



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1201806
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: _____

1201806

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

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

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

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

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

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

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

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

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

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

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

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

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

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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Norstar Petroleum, Inc.
Well Name	Hag-Hoff 1-33
Doc ID	1201806

Tops

Name	Top	Datum
Anhydrite	2876	+490
Topeka	4056	-690
Heebner	4198	-832
Toronto	4220	-854
Lansing	4236	-870
Stark Shale	4463	-1097
Pawnee	4664	-1298
Ft. Scott	4692	-1326
Cherokee Shale	4711	-1345
Johnson	4790	-1424
Mississippi	4900	-1534

JOB LOG

SWIFT Services, Inc.

DATE 1-31-14 PAGE NO.

CUSTOMER *Norstar Ret.* WELL NO. *1-33* LEASE *Hag Hull* JOB TYPE *5 1/2 long string* TICKET NO. *25283*

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	<i>1830</i>							<i>on location</i>
								<i>TD 4950 SJ 42.12</i>
								<i>TP 4959.28 Inset 4917.16</i>
								<i>PC top SI 2872' 5 1/2 x 14#</i>
								<i>centralizers 1, 4, 6, 8, 10, 12, 14, 16, 18, 50, 52</i>
								<i>Baskets 15, 51</i>
	<i>2230</i>							<i>Start Pipe</i>
	<i>0050</i>							<i>Drop Ball circulate Rotate</i>
	<i>0150</i>		<i>7</i>					<i>Plug BH 30 sks</i>
	<i>0200</i>	<i>5</i>	<i>12</i>			<i>300</i>		<i>Start Mud flush</i>
		<i>5</i>	<i>20</i>			<i>300</i>		<i>Start KCL flush</i>
	<i>0215</i>	<i>5</i>	<i>47</i>			<i>300</i>		<i>Start cement 195 sks</i>
	<i>0233</i>							<i>Drop Plug wash out Pump + Lines</i>
	<i>0236</i>	<i>6</i>						<i>Start D.3placement</i>
	<i>0300</i>		<i>119.9</i>			<i>1100 / 1500</i>		<i>land Plug Didnt see land</i>
								<i>Release Dry</i>
								<i>wash up back up</i>
	<i>0400</i>							<i>Job complete thanks you Josh, Brian, Bob</i>

JOB LOG

SWIFT Services, Inc.

DATE 2-10-14 PAGE NO. 1

CUSTOMER Northstar Petroleum WELL NO. 1-33 LEASE Hag-Hoff JOB TYPE Cement P.C. TICKET NO. 25378

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0930							DN loc.
								Rig won't start
	11:00							Call Meck-
	1415							Meck - Rig running
								Set up Ttk
	1430		6				1000	Tk P.C closed @ 2072'
								Maybe slow leak-
		3	3				600	Open P.C. - inj rate - Block
							C	Hook to 2 3/8" Hgs.
		3	3			600	C	start H ₂ O
								start SMD - cut
		3	15			8000		Have circulation
		3	170					Cut cir - 300 SKS @ 11.2#/gal
								Tail in 25 SKS @ 14#/gal
			184/10					Fin cut - Displ 10 BBL H ₂ O
							1000	Close P.C. + tst.
							900	Not holding
							800	open/close/tst/open/close/tst
		4	3				900	still not holding
								cut not coming out of Ann
								Release psi - not allowing back
								Run to Jts.
								Rev-out 30 BBL - 1 Alg.
								and clean @ 15
								Job complete
								Rig pull + bg / tool
	1730							Wash up Ttk
								Thanks Alan, Jon & Craig
								300 SKS SMD @ 11.2#/gal - CIR
								25 SKS SMD @ 14#/gal - Tech
								325 SKS Total used



CONSOLIDATED
Oil Well Services, LLC

265557

TICKET NUMBER 38188

LOCATION Oakley KS

FOREMAN Miller Shaw

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT
CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
1-22-14	5734	Hag-Hoff # 1-33	33	95	35W	Thomas
CUSTOMER		Winona #6 N to R/G DW No E into	TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS			5887129	Jordan L / Jeremy R		
CITY			566	Steven O		
STATE	ZIP CODE					

JOB TYPE Surface HOLE SIZE 12 1/4" HOLE DEPTH 308 CASING SIZE & WEIGHT 8 7/8 23 1/2#
 CASING DEPTH 308 DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 14.8 SLURRY VOL 1.36 WATER gal/sk _____ CEMENT LEFT in CASING _____
 DISPLACEMENT 18 bbls DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety meeting and rig upon W/D drilling rig #8 Circulate casing
mix 200 S/S Class A Cement with 38 calcium chloride gel displace 18 bbls water
Shut in Cement did Circulate 4 bbls top it

Thanks M/S & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
54015	1	PUMP CHARGE	1150.00	1150.00 ✓
5406	35	MILEAGE	5.25	183.75 ✓
5407	9.4 Tons	Ton Mileage delivery	1.75	575.75 ✓
1102	564 #	Calcium Chloride	1.94	530.16 ✓
11045	200 S/S	Class A Cement	18.55	3710.00 ✓
11183	376 #	Bentonite gel	127	101.52 ✓
			Subtotal	6251.18
			less 108 dis count	6143.12 ✓
			Subtotal	5626.06
			SALES TAX	279.40 ✓
			ESTIMATED TOTAL	5905.46 ✓

completed

Ravin 3737

AUTHORIZATION [Signature]

TITLE _____

DATE _____

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.



DRILL STEM TEST REPORT

Prepared For: **Norstar Petroleum, Inc.**

88 Inverness CIR E. Unit F104
Englewood, CO 80112

ATTN: Bob Elder

Hag-Hoff #1-33

33-9s-35w Thomas,KS

Start Date: 2014.01.27 @ 06:27:00

End Date: 2014.01.27 @ 14:26:00

Job Ticket #: 56713 DST #: 1

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

Printed: 2014.02.04 @ 11:45:21



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Norstar Petroleum, Inc.

33-9s-35w Thomas,KS

88 Inverness CIR E. Unit F104
Englewood, CO 80112

Hag-Hoff #1-33

Job Ticket: 56713

DST#: 1

ATTN: Bob Elder

Test Start: 2014.01.27 @ 06:27:00

GENERAL INFORMATION:

Formation: **LKC " H "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:27:00

Time Test Ended: 14:26:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Sam Esparza

Unit No: 71

Interval: 4374.00 ft (KB) To 4412.00 ft (KB) (TVD)

Reference Elevations: 3366.00 ft (KB)

Total Depth: 4412.00 ft (KB) (TVD)

3361.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8845 Outside

Press@RunDepth: 151.96 psig @ 4375.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.01.27

End Date:

2014.01.27

Last Calib.:

2014.01.27

Start Time: 06:27:05

End Time:

14:25:59

Time On Btm:

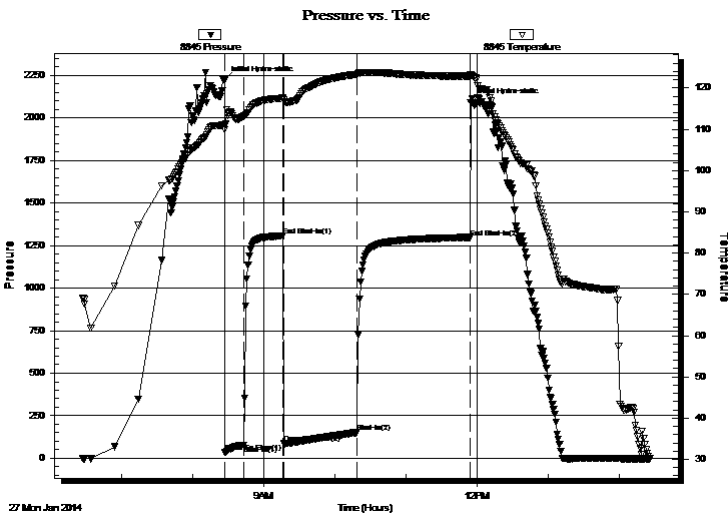
2014.01.27 @ 08:26:45

Time Off Btm:

2014.01.27 @ 11:54:45

TEST COMMENT: IF: 6" Blow.
IS: No Return.
FF: BOB @ 30 min.
FS: No Return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2222.15	111.11	Initial Hydro-static
1	34.47	109.88	Open To Flow (1)
17	77.83	113.18	Shut-In(1)
50	1306.80	117.53	End Shut-In(1)
50	85.67	117.06	Open To Flow (2)
112	151.96	123.32	Shut-In(2)
208	1298.05	122.80	End Shut-In(2)
208	2091.26	123.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	GOMCW 5g 5o 10m 80w	0.59
60.00	GOMCW 5g 10o 25m 60w	0.81
60.00	GOCM 5g 35o 60m	0.84
55.00	GO 10g 90o	0.77

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Norstar Petroleum, Inc.
 88 Inverness CIR E. Unit F104
 Englewood, CO 80112
 ATTN: Bob Elder

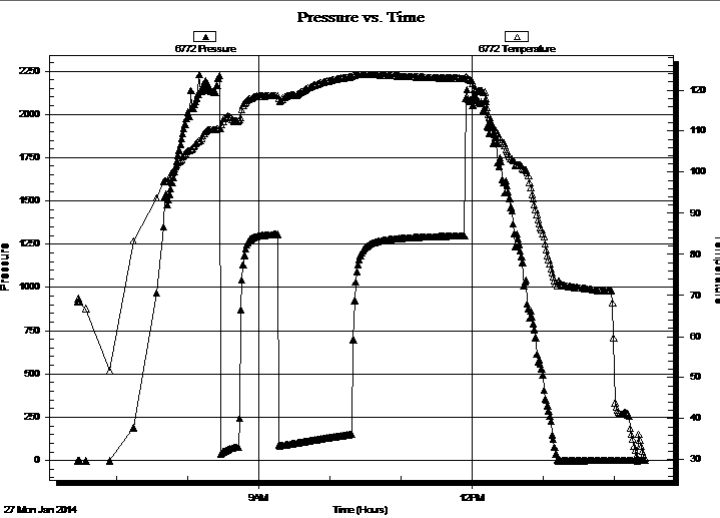
33-9s-35w Thomas,KS
Hag-Hoff #1-33
 Job Ticket: 56713 **DST#: 1**
 Test Start: 2014.01.27 @ 06:27:00

GENERAL INFORMATION:

Formation: **LKC "H"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 08:27:00
 Time Test Ended: 14:26:00
Interval: 4374.00 ft (KB) To 4412.00 ft (KB) (TVD)
 Total Depth: 4412.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Reference Elevations: 3366.00 ft (KB)
 3361.00 ft (CF)
 KB to GR/CF: 5.00 ft
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Sam Esparza
 Unit No: 71

Serial #: 6772 Outside
 Press@RunDepth: psig @ 4375.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.01.27 End Date: 2014.01.27 Last Calib.: 2014.01.27
 Start Time: 06:27:05 End Time: 14:25:59 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: 6" Blow.
 IS: No Return.
 FF: BOB @ 30 min.
 FS: No Return.



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

Recovery		
Length (ft)	Description	Volume (bbl)
120.00	GOMCW 5g 5o 10m 80w	0.59
60.00	GOMCW 5g 10o 25m 60w	0.81
60.00	GOCM 5g 35o 60m	0.84
55.00	GO 10g 90o	0.77

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Norstar Petroleum, Inc.

33-9s-35w Thomas,KS

88 Inverness CIR E. Unit F104
Englewood, CO 80112

Hag-Hoff #1-33

Job Ticket: 56713

DST#: 1

ATTN: Bob Elder

Test Start: 2014.01.27 @ 06:27:00

Tool Information

Drill Pipe:	Length: 4253.00 ft	Diameter: 3.80 inches	Volume: 59.66 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	95000.00 lb
			<u>Total Volume: 60.26 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	54000.00 lb
Depth to Top Packer:	4374.00 ft			Final	58000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	38.00 ft				
Tool Length:	66.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

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

Change Over Sub	1.00			4347.00	
Shut In Tool	5.00			4352.00	
Hydraulic tool	5.00			4357.00	
Jars	5.00			4362.00	
Safety Joint	3.00			4365.00	
Packer	5.00			4370.00	28.00 Bottom Of Top Packer
Packer	4.00			4374.00	
Stubb	1.00			4375.00	
Recorder	0.00	6772	Outside	4375.00	
Recorder	0.00	8845	Outside	4375.00	
Perforations	32.00			4407.00	
Bullnose	5.00			4412.00	38.00 Bottom Packers & Anchor

Total Tool Length: 66.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Norstar Petroleum, Inc.

33-9s-35w Thomas,KS

88 Inverness CIR E. Unit F104
Englewood, CO 80112

Hag-Hoff #1-33

Job Ticket: 56713

DST#: 1

ATTN: Bob Elder

Test Start: 2014.01.27 @ 06:27:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

24 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

64000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.58 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
120.00	GOMCW 5g 5o 10m 80w	0.590
60.00	GOMCW 5g 10o 25m 60w	0.814
60.00	GOCM 5g 35o 60m	0.842
55.00	GO 10g 90o	0.772

Total Length: 295.00 ft Total Volume: 3.018 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Oil API: 22 @ 40 degrees= 24deg API

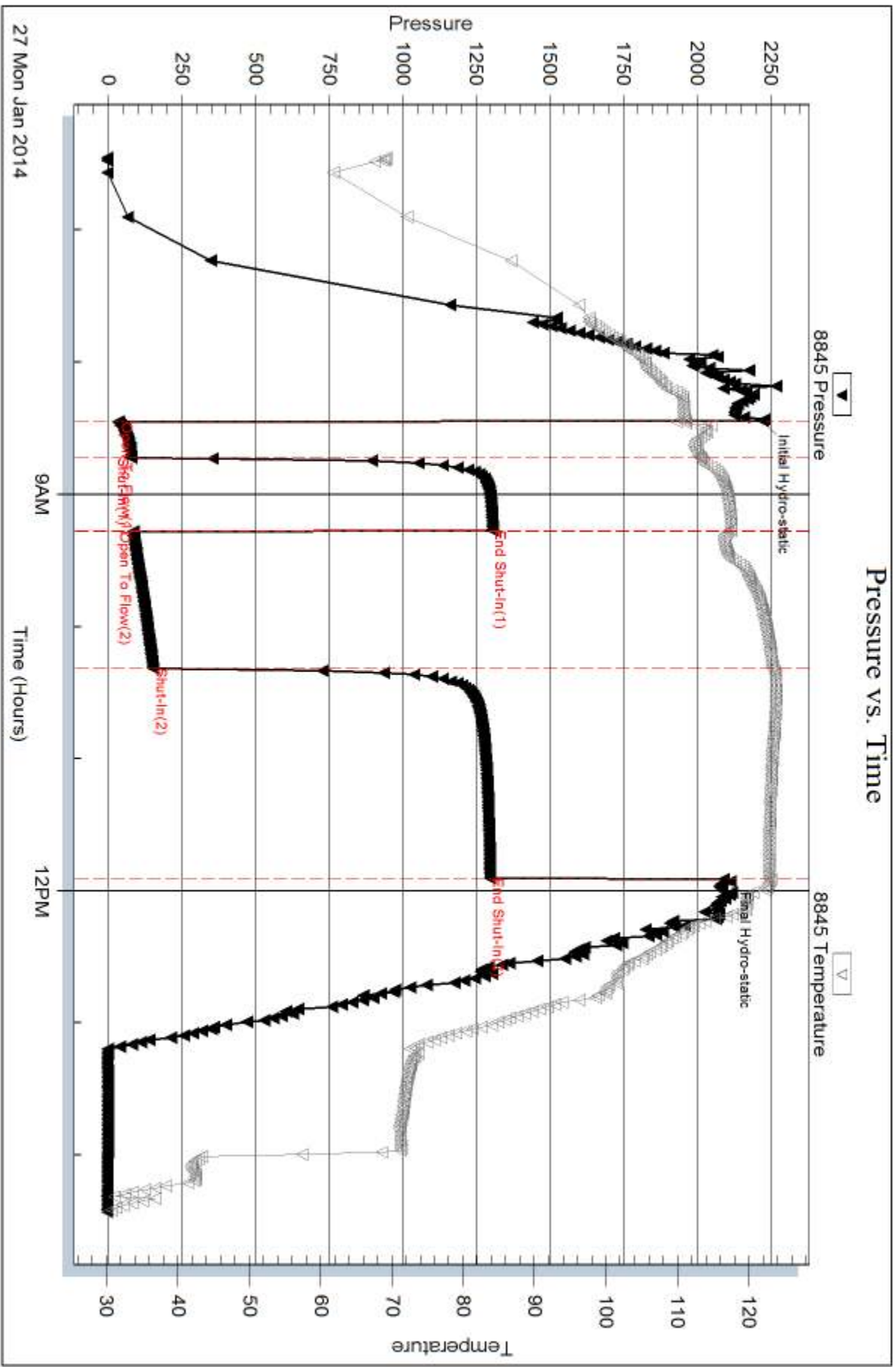
Water Salinity: .262 @ 30 degrees= 64,000 ppm

Serial #: 8845

Outside Norstar Petroleum, Inc.

Hag-Hoff #1-33

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 56713

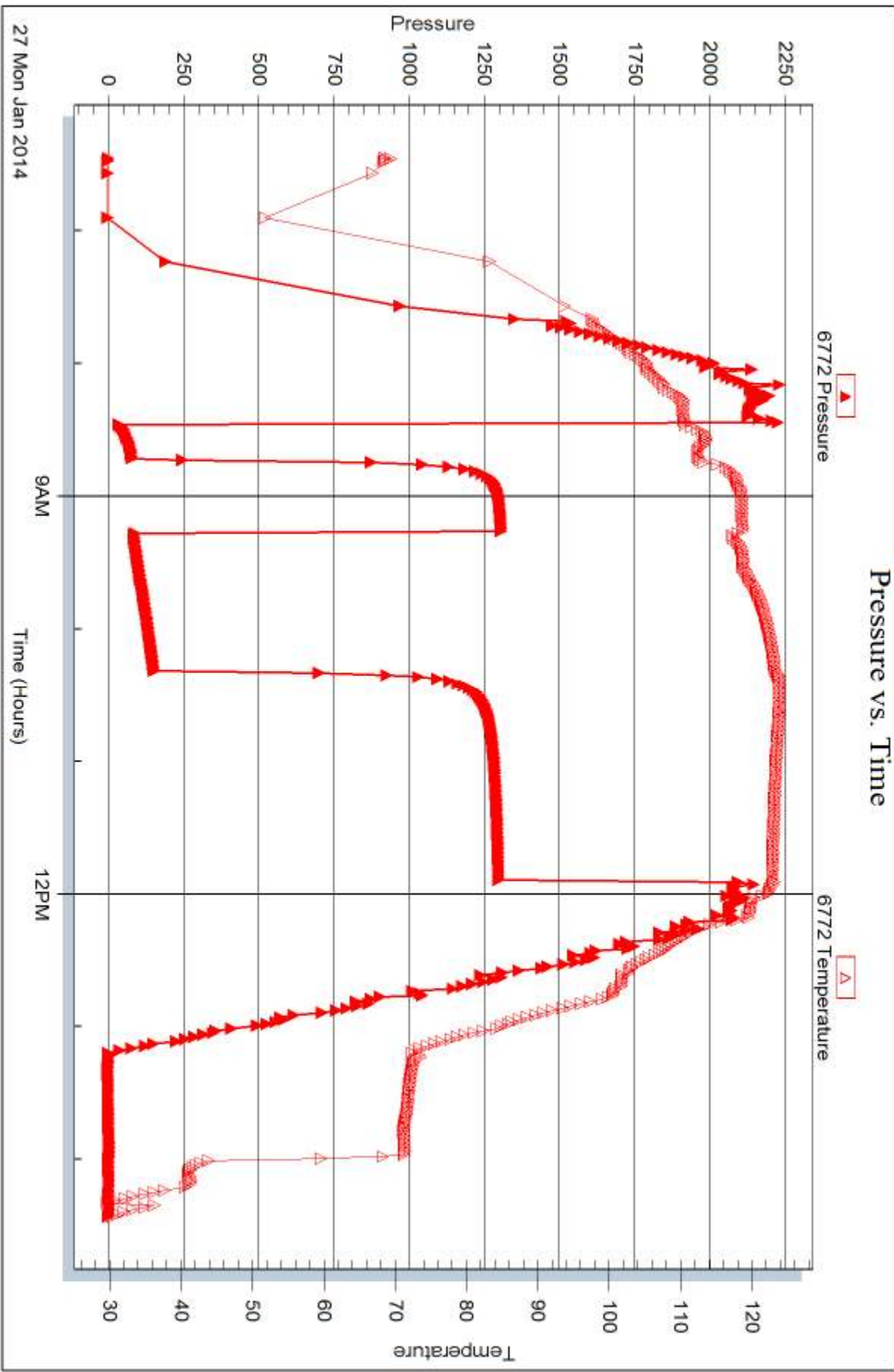
Printed: 2014.02.04 @ 11:45:23

Serial #: 6772

Outside Norstar Petroleum, Inc.

Hag-Hoff #1-33

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 56713

Printed: 2014.02.04 @ 11:45:23



DRILL STEM TEST REPORT

Prepared For: **Norstar Petroleum, Inc.**

88 Inverness CIR E. Unit F104
Englewood, CO 80112

ATTN: Bob Elder

Hag-Hoff #1-33

33-9s-35w Thomas,KS

Start Date: 2014.01.27 @ 23:53:00

End Date: 2014.01.28 @ 07:49:15

Job Ticket #: 56714 DST #: 2

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

Printed: 2014.02.04 @ 11:44:46

Norstar Petroleum, Inc. 33-9s-35w Thomas,KS Hag-Hoff #1-33 DST # 2 LKC "I & J" 2014.01.27



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Norstar Petroleum, Inc.

33-9s-35w Thomas,KS

88 Inverness CIR E. Unit F104
Englewood, CO 80112

Hag-Hoff #1-33

Job Ticket: 56714

DST#: 2

ATTN: Bob Elder

Test Start: 2014.01.27 @ 23:53:00

GENERAL INFORMATION:

Formation: **LKC "I & J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:49:15

Time Test Ended: 07:49:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Sam Esparza

Unit No: 71

Interval: 4408.00 ft (KB) To 4456.00 ft (KB) (TVD)

Reference Elevations: 3366.00 ft (KB)

Total Depth: 4456.00 ft (KB) (TVD)

3361.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8845 Outside

Press@RunDepth: 106.42 psig @ 4409.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.01.27

End Date:

2014.01.28

Last Calib.:

2014.01.28

Start Time: 23:53:05

End Time:

07:49:14

Time On Btm:

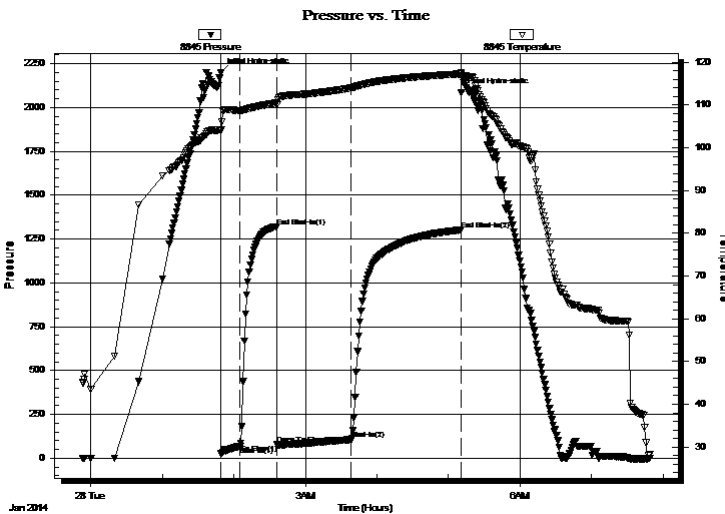
2014.01.28 @ 01:49:00

Time Off Btm:

2014.01.28 @ 05:10:45

TEST COMMENT: IF: 5 1/2" Blow.
IS: Weak Surface Return.
FF: BOB @ 32 min.
FS: 1/4" Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2198.91	104.33	Initial Hydro-static
1	26.24	104.11	Open To Flow (1)
17	69.95	108.68	Shut-In(1)
47	1320.95	110.49	End Shut-In(1)
48	77.76	110.14	Open To Flow (2)
110	106.42	113.98	Shut-In(2)
202	1301.54	117.27	End Shut-In(2)
202	2085.30	117.64	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	GO 15g 85o	0.44
120.00	GOCM 10g 30o 60m	1.38
0.00	120' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Norstar Petroleum, Inc.
 88 Inverness CIR E. Unit F104
 Englewood, CO 80112
 ATTN: Bob Elder

33-9s-35w Thomas, KS

Hag-Hoff #1-33

Job Ticket: 56714

DST#: 2

Test Start: 2014.01.27 @ 23:53:00

GENERAL INFORMATION:

Formation: **LKC " I & J "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:49:15

Time Test Ended: 07:49:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Sam Esparza

Unit No: 71

Interval: 4408.00 ft (KB) To 4456.00 ft (KB) (TVD)

Total Depth: 4456.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3366.00 ft (KB)

3361.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6772 Inside

Press@RunDepth: psig @ 4409.00 ft (KB)

Start Date: 2014.01.27

End Date:

2014.01.28

Start Time: 23:53:05

End Time:

07:49:29

Capacity: 8000.00 psig

Last Calib.:

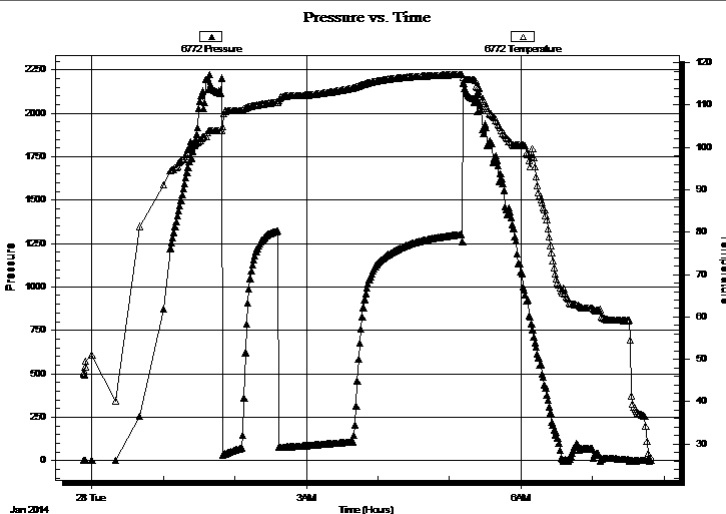
2014.01.28

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: 5 1/2" Blow .
 IS: Weak Surface Return.
 FF: BOB @ 32 min.
 FS: 1/4" Return

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
90.00	GO 15g 85o	0.44
120.00	GOCM 10g 30o 60m	1.38
0.00	120' GIP	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Norstar Petroleum, Inc.

33-9s-35w Thomas,KS

88 Inverness CIR E. Unit F104
Englewood, CO 80112

Hag-Hoff #1-33

Job Ticket: 56714

DST#: 2

ATTN: Bob Elder

Test Start: 2014.01.27 @ 23:53:00

Tool Information

Drill Pipe:	Length: 4283.00 ft	Diameter: 3.80 inches	Volume: 60.08 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 60.68 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	4408.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	48.00 ft			
Tool Length:	76.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4381.00	
Shut In Tool	5.00			4386.00	
Hydraulic tool	5.00		Inside	4391.00	
Jars	5.00			4396.00	
Safety Joint	3.00			4399.00	
Packer	5.00			4404.00	28.00 Bottom Of Top Packer
Packer	4.00			4408.00	
Stubb	1.00			4409.00	
Recorder	0.00	6772	Inside	4409.00	
Recorder	0.00	8845	Outside	4409.00	
Perforations	9.00			4418.00	
Change Over Sub	1.00			4419.00	
Drill Pipe	31.00			4450.00	
Change Over Sub	1.00			4451.00	
Bullnose	5.00			4456.00	48.00 Bottom Packers & Anchor

Total Tool Length: 76.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Norstar Petroleum, Inc.

33-9s-35w Thomas,KS

88 Inverness CIR E. Unit F104
Englewood, CO 80112

Hag-Hoff #1-33

Job Ticket: 56714

DST#: 2

ATTN: Bob Elder

Test Start: 2014.01.27 @ 23:53:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

25 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 9900.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
90.00	GO 15g 85o	0.443
120.00	GOCM 10g 30o 60m	1.383
0.00	120' GIP	0.000

Total Length: 210.00 ft Total Volume: 1.826 bbl

Num Fluid Samples: 0

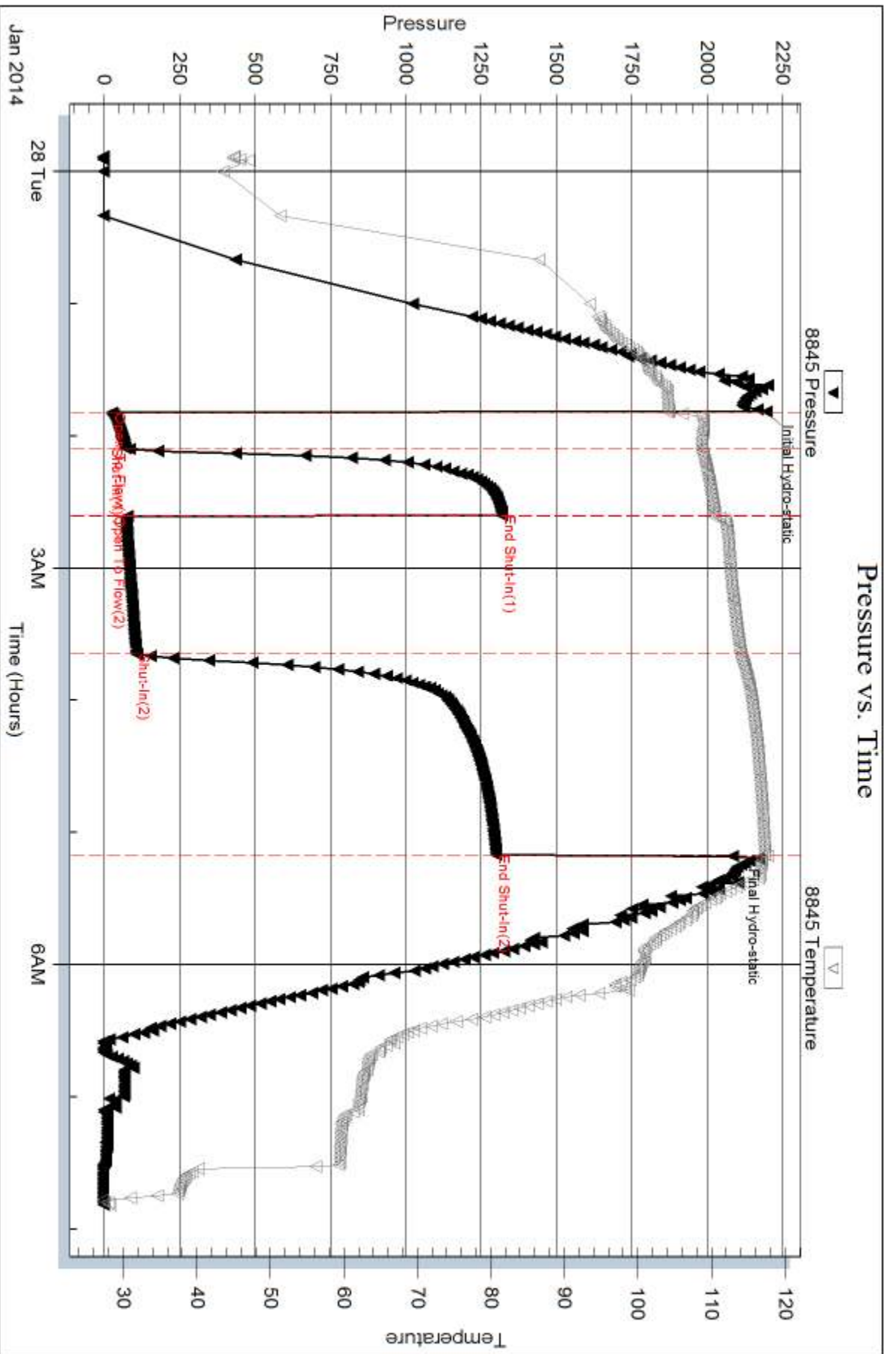
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Oil API: 22 @ 30 degrees= 25 deg API



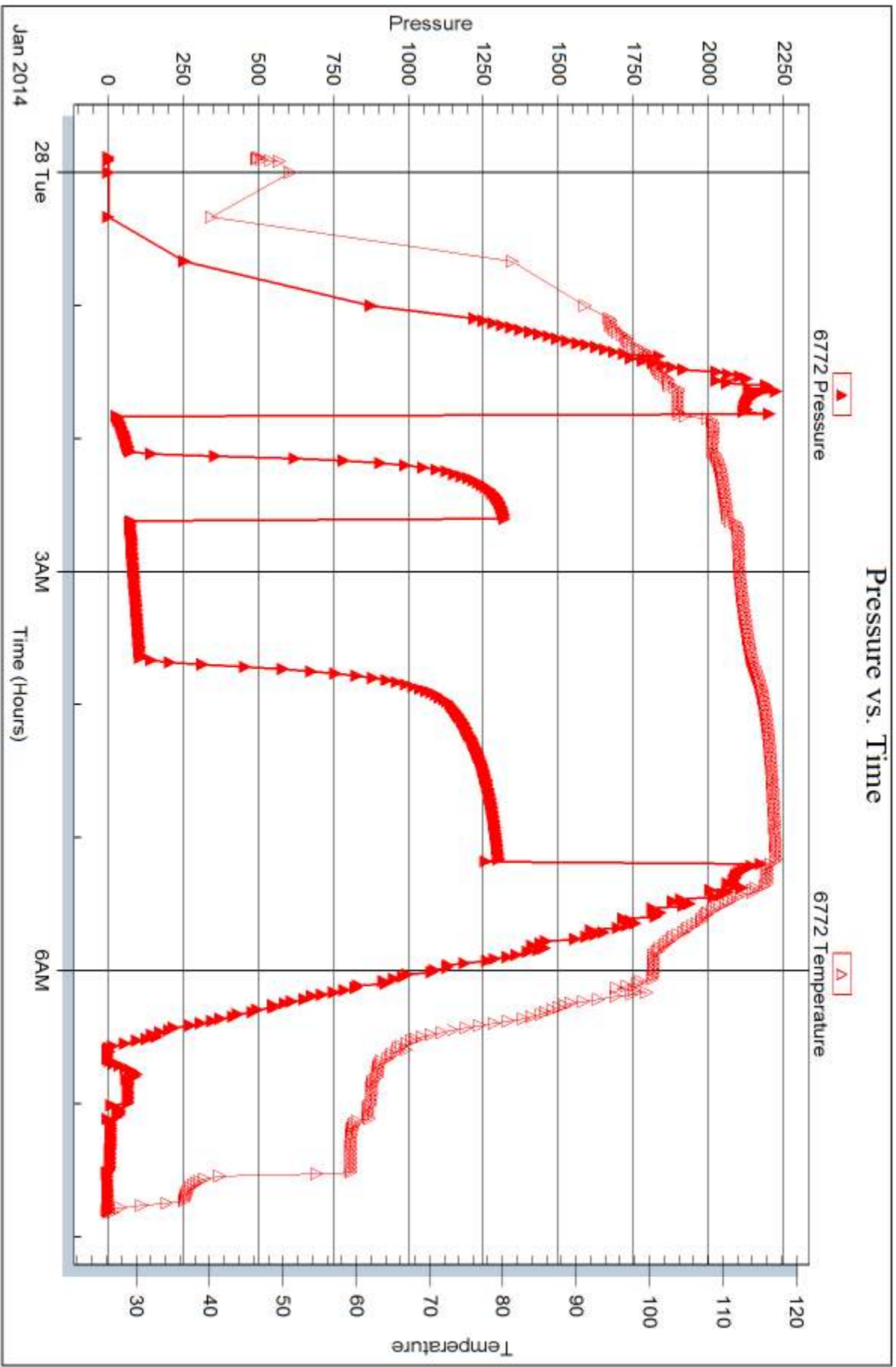
Serial #: 6772

Inside

Norstar Petroleum, Inc.

Hag-Hoff #1-33

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 56714

Printed: 2014.02.04 @ 11:44:49



DRILL STEM TEST REPORT

Prepared For: **Norstar Petroleum, Inc.**

88 Inverness CIR E. Unit F104
Englewood, CO 80112

ATTN: Bob Elder

Hag-Hoff #1-33

33-9s-35w Thomas,KS

Start Date: 2014.01.28 @ 15:22:00

End Date: 2014.01.28 @ 21:50:30

Job Ticket #: 56715 DST #: 3

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

Printed: 2014.02.04 @ 11:44:23



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Norstar Petroleum, Inc.
 88 Inverness CIR E. Unit F104
 Englewood, CO 80112
 ATTN: Bob Elder

33-9s-35w Thomas,KS
Hag-Hoff #1-33
 Job Ticket: 56715 **DST#: 3**
 Test Start: 2014.01.28 @ 15:22:00

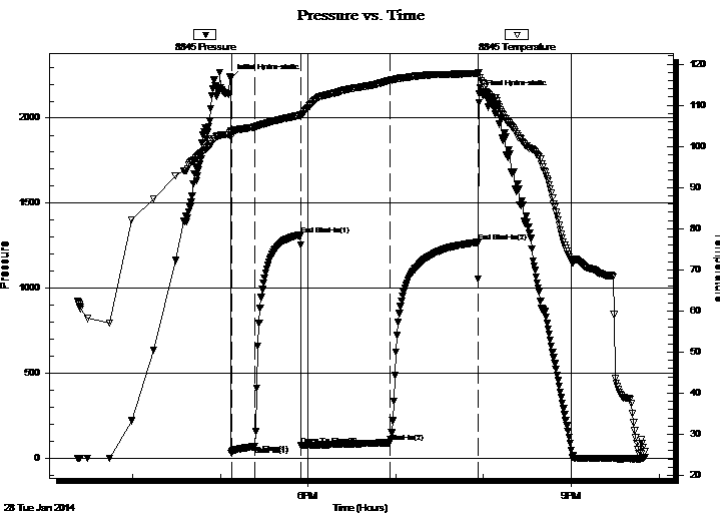
GENERAL INFORMATION:

Formation: **LKC " K "**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 17:07:15 Tester: Sam Esparza
 Time Test Ended: 21:50:30 Unit No: 71
 Interval: **4460.00 ft (KB) To 4490.00 ft (KB) (TVD)** Reference Elevations: 3366.00 ft (KB)
 Total Depth: 4490.00 ft (KB) (TVD) 3361.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

Serial #: 8845 Outside

Press@RunDepth: 90.99 psig @ 4461.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.01.28 End Date: 2014.01.28 Last Calib.: 2014.01.28
 Start Time: 15:22:05 End Time: 21:50:29 Time On Btm: 2014.01.28 @ 17:07:00
 Time Off Btm: 2014.01.28 @ 19:56:45

TEST COMMENT: IF: 2 3/4" Blow .
 IS: No Return.
 FF: 5 1/4" Blow .
 FS: Weak Surface Return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2232.10	103.69	Initial Hydro-static
1	30.21	102.40	Open To Flow (1)
17	67.97	104.73	Shut-In(1)
48	1312.75	107.57	End Shut-In(1)
48	76.32	107.34	Open To Flow (2)
109	90.99	116.02	Shut-In(2)
169	1269.84	117.72	End Shut-In(2)
170	2141.52	117.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	GOWCM 5g 10o 20w 65m	0.59
30.00	GOCM 5g 20o 75m	0.39
10.00	GO 5g 95o	0.14

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Norstar Petroleum, Inc.

33-9s-35w Thomas, KS

88 Inverness CIR E Unit F104
Englewood, CO 80112

Hag-Hoff #1-33

Job Ticket: 56715

DST#: 3

ATTN: Bob Elder

Test Start: 2014.01.28 @ 15:22:00

GENERAL INFORMATION:

Formation: **LKC " K "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:07:15

Time Test Ended: 21:50:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Sam Esparza

Unit No: 71

Interval: 4460.00 ft (KB) To 4490.00 ft (KB) (TVD)

Reference Elevations: 3366.00 ft (KB)

Total Depth: 4490.00 ft (KB) (TVD)

3361.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 6772 Outside

Press@RunDepth: psig @ 4461.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.01.28

End Date: 2014.01.28

Last Calib.: 2014.01.28

Start Time: 15:22:05

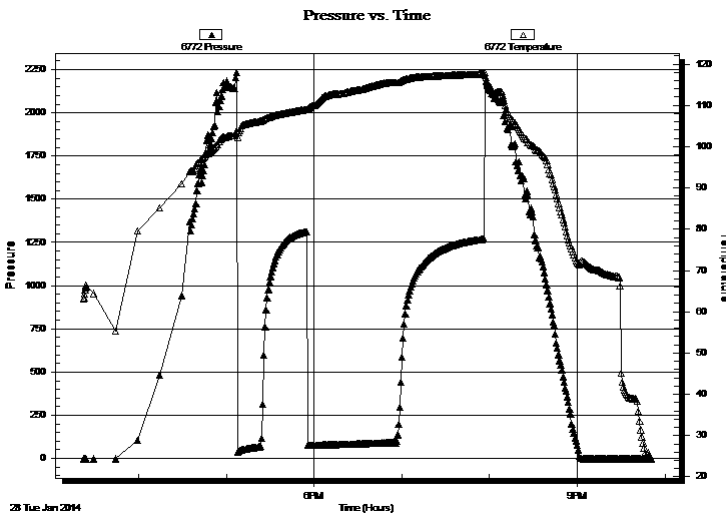
End Time: 21:50:44

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: 2 3/4" Blow .
IS: No Return.
FF: 5 1/4" Blow .
FS: Weak Surface Return.

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
120.00	GOWCM 5g 10o 20w 65m	0.59
30.00	GOCM 5g 20o 75m	0.39
10.00	GO 5g 95o	0.14

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Norstar Petroleum, Inc.

33-9s-35w Thomas,KS

88 Inverness CIR E. Unit F104
Englewood, CO 80112

Hag-Hoff #1-33

Job Ticket: 56715

DST#: 3

ATTN: Bob Elder

Test Start: 2014.01.28 @ 15:22:00

Tool Information

Drill Pipe:	Length: 4314.00 ft	Diameter: 3.80 inches	Volume: 60.51 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 61.11 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	4460.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	58.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4433.00	
Shut In Tool	5.00			4438.00	
Hydraulic tool	5.00			4443.00	
Jars	5.00			4448.00	
Safety Joint	3.00			4451.00	
Packer	5.00			4456.00	28.00 Bottom Of Top Packer
Packer	4.00			4460.00	
Stubb	1.00			4461.00	
Recorder	0.00	6772	Outside	4461.00	
Recorder	0.00	8845	Outside	4461.00	
Perforations	24.00			4485.00	
Bullnose	5.00			4490.00	30.00 Bottom Packers & Anchor

Total Tool Length: 58.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Norstar Petroleum, Inc.

33-9s-35w Thomas,KS

88 Inverness CIR E. Unit F104
Englewood, CO 80112

Hag-Hoff #1-33

Job Ticket: 56715

DST#: 3

ATTN: Bob Elder

Test Start: 2014.01.28 @ 15:22:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 9000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	GOWCM 5g 10o 20w 65m	0.590
30.00	GOCM 5g 20o 75m	0.393
10.00	GO 5g 95o	0.140

Total Length: 160.00 ft Total Volume: 1.123 bbl

Num Fluid Samples: 0

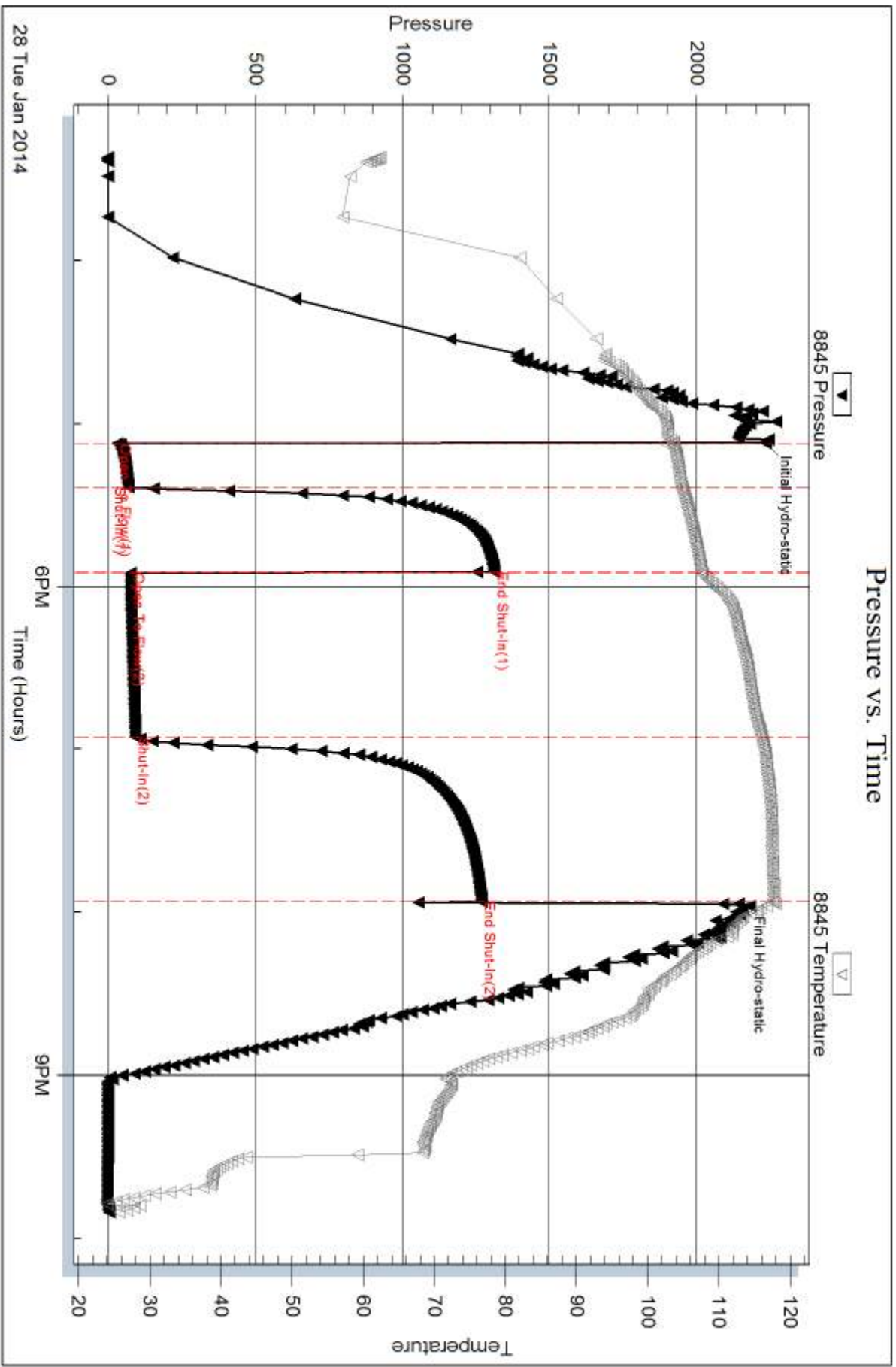
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Oil API: 29 @ 30 degrees= 32 deg API

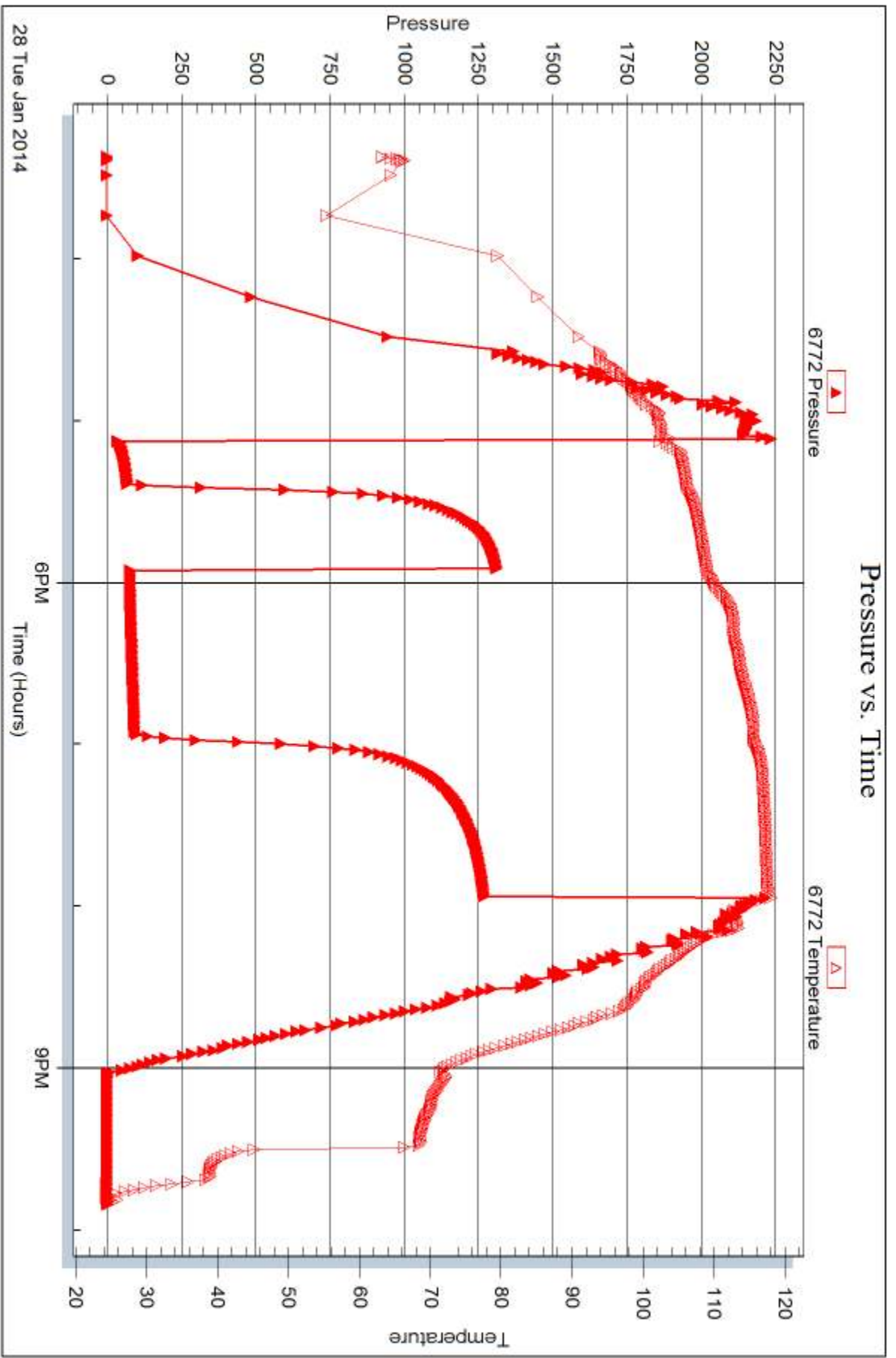


Serial #: 6772

Outside Norstar Petroleum, Inc.

Hag-Hoff #1-33

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 56715

Printed: 2014.02.04 @ 11:44:26



DRILL STEM TEST REPORT

Prepared For: **Norstar Petroleum, Inc.**

88 Inverness CIR E. Unit F104
Englewood, CO 80112

ATTN: Bob Elder

Hag-Hoff #1-33

33-9s-35w Thomas,KS

Start Date: 2014.01.30 @ 06:58:00

End Date: 2014.01.30 @ 13:08:45

Job Ticket #: 56716 DST #: 4

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

Printed: 2014.02.04 @ 11:43:37



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Norstar Petroleum, Inc.

33-9s-35w Thomas,KS

88 Inverness CIR E. Unit F104
Englewood, CO 80112

Hag-Hoff #1-33

Job Ticket: 56716

DST#: 4

ATTN: Bob Elder

Test Start: 2014.01.30 @ 06:58:00

GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:52:15

Time Test Ended: 13:08:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Sam Esparza

Unit No: 71

Interval: 4745.00 ft (KB) To 4830.00 ft (KB) (TVD)

Reference Elevations: 3366.00 ft (KB)

Total Depth: 4830.00 ft (KB) (TVD)

3361.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8845 Outside

Press@RunDepth: 36.33 psig @ 4746.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.01.30

End Date: 2014.01.30

Last Calib.: 2014.01.30

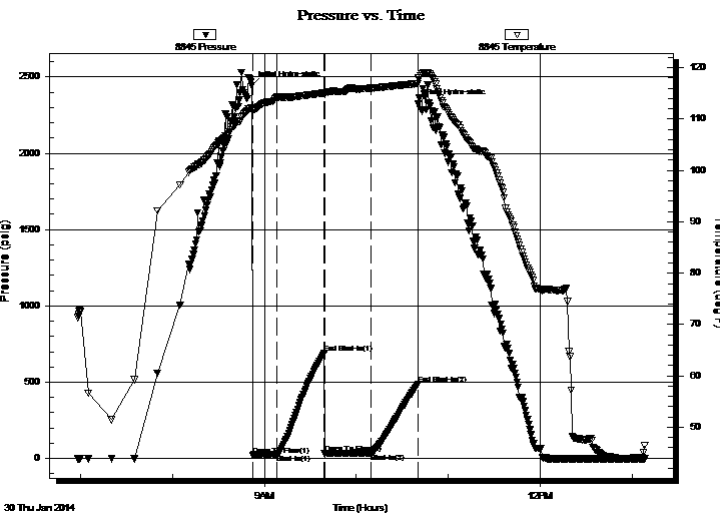
Start Time: 06:58:05

End Time: 13:08:44

Time On Btm: 2014.01.30 @ 08:51:45

Time Off Btm: 2014.01.30 @ 10:40:30

TEST COMMENT: IF: 1 1/2" Blow .
IS: No Return.
FF: No Blow .
FS: No Return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2443.47	112.25	Initial Hydro-static
1	22.57	111.61	Open To Flow (1)
17	28.59	114.26	Shut-In(1)
48	689.11	115.11	End Shut-In(1)
48	31.19	114.76	Open To Flow (2)
78	36.33	116.02	Shut-In(2)
109	485.76	116.93	End Shut-In(2)
109	2322.92	118.03	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100m (Oil Spots)	0.05

* Recovery from multiple tests

Gas Rates

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



DRILL STEM TEST REPORT

Norstar Petroleum, Inc.

88 Inverness CIR E. Unit F104
Englewood, CO 80112

ATTN: Bob Elder

33-9s-35w Thomas, KS

Hag-Hoff #1-33

Job Ticket: 56716

DST#: 4

Test Start: 2014.01.30 @ 06:58:00

GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:52:15

Time Test Ended: 13:08:45

Interval: **4745.00 ft (KB) To 4830.00 ft (KB) (TVD)**

Total Depth: 4830.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Reset)

Tester: Sam Esparza

Unit No: 71

Reference Elevations: 3366.00 ft (KB)

3361.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: **6772** Inside

Press@RunDepth: psig @ 4746.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.01.30 End Date: 2014.01.30

Last Calib.: 2014.01.30

Start Time: 06:58:05 End Time: 13:08:59

Time On Btm:

Time Off Btm:

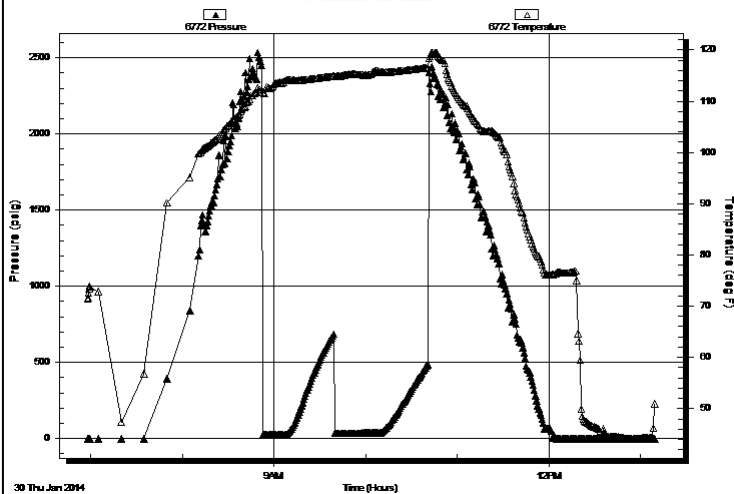
TEST COMMENT: IF: 1 1/2" Blow .

IS: No Return.

FF: No Blow .

FS: No Return.

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100m (Oil Spots)	0.05

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Norstar Petroleum, Inc.

33-9s-35w Thomas,KS

88 Inverness CIR E. Unit F104
Englewood, CO 80112

Hag-Hoff #1-33

Job Ticket: 56716

DST#: 4

ATTN: Bob Elder

Test Start: 2014.01.30 @ 06:58:00

Tool Information

Drill Pipe:	Length: 4599.00 ft	Diameter: 3.80 inches	Volume: 64.51 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 95000.00 lb
			<u>Total Volume: 65.11 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	4745.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	85.00 ft			
Tool Length:	113.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4718.00	
Shut In Tool	5.00			4723.00	
Hydraulic tool	5.00		Inside	4728.00	
Jars	5.00			4733.00	
Safety Joint	3.00			4736.00	
Packer	5.00			4741.00	28.00 Bottom Of Top Packer
Packer	4.00			4745.00	
Stubb	1.00			4746.00	
Recorder	0.00	6772	Inside	4746.00	
Recorder	0.00	8845	Outside	4746.00	
Perforations	14.00			4760.00	
Change Over Sub	1.00			4761.00	
Drill Pipe	63.00			4824.00	
Change Over Sub	1.00			4825.00	
Bullnose	5.00			4830.00	85.00 Bottom Packers & Anchor

Total Tool Length: 113.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Norstar Petroleum, Inc.

33-9s-35w Thomas,KS

88 Inverness CIR E. Unit F104
Englewood, CO 80112

Hag-Hoff #1-33

Job Ticket: 56716

DST#: 4

ATTN: Bob Elder

Test Start: 2014.01.30 @ 06:58:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 12000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud 100m (Oil Spots)	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

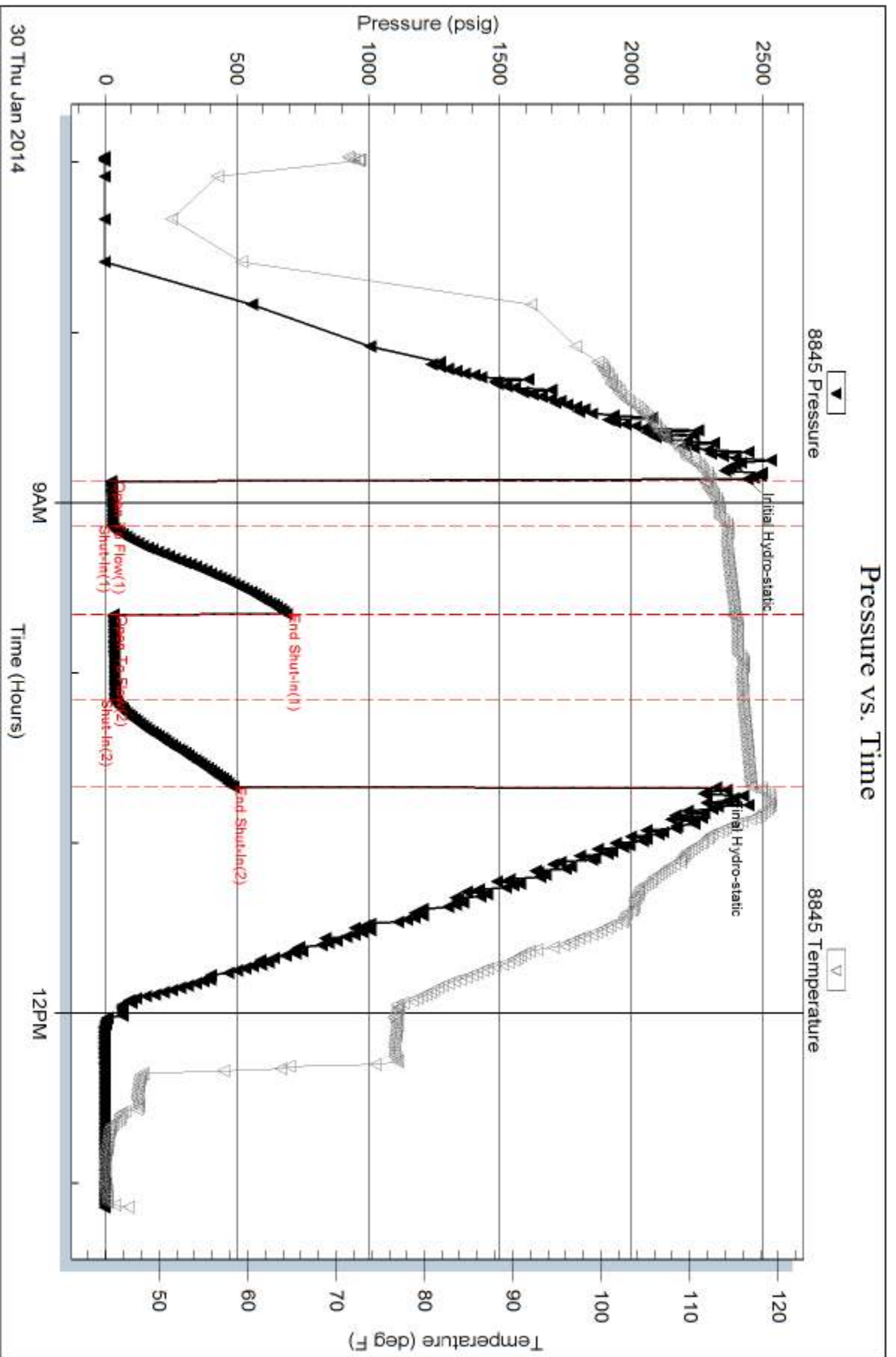
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



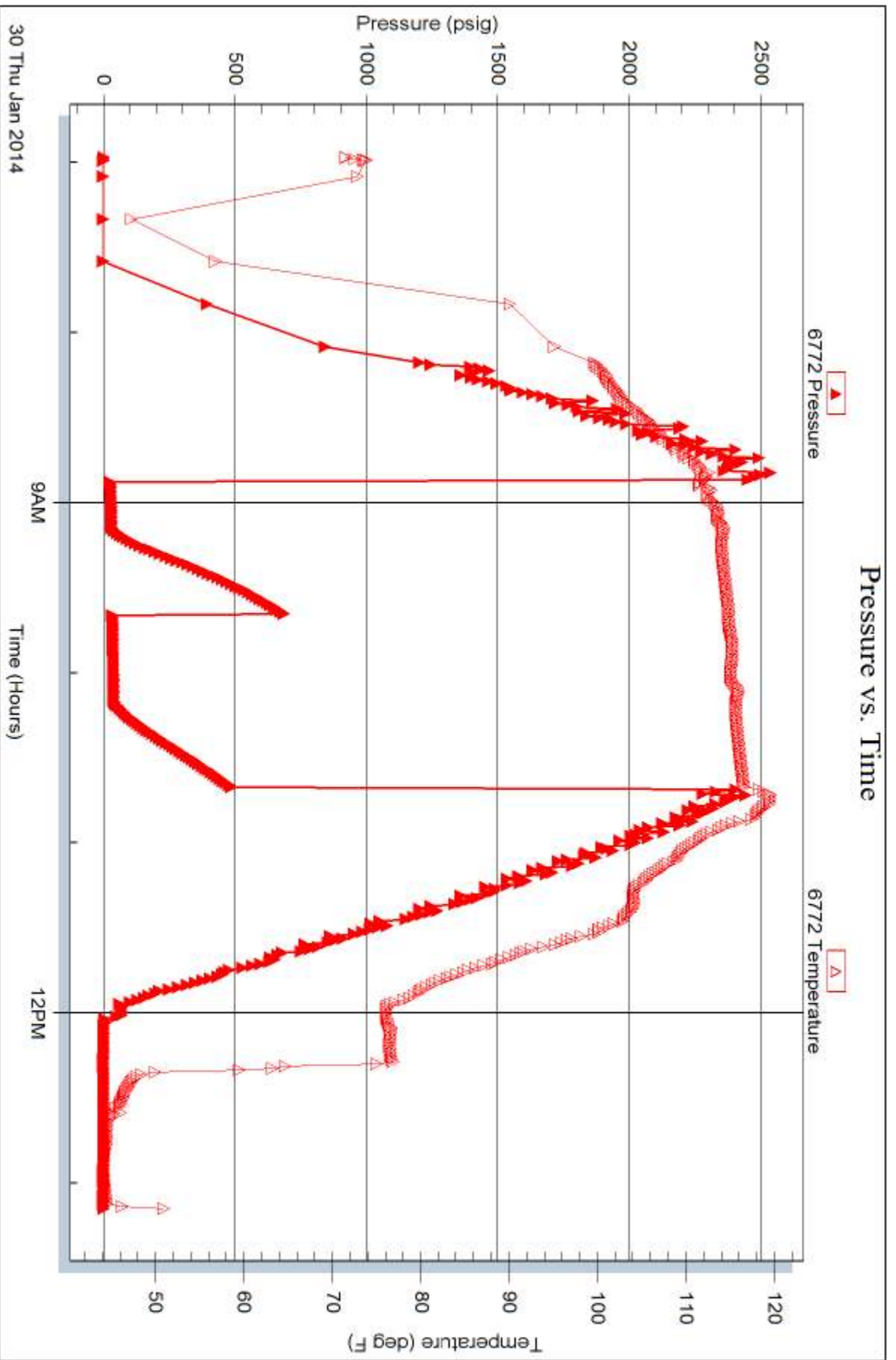
Serial #: 6772

Inside

Norstar Petroleum, Inc.

Hag-Hoff #1-33

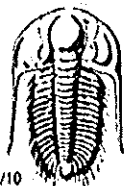
DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 56716

Printed: 2014.02.04 @ 11:43:39



TRIOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56713

Well Name & No. Hag-Hoff #1-33 Test No. 1 Date 1/27/14
 Company Norstar Petroleum, Inc. Elevation 3366 KB 3361 GL
 Address 88 Inverness Cir E. Unit F104 Englewood, CO 80112
 Co. Rep / Geo. Bob Elder Rig WW #8
 Location; Sec. 33 Twp. 9S Rge. 35W Co. Thomas State KS

Interval Tested 4374-4412 Zone Tested LKC "H"
 Anchor Length 38' Drill Pipe Run 4253 Mud Wt. 9.1
 Top Packer Depth 4370 Drill Collars Run 123 Vis 58
 Bottom Packer Depth 4374 Wt. Pipe Run Ø WL 7.6
 Total Depth 4412 Chlorides 8000 ppm System LCM 2

Blow Description IF: 6" Blow.
ISI: No Return.
EF: BOB @ 30 min.
FSI: No Return.

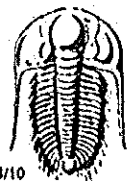
Rec	Foot of	%gas	%oil	%water	%mud
55	90	10	90		
60	60m	5	35		60
60	60msw	5	10	60	25
120	60msw	5	0.5	80	10

Rec Total 293 BHT 123 Gravity 24 API RW 262 @ 30 °F Chlorides 64,000 ppm
 (A) Initial Hydrostatic 222 Test 1250 T-On Location 5:20
 (B) First Initial Flow 34 Jars 250 T-Started 6:27
 (C) First Final Flow 78 Safety Joint 75 T-Open 8:27
 (D) Initial Shut-In 1307 Circ Sub N/C T-Pulled 11:54 *wanted on chiller & pull!*
 (E) Second Initial Flow 86 Hourly Standby T-Out 14:26
 (F) Second Final Flow 152 Mileage 172 R/T 266.60 Comments Gravity: 22 @ 40 = 24
 (G) Final Shut-In 1298 Sampler Stayed in colby, KS
 (H) Final Hydrostatic 2091 Straddle Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies

Initial Open 15 Extra Recorder
 Initial Shut-In 30 Day Standby
 Final Flow 60 Accessibility
 Final Shut-In 90 Sub Total 1841.60
 Sub Total 1841.60 MP/DST Disc't

Approved By [Signature] Our Representative [Signature]

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56714

Well Name & No. Hag-Hoff #1-33 Test No. 2 Date 1/27/14
 Company Norstar Petroleum, Inc. Elevation 3366 KB 3361 GL
 Address 88 Inverness CIR E Unit F104 Englewood, CO 80112
 Co. Rep / Geo. BOB ELDER Rig WW #8
 Location: Sec. 33 Twp. 9S Rge. 35W Co. Thomas State KS

Interval Tested 4408-4456 Zone Tested LKC "I & J"
 Anchor Length 48' Drill Pipe Run 4283' Mud Wt. 9.1
 Top Packer Depth 4104 Drill Collars Run 123 Vis 62
 Bottom Packer Depth 4408 Wt. Pipe Run Ø WL 8.0
 Total Depth 4456 Chlorides 9900 ppm System LCM 2

Blow Description IF: 5 1/2" Blow.
Test: Weak Surface Return.
IF: BOB @ 32 min.
FST: 4" Return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>90</u>	<u>60</u>	<u>15</u>	<u>85</u>		
<u>120</u>	<u>60m</u>	<u>10</u>	<u>30</u>		<u>60</u>
<u>120</u>	<u>G.I.P</u>				

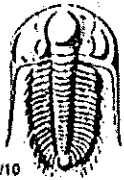
Rec Total 210 BHT 117 Gravity 25 API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic	<u>2199</u>	<input checked="" type="checkbox"/> Test	<u>1250</u>	T-On Location	<u>23:20</u>
(B) First Initial Flow	<u>26</u>	<input checked="" type="checkbox"/> Jars	<u>250</u>	T-Started	<u>23:53</u>
(C) First Final Flow	<u>70</u>	<input checked="" type="checkbox"/> Safety Joint	<u>75</u>	T-Open	<u>1:49</u>
(D) Initial Shut-In	<u>1321</u>	<input checked="" type="checkbox"/> Circ Sub	<u>N/C</u>	T-Pulled	<u>5:10</u>
(E) Second Initial Flow	<u>78</u>	<input type="checkbox"/> Hourly Standby		T-Out	<u>7:49</u>
(F) Second Final Flow	<u>106</u>	<input checked="" type="checkbox"/> Mileage	<u>172 R/T</u> 266.60	Comments	<u>Gravity: 22 @ 30 @ 25</u>
(G) Final Shut-In	<u>1302</u>	<input type="checkbox"/> Sampler			<u>Stayed in colby, KS</u>
(H) Final Hydrostatic	<u>2085</u>	<input type="checkbox"/> Straddle		<input type="checkbox"/> Ruined Shale Packer	

Initial Open	<u>15</u>	<input type="checkbox"/> Shale Packer		<input type="checkbox"/> Ruined Packer	
Initial Shut-In	<u>30</u>	<input type="checkbox"/> Extra Packer		<input type="checkbox"/> Extra Copies	
Final Flow	<u>60</u>	<input type="checkbox"/> Extra Recorder		Sub Total	<u>0</u>
Final Shut-In	<u>90</u>	<input type="checkbox"/> Day Standby		Total	<u>1841.60</u>
		<input type="checkbox"/> Accessibility		MP/DST Disc't	

Approved By Karl Elders Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56715

Well Name & No. Hag-Hoff #1-33 Test No. 3 Date 1/28/14
 Company Norstar Petroleum, Inc. Elevation 3366 KB 3361 GL
 Address 88 Inverness CIR E Unit F104 Englewood, CO 80112
 Co. Rep / Geo. Bob Elder Rig CW #8
 Location: Sec. 33 Twp. 9S Rge. 35W Co. Thomas State KS

Interval Tested 4460-4490 Zone Tested LKC "K"
 Anchor Length 30 Drill Pipe Run 4314 Mud Wt. 9.1
 Top Packer Depth 4456 Drill Collars Run 123 Vis 62
 Bottom Packer Depth 4460 Wt. Pipe Run Ø WL 7.2
 Total Depth 4490 Chlorides 9000 ppm System LCM 2

Blow Description IF: 2 3/4" Blow.
FSD: No Return.
IF: 5 1/4" Blow
FSD: Weak Surface Return.

Rec	Feet of	%gas	%oil	%water	%mud
10	90	5	95		
30	60cm	5	20		75
120	60cm	5	10	20	65

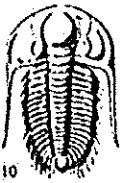
Rec Total 160 BHT 118 Gravity 32 API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>2232</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>14:50</u>
(B) First Initial Flow <u>30</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>15:22</u>
(C) First Final Flow <u>68</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>17:08</u>
(D) Initial Shut-In <u>1313</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>19:58</u>
(E) Second Initial Flow <u>76</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>21:50</u>
(F) Second Final Flow <u>91</u>	<input checked="" type="checkbox"/> Mileage <u>172 RTT</u> 266.60	Comments <u>Gravity: 29 @ 30"</u>
(G) Final Shut-In <u>1270</u>	<input type="checkbox"/> Sampler	<u>32</u>
(H) Final Hydrostatic <u>2142</u>	<input type="checkbox"/> Straddle	<u>Stayed in colby</u>

Initial Open <u>15</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1841.60</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1841.60</u>	

Approved By Bob Elder Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56716

Well Name & No. Hag-Hoff #1-33 Test No. 4 Date 1/30/14
 Company Norstar Petroleum, Inc. Elevation 3366 KB 3361 GL
 Address 88 Inverness CIR E Unit F104 Englewood, CO 80112
 Co. Rep / Geo. Bob Elder Rig NW #8
 Location: Sec. 33 Twp. 9S Rge. 35W Co. Thomas State KS

Interval Tested 4745-4830 Zone Tested Johnson
 Anchor Length 85' Drill Pipe Run 4599 Mud Wt. 9.3
 Top Packer Depth 4741 Drill Collars Run 123 Vis 60
 Bottom Packer Depth 4745 Wt. Pipe Run Ø WL 8.8
 Total Depth 4830 Chlorides 12,000 ppm System LCM 2

Blow Description IF: 1 1/2" Blow.
ISI: No Return.
FF: No Blow.
FSP: No Return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>Mud (oil & gas)</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 10 BHT 117 Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm
 (A) Initial Hydrostatic 2443 Test 1250 T-On Location 6:15
 (B) First Initial Flow 23 Jars 250 T-Started 6:58
 (C) First Final Flow 29 Safety Joint 75 T-Open 8:53
 (D) Initial Shut-In 689 Circ Sub N/C T-Pulled 10:41
 (E) Second Initial Flow 31 Hourly Standby X8 T-Out 13:09
 (F) Second Final Flow 36 Mileage 172 RT 266.60 Comments loaded tools
 (G) Final Shut-In 486 Sampler _____
 (H) Final Hydrostatic 2323 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby X1 1d 8.5h
 Accessibility _____
 Sub Total 1841.60

Initial Open 15 Ruined Shale Packer _____
 Initial Shut-In 30 Ruined Packer 320
 Final Flow 30 Extra Copies _____
 Final Shut-In 30 Sub Total 283.33
 Total 2444.93
 MP/DST Disc't _____

Approved By [Signature] Our Representative [Signature]

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