Confidentiality Requested:
☐ Yes ☑ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1186432

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 # 33629
Name: Great Plains Energy, Inc.
Address 1: 6121 S 58TH ST, STE B
Address 2:
City: LIN COLN State: NE Zip: 68516 + __ __ __ __
Contact Person: Dan Blankenau
Phone: (402) 443-6125
CONTRACTOR: License # 33575
Name: WW Drilling, LLC
Wellsite Geologist: Mike Maccharo
Purchaser: MV Purchasing

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 #:

07/06/2013	07/13/2013	07/14/2013
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-163-24123-00-00
Spot Description:
N2 - SW - SE - SW Sec. 8 Twp. 7 S. R. 18 ☐ East ☑ West
480 Feet from ☐ North / ☑ South Line of Section
1650 Feet from ☐ East / ☑ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☐ SE ☑ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Rooks
Lease Name: Odle Well #: 1-8
Field Name:
Producing Formation: Lansing
Elevation: Ground: 1938 Kelly Bushing: 1945
Total Vertical Depth: 3509 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 219 Feet
Multiple Stage Cementing Collar Used? ☑ Yes ☐ No
If yes, show depth set: 1411 Feet
If Alternate II completion, cement circulated from: 3500
feet depth to: 0 w/ 465 sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)
Chloride content: 3000 ppm Fluid volume: 300 bbls
Dewatering method used: Evaporated
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:** Deanna Garrison **Date:** 02/04/2014

[redacted] 1186432

Operator Name: Great Plains Energy, Inc. Lease Name: Odle Well #: 1-8

Sec. 8 Twp. 7 S. R. 18 ☐ East ☑ West County: Rooks

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 ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Compensated Density/Neutron Log
Dual Induction
Micro

☐ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Anhydrite	1425	+520
Base	1457	+488
Topeka	2900	-955
Heebner	3103	-1158
Lansing	3142	-1187
BKC	3368	-1423
Arbuckle	3452	-1507

CASING RECORD ☑ New ☐ 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
Surface	12.75	8.625	23	219	Common	175	3% cc, 2% gel
Production	7.875	5.5	15.5	3500	OVC	175	3% cc, 2% gel

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:
☐ Perforate
☑ Protect Casing
☐ Plug Back TD
☐ Plug Off Zone

Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
0-1411	60/40 poz	290	8% gel, 1/4# flo-seal
-			

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 *(Amount and Kind of Material Used)*	Depth
4	3317-3320	250 gal. mca	
4	3216-3218	250 gal. mca; 1500 gal. 15%NE	

TUBING RECORD: Size: 2.875 Set At: 3433 Packer At:

Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 08/10/2013

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	80		0		

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)*

PRODUCTION INTERVAL: 3216-3218

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

CONSOLIDATED
Oil Well Services, LLC
PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

259662

TICKET NUMBER 40026
LOCATION Oakley KS
FOREMAN Miles Shaw

FIELD TICKET & TREATMENT REPORT
CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
6-15-13	3282	Odle #1-8	8	7S	18W	Rooks KS

CUSTOMER: Great Plains
MAILING ADDRESS:
CITY: STATE: ZIP CODE:

Stockholders 8W 2N Freestate

TRUCK #	DRIVER	TRUCK #	DRIVER
405	Jerry		
460	Jordan L		
529 T29	Mike P		

JOB TYPE 2 Stage HOLE SIZE 7 7/8 HOLE DEPTH 3580 CASING SIZE & WEIGHT 5½" 15.5#
CASING DEPTH 3508.73 DRILL PIPE TUBING OTHER DV tool @ 1411'
SLURRY WEIGHT 14.8/12.5 SLURRY VOL 1.42/1.9 WATER gal/sk CEMENT LEFT in CASING 22.61
DISPLACEMENT 85 DISPLACEMENT PSI 800/400 MIX PSI 1300/2100 RATE

REMARKS: Safety Meeting and rig up on WH 12 drilling Float equipment Centralizers on Joints 2, 4, 5, 6, 7, 8, 10, 12, 78. Baskets on Joints 3, 13, 49 DV tool on top of 49 @ 1411' Run casing to bottom circulate casing thr. Pump 5bbls water 500 gal mud flush 20bbls KCL water mix 175 sks owc with 5# Kol seal/sk shutdown Clean pump & lines released plug displaced w/ 50 bbls mud 35 bbls early 800 psi. Lift Plug land & held with 1300 psi Dropped dart open tool 900 psi. Circulate casing 3 hrs. Pump 500 gal Mud flush 5 bbls water mix 290 sks 60/40 Poz 8% gel 4# Kol seal/sk down casing Shutdown Clean pump & lines released plug displaced 34 bbls water with lines. Lift Plug land and closed tool @ 2100 psi. Mix 30 sks Rathole

Thank You Miles & Crew

ACCOUNT CODE	QUANITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401 C	1	PUMP CHARGE	3175.00	3175.00
5406	75	MILEAGE	5.25	393.75
5407	22.86 tons	ton Mileage Delivery	1.75	3000.37
1126	175 sks	OWC	23.70	4147.50
1131	320	60/40 Poz Cement	15.84	5075.20
1110A	875 #	Kol seal	.56	490.00
1118B	220 #	Bentonite gel	.27	594.27
1107	80 #	Flo seal	2.97	237.60
1144G	1000 gal	mud flush	1.00	1000.00
1142A	2	KCL	41.10	82.20
4104	93	5½" ~~Centralizers~~ Baskets W	290.00	870.00
4130	2	5½" Centralizers W	61.00	549.00
4159	1	5½" Float Shoe AFU W	433.75	433.75
4277A	1	5½ DV tool	4800.00	4800.00
4314	40	Reciprocating Scratchers	82.00	3280.00
4454	1	5½" latchdown plug	318.25	318.25
			Sub total	28446.89
		less 10% discount 2844.69 Sub total	25602.20	
			SALES TAX	1240.48
			ESTIMATED TOTAL	26842.68

Ravin 3737

completed

AUTHORIZTION _____ 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.

7730

Invoice

Global Cementing LLC dba SOS LLC

18048 I-70 Road
Russell, KS 67665

Date	Invoice #
6/7/2013	1036

Bill To
GREAT PLAINS ENERGY 6121 S 58TH ST STE B LINCOLN,NE 68516

P.O. No.	Terms	Project
ODEL #1-8	Net 30	

Quantity	Description	Rate	Amount
175	COMMON Cement Co.	15.50	2,712.50T
7	CALCIUM	53.00	371.00T
4	GEL	26.00	104.00T
186	HANDLING	2.10	390.60
	BULK MILEAGE	744.00	744.00
1	TRI-PLEX PUMP CHARGE FOR SURFACE	1,050.00	1,050.00
100	PUMP TRUCK MILEAGE	6.50	650.00
100	LMV	2.00	200.00
	DISCOUNT 15%	-963.50	-963.50
	Sales Tax	6.30%	200.81

se remit to above address.

Total $5,459.41

Phone #	Fax #	E-mail
785-324-2658	785-445-3526	globalcementingllc@gmail.com

DRILL STEM TEST REPORT

Great Plains Energy, Inc

6121 S. 58th St. Suite B
Lincoln, NE. 68516

ATTN: Mike Madcharo

8-7s-18w-Rooks

Odle #1-8

Job Ticket: 50430 **DST#: 1**

Test Start: 2013.06.10 @ 19:11:45

GENERAL INFORMATION:

Formation: **Oread**
Deviated: No Whipstock: 0.00 ft (KB)
Time Tool Opened: 20:44:45
Time Test Ended: 02:52:15

Test Type: Conventional Bottom Hole (Initial)
Tester: Jason McLemore
Unit No: 54

Interval: 3068.00 ft (KB) To 3115.00 ft (KB) (TVD)
Total Depth: 3115.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Good

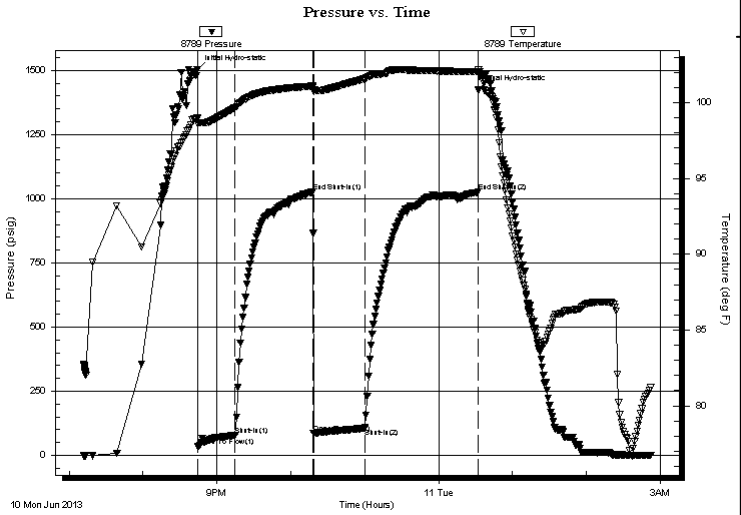
Reference Elevations: 1945.00 ft (KB)
1937.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8789 **Inside**

Press@RunDepth: 105.64 psig @ 3104.00 ft (KB)
Start Date: 2013.06.10 End Date: 2013.06.11
Start Time: 19:11:47 End Time: 02:52:15

Capacity: 8000.00 psig
Last Calib.: 2013.06.11
Time On Btm: 2013.06.10 @ 20:44:00
Time Off Btm: 2013.06.11 @ 00:32:15

TEST COMMENT: IFP-Fair Blow , Built to 8-1/2"
ISI-Dead
FFP-Weak Blow , Built to 3"
FSI-Dead



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1502.34	98.97	Initial Hydro-static
1	33.84	98.59	Open To Flow (1)
31	78.27	99.66	Shut-In(1)
94	1027.15	101.08	End Shut-In(1)
95	86.97	100.77	Open To Flow (2)
136	105.64	101.56	Shut-In(2)
228	1027.18	102.02	End Shut-In(2)
229	1423.77	102.19	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
175.00	VSOCMW-3%O-87%W-10%M	1.36
25.00	Free Oil	0.35

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Great Plains Energy, Inc

6121 S. 58th St. Suite B
Lincoln, NE. 68516

ATTN: Mike Madcharo

8-7s-18w-Rooks

Odle #1-8

Job Ticket: 50430 **DST#: 1**

Test Start: 2013.06.10 @ 19:11:45

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	26 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	36000 ppm
Viscosity:	55.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.99 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2200.00 ppm				
Filter Cake:	inches				

Recovery Information

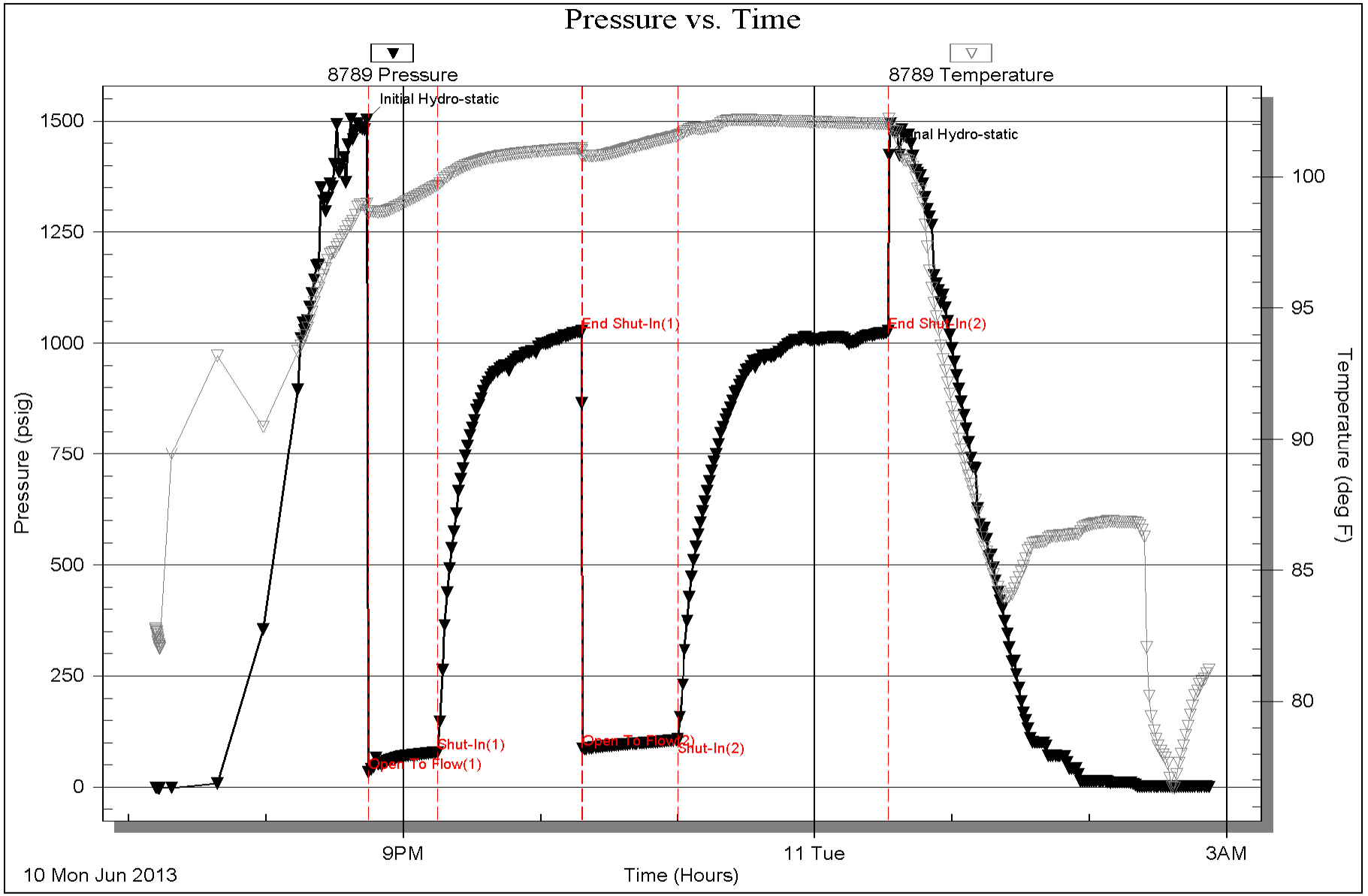
Recovery Table

Length ft	Description	Volume bbl
175.00	VSOCMW-3%O-87%W-10%M	1.362
25.00	Free Oil	0.351

Total Length: 200.00 ft Total Volume: 1.713 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8789 **Inside** Great Plains Energy, Inc Odle #1-8 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 50430 Printed: 2013.06.11 @ 15:03:32

DRILL STEM TEST REPORT

Great Plains Energy, Inc

6121 S. 58th St.
Suite B
Lincoln, NE. 68516
ATTN: Mike Madcharo

8-7s-18w-Rooks

Odle #1-8

Job Ticket: 50431 **DST#: 2**

Test Start: 2013.06.11 @ 13:32:27

GENERAL INFORMATION:

Formation: **A-C**
Deviated: No Whipstock: 0.00 ft (KB)
Time Tool Opened: 15:37:27
Time Test Ended: 21:42:57

Test Type: Conventional Bottom Hole (Reset)
Tester: Jason McLemore
Unit No: 54

Interval: 3140.00 ft (KB) To 3200.00 ft (KB) (TVD)
Total Depth: 3200.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Good

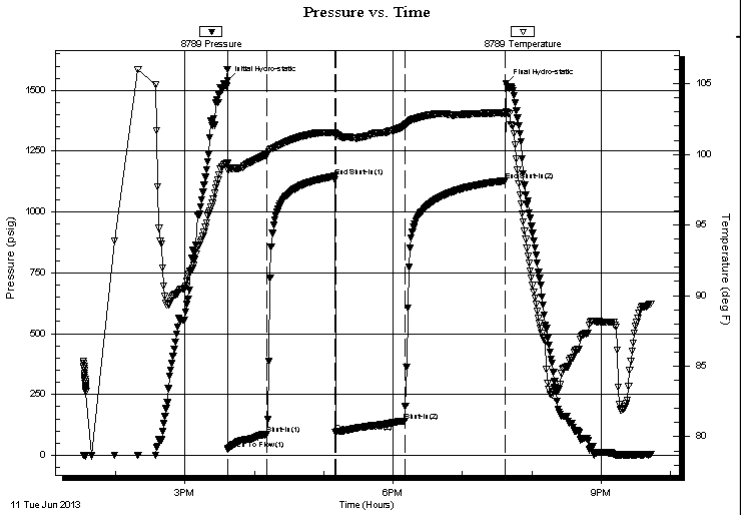
Reference Elevations: 1945.00 ft (KB)
1937.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8789 **Inside**

Press@RunDepth: 141.36 psig @ 3177.00 ft (KB)
Start Date: 2013.06.11 End Date: 2013.06.11
Start Time: 13:32:29 End Time: 21:42:57

Capacity: 8000.00 psig
Last Calib.: 2013.06.11
Time On Btm: 2013.06.11 @ 15:37:12
Time Off Btm: 2013.06.11 @ 19:37:42

TEST COMMENT: IFP-Fair Blow , BOB in 14 Min.
ISI-Blow back Built to 1/2"
FFP-Fair Blow , BOB in 16 Min.
FSI-Dead



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1540.04	99.41	Initial Hydro-static
1	25.04	98.88	Open To Flow (1)
34	86.46	100.00	Shut-In(1)
93	1147.00	101.54	End Shut-In(1)
93	92.79	101.33	Open To Flow (2)
153	141.36	102.03	Shut-In(2)
240	1127.94	102.90	End Shut-In(2)
241	1526.83	102.99	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
170.00	HOCM-30%O-70%M	1.29
140.00	Free Oil	1.96
0.00	240' Gas In Pipe	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Great Plains Energy, Inc

6121 S. 58th St.
Suite B
Lincoln, NE. 68516
ATTN: Mike Madcharo

8-7s-18w-Rooks

Odle #1-8

Job Ticket: 50431 **DST#: 2**

Test Start: 2013.06.11 @ 13:32:27

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	36 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	55.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.98 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2200.00 ppm				
Filter Cake:	inches				

Recovery Information

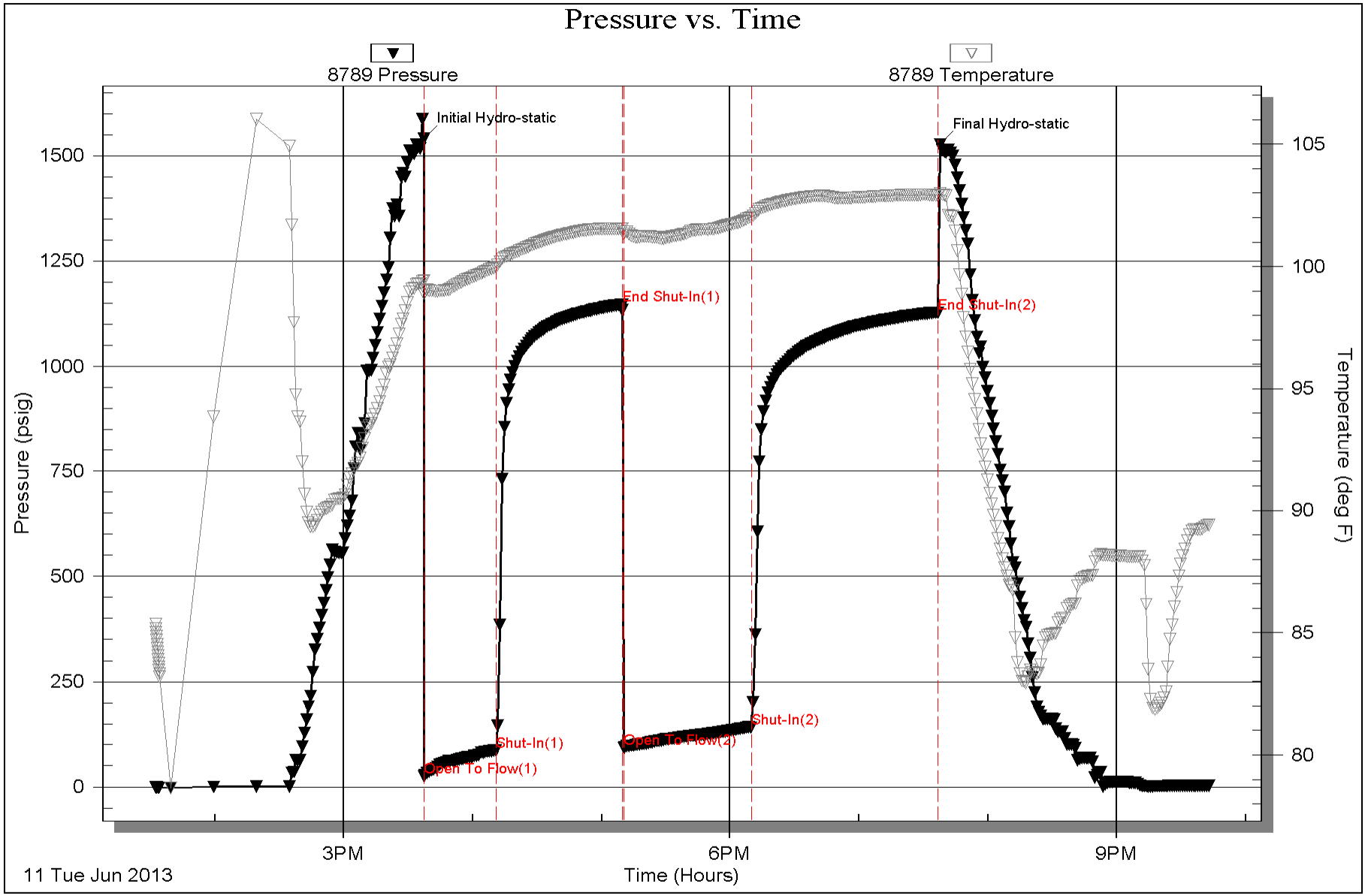
Recovery Table

Length ft	Description	Volume bbl
170.00	HOCM-30%O-70%M	1.292
140.00	Free Oil	1.964
0.00	240' Gas In Pipe	0.000

Total Length: 310.00 ft Total Volume: 3.256 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8789 **Inside** Great Plains Energy, Inc Odle #1-8 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 50431 Printed: 2013.06.12 @ 08:02:06

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Great Plains Energy, Inc**

6121 S. 58th St. Suite B
Lincoln, NE 68516

ATTN: Mike Madcharo

Odle #1-8

8-7s-18w Rooks,KS

Start Date: 2013.06.12 @ 07:02:52
End Date: 2013.06.12 @ 17:36:07
Job Ticket #: 50432 DST #: 3

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

Printed: 2013.06.17 @ 13:27:42

DRILL STEM TEST REPORT

Great Plains Energy, Inc

6121 S. 58th St. Suite B
Lincoln, NE 68516

ATTN: Mike Madcharo

8-7s-18w Rooks,KS

Odle #1-8

Job Ticket: 50432 **DST#: 3**

Test Start: 2013.06.12 @ 07:02:52

GENERAL INFORMATION:

Formation: **D-G**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 09:12:22
Time Test Ended: 17:36:07

Test Type: Conventional Bottom Hole (Reset)
Tester: Jason McLemore
Unit No: 54

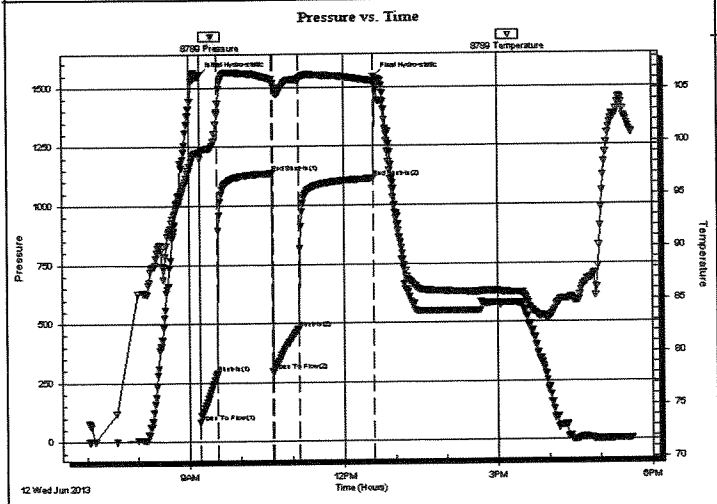
Interval: 3202.00 ft (KB) To 3260.00 ft (KB) (TVD)
Total Depth: 3260.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1945.00 ft (KB)
1937.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8789 **Inside**
Press@RunDepth: 477.83 psig @ 3237.00 ft (KB)
Start Date: 2013.06.12 End Date: 2013.06.12
Start Time: 07:02:54 End Time: 17:36:07

Capacity: 8000.00 psig
Last Calib.: 2013.06.12
Time On Btm: 2013.06.12 @ 09:11:52
Time Off Btm: 2013.06.12 @ 12:35:37

TEST COMMENT: IFP-Strong, BOB in 1 Min.
ISI-Blow back BOB in 30 Min.
FFP-Strong, BOB in 2 Min.
FSI-Blow back Built to 1"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1552.60	99.02	Initial Hydro-static
1	83.55	98.45	Open To Flow (1)
21	290.37	102.87	Shut-In(1)
85	1136.57	105.97	End Shut-In(1)
85	295.81	105.55	Open To Flow (2)
116	477.83	105.84	Shut-In(2)
203	1113.31	105.73	End Shut-In(2)
204	1544.13	105.61	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	MCO-60%O-40%M	0.25
1300.00	Free Oil	17.60
0.00	570' Gas In Pipe	0.00

* Recovery from multiple tests

Gas Rates

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

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Great Plains Energy, Inc

6121 S. 58th St. Suite B
Lincoln, NE 68516

ATTN: Mike Madcharo

8-7s-18w Rooks,KS

Odle #1-8

Job Ticket: 50432 **DST#: 3**

Test Start: 2013.06.12 @ 07:02:52

Tool Information

Drill Pipe:	Length:	3074.00 ft	Diameter:	3.80 inches	Volume:	43.12 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	120.00 ft	Diameter:	2.25 inches	Volume:	0.59 bbl	
					Total Volume:	43.71 bbl	

Drill Pipe Above KB:	20.00 ft
Depth to Top Packer:	3202.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	58.00 ft
Tool Length:	86.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:	2000.00 lb
Weight set on Packer:	25000.00 lb
Weight to Pull Loose:	40000.00 lb
Tool Chased	0.00 ft
String Weight: Initial	35000.00 lb
Final	38000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3175.00		
Shut In Tool	5.00			3180.00		
Hydraulic tool	5.00			3185.00		
Jars	5.00			3190.00		
Safety Joint	2.00			3192.00		
Packer	5.00			3197.00	28.00	Bottom Of Top Packer
Packer	5.00			3202.00		
Stubb	1.00			3203.00		
Perforations	1.00			3204.00		
Change Over Sub	1.00			3205.00		
Blank Spacing	31.00			3236.00		
Change Over Sub	1.00			3237.00		
Recorder	0.00	8789	Inside	3237.00		
Recorder	0.00	6668	Outside	3237.00		
Perforations	20.00			3257.00		
Bullnose	3.00			3260.00	58.00	Bottom Packers & Anchor
Total Tool Length:	**86.00**					

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Great Plains Energy, Inc

6121 S. 58th St. Suite B
Lincoln, NE 68516

ATTN: Mike Madcharo

8-7s-18w Rooks,KS

Odle #1-8

Job Ticket: 50432 **DST#: 3**

Test Start: 2013.06.12 @ 07:02:52

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	34 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	40.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.98 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2100.00 ppm				
Filter Cake:	inches				

Recovery Information

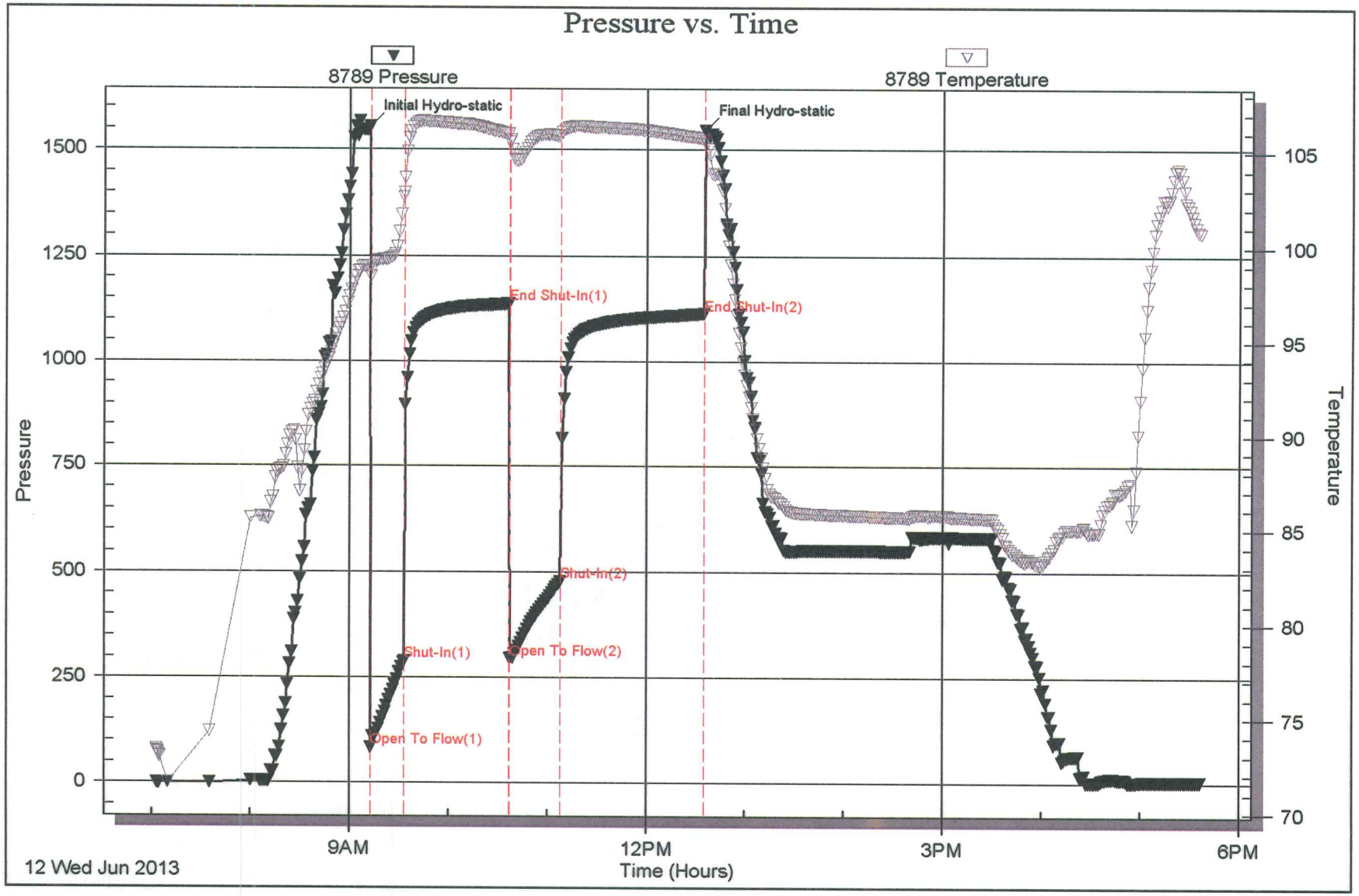
Recovery Table

Length ft	Description	Volume bbl
50.00	MCO-60%O-40%M	0.246
1300.00	Free Oil	17.598
0.00	570' Gas In Pipe	0.000

Total Length: 1350.00 ft Total Volume: 17.844 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8789 Inside Great Plains Energy, Inc Odle #1-8 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 50432 Printed: 2013.06.17 @ 13:27:45

DRILL STEM TEST REPORT

Great Plains Energy, Inc

6121 S. 58th St.
Suite B
Lincoln, NE. 68516
ATTN: Mike Madcharo

8-7s-18w-Rooks

Odle #1-8

Job Ticket: 50433 **DST#: 4**

Test Start: 2013.06.13 @ 01:56:47

GENERAL INFORMATION:

Formation: **I-J**
Deviated: No Whipstock: 0.00 ft (KB)
Time Tool Opened: 05:19:17
Time Test Ended: 11:01:32

Test Type: Conventional Bottom Hole (Reset)
Tester: Jason McLemore
Unit No: 54

Interval: 3299.00 ft (KB) To 3340.00 ft (KB) (TVD)
Total Depth: 3340.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Good

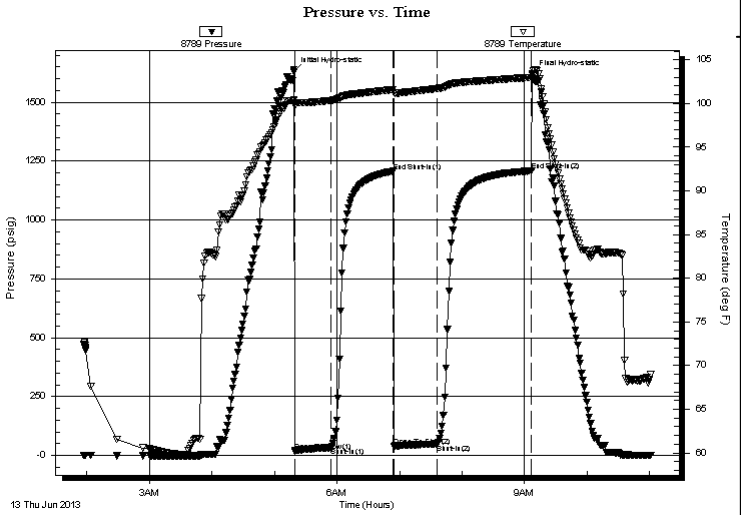
Reference Elevations: 1945.00 ft (KB)
1937.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8789 **Inside**

Press@RunDepth: 49.29 psig @ 3334.00 ft (KB)
Start Date: 2013.06.13 End Date: 2013.06.13
Start Time: 01:56:49 End Time: 11:01:32

Capacity: 8000.00 psig
Last Calib.: 2013.06.13
Time On Btm: 2013.06.13 @ 05:18:47
Time Off Btm: 2013.06.13 @ 09:07:17

TEST COMMENT: IFP-Weak Blow , Built to 3-1/4"
ISI-Dead
FFP-Weak Blow , Built to 3-1/4"
FSI-Dead



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1628.86	100.38	Initial Hydro-static
1	18.21	99.70	Open To Flow (1)
36	33.23	100.37	Shut-In(1)
95	1206.94	101.60	End Shut-In(1)
96	38.19	101.26	Open To Flow (2)
137	49.29	101.70	Shut-In(2)
228	1208.43	103.00	End Shut-In(2)
229	1615.15	103.42	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OCM-30%O-70%M	0.05
60.00	Free Oil	0.30

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

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Suite B
Lincoln, NE. 68516
ATTN: Mike Madcharo

8-7s-18w-Rooks

Odle #1-8

Job Ticket: 50433 **DST#: 4**

Test Start: 2013.06.13 @ 01:56:47

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	36 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	55.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.99 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2100.00 ppm				
Filter Cake:	inches				

Recovery Information

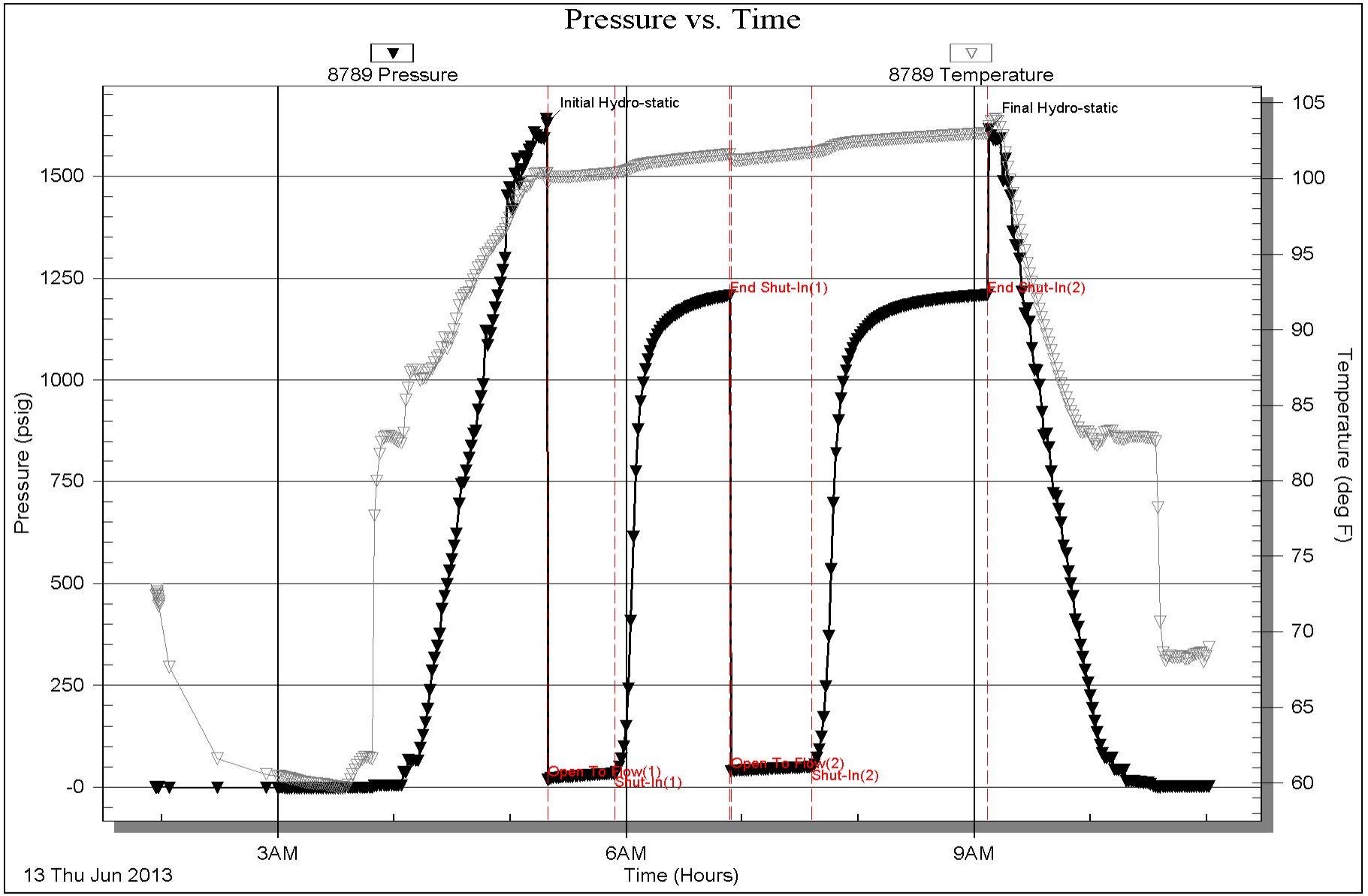
Recovery Table

Length ft	Description	Volume bbl
10.00	OCM-30%O-70%M	0.049
60.00	Free Oil	0.295

Total Length: 70.00 ft Total Volume: 0.344 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8789 **Inside** Great Plains Energy, Inc Odle #1-8 DST Test Number: 4



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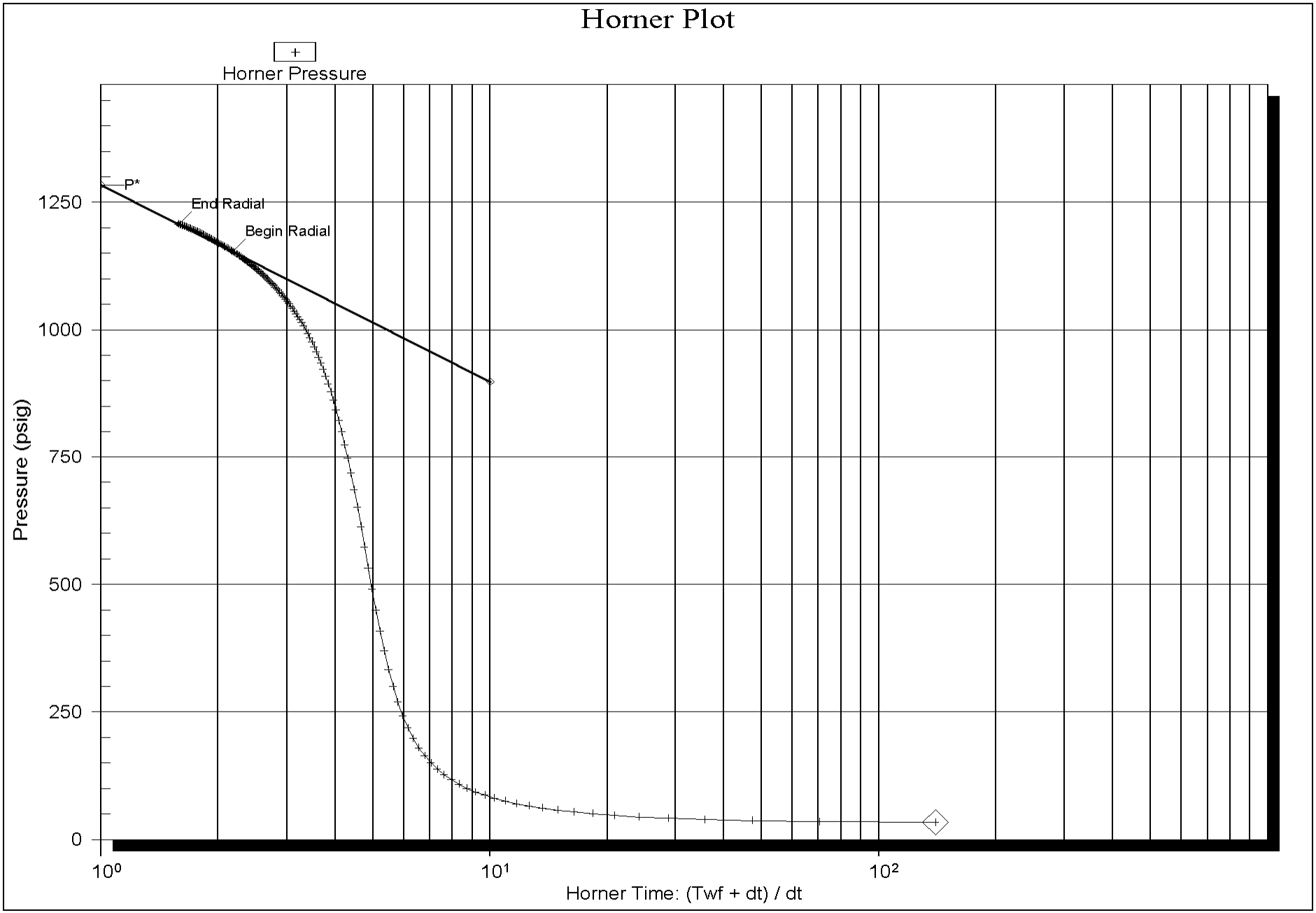
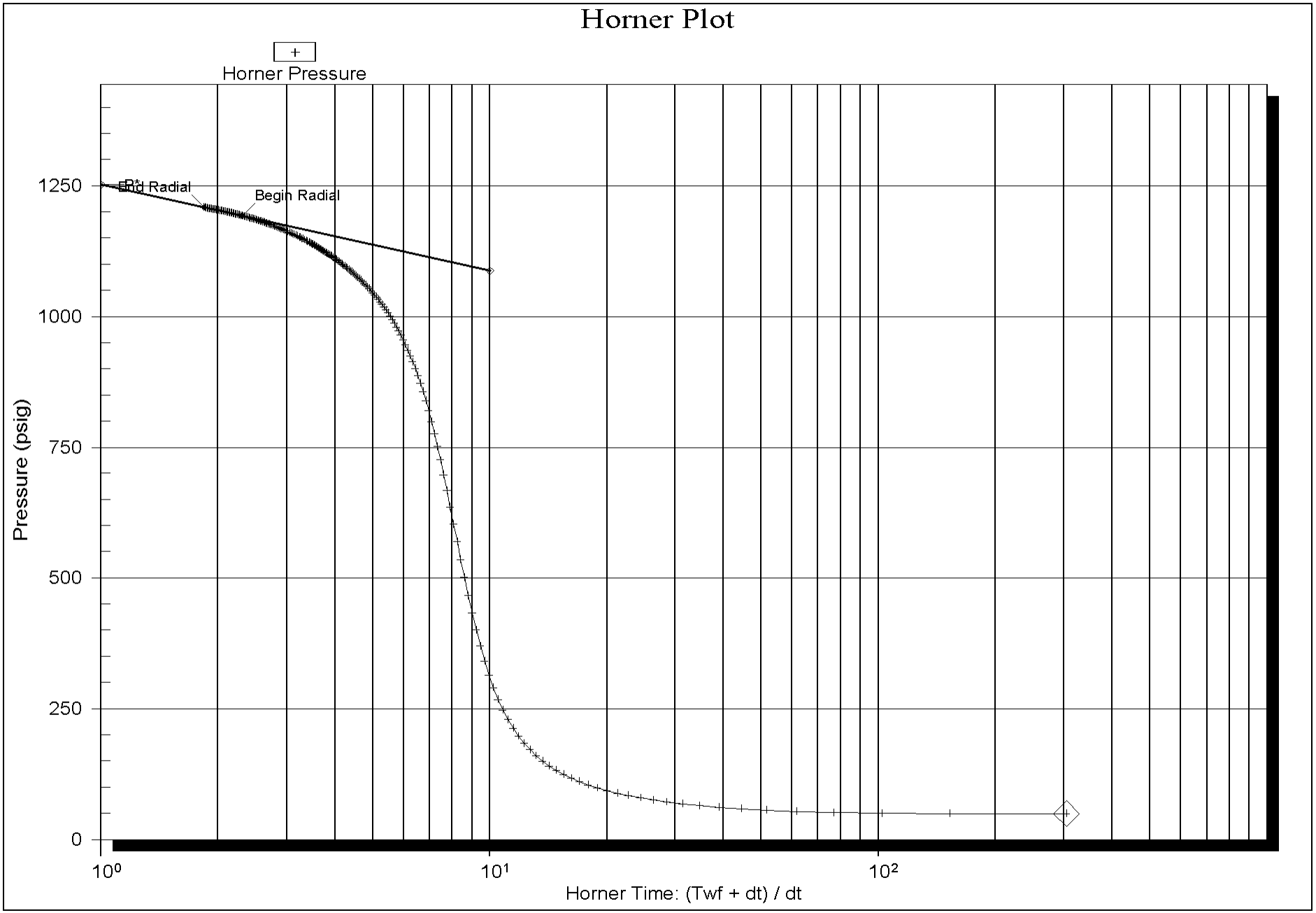


Serial Number: 8789 (Inside) P* : 1283.89 Slope (m) : 385.44 kpa/log cycle Flow Cycle: 1



Serial Number: 8789 (Inside) P* : 1252.07 Slope (m) : 164.55 kpa/log cycle Flow Cycle: 2

GEOLOGICAL REPORT
DRILLING TIME AND SAMPLE LOG

COMPANY Great Plains Energy, Inc.

LEASE Odle 1-8

FIELD Wildcat

LOCATION SW SE SW (1650' FWL, 480' FSL)

SEC 8 TWSP 7S RGE 18W

COUNTY Rooks STATE Kansas

CONTRACTOR WW Drilling, Rig #12

SPUD 7 June 2013 COMP 14 June 2013

SAMPLES SAVED FROM 2800 feet TO TD

ELEVATION

KB 1945 feet

DF —

GL 1937 feet

Depths Measured From

Log KB Drilling KB

CASING

Surface 8 5/8" to 219 ft.

Production

ELECTRIC LOGS

Pioneer Energy Services:
CND/DIL/MRES/BHCS/Frac Finder

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE	E. LOG	DATUM	A	B	C	D
Anhydrite		1425	+520	+519			
Basel Anhydr.		1457	+488	+487			
Topeka	2902	2900	-955	-968			
Heebner	3106	3103	-1158	-1174			
Lansing	3149	3142	-1197	-1214			
Basel Kansas City	3373	3368	-1423	-1437			
Penn. Conglomerate	Absent	Absent	—	-1517			
Arbuckle	3457	3452	-1507	-1553			

REFERENCE WELLS

Production casing was run for the following reasons:
- High structural position
- Multiple fair - excellent shows
- Encouraging DST results
- Favorable evaluation of electric logs

Mike Maddi cwo, PG
20 June 2013

LEGEND -

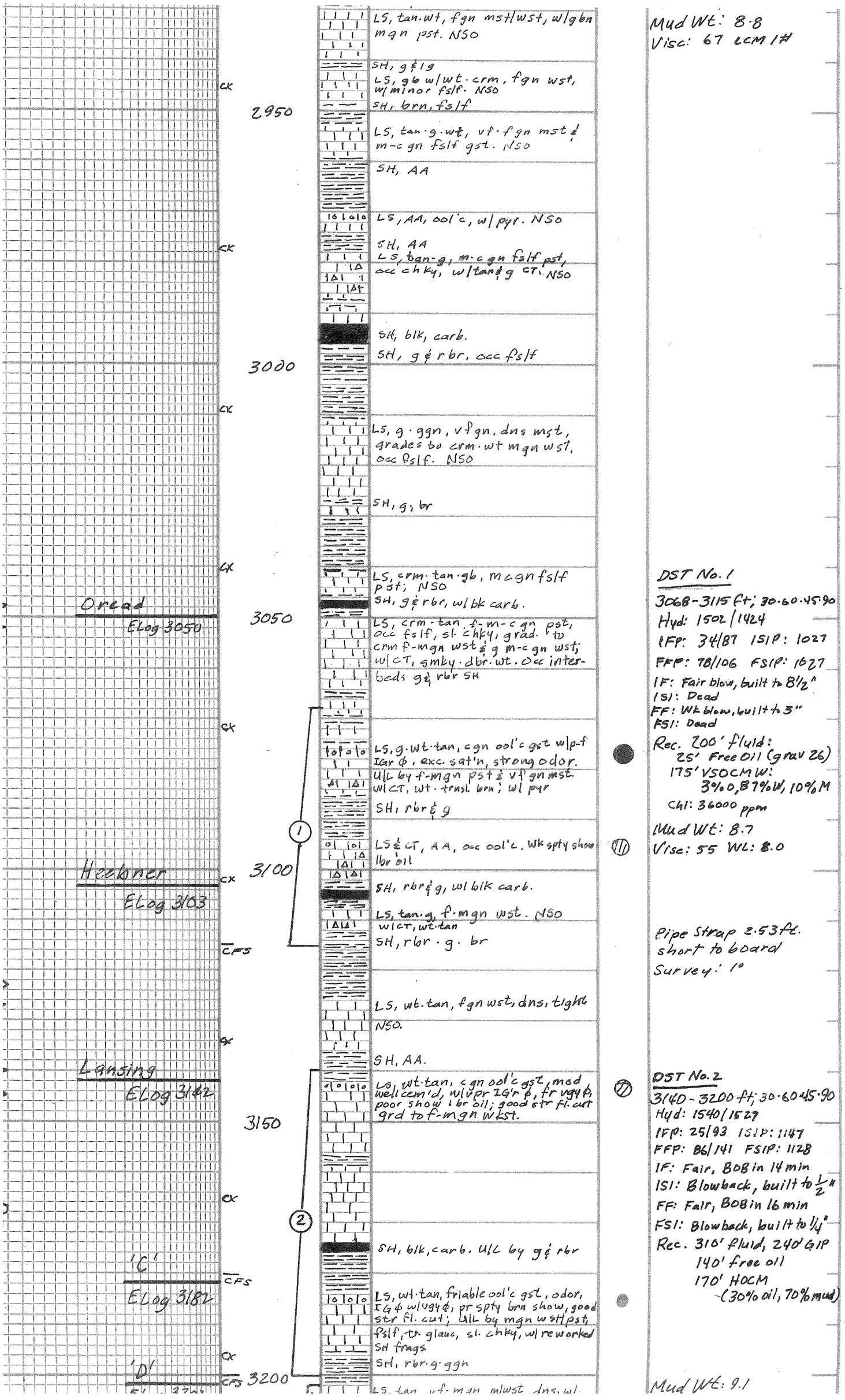
Anhydrite, Salt, Sandstone, Shale, Carb sh, Limestone, Ool. Lime, Chert, Dolomite

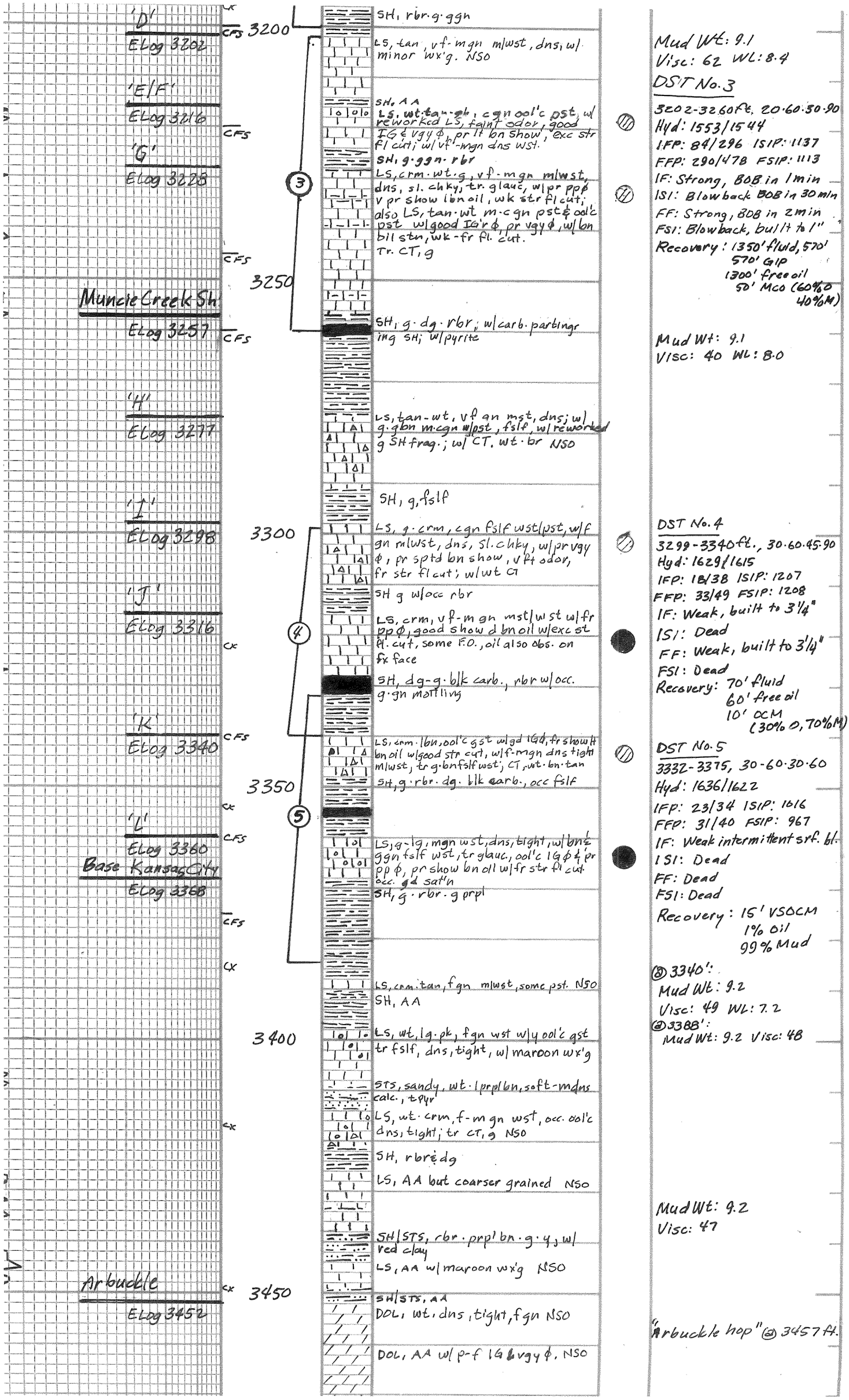
ING TIME IN MINUTES
PER FOOT
of Penetration Decreases

DEPTH | LITHOLOGY | OIL SHOWS | REMARKS

Anhydrite Salt Sandstone Shale Carb sh Limestone Ool.Lime Chert Dolomite

LING TIME IN MINUTES PER FOOT of Penetration Decreases 5" 10" 15" 20" 25"	DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	OIL SHOWS	REMARKS
	1400		Samples are lagged		Survey @ 220ft: ½°
Anhydrite					
Elog 1425					
	CX				
	1450				
Base/Anhydrite					
Elog 1458					
	CX				
Not Recorded					
	2800		LS, crm·lbr·gbr, f-c gn wst, dns, fslf, w/mdst towards base, tr.glauc.		
	CX		SH, g·dg·ggn, w/pyrite		
			LS, AA; sl. ool'c w/tr glauc. NSO		
			SH, g·rbr w/tr. pink & ylw		
			LS, crm·lb·y, f-c gn, dns, NSO w/minor wt mst, w/pyr.		
	CX 2850		SH, dg·g, w/occ rbr		Change pump guage
			LS. crm·y·gb, ool. pst in upper, m-c gn wst below, tr glauc. NSO		
	CX		SH, g		
Topeka					
Elog 2900	2900		LS, yg·gbr·gng·tan, f-c gn wst, occ. fslf, w/occ. tan vfxln mst, dns tight, occ. chalky.		
	CX		Occ. interbeds g SH, occ fslf		
			SH, g & lg		
			LS, tan·wt, fgn mst/wst, w/gbn mgn pst. NSO		Mud Wt: 8.8 Visc: 67 ECM 1#


LS, tan.wt, fgn mst/wst, w/gbn mgn pst. NSO
SH, g&g
LS, gb w/wt.crm, fgn wst, w/minor fs/f. NSO
SH, brn, fs/f
2950
LS, tan.g.wt, vf-fgn mst & m-cgn fs/f gst. NSO
SH, AA
LS, AA, ool'c, w/pyr. NSO
SH, AA
LS, tan-g, m-cgn fs/f pst, occ chky, w/tan&g CT. NSO
SH, blk, carb.
SH, g&rbr, occ fs/f
3000
LS, g.ggn, vfgn, dns mst, grades to crm.wt mgn wst, occ fs/f. NSO
SH, g; br
LS, crm-tan.gb, mcgn fs/f pst; NSO
SH, g&rbr, w/bk carb.
Oread
ELog 3050
3050
LS, crm-tan, f-m-cgn pst, occ fs/f, sl. chky, grad. to crm f-mgn wst & g m-cgn wst; w/CT, smky.dbr.wt. occ interbeds g&rbr SH
LS, g.wt.tan, cgn ool'c gst w/p-f IGr φ, exc. sat'n, strong odor. U/L by f-mgn pst & vfgn mst. w/CT, wt.trnsl. brn; w/ pyr
SH, rbr&g
1
LS&CT, AA, occ ool'c. Wk spty show lbr oil
Heebner
ELog 3103
3100
SH, rbr&g, w/ blk carb.
LS, tan.g, f.mgn wst. NSO w/CT, wt.tan
SH, rbr.g.br
CFS
LS, wt.tan, fgn wst, dns, tight NSO.
SH, AA.
Lansing
ELog 3142
LS, wt.tan, cgn ool'c gst, mod well cem'd, w/vpr IGr φ, fr vgy φ; poor show lbr oil; good str fl. cut grd to f-mgn wkst.
3150
SH, blk, carb. U/L by g&rbr
2
'C'
CFS
ELog 3182
LS, wt.tan, friable ool'c gst, odor, IGφ w/ugy φ, pr spty brn show, good str fl. cut; U/L by mgn wSH/pst fs/f, tr. glauc, sl. chky, w/ reworked SH frags.
SH, rbr.g.ggn
'D'
CFS
3200
LS, tan, vf-mgn, m/wst, dns, w/
Mud Wt: 8.8
Visc: 67 LCM 1#
DST No. 1
3068-3115 ft; 30-60-45-90
Hyd: 1502/1424
IFP: 34/87 ISIP: 1027
FFP: 78/106 FSIP: 1027
IF: Fair blow, built to 8½"
ISI: Dead
FF: Wk blow, built to 3"
FSI: Dead
Rec. 200' fluid:
25' Free Oil (grav 26)
175' VSOCMW:
3%O, 87%W, 10%M
Chl: 36000 ppm
Mud Wt: 8.7
Visc: 55 WL: 8.0
Pipe Strap 2.53ft. short to board
Survey: 1°
DST No. 2
3140-3200 ft; 30-60-45-90
Hyd: 1540/1527
IFP: 25/93 ISIP: 1147
FFP: 86/141 FSIP: 1128
IF: Fair, BOB in 14 min
ISI: Blowback, built to ½"
FF: Fair, BOB in 16 min
FSI: Blowback, built to ¼"
Rec. 310' fluid, 240' GIP
140' free oil
170' HOCM
(30% oil, 70% mud)
Mud Wt: 9.1



Mud Wt: 9.1
Visc: 62 WL: 8.4
DST No. 3
3202-3260ft. 20·60·30·90
Hyd: 1553/1544
IFP: 84/296 ISIP: 1137
FFP: 290/478 FSIP: 1113
IF: Strong, BOB in 1 min
ISI: Blowback BOB in 30 min
FF: Strong, BOB in 2 min
FSI: Blowback, built to 1"
Recovery: 1350' fluid, 570'
570' GIP
1300' free oil
50' MCO (60%O
40%M)

Mud Wt: 9.1
Visc: 40 WL: 8.0

DST No. 4
3299-3340ft., 30·60·45·90
Hyd: 1629/1615
IFP: 18/38 ISIP: 1207
FFP: 33/49 FSIP: 1208
IF: Weak, built to 3¼"
ISI: Dead
FF: Weak, built to 3¼"
FSI: Dead
Recovery: 70' fluid
60' free oil
10' OCM
(30% O, 70%M)

DST No. 5
3332-3375, 30-60-30-60
Hyd: 1636/1622
IFP: 23/34 ISIP: 1616
FFP: 31/40 FSIP: 967
IF: Weak intermittent srf. bl.
ISI: Dead
FF: Dead
FSI: Dead
Recovery: 15' VSOCM
1% oil
99% Mud

@ 3340':
Mud Wt: 9.2
Visc: 49 WL: 7.2
@ 3388':
Mud Wt: 9.2 Visc: 48

Mud Wt: 9.2
Visc: 47

"Arbuckle hop" @ 3457 ft.

Arbuckle

E Log 3452

Cx 3450

CFS, Cx

3500

RTD 3509
LTD 3507

SH/STS, red clay

LS, AA w/ maroon w x g NSO

SH/STS, AA

DOL, wt, dns, tight, f gn NSO

DOL, AA w/ p-f IG & vgy ϕ, NSO

DOL, AA, tr glauc, w/ g & pink NSO

DOL, AA, wt & tan NSO

DOL, AA w/ vpr vgy ϕ NSO

"Arbuckle hop" @ 3457 ft.