



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1215646  
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: \_\_\_\_\_



1215646

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

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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# ALLIED OIL & GAS SERVICES, LLC 000000

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:  
*Great Bend Kz*

DATE 1-8-14	SEC 4	TWP. 20	RANGE 16	CALLED OUT 12 PM	ON LOCATION 6 PM	JOB START 8:30 AM	JOB FINISH 9:30 AM
LEASE E Hogeeman		WELL # 4-4		LOCATION Barton Co Rd West		COUNTY Pawnee	STATE Kz
OLD OR NEW (Circle one) NEW				to 370 15 1/2 W S center			

CONTRACTOR *southwind*

TYPE OF JOB *Workover*

HOLE SIZE *12 1/4* T.D. *1087*

CASING SIZE *8 3/8* DEPTH *1086*

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT *62*

CEMENT LEFT IN CSG. *62*

PERFS.

DISPLACEMENT *H2O 65.29 BBL*

OWNER \_\_\_\_\_

CEMENT

AMOUNT ORDERED *325 24 6 5/8 6 1/2 gel 3 1/2 cc*  
*150 24 class A 3 1/2 cc*  
*27 gel*

COMMON	<i>150</i>	@	<i>17.90</i>	<i>2,685.00</i>
POZMIX		@		
GEL	<i>3</i>	@	<i>23.40</i>	<i>70.20</i>
CHLORIDE	<i>1280</i>	@	<i>.80</i>	<i>1024.00</i>
ASC		@		
	<i>Allied wire wt</i>	@		
	<i>325 5x</i>	@	<i>16.50</i>	<i>5,362.50</i>
	<i>flaseal 82</i>	@	<i>2.97</i>	<i>243.54</i>
		@		
		@		
		@		
HANDLING	<i>536.25</i>	@	<i>2.48</i>	<i>1329.90</i>
MILEAGE	<i>23.18 x 10 x</i>		<i>2.60</i>	<i>602.98</i>
				TOTAL <i>11,317.92</i>

EQUIPMENT

PUMP TRUCK CEMENTER *Charles King*

# *597* HELPER *Kevin eddy*

BULK TRUCK *15*

# *609-239* DRIVER *Thomas Tijerina*

BULK TRUCK

# *544-198* DRIVER *Kevin Weiglour*

REMARKS:

*Run 1087' csg. Break circulation  
w/ Rig Mad deep bulk pump therapy  
@ 200# Hook to head 5 BBL H2O  
ahead mix 325 24 6 5/8 6 1/2 gel 3 1/2 cc  
to flo lead @ 14.5 min 150 24  
class A 3 1/2 cc 27 gel @ 15.2 shut  
down Release plug displace  
65.29 BBL H2O plug did land  
float did not hold shut down  
with 500 psi*

CHARGE TO: *southwind Petroleum*

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

SERVICE

DEPTH OF JOB	<i>1086</i>			
PUMP TRUCK CHARGE	<i>2213.15</i>			
EXTRA FOOTAGE		@		
MILEAGE	<i>Hum 10</i>	@	<i>7.70</i>	<i>77.00</i>
MANIFOLD	<i>Hum 10</i>	@	<i>4.40</i>	<i>44.00</i>
		@		

TOTAL *2,609.15*

PLUG & FLOAT EQUIPMENT

		@		
	<i>3 connectors</i>	@	<i>74.88</i>	<i>224.64</i>
	<i>Rubber Plug</i>	@	<i>131.07</i>	<i>131.07</i>
	<i>Insert</i>	@	<i>446.94</i>	<i>446.94</i>
		@		

TOTAL *802.62*

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.

PRINTED NAME *Gary Leubetter*

SIGNATURE *Gary Leubetter*

SALES TAX (If Any) \_\_\_\_\_

TOTAL CHARGES *14,730.19*

DISCOUNT *4,124.92*

IF PAID IN 30 DAYS  
*10,605.23*

# ALLIED OIL & GAS SERVICES, LLC 061843

Federal Tax I.D. # 20-8651475

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

SERVICE POINT: Great Bend, KS

DATE <u>1-14-14</u>	SEC <u>4</u>	TWP <u>20</u>	RANGE <u>16W</u>	CALLED OUT <u>1-14-14</u>	ON LOCATION <u>4:00pm</u>	JOB START <u>11:30AM</u>	JOB FINISH <u>2:30AM</u>
E. Hagerman LEASE		WELL # <u>4-4</u>	LOCATION <u>Great Bend 15W 15 1/2W</u>		COUNTY <u>Pawnee</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one)			<u>SICRO</u>				

CONTRACTOR Southwind Drilling  
 TYPE OF JOB 5 1/2 production  
 HOLE SIZE 7 7/8 T.D.  
 CASING SIZE 5 1/2 DEPTH 3867  
 TUBING SIZE DEPTH  
 DRILL PIPE 4 1/2 DEPTH  
 TOOL DEPTH  
 PRES. MAX MINIMUM  
 MEAS. LINE SHOE JOINT  
 CEMENT LEFT IN CSG. 14.66 FT  
 PERFS.  
 DISPLACEMENT 93,99 KCL water

OWNER \_\_\_\_\_  
 CEMENT  
 AMOUNT ORDERED 165 SKS ASC + 107.50 FT + 24. Gel + 64.74 P + 5# K. Seal + .34. FL + 10 + 12 F  
 COMMON \_\_\_\_\_ @ \_\_\_\_\_  
 POZMIX \_\_\_\_\_ @ \_\_\_\_\_  
 GEL \_\_\_\_\_ @ \_\_\_\_\_  
 CHLORIDE \_\_\_\_\_ @ \_\_\_\_\_  
 ASC 165 @ 7.90 1303.50  
10 gal KCL @ 34.40 344.00  
 DF 50 @ 9.80 490.00  
Kalocal 825 @ .98 808.50  
FL-160 46 @ 18.90 869.40  
 HANDLING 219.97 @ 2.48 545.52  
 MILEAGE 9.24 x 104 2.60 240.39  
 TOTAL 7,381.16

EQUIPMENT  
 PUMP TRUCK # 366 CEMENTER Dustin Chambers  
 HELPER Ben Newell  
 BULK TRUCK # 471-112 DRIVER CJ Guest  
 BULK TRUCK # \_\_\_\_\_ DRIVER \_\_\_\_\_

REMARKS:  
Break circulation with big mud circulation for 1 hr pump 500 gal and flush plug. High mix 15 SKS cement down hole. Shut down with lines - the lease plus. Replace 48.79 bbls KCL water. Load plug pressure. Plug Point 2:00 AM 1-15-14. Big Down. 3 1/2 hr wait time.

CHARGE TO: Southwind Petroleum  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

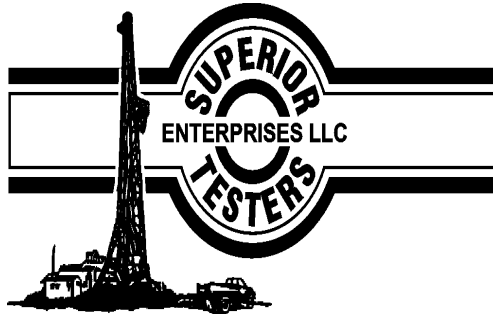
SERVICE  
 DEPTH OF JOB 3867  
 PUMP TRUCK CHARGE 2558.25  
 EXTRA FOOTAGE @ \_\_\_\_\_  
 MILEAGE Hum 10 @ 7.70 77.00  
 MANIFOLD Head @ 275.00 275.00  
Hum 10 @ 44.00 440.00  
 TOTAL 2,954.25

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.

PLUG & FLOAT EQUIPMENT  
1-5 1/2 APU float shoe @ 408.00 620.48  
1-5 1/2 Latch down plug @ 398.00 398.00  
1-5 1/2 tubularizer @ 93.60 561.60  
wait time 3 1/2 @ 440.00 1540.00  
 TOTAL 2,907.93

PRINTED NAME En Arak  
 SIGNATURE [Signature]

SALES TAX (If Any) \_\_\_\_\_  
 TOTAL CHARGES 13,243.84  
 DISCOUNT 3,100.72  
 IF PAID IN 30 DAYS  
10,143.07



## DRILL STEM TEST REPORT

Prepared For: **Southwind Petroleum Corp**

1400 W 14th St Wichita KS 67203+2901

ATTN: Bob Williams

**Eileen Hagerman #4-4**

**4-20s-16w Pawnee**

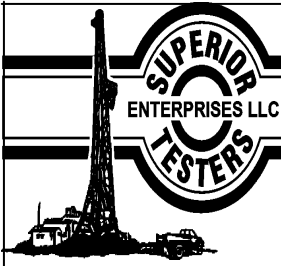
Start Date: 2014.01.13 @ 00:45:00

End Date: 2014.01.13 @ 08:31:00

Job Ticket #: 17048                      DST #: 1

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2014.01.14 @ 10:42:24



# DRILL STEM TEST REPORT

Southwind Petroleum Corp  
 1400 W 14th St Wichita KS 67203+2901  
 ATTN: Bob Williams

**4-20s-16w Pawnee**  
**Eileen Hagerman #4-4**  
 Job Ticket: 17048 **DST#: 1**  
 Test Start: 2014.01.13 @ 00:45:00

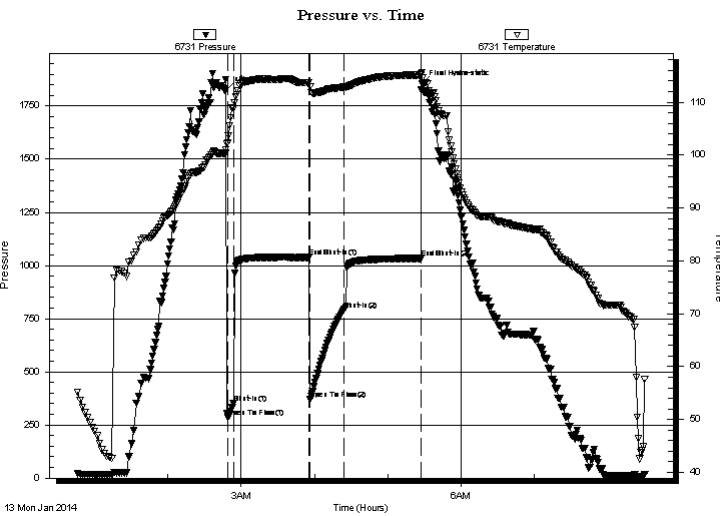
## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 02:49:00 Tester: Jared Scheck  
 Time Test Ended: 08:31:00 Unit No: 3335-Great Bend-30  
 Interval: **3706.00 ft (KB) To 3750.00 ft (KB) (TVD)** Reference Elevations: 2024.00 ft (KB)  
 Total Depth: 3750.00 ft (KB) (TVD) 2016.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

## Serial #: 6731

Press@RunDepth: 790.92 psia @ ft (KB) Capacity: 5000.00 psia  
 Start Date: 2014.01.13 End Date: 2014.01.13 Last Calib.: 2014.01.13  
 Start Time: 00:45:00 End Time: 08:31:00 Time On Btm: 2014.01.13 @ 02:47:00  
 Time Off Btm: 2014.01.13 @ 05:28:00

**TEST COMMENT:** 1st Opening 5 Minutes-Strong blow built bottom of bucket in 1 minute  
 1st Shut-in 60 Minutes-Bottom of bucket blow back  
 2nd Opening 30 Minutes-Strong blow built bottom of bucket in 1 minute  
 2nd Shut-in 60 Minutes-Bottom of bucket blow back



## PRESSURE SUMMARY

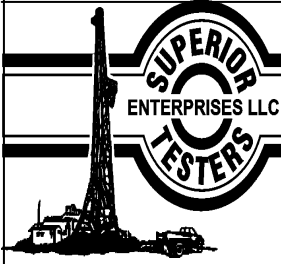
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1823.85	100.34	Initial Hydro-static
2	287.78	102.39	Open To Flow (1)
7	351.02	108.85	Shut-In(1)
69	1038.80	113.72	End Shut-In(1)
70	369.92	112.92	Open To Flow (2)
97	790.92	112.83	Shut-In(2)
160	1034.35	115.15	End Shut-In(2)
161	1853.36	115.64	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
600.00	Spot oil cut mud w ater 1%oil 4%mud95%	8.42
420.00	mud w ater 5%mud 95%w ater	5.89
600.00	mud w ater 5%mud 95%w ater	8.42

## Gas Rates

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



# DRILL STEM TEST REPORT

Southwind Petroleum Corp  
 1400 W 14th St Wichita KS 67203+2901  
 ATTN: Bob Williams

**4-20s-16w Pawnee**  
**Eileen Hagerman #4-4**  
 Job Ticket: 17048 **DST#: 1**  
 Test Start: 2014.01.13 @ 00:45:00

## GENERAL INFORMATION:

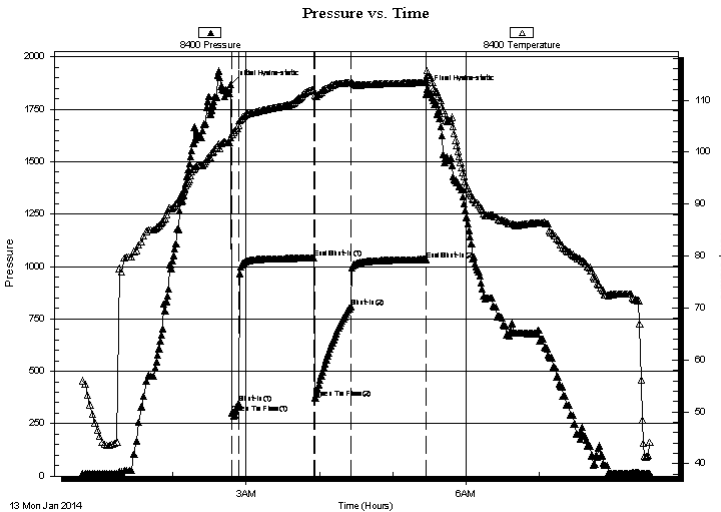
Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 02:49:00  
 Time Test Ended: 08:31:00  
 Interval: **3706.00 ft (KB) To 3750.00 ft (KB) (TVD)**  
 Total Depth: 3750.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jared Scheck  
 Unit No: 3335-Great Bend-30  
 Reference Elevations: 2024.00 ft (KB)  
 2016.00 ft (CF)  
 KB to GR/CF: 8.00 ft

## Serial #: 8400

Press@RunDepth: 1033.37 psia @ ft (KB) Capacity: 5000.00 psia  
 Start Date: 2014.01.13 End Date: 2014.01.13 Last Calib.: 2014.01.13  
 Start Time: 00:45:00 End Time: 08:30:30 Time On Btm: 2014.01.13 @ 02:47:30  
 Time Off Btm: 2014.01.13 @ 05:28:00

**TEST COMMENT:** 1st Opening 5 Minutes-Strong blow built bottom of bucket in 1 minute  
 1st Shut-in 60 Minutes-Bottom of bucket blow back  
 2nd Opening 30 Minutes-Strong blow built bottom of bucket in 1 minute  
 2nd Shut-in 60 Minutes-Bottom of bucket blow back

## PRESSURE SUMMARY



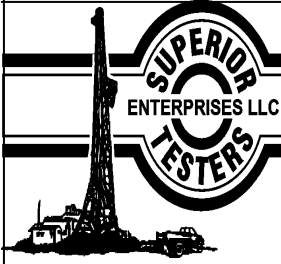
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1868.87	102.74	Initial Hydro-static
1	301.03	103.41	Open To Flow (1)
6	349.41	105.16	Shut-In(1)
68	1040.38	112.02	End Shut-In(1)
69	374.08	110.82	Open To Flow (2)
98	808.75	113.33	Shut-In(2)
160	1033.37	113.42	End Shut-In(2)
161	1843.12	115.73	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
600.00	Spot oil cut mud w ater 1%oil 4%mud95%	8.42
420.00	mud w ater 5%mud 95%w ater	5.89
600.00	mud w ater 5%mud 95%w ater	8.42

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Southwind Petroleum Corp  
 1400 W 14th St Wichita KS 67203+2901  
 A T T N : Bob Williams

**4-20s-16w Pawnee**  
**Eileen Hagerman #4-4**  
 Job Ticket: 17048      **DST#: 1**  
 Test Start: 2014.01.13 @ 00:45:00

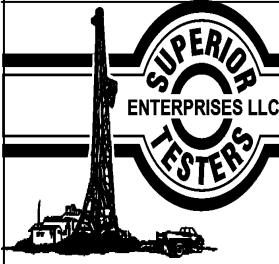
## Tool Information

Drill Pipe:	Length: 3688.00 ft	Diameter: 3.80 inches	Volume: 51.73 bbl	Tool Weight: 1000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 51.73 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 32000.00 lb
Depth to Top Packer:	3706.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	72.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

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

Shut-In Tool	5.00			3683.00	
Hydraulic Tool	5.00			3688.00	
Jars	6.00			3694.00	
Safety Joint	2.00			3696.00	
Packer	5.00			3701.00	28.00      Bottom Of Top Packer
Packer	5.00			3706.00	
Anchor	39.00			3745.00	
Recorder	1.00	6731	Inside	3746.00	
Recorder	1.00	8400	Outside	3747.00	
Bullnose	3.00			3750.00	44.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>72.00</b>				





# DRILL STEM TEST REPORT

## FLUID SUMMARY

Southw ind Petroleum Corp  
 1400 W 14th St Wichita KS 67203+2901  
 A TTN: Bob Williams

**4-20s-16w Pawnee**  
**Eileen Hagerman #4-4**  
 Job Ticket: 17048      **DST#: 1**  
 Test Start: 2014.01.13 @ 00:45:00

### Mud and Cushion Information

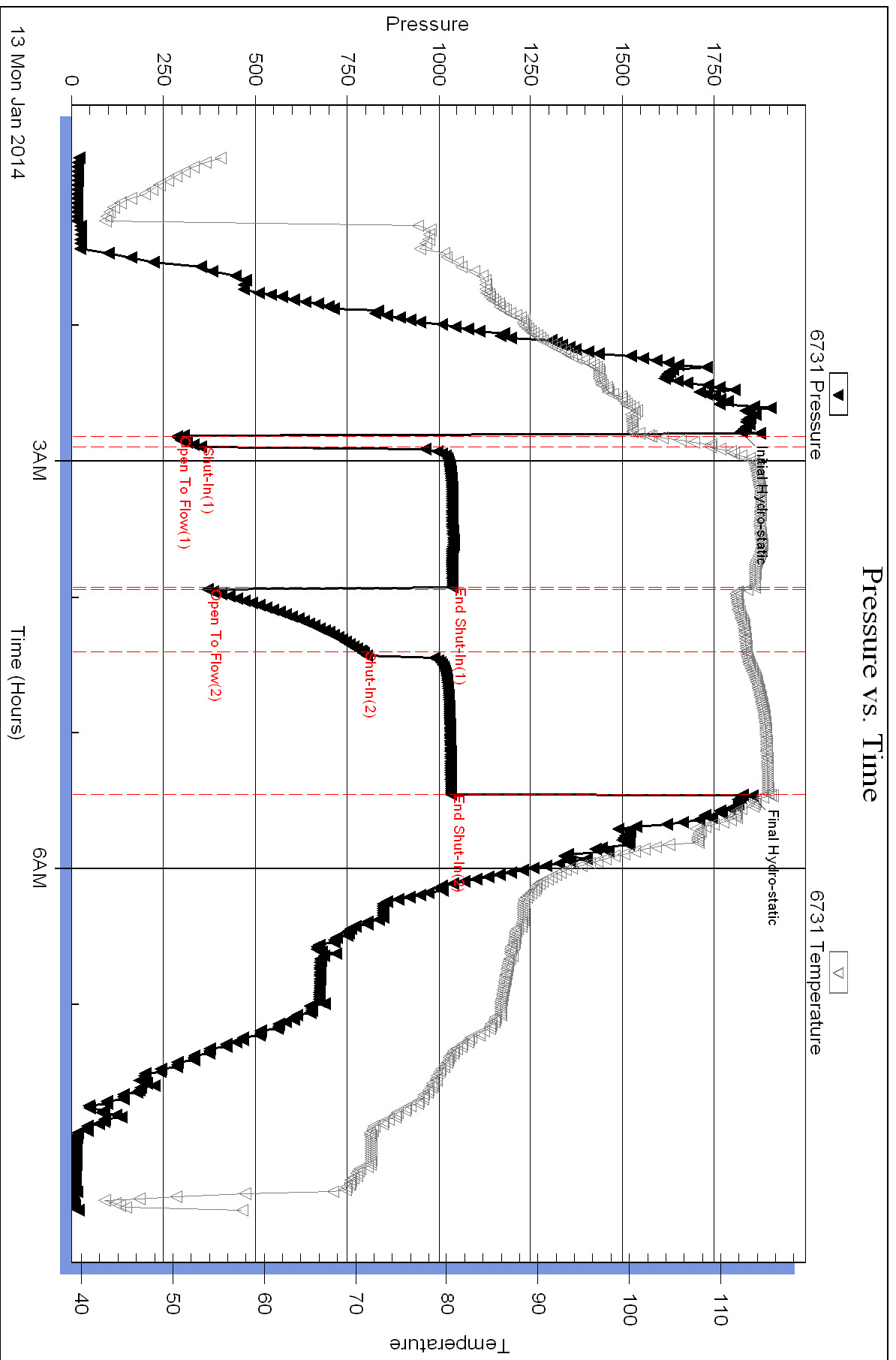
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.00 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 3000.00 ppm			
Filter Cake: 1.00 inches			

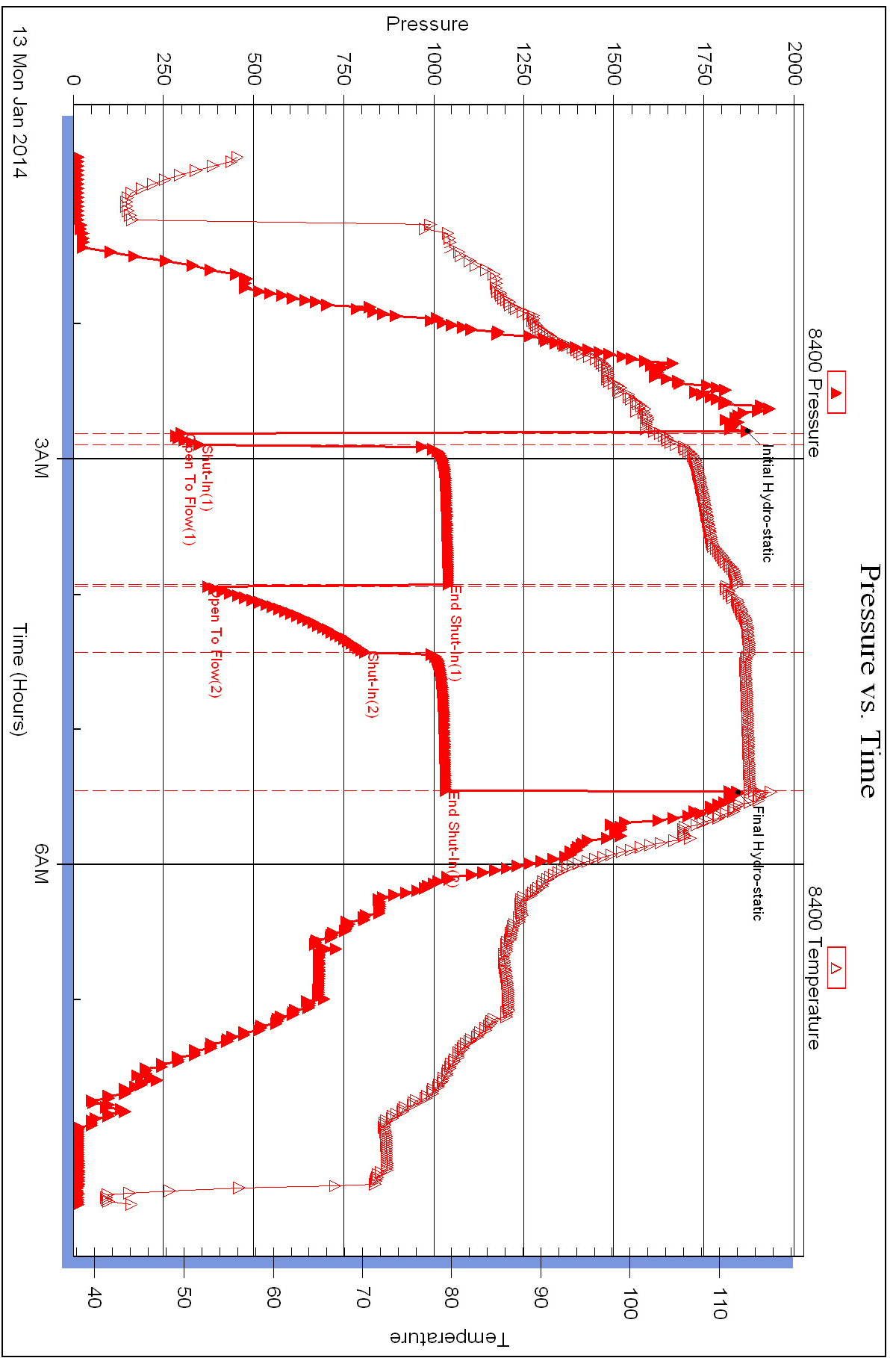
### Recovery Information

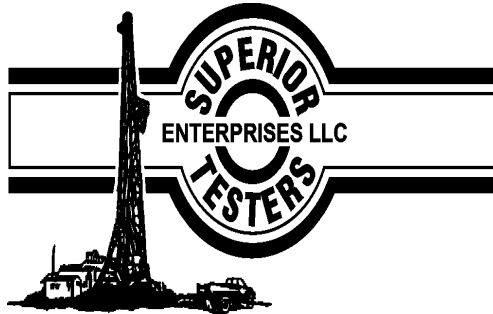
Recovery Table

Length ft	Description	Volume bbl
600.00	Spot oil cut mud w ater 1%oil 4%mud95%w at	8.416
420.00	mud w ater 5%mud 95%w ater	5.891
600.00	mud w ater 5%mud 95%w ater	8.416

Total Length: 1620.00 ft      Total Volume: 22.723 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments: chlorides35,000







## DRILL STEM TEST REPORT

Prepared For: **Southwind Petroleum Corp**

1400 W 14th St Wichita KS 67203+2901

ATTN: Bob Williams

**Eileen Hagerman #4-4**

**4-20s-16w Pawnee**

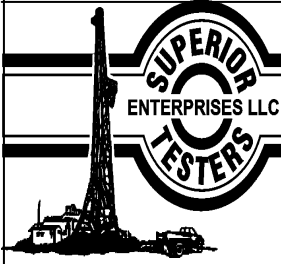
Start Date: 2014.01.14 @ 04:45:00

End Date: 2014.01.14 @ 12:03:00

Job Ticket #: 17049                      DST #: 2

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2014.01.14 @ 12:37:43



# DRILL STEM TEST REPORT

Southwind Petroleum Corp  
 1400 W 14th St Wichita KS 67203+2901  
 ATTN: Bob Williams

**4-20s-16w Pawnee**  
**Eileen Hagerman #4-4**  
 Job Ticket: 17049 **DST#: 2**  
 Test Start: 2014.01.14 @ 04:45:00

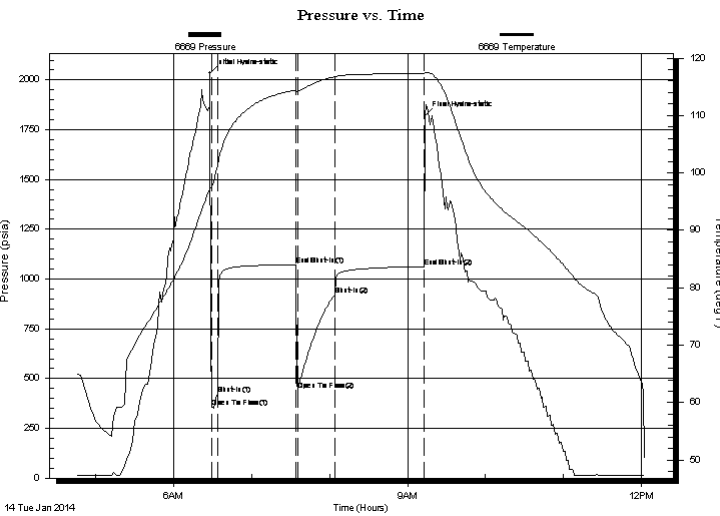
## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 06:29:30  
 Time Test Ended: 12:03:00  
**Interval: 3780.00 ft (KB) To 3877.00 ft (KB) (TVD)**  
 Total Depth: 3877.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Straddle (Initial)  
 Tester: Jared Scheck  
 Unit No: 3335-30-Great Bend  
 Reference Elevations: 2024.00 ft (KB)  
 2016.00 ft (CF)  
 KB to GR/CF: 8.00 ft

## Serial #: 6669

Press@RunDepth: 920.08 psia @ ft (KB) Capacity: 5000.00 psia  
 Start Date: 2014.01.14 End Date: 2014.01.14 Last Calib.: 2014.01.14  
 Start Time: 04:45:00 End Time: 12:03:00 Time On Btm: 2014.01.14 @ 06:28:00  
 Time Off Btm: 2014.01.14 @ 09:13:30

**TEST COMMENT:** 1st Opening 5 Minutes-Strong blow built bottom of bucket in less then 1 minute  
 1st Shut-in 60 Minutes-Yes  
 2nd Opening 30 Minutes-Strong blow built bottom of bucket in less then 1 minute  
 2nd Shut-in 60 Minutes-Yes



## PRESSURE SUMMARY

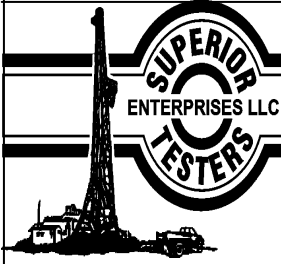
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2033.97	97.36	Initial Hydro-static
2	354.00	97.66	Open To Flow (1)
6	422.29	101.26	Shut-In(1)
66	1071.54	114.42	End Shut-In(1)
68	443.33	114.32	Open To Flow (2)
96	920.08	116.76	Shut-In(2)
165	1062.26	117.26	End Shut-In(2)
166	1821.10	117.47	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1260.00	gas oil cut mud w ater	17.67
0.00	gas %5 oil%5 mud5% 85%w ater	0.00
960.00	w ater 5%mud 95%w ater	13.47
0.00	240 Gas in pipe	0.00
0.00	Chlorides 35,000 resisitivity .15@60degr	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

Southwind Petroleum Corp

**4-20s-16w Pawnee**

1400 W 14th St Wichita KS 67203+2901

**Eileen Hagerman #4-4**

ATTN: Bob Williams

Job Ticket: 17049

**DST#: 2**

Test Start: 2014.01.14 @ 04:45:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:29:30

Time Test Ended: 12:03:00

Test Type: Conventional Straddle (Initial)

Tester: Jared Scheck

Unit No: 3335-30-Great Bend

**Interval: 3780.00 ft (KB) To 3877.00 ft (KB) (TVD)**

Reference Elevations: 2024.00 ft (KB)

Total Depth: 3877.00 ft (KB) (TVD)

2016.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

## Serial #: 8400

Press@RunDepth: 1061.90 psia @ ft (KB)

Capacity: 5000.00 psia

Start Date: 2014.01.14

End Date: 2014.01.14

Last Calib.: 2014.01.14

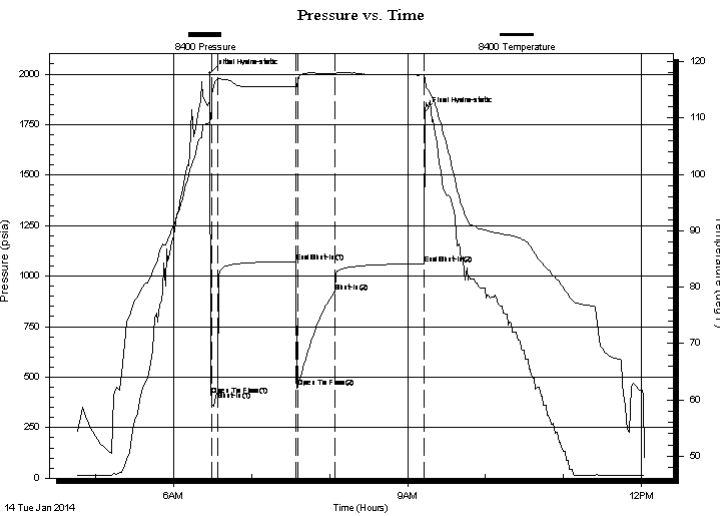
Start Time: 04:45:00

End Time: 12:03:00

Time On Btm: 2014.01.14 @ 06:28:00

Time Off Btm: 2014.01.14 @ 09:13:30

**TEST COMMENT:** 1st Opening 5 Minutes-Strong blow built bottom of bucket in less then 1 minute  
 1st Shut-in 60 Minutes-Yes  
 2nd Opening 30 Minutes-Strong blow built bottom of bucket in less then 1 minute  
 2nd Shut-in 60 Minutes-Yes



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2004.12	109.45	Initial Hydro-static
1	408.32	112.43	Open To Flow (1)
6	427.94	116.79	Shut-In(1)
66	1071.12	115.65	End Shut-In(1)
68	448.75	116.70	Open To Flow (2)
96	921.35	117.94	Shut-In(2)
165	1061.90	117.65	End Shut-In(2)
166	1816.07	117.06	Final Hydro-static

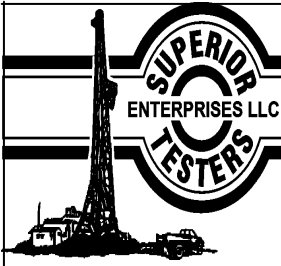
## Recovery

Length (ft)	Description	Volume (bbl)
1260.00	gas oil cut mud w ater	17.67
0.00	gas %5 oil%5 mud5% 85%w ater	0.00
960.00	w ater 5%mud 95%w ater	13.47
0.00	240 Gas in pipe	0.00
0.00	Chlorides 35,000 resistivity .15@60degr	0.00

## Gas Rates

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





# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Southwind Petroleum Corp  
 1400 W 14th St Wichita KS 67203+2901  
 A T T N : Bob Williams

**4-20s-16w Pawnee**  
**Eileen Hagerman #4-4**  
 Job Ticket: 17049 **DST#: 2**  
 Test Start: 2014.01.14 @ 04:45:00

**Tool Information**

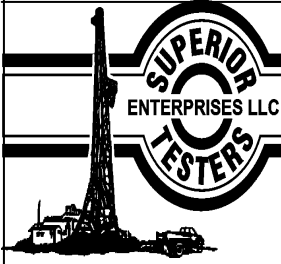
Drill Pipe:	Length: 3762.00 ft	Diameter: 3.80 inches	Volume: 52.77 bbl	Tool Weight:	1000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 52.77 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial	35000.00 lb
Depth to Top Packer:	3780.00 ft			Final	35000.00 lb
Depth to Bottom Packer:	3798.00 ft				
Interval between Packers:	18.00 ft				
Tool Length:	131.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
S.I. Tool	5.00			3757.00	
HYD S.I. Tool	5.00			3762.00	
Jars	6.00			3768.00	
Safety Joint	2.00			3770.00	
Packer	5.00			3775.00	28.00 Bottom Of Top Packer
Packer	5.00			3780.00	
Anchor	18.00			3798.00	
Recorder	0.00			3798.00	
Recorder	0.00			3798.00	
Blank Off Sub	0.00			3798.00	18.00 Tool Interval
Packer	5.00			3803.00	
Recorder	0.00			3803.00	
Tail pipe	80.00			3883.00	85.00 Bottom Packers & Anchor

**Total Tool Length: 131.00**





# DRILL STEM TEST REPORT

## FLUID SUMMARY

Southwind Petroleum Corp  
 1400 W 14th St Wichita KS 67203+2901  
 A T T N : Bob Williams

**4-20s-16w Pawnee**  
**Eileen Hagerman #4-4**  
 Job Ticket: 17049      **DST#: 2**  
 Test Start: 2014.01.14 @ 04:45:00

### 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: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.00 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 4000.00 ppm			
Filter Cake: 1.00 inches			

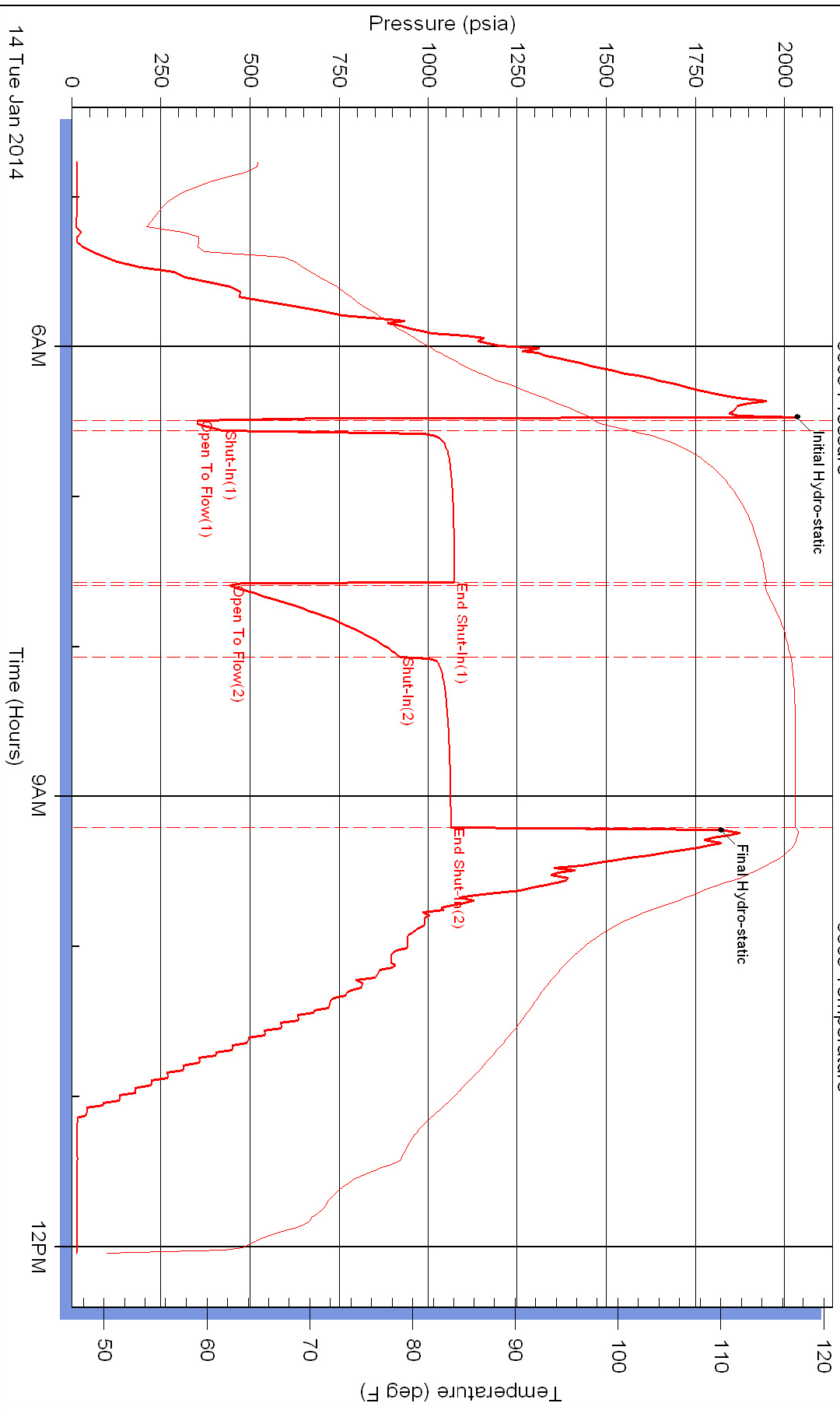
### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1260.00	gas oil cut mud w ater	17.674
0.00	gas %5 oil%5 mud5% 85%w ater	0.000
960.00	w ater 5% mud 95%w ater	13.466
0.00	240 Gas in pipe	0.000
0.00	Chlorides 35,000 resisitivity .15@60degr	0.000

Total Length: 2220.00 ft      Total Volume: 31.140 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

# Pressure vs. Time



### Pressure vs. Time

