	
262.00	MCW 30% M 70% W	3.675	

Total Length:

1144.00 ft

Total Volume:

16.047 bbl

Num Fluid Samples: 0

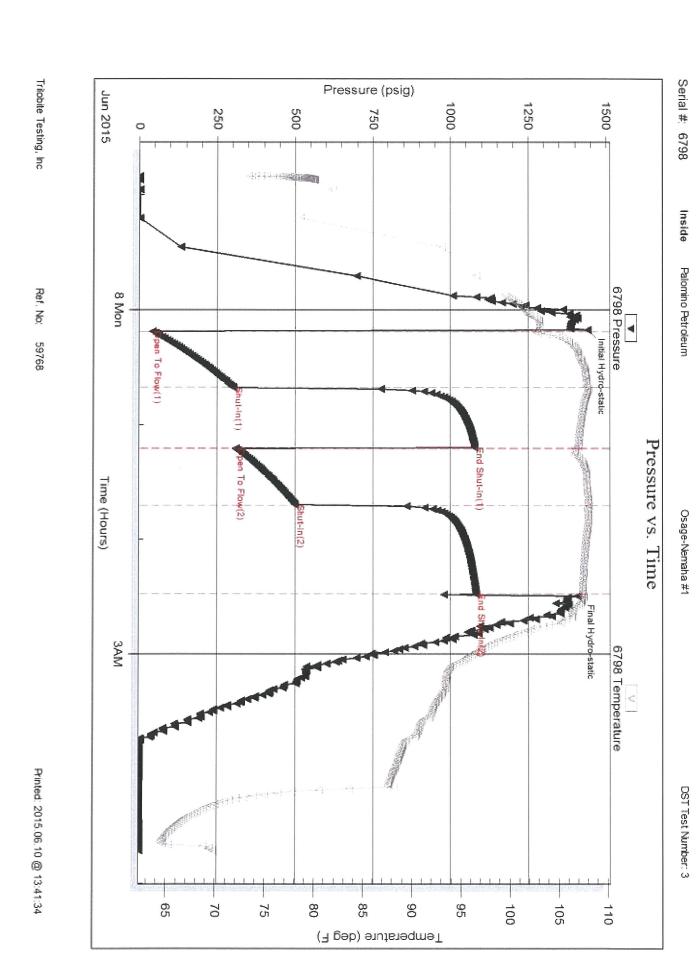
Num Gas Bombs: 0 Serial#:

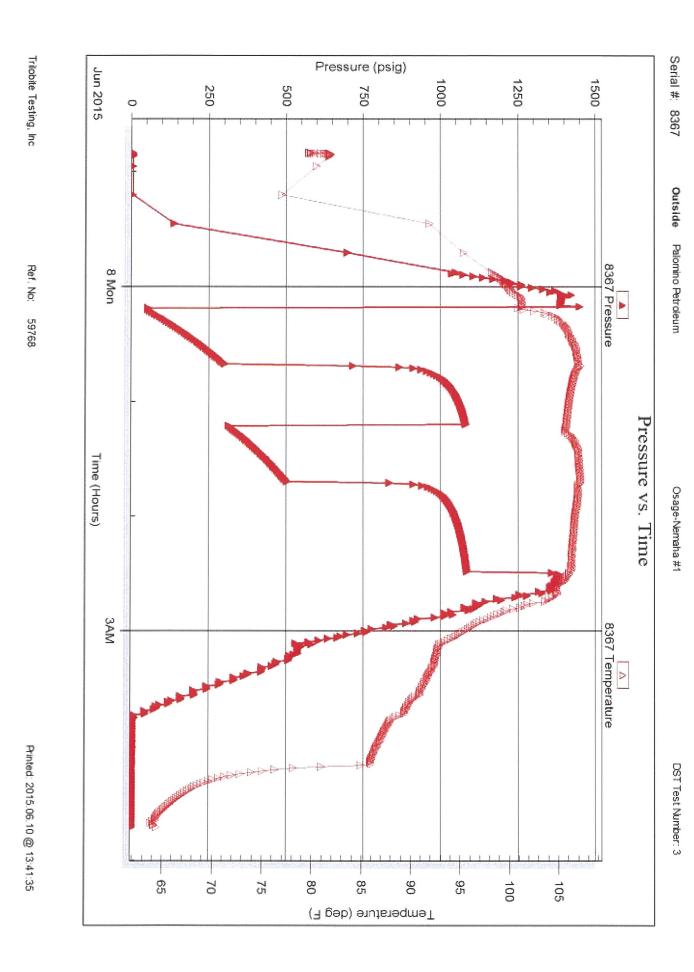
Laboratory Name:

Laboratory Location:

Recovery Comments: RW w as .6 @ 83 degrees

Trilobite Testing, Inc Ref. No: 59768 Printed: 2015.06.10 @ 13:41:34







## **Test Ticket**

NO.

59766

4/10 02-38					······································	
Well Name & No. OSage	- Nemah	a i	Test No.	1	Date 06/06/	15
Company Palomino					_	GL
Address <u>4924 SE</u>						
Co. Rep / Geo. Sean De		•			8	
Location: Sec. 35						
Interval Tested 2540 -	- 2687	Zone Tested _ /	tun70n			
Anchor Length	147	Drill Pipe Run _	2528	5	Mud Wt. <u>9-6</u>	
Top Packer Depth	2535	Drill Collars Run		9	Vis 60	
Bottom Packer Depth	2540	Wt. Pipe Run		2	WL 9.0	
Total Depth	2687	Chlorides	19 <i>0</i> 0 ppm	System	lcм <u>З</u>	
Blow Description IF: We	Pak Surfare	Blow				
ISI: NO Blow BO						
FF: weak Surface	ce Blow	Matthews Communication of the				
FSI: NO Blow BO	ack					
Rec 2 Feet of	mud		%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 Feet of			%gas	%oil	%water	%mud
Rec Total2	внт <u>104</u>	_Gravity <u>NC</u>	APIRW NC @	Mc°F	Chlorides <u>M</u> C	ppm
(A) Initial Hydrostatic	1404	☑ Test1050		T-On Lo	cation // 30	
(B) First Initial Flow	16 02	☐ Jars		T-Starte	d 12'43	
(C) First Final Flow	17	☐ Safety Joint		T-Open_	14:11	
(D) Initial Shut-In	35	☐ Circ Sub		T-Pulled	16:12	
(E) Second Initial Flow		☐ Hourly Standby _		T-Out _		
(F) Second Final Flow	19	Mileage 230	2301	Comme	ints_M07e/	
(G) Final Shut-In	30	☐ Sampler		***************************************		
(H) Final Hydrostatic	1297	☐ Straddle			and Chala Deales	
		☐ Shale Packer			ned Shale Packer	
Initial Open	30	☐ Extra Packer			ned Packer	
Initial Shut-In	30	☐ Extra Recorder _			a Copies	,
Final Flow	30	☐ Day Standby			al <u>0</u> 1280	
Final Shut-In	30	☐ Accessibility			T Disc't	
		Sub Total 1280		MILLIDO	T DISC (	
Approved By			r Representative <			



## **Test Ticket**

NO. 59767

1515 Commerce Parkway • Hays, Kansas 67601

Well Name & No. <u>65ag 6</u>	- Nemaha		Test No	2	Date <i>06/0</i>	07/15
Company Palomino	_				кв <u> 1354</u>	
Address 4924 SE	84th St	Newton KS	67114			
Co. Rep / Geo	at Deeniha	n	Rig <u> <i>S</i>်ဝယ</u>	Th wind	8	and a second
Location: Sec. 35	_Twp. 2/5	Rge2 <i>E</i>	co. <u>Mav</u>	rion	State <u>/</u>	.2
Interval Tested 2540 -	- 2755	Zone Tested	Hunton			
Anchor Length	215	Drill Pipe Run	25	27	Mud Wt. 9-6	, mranava
Top Packer Depth	2535		)		Vis 60	***
Bottom Packer Depth	2540	Wt. Pipe Run		0	wl <u>9.0</u>	
Total Depth		Chlorides	1906 p	pm System	LCM_377	
Blow Description IF: St	rong Blow,	BOB in 305	seconds			
ISI: NO Blow	Back					
FF: Weak Suffac		ad @ 5 minu	17-65			
FSI: NO BLOW						
Rec367 Feet of_	WCM		%gas	%oil	<i>3</i> 0 %water	≫ <sub>%muc</sub>
Rec /26 Feet of_	MCW		%gas	%oil	90 %water	<b>/</b> ∂ %muc
Rec	water		%gas	%oil	%water	%muc
Rec Feet of _			%gas	%oil	%water	%muc
Rec Feet of _			%gas	%oil	%water	%muc
Rec Total	внт <u>104</u>	Gravity <i>N/C</i>	_API RW_,22_	_@ <i>_81</i> °	F Chlorides	<b>≥</b> ccppm
(A) Initial Hydrostatic	_	Test1050	0	T-On I	Location <u>のえず</u>	
(B) First Initial Flow	653	☐ Jars		T-Star	ted <u>03:08</u>	
(C) First Final Flow	9-8/	☐ Safety Joint		Т-Оре	en <u>04.3/</u>	
(D) Initial Shut-In	992	☐ Circ Sub		T-Pull		
(E) Second Initial Flow	986	☐ Hourly Standby		T-Out		£.
(F) Second Final Flow	989	Mileage Mileage	200	Comn	nents <i>Dropped</i>	1341
(G) Final Shut-In	994	☐ Sampler		$\overline{M}$	otel	
(H) Final Hydrostatic	1247	☐ Straddle			uined Shale Packer	
		☐ Shale Packer				
Initial Open	30	Extra Packer			uined Packer	
Initial Shut-In	30	☐ Extra Recorder			xtra Copies otal0	
Final Flow	30	☐ Day Standby				210000000000000000000000000000000000000
Final Shut-In	30	☐ Accessibility			OST Disc't	
	_	Sub Total 128		(VII / C	.0. 0.000	THE WINDOWS SANGERS AND AND ASSESSED TO SANGERS AND ASSESSED TO SANGER AND ASSESSED TO SANGER AND ASSE
Approved By Salve	B JEEN	it to	ur Representative		PC	

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.



## **Test Ticket**

NO.

59768

4/10 'M'				········		
Well Name & No. OSage - Mom ak	a l	Test No.	3	Date <u>66/07</u>	7/15	
Company Palomino Petroleum		Elevation/ C	763	KB 1354	GL	
Address 4924 SE 844657	Newton KS	67114		. 1924 MARK 1924 PARK 1924		
Co. Rep/Geo. Pat Deeninga			thwind 8	>		
Location: Sec35_ Twp215 Rge2E		co. <u>Mario</u>	DV1	State KS		
Interval Tested 2847 - 28°	$98$ Zone Tested _	Simpson				
Anchor Length		28	415 Mu	ıd Wt. <u>9-5</u>		
Top Packer Depth 286	Drill Collars Ru	in	<u> </u>	46		
Bottom Packer Depth 28 <sup>th</sup>	Y7 Wt. Pipe Run_	****	<u> </u>	9.2		
Total Depth 289	8 Chlorides	<i>2100</i> ppm		м_3		
Blow Description IF: Weak Blow, B		nAES		100-100-100-100-100-100-100-100-100-100		
ISI: NO Blow Back						
FF: WEAK Blow Built to Tinch	es Died off t	03 inches by	30 minu	TC5		
FSI: NO BLOW BACK	_	7				
Rec 262 Feet of MCW		%gas	%oil	70 %water	30 %mud	
Rec 932 Feet of Water		%gas	%oil	%water	%mud	
Rec Feet of		%gas	%oil	%water	%mud	
Rec Feet of		%gas	%oil	%water	%mud	
Rec Feet of		%gas	%oil		%mud	
Rec Total	Gravity _NC	APIRW 6_@	9 <u>9</u> 3°FC	hlorides _ 850	20 ppm	
(A) Initial Hydrostatic 1442	☐ Test105			tion <u>2/53</u> 4		
(B) First Initial Flow 43	☐ Jars		T-Started			
(C) First Final Flow 302 Final	☐ Safety Joint		T-Open			
(D) Initial Shut-In			T-Pulled <u>02:28</u>			
(E) Second Initial Flow			T-Out <u>64.42</u> Comments <u>Mo†@1</u>			
(F) Second Final Flow						
(G) Final Shut-In	☐ Sampler_					
(H) Final Hydrostatic	•		. — — — — — — — — — — — — — — — — — — —	d Shale Packer		
Initial Open			☐ Ruined Packer			
Initial Shut-In30	30 🗆 Extra Recorder					
Final Flow 30	☐ Day Standby					
Final Shut-In		□ Accessibility MP/DST Disc't				
	Sub Total 12		1001			
	-	-	-1/	2/		