



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1226419
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

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

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

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

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

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

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

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

Spot Description: _____

_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-
Sec. _____ Twp. _____ S. R. _____ East West

_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-
Feet from North / South Line of Section

_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-
Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

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

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

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



1226419

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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

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

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

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

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

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

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

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

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

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

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

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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	FourWinds Oil Corporation
Well Name	McCue 1
Doc ID	1226419

All Electric Logs Run

Micro
Dual Induction
Correlation
Dual Induction



Scale 1:240 Imperial

Well Name: MCCUE #1
Surface Location: E2 SW NW Sec. 27 - 6W - 20
Bottom Location:
API: 15-163-24193
License Number: 34916
Spud Date: 3/28/2014 Time: 1:45 PM
Region: ROOKS COUNTY
Drilling Completed: 4/1/2014 Time: 3:30 PM
Surface Coordinates: 1980' FNL & 990' FWL
Bottom Hole Coordinates:
Ground Elevation: 2178.00ft
K.B. Elevation: 2183.00ft
Logged Interval: 3050.00ft To: 3728.00ft
Total Depth: 3730.00ft
Formation: LANSING - KANSAS CITY
Drilling Fluid Type: FRESH WATER / CHEMICAL GEL

OPERATOR

Company: FOURWINDS OIL CORPORATION
Address: PO BOX 1063
HAYS, KS 67601
Contact Geologist: DANIEL WINDHOLZ
Contact Phone Nbr: (785) 259-8403
Well Name: MCCUE #1
Location: E2 SW NW Sec. 27 - 6W - 20 API: 15-163-24193
Pool: LOCLELA
State: KANSAS Country: USA

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: -99.5428173 Latitude: 39.5046068
N/S Co-ord: 1980' FNL
E/W Co-ord: 990' FWL

LOGGED BY

Company: BIG CREEK CONSULTING, INC.
Address: 1909 MAPLE
ELLIS, KS 67637
Phone Nbr: (785) 259-3737
Logged By: Geologist Name: JEFF LAWLER

CONTRACTOR

Contractor: WW DRILLING, LLC
Rig #: 6
Rig Type: MUD / ROTARY
Spud Date: 3/28/2014 Time: 1:45 PM

ELEVATIONS

K.B. Elevation: 2183.00ft
K.B. to Ground: 5.00ft

Ground Elevation: 2178.00ft

NOTES

**** NOTE: THERE IS APPROXIMATE 3' - 4' UPHOLE CORRECTION TO CORRELATE DRILL TIME WITH LOG CURVES****


AFTER LOG ANALYSIS DECISION WAS MADE TO ATTEMPT STRADDLE DST'S TO EVALUATE MULTIPLE ZONES OF INTEREST. AFTER SEVERAL FAILED ATTEMPTS DECISION WAS MADE TO RUN 4 1/2" PRODUCTION PIPE AND EVALUATE ZONES WITH PERORATION.

RESPECTFULLY SUBMITTED,
JEFF LAWLER

WELL COMPARISON SHEET

FORMATION	MCCUE#1				BACH OIL PRODUCTION				KENNY BROWN ENTERPRISES				LIBERTY OPERATIONS				SINCLAIR PRAIRIE OIL CO.			
	LOG TOPS		SAMPLE TOPS		LOGS		LOG	SMPL.	COMP. CARD		LOG	SMPL.	COMP. CARD		LOG	SMPL.	COMP. CARD		LOG	SMPL.
	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	CORR.	CORR.	DEPTH	DATUM	CORR.	CORR.	DEPTH	DATUM	CORR.	CORR.	DEPTH	DATUM	CORR.	CORR.
	1787	396	1789	394	1735	405	- 9	- 11	1763	402	- 6	- 8	1754	398	- 2	- 4	1776	417	- 21	- 23
ANHYDRITE TOP	1787	396	1789	394	1735	405	- 9	- 11	1763	402	- 6	- 8	1754	398	- 2	- 4	1776	417	- 21	- 23
BASE	1804	379	1808	375	1764	376	+ 3	- 1	1803	362	+ 17	+ 13	1785	367	+ 12	+ 8				
TOPEKA	3187	-1004	3179	-996	3136	-996	- 8	+ 0	3168	-1003	- 1	+ 7	3158	-1006	+ 2	+ 10	3200	-1007	+ 3	+ 11
HEEBNER SHALE	3388	-1205	3391	-1208	3331	-1191	- 14	- 17	3369	-1204	- 1	- 4	3358	-1206	+ 1	- 2				
TORONTO	3413	-1230	3415	-1232	3359	-1219	- 11	- 13	3389	-1224	- 6	- 8	3381	-1229	- 1	- 3				
LKC	3427	-1244	3427	-1244	3371	-1231	- 13	- 13	3408	-1243	- 1	- 1	3396	-1244	+ 0	+ 0	3440	-1247	+ 3	+ 3
BKC	3627	-1444	3634	-1451	3570	-1430	- 14	- 21	3635	-1470	+ 26	+ 19	3598	-1446	+ 2	- 5	3640	-1447	+ 3	- 4
ARBUCKLE	3678	-1495	3673	-1490	3606	-1466	- 29	- 24	3654	-1489	- 6	- 1	3654	-1502	+ 7	+ 12	3740	-1547	+ 52	+ 57
TOTAL DEPTH	3728	-1545	3730	-1547	3664	-1524	- 21	- 23	3682	-1517	- 28	- 30	3710	-1558	+ 13	+ 11	3800	-1607	+ 62	+ 60

DST #1 LKC I - J 3570' - 3635' (MISRUN)

	DRILL STEM TEST REPORT	
	FourWinds Oil Corporation P. O. Box 1063 Hays KS 67601 ATTN: Jeff Lawler	27 6s 20w Rooks MCCue 1 Job Ticket: 57578 DST#: 1 Test Start: 2014.04.01 @ 05:48:00

GENERAL INFORMATION:

Formation: **LKC "I - K"**
 Deviated: No Whipstock: 2183.00 ft (KB)
 Time Tool Opened: 07:56:00
 Time Test Ended: 10:00:00

Interval: **3570.00 ft (KB) To 3635.00 ft (KB) (TVD)**
 Total Depth: 3635.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair

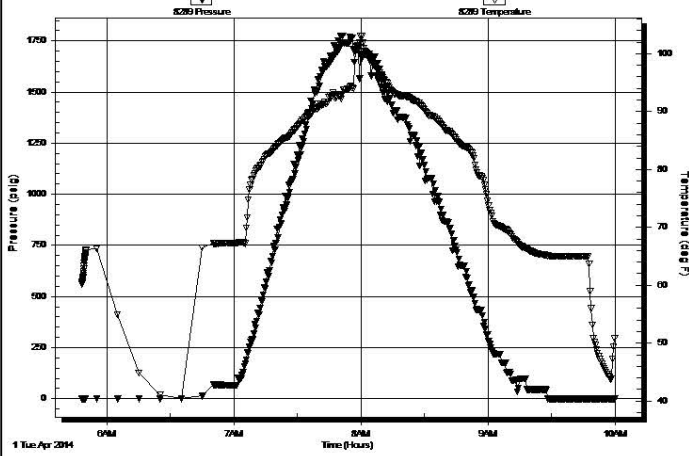
Test Type: Conventional Bottom Hole (Initial)
 Tester: Jim Svaty
 Unit No: 76

Reference Elevations: 2183.00 ft (KB)
 2178.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8289 Outside

Press@RunDepth: psig @ 3574.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.04.01 End Date: 2014.04.01 Last Calib.: 2014.04.01
 Start Time: 05:48:02 End Time: 10:00:00 Time On Btm:
 Time Off Btm:

TEST COMMENT: Mss-Run Packers Failed



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

Recovery

Length (ft)	Description	Volume (bbl)
434.00	Mud 100%	4.98

Gas Rates


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

Trilobite Testing, Inc

Ref. No: 57578

Printed: 2014.04.01 @ 10:19:22

DST #2 LKC J - ARBUCKLE 3585' - 3697' (STRADDLE) MISRUN



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FourWinds Oil Corporation
 P. O. Box 1063
 Hays KS 67601
 ATTN: Jeff Lawler

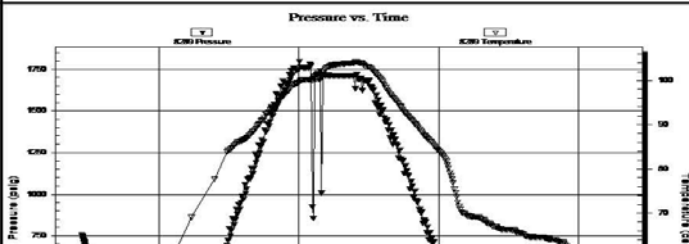
27 6s 20w Rooks
McCue 1
 Job Ticket: 57579 **DST#: 2**
 Test Start: 2014.04.01 @ 23:27:00

GENERAL INFORMATION:

Formation: LKC "J & K" Arbuck	Test Type: Conventional Straddle (Reset)
Deviated: No Whipstock: 2183.00 ft (KB)	Tester: Jim Svaty
Time Tool Opened: 01:05:00	Unit No: 76
Time Test Ended: 03:16:00	Reference Elevations: 2183.00 ft (KB)
Interval: 3585.00 ft (KB) To 3697.00 ft (KB) (TVD)	2178.00 ft (CF)
Total Depth: 3729.00 ft (KB) (TVD)	KB to GR/CF: 5.00 ft
Hole Diameter: 7.88 inches	Hole Condition: Fair

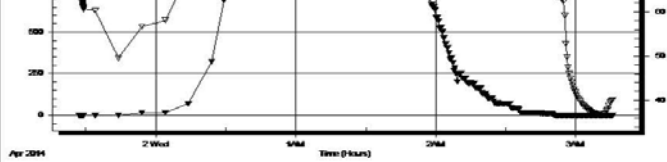
Serial #: 8289 Outside	Capacity: 8000.00 psig
Press@RunDepth: psig @ 3595.00 ft (KB)	Last Calib.: 2014.04.02
Start Date: 2014.04.01 End Date: 2014.04.02	Time On Btm:
Start Time: 23:27:02 End Time: 03:16:00	Time Off Btm:

TEST COMMENT: Miss-Run Packers Failed



PRESSURE SUMMARY

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



Recovery

Length (ft)	Description	Volume (bbl)
496.00	Mud 100%	5.85

* Recovery from multiple tests

Gas Rates

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

Trilobite Testing, Inc

Ref. No: 57579

Printed: 2014.04.02 @ 06:51:21

DST #3 LKC I - ARBUCKLE 3565' - 3694' (STRADDLE) MISRUN



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FourWinds Oil Corporation

27 6s 20w Rooks

P. O. Box 1063
Hays KS 67601

McCue 1

Job Ticket: 57580

DST#: 3

ATTN: Jeff Lawler

Test Start: 2014.04.02 @ 04:28:00

GENERAL INFORMATION:

Formation: **LKC "I - K" & Arbu**

Deviated: No Whipstock: 2183.00 ft (KB)

Time Tool Opened: 05:56:00

Time Test Ended: 08:25:00

Test Type: Conventional Straddle (Reset)

Tester: Jim Svaty

Unit No: 76

Interval: **3565.00 ft (KB) To 3694.00 ft (KB) (TVD)**

Total Depth: 3728.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2183.00 ft (KB)

2178.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8289 Outside

Press@RunDepth: psig @ 3566.00 ft (KB)

Start Date: 2014.04.02

End Date: 2014.04.02

Capacity: 8000.00 psig

Last Calib.: 2014.04.02

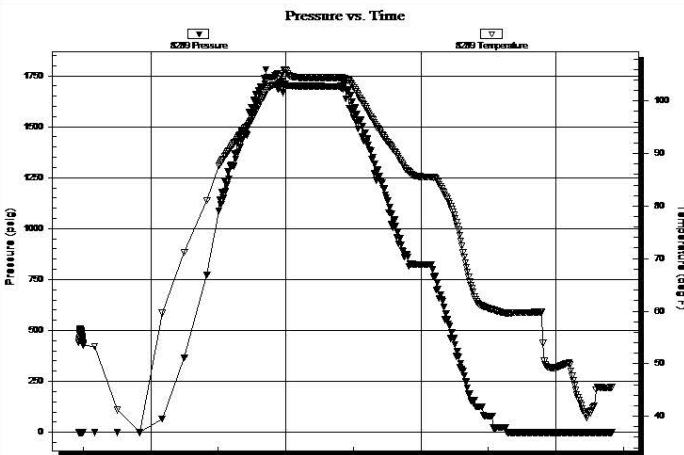
Start Time: 04:28:02

End Time: 08:25:00

Time On Btm:

Time Off Btm:

TEST COMMENT: Miss-Run Packers Failed



PRESSURE SUMMARY

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

Recovery		
Length (ft)	Description	Volume (bbl)
279.00	Mud 100%	2.80

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

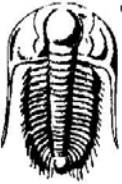
* Recovery from multiple tests

Trilobite Testing, Inc

Ref. No: 57580

Printed: 2014.04.02 @ 09:22:18

DST #4 LKC H - ARBUCKLE 3535' - 3698' (STRADDLE)

 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT	
	FourWinds Oil Corporation P. O. Box 1063 Hays KS 67601 ATTN: Jeff Lawler	27 6s 20w Rooks McCue 1 Job Ticket: 57581 Test Start: 2014.04.02 @ 14:07:00

GENERAL INFORMATION:

Formation: **LKC " H - Arbuckle "**
 Deviated: No Whipstock: 2183.00 ft (KB)
 Time Tool Opened: 15:52:15
 Time Test Ended: 20:05:00

Test Type: Conventional Straddle (Reset)
 Tester: Jim Svaty
 Unit No: 76

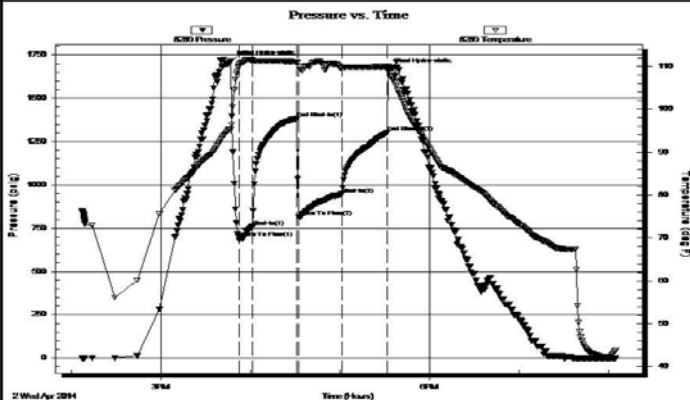
Interval: **3535.00 ft (KB) To 3698.00 ft (KB) (TVD)**
 Total Depth: 3728.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Reference Elevations: 2183.00 ft (KB)
 2178.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8289 Outside

Press@RunDepth: 947.57 psig @ 3536.00 ft (KB)
 Start Date: 2014.04.02 End Date: 2014.04.02
 Start Time: 14:07:02 End Time: 20:05:00

Capacity: 8000.00 psig
 Last Calib.: 2014.04.02
 Time On Btm: 2014.04.02 @ 15:46:45
 Time Off Btm: 2014.04.02 @ 17:32:15

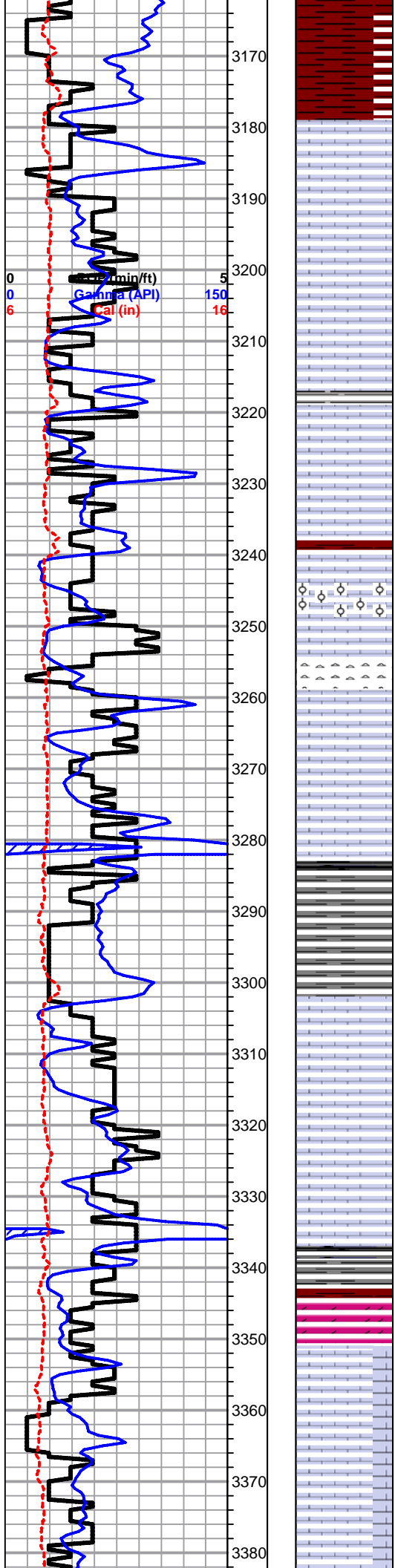
TEST COMMENT: 15-IFP- BOB in 44 sec.
 30-ISIP- Weak Surface Blow Died in 2 min.
 30-FFP- BOB in 20 sec.
 30-FSIP- No Blow



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1713.25	95.23	Initial Hydro-static
6	696.99	109.98	Open To Flow (1)
15	759.76	111.30	Shut-In(1)
45	1383.14	111.07	End Shut-In(1)
46	816.18	109.93	Open To Flow (2)
75	947.57	109.64	Shut-In(2)
105	1302.62	109.89	End Shut-In(2)
106	1668.08	109.98	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
1907.00	Mud 100%	25.64

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



Sh- Maroon Brick Red Gray, gritty & earthy, gummy wash & sandy lime

TOPEKA 3179' (-996) E-LOG 3187' (-1004) Lm- Cream Lt Yellow, FXLN, sl fsl arenaceous ls, poorly dev. well-loosely cemented, some sl chalky in part, barren

Lm- Tan Lt & Drk Gray, VF-FXLN, dense, poorly dev. fsl ls, sl trashy w/ fsl frag., poor vis. porosity, some chalky in part

Lm- A/A w/ increasing amount of silty mud supported matrix w/o vis. porosity, chalky in part

Lm- Cream Lt Gray, dense, poorly dev. & loosely cemented, no vis. porosity, chalky in part, much soft mud supported matrix w/o vis. porosity & soft white chalk

Sh- Black Drk Gray, silty & soft, calcareous

Lm- Cream Lt Gray, Vf Grn FXLN, trashy loosely cemented mix, sl fsl & chalky in part

Lm- Dove Gray arenaceous ls, loosely cemented w/ consistant intergranular porosity throughout, sl chalky in part

Lm- Cream, FXLN, dense, mod. well cemented, fsl & oolitic, massive, mod. dev. w/ dense XLN porosity, poor effective porosity, barren, much soft white chalk

Chert- Tan, vitreous fresh bedded chert, few pcs sl fsl w/ fusulinids

Lm- Cream Off White, VFXLN, dense, sl fsl, sl chalky, poor dev. & tight w/ micro XLN porosity, some w/ secondary recrystallization porosity, barren

Lm- Dove Gray Cream, A/A, w/ sl fsl tight cherty ls w/ micro XLN porosity

Sh- Black, dense, fissile, & carbonaceous

Sh- Lt Gray, gummy sandy lime

Lm- Cream Tan, Crypto-FXLN, dense, poorly dev. & tight mix, some sl fsl ls w/ micro XLN porosity & cherty ls w/ trace of recrystallization porosity

Lm- Cream Off White, VF-FXLN, massive, sl granular, mostly well cemented & tight, oolitic, sctrd clear sparry replacement cementation, micro XLN porosity, barren

Sh- Black Gray Maroon Lm Green, fissile & carbonaceous, gummy wash, gritty & earthy

Dolo- Cream, VFXLN, dense, vry well cemented sub-sucrosic dolomite w/ consistant micro XLN porosity, barren, much soft white chalk

Lm- Cream Off White, VFXLN, dense, vry well cemented, sl fsl, poorly dev. & tight w/ micro XLN porosity

Lm- Cream Off White, VFXLN, oolitic, massive, vry well cemented, poorly dev. w/ sctrd micro XLN porosity, sctrd sparry replacement cementation, barren, much soft white chalk

Dolo- Cream, VFXLN, sub-sucrosic w/ consistant micro XLN porosity, vry well cemented, barren, abundant soft white chalk

Lm- Cream Off White, Vf Grn, dense, loosely cemented, silty, mud supported matrix, sl fsl & sl

unconsolidated, no vis. porosity, much soft white chalk

HEEBNER 3391' (-1208) E-LOG 3388' (-1205) Sh- Black Gray Maroon, silty & carbonaceous, soft wash, gritty & earthy

Sh- Lt Gray Lm Green Brown Maroon, gummy argillaceous clumps, gritty & earthy

TORONTO 3415' (-1232) E-LOG 3413' (-1230) Lm- Cream Off White, FXLN, fsl & oolitic, mod. dev. w/ sctrd fn ppt inter oolite porosity, some loosely cemented, WK SCTRD STN, NSFO, TR ODR SL INCREASING UNDER LAMP, LT OIL SHEEN ON TOP OF WET CUP, DULL YLW FLOR., several pcs golden brown & milky white fresh bedded chert

LKC 3427' (-1244) E-LOG 3427' (-1244) Lm- Cream Lt Gray, FXLN, fsl w/ fusulinds, dense, most well cemented, poorly dev. w/ sctrd XLN porosity, barren

Lm- Cream Off White, FXLN, sl oolitic, mod. dev. w/ sctrd inter fsl porosity, loosely-well cemented, WK SPOTTY STN, NSFO, FR ODR, LT OILY SHEEN ON TOP OF WET CUP, LT YLW FLOR. W/ SL STRM WET CUT

Lm- Off White Cream, VF-FXLN, sl fsl, mostly tight, vry clean, poor vis. porosity, some soft white chalk

Sh- Black Gray Maroon, silty & soft, gritty & earthy

Lm- Cream Tan, FXLN, oolitic, sctrd mod. dev., rare sctrd ppt inter oolite porosity, WK SPOTTY STN, NSFO, NO ODR, some densely packed oolitic biomicrite

Sh- Gray Maroon, silty & soft, gummy argillaceous clumps

Lm- Cream Off White, F-MED XLN, fsl & oolitic, most poorly dev. w/ sctrd inter oolite FXLN porosity, SCTRD SPOTTY STN, NSFO, NO ODR, some w/ decreasing dev. & chalky in part

Lm- Tan Cream, FXLN, fsl & sl oolitic, poorly dev., mostly well cemented, sctrd XLN porosity, some secondary recrystallization porosity, SCTRD BLK STN, NSFO, NO ODR, WK YLW FLOR., 2-3 W/ FEW GSY BUBBLES UPON CRUSH

Lm- Cream Tan, VF-FXLN, oolitic & densely packed, poorly dev. w/ micro XLN & XLN porosity, vry clean, barren, some chalky in part, several pcs procelain like cherty ls w/o vis. porosity

Lm- Cream Off White, VF-FXLN, dense tight mix, most vry well cemented, sl fsl, poorly dev. w/ minimal vis. porosity, mod. amount of soft white chalk, all vry clean & barren,

Lm- A/A

Sh- Black Gray Maroon Lm Green, dense, fissile & carbonaceous, gummy wash, gritty & earthy

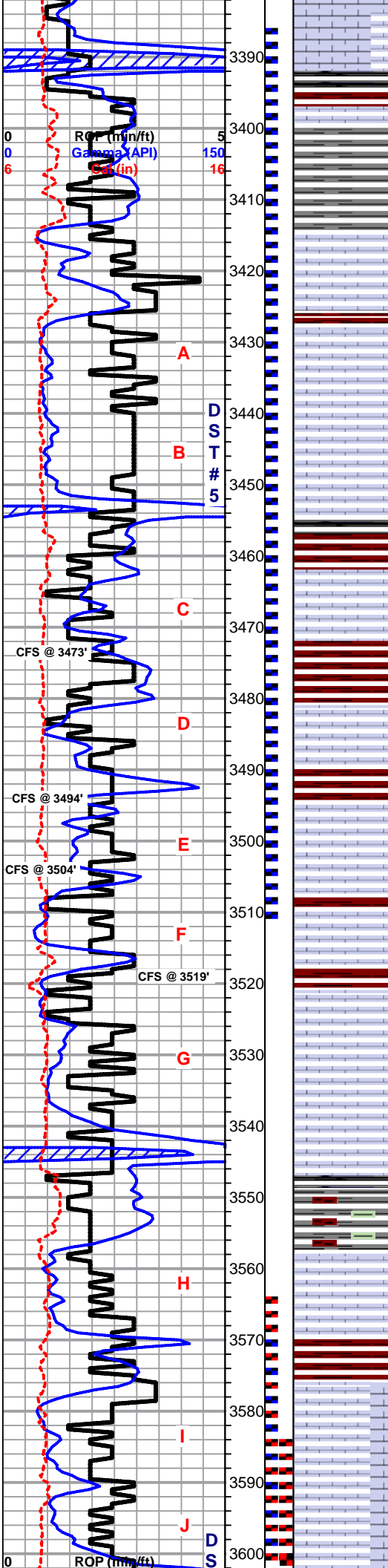
Lm- Cream Tan, VF-FXLN, dense, sl fsl, mostly tight w/ micro XLN & sctrd XLN porosity, few pcs of golden brown chert/cherty ls w/o vis. porosity

Lm- Gray, FXLN, fsl, dense, sl unconsolidated w/ fsl fragments, sl trashy, XLN porosity

Lm- Cream off White, FXLN, fsl, sctrd inter fsl XLN & fn ppt porosity, mod. dev., loosely-well cemented, some chalky in part, SCTRD LT STN, NSFO, FNT-FR ODR

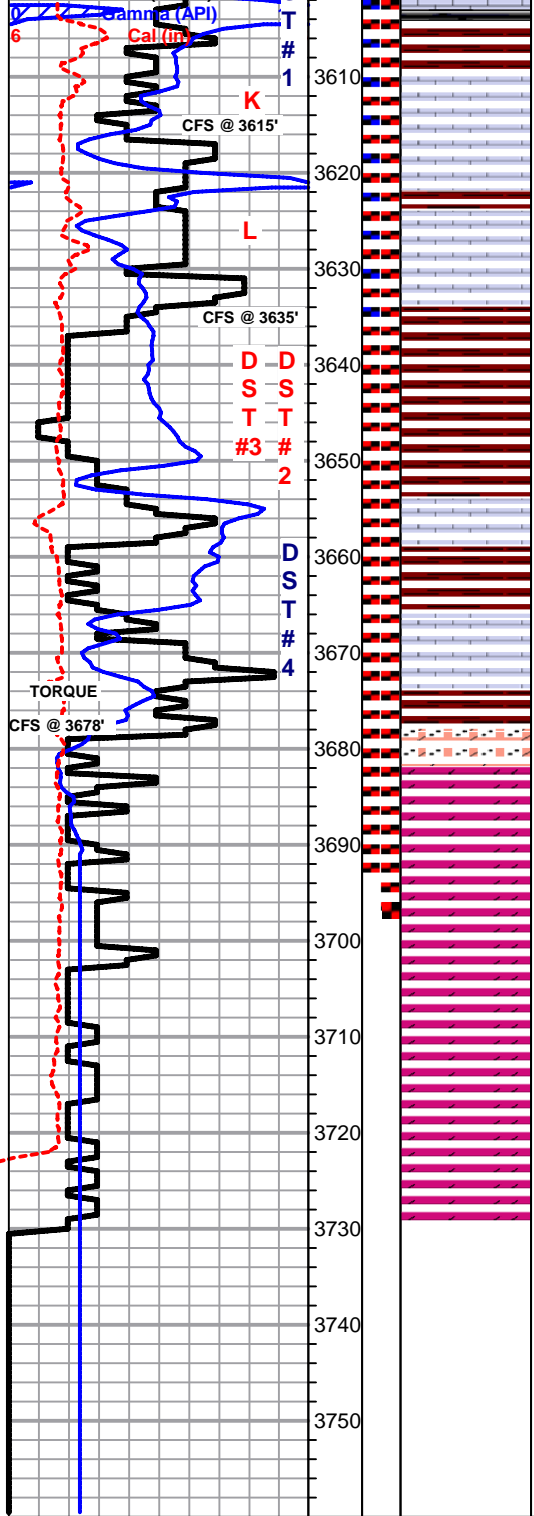
Lm- Tan Cream, VF-FXLN, sl fsl & oolitic, sctrd XLN & fn ppt inter oolite porosity, some sl chalky in part, WK SPOTTY STN, 1-2 PCS W/ TR FO, NO ODR

Lm- Cream Gray, F-MED XLN, fsl w/ fusulinids, well cemented, sctrd XLN porosity, few w/ sctrd secondary recrystallization porosity, LT SCTRD STN, NO SEQ, TR ODR



DST #5 (STRADDLE) TORONTO - LKC F MISRUN 3386' - 3512' SEE CHARTS BELOW

SHORT TRIP SURVEY 3/4 dgr. (MISRUN)



secondary recrystallization porosity, LT SCTRD STN, NO SFO, FR ODR

Sh- Black Gray Maroon, fissile & carbonaceous, gummy washy, gritty & earthy

Lm- Cream Off White, VF-FXLN Vf Grn, dense, tight w/ minimal vis. porosity, some soft white chalk, vry clean, barren

Lm- Cream Off White, FXLN, sl fsl, loosely cemented, spkld w/ gluaconite, poor sctrd XLN porosity, 2-3 w/ WK SPOTTY STN, NSFO, NO ODR

BKC 3634' (-1451) E-LOG 3627' (-1444) Sh- Maroon Gray, gummy lime, dense & waxy, sl trashy, some sl pebbly

Sh- A/A

Lm- White, VFXLN, dense, vry well cemented, sl unconsolidated & spkld, tight w/ sctrd micro XLN porosity, barren

Sh- Maroon, gritty & earthy, gummy lime

Lm- White, VF-FXLN, dense, well cemented, sctrd fn ppt porosity, DRK SCTRD STN, NSFO, NO ODR, FNT YLW FLOR.

ARBUCKLE 3674' (-1490) E-LOG 3678' (-1495) Dol- Cream Tan, VFXLN, dense, good dolomitic cementation, fn-med rounded qtz. inclusions, poor vis. porosity, DRK SCTRD STN, SL SFO UPON CRUSH, NO ODR, WK YLW FLOR UPON CRUSH

Dol- mix of Cream VFXLN, dense tight dolomite w/ minimal vis. porosity, barren, & clear to frosted fn grn, most w/ lt dolomitic cementation & sandy, well dev. w/ consistant intergranular porosity throughout, BLK DO STN, NSFO, NO ODR, WK HALO FLOR., few pcs of salmon colored cherty dolomite w/o vis. porosity

Dol- Cream Pink, VFXLN, dense, vry well cemented, mostly tight w/ minimal micro XLN porosity, few w/ small round-angular qtz. inclusions, barren

Dol- Cream Off White, MED-CRS XLN, vry well cemented, mod. dev. w/ sctrd ppt porosity, WK SCTRD DO STN, NSFO, NO ODR

Dol- Cream, VFXLN, dense, vry well cemented, mostly tight w/ micro XLN porosity at best, barren

Dol- A/A w/ few pcs of well dev. oolitic dolomite w/ GD inter oolite porosity, barren

RTD 3730' (-1547) LTD 3728' (-1545) @ 15:30 4/1/2014

- DST #2_STRDL_PKR.jpg
- DST #3_STRDL_PKR.jpg
- DST #4_STRDL_PKR.jpg
- DST #5_TOR_LKC_F.jpg
- DST #5_STRDL_PKR.jpg

DST #1
LKC I - L
3570' - 3635'

SEE CHARTS BELOW

**** AFTER SHORT TRIP @ 3635' TIH & LOST CIRC. APPROX. 160 bbl****

DST #2 (STRADDLE) MISRUN

LKC J - ARBUCKLE
3585' - 3697'

SEE CHARTS BELOW

DST #3 (STRADDLE) MISRUN

LKC I - ARBUCKLE
3565' - 3694'

SEE CHARTS BELOW

DST #4 (STRADDLE)

LKC H - ARBUCKLE
3535' - 3698'

15-30-30-30

1907' MUD

IFP: 696-7115#
FFP: 816-947#
SIP: 1383-1302#
HYD: 1713-1668#
BHT: 110 dgr.

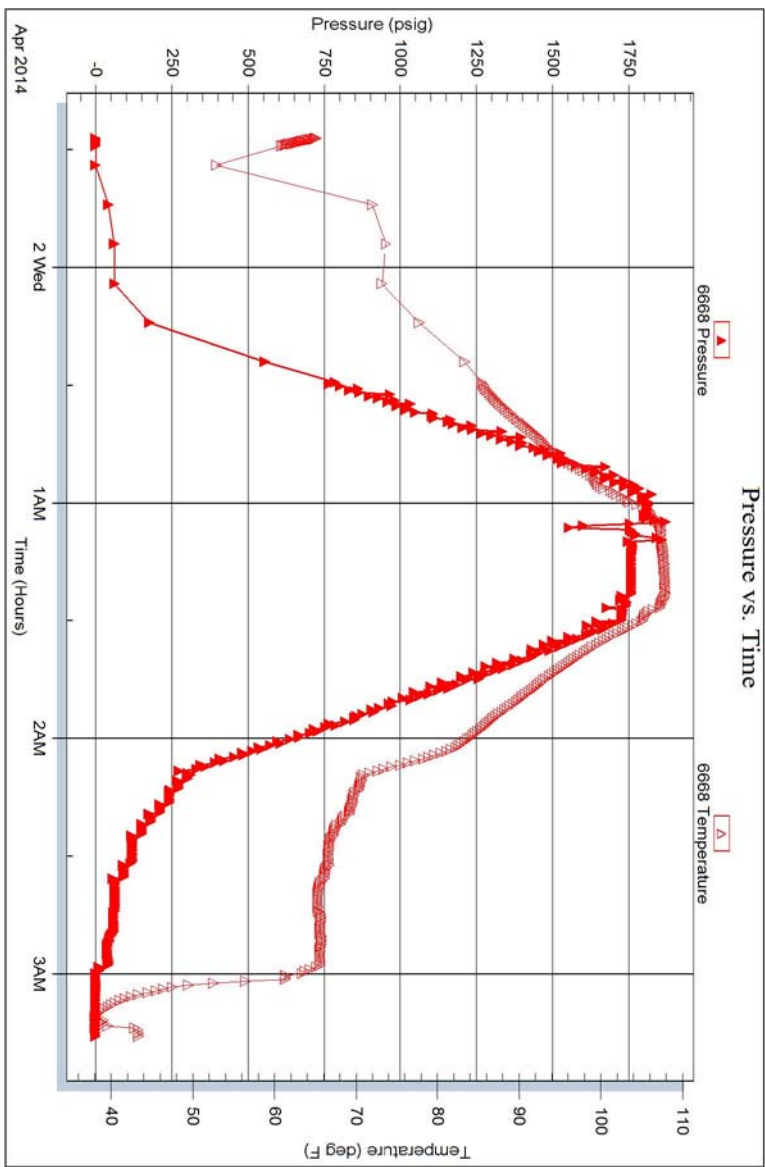
SEE CHARTS BELOW

Serial #: 6668

Below /str fault/frnds Oil Corporation

McQue 1

DST Test Number: 2



Trioble Testing, Inc

Ref No: 57579

Printed: 2014-04-02 @ 06:51:22

DST #3_STRDL_PKR.jpg

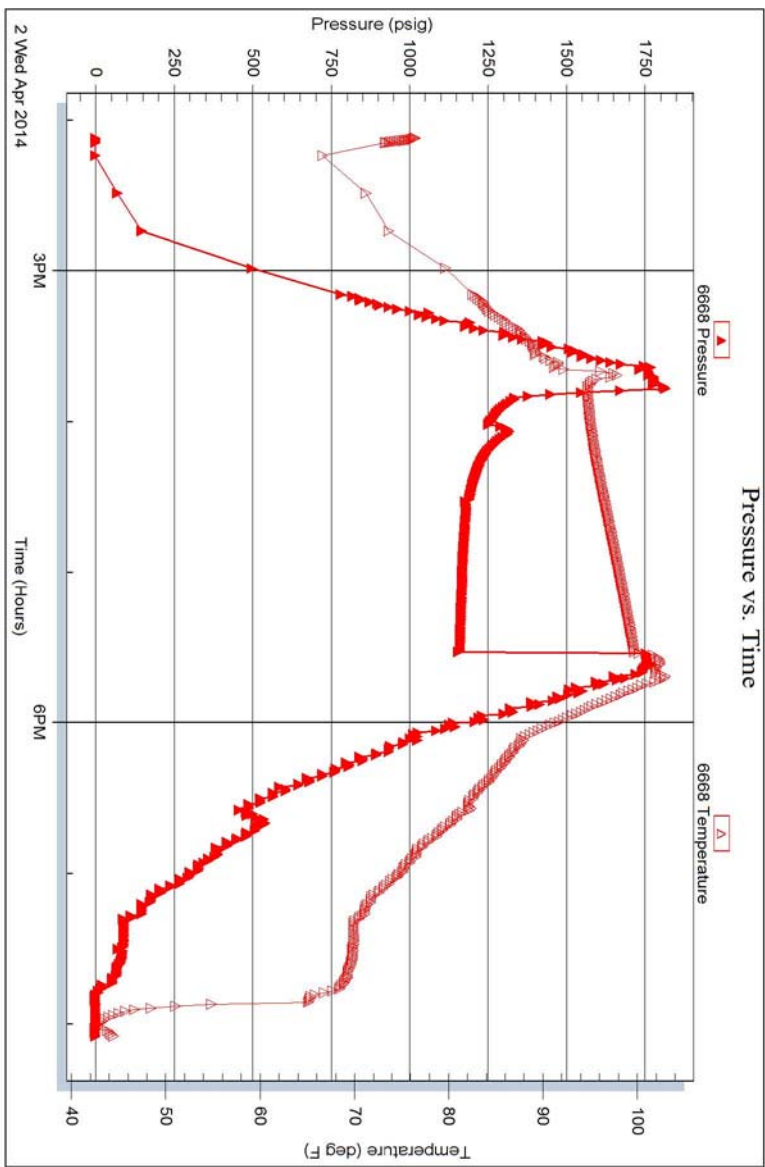


Serial #: 6668

Below /str faculty/nds Oil Corporation

McQue 1

DST Test Number: 4



Trioble Testing, Inc

Ref No: 57581

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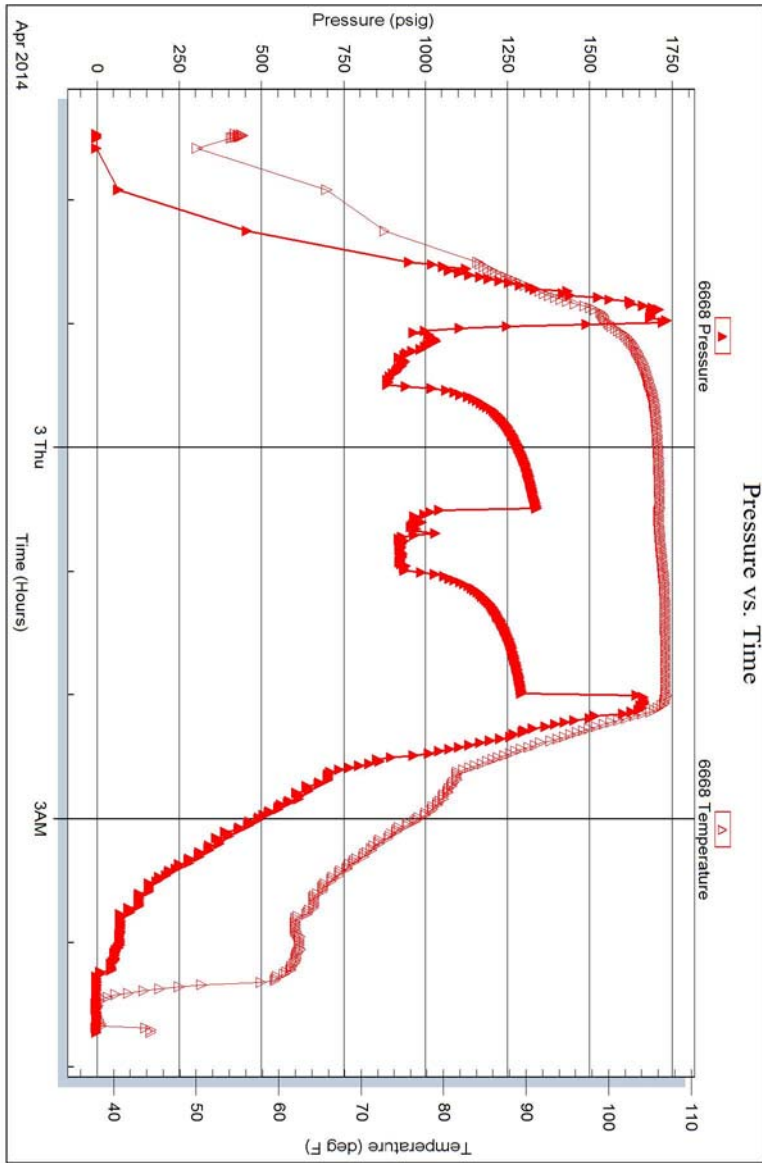
DST #5_STRDL_PKR.jpg

Serial #: 6668

Below / Str fluids/inds Oil Corporation

McQue 1

DST Test Number: 5



Trioble Testing, Inc

Ref No: 57582

Printed: 2014-04-03 @ 06:35:48



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FourWinds Oil Corporation

27 6s 20w Rooks

P. O. Box 1063
Hays KS 67601

McCue 1

Job Ticket: 57578

DST#: 1

ATTN: Jeff Lawler

Test Start: 2014.04.01 @ 05:48:00

GENERAL INFORMATION:

Formation: **LKC "I - K"**

Deviated: No Whipstock: 2183.00 ft (KB)

Time Tool Opened: 07:56:00

Time Test Ended: 10:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jim Svaty

Unit No: 76

Interval: 3570.00 ft (KB) To 3635.00 ft (KB) (TVD)

Reference Elevations: 2183.00 ft (KB)

Total Depth: 3635.00 ft (KB) (TVD)

2178.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8289 Outside

Press@RunDepth: psig @ 3574.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.01

End Date:

2014.04.01

Last Calib.:

2014.04.01

Start Time: 05:48:02

End Time:

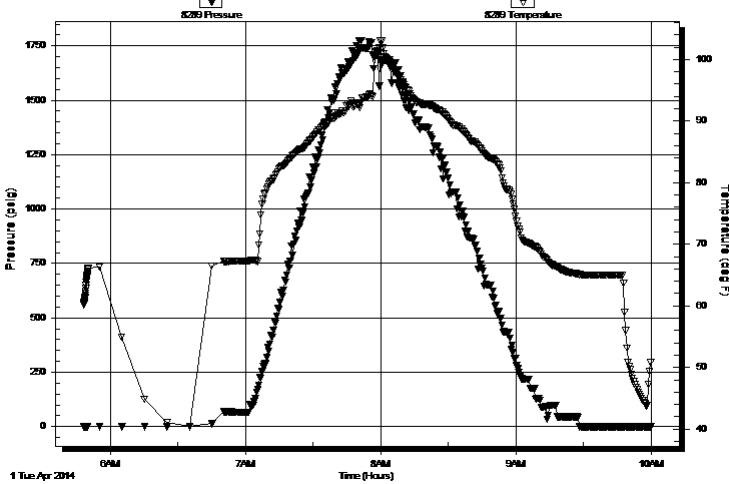
10:00:00

Time On Btm:

Time Off Btm:

TEST COMMENT: Miss-Run Packers Failed

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
434.00	Mud 100%	4.98

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

FourWinds Oil Corporation

27 6s 20w Rooks

P. O. Box 1063
Hays KS 67601

McCue 1

Job Ticket: 57578

DST#: 1

ATTN: Jeff Lawler

Test Start: 2014.04.01 @ 05:48:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.60 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.50 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
434.00	Mud 100%	4.977

Total Length: 434.00 ft Total Volume: 4.977 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

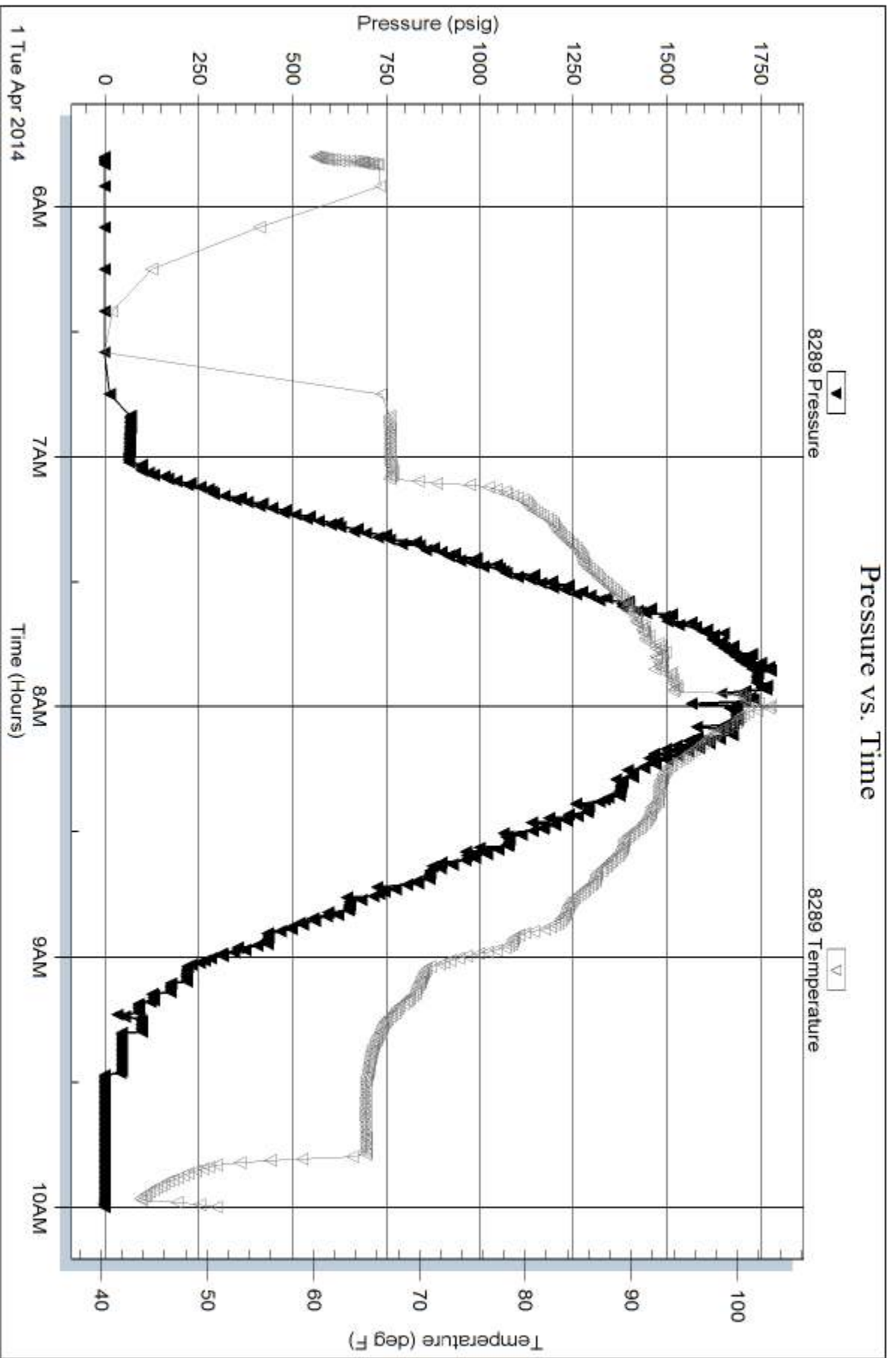
Recovery Comments: Miss-Run Packers Failed

Serial #: 8289

Outside FourWinds Oil Corporation

McClue 1

DST Test Number: 1



Tribble Testing, Inc

Ref. No: 57578

Printed: 2014.04.01 @ 10:19:23



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FourWinds Oil Corporation

27 6s 20w Rooks

P. O. Box 1063
Hays KS 67601

McCue 1

Job Ticket: 57579

DST#: 2

ATTN: Jeff Lawler

Test Start: 2014.04.01 @ 23:27:00

GENERAL INFORMATION:

Formation: **LKC " J & K " Arbuck**

Deviated: No Whipstock: 2183.00 ft (KB)

Time Tool Opened: 01:05:00

Time Test Ended: 03:16:00

Test Type: Conventional Straddle (Reset)

Tester: Jim Svaty

Unit No: 76

Interval: 3585.00 ft (KB) To 3697.00 ft (KB) (TVD)

Reference Elevations: 2183.00 ft (KB)

Total Depth: 3729.00 ft (KB) (TVD)

2178.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8289 Outside

Press @ Run Depth: psig @ 3595.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.01

End Date:

2014.04.02

Last Calib.:

2014.04.02

Start Time: 23:27:02

End Time:

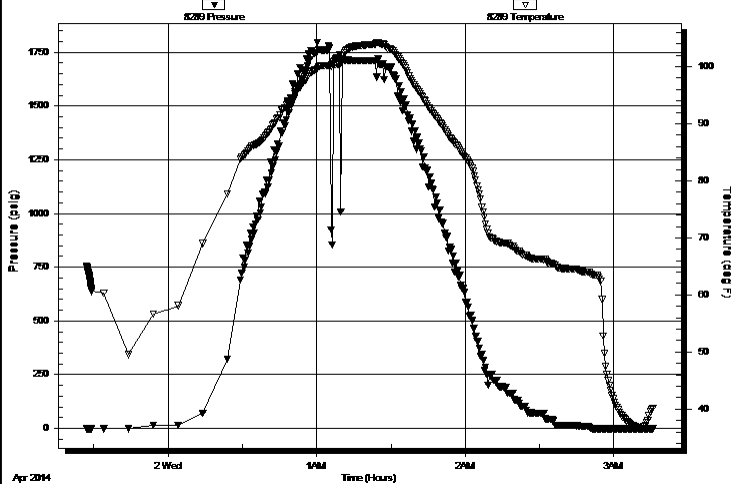
03:16:00

Time On Btm:

Time Off Btm:

TEST COMMENT: Miss-Run Packers Failed

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
496.00	Mud 100%	5.85

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

FourWinds Oil Corporation

27 6s 20w Rooks

P. O. Box 1063
Hays KS 67601

McCue 1

Job Ticket: 57579

DST#: 2

ATTN: Jeff Lawler

Test Start: 2014.04.01 @ 23:27:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.80 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: 4.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
496.00	Mud 100%	5.846

Total Length: 496.00 ft Total Volume: 5.846 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

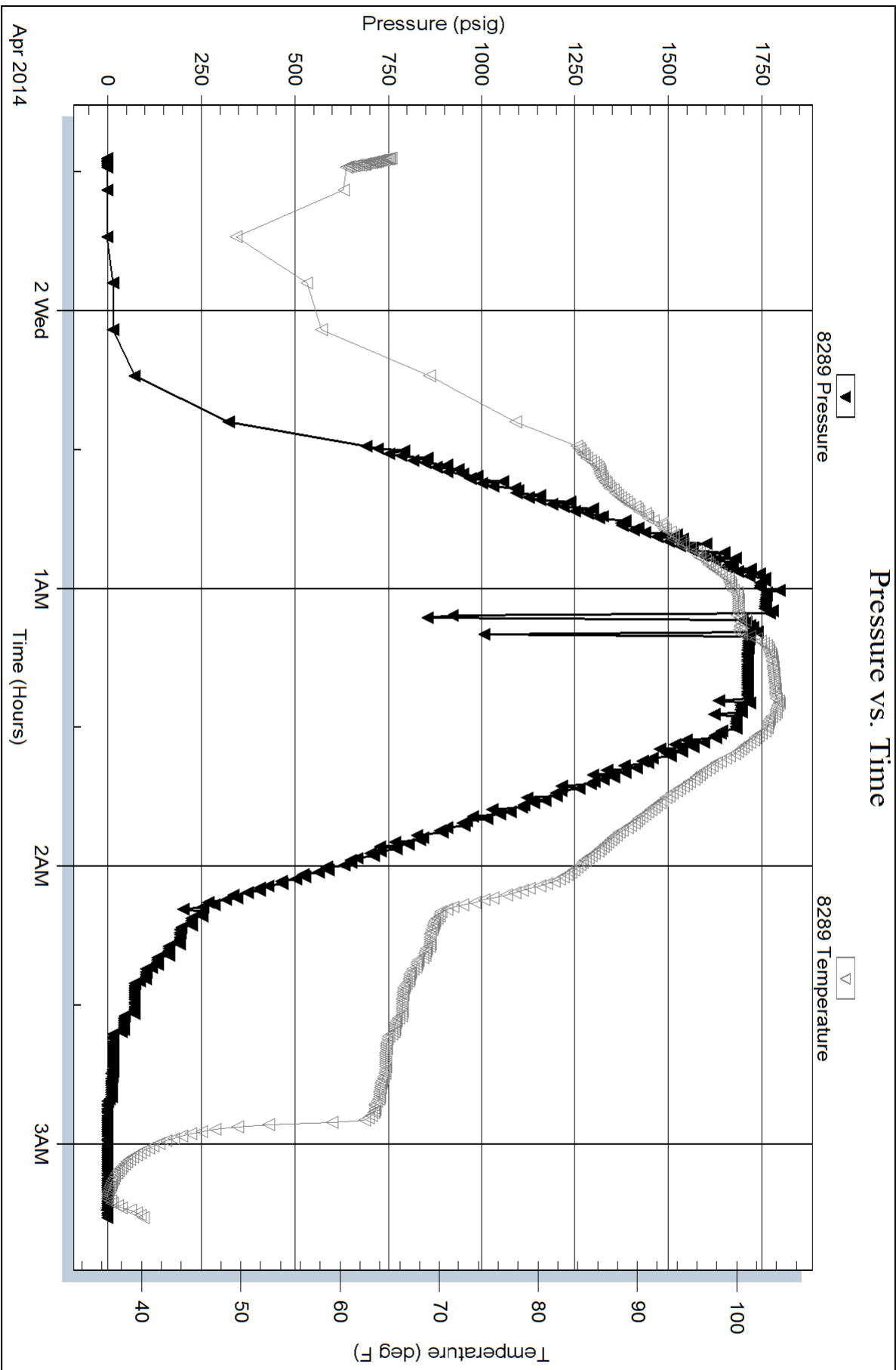
Recovery Comments:

Serial #: 8289

Outside FourWinds Oil Corporation

McQue 1

DST Test Number: 2

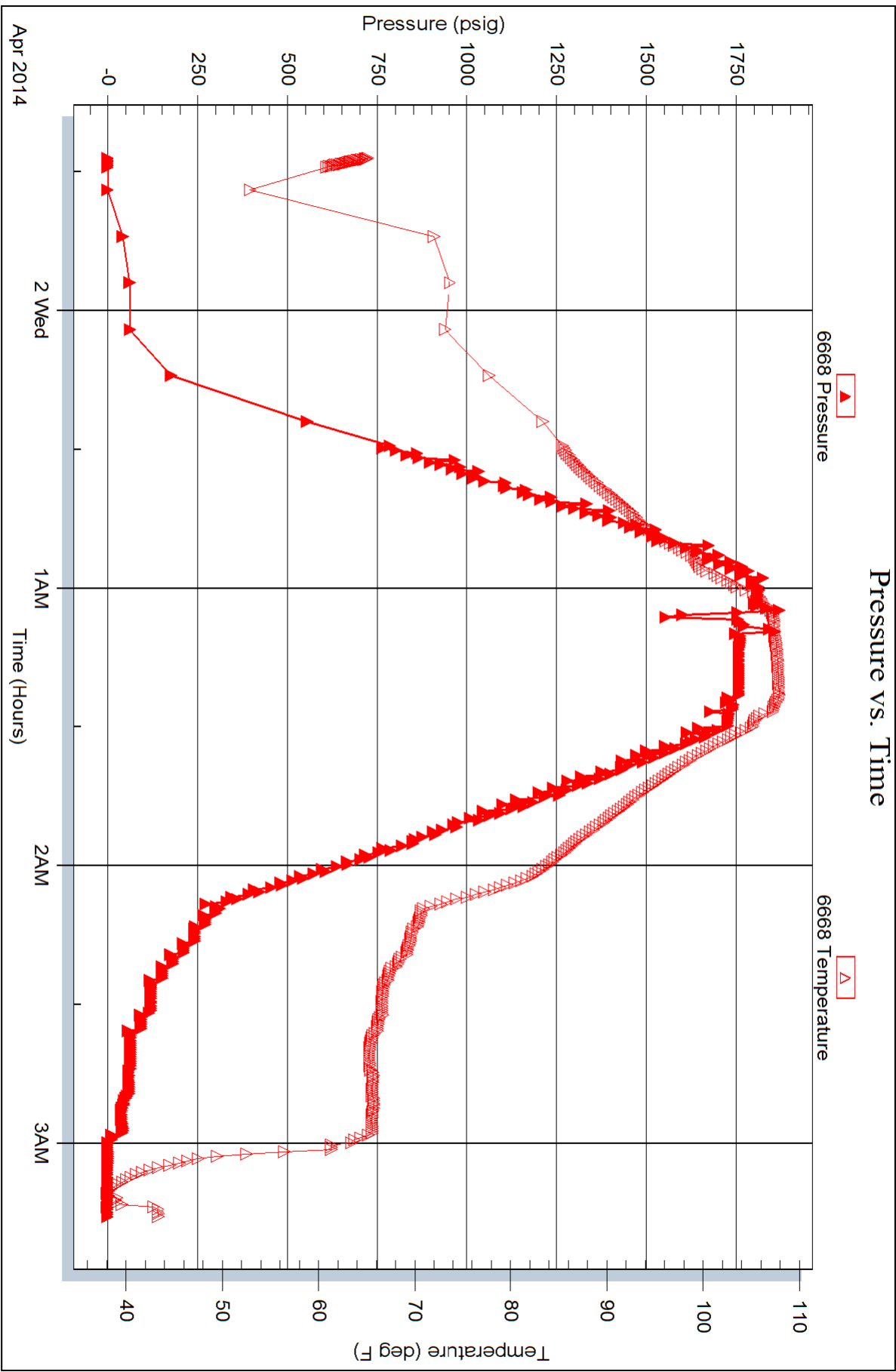


Serial #: 6668

Below (Straddle) finds Oil Corporation

McQue 1

DST Test Number: 2



QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 010

Date	Sec.	Twp.	Range	County	State	On Location	Finish
4-3-14	27	6	20	Rooks	KS		8:00 p.m.

Location *49th St 24 7th Rd 4 7th E into*

Lease <i>McCue</i>	Well No. <i>1</i>	Owner
Contractor <i>WW #6</i>		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
Type Job <i>Production String</i>		Charge To <i>Far Wells</i>
Hole Size <i>7 7/8</i>	T.D. <i>3730</i>	
Csg. <i>4 1/2</i>	Depth <i>3728</i>	Street
Tbg. Size	Depth	City
Tool	Depth	State
Cement Left in Csg. <i>16.87</i>	Shoe Joint <i>16.87</i>	The above was done to satisfaction and supervision of owner agent or contractor.
Meas Line	Displace <i>574232</i>	Cement Amount Ordered <i>160 10/ Salt 5/ Gilsontite</i>

EQUIPMENT

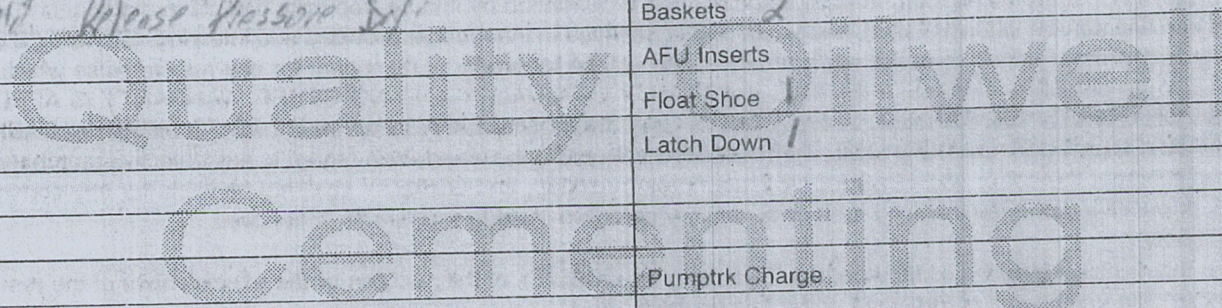
Pumptrk <i>18</i>	No.	Cementer <i>Greg</i>	Common
		Helper <i>Carl</i>	Poz. Mix
Bulktrk	No.	Driver	Gel.
Bulktrk <i>14</i>	No.	Driver <i>Lanette</i>	Calcium

JOB SERVICES & REMARKS

Remarks:	Hulls
Rat Hole <i>30SK</i>	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
<i>4 1/2 size 3728 Inside 3711 test</i>	Sand
<i>Circulator on Pump 500 gal and other 1000</i>	Handling
<i>Special Cement Batch with 30SK</i>	Mileage

FLOAT EQUIPMENT

<i>Cement 4 1/2 with 130SK</i>	Guide Shoe <i>4 1/2</i>
<i>D. Displace Plug. Pushwide 1500</i>	Centralizer <i>5 Turbo's</i>
<i>Hold Release Pressure 8 1/2</i>	Baskets <i>2</i>
	AFU Inserts
	Float Shoe <i>1</i>
	Latch Down <i>1</i>



Pumptrk Charge	
Mileage	
	Tax
	Discount
	Total Charge

X Signature

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 496

Date	3-28-14	Sec.	27	Twp.	C	Range	20	County	Boonville	State	KS	On Location	3:45 PM	Finish	5:15 PM
------	---------	------	----	------	---	-------	----	--------	-----------	-------	----	-------------	---------	--------	---------

Location Wagon + 24 7 W to RD4

Lease McCue Well No. 4 Owner JN EINTO

Contractor WW 6 To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish
cementer and helper to assist owner or contractor to do work as listed.

Type Job Surface Charge To Four Winds

Hole Size 12 1/4 T.D. 217 ft Street Four Winds

Csg. 8 5/8 Depth City State

Tbg. Size Depth The above was done to satisfaction and supervision of owner agent or contractor.

Tool Depth Cement Amount Ordered 150 Com 390cc

Cement Left in Csg. 20 ft Shoe Joint 20 ft Cement Amount Ordered 150 Com 390cc

Meas Line Displace 12.5 BBL 76 gal Common

EQUIPMENT Poz. Mix

Pumptrk 17 No. Cementer Helper John Gel.

Bulktrk 19 No. Driver Rich Calcium

Bulktrk 20 No. Driver Doug Hulls

JOB SERVICES & REMARKS Salt

Remarks: Flowseal

Rat Hole Kol-Seal

Mouse Hole Mud CLR 48

Centralizers CFL-117 or CD110 CAF 38

Baskets Sand

D/V or Port Collar Handling

Cement did Mileage

Cite take **FLOAT EQUIPMENT**

Guide Shoe

Centralizer

Baskets

AFU Inserts

Float Shoe

Latch Down

Pumptrk Charge

Mileage

Signature Mark Bgd Tax

Discount

Total Charge