Confidentiality Requested:
☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1149936

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 # 34344
Name: Culbreath Oil & Gas Company, Inc.
Address 1: 1532 S PEORIA AVE
Address 2:
City: TULSA State: OK Zip: 74120 + 6202
Contact Person: Billy Schmidt
Phone: (918) 749-3508
CONTRACTOR: License # 5822
Name: Val Energy, Inc.
Wellsite Geologist: Steve Murphy
Purchaser: Sunoco

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 #:

04/04/2013	04/14/2013	04/14/2013
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-193-20889-00-00
Spot Description:
NE - SE - NW - NW Sec. 20 Twp. 10 S. R. 31 ☐ East ☑ West
850 Feet from ☑ North / ☐ South Line of Section
1220 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: Thomas
Lease Name: Ostmeyer Well #: 1-20
Field Name:
Producing Formation: Marmaton
Elevation: Ground: 2967 Kelly Bushing: 2970
Total Vertical Depth: 4676 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 310 Feet
Multiple Stage Cementing Collar Used? ☑ Yes ☐ No
If yes, show depth set: 2140 Feet
If Alternate II completion, cement circulated from:
feet depth to: w/ sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 8000 ppm Fluid volume: 450 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: 06/27/2013
☑ **Confidential Release Date:** 06/27/2015
☑ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** NAOMI JAMES **Date:** 07/01/2013

1149936

Operator Name: Culbreath Oil & Gas Company, Inc. Lease Name: Ostmeyer Well #: 1-20

Sec. 20 Twp. 10 S. R. 31 ☐ East ☑ West County: Thomas

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:

CND, DIL, Micro, Sonic

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

Name: Attached Top: Attached Datum: Attached

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	12.25	8.625	23	310	common	235	3%gel, 2%cc
Production	7.875	5.5	14	4676	lite	435	salt/gel

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate ___ Protect Casing ___ Plug Back TD ___ Plug Off Zone	-			
	-			

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

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

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

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth
4	39 gram charge, expan gun	250 gal MA, 1,500 gal, 15% NE	4438-44
4	39 gram charge, expan gun	250 gal MA, 1,500 gal, 15% NE	4397-4402

TUBING RECORD: Size: Set At: Packer At: Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR. 05/10/2013

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:

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

Form	ACO1 - Well Completion
Operator	Culbreath Oil & Gas Company, Inc.
Well Name	Ostmeyer 1-20
Doc ID	1149936

Tops

Name	Top	Datum
Heebner	3963	
Toronto	3987	
Lansing	4002	
Muncie	4125	
Stark	4210	
BKC	4272	
Pawnee	4447	
Fort Scott	4460	
Cherokee Shale	4487	
Mississippi	4572	

ALLIED OIL & GAS SERVICES, LLC 060119

Federal Tax I.D. # 20-8651475

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

SERVICE POINT: Oakley

DATE 3-3-13	SEC. 4	TWP. 9	RANGE 26	CALLED OUT	ON LOCATION	JOB START 2:00am 5:22a	JOB FINISH 2:30am 6:22a
LEASE minium	WELL # 1-4 owwo		LOCATION Quinter 14N 1E 2N			COUNTY Sheridan	STATE KS
OLD OR (NEW) (Circle one)			½W N+W into				

CONTRACTOR maverick 108
TYPE OF JOB Production (2 stage)
HOLE SIZE 7 7/8 T.D. 3960'
CASING SIZE 5 1/2 DEPTH 3949.97'
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DV DEPTH 2140'
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT 42.04
CEMENT LEFT IN CSG. 42.07
PERFS. bottom water mud TOP
DISPLACEMENT 42.07 50.93 50.93

OWNER Same

CEMENT
AMOUNT ORDERED 175 sks ASC 10bbl FW 2%
435 sks Lite ¼# Flo-seal
~~500~~ 29 BBL Super Flush 29gal Cla-pro

EQUIPMENT

PUMP TRUCK # 431 CEMENTER Andrew Forslund
HELPER Dane Cefaloff
BULK TRUCK # 396 DRIVER David Scariano
BULK TRUCK # 404 DRIVER Ty Schrock

COMMON	@		
POZMIX	@		
GEL 3 sks	@	23.40	70.20
CHLORIDE	@		
ASC 1755ks	@	20.90	3652.50
	@		
Salt 18 sks	@	26.35	474.30
	@		
Lite 435 sks	@	15.95	6938.25
	@		
Flo-seal 36#	@	2.97	108.25
Super Flush 29 BBL	@	58.20	1408.80
Cla-pro 2gal	@	34.40	68.80
HANDLING 698.44 cu/ft	@	2.48	1732.13
MILEAGE 2.60 Ton/mile	29.58 Ton		3845.40
		TOTAL	18304.13

REMARKS:

Pump 12 BBL Super Flush, 20 BBL Water, Followed by 175 sks ASC. Wash Pump and Line clean. Release Plug start Displacement with water, Pump 100 BBL water 50 BBL mud. 700# Lift, Plug Landed 1460#. Float held, DV Open Tool 1000#, Pump 12 BBL Super Flush. Plug mouse hole 15 sks Rathole 30 sks, Mix Cement down 5½ casing, Wash Pump and Line clean, Release plug and start Displacement 500# Lift Land plug 1500# Tool closed Cement circulated. Thank you

SERVICE

DEPTH OF JOB 3948.97'		bottom	top
PUMP TRUCK CHARGE	2558.25		2446.25
EXTRA FOOTAGE	@		
MILEAGE 50 miles	@	7.70	385.00
MANIFOLD head	@		275.00
Light vehicle	@	4.40	220.00
	@		
	TOTAL		5845.00

CHARGE TO: Culbreath Oil + Gas
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

5½

1 AFU Floatshoe	@	408.33
1 Latch down Plug Assy	@	324.09
1 DV Tool	@	5335.76
2 Baskets	@ 394.29	788.58
10 centralizers	@ 57.33	573.30
40 Reciprocating Scratchers	@ 46.00	1840.00
	TOTAL	9269.56

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

SALES TAX (If Any)
TOTAL CHARGES 33418.69
DISCOUNT 7,686.29 IF PAID IN 30 DAYS
25,732.39 Net.

PRINTED NAME
SIGNATURE

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Culbreath Oil Operations**

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

Ostemeyer #1-20

20-10s-31w Thomas Co KS

Start Date: 2013.04.09 @ 01:00:15
End Date: 2013.04.09 @ 09:07:30
Job Ticket #: 50184 DST #: 1

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

Printed: 2013.04.22 @ 11:25:41

DRILL STEM TEST REPORT

Culbreath Oil Operations

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

20-10s-31w Thomas Co KS

Ostemeyer #1-20

Job Ticket: 50184 **DST#: 1**

Test Start: 2013.04.09 @ 01:00:15

GENERAL INFORMATION:

Formation: **LKC "J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:26:15
Time Test Ended: 09:07:30

Test Type: Conventional Bottom Hole (Initial)
Tester: Mike Roberts
Unit No: 65

Interval: 4244.00 ft (KB) To 4270.00 ft (KB) (TVD)
Total Depth: 4244.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

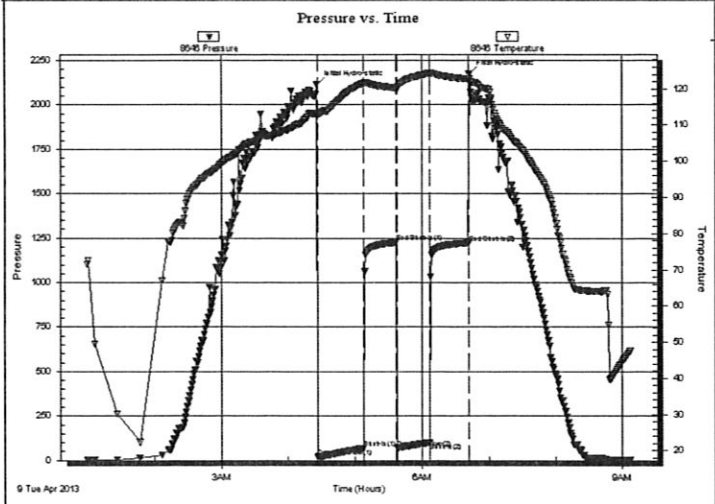
Reference Elevations: 2980.00 ft (KB)
2970.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8646 **Inside**

Press@RunDepth: 101.73 psig @ 4245.00 ft (KB)
Start Date: 2013.04.09 End Date: 2013.04.09
Start Time: 01:00:15 End Time: 09:07:30

Capacity: 8000.00 psig
Last Calib.: 2013.04.10
Time On Btm: 2013.04.09 @ 04:26:00
Time Off Btm: 2013.04.09 @ 06:42:45

TEST COMMENT: IF:Built to 1/2" blow and died back to w eak surface blow
IS:No return blow
FF:No blow
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2113.15	113.34	Initial Hydro-static
1	19.89	112.40	Open To Flow (1)
42	69.39	121.52	Shut-In(1)
71	1225.88	120.25	End Shut-In(1)
72	71.39	119.72	Open To Flow (2)
101	101.73	124.26	Shut-In(2)
136	1223.90	122.69	End Shut-In(2)
137	2175.74	122.64	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
92.00	sw cm w ith oil spots	1.29

Gas Rates

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

DRILL STEM TEST REPORT

Culbreath Oil Operations

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

20-10s-31w Thomas Co KS

Ostemeyer #1-20

Job Ticket: 50184 **DST#: 1**

Test Start: 2013.04.09 @ 01:00:15

GENERAL INFORMATION:

Formation: **LKC "J"**
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Test Type: Conventional Bottom Hole (Initial)
Tester: Mike Roberts
Unit No: 65

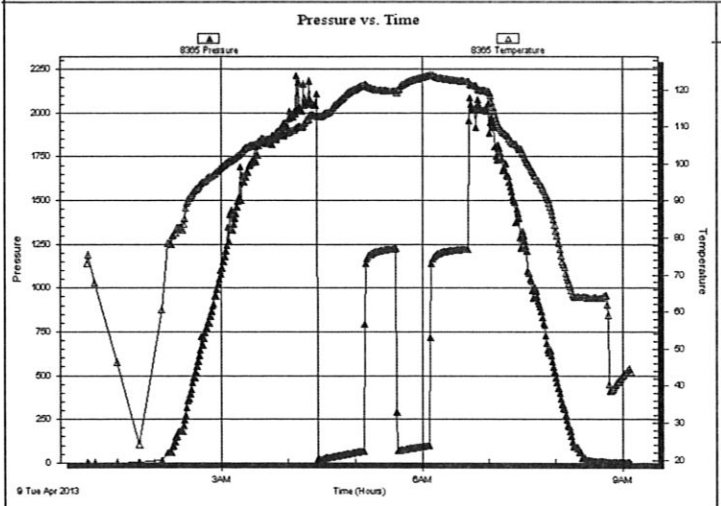
Interval: 4244.00 ft (KB) To 4270.00 ft (KB) (TVD)
Total Depth: 4244.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2980.00 ft (KB)
2970.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8365 **Outside**
Press@RunDepth: psig @ 4245.00 ft (KB)
Start Date: 2013.04.09 End Date: 2013.04.09
Start Time: 00:59:45 End Time: 09:07:15

Capacity: 8000.00 psig
Last Calib.: 2013.04.10
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:Built to 1/2" blow and died back to w eak surface blow
IS:No return blow
FF:No blow
FS:No return blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
92.00	sw cm w ith oil spots	1.29

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Culbreath Oil Operations

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

20-10s-31w Thomas Co KS

Ostemeyer #1-20

Job Ticket: 50184 **DST#: 1**

Test Start: 2013.04.09 @ 01:00:15

Tool Information

Drill Pipe:	Length:	4241.00 ft	Diameter:	3.80 inches	Volume:	59.49 bbl	Tool Weight:	1500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:	70000.00 lb
					Total Volume:	59.49 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		20.00 ft					String Weight: Initial	50000.00 lb
Depth to Top Packer:		4244.00 ft					Final	50000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		26.00 ft						
Tool Length:		49.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4222.00		
Shut In Tool	5.00			4227.00		
Hydraulic tool	5.00			4232.00		
Safety Joint	3.00		Fluid	4235.00		
Packer	5.00			4240.00	23.00	Bottom Of Top Packer
Packer	4.00			4244.00		
Stubb	1.00			4245.00		
Recorder	0.00	8646	Inside	4245.00		
Recorder	0.00	8365	Outside	4245.00		
Perforations	20.00			4265.00		
Bullnose	5.00			4270.00	26.00	Bottom Packers & Anchor
Total Tool Length:	**49.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Culbreath Oil Operations

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

20-10s-31w Thomas Co KS

Ostemeyer #1-20

Job Ticket: 50184 **DST#: 1**

Test Start: 2013.04.09 @ 01:00:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	20000 ppm
Viscosity:	51.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.53 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
92.00	sw cm w ith oil spots	1.291

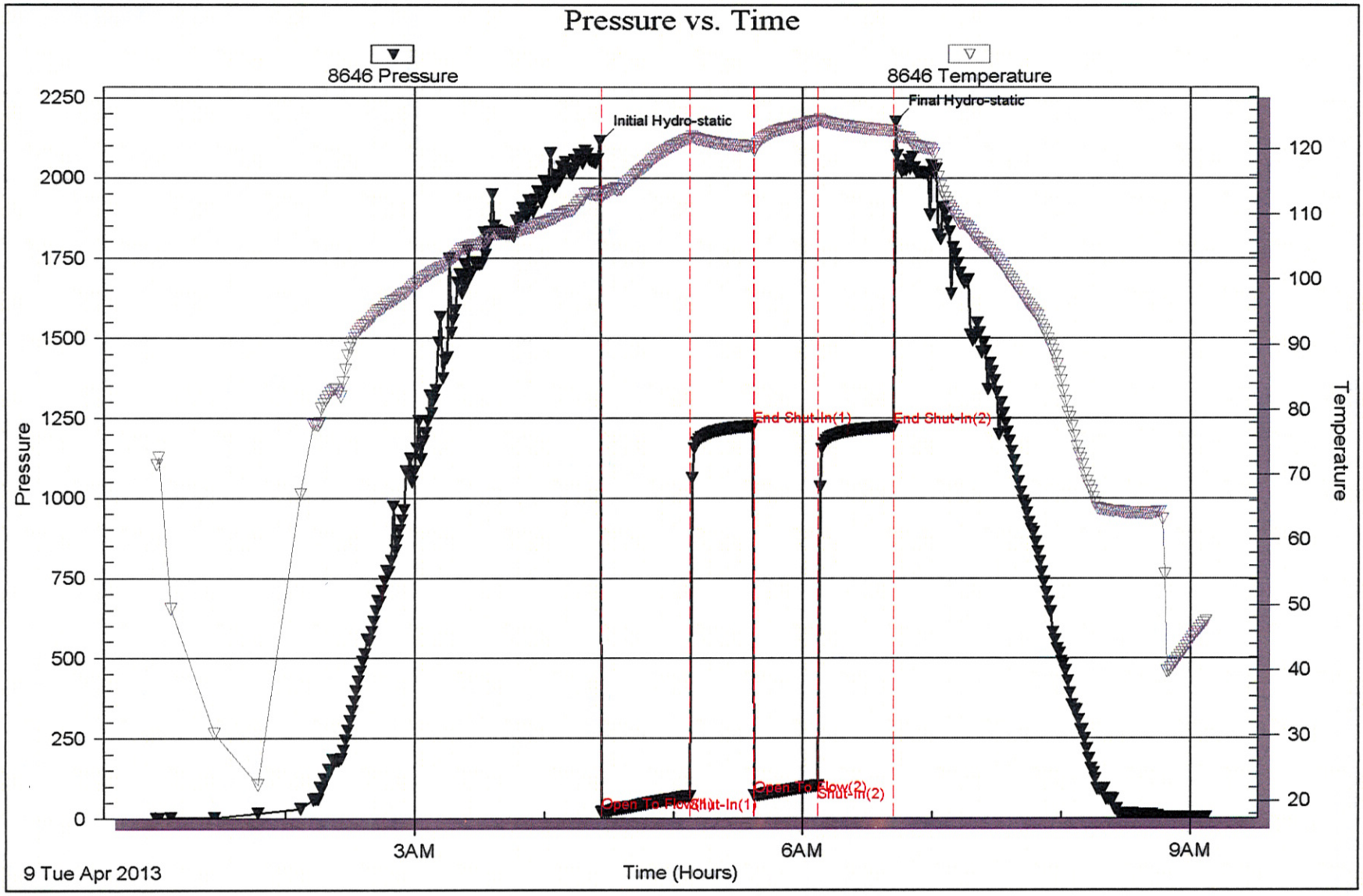
Total Length: 92.00 ft Total Volume: 1.291 bbl

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

Laboratory Name: Laboratory Location:

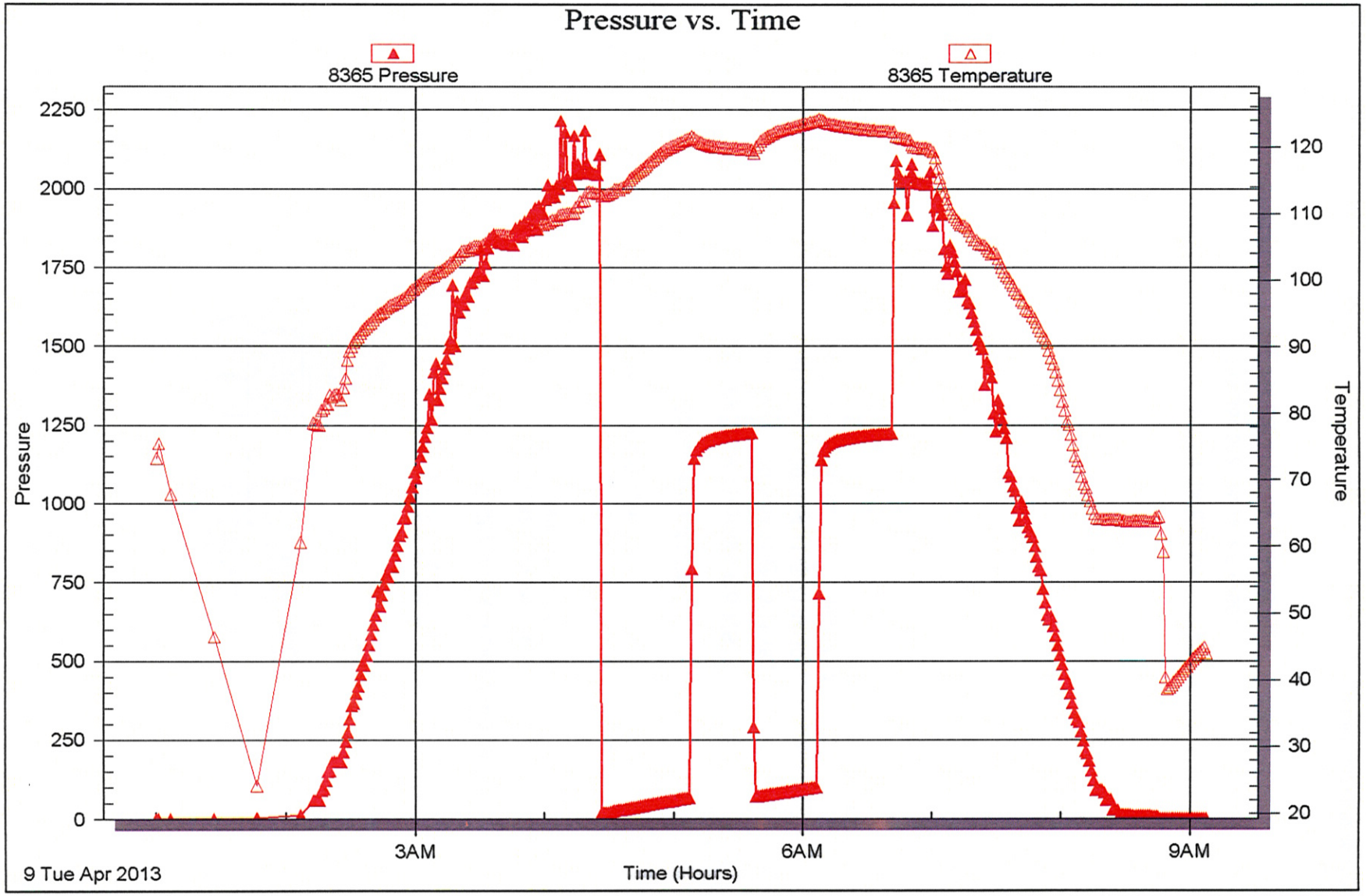
Recovery Comments: RW= .051*48*= 20,000 ppm

Serial #: 8646 **Inside** Culbreath Oil Operations Ostemeyer #1-20 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 50184 Printed: 2013.04.22 @ 11:25:43

Serial #: 8365 **Outside** Culbreath Oil Operations Ostemeyer #1-20 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 50184 Printed: 2013.04.22 @ 11:25:44

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Culbreath Oil Operations**

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

Ostemeyer #1-20

20-10s-31w Thomas Co KS

Start Date: 2013.04.11 @ 13:11:15
End Date: 2013.04.11 @ 21:14:30
Job Ticket #: 50185 DST #: 2

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

Printed: 2013.04.22 @ 11:25:01

DRILL STEM TEST REPORT

Culbreath Oil Operations

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

20-10s-31w Thomas Co KS

Ostemeyer #1-20

Job Ticket: 50185 **DST#: 2**

Test Start: 2013.04.11 @ 13:11:15

GENERAL INFORMATION:

Formation: **Pawnee**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:15:15
Time Test Ended: 21:14:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Mike Roberts
Unit No: 65

Interval: 4388.00 ft (KB) To 4418.00 ft (KB) (TVD)
Total Depth: 4418.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

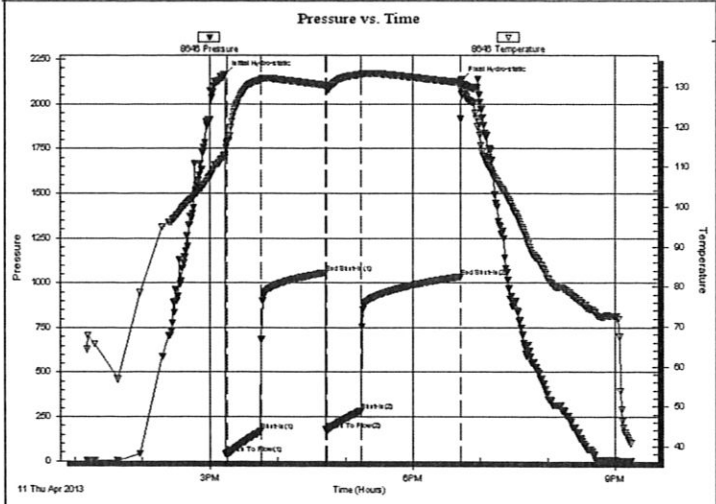
Reference Elevations: 2980.00 ft (KB)
2970.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8646 **Inside**

Press@RunDepth: 283.76 psig @ 4389.00 ft (KB)
Start Date: 2013.04.11 End Date: 2013.04.11
Start Time: 13:11:15 End Time: 21:14:30

Capacity: 8000.00 psig
Last Calib.: 2013.04.11
Time On Btm: 2013.04.11 @ 15:13:30
Time Off Btm: 2013.04.11 @ 18:43:15

TEST COMMENT: IF:BOB in 1 min.
IS:BOB in 16 min.
FF:BOB in 2 min.
FS:BOB in 19 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2164.43	112.93	Initial Hydro-static
2	39.88	115.89	Open To Flow (1)
32	169.05	131.79	Shut-In(1)
89	1056.92	130.38	End Shut-In(1)
90	174.62	129.64	Open To Flow (2)
121	283.76	133.09	Shut-In(2)
209	1034.97	131.12	End Shut-In(2)
210	2130.21	129.43	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	GIP= 1984	0.00
372.00	mcgo 5%m 30%g 65%o	5.22
124.00	gco 30%g 70%o	1.74
124.00	gco 50%g 50% o	1.74

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Culbreath Oil Operations

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

20-10s-31w Thomas Co KS

Ostemeyer #1-20

Job Ticket: 50185 **DST#: 2**

Test Start: 2013.04.11 @ 13:11:15

GENERAL INFORMATION:

Formation: **Pawnee**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:15:15
Time Test Ended: 21:14:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Mike Roberts
Unit No: 65

Interval: 4388.00 ft (KB) To 4418.00 ft (KB) (TVD)
Total Depth: 4418.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

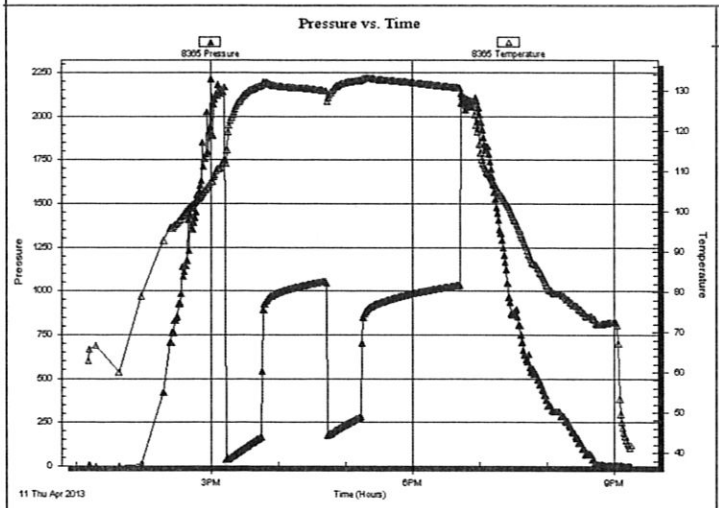
Reference Elevations: 2980.00 ft (KB)
2970.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8365 **Outside**

Press@RunDepth: psig @ 4389.00 ft (KB)
Start Date: 2013.04.11 End Date: 2013.04.11
Start Time: 13:11:15 End Time: 21:14:45

Capacity: 8000.00 psig
Last Calib.: 2013.04.11
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:BOB in 1 min.
IS:BOB in 16 min.
FF:BOB in 2 min.
FS:BOB in 19 min.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
0.00	GIP= 1984	0.00
372.00	mcgo 5%m 30%g 65%o	5.22
124.00	gco 30%g 70%o	1.74
124.00	gco 50%g 50% o	1.74

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Culbreath Oil Operations

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

20-10s-31w Thomas Co KS

Ostemeyer #1-20

Job Ticket: 50185 **DST#: 2**

Test Start: 2013.04.11 @ 13:11:15

Tool Information

Drill Pipe:	Length:	4380.00 ft	Diameter:	3.80	inches	Volume:	61.44	bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00	inches	Volume:	0.00	bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	0.00	inches	Volume:	0.00	bbl	
						Total Volume:	61.44	bbl	

Drill Pipe Above KB:	12.00 ft
Depth to Top Packer:	4388.00 ft
Depth to Bottom Packer:	ft
Interval between Packers:	37.00 ft
Tool Length:	57.00 ft
Number of Packers:	2
Diameter:	6.75 inches

Tool Weight:		1500.00 lb
Weight set on Packer:		25000.00 lb
Weight to Pull Loose:		70000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	50000.00 lb
	Final	55000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4369.00		
Shut In Tool	5.00			4374.00		
Hydraulic tool	5.00			4379.00		
Packer	5.00			4384.00	20.00	Bottom Of Top Packer
Packer	4.00			4388.00		
Stubb	1.00			4389.00		
Recorder	0.00	8646	Inside	4389.00		
Recorder	0.00	8365	Outside	4389.00		
Perforations	31.00			4420.00		
Bullnose	5.00			4425.00	37.00	Bottom Packers & Anchor
Total Tool Length:	**57.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Culbreath Oil Operations

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

20-10s-31w Thomas Co KS

Ostemeyer #1-20

Job Ticket: 50185 **DST#: 2**

Test Start: 2013.04.11 @ 13:11:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	30 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	55.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.55 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	GIP= 1984	0.000
372.00	mcgo 5%m 30%g 65%o	5.218
124.00	gco 30%g 70%o	1.739
124.00	gco 50%g 50% o	1.739

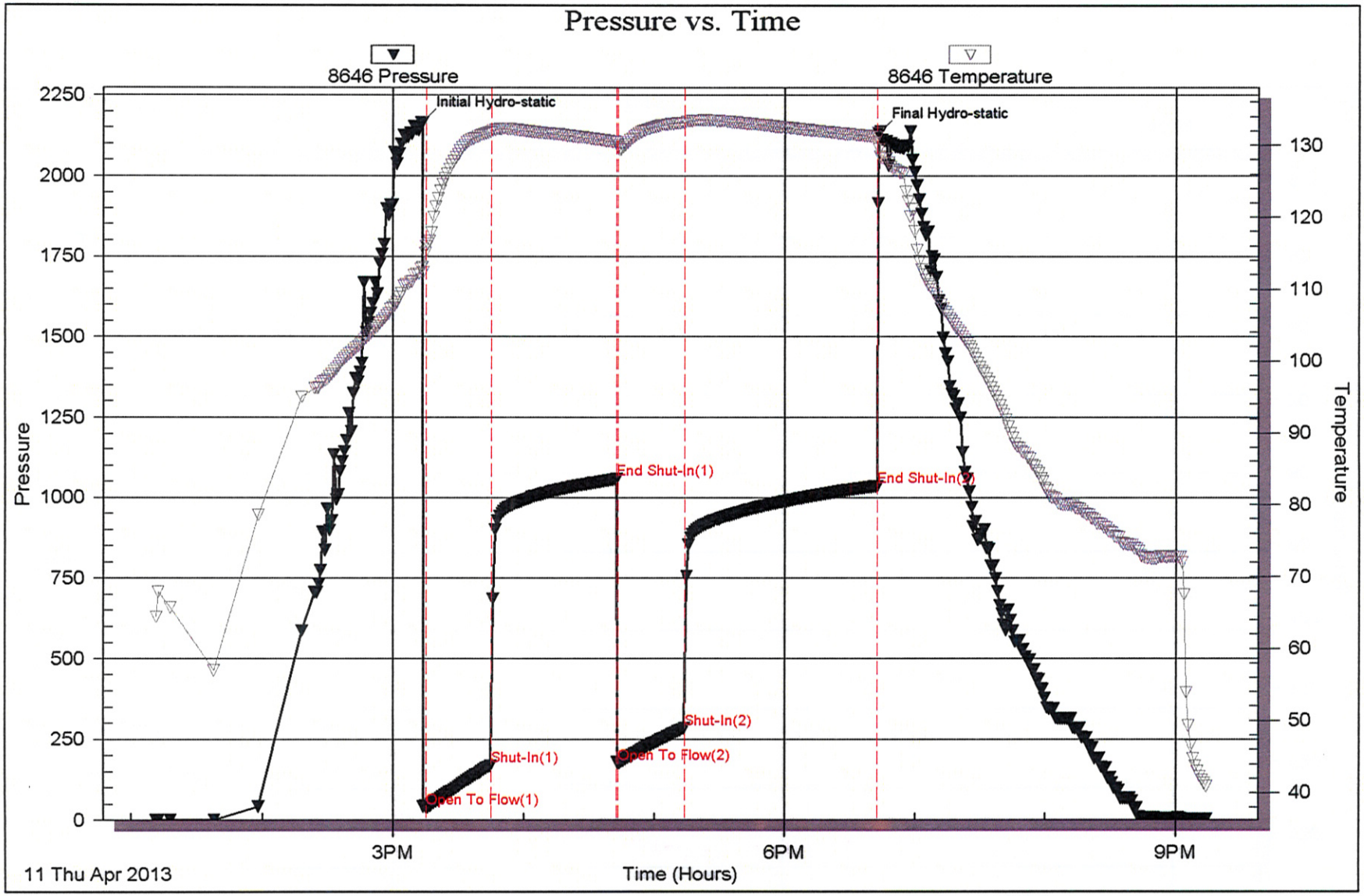
Total Length: 620.00 ft Total Volume: 8.696 bbl

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

Laboratory Name: Laboratory Location:

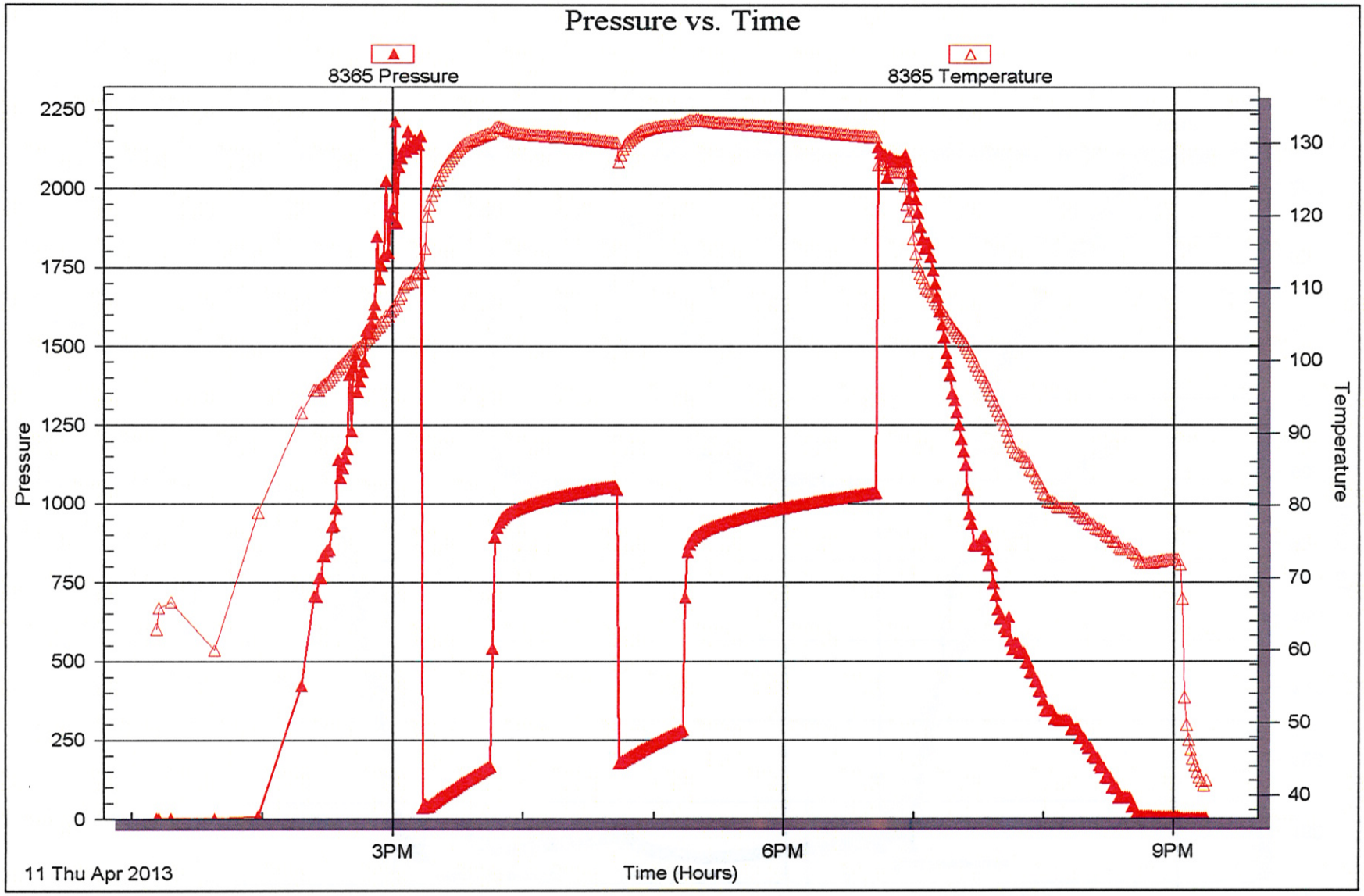
Recovery Comments: API= 32@ 40 corrected to 30 @ 60

Serial #: 8646 **Inside** Culbreath Oil Operations Ostemeyer #1-20 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 50185 Printed: 2013.04.22 @ 11:25:04

Serial #: 8365 **Outside** Culbreath Oil Operations Ostemeyer #1-20 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 50185 Printed: 2013.04.22 @ 11:25:05

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Culbreath Oil Operations**

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

Ostemeyer #1-20

20-10s-31w Thomas Co KS

Start Date: 2013.04.12 @ 07:55:15
End Date: 2013.04.12 @ 15:00:30
Job Ticket #: 50186 DST #: 3

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

Printed: 2013.04.22 @ 11:24:21

DRILL STEM TEST REPORT

Culbreath Oil Operations

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

20-10s-31w Thomas Co KS

Ostemeyer #1-20

Job Ticket: 50186 **DST#: 3**

Test Start: 2013.04.12 @ 07:55:15

GENERAL INFORMATION:

Formation: **Myrick Station**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 09:52:30
Time Test Ended: 15:00:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Mike Roberts
Unit No: 65

Interval: 4420.00 ft (KB) To 4456.00 ft (KB) (TVD)
Total Depth: 4456.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

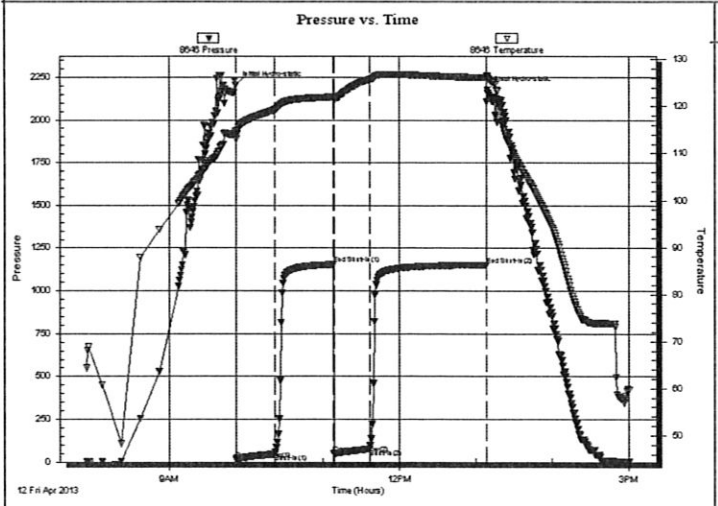
Reference Elevations: 2980.00 ft (KB)
2970.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8646 **Inside**

Press@RunDepth: 77.58 psig @ 4421.00 ft (KB)
Start Date: 2013.04.12 End Date: 2013.04.12
Start Time: 07:55:15 End Time: 15:00:30

Capacity: 8000.00 psig
Last Calib.: 2013.04.12
Time On Btm: 2013.04.12 @ 09:52:15
Time Off Btm: 2013.04.12 @ 13:09:00

TEST COMMENT: IF:BOB in 6 min.
IS:Built to w eak surface blow
FF:BOB in 5 min.
FS:Built to 3" blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2203.97	114.67	Initial Hydro-static
1	17.25	113.09	Open To Flow (1)
30	47.30	119.26	Shut-In(1)
76	1155.23	122.01	End Shut-In(1)
77	51.26	121.51	Open To Flow (2)
105	77.58	125.68	Shut-In(2)
196	1153.49	126.13	End Shut-In(2)
197	2175.01	126.28	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	GTS	0.00
20.00	Free oil 100% o	0.28
104.00	gcmo 20%g 30%m 50%o	1.46
62.00	mcog 20%m 30%o 50% g	0.87

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Culbreath Oil Operations

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

20-10s-31w Thomas Co KS

Ostemeyer #1-20

Job Ticket: 50186 **DST#: 3**

Test Start: 2013.04.12 @ 07:55:15

GENERAL INFORMATION:

Formation: **Myrick Station**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 09:52:30
Time Test Ended: 15:00:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Mike Roberts
Unit No: 65

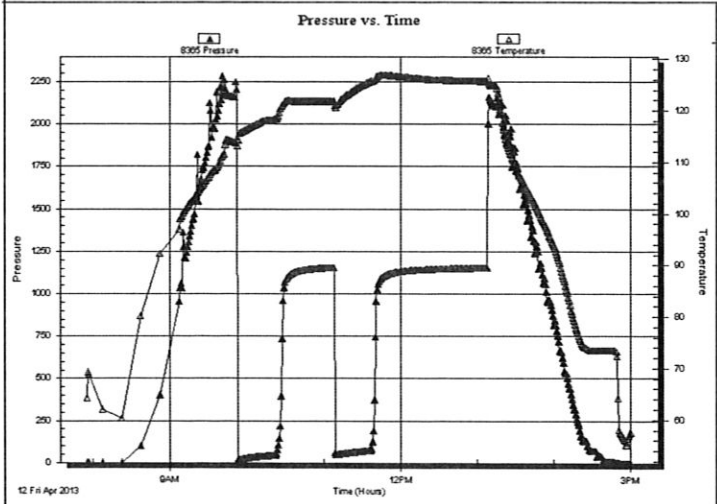
Interval: 4420.00 ft (KB) To 4456.00 ft (KB) (TVD)
Total Depth: 4456.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2980.00 ft (KB)
2970.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8365 **Outside**
Press@RunDepth: psig @ 4421.00 ft (KB)
Start Date: 2013.04.12 End Date: 2013.04.12
Start Time: 07:55:15 End Time: 15:00:45

Capacity: 8000.00 psig
Last Calib.: 2013.04.12
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:BOB in 6 min.
IS:Built to w eak surface blow
FF:BOB in 5 min.
FS:Built to 3" blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
0.00	GTS	0.00
20.00	Free oil 100% o	0.28
104.00	gcmo 20%g 30%m 50%o	1.46
62.00	mcog 20%m 30%o 50% g	0.87

* Recovery from multiple tests

Gas Rates

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

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Culbreath Oil Operations

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

20-10s-31w Thomas Co KS

Ostemeyer #1-20

Job Ticket: 50186 **DST#: 3**

Test Start: 2013.04.12 @ 07:55:15

Tool Information

Drill Pipe:	Length:	4423.00 ft	Diameter:	3.80 inches	Volume:	62.04 bbl	Tool Weight:		1500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		25000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:		70000.00 lb
					Total Volume:	62.04 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		23.00 ft					String Weight:	Initial	51000.00 lb
Depth to Top Packer:		4420.00 ft						Final	52000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		36.00 ft							
Tool Length:		56.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4401.00		
Shut In Tool	5.00			4406.00		
Hydraulic tool	5.00			4411.00		
Packer	5.00			4416.00	20.00	Bottom Of Top Packer
Packer	4.00			4420.00		
Stubb	1.00			4421.00		
Recorder	0.00	8646	Inside	4421.00		
Recorder	0.00	8365	Outside	4421.00		
Perforations	30.00			4451.00		
Bullnose	5.00			4456.00	36.00	Bottom Packers & Anchor
Total Tool Length:	**56.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Culbreath Oil Operations

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

20-10s-31w Thomas Co KS

Ostemeyer #1-20

Job Ticket: 50186 **DST#: 3**

Test Start: 2013.04.12 @ 07:55:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	35 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	55.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.95 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	GTS	0.000
20.00	Free oil 100% o	0.281
104.00	gcmo 20%g 30%m 50%o	1.459
62.00	mcog 20%m 30%o 50% g	0.870

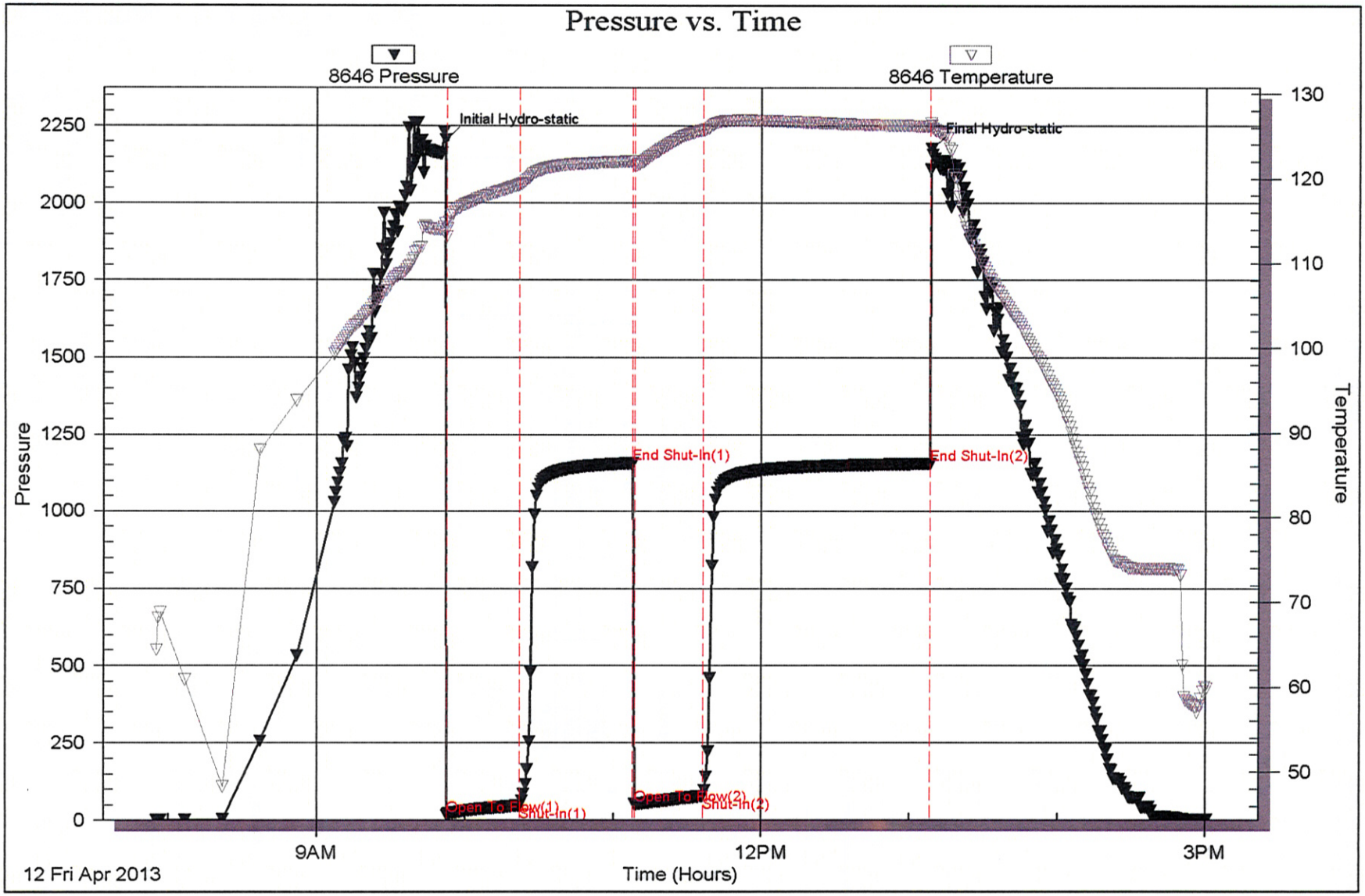
Total Length: 186.00 ft Total Volume: 2.610 bbl

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

Laboratory Name: Laboratory Location:

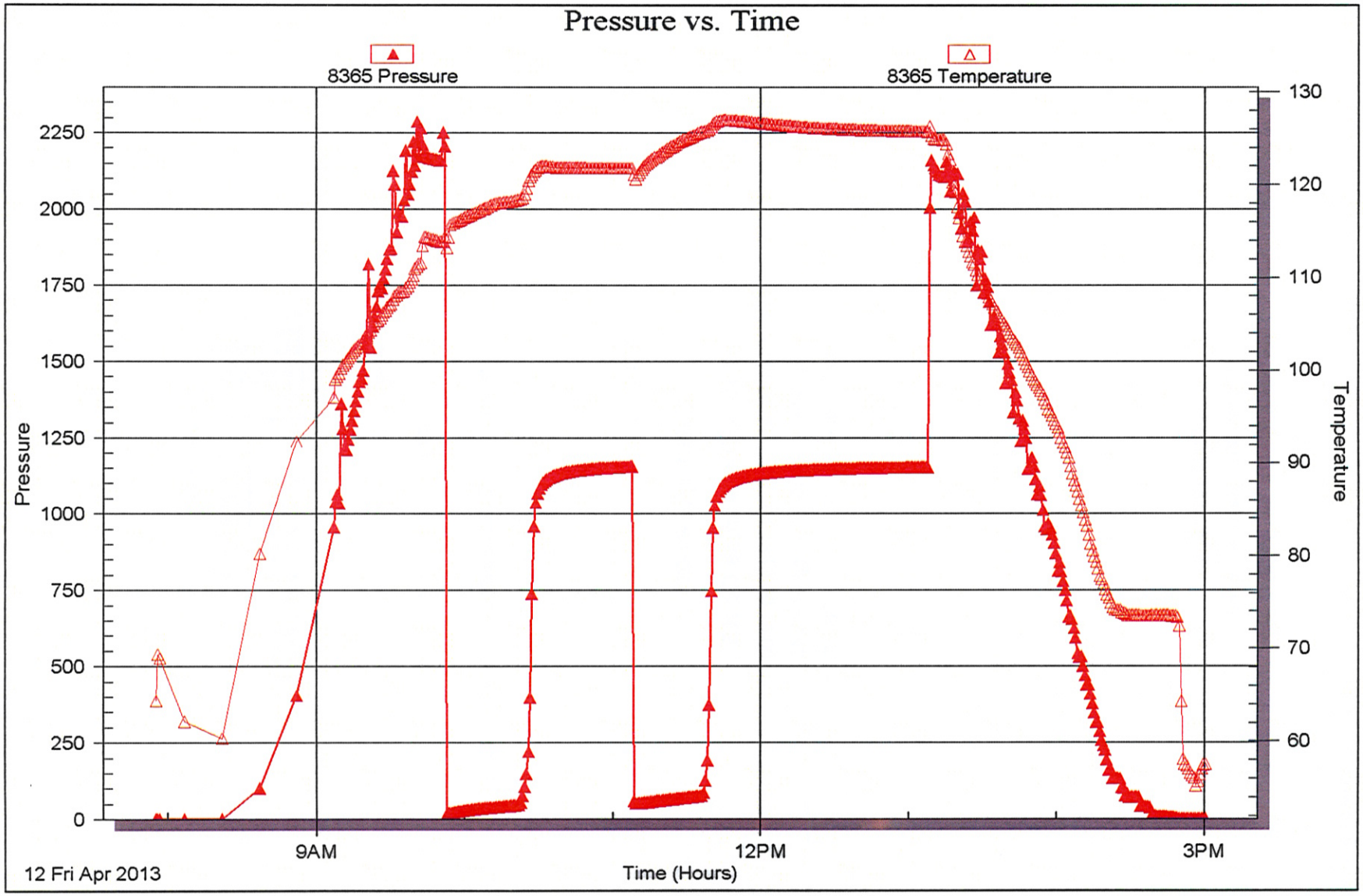
Recovery Comments: API= 36 @70 corrected to 35 @60

Serial #: 8646 **Inside** Culbreath Oil Operations Ostemeyer #1-20 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 50186 Printed: 2013.04.22 @ 11:24:23

Serial #: 8365 **Outside** Culbreath Oil Operations Ostemeyer #1-20 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 50186 Printed: 2013.04.22 @ 11:24:24

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Culbreath Oil Operations**

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

Ostemeyer #1-20

20-10s-31w Thomas Co KS

Start Date: 2013.04.12 @ 00:19:00
End Date: 2013.04.12 @ 07:43:45
Job Ticket #: 50187 DST #: 4

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

Printed: 2013.04.22 @ 11:23:32

DRILL STEM TEST REPORT

Culbreath Oil Operations

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

20-10s-31w Thomas Co KS

Ostemeyer #1-20

Job Ticket: 50187 **DST#: 4**

Test Start: 2013.04.12 @ 00:19:00

GENERAL INFORMATION:

Formation: **Ft. Scott**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:27:45
Time Test Ended: 07:43:45

Test Type: Conventional Bottom Hole (Reset)
Tester: Mike Roberts
Unit No: 65

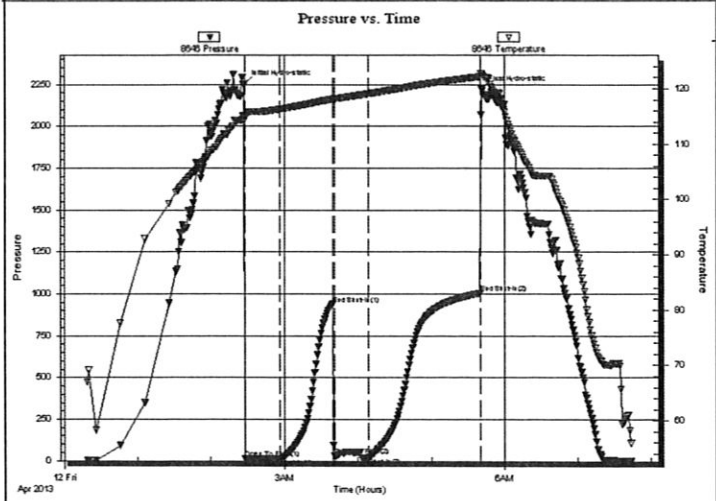
Interval: 4460.00 ft (KB) To 4486.00 ft (KB) (TVD)
Total Depth: 4486.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2980.00 ft (KB)
2970.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8646 **Inside**
Press@RunDepth: 19.70 psig @ 4461.00 ft (KB)
Start Date: 2013.04.12 End Date: 2013.04.12
Start Time: 00:19:15 End Time: 07:43:45

Capacity: 8000.00 psig
Last Calib.: 2013.04.13
Time On Btm: 2013.04.12 @ 02:27:30
Time Off Btm: 2013.04.12 @ 05:41:15

TEST COMMENT: IF:BOB in 30 min.
IS:Weak surface blow
FF:BOB in 26 min.
FS:Weak surface blow that died in 45 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2254.76	115.20	Initial Hydro-static
1	14.71	114.47	Open To Flow (1)
29	14.12	116.30	Shut-In(1)
72	939.63	118.13	End Shut-In(1)
74	30.38	118.18	Open To Flow (2)
102	19.70	119.11	Shut-In(2)
193	1005.49	122.19	End Shut-In(2)
194	2221.89	122.81	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	GIP= 216 ft	0.00
30.00	gcmo 5% g 40%m 55%o	0.42
1.00	free oil	0.01

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

Culbreath Oil Operations

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

20-10s-31w Thomas Co KS

Ostemeyer #1-20

Job Ticket: 50187 **DST#: 4**

Test Start: 2013.04.12 @ 00:19:00

GENERAL INFORMATION:

Formation: **Ft. Scott**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:27:45
Time Test Ended: 07:43:45

Test Type: Conventional Bottom Hole (Reset)
Tester: Mike Roberts
Unit No: 65

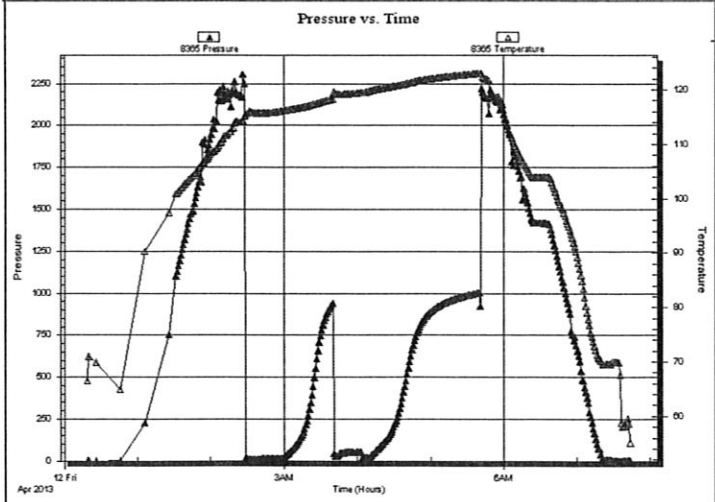
Interval: 4460.00 ft (KB) To 4486.00 ft (KB) (TVD)
Total Depth: 4486.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2980.00 ft (KB)
2970.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8365 **Outside**
Press@RunDepth: psig @ 4461.00 ft (KB)
Start Date: 2013.04.12 End Date: 2013.04.12
Start Time: 00:19:15 End Time: 07:44:15

Capacity: 8000.00 psig
Last Calib.: 2013.04.13
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:BOB in 30 min.
IS:Weak surface blow
FF:BOB in 26 min.
FS:Weak surface blow that died in 45 min.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
0.00	GIP= 216 ft	0.00
30.00	gcmo 5% g 40%m 55%o	0.42
1.00	free oil	0.01

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Culbreath Oil Operations

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

20-10s-31w Thomas Co KS

Ostemeyer #1-20

Job Ticket: 50187 **DST#: 4**

Test Start: 2013.04.12 @ 00:19:00

Tool Information

Drill Pipe:	Length:	4451.00 ft	Diameter:	3.80 inches	Volume:	62.44 bbl	Tool Weight:		1500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		25000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:		70000.00 lb
					Total Volume:	62.44 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		14.00 ft					String Weight:	Initial	52000.00 lb
Depth to Top Packer:		4460.00 ft						Final	52000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		26.00 ft							
Tool Length:		49.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4438.00		
Shut In Tool	5.00			4443.00		
Hydraulic tool	5.00			4448.00		
Safety Joint	3.00		Fluid	4451.00		
Packer	5.00			4456.00	23.00	Bottom Of Top Packer
Packer	4.00			4460.00		
Stubb	1.00			4461.00		
Recorder	0.00	8646	Inside	4461.00		
Recorder	0.00	8365	Outside	4461.00		
Perforations	20.00			4481.00		
Bullnose	5.00			4486.00	26.00	Bottom Packers & Anchor
Total Tool Length:	**49.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Culbreath Oil Operations

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

20-10s-31w Thomas Co KS

Ostemeyer #1-20

Job Ticket: 50187 **DST#: 4**

Test Start: 2013.04.12 @ 00:19:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	55.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.97 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

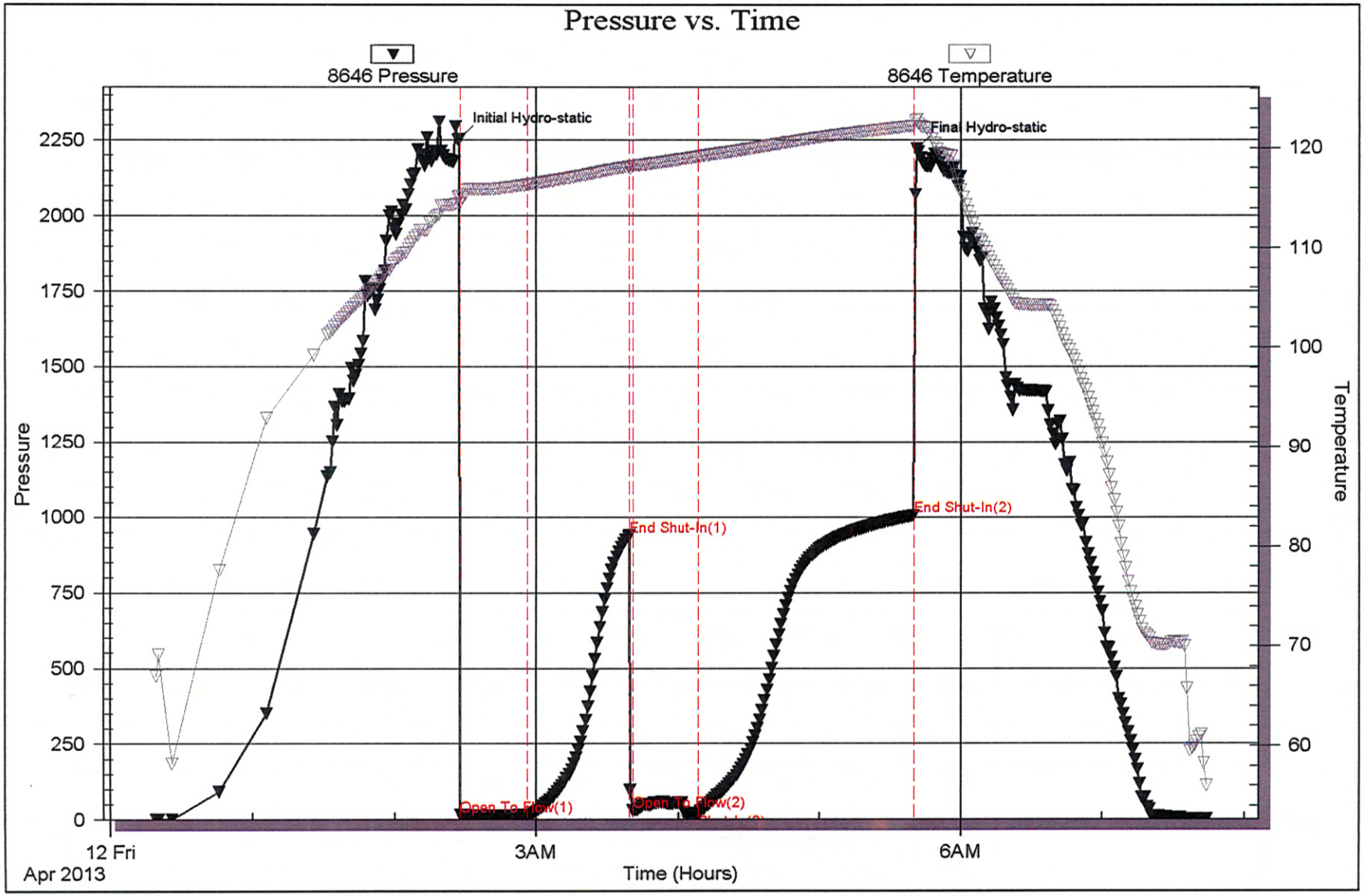
Recovery Table

Length ft	Description	Volume bbl
0.00	GIP= 216 ft	0.000
30.00	gcmo 5% g 40%m 55%o	0.421
1.00	free oil	0.014

Total Length: 31.00 ft Total Volume: 0.435 bbl

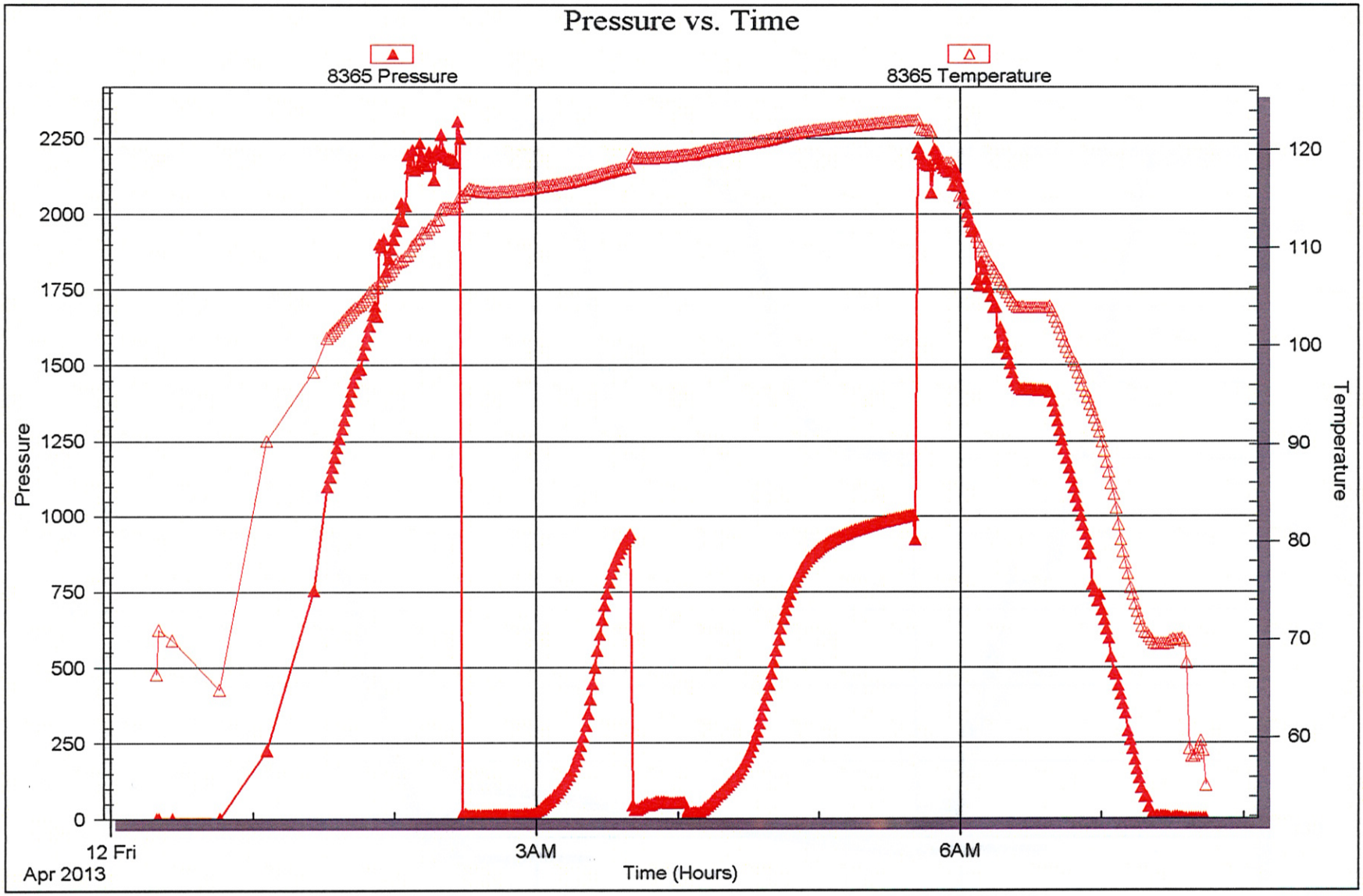
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8646 **Inside** Culbreath Oil Operations Ostemeyer #1-20 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 50187 Printed: 2013.04.22 @ 11:23:35

Serial #: 8365 **Outside** Culbreath Oil Operations Ostemeyer #1-20 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 50187 Printed: 2013.04.22 @ 11:23:36

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Culbreath Oil Operations**

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

Ostemeyer #1-20

20-10s-31w Thomas Co KS

Start Date: 2013.04.13 @ 18:52:15
End Date: 2013.04.14 @ 00:45:00
Job Ticket #: 50188 DST #: 5

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

Printed: 2013.04.22 @ 11:22:24

DRILL STEM TEST REPORT

Culbreath Oil Operations

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

20-10s-31w Thomas Co KS

Ostemeyer #1-20

Job Ticket: 50188 **DST#: 5**

Test Start: 2013.04.13 @ 18:52:15

GENERAL INFORMATION:

Formation: **Johnson**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 20:41:00
Time Test Ended: 00:45:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Mike Roberts
Unit No: 65

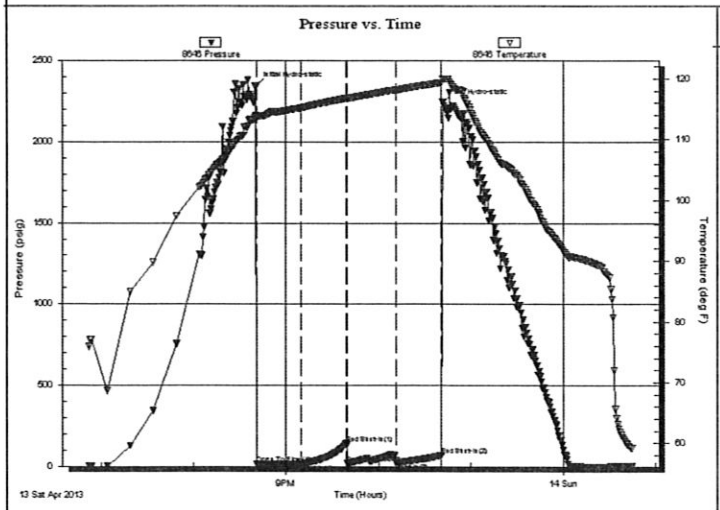
Interval: 4518.00 ft (KB) To 4546.00 ft (KB) (TVD)
Total Depth: 4546.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2980.00 ft (KB)
2970.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8646 **Inside**
Press@RunDepth: 21.11 psig @ 4519.00 ft (KB)
Start Date: 2013.04.13 End Date: 2013.04.14
Start Time: 18:52:15 End Time: 00:45:00

Capacity: 8000.00 psig
Last Calib.: 2013.04.14
Time On Btm: 2013.04.13 @ 20:40:45
Time Off Btm: 2013.04.13 @ 22:41:30

TEST COMMENT: IF:Built to 1/8" blow
IS:No return blow
FF:No blow
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2347.60	114.05	Initial Hydro-static
1	16.03	113.39	Open To Flow (1)
30	17.43	115.26	Shut-In(1)
59	142.78	116.82	End Shut-In(1)
59	19.14	116.77	Open To Flow (2)
91	21.11	118.19	Shut-In(2)
120	69.16	119.40	End Shut-In(2)
121	2243.40	119.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud w ith oil spots	0.14

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

Culbreath Oil Operations

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

20-10s-31w Thomas Co KS

Ostemeyer #1-20

Job Ticket: 50188 **DST#: 5**

Test Start: 2013.04.13 @ 18:52:15

GENERAL INFORMATION:

Formation: **Johnson**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 20:41:00
Time Test Ended: 00:45:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Mike Roberts
Unit No: 65

Interval: 4518.00 ft (KB) To 4546.00 ft (KB) (TVD)
Total Depth: 4546.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

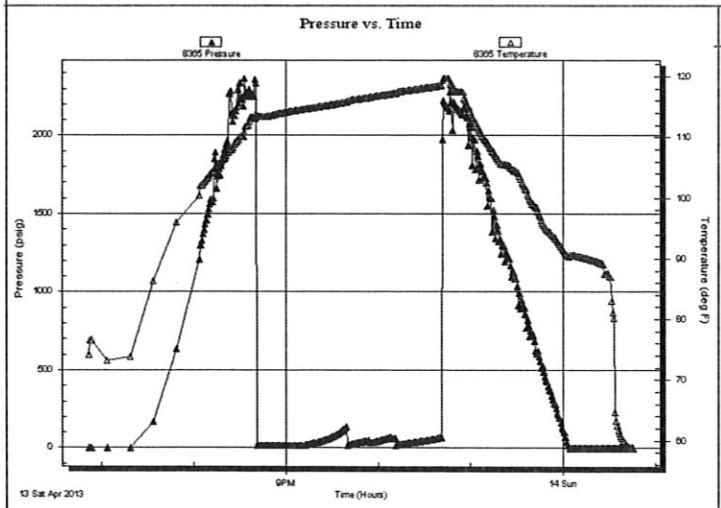
Reference Elevations: 2980.00 ft (KB)
2970.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8365 **Outside**

Press@RunDepth: psig @ 4519.00 ft (KB)
Start Date: 2013.04.13 End Date: 2013.04.14
Start Time: 18:52:15 End Time: 00:45:30

Capacity: 8000.00 psig
Last Calib.: 2013.04.14
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:Built to 1/8" blow
IS:No return blow
FF:No blow
FS:No return blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud with oil spots	0.14

* Recovery from multiple tests

Gas Rates

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

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Culbreath Oil Operations

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

20-10s-31w Thomas Co KS

Ostemeyer #1-20

Job Ticket: 50188 **DST#: 5**

Test Start: 2013.04.13 @ 18:52:15

Tool Information

Drill Pipe:	Length:	4510.00 ft	Diameter:	3.80 inches	Volume:	63.26 bbl	Tool Weight:	1500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:	70000.00 lb
					Total Volume:	63.26 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		11.00 ft					String Weight: Initial	52000.00 lb
Depth to Top Packer:		4518.00 ft					Final	52000.00 lb
Depth to Bottom Packer:		ft						
Interval betw een Packers:		28.00 ft						
Tool Length:		47.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4500.00		
Shut In Tool	5.00			4505.00		
Hydraulic tool	5.00			4510.00		
Safety Joint	3.00		Fluid	4513.00		
Packer	5.00			4518.00	19.00	Bottom Of Top Packer
Packer - Shale	0.00			4518.00		
Stubb	1.00			4519.00		
Recorder	0.00	8646	Inside	4519.00		
Recorder	0.00	8365	Outside	4519.00		
Perforations	22.00			4541.00		
Bullnose	5.00			4546.00	28.00	Anchor Tool
Total Tool Length:	**47.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Culbreath Oil Operations

1532 S. Peoria Ave.
Tulsa, OK 74120

ATTN: Steve Murphy

20-10s-31w Thomas Co KS

Ostemeyer #1-20

Job Ticket: 50188 **DST#: 5**

Test Start: 2013.04.13 @ 18:52:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	60.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.58 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

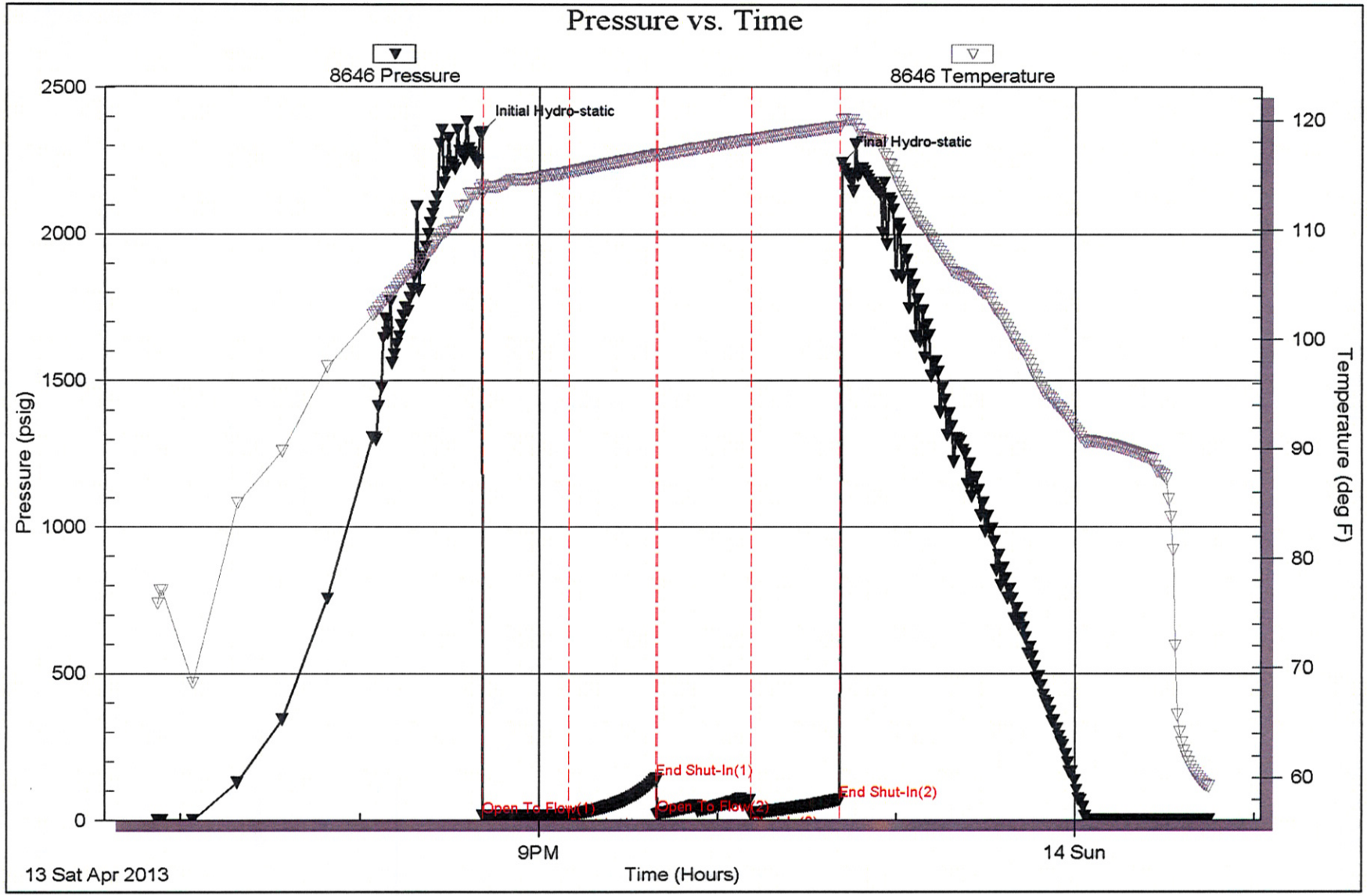
Recovery Table

Length ft	Description	Volume bbl
10.00	mud w ith oil spots	0.140

Total Length: 10.00 ft Total Volume: 0.140 bbl

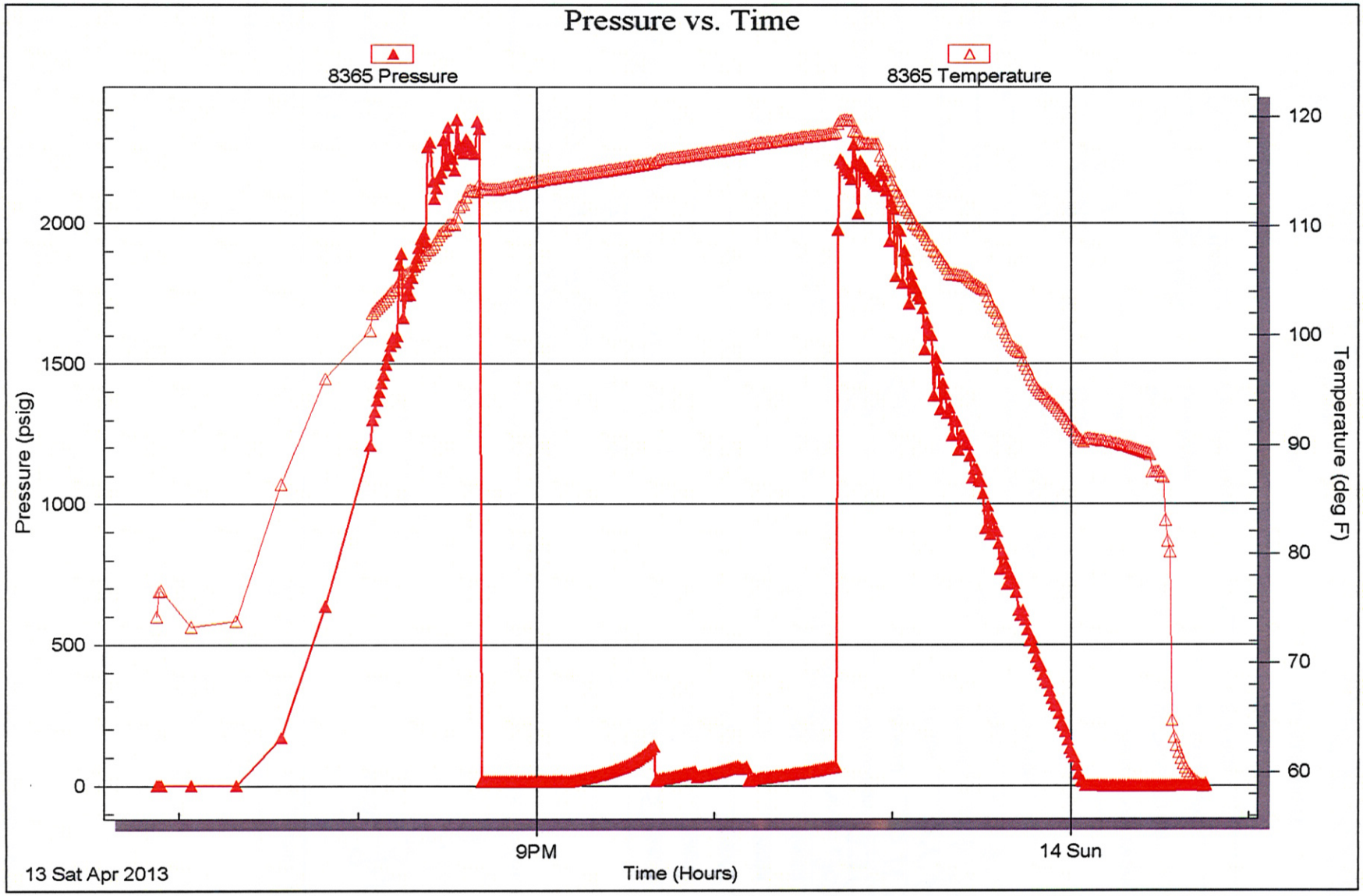
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8646 **Inside** Culbreath Oil Operations Ostemeyer #1-20 DST Test Number: 5



Trilobite Testing, Inc Ref. No: 50188 Printed: 2013.04.22 @ 11:22:26

Serial #: 8365 **Outside** Culbreath Oil Operations Ostemeyer #1-20 DST Test Number: 5



Trilobite Testing, Inc Ref. No: 50188 Printed: 2013.04.22 @ 11:22:27

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 50184

Well Name & No. Ostmeyer 1-20 Test No. 1 Date 4-10-13

Company Culbreath Oil Operations Elevation 2980 KB 2970 GL

Address 1532 S. Peoria Ave Tulsa OK 74120

Co. Rep / Geo. Steve Murphy Rig Val 7

Location: Sec. 20 Twp. 10S Rge. 31W Co. Thomas State KS

Interval Tested 4244 - 4270 Zone Tested LKC "J"

Anchor Length 26 Drill Pipe Run 4241 Mud Wt. 9.1

Top Packer Depth 4240 Drill Collars Run 0 Vis 51

Bottom Packer Depth 4244 Wt. Pipe Run 0 WL 7.6

Total Depth 4270 Chlorides 1000 ppm System LCM 2

Blow Description IF: Built to 1/2" Died Down to Weak Surface Blow

IS: No Return Blow

FF: No Blow

FS: No Return Blow

Rec 92	Feet of SWCM with oil spots	%gas	%oil 5	%water 95	%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 Total 154 BHT 125 Gravity — API RW .051 @ 48 °F Chlorides 20,000 ppm

(A) Initial Hydrostatic 2113	☑ Test 1250	T-On Location 23:22	
(B) First Initial Flow 19	☑ Jars 250	T-Started 01:00	
(C) First Final Flow 69	☑ Safety Joint 75	T-Open 04:24	
(D) Initial Shut-In 1225	☑ Circ Sub NC	T-Pulled 06:38	
(E) Second Initial Flow 71	☐ Hourly Standby	T-Out 09:07	
(F) Second Final Flow 101	☑ Mileage 144 RT 223.20	Comments	
(G) Final Shut-In 1223	☐ Sampler		
(H) Final Hydrostatic 2175	☐ Straddle	☐ Ruined Shale Packer	
	☐ Shale Packer	☐ Ruined Packer	
Initial Open 30 Table Lock	☐ Extra Packer	☐ Extra Copies	
Initial Shut-In 30 Froze	☐ Extra Recorder	Sub Total 0	
Final Flow 30	☐ Day Standby	Total 1798.20	
Final Shut-In 30	☐ Accessibility	MP/DST Disc't	
	Sub Total 1798.20		

Approved By Steve Murphy Our Representative Mike Roberts

Trilobite Testing Inc. shall not be liable for damages of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50185

Well Name & No. Ostmeyer 1-20 Test No. 2 Date 4-11-13

Company Culbreath Oil Operations Elevation 2980 KB 2970 GL

Address 1532 S. Peoria Ave Tulsa OK 74120

Co. Rep / Geo. Steve Murphy Rig Val 7

Location: Sec. 20 Twp. 10S Rge. 31W Co. Thomas State KS

Interval Tested 4388-4418 Zone Tested Pawnee

Anchor Length 30' Drill Pipe Run 4380 Mud Wt. 9.1

Top Packer Depth 4384 Drill Collars Run 0 Vis 55

Bottom Packer Depth 4388 Wt. Pipe Run 0 WL 7.6

Total Depth 4418 Chlorides 1000 ppm System LCM 2

Blow Description IF: BOB in 1 Min

IS: BOB in 16 Min

FF: BOB in 2 Min

FS: BOB in 19 Min

Rec 0	Feet of GIP = 1984	100 %gas	%oil	%water	%mud		
Rec 372	Feet of MCGO	30 %gas	65 %oil	%water 5	%mud		
Rec 124	Feet of GCO	30 %gas	70 %oil	%water	%mud		
Rec 124	Feet of GCO	50 %gas	50 %oil	%water	%mud		
Rec	Feet of	%gas	%oil	%water	%mud		

Rec Total 620 BHT 131 Gravity 30 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2164	☑ Test 1250	T-On Location 11:45	
(B) First Initial Flow 39	☐ Jars	T-Started 13:11	
(C) First Final Flow 169	☐ Safety Joint	T-Open 15:14	
(D) Initial Shut-In 1056	☑ Circ Sub	T-Pulled 18:44	
(E) Second Initial Flow 174	☐ Hourly Standby	T-Out 21:14	
(F) Second Final Flow 283	☑ Mileage 144 RT 223.20	Comments	
(G) Final Shut-In 1034	☐ Sampler		
(H) Final Hydrostatic 2130	☐ Straddle	☐ Ruined Shale Packer	
	☐ Shale Packer	☐ Ruined Packer	
Initial Open 30	☐ Extra Packer	☐ Extra Copies	
Initial Shut-In ~~45~~ 60	☐ Extra Recorder	Sub Total 0	
Final Flow ~~45~~ 30	☐ Day Standby	Total 1473.20	
Final Shut-In 90	☐ Accessibility	MP/DST Disc't	
	Sub Total 1473.20		

Approved By Steve Murphy Our Representative Mitch Robb

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TRILOBITE TESTING INC.
1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50186

Well Name & No. Ofmeyer 1-20 Test No. 3 Date 4-12-13
Company Culbreath Oil Operations Elevation 2980 KB 2970 GL
Address 1532 S. Peoria Ave Tulsa OK 74120
Co. Rep / Geo. Steve Murphy Rig Val 7
Location: Sec. 20 Twp. 10S Rge. 31W Co. Thomas State KS

Interval Tested 4420-4456 Zone Tested Myrick Station
Anchor Length ~~4456~~ 36 Drill Pipe Run 4453 Mud Wt. 9.2
Top Packer Depth ~~4420~~ 4416 Drill Collars Run 0 Vis 55
Bottom Packer Depth 4420 Wt. Pipe Run 0 WL 8.0
Total Depth 4456 Chlorides 1000 ppm System LCM 2

Blow Description IF: BOB in 6 Min
IS: Built to Weak Surface Blow
FF: BOB in 5 Min GTS in 12 Min
FS: Built to 3" Blow

Rec 0	Feet of GIP = 4267	100	%gas	~~75~~	%oil		%water		%mud
Rec 20	Feet of Free Oil		%gas	100	%oil		%water		%mud
Rec 104	Feet of GCMO	20	%gas	50	%oil		%water	30	%mud
Rec 62	Feet of MCOG	50	%gas	30	%oil		%water	20	%mud
Rec	Feet of		%gas		%oil		%water		%mud

Rec Total 186 BHT 132 Gravity 35 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2203	☑ Test 1250	T-On Location 07:00
(B) First Initial Flow 17	☐ Jars	T-Started ~~07:05~~ 07:55
(C) First Final Flow 47	☐ Safety Joint	T-Open 09:51
(D) Initial Shut-In 1155	☑ Circ Sub NC	T-Pulled 13:06
(E) Second Initial Flow 51	☐ Hourly Standby	T-Out 15:00
(F) Second Final Flow 77	☑ Mileage 144 RT 223.20	Comments
(G) Final Shut-In 1153	☐ Sampler	
(H) Final Hydrostatic 2175	☐ Straddle	☐ Ruined Shale Packer
	☐ Shale Packer	☐ Ruined Packer
Initial Open 30	☐ Extra Packer	☐ Extra Copies
Initial Shut-In 45	☐ Extra Recorder	Sub Total 0
Final Flow 60	☐ Day Standby	Total 1473.20
Final Shut-In 90	☐ Accessibility	MP/DST Disc't
	Sub Total 1473.20	

Approved By Steve Murphy Our Representative Mike Robinson

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TRILOBITE TESTING INC.
1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50187

Well Name & No. Ostmeyer 1-20 Test No. 4 Date 4-12-13
Company Culbreath Oil Operations Elevation 2980 KB 2970 GL
Address 1532 S. Peoria Ave Tulsa OK 74120
Co. Rep / Geo. Steve Murphy Rig Val 7
Location: Sec. 20 Twp. 10S Rge. 31W Co. Thomas State KS

Interval Tested 4460-4486 Zone Tested Ft. Scott
Anchor Length 26 Drill Pipe Run 4451 Mud Wt. 9.2
Top Packer Depth 4456 Drill Collars Run 0 Vis 55
Bottom Packer Depth 4460 Wt. Pipe Run 0 WL 8.0
Total Depth 4486 Chlorides 1000 ppm System LCM 2

Blow Description IF: BOB in 30 Min
IS: Weak Surface Blow
FF: BOB in 26 Min
FS: Weak Surface Blow that Died in 45 Min

Rec	0	Feet of ~~2nd~~ GIP = 216	100	%gas		%oil		%water		%mud
Rec	30	Feet of gcmo	5	%gas	55	%oil		%water	40	%mud
Rec	1	Feet of free oil		%gas	100	%oil		%water		%mud
Rec		Feet of		%gas		%oil		%water		%mud
Rec		Feet of		%gas		%oil		%water		%mud

Rec Total 30 BHT 132 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic	2254	☑ Test	1250	T-On Location	22:45
(B) First Initial Flow	14	☐ Jars		T-Started	00:19
(C) First Final Flow	14	☐ Safety Joint		T-Open	02:25
(D) Initial Shut-In	939	☑ Circ Sub	NC	T-Pulled	05:40
(E) Second Initial Flow	30	☐ Hourly Standby		T-Out	07:43
(F) Second Final Flow	19	☑ Mileage	144 RT 223.20	Comments	
(G) Final Shut-In	1005	☐ Sampler			
(H) Final Hydrostatic	2221	☐ Straddle		☐ Ruined Shale Packer	
		☐ Shale Packer		☐ Ruined Packer	
Initial Open	30	☐ Extra Packer		☐ Extra Copies	
Initial Shut-In	45	☐ Extra Recorder		Sub Total	0
Final Flow	30	☐ Day Standby		Total	1473.20
Final Shut-In	90	☐ Accessibility		MP/DST Disc't	
		Sub Total	1473.20		

Approved By Steve Murphy Our Representative Mike Roberts

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TRILOBITE TESTING INC.
1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50188

Well Name & No. Ostmeyer 1-20 Test No. 5 Date 4-13-13
Company Culbreath Oil Operations Elevation 2980 KB 2970 GL
Address 1532 S. Peoria Ave. Tulsa OK 74120
Co. Rep / Geo. Steve Murphy Rig Val 7
Location: Sec. 20 Twp. 10S Rge. 31W Co. Thomas State KS

Interval Tested 4518-4546 Zone Tested Johnson
Anchor Length 28 Drill Pipe Run 4510 Mud Wt. 9.3
Top Packer Depth 4514 Drill Collars Run 0 Vis 60
Bottom Packer Depth 4518 Wt. Pipe Run 0 WL 7.6
Total Depth 4546 Chlorides 3000 ppm System LCM 0

Blow Description IF: Built to 1/8" Blow
IS: No Return Blow
FF: No Blow
FS: No Return Blow

Rec 10	Feet of mud with oil spots	%gas	%oil	%water	100%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 Total 10 BHT 132 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic	2347	☑ Test 1250	T-On Location 18:10
(B) First Initial Flow	16	☐ Jars	T-Started 18:52
(C) First Final Flow	17	☐ Safety Joint	T-Open 20:40
(D) Initial Shut-In	142	☑ Circ Sub NC	T-Pulled 22:40
(E) Second Initial Flow	19	☐ Hourly Standby	T-Out 00:45
(F) Second Final Flow	21	☑ Mileage 144 RT 446.40	Comments Loaded tools 12:00 AM 4-14-13
(G) Final Shut-In	69	☐ Sampler	
(H) Final Hydrostatic	2243	☐ Straddle	☐ Ruined Shale Packer
		☑ Shale Packer 250	☐ Ruined Packer
Initial Open	30	☑ Extra Packer	☐ Extra Copies
Initial Shut-In	30	☐ Extra Recorder	Sub Total 0
Final Flow	30	☐ Day Standby	Total 1946.40
Final Shut-In	30	☐ Accessibility	MP/DST Disc't
		Sub Total 1946.40	

Approved By [signature] Our Representative Mike Robitz

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REMIT TO
RR 1 BOX 90 D
HOXIE, KS 67740

SCHIPPERS OIL FIELD SERVICE L.L.C.

DATE 4-4-13	SEC. 9	RANGE/TWP. 6 31	CALLED OUT	ON LOCATION	JOB START 2:00pm	JOB FINISH 5:00pm
					COUNTY Barber	STATE KS
LEASE Osmeyer			WELL # 1-32			

CONTRACTOR		OWNER			
TYPE OF JOB					
HOLE SIZE 12¼	T.D. 311	CEMENT	225sx	Com 3%cc 2%gel	
CASING SIZE 8⅝	DEPTH 312	AMONT ORDERED			
TUBING SIZE	DEPTH				
DRILL PIPE	DEPTH				
TOOL	DEPTH				
PRES. MAX	MINIMUM	COMMON	138	@ 16.25	2242.50
DISPLACEMENT 18.5	SHOE JOINT	POZMIX		@	
CEMENT LEFT IN CSG. 15ft		GEL	7	@ 21.25	148.75
PERFS		CHLORIDE	7	@ 52	416.00
		ASC		@	
EQUIPMENT				@	
				@	
PUMP TRUCK				@	
# 1	Cody			@	
BULK TRUCK				@	
# 1	Jay			@	
BULK TRUCK Pekin				@	
# Heath				@	
		HANDLING	296	@ 2.25	666.00
		MILEAGE	74	@ 29.00	1,020.50
				TOTAL	

REMARKS	SERVICE		
Ran 7jts of 8⅝ casing and broke	DEPT OF JOB		@
circulation w/ fresh water	PUMP TRUCK CHARGE		@ 1050.00
Hook up cmt and 225sx and release	EXTRA FOOTAGE		@
plug and disp w/ 18.5 bbl fresh H2O. Plug	MILEAGE	74x2	@ 6.50
landed @ 300psi	MANIFOLD		@
Cement Did Circulate			@ 192.00
			TOTAL

CHARGES TO:	Culbreath Oil
STREET	STATE
CITY	ZIP

To: Schippers Oil Field Services L.L.C.
You are hereby requested to rent cementing equipment and furnish staff to assit owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "TERMS AND CONDITIONS" listed on the reverse side.

Thank You

PLUG & FLOAT EQUIPMENT	
8⅝ wood plug	@ 79.75
	@
	@
	@
	@
	TOTAL
TAX	114.35
TOTAL CHARGE	5,522.35
DISCOUNT (IF PAID IN 20 DAYS)	

Hoxie Sentinel Print / Form 411

SIGNATURE

PRINTED NAME

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802

Kansas
Corporation Commission

Phone: 316-337-6200
Fax: 316-337-6211
http://kcc.ks.gov/

June 27, 2013

Billy Schmidt
Culbreath Oil & Gas Company, Inc.
1532 S PEORIA AVE
TULSA, OK 74120-6202

Re: ACO1
API 15-193-20889-00-00
Ostmeyer 1-20
NW/4 Sec.20-10S-31W
Thomas County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
Billy Schmidt