

Kansas Corporation Commission Oil & Gas Conservation Division

1104468

Form ACO-1 June 2009 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:	SecTwpS. R 🗌 East 🗌 West
Address 2:	Feet from North / South Line of Section
City:	Feet from East / West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	□NE □NW □SE □SW
CONTRACTOR: License #	County:
Name:	Lease Name: Well #:
Wellsite Geologist:	Field Name:
Purchaser:	Producing Formation:
Designate Type of Completion:	Elevation: Ground: Kelly Bushing:
New Well Re-Entry Workover	Total Depth: Plug Back Total Depth:
Oil WSW SWD SIOW Gas D&A ENHR SIGW OG GSW Temp. Abd. CM (Coal Bed Methane) Cathodic Other (Core, Expl., etc.):	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: sx cmt.
If Workover/Re-entry: Old Well Info as follows:	
Operator:	Drilling Fluid Management Plan (Data must be collected from the Reserve Pit)
Original Comp. Date: Original Total Depth: Deepening Re-perf. Conv. to ENHR Conv. to SWD Conv. to GSW	Chloride content: ppm Fluid volume: bbls Dewatering method used:
Plug Back: Plug Back Total Depth	Location of fluid disposal if hauled offsite:
Commingled Permit #:	Operator Name:
GSW Permit #:	County: Permit #:
Spud Date or Date Reached TD Completion Date or Recompletion Date	

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
Letter of Confidentiality Received
Date:
Confidential Release Date:
Wireline Log Received
Geologist Report Received
UIC Distribution
ALT I II III Approved by: Date:

Side Two



Operator Name:			Lease Nar	ne:			_ Well #:	
Sec Twp	S. R	East West	County:					
me tool open and clos	sed, flowing and shut s if gas to surface tes	d base of formations per in pressures, whether s t, along with final chart well site report.	shut-in pressure	e reached	d static level,	hydrostatic press	sures, bottom h	ole temperature, flui
Orill Stem Tests Taken (Attach Additional S	heets)	Yes No		Log	Formation	n (Top), Depth an	d Datum	Sample
Samples Sent to Geolo	ogical Survey	☐ Yes ☐ No		Name			Тор	Datum
Cores Taken Electric Log Run Electric Log Submitted (If no, Submit Copy)	Electronically	Yes No Yes No Yes No						
ist All E. Logs Run:								
			RECORD [New	Used			
	Size Hole	Report all strings set- Size Casing	conductor, surfactive Weight	ce, interme	diate, producti Setting	on, etc. Type of	# Sacks	Type and Percent
Purpose of String	Drilled	Set (In O.D.)	Lbs. / Ft.		Depth	Cement	Used	Additives
		ADDITIONAL	L CEMENTING	/ SOLIEE:	7E DECODO			
Purpose: —— Perforate —— Protect Casing —— Plug Back TD	Depth Top Bottom	Type of Cement	# Sacks Usi		LE RECORD	Type and F	Percent Additives	
Plug Off Zone								
Shots Per Foot		N RECORD - Bridge Pluç ootage of Each Interval Pei				cture, Shot, Cement nount and Kind of Ma	•	d Depth
TUDINO SESSE	0.	0.14						
TUBING RECORD:	Size:	Set At:	Packer At:	Li	ner Run:	Yes No		
Date of First, Resumed F	Production, SWD or EN	HR. Producing Met	hod:	Gas	Lift C	ther <i>(Explain)</i>		
Estimated Production Per 24 Hours	Oil E	Bbls. Gas	Mcf	Water	Bl	ols. (Gas-Oil Ratio	Gravity
DISPOSITIO	Used on Lease	Open Hole	METHOD OF CO	OMPLETIO Dually Cor ubmit ACO	np. Con	nmingled mit ACO-4)	PRODUCTIO	ON INTERVAL:
(If vented, Subi	mit ACO-18.)	Other (Specify)			_			

Form	ACO1 - Well Completion
Operator	Great Plains Energy, Inc.
Well Name	PERSINGER 1-29
Doc ID	1104468

Tops

Name	Тор	Datum
Anhydrite	2053	+403
Base	2084	+372
Topeka	3307	-851
Heebner	3500	-1044
Toronto	3530	-1074
Lansing	3543	-1087
ВКС	3726	-1270
Arbuckle	3780	-1324
Granite	3871	-1415

REMIT TO

SCHIPPERS OIL FIELD SERVICE L.L.C.

RR 1 BOX 90 D	OVLLY SA BIAOR

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CONTRACTOR A		OWNER (2/eac	Mains	
TYPE OF JOB	2			
12/2	π. p. 322	CEMENT		
CASING SIZE & 1/8	DEPTH 301	AMOUNT ORDERED		
7	рертн			
76	рертн			
	DEPTH			
PRES. MAX	MINIMUM	COMMON	/ @ S3/	J. C.
DISPLACEMENT /8 66	L	POZMIX	<u>(a)</u>	
CEMENT LEFT IN CSG. 15 94		GEL	(<u>(a)</u>	2.6
PERFS		CHLORIDE	S (0)	Z5
		ASC	<u>@</u>	
EQUPIMENT			<u>(w)</u>	
			<u>(a)</u>	
PUMP TRUCK			<u>(w)</u>	
#			(w)	
BULK TRUCK			<u>(</u>	
#			<u>@</u>	
BULK TRUCK			(w)	
#			<u>@</u>	
			(b)	
		HANDLNG	195 (@ 11/2	100/2
		MILEAGE	1 @ 09	19.2
			TOTAL	J

		2502		7027		7.067	
	@	(a)	(a)	7 9 @	(a)	@ 2°c	TOTAL
SERVICE Sarfee	DEPT OF JOB	PUMP TRUCK CHARGE	EXTRA FOOTAGE	MILEAGE 60+7	MANIFOLD	Light Vechink 60x2 @ 200	
	DEPT OF JOB	100,00 m			+ 1 (+ to the contract of		
REMARKS	A	3	Marie				

Control of the Contro			
CHARGE TO:	breut	Plains	
STREET		STATE	
CITY		ZIP	

To: Schippers Oil Field Service LLC

as is listed. The above work was done to satisfaction and and furnish staff to assist owner or contractor to do work supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed You are hereby requested to rent cementing equipment on the reverse side.

PLUG & FLOAT EQUIPMENT	
	<u>@</u>
	®
	(b)
	(a)
	(g)
	TOTAL
TAX	
TOTAL CHARGE	
DISCOUNT (IF PAID IN 20 DAYS)	

SIGNATURE

PRINTED NAME

CONSOLIDATED

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

FOREMAN KELLY Babe ()

SRT Walt Dinke FIELD TICKET & TREATMENT REPORT CEMENT

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3441

TICKET NUMBER

Witon 大 V V F M V 不便 20.69 OTHER DC (2) HOLE DEPTH 3820 CASING SIZE & WEIGHT 5/2 TUBING DO 100/ 10/20 4/5 OTHER DC 6 RATE 6 DD / M I V RANGE CEMENT LEFT in CASING_ il Damon A Bobby S TOWNSHIP SECTION 4160 99 Dersinger forms

Persinger forms

Noven

Sigins Energytous 5 to Res

Au, 1 N

Minto WATER gal/sk MIX PSI DISPLACEMENT PSI 7 SLURRY VOL HOLE SIZE DRILL PIPE CUSTOMER# 3870 Grect MAILING ADDRESS DATE CUSTOME

3-14-12 3282

CUSTOMER JOB TYPE 2 PAC

f ralessed on waw apiling Rig # b, hooked up 2060 Rigged up on we warring the pumped 300 at 301 h, mixed mud flush, pumped 300 hixed 175 5K5 Gown the center, shut down Washed out pumps & lines released plug, displaced with 994 bbl water, 200 to 1 to t pressure, Plug landed @ 120th, 1 pressure, Plug landed @ 120th, 1 KCI, mixed 20 265 RH, Mixed Washed Out Dim ned 1 ** REMARKS: Safesy meeting, Ri SLURRY WEIGHT 13 8 DISPLACEMENT 44 10 | CASING DEPTH

Elhank Glour 51,11,01,9,7 村里 5cratcherson 27 #3,3,4 Baskets 6+45, cent, 2,3,

	ustomer's	rm or in the c	vment terms unless snecifically amended in writing on the front of the form or in the customer's	•	a odt todt opbolygorden i
	-12	DATE 3-15-12	TITLE		AUTHORIZTION
	1/S440 12	ESTIMATED TOTAL		18-18-12	12:30 AM 3-15-12
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)	40600	5800	5/12 CONTROLIZEN	4	41130
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1	35184	3522	5000	1955165	1136
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1	3000	32200	PUMP CHARGE		54016
	TOTAL	UNIT PRICE	DESCRIPTION of SERVICES or PRODUCT	QUANITY or UNITS	ACCOUNT CODE

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: Great Plains Energy

6121 S 58th St. STE - B Lincoln, NE 66516

ATTN: Clayton Erickson

Persinger #1-29

29-3s-23w Norton, KS

Start Date: 2012.03.09 @ 22:38:00

End Date: 2012.03.10 @ 05:16:15

Job Ticket #: 45616

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Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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





Great Plains Energy

6121 S 58th St. STE - B Lincoln, NE 66516

ATTN: Clayton Erickson

29-3s-23w Norton, KS

Persinger #1-29

Job Ticket: 45616

DST#:1

Test Start: 2012.03.09 @ 22:38:00

GENERAL INFORMATION:

Toronto - LKC "A" Formation: Deviated:

Whipstock 욷

ft (KB)

Time Tool Opened: 00:46:15 Time Test Ended: 05:16:15

Interval:

Total Depth:

3555.00 ft (KB) (TVD) 3495.00 ft (KB) To

Conventional Bottom Hole (Initial) Kevin Mack Test Type: Tester:

43 Unit No: 2454.00 ft (KB) 2449.00 ft (CF) Reference Elevations:

5.00 ft

3555.00 ft (KB) (TVD) 7.88 inchesHole Condition: Good Hole Diameter:

KB to GR/CF:

3496.00 ft (KB) (6) 67.94 psig

2012.03.09 22:38:05

2012.03.10 05:16:14

Last Calib.: Capacity:

Inside Serial #: 6799 Press@RunDepth:

Start Date:

Start Time:

End Date: End Time:

Time On Btm:

psig 8000.00

2012.03.10 2012.03.10 @ 00:46:00 2012.03.10 @ 03:50:45 Time Off Btm:

> IF- Weak Surface blow died in 10 min. IS- No Return FF- No Blow FS- No Return TEST COMMENT:

PRESSURY VS. Time Pressure vs. Time Pressure Temp	PRESSURE SUMMARY	Annotation		94.60 Initial Hydro-static	94.17 Open To Flow (1)	94.96 Shut-In(1)	End Shut-In(1)	95.67 Open To Flow (2)	95.97 Shut-In(2)	96.84 End Shut-In(2)	97.12 Final Hydro-static		
Pressure vs. Time (Min.) (psig) (Mi	RESSUR		(deg F)	94.60	94.17	94.96	90.96	95.67	95.97	96.84	97.12		
Time (duzz) The Structure of the control of the co	PF	Pressure	(bsid)	1712.97	20.84	45.64	1244.53	48.93	67.94	1233.92	1670.54		
Pressure vs. Time COO inventure On inventu		Time	(Min.)	0	_	31	66	91	121	184	185		
The same vs. Time GOV Inqueste GOV Transform GOV		8		8		8	********		peratu			 	
	Pressure vs. Time	The Land Hotel Co.	W WOOTHE			пален пален						b b b	 Tree (Houz)

Recovery

Gas Rate (Mcf/d)

Pressure (psig)

Choke (inches)

Gas Rates

60.00 M	Mud 100M	
		0.30
	1000	
	7.70()	
es		
and the		

Trilobite Testing, Inc

Ref. No: 45616

Printed: 2012.03.22 @ 10:25:25

RILOBITE ESTING , INC	
	1

REPORT STEM TEST

29-3s-23w Norton, KS Persinger #1-29 Great Plains Energy

TOOL DIAGRAM

6121 S 58th St. STE - B Lincoln, NE 66516

DST#:1 Job Ticket: 45616

ATTN: Clayton Erickson

Test Start: 2012.03.09 @ 22:38:00

25000.00 lb 38000.00 lb

Weight set on Packer: Weight to Pull Loose: Tool Chased

Tool Weight:

2500.00 lb

30000.00 lb 30000.00 lb

Final

String Weight: Initial

47.19 bbl 0.00 bbl 0.59 bbl 47.78 bbl 3.80 inches Volume: 0.00 inches Volume: 2.25 inches Volume: Total Volume: 6.75 inches Diameter: Diameter: Diameter: Diameter: 0.00 ft 120.00 ft 3364.00 ft 18.00 ft 60.00 ft 89.00 ft 3495.00 ft Length: Length: Length: Interval between Packers: Depth to Top Packer: Depth to Bottom Packer: Drill Pipe Above KB: Tool Information Number of Packers: Heavy Wt. Pipe: Tool Length: Drill Collar:

Depth (ft) Accum. Lengths Position Serial No. Length (ft) **Tool Description**

Tool Comments:

A CONTRACTOR OF THE PROPERTY O					H 50	Bottom Of Top Packer								DOMOTH PACKETS & Anchor
)					00 80	00.64							60.00	20.55
3467 00	3472.00	3477.00	3482.00	3485 00	3490.00	2405.00	2482.00	3496.00	3496.00	3496.00	3519.00	3550.00	3555.00)
									Inside	Inside				
									8648	6429				
1.00	5.00	5.00	5.00	3.00	5.00	5 00		1.00	0.00	00.00	23.00	31.00	5.00	
Change Over Sub	Shut In Tool	Hydraulic tool	Jars	Safety Joint	Packer	Packer		Stubb	Recorder	Recorder	Perforations	Drill Pipe	Bulinose	

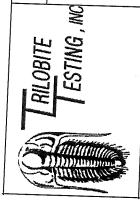
Bottom Packers & Anchor

89.00

Total Tool Length:

45616

Ref. No:



Great Plains Energy

6121 S 58th St. STE - B Lincoln, NE 66516

ATTN: Clayton Erickson

29-3s-23w Norton, KS Persinger #1-29

FLUID SUMMARY

Job Ticket: 45616

DST#:1

Mud and Cushion Information

Gel Chem Mud Weight: Mud Type: Viscosity:

0.00 ohm.m 6.36 in³ Water Loss: Resistivity:

2.00 inches

ft bbi

deg API ppm

Test Start: 2012.03.09 @ 22:38:00

9.00 lb/gal 57.00 sec/qt

1200.00 ppm Filter Cake:

Salinity:

Gas Cushion Type: Gas Cushion Pressure;

Cushion Volume: Cushion Length:

Cushion Type:

psig

Water Salinity: Oil API:

Recovery Information

Recovery Table

Volume	0.00	0.63.0
		144 306 0
Description	100M	Total Volume
	Mud	60.00 ft
Length	60.00 Mud 100M	Total Length: 60
		Tota

Num Fluid Samples: 0 Laboratory Name:

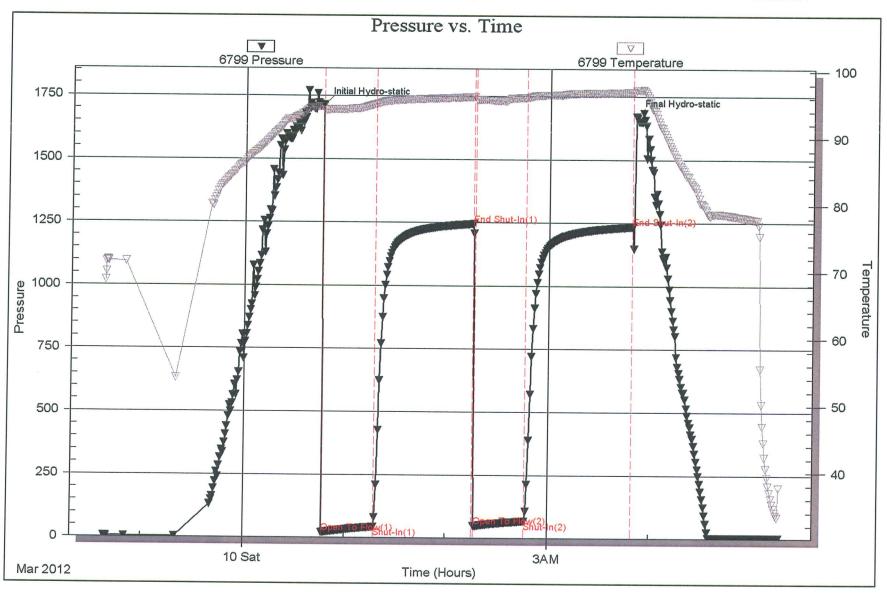
Laboratory Location: Num Gas Bombs:

0.295 bbl

Total Volume:

Recovery Comments:

Serial #:





Prepared For: Great Plains Energy

6121 S 58th St. STE - B Lincoln, NE 66516

ATTN: Clayton Erickson

Persinger #1-29

29-3s-23w Norton,KS

Start Date: 2012.03.10 @ 13:03:00

End Date: 2012.03.10 @ 20:30:00

Job Ticket #: 45617

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DST#:

Trilobite Testing, Inc PO Box 362 Hays, KS 67601 ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.03.22 @ 10:25:53



Great Plains Energy

6121 S 58th St. STE - B Lincoln, NE 66516

ATTN: Clayton Erickson

29-3s-23w Norton, KS

Persinger #1-29

Job Ticket: 45617

Test Start: 2012.03.10 @ 13:03:00

DST#:2

GENERAL INFORMATION:

LKC "C-D" Formation: Deviated:

Whipstock: Time Tool Opened: 15:24:45

ft (KB)

20:30:00 Time Test Ended:

Total Depth: Hole Diameter: Interval:

3594.00 ft (KB) (TVD)

3594.00 ft (KB) (TVD) 3555.00 ft (KB) To

Good 7.88 inches Hole Condition:

Conventional Bottom Hole (Initial) Kevin Mack Test Type: Tester:

Reference Elevations:

Unit No:

2454.00 ft (KB) 2449.00 ft (CF)

5.00 ft KB to GRVCF.

> Inside Serial #: 6799

91.71 psig Press@RunDepth: Start Date:

End Time: 2012.03.10 13:03:05

Start Time:

3556.00 ft (KB) End Date: (

2012.03.10 20:29:59

Time On Btm: Last Calib.: Capacity:

psig 8000.00 2012.03.10

2012.03.10 @ 15:23:45 2012.03.10 @ 19:10:00 Time Off Btm:

> IF- Surface blow built to 1/4" Then died back to 1/8" IS- No Return FF- Surface blow built to 1/8" Then died backto surface. FS- No Return TEST COMMENT:

PRESSURE SUMMARY	Pressure Temp Annotation (psig) (deg F) 93.24 Initial Hydro-static 23.14 92.83 Open To Flow (1) 73.45 95.65 End Shut-In(1) 95.65 End Shut-In(1) 95.31 Open To Flow (2) 91.71 96.18 Shut-In(2) 97.51 Final Hydro-static
	Time Pre
Pressure vs. Time COD Pressure COD Pressure COD Pressure	200 Garling Control of the Control o

Initial Hydro-static Open To Flow (1) Shut-in(1) End Shut-in(1) Open To Flow (2) Shut-in(2) End Shut-in(2) Final Hydro-static	Gas Rates	
(deg F) 93.24 92.83 93.48 95.65 95.31 96.18 97.50	Gas	
(psig) 1752.26 23.14 73.45 1148.54 66.63 91.71 1078.34 1716.46		
(Will.) 1 31 91 135 225 227		

		Volume (bbl)	0.02	0.27	13.5	0.30	0.44	0.14	0.01	5.0		
Recovery	Description	Mid (bosin) 400kg	(reavy) TOOIN	MW 15M 85W	NAA/ 2006 2005	NAVA SOLIVI / UVV	OSWM 70M 30W (oil spots)	(Orodo no)	Free oil 100o			
	Length (ft)	5.00		25.00	90 00	20.00	10.00	4 00	3.			

Gas Rate (Mcf/d)

Choke (inches) Pressure (psig)

rinted:
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Ref. No: 45617

Trilobite Testing, Inc

d: 2012.03.22 @ 10:25:54

RILOBITE	FSTING, IN

TOOL DIAGRAM

Test Start: 2012.03.10 @ 13:03:00 29-3s-23w Norton,KS Persinger #1-29 Job Ticket: 45617 ATTN: Clayton Erickson 6121 S 58th St. STE - B Lincoln, NE 66516 Great Plains Energy

DST#:2

	Tool Information	

48.07 bbl Tool Weight: 2500.00 lb 0.00 bbl Weight set on Packer: 25000.00 lb 0.59 bbl Weight to Pull Loose: 45000.00 lb	Tool Chased	String Weight: Initial 38000.00 lb	Final 38000.00 lb			
3.80 inches Volume: 48.07 bbl 0.00 inches Volume: 0.00 bbl 2.25 inches Volume: 0.59 bbl	Total Volume: 4					6 75 inches
3427.00 ft Diameter: 0.00 ft Diameter: 120.00 ft Diameter:						2 Diameter
3427.00 ft 0.00 ft 120.00 ft	21.00 ft	3555.00 ft	ŧ	39.00 ft	68.00 ft	8
Drill Pipe: Length: Heavy Wt. Pipe: Length: Drill Collar: Length:	Drill Pipe Above KB:	Depth to Top Packer:	Depth to Bottom Packer:	Interval betw een Packers:	Tool Length:	Number of Packers:

ď. Tool Description

Tool Comments:

	11-													
						Bottom Of Tage	Bottolii Ol Top Packer						Rottom Dackers & Archar	Concern acrees a Atlerior
Position Depth (ft) Accum. Lengths						00 00	0.01						39 00	
Depth (ft)	3527 00	3532.00	3537.00	3542.00	3545.00	3550.00	3555 00	3556.00	3556.00	3556 00	3559.00	3589.00	3594.00	
Position									Inside	Inside				
Serial No.									8648	649				
Length (ft) Serial No.	1.00	5.00	2.00	5.00	3.00	5.00	5.00	1.00	0.00	0.00	3.00	30.00	5.00	68.00
looi pescription	Change Over Sub	Shut In Tool	Hydraulic tool	6	Safety Joint	Packer	Packer	qc	Recorder	Recorder	Perforations	Drill Pipe	Bullnose	Total Tool Length:
	ਠੱ	ည်	Î	Jars	Sa	₽.	₽.	Stubb	&	8	<u>a</u>	5	B	



REPORT DRILL STEM TEST

Great Plains Energy

6121 S 58th St. STE - B Lincoln, NE 66516

29-3s-23w Norton, KS

FLUID SUMMARY

Persinger #1-29

DST#: 2

Job Ticket: 45617

Test Start: 2012.03.10 @ 13:03:00

ATTN: Clayton Erickson

Mud and Cushion Information

9.00 lb/gal 48.00 sec/qt

Gel Chem

Mud Type: (Mud Weight:

Gas Cushion Type: Cushion Volume: Cushion Length: Cushion Type:

Water Salinity: Oil API:

ft bbl

psig

Gas Cushion Pressure:

6.37 in³ 0.00 ohm.m

Water Loss: Resistivity:

Viscosity:

20000 ppm

deg API

Recovery Information

2.00 inches

Filter Cake:

Salinity:

1600.00 ppm

Recovery Table

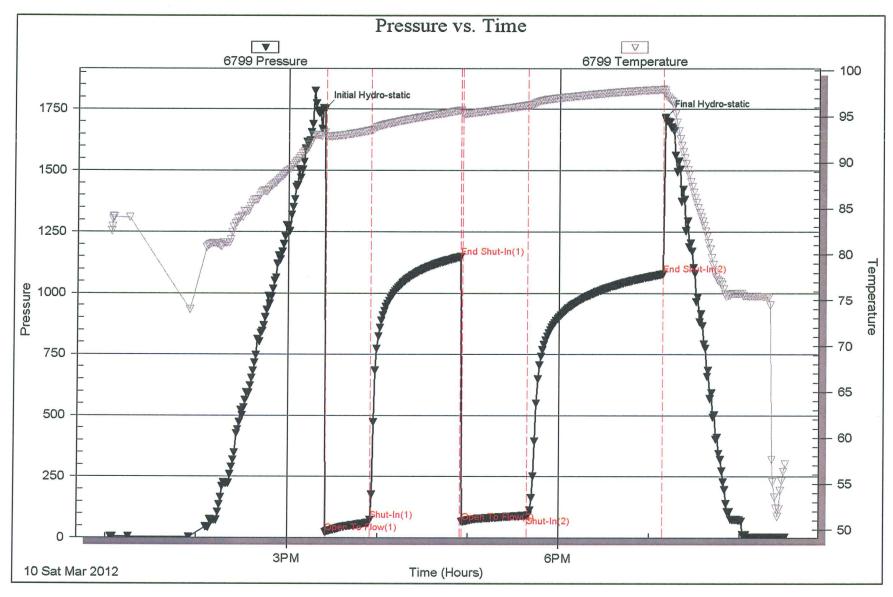
Volume	0.025	020:0	0.200	0.440	0.140	5
Description	Mud (heavy) 100M	MW 15M 85W	MV 30M 70W	OSWM 70M 30W (oil spots)	Free oil 100o	
Length ft	5.00	55.00	00.09	10.00	1.00	

0.744 bbl Total Volume: 131.00 ft Total Length:

Laboratory Location: Num Gas Bombs: Num Fluid Samples: 0 Laboratory Name:

Serial #:

Recovery Comments: RW .43 @ 66 deg = 20,000ppm





Prepared For: Great Plains Energy

6121 S 58th St. STE - B Lincoln, NE 66516

ATTN: Clayton Erickson

Persinger #1-29

29-3s-23w Norton, KS

Start Date: 2012.03.11 @ 07:04:00

End Date: 2012.03.11 @ 14:02:45

Job Ticket #: 45618 DST #:

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Trilobite Testing, Inc PO Box 362 Hays, KS 67601 ph: 785-625-4778 fax: 785-625-5620



Great Plains Energy

6121 S 58th St. STE - B Lincoln, NE 66516

Clayton Erickson ALL

29-3s-23w Norton, KS

Persinger #1-29

Job Ticket: 45618

DST#: 3

Test Start: 2012.03.11 @ 07:04:00

GENERAL INFORMATION:

Whipstock LKC "H" £ Formation: Deviated:

Time Tool Opened: 09:05:30

14:02:45 Time Test Ended:

Interval:

Hole Diameter: Total Depth:

3660.00 ft (KB) (TVD) 7.88 inches Hole Condition: **3635.00 ft (KB) To 3660.** 3660.00 ft (KB) (TVD)

Good

ft (KB)

Kevin Mack Reference Elevations: Unit No:

Conventional Bottom Hole (Initial)

Test Type:

KB to GR/CF:

2449.00 ft (CF) 5.00 ft

2454.00 ft (KB)

Inside Serial #: 6799 Press@RunDepth: Start Date:

Start Time:

0 219.68 psig 2012.03.11 07:04:05

3636.00 ft (KB) End Date: End Time:

Capacity: 2012.03.11 14:02:44

Time On Btm: Time Off Btm: Last Calib.:

2012.03.11 @ 09:04:45 2012.03.11 @ 12:38:00 2012.03.11

8000.00 psig

TEST COMMENT:

IF- BoB in 13 min. IS- No Return FF- BoB in 20 min. FS- No Return

		Time (Min.)				" 🔁	'nλ	1		
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	Pressure vs. Time	Trans.							0)8410	Trine (House)
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	6730 Pressure			N.	****	*****	t to be debt	b produce		a-w
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		ĝ	\$	8		iea19	1	8	8	11 Suo Mer 2012

PRESSURE SHIMMARY	Apportation	Circotation	Initial Hydro-static			End Shut-In(1)	Open To Flow (2)	Shut-In(2)		Final Hydro-static			
RESSUR	Temp	(ded F)	95.40	94.91	103.75	101.69	101.78	104.01	102.94	101.91		 	
<u>a</u>	Pressure	(bisd)	1800.33	27.15	142.27	1176.07	146.26	219.68	1160.72	1798.72			
	Time	(Min.)	0	_	99	91	92	123	213	214			

	Volume (bbl)	0.02	1 77	11:	3.09			-
S COOK	Description	Mud (Heavy) 100M	MW 5M 95W	100000000000000000000000000000000000000	INIV TOTAL SOLV			
	Length (ft)	5.00	175.00	220 00	00:02			

Gas Rate (Mcf/d)

Choke (inches) Pressure (psig)

Gas Rates

Ref. No: 45618

Trilobite Testing, Inc

Printed: 2012.03.22 @ 10:26:11

RILOBITE	/ ESTING , INC
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Tool Information

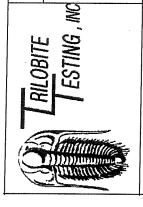
DRILL STEM TEST REPORT

TOOL DIAGRAM

DST#: 3 Test Start: 2012.03.11 @ 07:04:00 29-3s-23w Norton,KS Persinger #1-29 Job Ticket: 45618 ATTN: Clayton Erickson 6121 S 58th St. STE - B Lincoln, NE 66516 Great Plains Energy

2500.00 lb 2500.00 lb 50000.00 lb	ft 35000.00 lb 39000.00 lb	
Tool Weight: 2500.00 lb Weight set on Packer: 2500.00 lb Weight to Pull Loose: 50000.00 lb	Tool Chased String Weight: Initial Final	
48.97 bbi 0.00 bbi 0.59 bbi	49.56 bbl	
3.80 inches Volume: 4 0.00 inches Volume: 2.25 inches Volume:	Total Volume: 49.56 bbl 6.75 inches	
91.00 ft Diameter: 0.00 ft Diameter: 20.00 ft Diameter:	00 ft 00 ft ft 00 ft 2 Diameter:	
48 1	5.00 ft 3635.00 ft 25.00 ft 54.00 ft	
Drill Pipe: Length: Heavy Wt. Pipe: Length: Drill Collar: Length:	Drill Pipe Above KB: Depth to Top Packer: Depth to Bottom Packer: Interval betw een Packers: Tool Length: Number of Packers: Tool Comments:	

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Length (ft) Serial No. Position Depth (ft) Accum. Lengths	
Change Over Sub	1.00			3607.00		1446-1 1446-1 1446-1 1446-1 1446-1 1446-1 1446-1 1446-1 1446-1 1446-1 1446-1
Shut In Tool	5.00			3612.00		
Hydraulic tool	5.00			3617.00		
Jars	2.00			3622.00		
Safety Joint	3.00			3625.00		
Packer	5.00			3630.00	29 00	Rottom Of Ton Booker
Packer	5.00			3635 00		DOMESTIC TOP FACAGE
Stubb	1.00			3636.00		
Recorder	0.00	8648	Inside	3636.00		
Recorder	0.00	6239	Inside	3636.00		
Perforations	19.00			3655.00		
Bullnose	5.00			3660.00	25.00	Bottom Packers & Ancher
Total Tool Length:	1: 54.00					



REPORT STEM TEST DRILL

FLUID SUMMARY

29-3s-23w Norton, KS

Great Plains Energy

6121 S 58th St. STE - B Lincoln, NE 66516

Persinger #1-29 Job Ticket: 45618

DST#: 3

Test Start: 2012.03.11 @ 07:04:00

Mud and Cushion Information

Gel Chem Mud Type: (Mud Weight:

2.00 inches

Filter Cake:

Cushion Length:

Water Salinity: Oil APi:

40000 ppm

deg API

ATTN: Clayton Erickson

ft bbl

Cushion Type:

0.00 ohm.m 1600.00 ppm 48.00 sec/qt 9.00 lb/gal 6.37 in³ Water Loss: Resistivity: Viscosity: Salinity:

Gas Cushion Type: Gas Cushion Pressure; Cushion Volume:

psig

Recovery Information

Recovery Table

Volume	0.025	1.407	3.086	
Description	Mud (Heavy) 100M	MW 5M 95W	NW 10M 90W	
Length ft	2.00	175.00	220.00	

Total Volume: 400.00 ft Total Length:

4.518 bbl

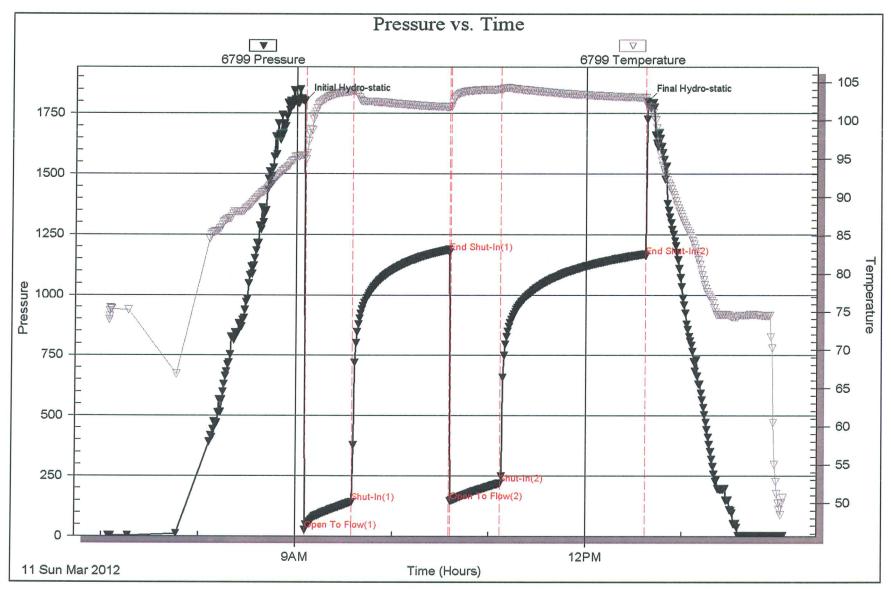
Num Gas Bombs: Num Fluid Samples: 0 Laboratory Name

Serial #:

Laboratory Location: Recovery Comments: RW 2 @ 64 = 40,000ppm

Ref. No: 45618

Serial #: 6799 Inside Great Plains Energy Persinger #1-29 DST Test Number: 3





Prepared For: Great Plains Energy

6121 S 58th St. STE - B Lincoln, NE 66516

ATTN: Clayton Erickson

Persinger #1-29

29-3s-23w Norton,KS

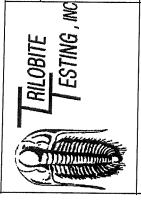
Start Date: 2012.03.11 @ 21:47:00

End Date: 2012.03.12 @ 05:04:00

Job Ticket #: 45619 DST #:

4

Trilobite Testing, Inc PO Box 362 Hays, KS 67601 ph: 785-625-4778 fax: 785-625-5620



Great Plains Energy

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6121 S 58th St. STE -Lincoln, NE 66516

Clayton Erickson

ATTR

29-3s-23w Norton, KS

Persinger #1-29

Job Ticket: 45619

DST#:4

Test Start: 2012.03.11 @ 21:47:00

GENERAL INFORMATION:

LKC "J-K" Formation: Deviated:

Whipstock: Time Tool Opened: 23:49:45

ft (KB)

Time Test Ended: 05:04:00

3704.00 ft (KB) (TVD) 3660.00 ft (KB) To Interval:

4704.00 ft (KB) (TVD) Total Depth: Hole Diameter:

Conventional Bottom Hole (Initial) Test Type:

Kevin Mack Unit No: Tester:

2454.00 ft (KB) 2449.00 ft (CF) Reference Elevations:

5.00 ft KB to GRVCF.

7.88 inches Hole Condition:

Good

Inside

Serial #: 6799

64.07 psig 2012.03.11 Press@RunDepth:

3661.00 ft (KB) (

Last Calib.: Capacity:

8000.00 psig

21:47:05 Start Date: Start Time:

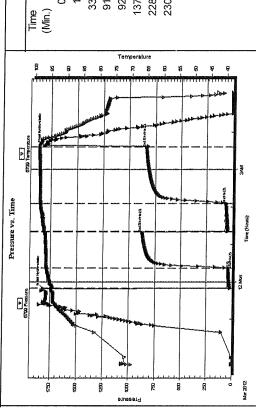
End Date: End Time:

2012.03.12 05:03:59

2012.03.12 2012.03.11 @ 23:48:45 2012.03.12 @ 03:38:45 Time On Btm: Time Off Btm:

> IF- Surface blow built to 2" IS- No Return TEST COMMENT:

FF- Surface blow started at 15 min. Built to 1" FS- No Return



PRESSURE SUMMARY	Annotation		Initial Hydro-static	Open To Flow (1)	Shut-ln(1)	End Shut-In(1)	Open To Flow (2)	Shut-In(2)	End Shut-In(2)	Final Hydro-static			
RESSUR	Temp	(deg F)	94.75	94.36	96.21	96.79	96.68	98.25	98.68	98.47			
ā	Pressure	(bsid)	1813.94	22.71	41.55	875.97	47.06	64.07	838.26	1814.05			
	Time	(Min.)	0	-	33	91	92	137	228	230			

	(ldd)				7.000	
	Volume (bbi)	0.39				
Recovery	Description	Mud 100M				
Line	Length (ft)	80.00				

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

Trilobite Testing, Inc

45619 Ref. No:

Printed: 2012.03.22 @ 10:26:30

FRILOBITE FESTING , IN

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REPORT STEM TEST DRILL

29-3s-23w Norton, KS

TOOL DIAGRAM

Persinger #1-29

Job Ticket: 45619

DST#:4

Test Start: 2012.03.11 @ 21:47:00

ATTN: Clayton Erickson

6121 S 58th St. STE - B Lincoln, NE 66516

Great Plains Energy

Tool Information

3.80 inches Volume: 0.00 inches Volume: Diameter: Diameter: 3521.00 ft 0.00 ft Length: Drill Pipe: Heavy Wt. Pipe: Drill Collar:

Diameter: 120.00 ft Length: Length:

10.00 ft 3660.00 ft Depth to Bottom Packer: Depth to Top Packer: Drill Pipe Above KB:

73.00 ft Number of Packers: Tool Length:

Tool Comments:

Tool Weight: 49.39 bbl 0.00 bbl 0.59 bbl 49.98 bbl 2.25 inches Volume:

Weight set on Packer: 25000.00 lb Weight to Pull Loose: 48000.00 lb 2500.00 lb Tool Chased

Total Volume:

37000.00 lb 38000.00 lb String Weight: Initial Final

Diameter:

44.00 ft

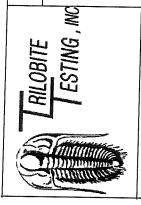
Interval betw een Packers:

6.75 inches

1 Ċ Tool Description

Change Over Sub Shut In Tool Hydraulic tool Jars Safety Joint Packer Recorder Recorder Perforations	1.00 1.00 5.00 5.00 5.00 5.00 1.00 0.00 7.00	Serial No. 8648 8648 6799	Position Inside Inside	Depth (ft) 3632.00 3632.00 3642.00 3647.00 3650.00 3650.00 3661.00 3661.00	Length (ft) Serial No. Position Depth (ft) Accum. Lengths 1.00 3632.00 3632.00 5.00 3647.00 3647.00 5.00 3650.00 29.00 5.00 3650.00 29.00 5.00 3650.00 3661.00 0.00 8648 Inside 3661.00 0.00 6799 Inside 3661.00 7.00 3668.00 3668.00	Bottom Of Top Packer
	31.00			3699.00		
	2.00			3704.00	44.00	Bottom Packers & Anchor

73.00 Total Tool Length: Ref. No: 45619



REPORT DRILL STEM TEST

FLUID SUMMARY

Great Plains Energy

6121 S 58th St. STE - B Lincoln, NE 66516

Clayton Erickson ATTR

Persinger #1-29

29-3s-23w Norton, KS

Job Ticket: 45619

DST#:4 Test Start: 2012.03.11 @ 21:47:00

Mud and Cushion Information

9.00 lb/gal Gel Chem Mud Type: (Mud Weight: Viscosity:

0.00 ohm.m 2200.00 ppm Water Loss: Resistivity: Salinity:

52.00 sec/qt 6.78 in³

Oil API: ft bbl

psig

Gas Cushion Pressure:

Gas Cushion Type:

Cushion Type: Cushion Length; Cushion Volume:

Water Salinity:

deg API mdd

Recovery Information

2.00 inches

Filter Cake:

Recovery Table

0.393 Volume bbl 0.393 bbl Total Volume: Description Mud 100M 80.00 ft 80.00 Length ft Total Length:

Num Fluid Samples: 0 Laboratory Name:

Recovery Comments:

Serial #: 0

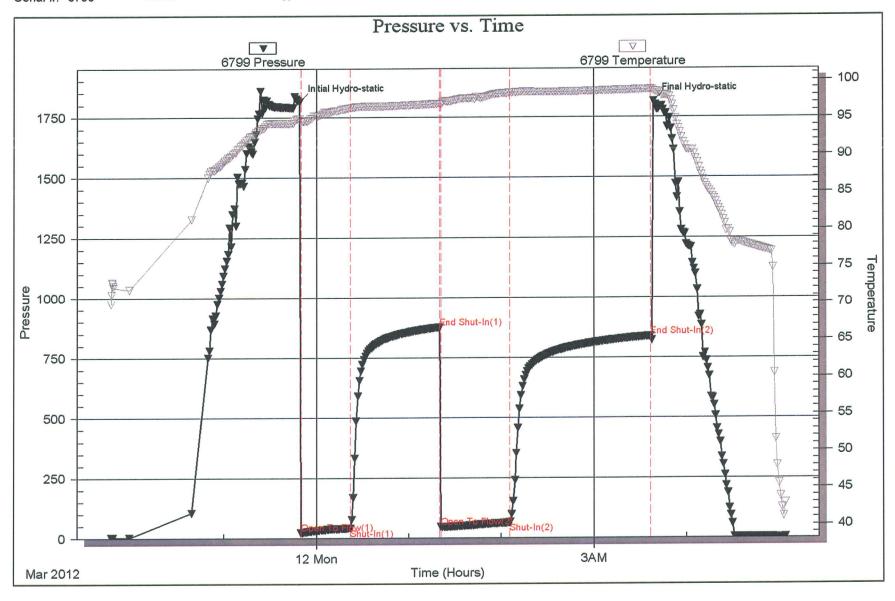
Laboratory Location:

Num Gas Bombs:

Trilobite Testing, Inc

Printed: 2012.03.22 @ 10:26:31

Ref. No: 45619





Prepared For: Great Plains Energy

6121 S 58th St. STE - B Lincoln, NE 66516

ATTN: Clayton Erickson

Persinger #1-29

29-3s-23w Norton, KS

2012.03.12 @ 05:39:00 Start Date:

2012.03.12 @ 13:10:45 End Date:

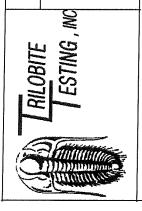
DST #: Job Ticket #: 45620

2

Trilobite Testing, Inc

Hays, KS 67601 PO Box 362

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



REPORT STEM TEST DRILL

Great Plains Energy

6121 S 58th St. STE - B Lincoln, NE 66516

Clayton Erickson ATTR

29-3s-23w Norton, KS

Persinger #1-29

Job Ticket: 45620

DST#:5

Test Start: 2012.03.12 @ 05:39:00

GENERAL INFORMATION:

Arbuckle Formation: Deviated:

Whipstock: Time Tool Opened: 08:50:45

13:10:45 Time Test Ended:

3781.00 ft (KB) (TVD)

3777.00 ft (KB) To Interval:

3781.00 ft (KB) (TVD) Total Depth:

ft (KB)

Reference Elevations:

Unit No:

Tester:

2454.00 ft (KB) 2449.00 ft (CF)

Conventional Bottom Hole (Initial)

Test Type:

Kevin Mack

5.00 KB to GR/CF

psig

8000.00

Good 7.88 inches Hole Condition:

Hole Diameter:

Inside

(Serial #: 6799
Press@RunDepth:
Start Date:
Start Time:

3778.00 ft (KB) End Date: 26.37 psig 2012.03.12 17:39:05

End Time:

Time On Btm: Last Calib.: 2012.03.13 01:10:44

Capacity:

Time Off Btm:

2012.03.13 2012.03.12 @ 20:49:45 2012.03.12 @ 23:56:30

IF- Weak surface blow died in 2 min. IS- No Return TEST COMMENT:

FF- No Blow - Flushed tool - No Blow FS- No Return

Initial Hydro-static Open To Flow (1) Final Hydro-static Open To Flow (2) PRESSURE SUMMARY End Shut-In(1) End Shut-In(2) Annotation Shut-In(1) Shut-In(2) 100.09 Temp (deg F) 99.67 101.59 102.11 102.29 102.74 103.38 Pressure 22.48 24.25 72.64 34.22 1919.28 26.37 100.49 1870.26 (bsig) 31 90 93 129 186 186 (Min.) Time Temperature Ŕ 8 8 ĸ Pressure vs. Time 2700 Pressu 8 Presente

Trilobite Testing, Inc

45620 Ref. No:

Printed: 2012.03.22 @ 10:26:51

Gas Rate (Mcf/d)

Pressure (psig)

Choke (inches)

Volume (bbl)

Recovery

Description

Length (ft)

4.00 1.00

Free Oil 100o OCM 95M 50

0.02 0.00

Gas Rates

RILOBITE FSTING INC	
	HOLDON STREET

TOOL DIAGRAM

29-3s-23w Norton, KS

6121 S 58th St. STE - B Lincoln, NE 66516

Great Plains Energy

ATTN: Clayton Erickson

Persinger #1-29 Job Ticket: 45620

DST#:5

Test Start: 2012.03.12 @ 05:39:00

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51.17 bbl 0.00 bbl 0.59 bbl 51.76 bbl 3.80 inches Volume: 0.00 inches Volume: 2.25 inches Volume: Diameter: Diameter: Diameter: 3648.00 ft 0.00 ft 120.00 ft Length: Length: Length: Heavy Wt. Pipe: Drill Collar: Drill Pipe:

2500.00 lb : 25000.00 lb 48000.00 lb Weight set on Packer: Weight to Pull Loose: **Tool Chased**

Total Volume:

20.00 ft

Drill Pipe Above KB:

3777.00 ft

Depth to Top Packer:
Depth to Bottom Packer:
Interval betw een Packers:

Tool Weight:

String Weight: Initial

33.00 ft Number of Packers: Tool Length:

4.00 ft

40000.00 lb 40000.00 lb Final

6.75 inches Diameter:

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Length (ft) Serial No. Position Depth (ft) Accum. Lengths	
Change Over Sub	1.00			3749.00		THE PARTY OF THE P
Shut In Tool	5.00			3754 00		
Hydraulic tool	5.00			3759.00		
Jars	5.00			3764.00		
Safety Joint	3.00			3767.00		
Packer	5.00			3772 00	00 00	+ + + + + + + + + + + + + + + + + + +
Packer	5.00			3777.00	00.64	Douglii Of 10p Packer
Stubb	1.00			3778.00		
Recorder	0.00	8648	Inside	3778.00		
Recorder	00.00	6629	Inside	3778.00		
Bullnose	3.00			3781.00	4.00	Rottom Packers & Anchor
						DOMOTITI ACNOTS & ATICITO

33.00 Total Tool Length: Printed: 2012.03.22 @ 10:26:52



REPORT STEM TEST DRILL

Great Plains Energy

6121 S 58th St. STE - B Lincoln, NE 66516

ATTN: Clayton Erickson

Persinger #1-29 Job Ticket: 45620

29-3s-23w Norton, KS

FLUID SUMMARY

DST#:5

Mud and Cushion Information

9.00 lb/gal Gel Chem Mud Weight: Mud Type:

6.78 in³

2700.00 ppm Salinity:

Water Salinity: Oil API:

deg API mdd

46.00 sec/qt Viscosity:

Filter Cake:

ft bbl Gas Cushion Pressure:

Gas Cushion Type:

Cushion Length: Cushion Volume:

Cushion Type:

Test Start: 2012.03.12 @ 05:39:00

0.00 ohm.m Water Loss: Resistivity:

2.00 inches

psig

Recovery Information

Recovery Table

Volume	0000	0.020	0.00
Description	OCM 95M 50	Free Oil 100o	
Length ft	4.00	1.00	

Total Volume: 5.00 ft Total Length:

0.025 bbl

Num Fluid Samples: 0 Laboratory Name:

0 Laboratory Location: Num Gas Bombs:

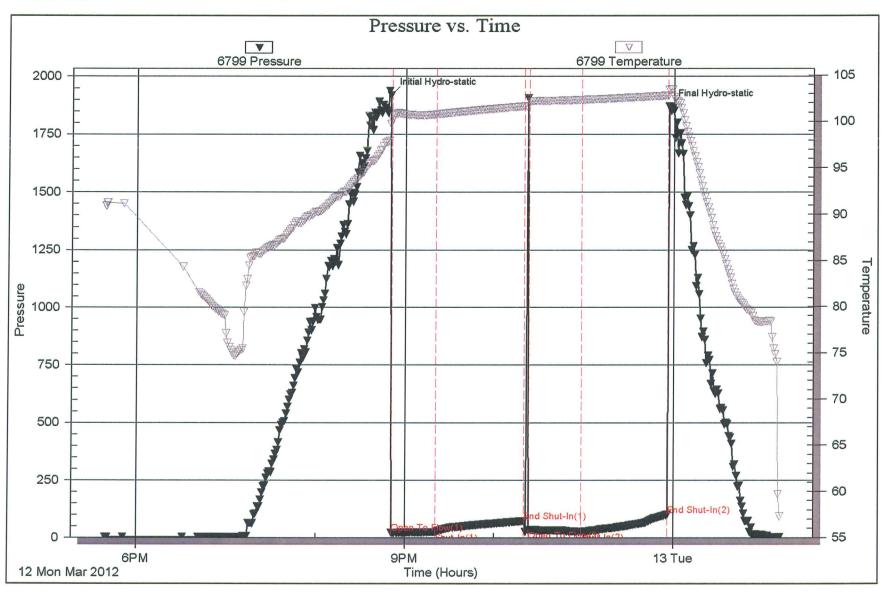
Serial #:

Recovery Comments:

Ref. No: 45620

Trilobite Testing, Inc

Printed: 2012.03.22 @ 10:26:52





Prepared For: Great Plains Energy

6121 S 58th St. STE - B Lincoln, NE 66516

ATTN: Clayton Erickson

Persinger #1-29

29-3s-23w Norton,KS

Start Date: 2012.03.13 @ 05:43:00

End Date: 2012.03.13 @ 12:58:00

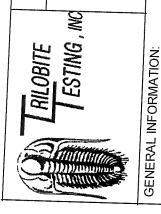
Job Ticket #: 45621 DST #:

9

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



Great Plains Energy

6121 S 58th St. STE - B Lincoln, NE 66516

ATTN: Clayton Erickson

29-3s-23w Norton, KS

Persinger #1-29

Job Ticket: 45621

DST#: 6

Test Start: 2012.03.13 @ 05:43:00

Conventional Bottom Hole (Initial) Kevin Mack Unit No: Tester:

Test Type:

ft (KB)

Whipstock:

S

Time Tool Opened: 07:54:45

Arbuckle

Formation:

Deviated:

Reference Elevations:

3786.00 ft (KB) (TVD)

Good

7.88 inches Hole Condition:

Hole Diameter: Total Depth:

3786.00 ft (KB) (TVD)

3778.00 ft (KB) To

Interval:

12:58:00

Time Test Ended:

2454.00 ft (KB) 2449.00 ft (CF) 5.00 ft

KB to GR/CF:

Serial #: 6799

Inside

62.73 psig Press@RunDepth: Start Date: Start Time:

3779.00 ft (KB) End Date: 9

2012.03.13 12:57:59

End Time: 2012.03.13 05:43:05

Capacity:

Time On Btm: Last Calib.:

psig

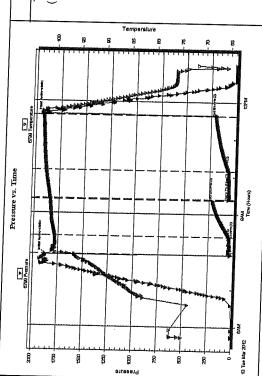
8000.00

2012.03.13

2012.03.13 @ 07:54:30 2012.03.13 @ 11:39:15 Time Off Btm:

TEST COMMENT:

IF- 1/2" Blow built to 3 1/4" IS- No Return FF- Surface Blow started at 1 min. Built to FS- No Return



PRESSURE SUMMARY	Annotation		Initial Hydro-static	Open To Flow (1)		End Shut-In(1)	Open To Flow (2)	Shut-In(2)	End Shut-In(2)	Final Hydro-static			
RESSUR	Temp	(deg F)	95.81	95.58	99.76	100.80	100.75	101.75	102.50	102.85			
П	Pressure	(bsig)	1878.79	33.18	45.47	219.21	60.03	62.73	203.53	1901.42			
	Time	(Min.)	0	_	30	88	8	135	224	225			

	Volume (bbt)	0.25	0.20	01:0			
Recovery	Description	OCVVM 250 5W 70M	Free oil 100o				
	Length (ft)	50.00	40.00				

Gas Rate (Mcf/d)

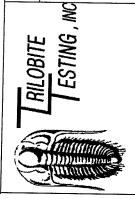
Choke (inches) | Pressure (psig)

Gas Rates

Trilobite Testing, Inc

Ref. No: 45621

Printed: 2012.03.22 @ 10:28:05



REPORT STEM TEST DRILL

TOOL DIAGRAM

DST#: 6 29-3s-23w Norton, KS Persinger #1-29 Job Ticket: 45621 ATTN: Clayton Erickson 6121 S 58th St. STE - B Lincoln, NE 66516 Great Plains Energy

Test Start: 2012.03.13 @ 05:43:00

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Tool Weight: 51.17 bbl 0.00 bbl 0.59 bbl 51.76 bbl 3.80 inches Volume: 0.00 inches Volume: 2.25 inches Volume: Diameter: Diameter: Diameter: 120.00 ft 3648.00 ft 0.00 ft 19.00 ft Length: Length: Length: Drill Pipe Above KB: Heavy Wt. Pipe: Drill Collar: Drill Pipe:

Total Volume:

3778.00 ft

25000.00 lb 48000.00 lb 40000.00 lb 40000.00 lb 2500.00 lb Weight set on Packer: Weight to Pull Loose: Tool Chased String Weight: Initial

Final

37.00 ft Number of Packers: Tool Length:

6.75 inches Diameter:

8.00 ft

Interval betw een Packers: Depth to Top Packer: Depth to Bottom Packer:

Tool Comments:

Tool De

lool Description	Length (ft)	Serial No.	Position	Depth (ft)	Length (ft) Serial No. Position Depth (ft) Accum, Lengths	
Change Over Sub	1.00	**************************************		3750.00		
Shut In Tool	5.00			3755.00		
Hydraulic tool	5.00			3760.00		
Jars	5.00			3765.00		
Safety Joint	3.00			3768.00		
Packer	5.00			3773.00	29 00	Rottom Of Ton Declar
Packer	5.00			3778.00		DOMOTI OF TOOKE
Stubb	1.00			3779.00		
Recorder	0.00	8648	Inside	3779.00		
Recorder	0.00	6299	Inside	3779.00		
Perforations	4.00			3783.00		
Bullnose	3.00			3786.00	00 8	Bottom Dockorn 9 A section
					00:0	DOMOIN FACACIS & ALICHOI

37.00 Total Tool Length:



Great Plains Energy

6121 S 58th St. STE - B Lincoln, NE 66516

29-3s-23w Norton, KS Persinger #1-29

FLUID SUMMARY

Job Ticket: 45621

DST#: 6

ATTN: Clayton Erickson

Test Start: 2012.03.13 @ 05:43:00

Mud and Cushion Information 46.00 sec/qt 0.00 ohm.m 9.00 lb/gal 6.78 in³ Gel Chem Mud Type: Mud Weight: Water Loss: Resistivity: Viscosity: Salinity:

Gas Cushion Type: Gas Cushion Pressure: Cushion Volume: Cushion Length:

Cushion Type:

psig

Water Salinity: Oil API:

ft bbl

36 deg API ppm

Recovery Information

2700.00 ppm 2.00 inches

Filter Cake:

Recovery Table

Volume	0.246	0.197
Description	OCWM 250 5W 70M	Free oil 100o
Length ft	50.00	40.00

Total Volume: 90.00 ft Total Length:

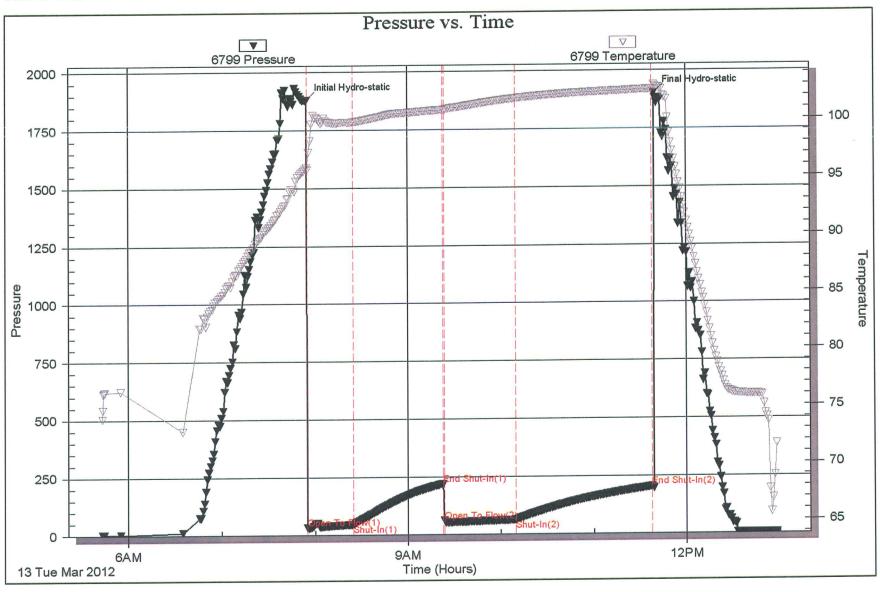
0.443 bbl

Num Fluid Samples: 0

Num Gas Bombs:

Serial #:

Laboratory Location: Laboratory Name: Recovery Comments: Oil API 38 @ 80 deg. = 36



Great Plains Energy



ESTING INC. RILOBITE

MAR 1 3 2012 P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

45616 Š.

Well Name & No Possion	# 1-39 Test No.	_	Date 3-7-1	7
Eneray		2454	2449	GL
उसका ८ १८१५	Lincoln, NE 66516	•		
Co. Rep / Geo. Clayfon Enckson	Rig Lutte	×#6		
J. Twp.	Rge. 23 w Co. No	Nother	State	\$
Interval Tested 3495 - 355 S	Zone Tested TCronto	LKC	" 4 "	
9	_	1	Mud Wt.	8.9
Top Packer Depth	Drill Collars Run	20'	Vis	25
Bottom Packer Depth 3495	Wt. Pipe Run	Ø	WL	6.4
Total Depth 3555	Chlorides 1,260 pp	ppm System	LCM	1.5
ption IF- Weak	ried in 10	M.Y.		
FF NO Blow				
٥ ٥	Sec.			
Rec 60 Feet of Mud	%das	lio%	%water	bum% srd
Rec Feet of	%gas	lio%	%water	mnd%
Rec Feet of	%das	lio%	%water	mm%
Rec Feet of	%das	%oil	%water	pnm%
Rec Feet of	%gas	lio%	%water	pnm%
Rec Total 672 BHT 97	Gravity API RW	© L	Chlorides	шdd
Hydrostatic	X Test 1125	T-On Location		8-30 PM
(B) First Initial Flow		T-Started	10.	38 pm
	Safety Joint 75	T-Open	12:4	16 Am
(D) Initial Shut-In		T-Pulled		S
(E) Second Initial Flow	☐ Hourly Standby	T-Out	Sist	2
(F) Second Final Flow	Mileage 700K 113	Comments	ents	
(G) Final Shut-In	□ Sampler			
(H) Final Hydrostatic	□ Straddle	- Rui	Ruined Shale Packer	
(☐ Shale Packer	- Rui	Ruined Packer	
Initial Open	☐ Extra Packer	— Ext	Extra Copies	
Initial Shut-In	☐ Extra Recorder	Sub Total	tal 🛇	
Final Flow	☐ Day Standby	Total	1562	
Final Shut-In 8	Accessibility	MP/DS	MP/DST Disc't	
	Sub Total 1562			

Approved By

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 Sustainfed, directly, 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.

ERICKSON WELLSITE GEOLOGY



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

Well Name:

Persinger #1-29 NE SW NW SE 1-29

License Number:

3-6-2012 1680' FSL & 2100' Sec 29, T3S, R37W Spud Date: Surface Coordinates:

Bottom Hole

K.B. Elevation (ft): Total Depth (ft): P 2451 Coordinates: Ground Elevation (ft): Logged Interval (ft):

2456 3870

Ö 3200 Formation:

Type of Drilling Fluid:

Norton County, KS 3/13/2012 Region: Drilling Completed: Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

Chemical Mud

OPERATOR

Great Plains Energy, Inc. 429 N. Linden, P.O. Box 292 Wahoo, NE 68066 Company: Address:

GEOLOGIST

Name:

Clayton Erickson Erickson Wellsite Geology 402 Palmer Street Company: Address:

P.O. Box 294

Loomis, NE 68958

DST #1 3495-3555 30-60-30-60; Hydro: 1712-1670 IFP: 20-42 ISIP: 1244 FFP: 48-67 FSIP: 1233; Rec: 60' mud; IF: surface dead in 10min ISI: dead FF: dead FSI: dead

DST #2 3555-3594 30-60-45-90; Hydro: 1752-1716 IFP: 23-73 ISIP: 1148 FFP: 66-91 FSIP: 1078; Rec: 1' free oil 10' oswm 30%w 70%m 60' mw 70%w 30%m 55' mw 85%w 15%m 5' mud; RW: .43@66F Chl: 20,000ppm; IF: 1/4" died back to 1/8" ISI: dead FF: 1/8" died back to surface FSI: dead

10' oswm 30%w 70%m 60' mw 70%w 30%m 55' mw ठോ∾w 107രണ ഉ ന്നധ്യ, റഢ. .പാക്രൗ 1/4" died back to 1/8" ISI: dead FF: 1/8" died back to surface FSI: dead

DST #3 3635-3660 30-60-30-90; Hydro: 1800-1798 IFP: 27-142 ISIP: 1176 FFP: 146-219 FSIP: 1160; Rec: 220'mw 90%w 10%m 175'mw 95%w 5%m 5' mud; RW: .2@64F Chl: 40,000ppm; IF: BOB 13min ISI: dead FF: BOB 20min FSI: dead

DST #4 3660-3704 30-60-45-90; Hydro: 1813-1814 IFP: 22-41 ISIP: 875 FFP: 47-64 FSIP: 838; Rec: 80' mud IF: 2" ISI: dead FF: 1" FSI: dead

DST #5 3777-3781 30-60-30-60; Hydro: 1919-1870 IFP: 22-24 ISIP: 72 FFP: 34-26 FSIP: 100; Rec: 1' oil 4' ocm 5%o 95%m; IF: dead in 2min ISI: dead FF: dead FSI: dead

oil 50' DST #6 3778-3786 30-60-45-90; Hydro: 1878-1901 IFP: 33-45 ISIP: 219 FFP: 60-62 FSIP: 203; Rec: 40' wocm 25%o 5%w 70%m; Grav: 36; IF: 3 1/4" ISI: dead FF: 3" FSI: dead

COMMENTS

FORMATION TOPS Sample tops 2053(+403) 2086(+370) 3310(-854) 3500(-1044) 3529(-1073) 3726(-1270) 3726(-1322) 3830(-1374) 3870(-1414) 3726(-1270) 3770(-1314) 3780(-1324) 3830(-1374) 3871(-1415) Log Tops 2053(+403) 2084(+372) 3307(-851) 3500(-1044) 3530(-1074) 3543(-1087) GORHAM ANHYDRITE Base Anhy TOPEKA HEEBNER TORONTO LANSING BKC Granite 2

	Shgy Sitst			
	mmmm Mrlst mmmm Salt mmmm Shale	LS	INTERVAL St	
ROCK TYPES		OTHER SYMBOLS	Dead	
	Clyst Carb. shale Carb. Shale Arkose	The control of the co	SpottedQues	
	Anhy ###################################		OIL SHOW Even	

Remarks	grey, trace	odor.
Geological Descriptions	SH- grey, red-red/brwn, bl/green w/ L.S wht-grey, fn xth, grn sth, n ovis por, no odor, no SFO, trace pyrite SH- grey-dk grey, red/brwn w/ L.S crm, fn xth, md stn, no vis por, no odor, no SFO SH- grey, red/brwn	L.S crm-tan. fn xtln. ok stn. no vis por. no odor.
Lithology of the second		
Depth	ZE .	-
Curve Track 1 Samma (API)	ROP (min/ft)	The second secon

