KOLAR Document ID: 1288893

Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1
January 2018
Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 35245
Name: Suemaur Exploration & Production, LLC
Address 1: 802 N. CARANCAHUA
Address 2:
City: CORPUS CHRISTI State: TX Zip: 78401 + ____
Contact Person: Andrew Grubb
Phone: (817) 737-0500
CONTRACTOR: License # 30606
Name: Murfin Drilling Co., Inc.
Wellsite Geologist: Bob Petersen
Purchaser: Coffeyville Refining

Designate Type of Completion:
☑ New Well ☐ Re-Entry ☐ Workover
☑ Oil ☐ WSW ☐ SWD
☐ Gas ☐ DH ☐ EOR
☐ OG ☐ GSW
☐ 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 EOR ☐ Conv. to SWD
☐ Plug Back ☐ Liner ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ EOR Permit #:
☐ GSW Permit #:

12/09/2015 Spud Date or Recompletion Date
12/18/2015 Date Reached TD
02/05/2016 Completion Date or Recompletion Date

API No.: 15-179-21414-00-00
Spot Description:
NE - SW - SW - SE Sec. 26 Twp. 6 S. R. 28 ☐ East ☑ West
365 Feet from ☐ North / ☑ South Line of Section
2246 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: Sheridan
Lease Name: Schroeder Well #: 1
Field Name: Wildcat
Producing Formation: LKC
Elevation: Ground: 2728 Kelly Bushing: 2733
Total Vertical Depth: 4475 Plug Back Total Depth: 4422
Amount of Surface Pipe Set and Cemented at: 345 Feet
Multiple Stage Cementing Collar Used? ☑ Yes ☐ No
If yes, show depth set: 2460 Feet
If Alternate II completion, cement circulated from: 2460
feet depth to: 0 w/ 360 sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)
Chloride content: 800 ppm Fluid volume: 0 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: 03/17/2016
☑ **Confidential Release Date:** 03/17/2018
☑ **Wireline Log Received** ☐ **Drill Stem Tests Received**
☑ **Geologist Report / Mud Logs Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** Karen Ritter **Date:** 03/18/2016

Operator Name: Suemaur Exploration & Production, LLC Lease Name: Schroeder Well #: 1

Sec. 26 Twp. 6 S. R. 28 ☐ East ☑ West County: Sheridan

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 *(Attach Additional Sheets)*	☑ Yes	☐ No
Samples Sent to Geological Survey	☑ Yes	☐ No
Cores Taken	☐ Yes	☑ No
Electric Log Run	☑ Yes	☐ No
Geologist Report / Mud Logs	☐ Yes	☐ No

List All E. Logs Run:
Attached

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

Name	Top	Datum
Toronto	3872	log
LKC	3888	log

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	24	345	A	250	3% CaCl2
Production	7.875	5.5	15.5	4472	ASC special&65/35 Poz	540	various

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	-			
	-			

1. Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☑ No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/ Injection: 02/24/2016

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	90	0	13		35

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)*

PRODUCTION INTERVAL:

Top	Bottom
3889	
4048	

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*

TUBING RECORD: Size: 2.375 Set At: 4413 Packer At:

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Suemaur Exploration & Production, LLC
Well Name	Schroeder 1
Doc ID	1288893

All Electric Logs Run

Dual Induction
Gamma Ray
SP
Density /Neutron

Form	ACO1 - Well Completion
Operator	Suemaur Exploration & Production, LLC
Well Name	Schroeder 1
Doc ID	1288893

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	24	345	A	250	3% CaCl2
Production	7.875	5.5	15.5	4472	ASC special&6 5/35 Poz	540	various

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Suemaur Exploration & Production LLC**

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

Schroeder #1

26 6S 28W Sheridan KS

Start Date: 2015.12.12 @ 21:30:00
End Date: 2015.12.13 @ 06:11:30
Job Ticket #: 64967 DST #: 1

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

Printed: 2015.12.17 @ 16:23:32

DRILL STEM TEST REPORT

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 64967 **DST#: 1**

Test Start: 2015.12.12 @ 21:30:00

GENERAL INFORMATION:

Formation: **Oread**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:04:30
Time Test Ended: 06:11:30

Test Type: Conventional Bottom Hole (Initial)
Tester: Robert Zodrow
Unit No: 72

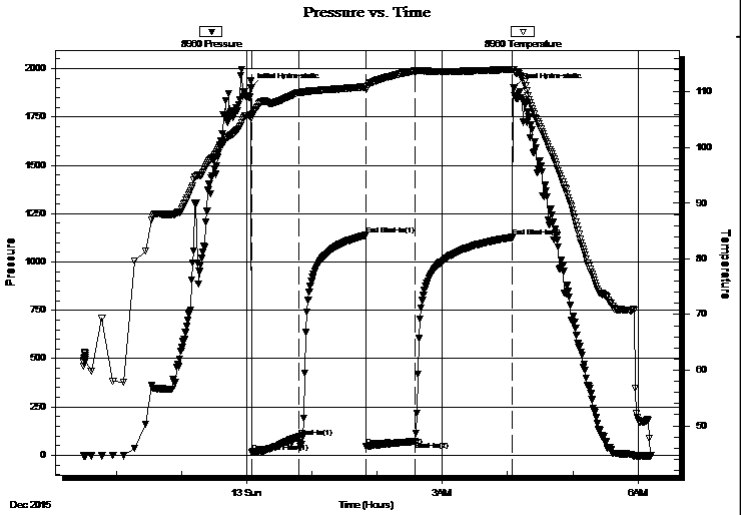
Interval: 3798.00 ft (KB) To 3817.00 ft (KB) (TVD)
Total Depth: 3817.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2733.00 ft (KB)
2728.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8960 **Outside**
Press@RunDepth: 71.65 psig @ 3799.00 ft (KB)
Start Date: 2015.12.12 End Date: 2015.12.13
Start Time: 21:30:05 End Time: 06:11:30

Capacity: 8000.00 psig
Last Calib.: 2015.12.13
Time On Btm: 2015.12.13 @ 00:04:00
Time Off Btm: 2015.12.13 @ 04:05:30

TEST COMMENT: 45-IF- Blow built to 4"
60-ISI- No return
45-FF- Blow built to 2 1/4"
90-FSI- No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1900.06	105.85	Initial Hydro-static
1	15.17	105.47	Open To Flow (1)
44	95.36	109.93	Shut-In(1)
106	1138.77	110.94	End Shut-In(1)
106	47.39	110.56	Open To Flow (2)
151	71.65	113.76	Shut-In(2)
241	1127.60	114.07	End Shut-In(2)
242	1899.59	114.05	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	MW 10%M 90%W	0.30
30.00	OCM 1%O 99%M	0.15

Gas Rates

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

DRILL STEM TEST REPORT

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 64967 **DST#: 1**

Test Start: 2015.12.12 @ 21:30:00

GENERAL INFORMATION:

Formation: **Oread**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:04:30
Time Test Ended: 06:11:30

Test Type: Conventional Bottom Hole (Initial)
Tester: Robert Zodrow
Unit No: 72

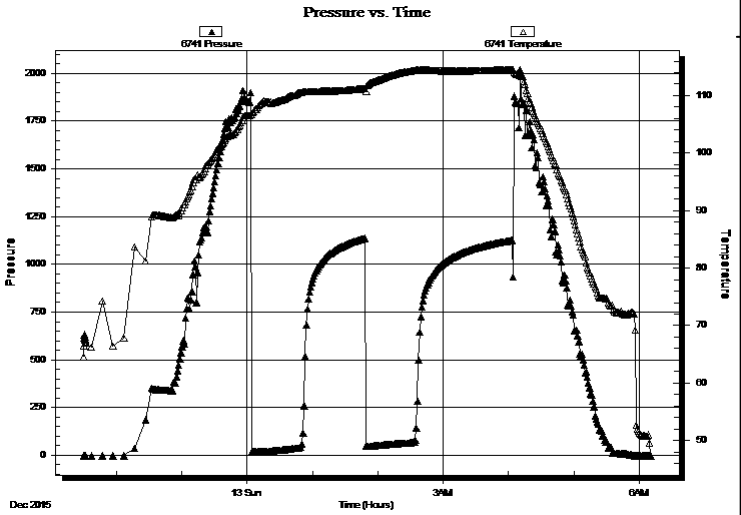
Interval: 3798.00 ft (KB) To 3817.00 ft (KB) (TVD)
Total Depth: 3817.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2733.00 ft (KB)
2728.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6741 **Inside**
Press@RunDepth: psig @ 3799.00 ft (KB)
Start Date: 2015.12.12 End Date: 2015.12.13
Start Time: 21:30:05 End Time: 06:11:00

Capacity: 8000.00 psig
Last Calib.: 2015.12.13
Time On Btm:
Time Off Btm:

TEST COMMENT: 45-IF- Blow built to 4"
60-ISI- No return
45-FF- Blow built to 2 1/4"
90-FSI- No return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	MW 10%M 90%W	0.30
30.00	OCM 1%O 99%M	0.15

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 64967 **DST#: 1**

Test Start: 2015.12.12 @ 21:30:00

Tool Information

Drill Pipe:	Length:	3610.00 ft	Diameter:	3.80 inches	Volume:	50.64 bbl	Tool Weight:		2500.00 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:	187.00 ft	Diameter:	2.25 inches	Volume:	0.92 bbl	Weight to Pull Loose:		76000.00 lb
					Total Volume:	51.56 bbl	Tool Chased		ft
Drill Pipe Above KB:		26.00 ft					String Weight:	Initial	62000.00 lb
Depth to Top Packer:		3798.00 ft						Final	62000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		19.00 ft							
Tool Length:		46.00 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			3776.00		
Hydraulic tool	5.00			3781.00		
Jars	5.00			3786.00		
Safety Joint	3.00			3789.00		
Packer	5.00			3794.00	27.00	Bottom Of Top Packer
Packer	4.00			3798.00		
Stubb	1.00			3799.00		
Recorder	0.00	6741	Inside	3799.00		
Recorder	0.00	8960	Outside	3799.00		
Perforations	15.00			3814.00		
Bullnose	3.00			3817.00	19.00	Bottom Packers & Anchor
Total Tool Length:	**46.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 64967 **DST#: 1**

Test Start: 2015.12.12 @ 21:30:00

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:	20000 ppm
Viscosity:	76.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	5.98 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1000.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	MW 10%M 90%W	0.295
30.00	OCM 1%O 99%M	0.148

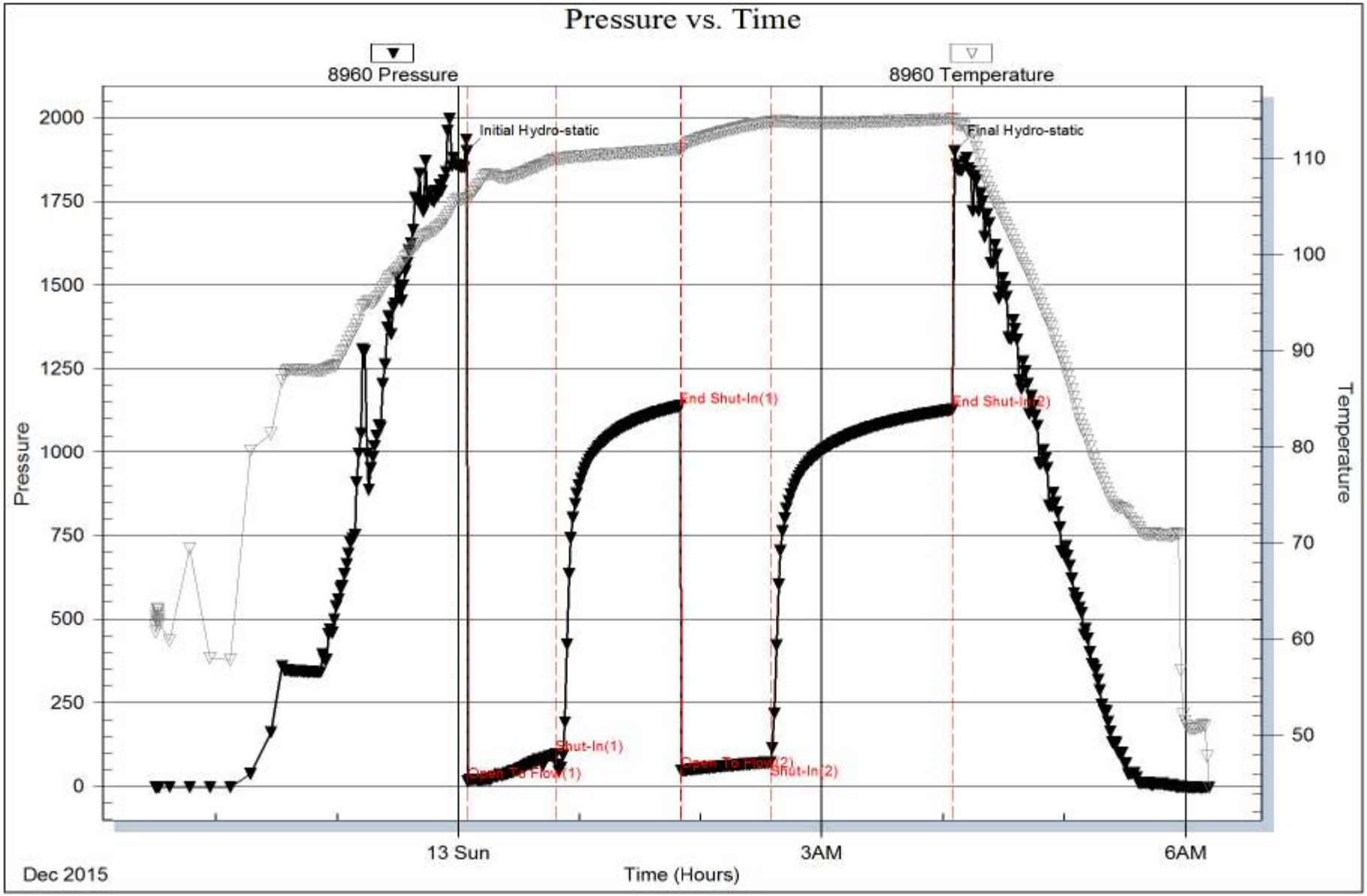
Total Length: 90.00 ft Total Volume: 0.443 bbl

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

Laboratory Name: Laboratory Location:

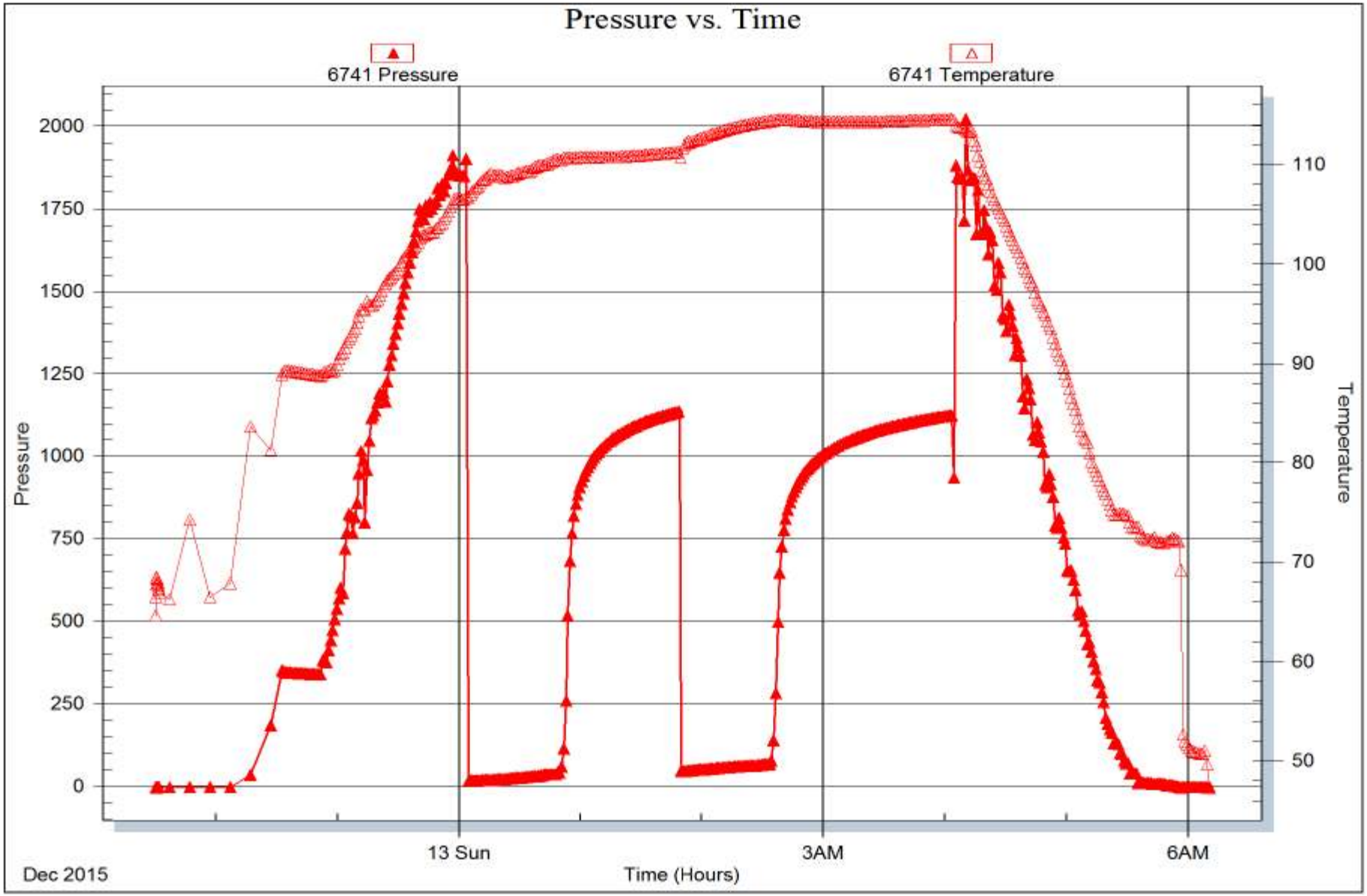
Recovery Comments: RW .670 @ 36 Deg = 20000

Serial #: 8960 **Outside** Suemaur Exploration & Production LLC Schroeder #1 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 64967 Printed: 2015.12.17 @ 16:23:34

Serial #: 6741 **Inside** Suemaur Exploration & Production LLC Schroeder #1 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 64967 Printed: 2015.12.17 @ 16:23:34

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Suemaur Exploration & Production LLC**

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

Schroeder #1

26 6S 28W Sheridan KS

Start Date: 2015.12.13 @ 17:10:00
End Date: 2015.12.14 @ 02:09:30
Job Ticket #: 64969 DST #: 2

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

Printed: 2015.12.17 @ 16:23:11

DRILL STEM TEST REPORT

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 64969 **DST#: 2**

Test Start: 2015.12.13 @ 17:10:00

GENERAL INFORMATION:

Formation: **Toranto & LKC "A"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 19:47:00
Time Test Ended: 02:09:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Robert Zodrow
Unit No: 72

Interval: 3845.00 ft (KB) To 3902.00 ft (KB) (TVD)
Total Depth: 3902.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

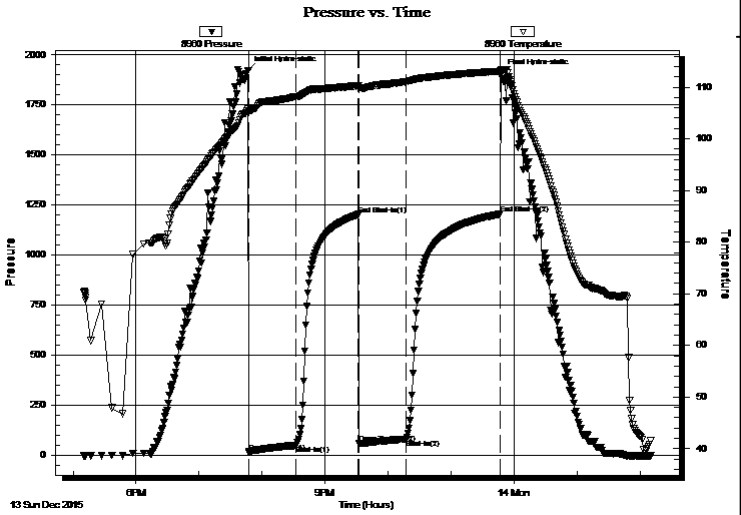
Reference Elevations: 2733.00 ft (KB)
2728.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8960 **Outside**

Press@RunDepth: 80.65 psig @ 3846.00 ft (KB)
Start Date: 2015.12.13 End Date: 2015.12.14
Start Time: 17:10:05 End Time: 02:09:30

Capacity: 8000.00 psig
Last Calib.: 2015.12.14
Time On Btm: 2015.12.13 @ 19:46:30
Time Off Btm: 2015.12.13 @ 23:47:30

TEST COMMENT: 45-IF- Blow built to 6 1/2"
60-ISI- Surface blow started in 30 mins died in 40 mins
45-FF- Blow built to 6"
90-FSI- Surface blow started in 25 mins died in 45 mins



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1921.06	105.73	Initial Hydro-static
1	16.10	105.00	Open To Flow (1)
46	50.99	108.05	Shut-In(1)
105	1203.39	110.34	End Shut-In(1)
106	61.34	109.63	Open To Flow (2)
151	80.65	111.12	Shut-In(2)
240	1205.17	113.08	End Shut-In(2)
241	1907.73	113.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GMCO 20%G 30%M 50%O	0.30
130.00	GO 45%G 55%O	0.67

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 64969 **DST#: 2**

Test Start: 2015.12.13 @ 17:10:00

GENERAL INFORMATION:

Formation: **Toranto & LKC "A"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 19:47:00
Time Test Ended: 02:09:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Robert Zodrow
Unit No: 72

Interval: 3845.00 ft (KB) To 3902.00 ft (KB) (TVD)
Total Depth: 3902.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

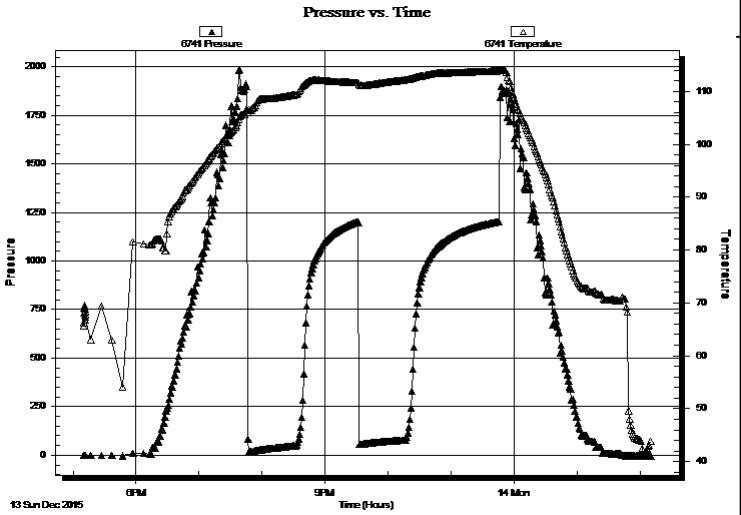
Reference Elevations: 2733.00 ft (KB)
2728.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6741 **Inside**

Press@RunDepth: psig @ 3846.00 ft (KB)
Start Date: 2015.12.13 End Date: 2015.12.14
Start Time: 17:10:05 End Time: 02:09:30

Capacity: 8000.00 psig
Last Calib.: 2015.12.14
Time On Btm:
Time Off Btm:

TEST COMMENT: 45-IF- Blow built to 6 1/2"
60-ISI- Surface blow started in 30 mins died in 40 mins
45-FF- Blow built to 6"
90-FSI- Surface blow started in 25 mins died in 45 mins



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GMCO 20%G 30%M 50%O	0.30
130.00	GO 45%G 55%O	0.67

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 64969 **DST#: 2**

Test Start: 2015.12.13 @ 17:10:00

Tool Information

Drill Pipe:	Length:	3646.00 ft	Diameter:	3.80 inches	Volume:	51.14 bbl	Tool Weight:		2500.00 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:	187.00 ft	Diameter:	2.25 inches	Volume:	0.92 bbl	Weight to Pull Loose:		82000.00 lb
					Total Volume:	52.06 bbl	Tool Chased		ft
Drill Pipe Above KB:		15.00 ft					String Weight:	Initial	64000.00 lb
Depth to Top Packer:		3845.00 ft						Final	64000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		57.00 ft							
Tool Length:		84.00 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			3823.00		
Hydraulic tool	5.00			3828.00		
Jars	5.00			3833.00		
Safety Joint	3.00			3836.00		
Packer	5.00			3841.00	27.00	Bottom Of Top Packer
Packer	4.00			3845.00		
Stubb	1.00			3846.00		
Recorder	0.00	6741	Inside	3846.00		
Recorder	0.00	8960	Outside	3846.00		
Perforations	20.00			3866.00		
Change Over Sub	1.00			3867.00		
Drill Pipe	31.00			3898.00		
Change Over Sub	1.00			3899.00		
Bullnose	3.00			3902.00	57.00	Bottom Packers & Anchor
Total Tool Length:	**84.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 64969 **DST#: 2**

Test Start: 2015.12.13 @ 17:10:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	19 deg API
Mud Weight:	629.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	62.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	5.99 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1100.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

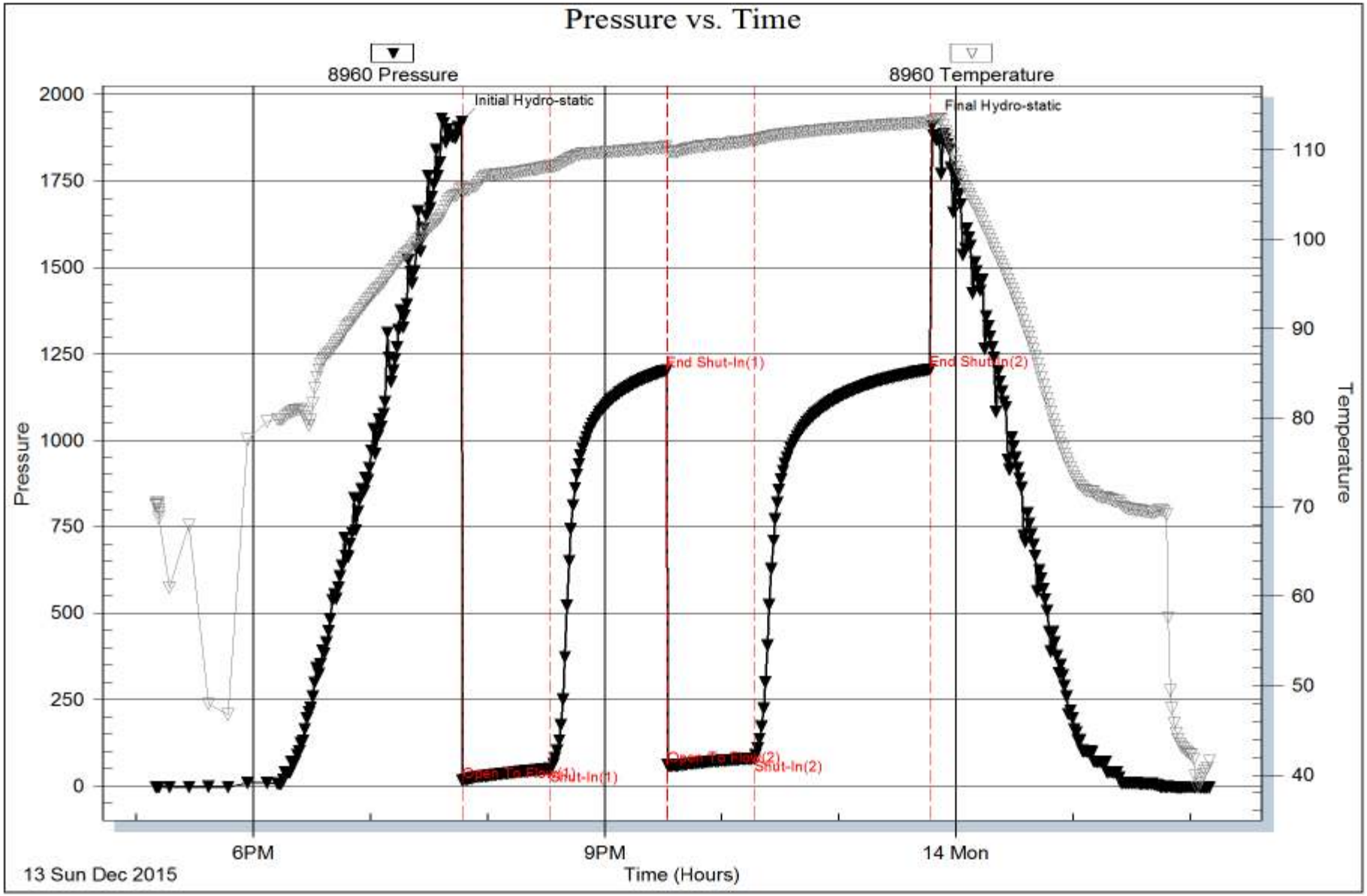
Recovery Table

Length ft	Description	Volume bbl
60.00	GMCO 20%G 30%M 50%O	0.295
130.00	GO 45%G 55%O	0.667

Total Length: 190.00 ft Total Volume: 0.962 bbl

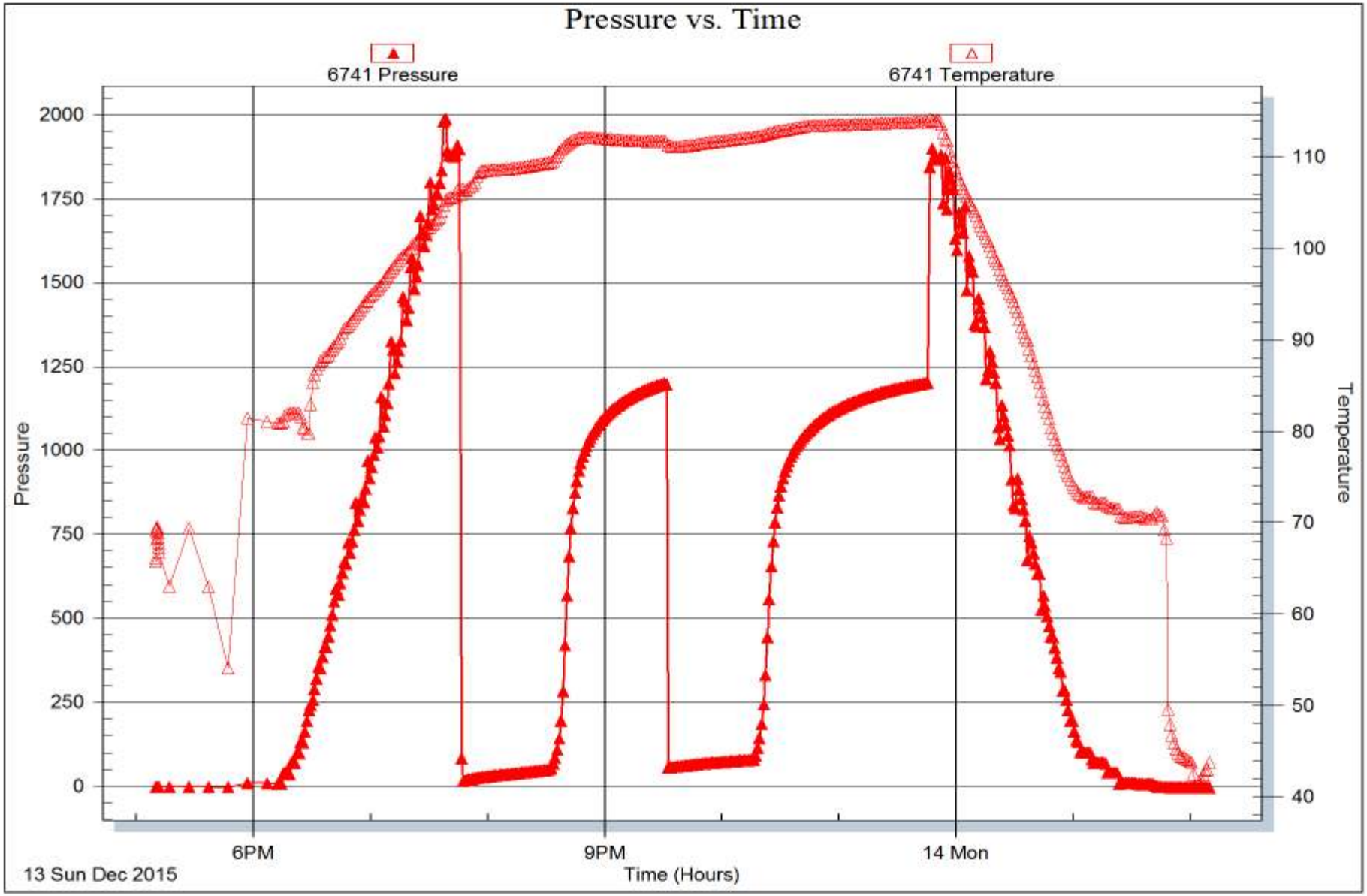
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8960 **Outside** Suemaur Exploration & Production LLC Schroeder #1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 64969 Printed: 2015.12.17 @ 16:23:13

Serial #: 6741 **Inside** Suemaur Exploration & Production LLC Schroeder #1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 64969 Printed: 2015.12.17 @ 16:23:13

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Suemaur Exploration & Production LLC**

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

Schroeder #1

26 6S 28W Sheridan KS

Start Date: 2015.12.14 @ 09:30:00
End Date: 2015.12.14 @ 17:19:00
Job Ticket #: 64970 DST #: 3

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

Printed: 2015.12.17 @ 16:22:50

DRILL STEM TEST REPORT

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 64970 **DST#: 3**

Test Start: 2015.12.14 @ 09:30:00

GENERAL INFORMATION:

Formation: **LKC "C"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 11:30:00
Time Test Ended: 17:19:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Robert Zodrow
Unit No: 72

Interval: 3902.00 ft (KB) To 3926.00 ft (KB) (TVD)
Total Depth: 3926.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

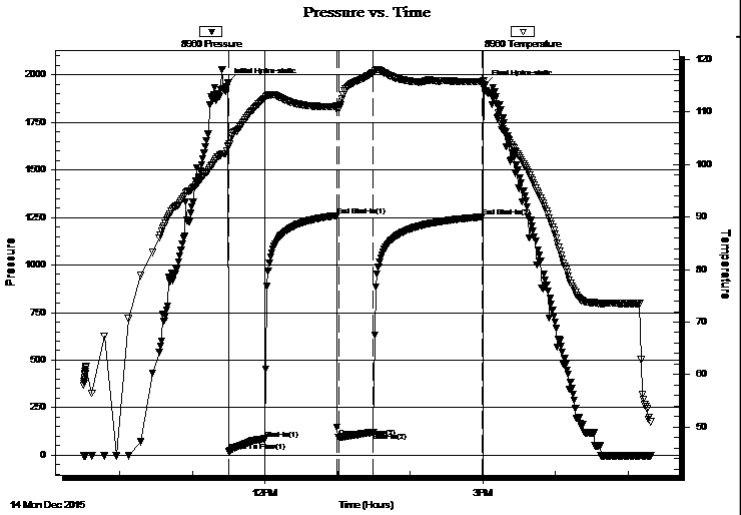
Reference Elevations: 2733.00 ft (KB)
2728.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8960 **Outside**

Press@RunDepth: 120.86 psig @ 3903.00 ft (KB)
Start Date: 2015.12.14 End Date: 2015.12.14
Start Time: 09:30:05 End Time: 17:18:59

Capacity: 8000.00 psig
Last Calib.: 2015.12.14
Time On Btm: 2015.12.14 @ 11:29:30
Time Off Btm: 2015.12.14 @ 15:01:30

TEST COMMENT: 30-IF- Bob in 12 mins
60-ISI- Return built to 1 1/4"
30-FF- Bob in 18 mins
90-FSI- Return built to 1" died in 40 mins



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1956.31	103.57	Initial Hydro-static
1	21.00	103.42	Open To Flow (1)
30	85.87	112.54	Shut-In(1)
90	1259.77	111.08	End Shut-In(1)
91	95.31	110.79	Open To Flow (2)
120	120.86	117.50	Shut-In(2)
210	1252.79	115.80	End Shut-In(2)
212	1946.38	115.00	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOCM 10%G 35%O 55%M	0.30
240.00	GO 15%G 85%O	2.21
0.00	GIP 95'	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 64970 **DST#: 3**

Test Start: 2015.12.14 @ 09:30:00

GENERAL INFORMATION:

Formation: **LKC "C"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 11:30:00
Time Test Ended: 17:19:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Robert Zodrow
Unit No: 72

Interval: 3902.00 ft (KB) To 3926.00 ft (KB) (TVD)
Total Depth: 3926.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

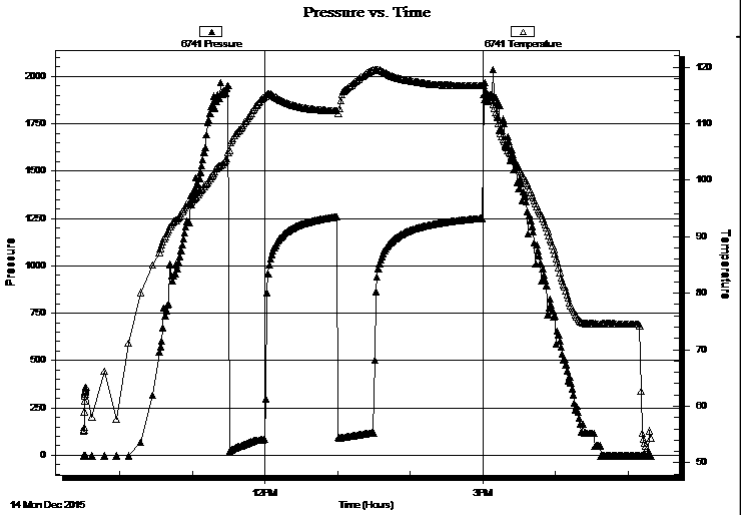
Reference Elevations: 2733.00 ft (KB)
2728.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6741 **Inside**

Press@RunDepth: psig @ 3903.00 ft (KB)
Start Date: 2015.12.14 End Date: 2015.12.14
Start Time: 09:30:05 End Time: 17:18:59

Capacity: 8000.00 psig
Last Calib.: 2015.12.14
Time On Btm:
Time Off Btm:

TEST COMMENT: 30-IF- Bob in 12 mins
60-ISI- Return built to 1 1/4"
30-FF- Bob in 18 mins
90-FSI- Return built to 1" died in 40 mins



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOCM 10%G 35%O 55%M	0.30
240.00	GO 15%G 85%O	2.21
0.00	GIP 95'	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 64970 **DST#: 3**

Test Start: 2015.12.14 @ 09:30:00

Tool Information

Drill Pipe:	Length:	3705.00 ft	Diameter:	3.80 inches	Volume:	51.97 bbl	Tool Weight:		2500.00 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:	187.00 ft	Diameter:	2.25 inches	Volume:	0.92 bbl	Weight to Pull Loose:		90000.00 lb
					Total Volume:	52.89 bbl	Tool Chased		ft
Drill Pipe Above KB:		17.00 ft					String Weight:	Initial	62000.00 lb
Depth to Top Packer:		3902.00 ft						Final	66000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		24.00 ft							
Tool Length:		51.00 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			3880.00		
Hydraulic tool	5.00			3885.00		
Jars	5.00			3890.00		
Safety Joint	3.00			3893.00		
Packer	5.00			3898.00	27.00	Bottom Of Top Packer
Packer	4.00			3902.00		
Stubb	1.00			3903.00		
Recorder	0.00	6741	Inside	3903.00		
Recorder	0.00	8960	Outside	3903.00		
Perforations	20.00			3923.00		
Bullnose	3.00			3926.00	24.00	Bottom Packers & Anchor
Total Tool Length:	**51.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 64970 **DST#: 3**

Test Start: 2015.12.14 @ 09:30:00

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:	ppm
Viscosity:	58.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	5.99 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1100.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

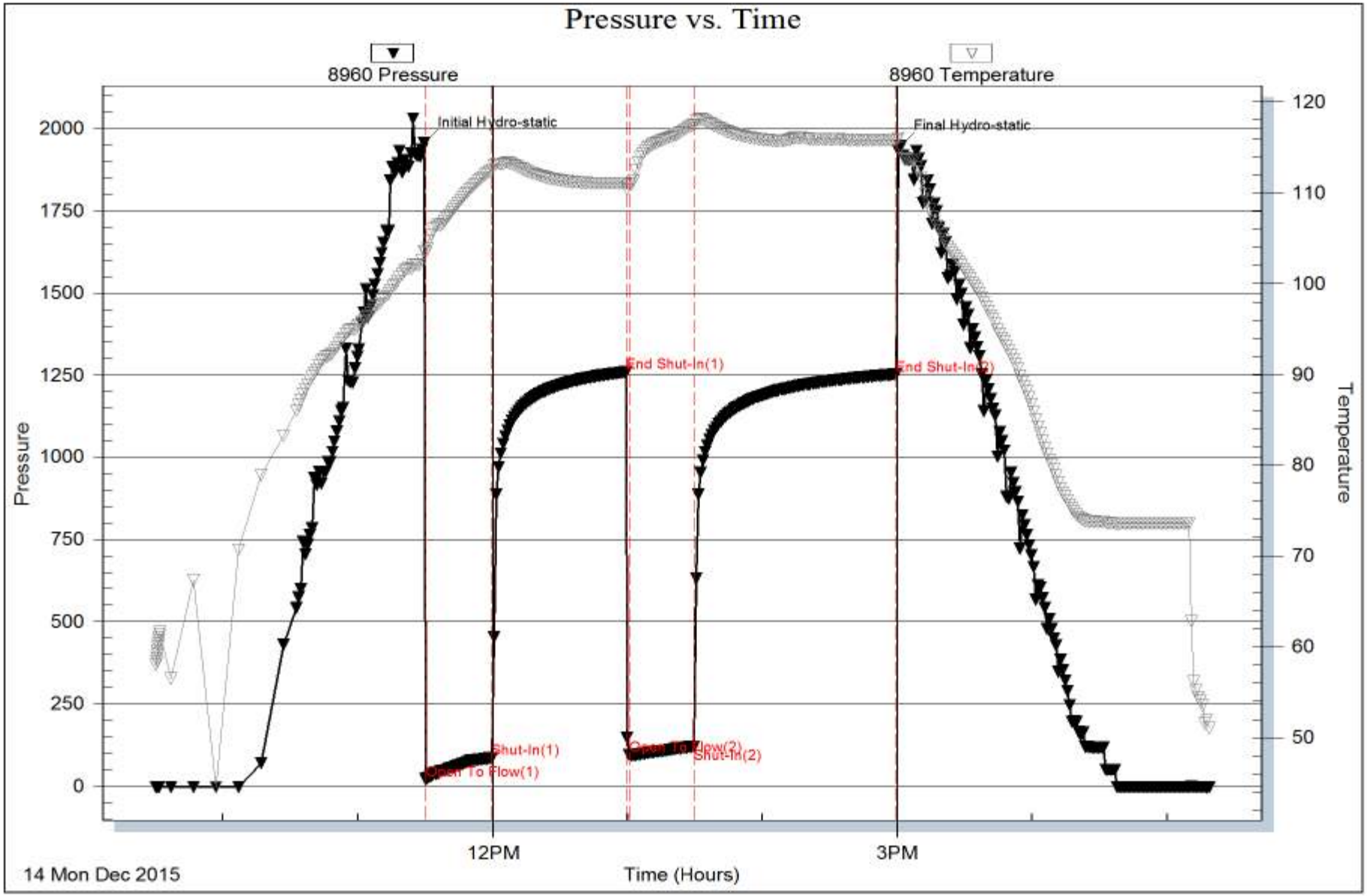
Recovery Table

Length ft	Description	Volume bbl
60.00	GOCM 10%G 35%O 55%M	0.295
240.00	GO 15%G 85%O	2.210
0.00	GIP 95'	0.000

Total Length: 300.00 ft Total Volume: 2.505 bbl

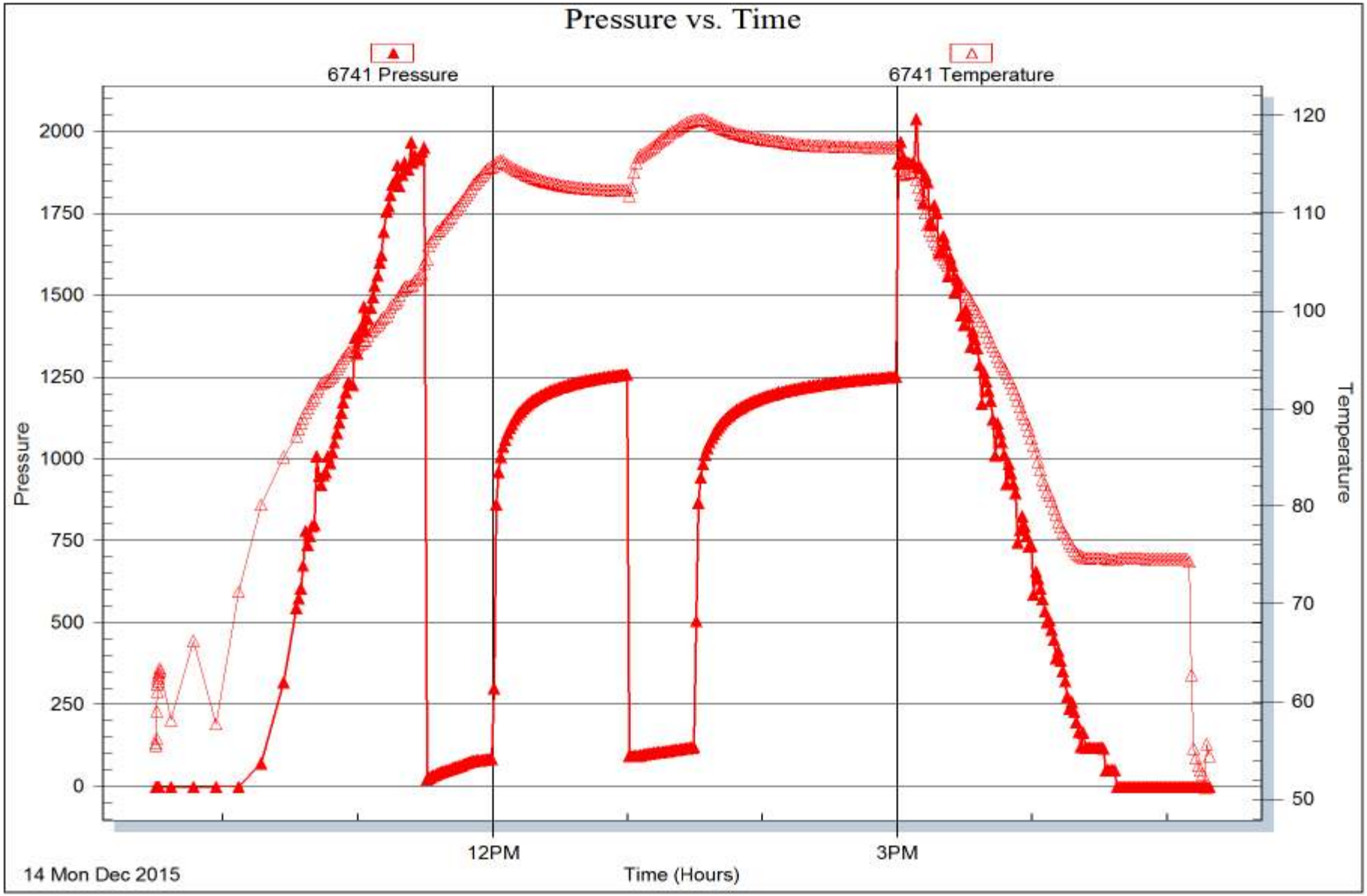
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8960 **Outside** Suemaur Exploration & Production LLC Schroeder #1 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 64970 Printed: 2015.12.17 @ 16:22:51

Serial #: 6741 **Inside** Suemaur Exploration & Production LLC Schroeder #1 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 64970 Printed: 2015.12.17 @ 16:22:51

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Suemaur Exploration & Production LLC**

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

Schroeder #1

26 6S 28W Sheridan KS

Start Date: 2015.12.15 @ 03:20:00
End Date: 2015.12.15 @ 10:42:30
Job Ticket #: 64971 DST #: 4

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

Printed: 2015.12.17 @ 16:22:22

DRILL STEM TEST REPORT

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 64971 **DST#: 4**

Test Start: 2015.12.15 @ 03:20:00

GENERAL INFORMATION:

Formation: **LKC "G"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:07:30
Time Test Ended: 10:42:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Robert Zodrow
Unit No: 72

Interval: 3966.00 ft (KB) To 3982.00 ft (KB) (TVD)
Total Depth: 3982.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

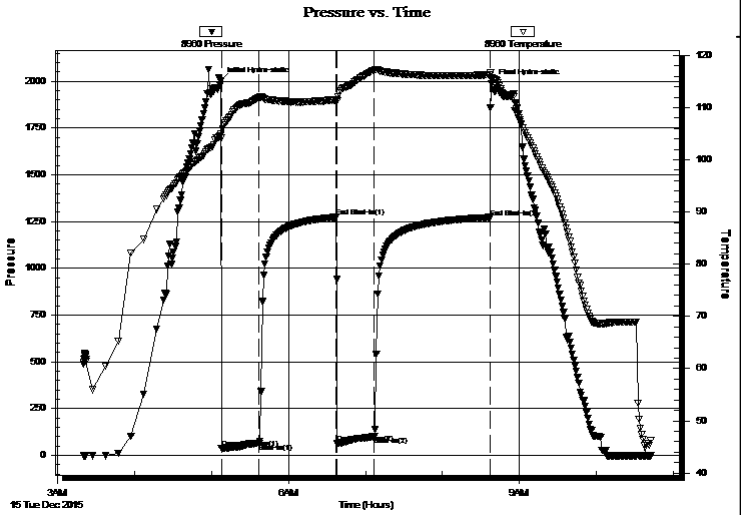
Reference Elevations: 2733.00 ft (KB)
2728.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8960 **Outside**

Press@RunDepth: 99.47 psig @ 3967.00 ft (KB)
Start Date: 2015.12.15 End Date: 2015.12.15
Start Time: 03:20:05 End Time: 10:42:29

Capacity: 8000.00 psig
Last Calib.: 2015.12.15
Time On Btm: 2015.12.15 @ 05:07:00
Time Off Btm: 2015.12.15 @ 08:38:30

TEST COMMENT: 30-IF- Bob in 25 mins
60-ISI- Return built to 1/4" died back to surface
30-FF- Bob in 20 mins
90-FSI- Return built to 1" died in 52 mins



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2000.35	104.87	Initial Hydro-static
1	35.28	104.29	Open To Flow (1)
30	65.07	111.91	Shut-In(1)
90	1272.81	111.41	End Shut-In(1)
91	65.26	111.37	Open To Flow (2)
120	99.47	117.14	Shut-In(2)
210	1272.00	116.24	End Shut-In(2)
212	1985.82	115.74	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOCM 15%G 20%O 65%M	0.30
140.00	GO 25%G 75%O	0.81
0.00	GIP 190'	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 64971 **DST#: 4**

Test Start: 2015.12.15 @ 03:20:00

GENERAL INFORMATION:

Formation: **LKC "G"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:07:30
Time Test Ended: 10:42:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Robert Zodrow
Unit No: 72

Interval: 3966.00 ft (KB) To 3982.00 ft (KB) (TVD)
Total Depth: 3982.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

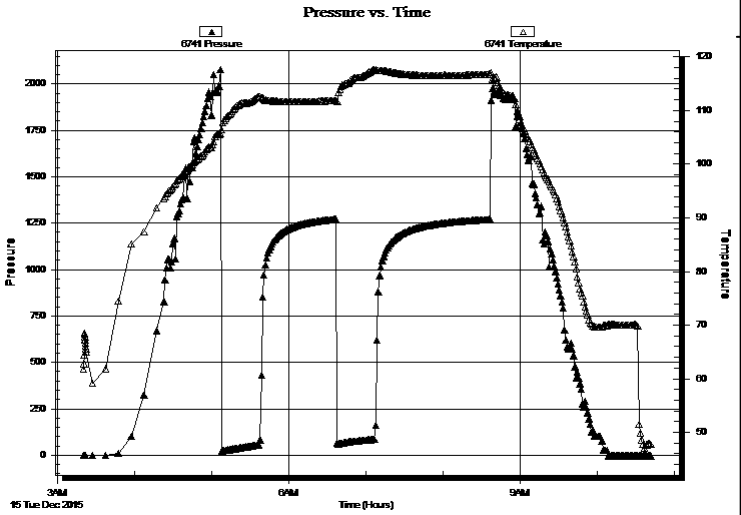
Reference Elevations: 2733.00 ft (KB)
2728.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6741 **Inside**

Press@RunDepth: psig @ 3967.00 ft (KB)
Start Date: 2015.12.15 End Date: 2015.12.15
Start Time: 03:20:05 End Time: 10:41:59

Capacity: 8000.00 psig
Last Calib.: 2015.12.15
Time On Btm:
Time Off Btm:

TEST COMMENT: 30-IF- Bob in 25 mins
60-ISI- Return built to 1/4" died back to surface
30-FF- Bob in 20 mins
90-FSI- Return built to 1" died in 52 mins



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOCM 15%G 20%O 65%M	0.30
140.00	GO 25%G 75%O	0.81
0.00	GIP 190'	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 64971 **DST#: 4**

Test Start: 2015.12.15 @ 03:20:00

Tool Information

Drill Pipe:	Length:	3768.00 ft	Diameter:	3.80 inches	Volume:	52.86 bbl	Tool Weight:		2500.00 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:	187.00 ft	Diameter:	2.25 inches	Volume:	0.92 bbl	Weight to Pull Loose:		88000.00 lb
					Total Volume:	53.78 bbl	Tool Chased		ft
Drill Pipe Above KB:		16.00 ft					String Weight:	Initial	62000.00 lb
Depth to Top Packer:		3966.00 ft						Final	62000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		20.00 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	
Shut In Tool	5.00			3944.00		
Hydraulic tool	5.00			3949.00		
Jars	5.00			3954.00		
Safety Joint	3.00			3957.00		
Packer	5.00			3962.00	27.00	Bottom Of Top Packer
Packer	4.00			3966.00		
Stubb	1.00			3967.00		
Recorder	0.00	6741	Inside	3967.00		
Recorder	0.00	8960	Outside	3967.00		
Perforations	16.00			3983.00		
Bullnose	3.00			3986.00	20.00	Bottom Packers & Anchor
Total Tool Length:	**47.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 64971 **DST#: 4**

Test Start: 2015.12.15 @ 03:20:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	37 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	51.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.39 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1000.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

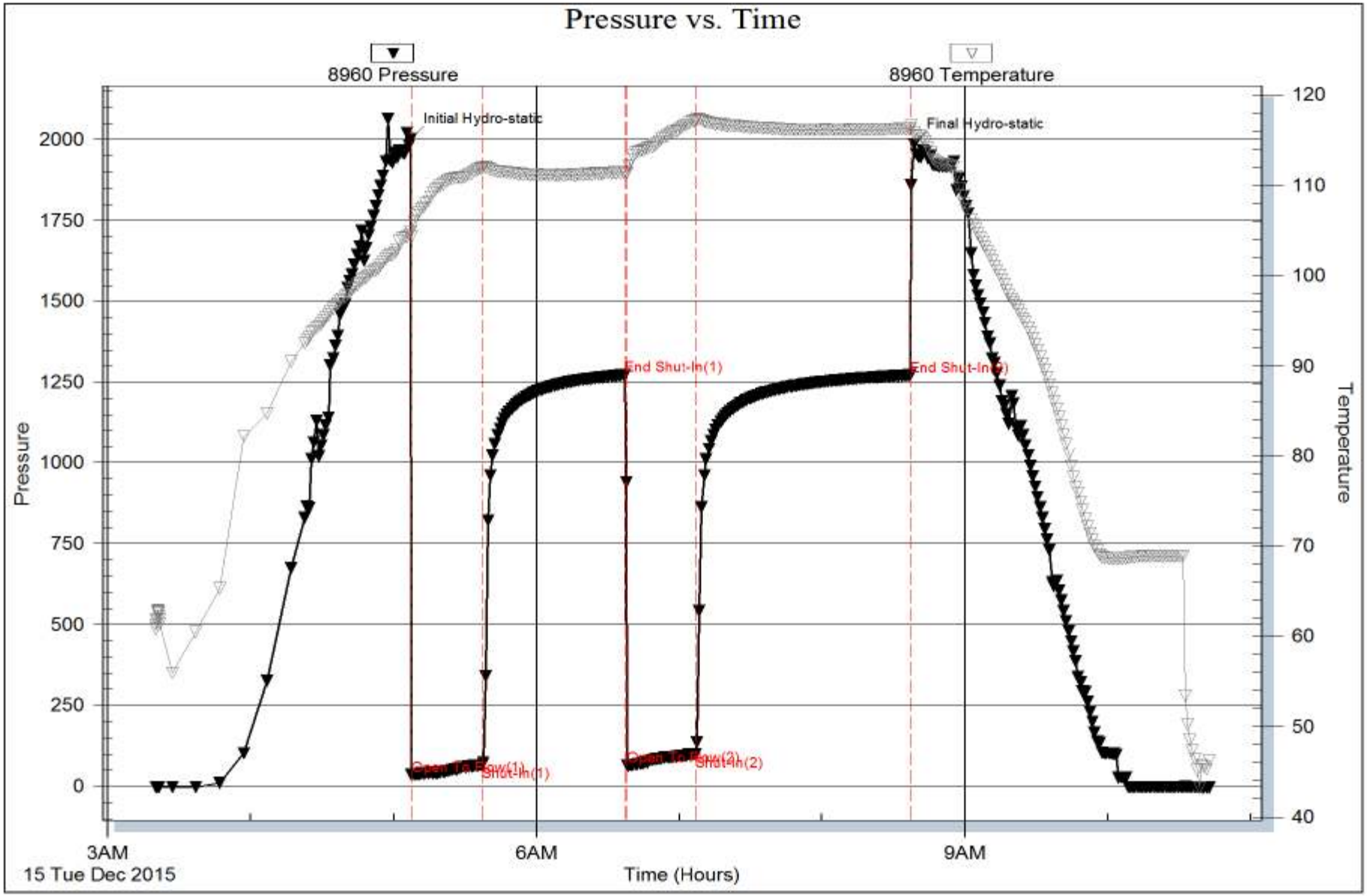
Recovery Table

Length ft	Description	Volume bbl
60.00	GOCM 15%G 20%O 65%M	0.295
140.00	GO 25%G 75%O	0.807
0.00	GIP 190'	0.000

Total Length: 200.00 ft Total Volume: 1.102 bbl

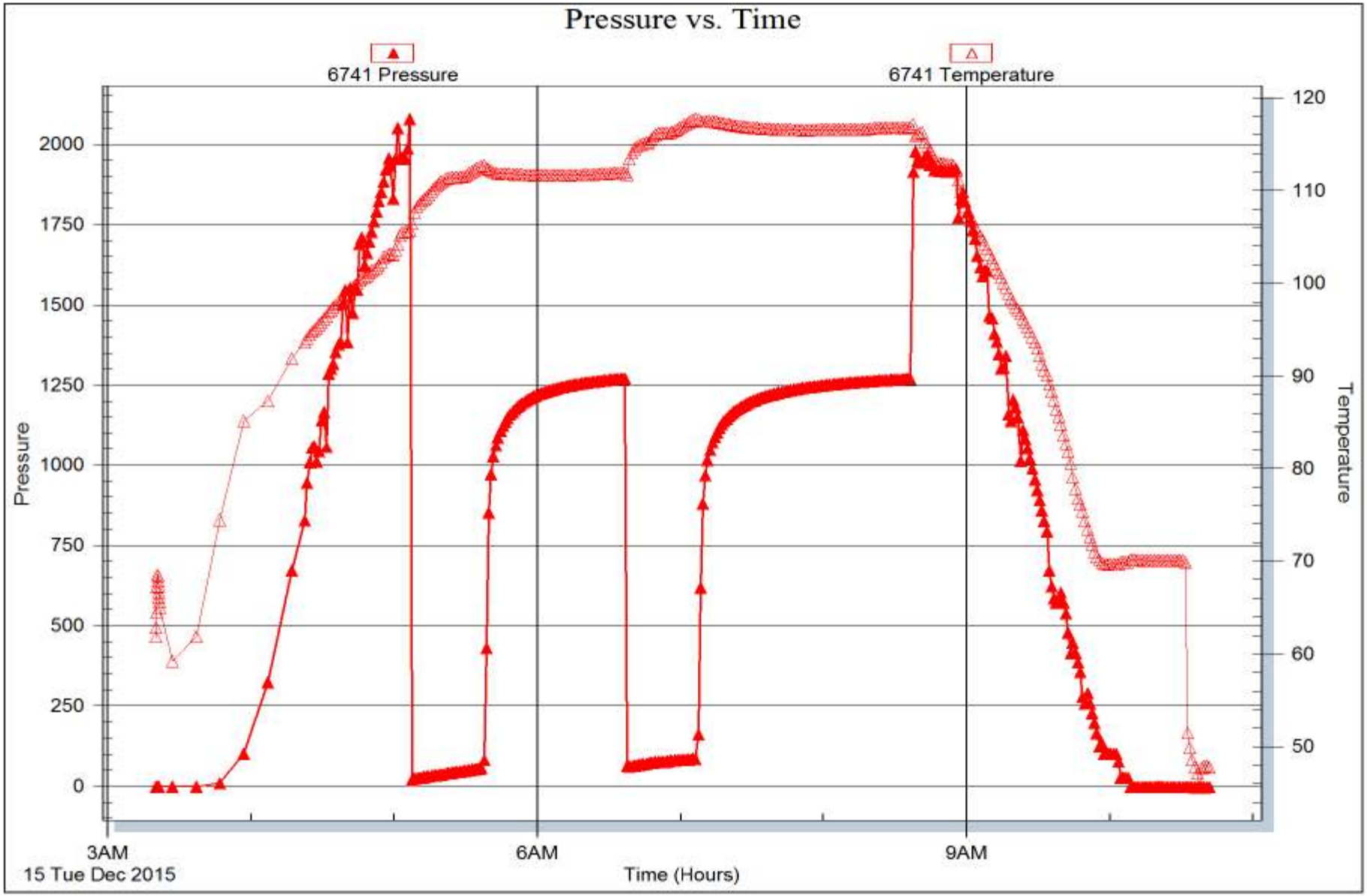
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8960 **Outside** Suemaur Exploration & Production LLC Schroeder #1 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 64971 Printed: 2015.12.17 @ 16:22:24

Serial #: 6741 **Inside** Suemaur Exploration & Production LLC Schroeder #1 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 64971 Printed: 2015.12.17 @ 16:22:24

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Suemaur Exploration & Production LLC**

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

Schroeder #1

26 6S 28W Sheridan KS

Start Date: 2015.12.15 @ 23:30:00
End Date: 2015.12.16 @ 10:43:00
Job Ticket #: 64972 DST #: 5

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

Printed: 2015.12.17 @ 16:00:07

DRILL STEM TEST REPORT

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 64972 **DST#: 5**

Test Start: 2015.12.15 @ 23:30:00

GENERAL INFORMATION:

Formation: **LKC "H-J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:01:00
Time Test Ended: 10:43:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Robert Zodrow
Unit No: 72

Interval: 4014.00 ft (KB) To 4058.00 ft (KB) (TVD)
Total Depth: 4058.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

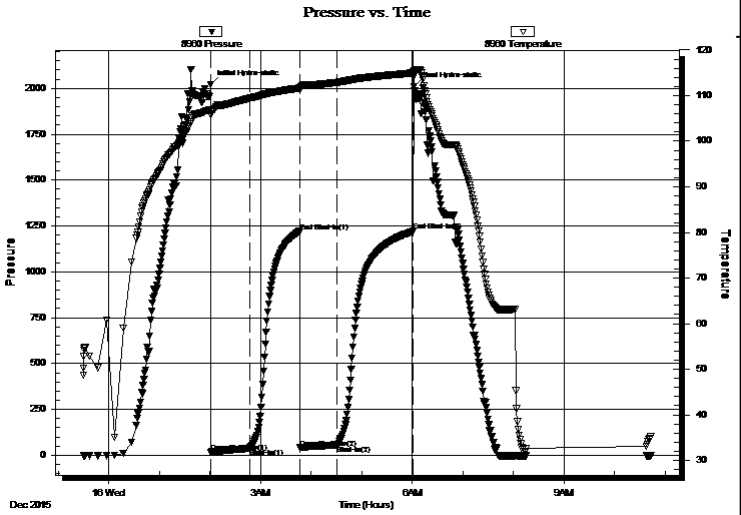
Reference Elevations: 2733.00 ft (KB)
2728.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8960 **Outside**

Press@RunDepth: 56.18 psig @ 4015.00 ft (KB)
Start Date: 2015.12.15 End Date: 2015.12.16
Start Time: 23:30:05 End Time: 10:43:00

Capacity: 8000.00 psig
Last Calib.: 2015.12.16
Time On Btm: 2015.12.16 @ 02:00:30
Time Off Btm: 2015.12.16 @ 06:02:00

TEST COMMENT: 45-IF- Blow buil to 4"
60-ISI- No return
45-FF- Blow built to 5"
90-FSI- No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2020.28	106.90	Initial Hydro-static
1	16.43	105.71	Open To Flow (1)
46	36.80	109.40	Shut-In(1)
106	1217.17	111.65	End Shut-In(1)
106	39.91	111.25	Open To Flow (2)
151	56.18	112.90	Shut-In(2)
241	1220.35	114.96	End Shut-In(2)
242	2009.99	115.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
75.00	GOCM 10%G 25%O 65%M	0.37
15.00	GO 10%G 90%O	0.07

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 64972 **DST#: 5**

Test Start: 2015.12.15 @ 23:30:00

GENERAL INFORMATION:

Formation: **LKC "H-J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:01:00
Time Test Ended: 10:43:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Robert Zodrow
Unit No: 72

Interval: 4014.00 ft (KB) To 4058.00 ft (KB) (TVD)
Total Depth: 4058.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

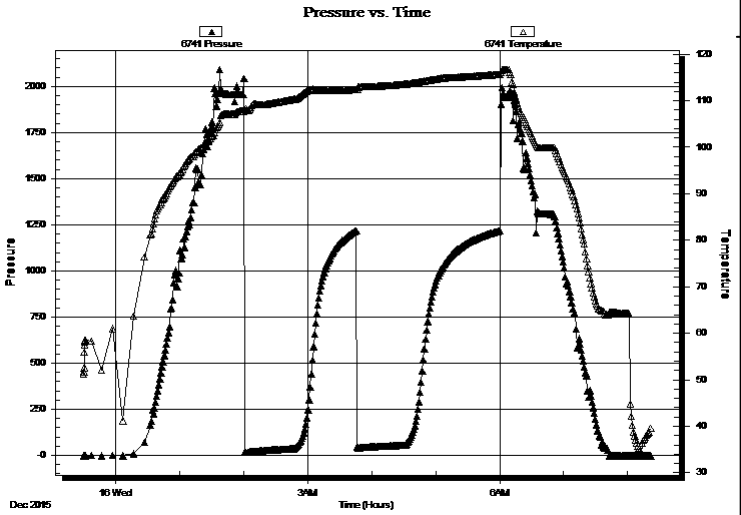
Reference Elevations: 2733.00 ft (KB)
2728.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6741 **Inside**

Press@RunDepth: psig @ 4015.00 ft (KB)
Start Date: 2015.12.15 End Date: 2015.12.16
Start Time: 23:30:05 End Time: 08:21:30

Capacity: 8000.00 psig
Last Calib.: 2015.12.16
Time On Btm:
Time Off Btm:

TEST COMMENT: 45-IF- Blow buil to 4"
60-ISI- No return
45-FF- Blow built to 5"
90-FSI- No return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
75.00	GOCM 10%G 25%O 65%M	0.37
15.00	GO 10%G 90%O	0.07

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 64972 **DST#: 5**

Test Start: 2015.12.15 @ 23:30:00

Tool Information

Drill Pipe:	Length:	3831.00 ft	Diameter:	3.80 inches	Volume:	53.74 bbl	Tool Weight:		2500.00 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:	187.00 ft	Diameter:	2.25 inches	Volume:	0.92 bbl	Weight to Pull Loose:		86000.00 lb
					Total Volume:	54.66 bbl	Tool Chased		ft
Drill Pipe Above KB:		31.00 ft					String Weight:	Initial	64000.00 lb
Depth to Top Packer:		4014.00 ft						Final	64000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		44.00 ft							
Tool Length:		71.00 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			3992.00		
Hydraulic tool	5.00			3997.00		
Jars	5.00			4002.00		
Safety Joint	3.00			4005.00		
Packer	5.00			4010.00	27.00	Bottom Of Top Packer
Packer	4.00			4014.00		
Stubb	1.00			4015.00		
Recorder	0.00	6741	Inside	4015.00		
Recorder	0.00	8960	Outside	4015.00		
Perforations	7.00			4022.00		
Change Over Sub	1.00			4023.00		
Drill Pipe	31.00			4054.00		
Change Over Sub	1.00			4055.00		
Bullnose	3.00			4058.00	44.00	Bottom Packers & Anchor
Total Tool Length:	**71.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 64972 **DST#: 5**

Test Start: 2015.12.15 @ 23:30:00

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:	ppm
Viscosity:	51.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.40 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1000.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

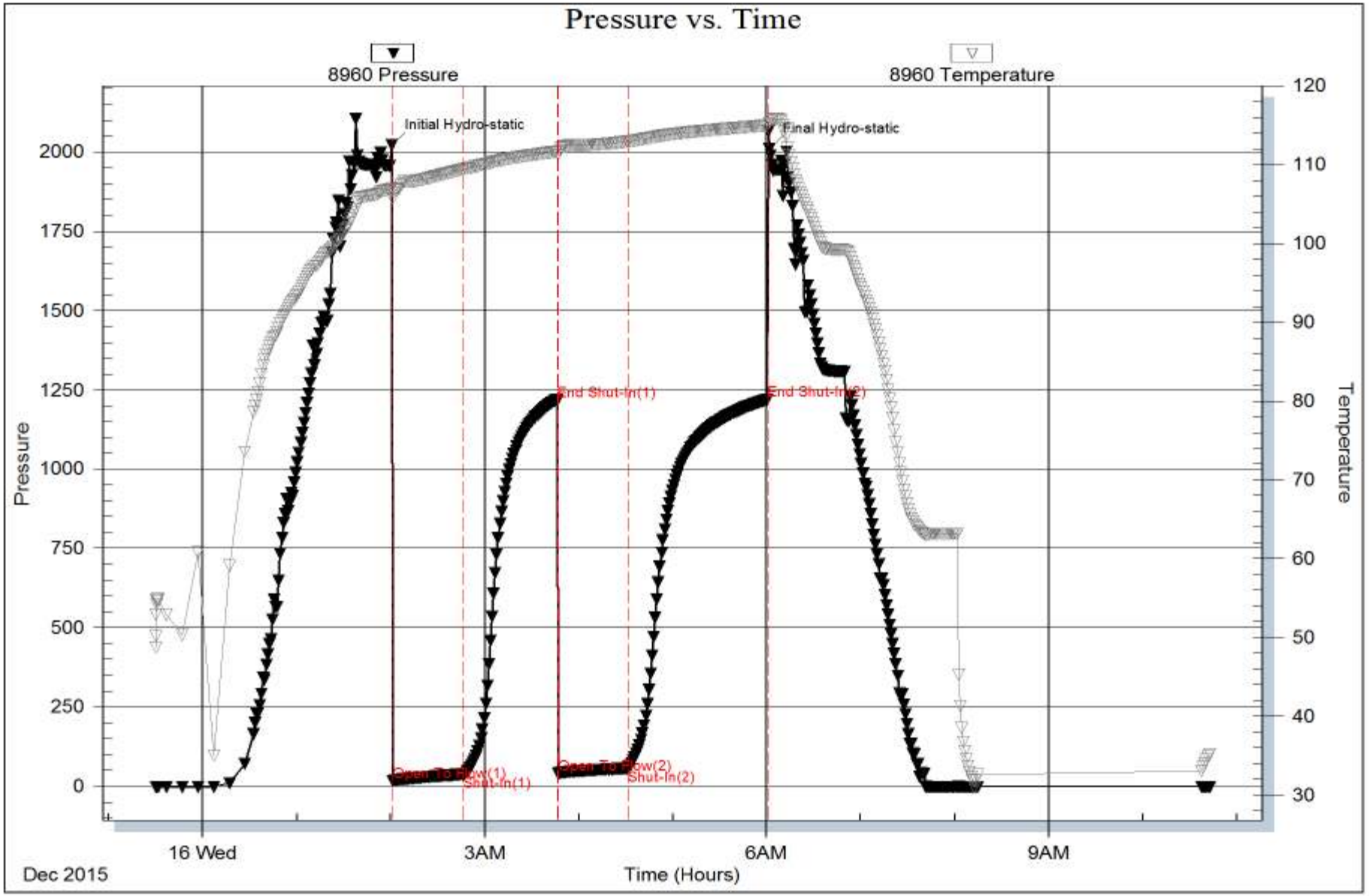
Recovery Table

Length ft	Description	Volume bbl
75.00	GOCM 10%G 25%O 65%M	0.369
15.00	GO 10%G 90%O	0.074

Total Length: 90.00 ft Total Volume: 0.443 bbl

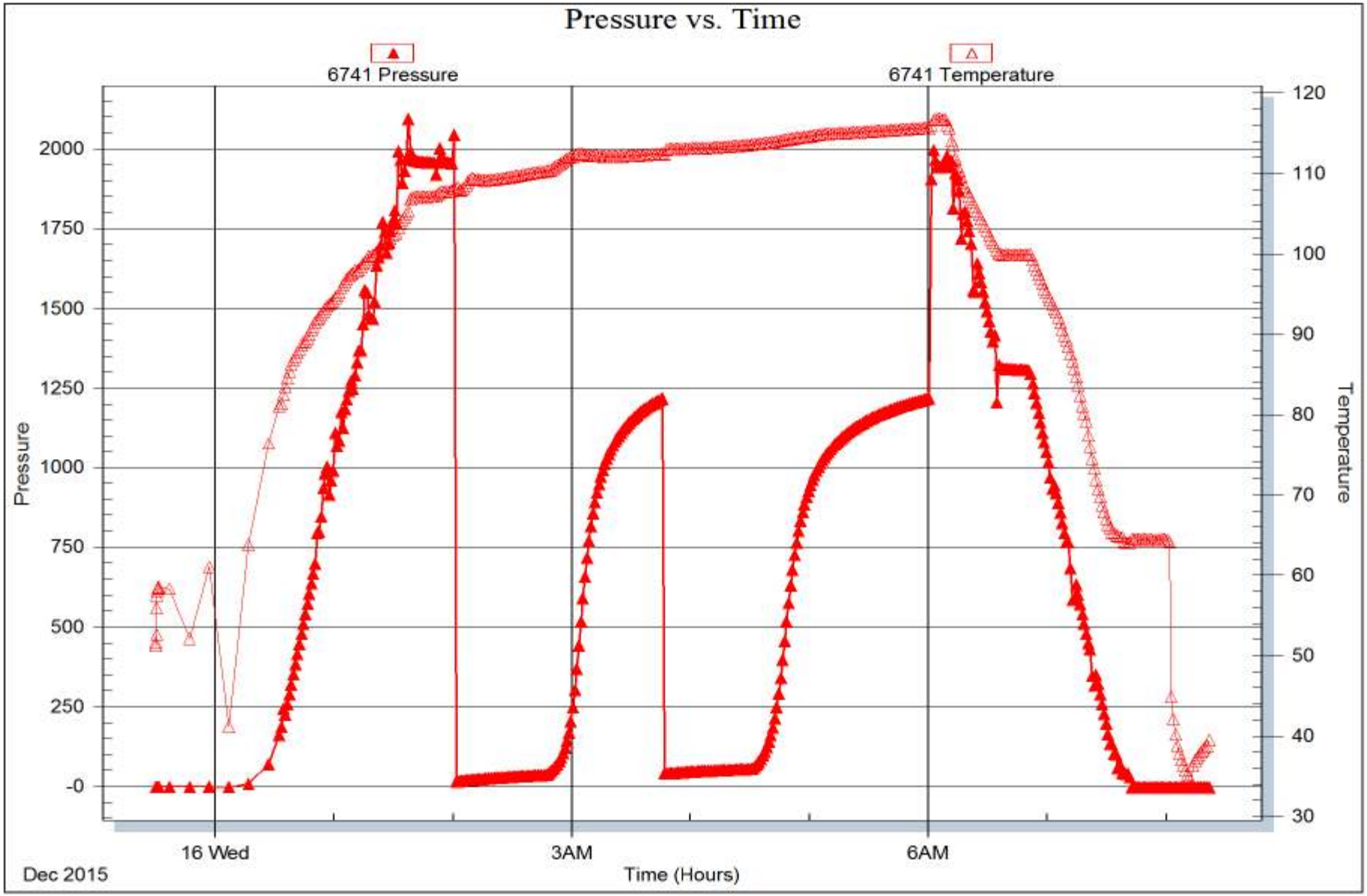
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8960 **Outside** Suemaur Exploration & Production LLC Schroeder #1 DST Test Number: 5



Trilobite Testing, Inc Ref. No: 64972 Printed: 2015.12.17 @ 16:00:08

Serial #: 6741 **Inside** Suemaur Exploration & Production LLC Schroeder #1 DST Test Number: 5



Trilobite Testing, Inc Ref. No: 64972 Printed: 2015.12.17 @ 16:00:09

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Suemaur Exploration & Production LLC**

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

Schroeder #1

26 6S 28W Sheridan KS

Start Date: 2015.12.18 @ 03:13:00
End Date: 2015.12.18 @ 11:03:30
Job Ticket #: 62869 DST #: 6

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

Printed: 2015.12.18 @ 16:46:10

DRILL STEM TEST REPORT

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 62869 **DST#: 6**

Test Start: 2015.12.18 @ 03:13:00

GENERAL INFORMATION:

Formation: **Lower "G"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:52:45
Time Test Ended: 11:03:30

Test Type: Conventional Straddle (Reset)
Tester: James Winder
Unit No: 83

Interval: 3982.00 ft (KB) To 4015.00 ft (KB) (TVD)
Total Depth: 4476.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

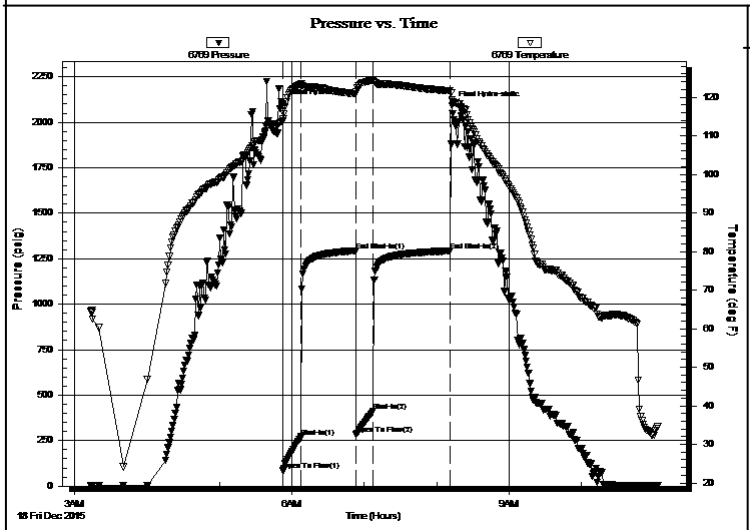
Reference Elevations: 2733.00 ft (KB)
2728.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6769 **Inside**

Press@RunDepth: 412.61 psig @ 3983.00 ft (KB)
Start Date: 2015.12.18 End Date: 2015.12.18
Start Time: 03:13:05 End Time: 11:03:29

Capacity: 8000.00 psig
Last Calib.: 2015.12.18
Time On Btm: 2015.12.18 @ 05:52:15
Time Off Btm: 2015.12.18 @ 08:12:45

TEST COMMENT: 15 - IF: Blow built to BOB (11") at 2 1/2 min. (Diesel in bucket)
45 - ISI: Blow back built to 6 3/4"
15 - FF: Blow built to BOB at 3 1/4 min.
60 - FSI: Blow back built to 4 1/2"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2104.09	113.83	Initial Hydro-static
1	84.97	114.51	Open To Flow (1)
16	271.15	123.42	Shut-In(1)
61	1293.93	120.87	End Shut-In(1)
61	284.88	121.31	Open To Flow (2)
76	412.61	124.35	Shut-In(2)
139	1292.93	121.64	End Shut-In(2)
141	2090.40	119.36	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
503.00	SOMCW 91%w , 4%m, 3%g, 2%o	5.35
190.00	SO/MCW 60%w , 30%m, 6%g, 4%o	2.67
125.00	SO/WCM 61%m, 31%w , 4%o, 4%g	1.75
60.00	GMWCO 60%o, 15%m, 15%w , 10%g	0.84
0.00	GIP = 190'	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 62869 **DST#: 6**

Test Start: 2015.12.18 @ 03:13:00

GENERAL INFORMATION:

Formation: **Lower "G"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:52:45
Time Test Ended: 11:03:30

Test Type: Conventional Straddle (Reset)
Tester: James Winder
Unit No: 83

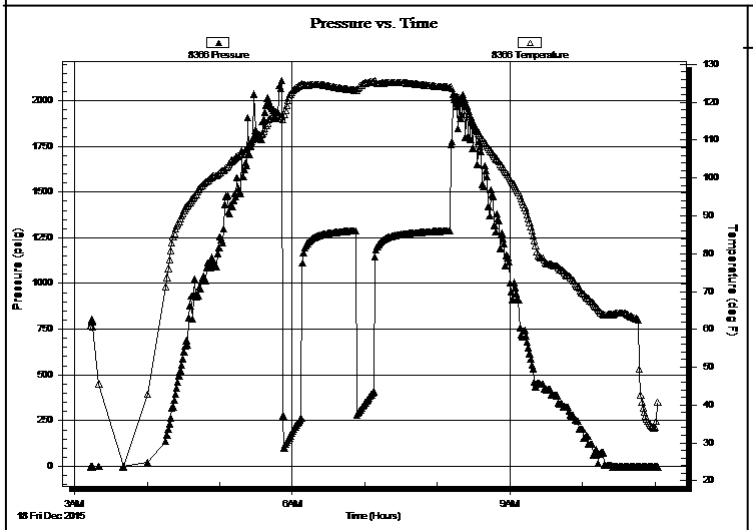
Interval: 3982.00 ft (KB) To 4015.00 ft (KB) (TVD)
Total Depth: 4476.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2733.00 ft (KB)
2728.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8366 **Outside**
Press@RunDepth: psig @ 3983.00 ft (KB)
Start Date: 2015.12.18 End Date: 2015.12.18
Start Time: 03:13:05 End Time: 11:02:44

Capacity: 8000.00 psig
Last Calib.: 2015.12.18
Time On Btm:
Time Off Btm:

TEST COMMENT: 15 - IF: Blow built to BOB (11") at 2 1/2 min. (Diesel in bucket)
45 - ISI: Blow back built to 6 3/4"
15 - FF: Blow built to BOB at 3 1/4 min.
60 - FSI: Blow back built to 4 1/2"



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
503.00	SOMCW 91%w , 4%m, 3%g, 2%o	5.35
190.00	SO/MCW 60%w , 30%m, 6%g, 4%o	2.67
125.00	SO/WCM 61%m, 31%w , 4%o, 4%g	1.75
60.00	GMWCO 60%o, 15%m, 15%w , 10%g	0.84
0.00	GIP = 190'	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 62869 **DST#: 6**

Test Start: 2015.12.18 @ 03:13:00

GENERAL INFORMATION:

Formation: **Lower "G"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:52:45
Time Test Ended: 11:03:30

Test Type: Conventional Straddle (Reset)
Tester: James Winder
Unit No: 83

Interval: 3982.00 ft (KB) To 4015.00 ft (KB) (TVD)
Total Depth: 4476.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

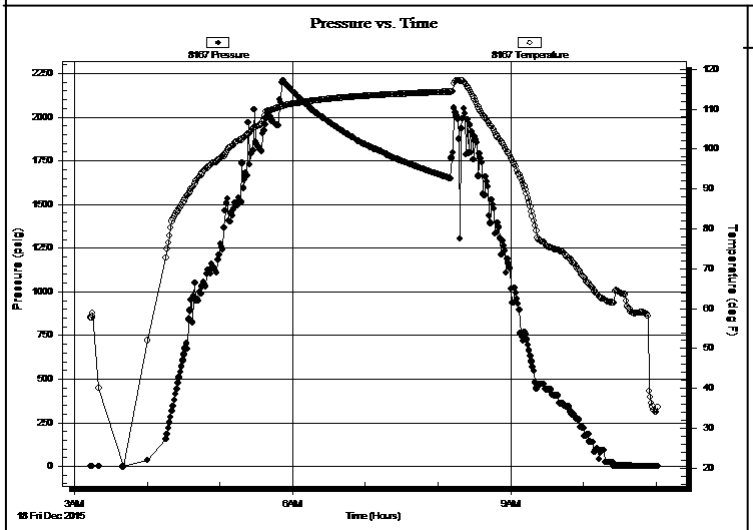
Reference Elevations: 2733.00 ft (KB)
2728.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8167 **Below (Straddle)**

Press@RunDepth: psig @ 4016.00 ft (KB)
Start Date: 2015.12.18 End Date: 2015.12.18
Start Time: 03:13:05 End Time: 11:01:44

Capacity: 8000.00 psig
Last Calib.: 2015.12.18
Time On Btm:
Time Off Btm:

TEST COMMENT: 15 - IF: Blow built to BOB (11") at 2 1/2 min. (Diesel in bucket)
45 - ISI: Blow back built to 6 3/4"
15 - FF: Blow built to BOB at 3 1/4 min.
60 - FSI: Blow back built to 4 1/2"



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
503.00	SOMCW 91%w , 4%m, 3%g, 2%o	5.35
190.00	SO/MCW 60%w , 30%m, 6%g, 4%o	2.67
125.00	SO/WCM 61%m, 31%w , 4%o, 4%g	1.75
60.00	GMWCO 60%o, 15%m, 15%w , 10%g	0.84
0.00	GIP = 190'	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 62869 **DST#: 6**

Test Start: 2015.12.18 @ 03:13:00

Tool Information

Drill Pipe:	Length:	3771.00 ft	Diameter:	3.80 inches	Volume:	52.90 bbl	Tool Weight:		2500.00 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:	187.00 ft	Diameter:	2.25 inches	Volume:	0.92 bbl	Weight to Pull Loose:		88000.00 lb
					Total Volume:	53.82 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		4.00 ft					String Weight:	Initial	72000.00 lb
Depth to Top Packer:		3982.00 ft						Final	78000.00 lb
Depth to Bottom Packer:		4015.00 ft							
Interval betw een Packers:		33.00 ft							
Tool Length:		522.00 ft							
Number of Packers:		3	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3959.00		
Hydraulic tool	5.00		Inside	3964.00		
Jars	5.00			3969.00		
Safety Joint	3.00			3972.00		
Packer	5.00			3977.00	28.00	Bottom Of Top Packer
Packer	5.00			3982.00		
Stubb	1.00			3983.00		
Recorder	0.00	6769	Inside	3983.00		
Recorder	0.00	8366	Outside	3983.00		
Perforations	27.00			4010.00		
Blank Off Sub	1.00			4011.00		
Blank Spacing	4.00			4015.00	33.00	Tool Interval
Packer	0.00			4015.00		
Packer - Shale	0.00			4015.00		
Stubb	1.00			4016.00		
Recorder	0.00	8167	Below	4016.00		
Perforations	11.00			4027.00		
Blank Spacing	446.00			4473.00		
Bullnose	3.00			4476.00	461.00	Bottom Packers & Anchor
Total Tool Length:	**522.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Suemaur Exploration & Production LLC

802 N Carancahua
Corpus Christi TX 78401

ATTN: Bob Petersen

26 6S 28W Sheridan KS

Schroeder #1

Job Ticket: 62869 **DST#: 6**

Test Start: 2015.12.18 @ 03:13:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	35.8 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	37000 ppm
Viscosity:	57.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	5.60 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	900.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
503.00	SOMCW 91%w , 4%m, 3%g, 2%o	5.352
190.00	SO/MCW 60%w , 30%m, 6%g, 4%o	2.665
125.00	SO/WCM 61%m, 31%w , 4%o, 4%g	1.753
60.00	GMWCO 60%o, 15%m, 15%w , 10%g	0.842
0.00	GIP = 190'	0.000

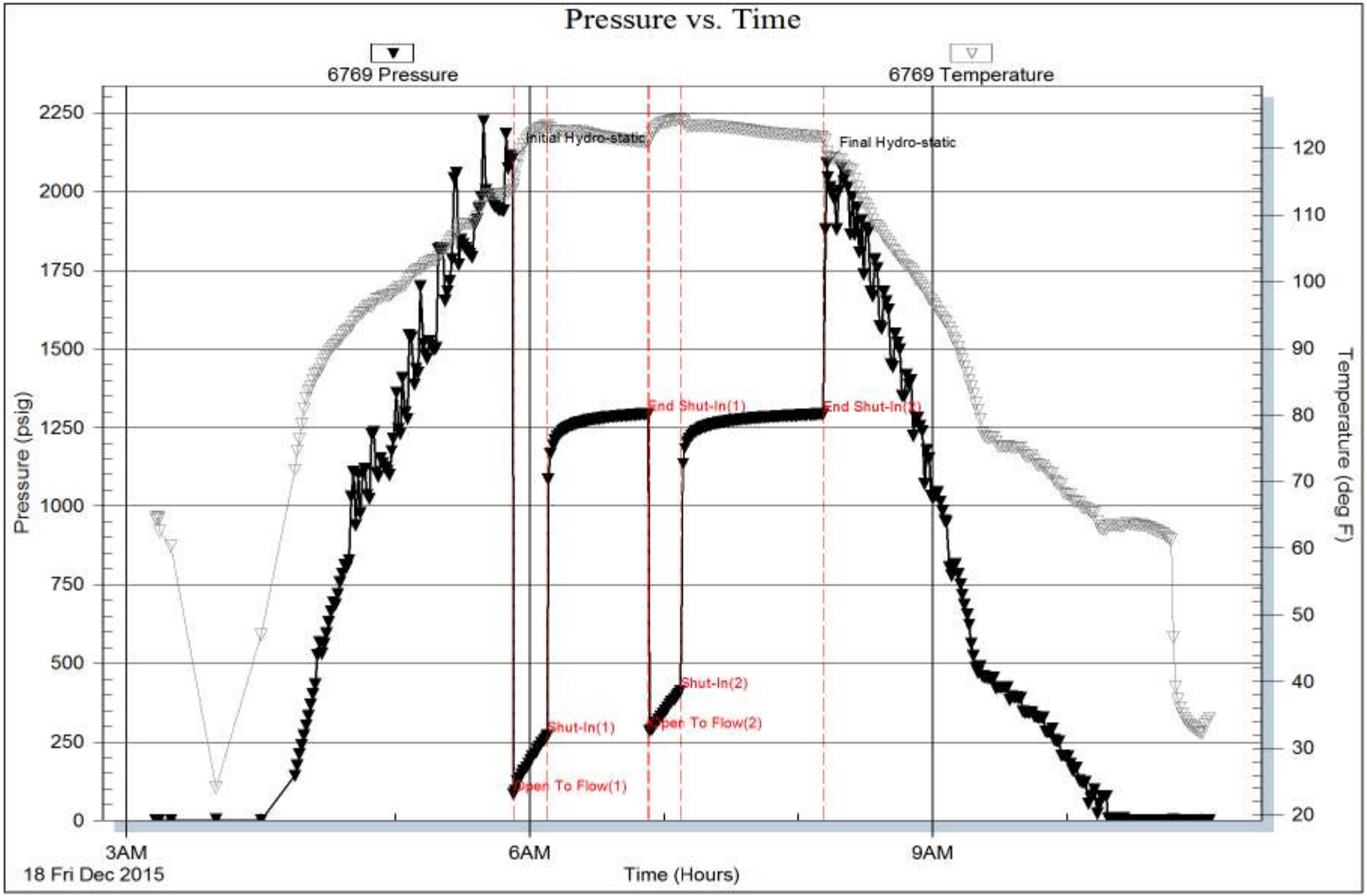
Total Length: 878.00 ft Total Volume: 10.612 bbl

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

Laboratory Name: Laboratory Location:

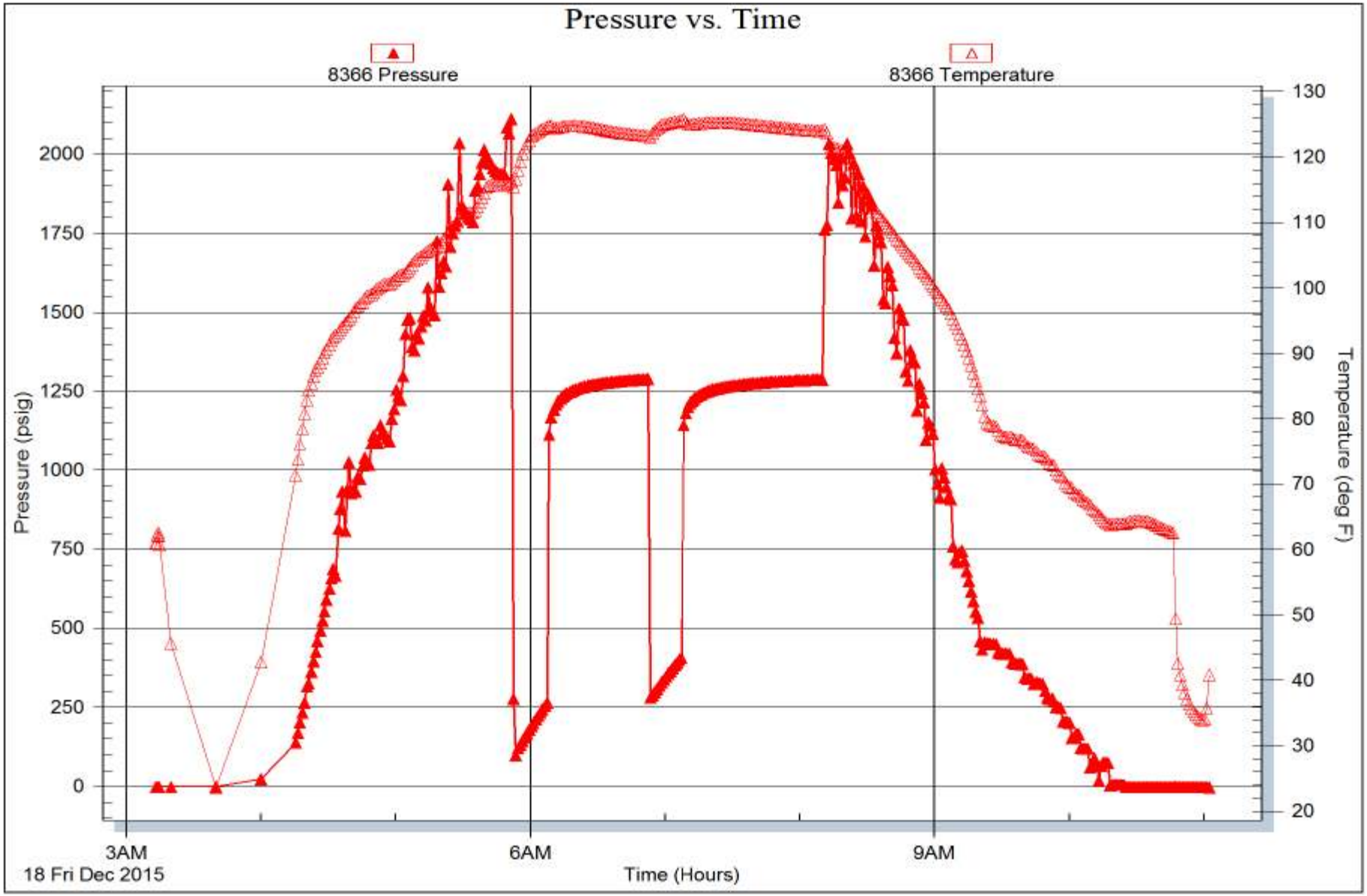
Recovery Comments: Gravity = 34 api @ 42 deg F Corrected Gravity = 35.8 api
RW = .262 ohms @ 53.2 deg F Chlorides = 37,000 ppm
Slight H2S - highest reading I got w as 3 ppm until I got squirted directly on the monitor then it show ed around 12 ppm

Serial #: 6769 **Inside** Suemaur Exploration & Production LLC Schroeder #1 DST Test Number: 6



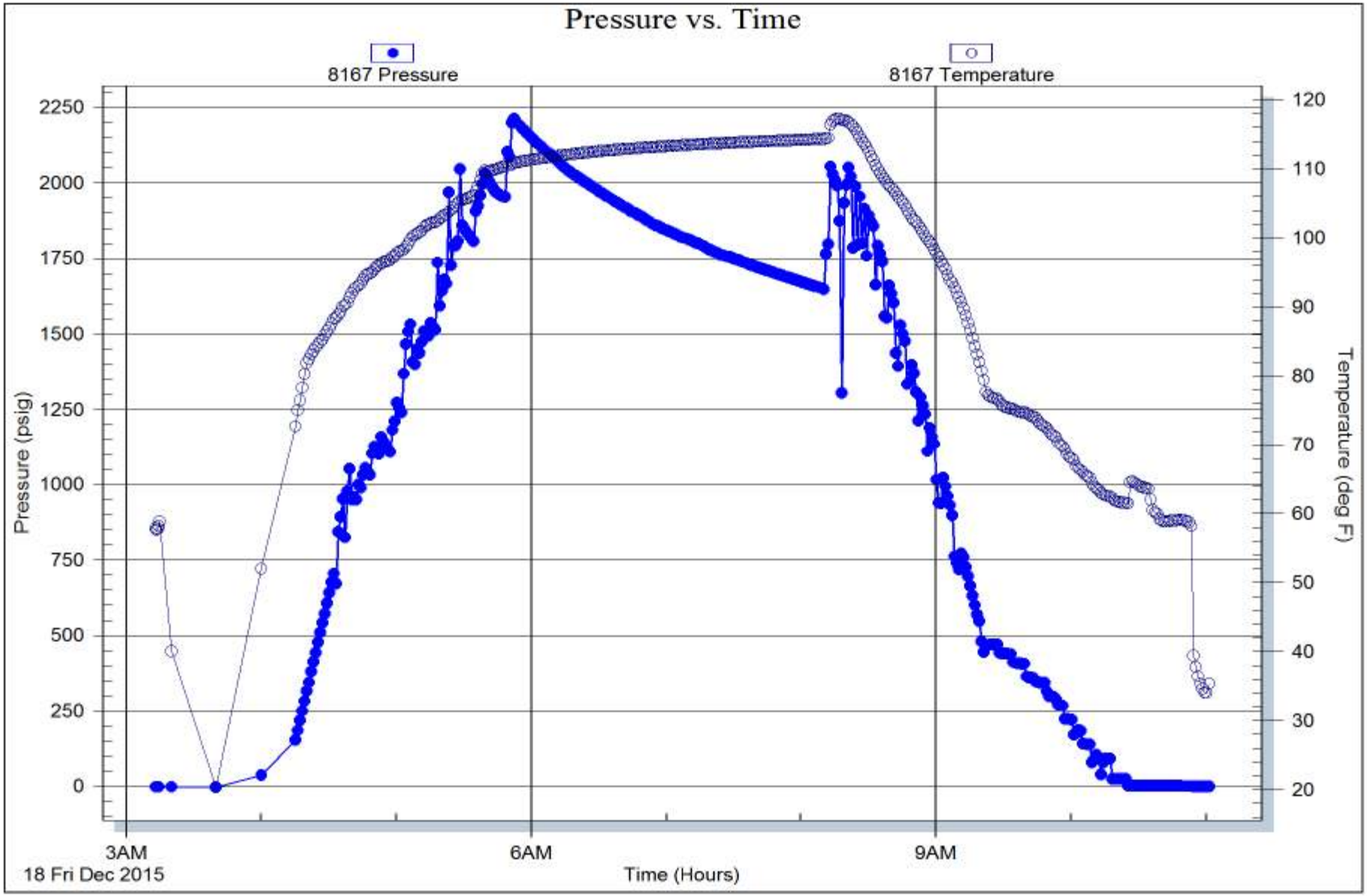
Trilobite Testing, Inc Ref. No: 62869 Printed: 2015.12.18 @ 16:46:12

Serial #: 8366 **Outside** Suemaur Exploration & Production LLC Schroeder #1 DST Test Number: 6



Trilobite Testing, Inc Ref. No: 62869 Printed: 2015.12.18 @ 16:46:12

Serial #: 8167 Below (Straddle) Saur Exploration & Production LLC Schroeder #1 DST Test Number: 6



Trilobite Testing, Inc Ref. No: 62869 Printed: 2015.12.18 @ 16:46:12

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 64967 22853

Well Name & No. Schroeder #1 Test No. 1 Date 12-12-2015

Company Suemaur Exploration & Production LLC Elevation 2733 KB 2728 GL

Address 802 N. Carancahua Corpus Christi TX 78401

Co. Rep / Geo. Bob Petersen Rig Murfin #7

Location: Sec. 26 Twp. 6S Rge. 28W Co. Sheridan State KS.

Interval Tested 3798 — 3817 Zone Tested Oread

Anchor Length 19 Drill Pipe Run 3610 Mud Wt. 8.7

Top Packer Depth 3794 Drill Collars Run 187 Vis 76

Bottom Packer Depth 3798 Wt. Pipe Run 0 WL 6

Total Depth 3817 Chlorides 1000 ppm System LCM 2

Blow Description IF - Blow built to 4"

ISI - No return

FF - Blow built to 2¼" (diesel)

FSI No return

Rec 30	Feet of ocm	%gas 1	%oil	%water 99	%mud	
Rec 60	Feet of mw	%gas	%oil 90	%water 10	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 90 BHT 114 Gravity — API RW .620 @ 36 °F Chlorides 20,000 ppm

(A) Initial Hydrostatic	1900	☒ Test	1050	T-On Location	19:00 12-12
(B) First Initial Flow	15	☒ Jars	250	T-Started	21:30 12-12
(C) First Final Flow	95	☒ Safety Joint	75	T-Open	00:04 12-13
(D) Initial Shut-In	1138	☐ Circ Sub		T-Pulled	04:04 12-13
(E) Second Initial Flow	47	☐ Hourly Standby		T-Out	06:11 12-13
(F) Second Final Flow	71	☒ Mileage	60 RT	Comments	
(G) Final Shut-In	1127	☐ Sampler			
(H) Final Hydrostatic	1899	☐ Straddle			
		☐ Shale Packer		☐ Ruined Shale Packer	
Initial Open	45	☐ Extra Packer		☐ Ruined Packer	
Initial Shut-In	60	☐ Extra Recorder		☐ Extra Copies	
Final Flow	45	☐ Day Standby		Sub Total	0
Final Shut-In	90	☐ Accessibility		Total	1435
		Sub Total	1435	MP/DST Disc't	

Approved By [signature] Our Representative Robert Zeller

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 64969

Well Name & No. Schroeder #1 Test No. 2 Date 12-13-2015

Company Suemaur Expl & Prod LLC Elevation 2733 KB 2728 GL

Address 802 N. Carancahua Corpus christi TX 78401

Co. Rep / Geo. Bob Petersen Rig murfin #7

Location: Sec. 26 Twp. 6S Rge. 28W Co. Sheridan State KS

Interval Tested 3845 — 3902 Zone Tested Toranto & LKC "A"

Anchor Length 57 Drill Pipe Run 3646 Mud Wt. 9.0

Top Packer Depth 3841 Drill Collars Run 187 Vis 62

Bottom Packer Depth 3845 Wt. Pipe Run 0 WL 6

Total Depth 3902 Chlorides 1,100 ppm System LCM 2

Blow Description IF - Blow built to 6½" (diesel)
ISI - Surface blow started in 30mins died in 40mins
FF - Blow built to 6"
FSI - Surface blow started in 25mins died in 45mins

Rec 130	Feet of 90	45 %gas	55 %oil	%water	%mud	
Rec 60	Feet of GMCO	20 %gas	50 %oil	%water 30	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 190 BHT 113 Gravity 19 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic	1921	☒ Test	1050	T-On Location	16:10 12-13
(B) First Initial Flow	16	☒ Jars	250	T-Started	17:10 12-13
(C) First Final Flow	51	☒ Safety Joint	75	T-Open	19:47 12-13
(D) Initial Shut-In	1203	☐ Circ Sub		T-Pulled	23:46 12-13
(E) Second Initial Flow	61	☐ Hourly Standby		T-Out	02:09 12-14
(F) Second Final Flow	80	☒ Mileage	60 RT	Comments	
(G) Final Shut-In	1205	☐ Sampler			
(H) Final Hydrostatic	1907	☐ Straddle			
		☐ Shale Packer		☐ Ruined Shale Packer	
Initial Open		☐ Extra Packer		☐ Ruined Packer	
Initial Shut-In		☐ Extra Recorder		☐ Extra Copies	
Final Flow		☐ Day Standby		Sub Total	0
Final Shut-In		☐ Accessibility		Total	1435
		Sub Total	1435	MP/DST Disc't	

Approved By [signature] Our Representative Robert Zachary

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 64970

Well Name & No. Schroeder #1 Test No. 3 Date 12-14-2015

Company Suemaur Expl & Prod LLC Elevation 2733 KB 2728 GL

Address 802 N. Carancahua Corpus Christi TX 78401

Co. Rep / Geo. Bob Petersen Rig Murfin #7

Location: Sec. 26 Twp. 6S Rge. 28W Co. Sheridan State KS

Interval Tested 3902 — 3926 Zone Tested LKC "C"

Anchor Length 24 Drill Pipe Run 3705 Mud Wt. 9.1

Top Packer Depth 3898 Drill Collars Run 187 Vis 58

Bottom Packer Depth 3902 Wt. Pipe Run 0 WL 6

Total Depth 3926 Chlorides 1,100 ppm System LCM 2

Blow Description IF - Bob in 12 mins

ISI - Return built to 1¼" (diesel)

FF - Bob in 18 mins

FSI - Return built to 1" died in 40 mins

Rec 240	Feet of 90	15 %gas	85 %oil	%water	%mud	
Rec 60	Feet of 90cm	10 %gas	35 %oil	%water 55	%mud	
Rec	Feet of HIP 95'	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 300 BHT 116 Gravity 35 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic	1956	☑ Test	1050	T-On Location 09:00 12-14
(B) First Initial Flow	21	☑ Jars	250	T-Started 09:30 12-14
(C) First Final Flow	86	☑ Safety Joint	75	T-Open 11:30 12-14
(D) Initial Shut-In	1259	☐ Circ Sub		T-Pulled 14:59 12-14
(E) Second Initial Flow	95	☐ Hourly Standby		T-Out 17:19 12-14
(F) Second Final Flow	121	☑ Mileage	60 RT	Comments
(G) Final Shut-In	1253	☐ Sampler		
(H) Final Hydrostatic	1946	☐ Straddle		
		☐ Shale Packer		☐ Ruined Shale Packer
Initial Open		☐ Extra Packer		☐ Ruined Packer
Initial Shut-In		☐ Extra Recorder		☐ Extra Copies
Final Flow		☐ Day Standby		Sub Total 0
Final Shut-In		☐ Accessibility		Total 1435
		Sub Total	1435	MP/DST Disc't

Approved By _____ Our Representative Robert Zachary

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 64971

Well Name & No. Schroeder #1 Test No. 4 Date 12-15-2015

Company Suemaur Expl. & Prod. LLC Elevation 2733 KB 2728 GL

Address 802 N. Carancahua Corpus Christi Tx 78401

Co. Rep / Geo. Bob Petersen Rig Murfin #7

Location: Sec. 26 Twp. 6S Rge. 28W Co. Sheridan State KS

Interval Tested 3966 — 3982 Zone Tested LKC "J"

Anchor Length 16 Drill Pipe Run 3768 Mud Wt. 9.1

Top Packer Depth 3962 Drill Collars Run 187 Vis 58

Bottom Packer Depth 3966 Wt. Pipe Run 0 WL 6

Total Depth 3982 Chlorides 1,100 ppm System LCM 2

Blow Description IF - Bob in 25 mins
ISI - Return built to ¼" died back to surface
FF - Bob in 20 mins
FSI - Return built to 1" died in 52 mins

Rec 140	Feet of 90	25 %gas	75 %oil	%water	%mud	
Rec 60	Feet of 90cm	15 %gas	20 %oil	%water	65 %mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 200 BHT 116 Gravity 37 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic	2000	☑ Test	1050	T-On Location	02:30 12-15
(B) First Initial Flow	35	☑ Jars	250	T-Started	03:20 12-15
(C) First Final Flow	65	☑ Safety Joint	75	T-Open	05:07 12-15
(D) Initial Shut-In	1272	☐ Circ Sub		T-Pulled	08:37 12-15
(E) Second Initial Flow	65	☐ Hourly Standby		T-Out	10:42 12-15
(F) Second Final Flow	99	☑ Mileage	60 RT	Comments	
(G) Final Shut-In	1272	☐ Sampler			
(H) Final Hydrostatic	1985	☐ Straddle			
		☐ Shale Packer		☐ Ruined Shale Packer	
Initial Open		☐ Extra Packer		☐ Ruined Packer	
Initial Shut-In		☐ Extra Recorder		☐ Extra Copies	
Final Flow		☐ Day Standby		Sub Total	0
Final Shut-In		☐ Accessibility		Total	1435
		Sub Total	1435	MP/DST Disc't	

Approved By Our Representative Robert Zahnow

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 64972

Well Name & No. Schroeder #1 Test No. 5 Date 12-15-2015

Company Suemaur Expl. & Prod LLC Elevation 2733 KB 2728 GL

Address 802 N. Carancahua Corpus Christi TX 78401

Co. Rep / Geo. Bob Petersen Rig Murfin #7

Location: Sec. 26 Twp. 6S Rge. 28W Co. Sheridan State KS

Interval Tested 4014 — 4058 Zone Tested LKC "A-J"

Anchor Length 44 Drill Pipe Run 3831 Mud Wt. 9.3

Top Packer Depth 4010 Drill Collars Run 187 Vis 51

Bottom Packer Depth 4014 Wt. Pipe Run 0 WL 6.4

Total Depth 4058 Chlorides 1000 ppm System LCM 2

Blow Description IF-Blow built to 4"
ISI-No return
FF-Blow built to 5"
FSI-No return

Rec 15	Feet of 90	10 %gas	90 %oil	%water	%mud	
Rec 75	Feet of 90CM	10 %gas	25 %oil	%water	65 %mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 90 BHT 115 Gravity 35 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic	2020	☒ Test	1150
(B) First Initial Flow	16	☒ Jars	250
(C) First Final Flow	37	☒ Safety Joint	75
(D) Initial Shut-In	1217	☐ Circ Sub	
(E) Second Initial Flow	40	☐ Hourly Standby	
(F) Second Final Flow	56	☒ Mileage	60 RT x 2 +60
(G) Final Shut-In	1220	☐ Sampler	
(H) Final Hydrostatic	2009	☐ Straddle	
		☐ Shale Packer	
Initial Open	45	☐ Extra Packer	
Initial Shut-In	60	☐ Extra Recorder	
Final Flow	45	☐ Day Standby	
Final Shut-In	90	☐ Accessibility	
		Sub Total	1595

T-On Location 22:30 12-15
T-Started 23:30 12-15
T-Open 02:01 12-16
T-Pulled 06:01 12-16
T-Out 08:21 12-16

Comments Drove out loaded tool at 15:00 on 12-17

☐ Ruined Shale Packer
☐ Ruined Packer
☐ Extra Copies
Sub Total 0
Total 1595
MP/DST Disc't

Approved By _____ Our Representative Robert Zachary

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 62869

Well Name & No. ~~Schroeder #1~~ Schroeder #1 Test No. 6 Date 12-18-15

Company Suemar Exploration & Production Elevation 2733 KB 2728 GL

Address 802 N. Carancahua Corpus Christi TX 78401

Co. Rep / Geo. Bob Peterson Rig Murfin #7

Location: Sec. 26 Twp. 6s Rge. 28w Co. Sheridan State KS

Interval Tested 3982 - 4015 Zone Tested Lower "6"

Anchor Length 33 Anchor 46 Tail Drill Pipe Run 3771 Mud Wt. 9.3

Top Packer Depth 3977 - 3982 Drill Collars Run 187 Vis 57

Bottom Packer Depth 4015 Wt. Pipe Run - WL 6.4

Total Depth 4476 Chlorides 900 ppm System LCM 3

Blow Description IF: Blow built to BOB (11") at 2½ min. (Diesel in bucket)

ISI: Blowback built to 6 3/4"

FF: Blow built to BOB at 3¼ min.

FSI: Blowback built to 4½"

Rec 60	Feet of GMWCO	10	%gas	60	%oil	15	%water	15 %mud
Rec 125	Feet of SO/wcm	4	%gas	4	%oil	31	%water	61 %mud
Rec 190	Feet of SO/mcw	6	%gas	4	%oil	60	%water	30 %mud
Rec 503	Feet of SOMCW	3	%gas	2	%oil	91	%water	4 %mud
Rec	Feet of GIP=190'		%gas		%oil		%water	%mud

Rec Total 878 BHT 122 Gravity 35.8 API RW .262 @ 53.2 °F Chlorides 37 000 ppm

(A) Initial Hydrostatic 2104

(B) First Initial Flow 85

(C) First Final Flow 271

(D) Initial Shut-In 1294

(E) Second Initial Flow 285

(F) Second Final Flow 413

(G) Final Shut-In 1293

(H) Final Hydrostatic 2090

Initial Open 15

Initial Shut-In 45

Final Flow 15

Final Shut-In 60

- ☑ Test 1150
- ☑ Jars 250
- ☑ Safety Joint 75
- ☐ Circ Sub
- ☐ Hourly Standby
- ☑ Mileage 60 RT
- ☐ Sampler
- ☑ Straddle 600
- ☐ Shale Packer
- ☐ Extra Packer
- ☐ Extra Recorder
- ☐ Day Standby
- ☐ Accessibility

Sub Total 2135

T-On Location 2:20

T-Started 3:13

T-Open 5:52

T-Pulled 8:11

T-Out 11:00

Comments low levels of H_2S gas

- ☐ Ruined Shale Packer
- ☐ Ruined Packer
- ☐ Extra Copies

Sub Total 0

Total 2135

MP/DST Disc't

Approved By

Our Representative James Winder

GEOLOGIST'S REPORT
DRILLING TIME AND SAMPLE LOG

SUEMAUR
EXPLORATION & PROD. , LLC

WELL: SCHROEDER #1
SEC. 26 TWP 6S RGE 28W
NE SW SW SE
365' FSL & 2246' FEL

SHERIDAN COUNTY, KANSAS
API: 15-179-21414-00-00

DRILLING CONTR.: MURFIN RIG #7
SPUD: 12-09-15 COMP: 12-18-2015
MUD UP: 3050' TYPE MUD: CHEM.
DRILL TIME: 3350 to' RTD
RTD: 4475'LTD: 4476'
SAMPLES SAVED: 3350'-RTD
GEOLOGIST: ROBERT J. PETERSEN

ELEVATION
KB: 2733
GL: 2728
LOG MEASURED
FROM: KB

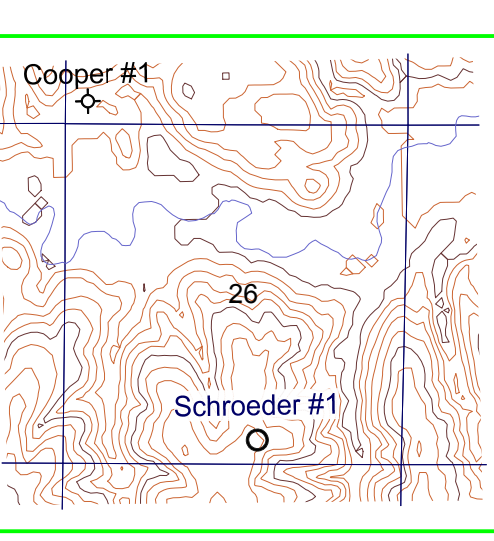
SURFACE CASING
8 5/8" Set @ 346' KB
W/250 SX 3% CC 2%gel

PRODUCTION CASING
5½" Set

WELL LOG SURVEYS
DIL/DCP/Sonic/Micro

ELECTRIC LOG TOPS

FORMATION	DEPTH	DATUM	WELL A	WELL B	WELL C*
Stone Corral	2464	+269	+11	+14	N/A
Base Stone Corral	2496	+237	+12	+13	N/A
Howard	3597	-864	+18	+34	N/A
Topeka	3645	-912	+17	+32	N/A
Heebner	3847	-1114	+17	+35	+15
Toronto	3873	-1140	+19	+35	+16
Lansing	3889	-1156	+22	+35	+15
Muncie Cr. Shale	3998	-1265	+18	+39	+16
Stark	4052	-1319	+21	+36	+30
BKC	4097	-1364	+24	+39	+28
Pawnee	4192	-1459	+20	+33	+39
Cherokee LS	4293	-1560	+19	+34	+23
Miss	4423	-1690	+12	+69	+17



REFERENCE WELL:
*drill time tops

Well A
API: 15-179-00141
Lease: Cooper #1
Leben Drilling Inc.
T6S R28W, Sec. 23
SW SW SW
app 1 mile NW

Well B
15-179-20736
DIAMOND SHAMROCK
19-6-27W
C S2 SE SW
app 2 mile NE

Well C *
(Drill time only-3800 to RTD)
W J COPPINGER
WAGONER #1
Sec. 34 T6S R28W
NW NW NW 1.51 Mi to SW)

DAILY REPORT
@7:00 A.M.

12-09-2015 MIRU SPUD/Set surface
12-10-2015 WOC
12-11-2015 2955' Drilling/bit trip @3350'
12-12-2015 3634' Drilling
12-13-2015 3817' TIH after DST#1
12-14-2015 3926' Circulating for samples
12-15-2015 3982' DST #4
12-16-2015 4058' TOH DST #5
12-17-2015 4363' Drilling
12-18-2015 4475' DST#6

REMARKS AND RECOMMENDATIONS

The operator has decided to run casing to test for commercial production.

Respectfully Submitted,
Robert J. Petersen

SAMPLE DESCRIPTION

Dolo; Gray/dark gray/tan, fine crystalline, sl foss + SH; Red/dark gray (3360)

LS; Cream/gray, mottled, fine crystalline, sl dolo, chalky + SH; Green + SH; Gray, sandy (3470)

LS; Tan/dark gray, fine crystalline, dolo, chalky, mottled + SH; Dark gray + SD; Red/orange, coarse, dolomitic (3480)

LS; Cream/gray, mottled, fine crystalline to dense, sl dolo, chalky, cherty (light gray/blocky sl mottled) (3390)

LS; Cream/gray, mottled, fine crystalline to dense, dolo, chalky, cherty (tan/gray)(3400)

LS; Tan/cream/gray, fine crystalline, dolo, chalky, cherty (gray angular to blocky)(3410)

SH; Red, silty-sandy,w/hard dense, calc concretions (3420)

LS; Gray/dark gray, mottled, fine crystalline, w/black shale clasts (breccia) + LS; Tan, dense + SH; Red/gray, sandy, SD, Red, hard, vfg (3430)

LS; Tan, dense, ool + SH; Green/gray, sandy, SD; Gray, vfg, hard + LS; Gray/dark gray, mottled, fine crystalline ,dolo (3440)

SH; Gray, sandy (3450)

LS; Gray/cream, fine crystalline to dense (3450)

LS; Gray/dark gray, fine crystalline to dense, foss + SH; Dark gray/SH; Gray, silty (3460)

LS; Tan/gray, dense, foss, subchalky + SD; Gray, fine grained, friable to well-cem, tr dead stain (3470) + SH; Red/gray (3470)

SH; Gray, sandy (3480)

LS; Cream/tan, dense, foss, subgran, chalky + LS; Gray, dense (3490)

SH; Gray/dark gray (3500)

LS; Cream/tan, dense, sandy, cherty,tr SD; Tan/clear, coarse (3500)

LS; Cream/tan/gray, fine crystalline to dense, ool, granular (3510)

SH; Red, sandy, hard, calc (3510-3520)

SD; Gray, very fine grained, silty, tr SD; Clear, coarse, SH; Gray, sandy, mic (3520)

LS; Cream, fine crystalline, foss, gran + LS; Tan/lt gray, dense, sandy, cherty, tr dead flakey stain (3520)

LS; Tan/cream, fine crystalline to dense, very foss, granular + LS; Cream/gray, dense + SH; Red/gray, sandy, tr SD; Clear, coarse, well-cem (3530)

SD; Gray, very fine grained, silty-micaceous, well-cem (3540)
LS; Gray, dense, sandy + SH; Red/gray (3540)
SH; Black (tr 3540/flood 3550)

LS; Gray/dark gray mottle, fine crystalline to dense, very foss + LS; Tan/gray, dense, sl foss, SH; Gray, sandy-micaceous (3550)

SH; Black (flood) + LS; Gray/dark gray, mottle, chalky, shaley (black), cherty + SH; Gray, silty-sandy+ SD; Red/gray, fg, well-cem to hard, silty(3560)

LS; Cream/tan, very fine crystalline to dense + LS; Gray, dense (3570)

SH; Gray, silty-sandy (3570)
SH; Dark gray (3580)
LS; Crean, fine crystalline, sl foss, tr vug por (barren) (3580)

LS; Cream/lt gray, fine crystalline, sl dolo, chalky (3590)

LS; Cream/tan, fine crystalline, ool/foss, chalky (3600)

SH; Red/gray (tr 3600)

LS; Cream/lt gray, fine crystalline, tr glauc, cherty (white) (3610)

LS; Cream/lt gray, fine crystalline, foss, chalky, cherty (gray) (3620)

SH; Red/gray, sandy (3630)

Morgan Mud Check Vis 76\Wt 8.7\WL 6.0

LS; Cream/gray, fine crystalline, foss, chalky (3630)

SH; Red/gray, sandy + SD; Red/dark gray (shaley), coarse (3640)few loose coarse clear SD grains, tr SH; Black (3650)

LS; Cream/lt gray, fine crystalline ool/foss, w/some red shale impurity (3660)

LS; Cream, fine crystalline, foss, chalky + LS; Lt gray, fine crystalline to dense + SH; Red, silty (3670)

LS; Lt gray, fine crystalline, fine crystalline to dense, foss (3680)

LS; Cream/tan, fine crystalline, ool, granular, foss in part, chalky, tr oomoldic por (barren) (3680)

LS; Cream/gray, fine crystallie, ool/foss, sl dolo, tr chert, chalky (3690-3700)

SH; Black (3700)

SH; Red/gray, sandy (3700) tr SD; Gray, fine grained, friable (3710)

LS; Cream/tan, fine crystalline, ool/foss, sl dolo, very chalky (soft-white) (3710)

LS; Cream/gray, dense, chalky (soft-white) (3710/30") +SD; Maroon/gray, silty-sandy (3720)

LS; Cream/gray, fine crystalline to dense, sl foss, very chalky-soft (3730)

LS; Cream/lt gray, fine crystalline to dense, ool - subgran, chalky + SH; Gray (3740)

LS; Cream/gray, dense, foss, cherty (3750)

LS; Cream/tan/gray, fine crystalline, oolitic-granular, cherty,no vis por, tr dead flakey stain (3760)

SD; Gray, fine grained, angular, friable to welll-cemented + SH; Gray/green, silty-sandy (3770)

LS; Tan, dense, oolitic-granular, in part, mottled + SH; Red (3780)

SH; Red, silty-sandy (3790)

LS; Cream, fine crystalline, oolitic-granular w/trace poor oomoldic por (barren-nso) (3790)

SH; Red, silty-sandy (3800)

LS; Cream, fine to med crystalline, foss, chalky (3800)

LS; Cream/lt gray, fine crystalline, foss (3805) chert inclusions (3805/30")

SH; Black, carb (3805/30") + SH; Red/gray sandy (3810)
LS; Tan, fine crystalline, foss, dolomitic, chalky, cherty (3817

LS; Tan, fine crystalline, foss, dolomitic, w/fair moldic/ intercrystalline por, gsfo, good odor, dark spot to full sat on dry (3817/20") Morgan Mud Check Vis 62\Wt 9.0\WL6.0
LS; Cream/tan, fine crystalline, dolomitic, tr poor moldic por, decr sfo & odor (3817/40")

DST #1
3798-3917'
45-60-45-90"
IF: Built to 4"
FF: Built to 2¼"
No return blows

Recovered:
30' OCM 1% oil
60' MW 10% mud

SIP: 1138-1127#
FP: 15-95/47-71#
HP: 1900-1899#
BHT: 114F

LS; Cream, fine crystalline, ool, dolo, very chalky (3827/30")

LS; Cream/tan, fine crystalline to dense, ool, chalky (3840)

LS; Cream/lt gray, fine crystalline to dense, ool/foss in part, trace chert (3850)

LS; Tan/gray, fine crystalline to dense, foss, dolo, chalky, trace dead oil stain/flakey oil (black)(3860)

SH; Black (abundant 3860)

LS; Tan, dense, foss (3870)

SH; Gray/red, silty -sandy, trace Sd clusters, fg, shaley/calc (3870 tr/inc 3880)

DST #2
3845-3902'
45-60-45-90
IF: Built to 6½ in
ICIP: Surf blow started in 30 min/died in 40 min.
FF: Built to 6 in
FCIP: Surf blow started in 25 min/died in 45 min.
Recovered:
60' Gassy mud cut oil
20%G / 30% mud

130' Gassy Oil
45%gas /55% oil

SIP: 1203/1205#
FP: 16-51/61-81#
HP: 1921/1908#
BHT: 113F

LS; Tan, fine crystalline, ool/foss, subgran, cherty, some-chert matric, trace fair moldic por, sfo (black), no odor, dark patchy stain (3880)
LS; Cream/tan/white, fine crystalline, sl foss, chert, very chalky w/poor moldic por, sfo (heavy/black) (3880/30")
LS; Cream/lt gray, fine crystalline, sl foss, chalky (3890)

SH; Gray, sandy (flood 3895)

LS; Cream, oolitic-granular w/good intergran-vugular por, gsfo (show of free oil on top of water in sample bucket), good odor, med to dark brown sat on dry sample (3900)
LS; Cream, fine crystalline, sl foss, very chalky w/trace edges stain on fracture por (3902/15")
LS; Cream, fine crystalline, oolitic/foss, granular, w/fair to good moldic/vug por, poor intergran por, sfo, odor, med brown stain on dry (3902/30")
LS; Cream, fine crystalline to dense, chalky, cherty + SH; Gray/dark gray (3902/45")
LS; Lt gray, fine crystalline, sl dolo + SH; Red (3910)
LS; Cream, fine crystalline, ool, chalky (3915-3920)
SH; Gray/dark blue-gray, sandy (3920)
SH; Red, sandy (3925) Morgan Mud Check Vis 58\Wt 9.1\WL 6.0
LS; Cream, fine crystalline, very foss, sub-gran to granular, w/good moldic por, gsfo (brown),fair odor, dark brown full sat on dry (3926/20")
LS; Cream, fine crystalline, ool, chalky, trace poor moldic por, decrease sfo/odor from 3926/20" sample + SH; Green/red (3926/40-60") sample box empty @60 min
LS; Cream, med crystalline, very foss, chalky, cherty (3933/20")

DST #3
3902 to 3926'
30-60-30-90 min
IF: Bottom of bucket in 12 min.
ICIP: Return blow built to 1 1/4 in.
FF: Bottom of bucket in 18 min.
FCIP: Return blow built to 1 in. died in 40 min.
Recovered:
95' GIP
240' Gassy oil (15% gas)
60' Gassy oil cut mud
(10% gas/55% mud)
SIP: 1259-1253#
FP: 21-8/95-121#
HP: 1956-1946#
BHT: 116F
Oil Gravity: 35 API

LS; Gray, fine crystalline, dolo, chalky, cherty (chert tan/orange foss)(3945-3950)

SH; Black (tr 3655/3960)

LS; Cream, fine crystalline, ool, very chalky (3960/3965)

SH; Red/gray (3965 /incr. 3968)

LS; Cream/tan, fine crystalline, foss/ool, very chalky, chert(brown/tan/blocky)(3968)
LS; Cream/lt gray, fine crystalline-dense, chalky, cherty (tan/brown/blocky)(3968/20"-3975)
SH; Red/gray, silty, sandy (3980)

DST #4
3966-3982'
30-60-30-90"
IF: Bottom of Bucket in 25 min.
ICIP: Return surface blow built to 1/4 in. died back to surface.
FF: Bottom of bucket in 20 min.
FCIP: Return blow built to 1 in. died in 52 min.
Recovered:
140' Gassy oil
25% gas
60' Gassy oil cut mud
15% gas/20% oil
SIP: 1272-1272#
FP: 35-65/65-99#
HP: 2000-1985#
BHT: 117F
Oil Gravity: 37 API

LS; Cream, fine to coarse crystalline, very foss, w/good moldic/intercrystalline por, gsfo (brown), good odor, medium brown patchy to full sat on dry (3982/20") LS; Lt gray, fine crystalline ool, w/fair moldic por & LS; Lt gray, dense, sfo, odor, med brown sat on dry (3982/40-60") Added premix/jetted hole

LS; Cream, fine crystalline to dense, foss, cherty (tan/cream/block) w/tr chert matrix, fair moldic por,sfo, odor (3995) good moldic por, gsfo, incr odor, + Chert; Black, sl foss, blocky (4000)

SH; Black/dark gray + abund SH; Reddish-brown (4000)
LS; Tan, dense, sl ool, cherty, tr stain (4000/20-40")
poor sample returns

SH; Red/gray, silty, sandy (4005 poor sample/4010)

DST #6
3982-4015'
15-45-15-60"
IF: Bottom of bucket in 2½ min
ICIP: 6¾ inch return blow
FF: Bottom of bucket in 3 min
FCIP: Blowback built to 4½ inches
Recovered:
60' GMWCO
60% oil,10% gas, 15% mud, 15%w
125' SOWCM
4%Gas. 4% oil, 31%w, 61% m
190' SOMCW
6%, 4%m, 60% w, 30%m
503' SOMCW
3%g, 2% o, 91%w, 4%m
GIP: 190'
SIP: 1294-1293#
FP: 85-271/190-503#
HP: 2104-2090#
BHT: 122F
Straddle test
bottom packer held

LS; Cream/tan/lt gray, fine crystalline to dense, sl ool, chalky, cherty, tr poor moldic por, vssfo, tr lt stain on dry (4014/20")
LS; Cream/lt gray, dense, blocky, chalky, cherty + LS; lt blue-gray, dense, arg (4014/40")
LS; Cream, fine crystalline, foss, chalky, cherty (white-blocky)(4020-4025)
LS; Gray, fine crystalline, foss + SH; Black/red (4030)
LS; Cream, fine to coarse crystalline, chalky, w/trace poor moldic por, sfo (brown), light odor + SH; Red/gray (4035)
LS; Gray, dense, foss, cherty + SH; Red/gray, sandy (4040)

SH; Red, sandy, tr black shale (4040) trace LS; Cream, dense, chalky (4050)

LS; Cream/lt gray, fine crystalline, very foss, varigated w/fair intergranular/moldic por, sfo (brown) , faint odor (4053/10" increase 4053/30")
LS; Cream/lt gray, fine crystalline to dense, chalky, cherty (4058)
SH; Black/red/green-gray (abundant 4058)
+ SH; Gray, sandy (4058/30") (sample box empty 4058/60")

SH; Red/maroon/gray, sandy-coarse sd (4070-4075)

Morgan Mud Check Vis 62\Wt 9.2\WL 5.2

DST #5
4014 to 4058'
45-60-45-90"
IF: Blow built to 4 in.
FF: Blow builtto 5 in.
No return blow on shut-ins
Recovered: 15 ft Gassy oil
10% gas

75' Gassy oil cut mud 10% gas/25%oil

SIP: 1217-1220#
FP: 16-37/40-56#
HP: 2020-2009#
BHT: 115F
Oil gravity:
35 API

LS; Cream, dense, chalky (4075)

LS; Cream, fine crystalline, foss/sl ool, chalky, cherty (angular/white) + LS; Gray, fine crystalline to dense, foss (4080-4080/20")
SH; Black/green/red (4085)
LS; Gray, dense, sl ool, cherty + SH; Red(4090)

LS; Gray, fine crystalline to dense, foss, very chalky (soft white), cherty (4095-4100)

LS; Cream, fine crystalline, ool, foss in part, subgranular to granular, chalky, yellow mineral stain (4100/20")

SD; Gray/red, calcareous, shaley, friable (4100/20")
SH; Red/gray, sandy (4110)

SD; Red, shaley, fine to med grained + Calc nods + LS; Gray, dense, shaley (red) (4120)

LS; Cream/lt gray, dense, sl foss + SH; Red/green (4130)

SH; Red/gray, sandy + SH; Dark gray, blocky (4140)

LS; Cream/lt gray, fine crystalline to dense, foss, chalky, cherty tr poor ppt por, vssfo, no odor, tr questionable gray stain on dry (4140)

SH; Red, sandy + SD; Red, shaley, fine grained, friable (4147)

LS; Gray, fine crystalline-dense, ool, chalky shaley (red), trace dead black stain dry, apparent frac por (4147/20")

LS; Cream/gray/brown, fine crystalline to dense, foss, cherty, shaley red, tr black dead stain on frac + SH; Red/gray, sandy (fine to coarse poorly sorted) (4160)

LS; Cream, fine crystallie, foss, chalky + LS; Lt gray, sandy + SH; Maroon-sandy w/dense calc nods, SH; Green + SD; Lt gry, friable (4170)

LS; Cream/lt gray, fine crystalline, foss, chalky + SH; Red/maroon/gray/bottle green + SD; Red/gray, fine grained, shaley (4180)

SH; Reddish-brown/bottle green, sandy w/hard concretions + SD; Lt gray + LS; Lt gray, fine crystalline, foss, brecciated w/shale intrusions (4190)

SH; Reddish-brown, silty-andy, SD; Gray-dark gray, fine grained, hard + LS; Gray, dense, chalky, chert (4200)

LS; Cream/lt gray, dense, cherty (tan/orange) + SD; Gray, very fine grained, silty + SH; Gray (4210)

LS; Cream/lt gray, dense + SH; Gray, sandy (vfg) (4220)

LS; Cream/lt gray/gray, dense + SH; Gray, sandy (4230-4240) + Chert; Black, blocky (4240)

SH; Dark gray/olive (4240)

LS; Cream/gray, dense. Chalky-cherty + SH; Gray (4250)

LS; Cream/tan, fine crystalline, ool-granular/sub-granular w/chalky matrix (4260)

LS; Cream/tan, fine crystalline, ool, chalky, trace poor ppt por, tr tarry oil, no odor (4270)

LS; Gray, dense, arg tr LS; Cream/tan, fine crystalline to dense, tr dead stain, no vis por ,trace SH; Black (4280) (4280)

SH; Black (flood 4290)

SH; Dark gray/black (abund) + LS; Gray, dense, arg , tr SD; Clear, fine grained, friable(4295)

SH; Dark gray/black (abund) + LS; Cream/dark gray, dense, chalky (4295/20"-4295/40")
LS; White/gray, dense, chalky (4295/60" sl incr 4300)

LS; Cream/gray/tan/tan, dense, very foss, chalky +SH; Gray/black (4310)

LS; Cream/tan/gray, dense, foss in part, very chalky, tr dead stain (black), no vis por + SH; Black/SH; Gray-silty (4320)

LS; Cream/tan, dense, foss, chalky + SH: Red, sandy, tr SH; Black, tr SD; Clear, fg, friable, calc (4330)

LS; Cream/white/tan, dense, foss, chalky + SD; Red/gray, calc, shaley (4340)

LS; Cream/white, dense, chalky + SH; Gray/green, tr SD; Gray/clear, fine to coarse, sr, friable (4350)

LS; Cream/gray, dense + SH; Red, sandy (fine to coarse), w/few cluster, poorly sorted sd (4460)

Morgan Mud Check Vis 65\Wt 9.4\WL 6.0

SH; Red, sandy, SD; Gray, fg calc + LS; Gray/brown, dense + SH; Green, waxy (4370)

SD; Clear, fine to coarse, subangular, poorly sorted, hard + SH; Red, sandy/SH; Green-platy, SH; Gray, blocky (4377)

SH; Red, sandy, w/coarse, poorly sorted Sd clusters + LS; Gray/cream, dense, w/mustard yellow/red shale discoloration (4377/20"-4390)

SH; Red, sandy + SD; Clear, coarse, loose w/few clusters + SD; White, fine grained, calc + LS; Cream, dense, chalky (4400) + tr Chert; Brown, blocky, Chalky +SH; Green/gray (4410)

SH; Red, sandy + SH; Black/olive + LS; Gray, dense, chalky + SD; Clear, fine to med, well-cem (4420)

SH; Red, sandy, hard, blocky + SH; Green, SD; Gray, fine grained, trace Chert; Brown + LS; Cream, foss, chalky (4430) Drilled Rough 4424'

Chert; Yellow/white, sharp, sl foss + tr LS; Tan/gray, dense + tr SH; Red (4434/20")

Chert; Yellow/white, blocky, tr LS; Cream, dense, foss, few loose crin stem frag + SH; Red, hematite nods (4450) Rig Torqued Up 4433'

Chert; Yellow/gray, sharp-angular + SH; Brick red/green + LS; Cream, dense, chalky (4460)

Chert; Yellow/gray + Dolo; Tan, dense tr LS; Gray, dense + SH; Gray (4470)

Dolo; Tan, dense + Chert; Yellow/white, w/tr tripolitic, blocky + SH; Green (4475)

Dolo; Gray, fine crystalline to dense, chalky + Chert; White-opaque (4475/30")

Dolo; Cream/gray, fine to med crystalline, chalky + Chert; Yellow/gray (4475/60")

ALLIED
OIL & GAS SERVICES, LLC

CEMENTING LOG

STAGE NO.

Date 12/18/15 District Oakley Ks Ticket No. 067713
Company Summit Exp Rig Murfin 7
Lease Schroeder Well No. 1
County Sheridan State Ks
Location Field

CASING DATA: Conductor ☐ PTA ☐ Squeeze ☐ Misc ☐
Surface ☐ Intermediate ☐ Production ☒ Liner ☐
Size 5 1/2 Type New Weight Collar

Casing Depths: Top KB Bottom

Drill Pipe: Size 4 1/2 Weight Collars
Open Hole: Size 7 7/8 T.D. ft. P.B. to ft.

CAPACITY FACTORS:

Casing:	Bbls/Lin. ft. .02	Lin. ft./Bbl.
Open Holes:	Bbls/Lin. ft.	Lin. ft./Bbl.
Drill Pipe:	Bbls/Lin. ft.	Lin. ft./Bbl.
Annulus:	Bbls/Lin. ft.	Lin. ft./Bbl.
	Bbls/Lin. ft.	Lin. ft./Bbl.

Perforations: From ft. to ft. Amt.

COMPANY REPRESENTATIVE

CEMENT DATA:
Spacer Type:
Amt. Sks Yield ft³/sk Density PPG

LEAD: Pump Time hrs. Type ASC 10% salt 2% gel 5# Gilsonite FL130 .6% ... 1/4# sk Defoamer Excess
Amt. 180 Sks Yield ft³/sk Density PPG
TAIL Pump Time hrs. Type ALW 65/35 6% gel 1/4# Flo
700
Excess
Amt. 405 Sks Yield ft³/sk Density PPG
WATER: Lead gals/sk Tail gals/sk Total Bbls.

Pump Trucks Used 966 281
Bulk Equip. 891
373

Float Equip: Manufacturer
Shoe: Type AFU Depth
Float: Type Depth
Centralizers: Quantity 700 [illegible] 50 Plugs Top Btm.
Stage Collars
Special Equip. Basket -
Disp. Fluid Type H2O Amt. 59 Bbls. Weight PPG
Mud Type Rig Mud 59 Weight PPG
Bottom H2O 47

CEMENTER [signature]

TIME AM/PM	PRESSURES PSI DRILL PIPE CASING	ANNULUS	FLUID PUMPED DATA TOTAL FLUID	Pumped Per Time Period	RATE Bbls Min.	REMARKS
						On location, SFTY mtg, Set up
						Rig up, Circulate
				20.0	8.0	Mix - Pump - Flush
				20.0	8.0	Mix - Pump Flush
				29.0	5.0	Mix 180 sk ASC
						Wash Truck
				47.0	8.0	Displace H2O
	700			59	8.0	Displace Rig Mud
	1800					Land Plug
	800					Open Tool - Circulate 3 hrs
				5.0	3 1/2	Mix - Plug RH 30
				2 1/2	3 1/2	MH 15
	300			105.0	5.0	Mix ALW Pump 5 1/2 360 sk
						Wash Truck
	900			59.0	7.0	Displace H2O
	2100					Land Plug
						Tool Closed Cement Did Circulate
						Thank You

FINAL DISP. PRESS: PSI BUMP PLUG TO PSI BLEEDBACK BBLS. THANK YOU

ALLIED OIL & GAS SERVICES, LLC

Federal Tax I.D. #20-5975804

067507

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

SERVICE POINT: Oakley KS

DATE 12-10-15	SEC. 36	TWP. 6	RANGE 28	CALLED OUT	ON LOCATION (12-9-15) 11:00p.m	JOB START 1:30am	JOB FINISH 2:00am
LEASE Schroeder	WELL # 1		LOCATION Hoxie N to Rd 80, 1E to R			COUNTY Sheridan	STATE KS
OLD OR NEW (Circle one)			10, 2N to Rd 100, 1/2E, N into				

CONTRACTOR Murfin 7
TYPE OF JOB Surface
HOLE SIZE 12¼ T.D. 346'
CASING SIZE 8 5/8 DEPTH 346'
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG. 15
PERFS.
DISPLACEMENT 21 661 H2O

OWNER Same

CEMENT
AMOUNT ORDERED 250 sks Com 3% CC

EQUIPMENT

PUMP TRUCK # 422 CEMENTER Paul Beaver
HELPER Wayne Meghghy
BULK TRUCK # 891/287 DRIVER Monty Phillips
BULK TRUCK # DRIVER

COMMON	250sks	@ 17.90	4475.00
POZMIX		@	
GEL		@	
CHLORIDE	705#	@ 1.10	775.50
ASC		@	
		@	
		@	
		@	
		@	
		@	
		@	
		@	
		@	
		TOTAL	4,950.50
		DISCOUNT 50%	2475.25

REMARKS:

Mix 250 sks
Displace w/ water
cement did circ
0 mix in cellar only
plug down @ 1345 a.m.
Thank You
Paul + Crew

SERVICE

HANDLING	262.50 sks	@ 2.48	651.00
MILEAGE	12.10 tons x 40mi	x 2.75	1331.00
DEPTH OF JOB	346'		
PUMP TRUCK CHARGE			1512.25
EXTRA FOOTAGE		@	
HV MILEAGE	40	@ 7.70	308.00
LV MILEAGE	40	@ 4.40	176.00
Sludge		@	N/C
		@	
		TOTAL	3,978.25
		DISCOUNT 50%	1989.12

CHARGE TO: Sue maur Exploration
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

		@	
		@	
		@	
		@	
		@	
		TOTAL	
		DISCOUNT %	

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 Bill Schmidt
SIGNATURE Bill Schmidt

SALES TAX (If Any)
TOTAL CHARGES 8,928.75
DISCOUNT 4,464.37 (50%) IF PAID IN 30 DAYS
NET TOTAL 4,464.37 IF PAID IN 30 DAYS

Bid