



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1088337
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
-----------------------------------	-----------------	---

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: _____

1088337

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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No 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: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
--	---

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

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

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

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

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

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

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

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

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

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

Form	ACO1 - Well Completion
Operator	Mull Drilling Company, Inc.
Well Name	Bleumer 1-13
Doc ID	1088337

All Electric Logs Run

MSS
MAI/MFE
SGS
MPD/MDN
MML

Form	ACO1 - Well Completion
Operator	Mull Drilling Company, Inc.
Well Name	Bleumer 1-13
Doc ID	1088337

Tops

Name	Top	Datum
Anhydrite	1821	+ 964
B/Anhydrite	1888	+ 897
Heebner Shale	4114	- 1335
Lansing	4166	- 1381
Stark Shale	4501	- 1716
B/KC	4598	- 1819
Cherokee Shale	4777	- 1992
Mississippi	4935	- 2150
Viola	5846	- 3066
Simpson Shale	6004	- 3219
Arbuckle	6026	- 3241

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



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

Mark Sievers, Chairman
Thomas E. Wright, Commissioner

Sam Brownback, Governor

August 21, 2012

Mark Shreve
Mull Drilling Company, Inc.
1700 N WATERFRONT PKWY
BLDG 1200
WICHITA, KS 67206

Re: ACO1
API 15-069-20371-00-00
Bleumer 1-13
NW/4 Sec.13-26S-30W
Gray County, Kansas

Dear Production Department:

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

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

Respectfully,
Mark Shreve



CONSOLIDATED
ON Well Services, LLC

TICKET NUMBER 34508
LOCATION Oakley Ks
FOREMAN Walt Dinkel

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
5-8-12	5659	Bleumer 1-13	13	26S	20W	Gray
CUSTOMER Mull Drls Co		Ingalls 25 5W 1 1/2S	TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS			458-7718	Milas Shaw		
CITY			466-7129	Kathy Corby Rootz		
STATE						
ZIP CODE						

JOB TYPE Drill HOLE SIZE 17/8 HOLE DEPTH 6193' CASING SIZE & WEIGHT 5 1/2-15.5
CASING DEPTH 6164' DRILL PIPE _____ TUBING _____ OTHER PC-1915'
SLURRY WEIGHT 145-14.8 SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING 42'
DISPLACEMENT 146 1/2 DISPLACEMENT PSI _____ MIX PSI _____ RATE 6 BPM

REMARKS: Safety Meeting, Rig up on Duke #9, circ casing & reciprocated
2 Hrs, Pump 5 BBL KCL, Flo-check, 15 BBL HCL, mixed 30 SKs in P.H.,
20 SKs in M.H.
Mixed 350 SKs 50/50 per, 10% salt, 2% bel, clear Pump+Lines
release Plug + Displace 146 1/2 BBL H2O @ 1000#, landed Plug @ 1400#
release Pressure, Float Held

Thank You
Walt & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401P	1	PUMP CHARGE	3250.00	3250.00
5406	60	MILEAGE	5.00	300.00
✓ 1124	400 SKS	50/50 per	13.15	5,260.00
✓ 1111	1894 #	Salt	1.45	852.30
✓ 1118B	680 #	bel	1.25	170.00
✓ 1102	240 #	Calcium Chloride	1.89	213.60
✓ 1111A	200 #	Sodium Metasilicate	2.40	480.00
✓ 1142A	2- gal	KCL	39.10	78.20
5407A	17.0	Ton Mileage Delivery	1.67	1,703.40
✓ 4203	1	5 1/2- Guide Shoe	193.00	193.00
✓ 4129	1	5 1/2- Float Collar	441.00	441.00
✓ 4130	19	5 1/2- Centralizers	58.00	1,102.00
✓ 4104	2	5 1/2- Baskets	276.00	552.00
✓ 4314	16	5 1/2- Reciprocating Scratchers	78.00	1,248.00
✓ 4285	1	5 1/2- Port Collar	2,085.00	2,085.00
✓ 4406	1	5 1/2- Rubber Plug	88.00	88.00
			18,006.50	
			18,006.50	16,205.80
		SALES TAX		855.11
		ESTIMATED TOTAL		17060.96

Ravin 3737

AUTHORIZATION OK PM TITLE 249564 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.



CONSOLIDATED
Oil Well Services, LLC

TICKET NUMBER 34510
LOCATION Oaklay, KS
FOREMAN Walt Dunkel

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
5-10-12	5659	Bleumer 1-13	13	26 S	20 W	Gray
CUSTOMER Mull Dels Co.			TRUCK #			
MAILING ADDRESS			DRIVER			
CITY			TRUCK #			
STATE			DRIVER			
ZIP CODE			TRUCK #			
			DRIVER			

JOB TYPE Port Callar HOLE SIZE _____ HOLE DEPTH _____ CASING SIZE & WEIGHT 5 1/2 15.5
 CASING DEPTH _____ DRILL PIPE _____ TUBING 2 7/8 OTHER P.C 1914'
 SLURRY WEIGHT 10.7-14 SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING _____
 DISPLACEMENT 11 DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety Meeting, rig up Equipment, Test casing to 1000# Held
release Pressure, Open Tool, Pump into @ 4 BPM @ 400# mixed 220 SKS
CMD, 1/4" Flo Seal (Last 50 SKS @ 14#)
Displace 11 BBL H₂O, shut Tool + Test to 1000# Held
run 5 Jts Tubing circ clear.

Count Did Circ

Thank You
Walt & Crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401B	1	PUMP CHARGE	1,695.00	1,695.00
5406	60	MILEAGE	5.00	300.00
1104S	220 SKS	Class A Cement	17.65	3,883.00
1102	376 #	Calcium Chloride	1.89	334.64
1111A	376 #	Sodium Metasilicate	2.40	902.40
1101	376 #	Cal Seal	.49	184.24
1118B	7.52 #	Ge.	1.25	188.00
1107	55 #	Flo Seal	2.82	155.10
5407A	10.34	Tax Mileage Delivery	1.67	1,036.20
				8,678.58
		Less 10% Disc		- 867.86
				7,810.72
		SALES TAX		378.67
		ESTIMATED TOTAL		8189.39

Completed

Ravin 3737

AUTHORIZATION [Signature]

TITLE 249708
5-10-12

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: **Mull Drilling Co., Inc.**

1700 N. Waterfront Pkwy
Bldg. 1200
Wichita, KS 67202

ATTN: Paul Gerlach

Bleumer #1-13

S13-26s-30w Gray,KS

Start Date: 2012.05.02 @ 21:30:02

End Date: 2012.05.03 @ 07:16:19

Job Ticket #: 46638 DST #: 1

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

Printed: 2012.05.11 @ 14:29:31



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Mull Drilling Co., Inc.
1700 N. Waterfront Pkwy
Bldg. 1200
Wichita, KS 67202
ATTN: Paul Gerlach

S13-26s-30w Gray,KS

Bleumer #1-13

Job Ticket: 46638

DST#: 1

Test Start: 2012.05.02 @ 21:30:02

GENERAL INFORMATION:

Formation: **St. Louis**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 00:13:30
 Time Test Ended: 07:16:19
 Interval: **5000.00 ft (KB) To 5050.00 ft (KB) (TVD)**
 Total Depth: 5050.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Chuck Smith
 Unit No: 62
 Reference Elevations: ft (KB)
 2772.00 ft (CF)
 KB to GR/CF: ft

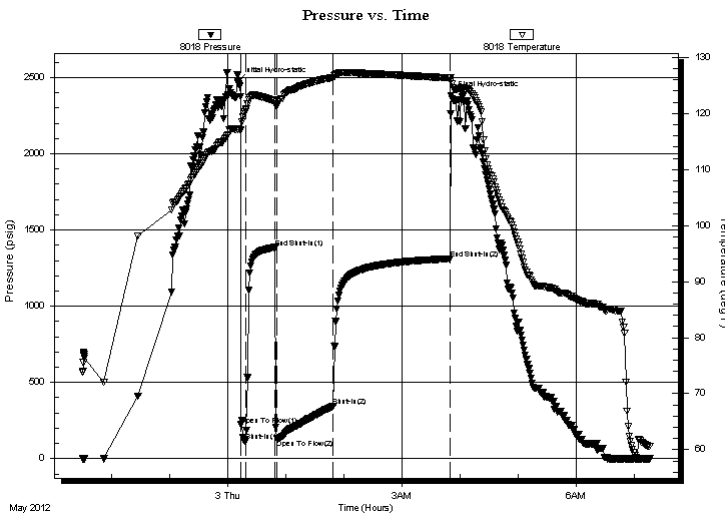
Serial #: 8018

Inside

Press @ Run Depth: 345.33 psig @ 5004.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.05.02 End Date: 2012.05.03 Last Calib.: 2012.05.03
 Start Time: 21:30:02 End Time: 07:16:19 Time On Btm: 2012.05.03 @ 00:10:30
 Time Off Btm: 2012.05.03 @ 03:50:40

TEST COMMENT: B.O.B. @ 1 1/2 min.
 No return.
 B.O.B. @ 1/2 min. G.T.S. @ 30 min. Not enough to gauge.
 B.O.B. @ 11 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2475.75	117.12	Initial Hydro-static
3	222.25	117.02	Open To Flow (1)
8	115.22	120.60	Shut-In(1)
39	1385.21	122.28	End Shut-In(1)
41	128.13	121.49	Open To Flow (2)
99	345.33	126.41	Shut-In(2)
219	1311.81	126.36	End Shut-In(2)
221	2381.04	125.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	GOMCW 25g 15o 25m 35w	0.61
61.00	GMCO 25g 10m 65o	0.30
252.00	GO 30g 70o	3.53
660.00	GO 90g 10o	9.26
0.00	3896 feet GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drilling Co., Inc.

S13-26s-30w Gray,KS

1700 N. Waterfront Pkwy
Bldg. 1200
Wichita, KS 67202
ATTN: Paul Gerlach

Bleumer #1-13

Job Ticket: 46638

DST#: 1

Test Start: 2012.05.02 @ 21:30:02

Tool Information

Drill Pipe:	Length: 4808.00 ft	Diameter: 3.80 inches	Volume: 67.44 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 185.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 95000.00 lb
			<u>Total Volume: 68.35 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.50 ft			String Weight: Initial 78000.00 lb
Depth to Top Packer:	5000.00 ft			Final 83000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.00 ft			
Tool Length:	77.50 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			4973.50	
Shut In Tool	5.00			4978.50	
Hydraulic tool	5.00			4983.50	
Jars	5.00			4988.50	
Safety Joint	2.50			4991.00	
Packer	5.00			4996.00	27.50 Bottom Of Top Packer
Packer	4.00			5000.00	
Stubb	1.00			5001.00	
Perforations	3.00			5004.00	
Recorder	0.00	8018	Inside	5004.00	
Recorder	0.00	6751	Outside	5004.00	
Perforations	10.00			5014.00	
Change Over Sub	1.00			5015.00	
Drill Pipe	31.00			5046.00	
Change Over Sub	1.00			5047.00	
Bullnose	3.00			5050.00	50.00 Bottom Packers & Anchor
Total Tool Length:	77.50				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mull Drilling Co., Inc.

S13-26s-30w Gray,KS

1700 N. Waterfront Pkwy
Bldg. 1200
Wichita, KS 67202
ATTN: Paul Gerlach

Bleumer #1-13

Job Ticket: 46638

DST#: 1

Test Start: 2012.05.02 @ 21:30:02

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 62.00 sec/qt
Water Loss: 8.35 in³
Resistivity: ohm.m
Salinity: 2300.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 28 deg API
Water Salinity: 36000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	GOMCW 25g 15o 25m 35w	0.610
61.00	GMCO 25g 10m 65o	0.300
252.00	GO 30g 70o	3.535
660.00	GO 90g 10o	9.258
0.00	3896 feet GIP	0.000

Total Length: 1097.00 ft Total Volume: 13.703 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: API:28 @ 60 Degrees F = 28. RW: .276 @ 52 Degrees F = 36000 PPM

Serial #: 8018

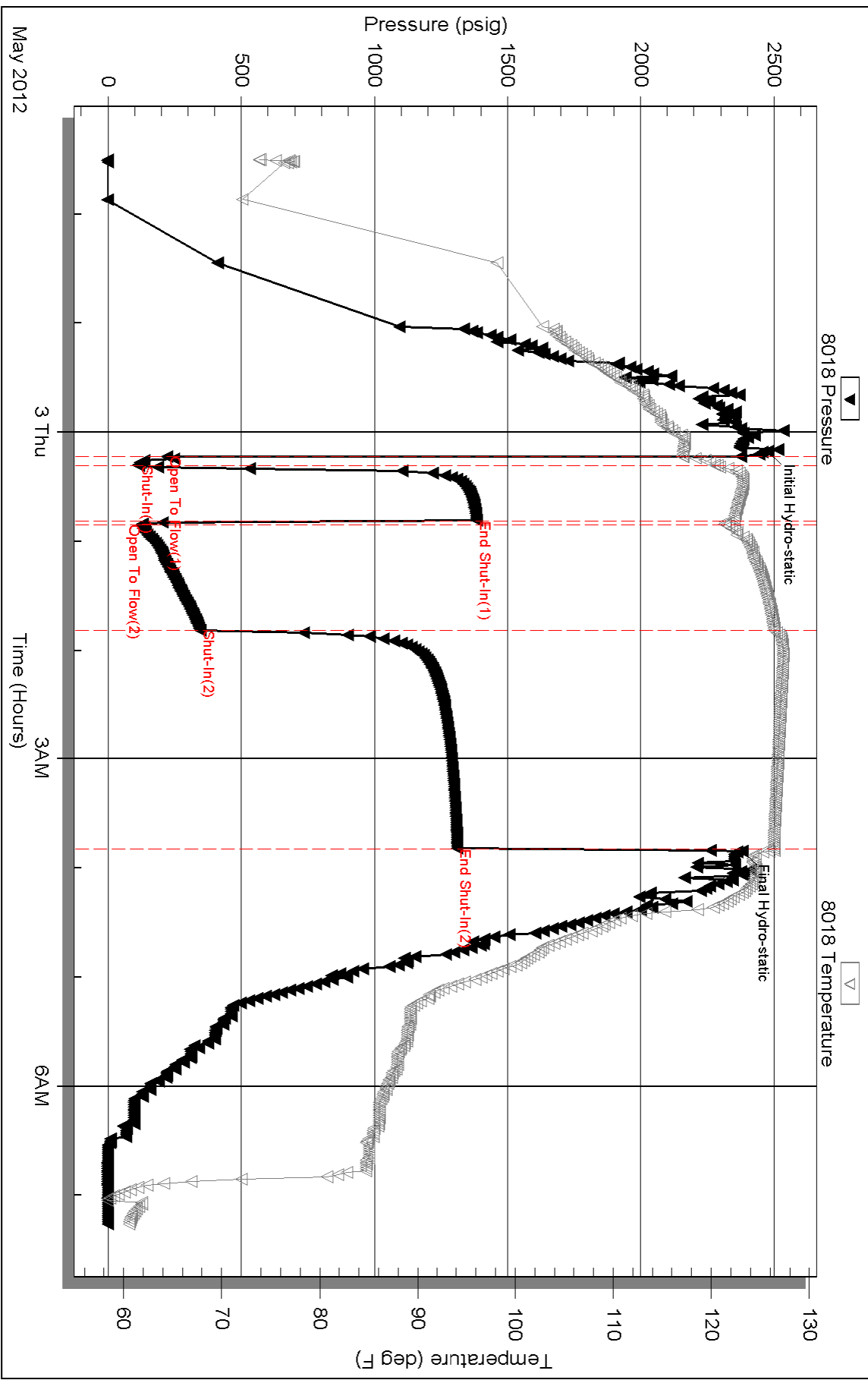
Inside

Mull Drilling Co., Inc.

Bleumer #1-13

DST Test Number: 1

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 46638

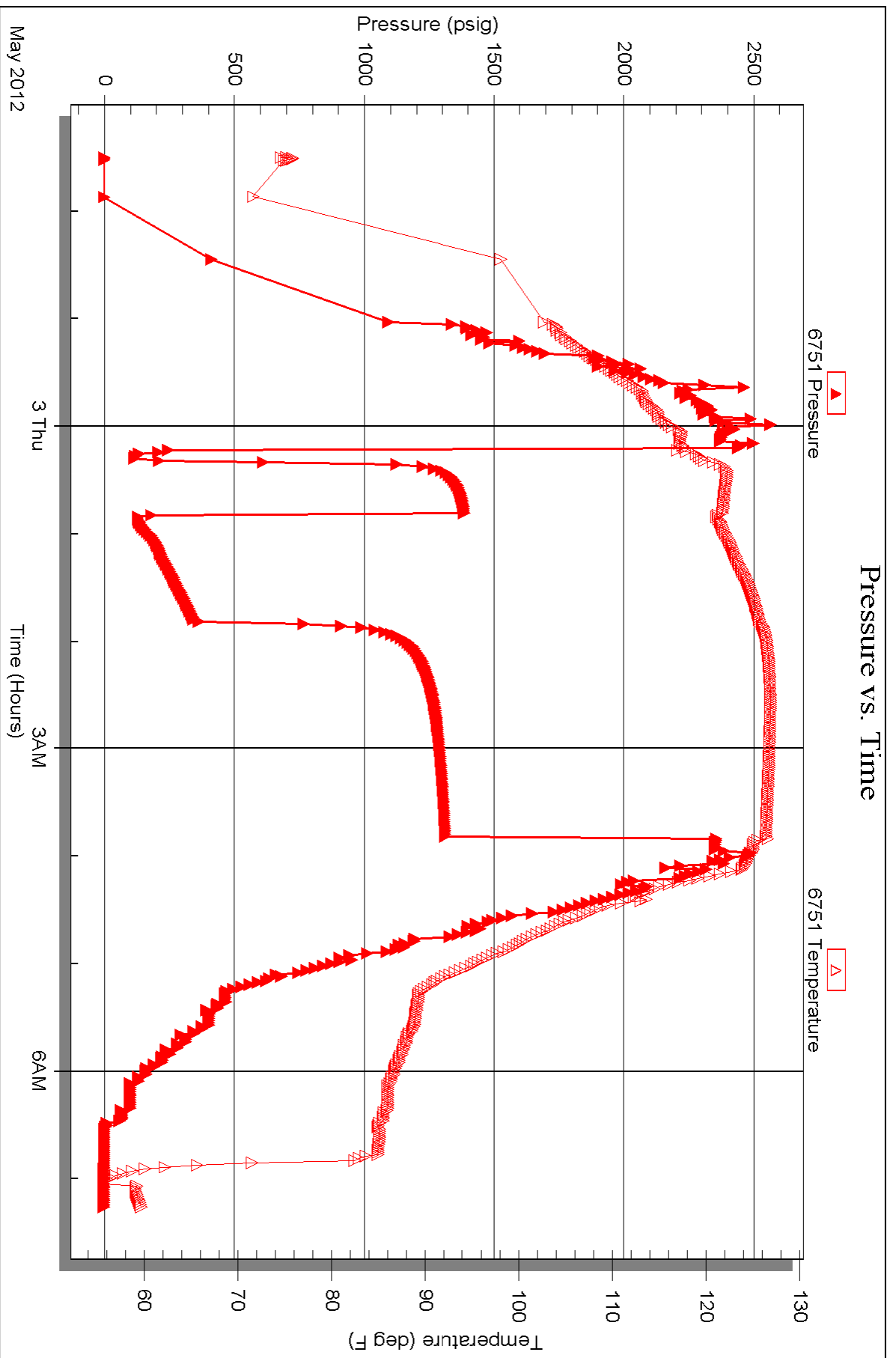
Printed: 2012.05.11 @ 14:29:33

Serial #: 6751

Outside Mull Drilling Co., Inc.

Bleumer #1-13

DST Test Number: 1





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 46638

Well Name & No. Bleumer # 1-13 Test No. 1 Date 5-2-12
 Company Mull Drilling Co., Inc. Elevation _____ KB 2772 GL _____
 Address 1700 N. Waterfront Pkwy. Bldg. 1200 Wichita, KS 67202
 Co. Rep / Geo. Paul Rig Duke # 9
 Location: Sec. 13 Twp. 26s Rge. 30w Co. Gray State KS

Interval Tested 5000-5050 Zone Tested St. Louis
 Anchor Length 50 Drill Pipe Run 4808 Mud Wt. 9.0
 Top Packer Depth 4096 4996 Drill Collars Run 185 Vis 62
 Bottom Packer Depth 5000 Wt. Pipe Run 0 WL 8.4
 Total Depth 5050 Chlorides 2300 ppm System LCM 4
 Blow Description B.O.B. @ 1 1/2 min.
No return.
B.O.B. @ 1/2 min. GTS @ 30 min. Not enough to gage.
B.O.B. @ 11 min.

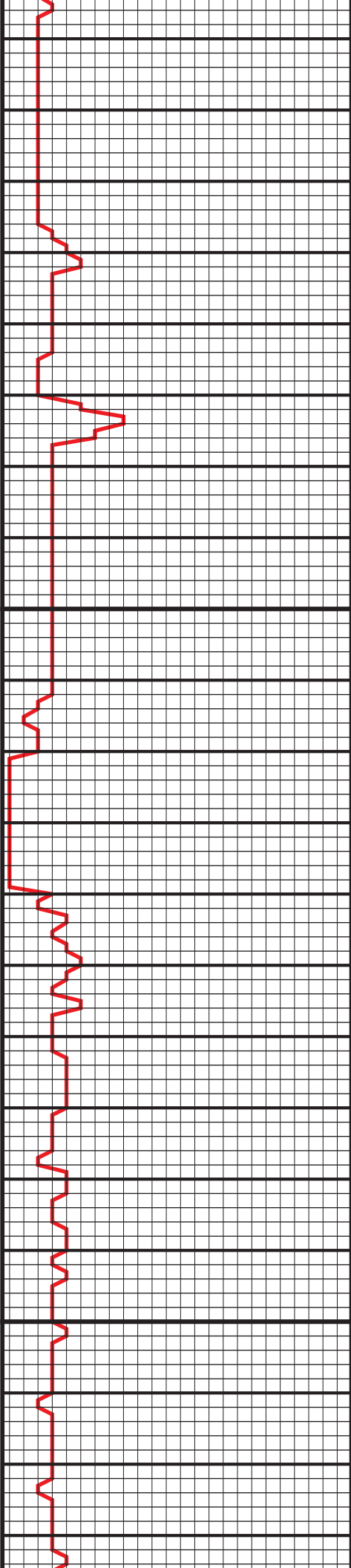
Rec	Feet of	%gas	%oil	%water	%mud
—	<u>GOMCW 3896' GIP</u>	<u>25</u>	<u>15</u>	<u>35</u>	<u>25</u>
<u>660</u>	<u>GO</u>	<u>90</u>	<u>10</u>		
<u>252</u>	<u>GO</u>	<u>30</u>	<u>70</u>		
<u>61</u>	<u>Gmco</u>	<u>25</u>	<u>65</u>		<u>10</u>
<u>124</u>	<u>GOMCW</u>	<u>25</u>	<u>15</u>	<u>35</u>	<u>25</u>

Rec Total 1097 BHT 126 Gravity 28 API RW .276 @ 52° F Chlorides 36,000 ppm

(A) Initial Hydrostatic 2476 Test 1350 T-On Location 20:45
 (B) First Initial Flow 222 Jars 250 T-Started 21:30
 (C) First Final Flow 115 Safety Joint 75 T-Open 00:14
 (D) Initial Shut-In 1385 Circ Sub _____ T-Pulled 03:50
 (E) Second Initial Flow 128 Hourly Standby _____ T-Out 07:16
 (F) Second Final Flow 345 Mileage 127RT 196.85 Comments _____
 (G) Final Shut-In 1312 Sampler _____
 (H) Final Hydrostatic 2381 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 5 Extra Recorder _____ Sub Total 0
 Initial Shut-In 30 Day Standby _____ Total 1871.85
 Final Flow 60 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 120 Sub Total 1871.85

Approved By Paul Seibel Our Representative Chuck Smith

TriLOBite 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.



1800

1900

2000

2600

2700

2800

T STNC 1825 (+946)

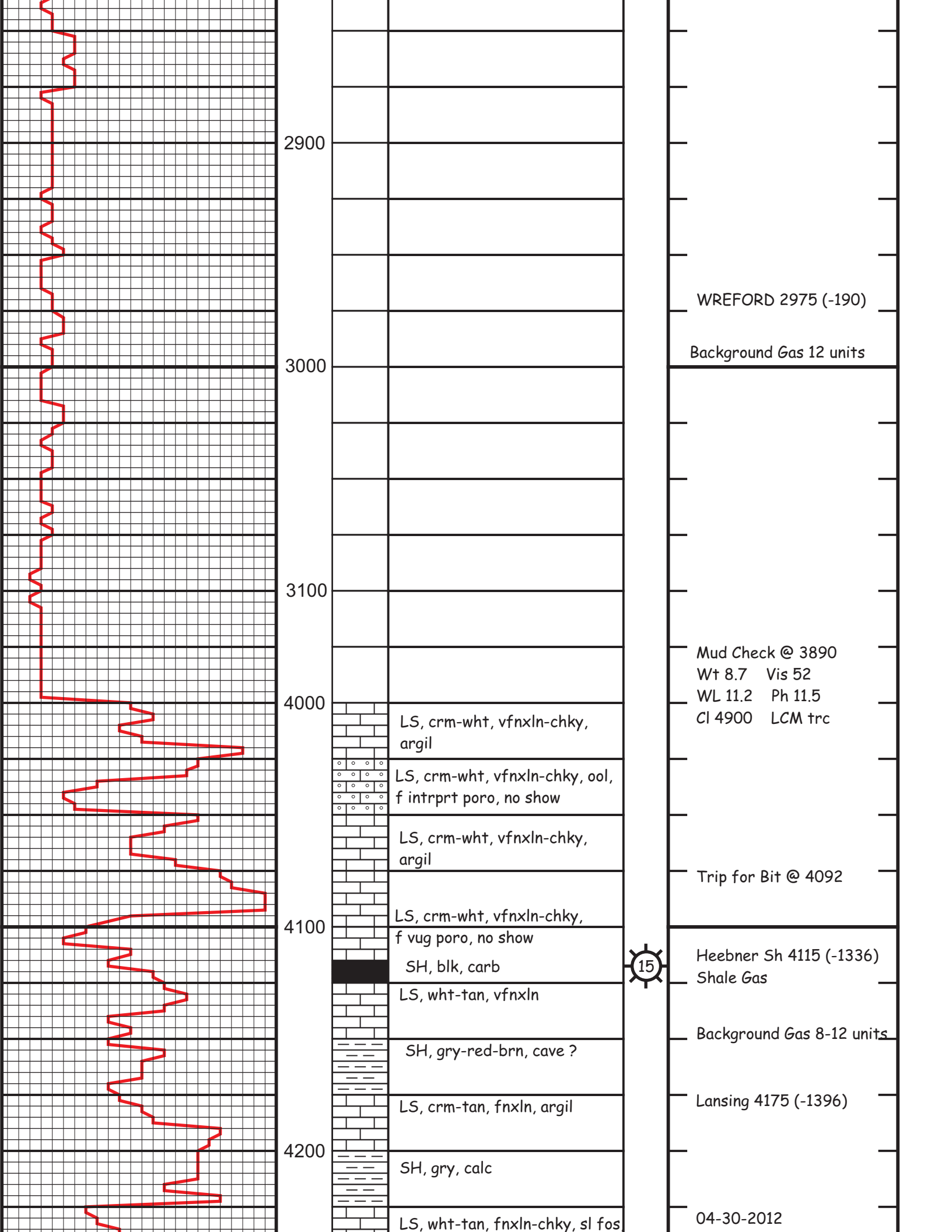
B STNC 1890 (+881)

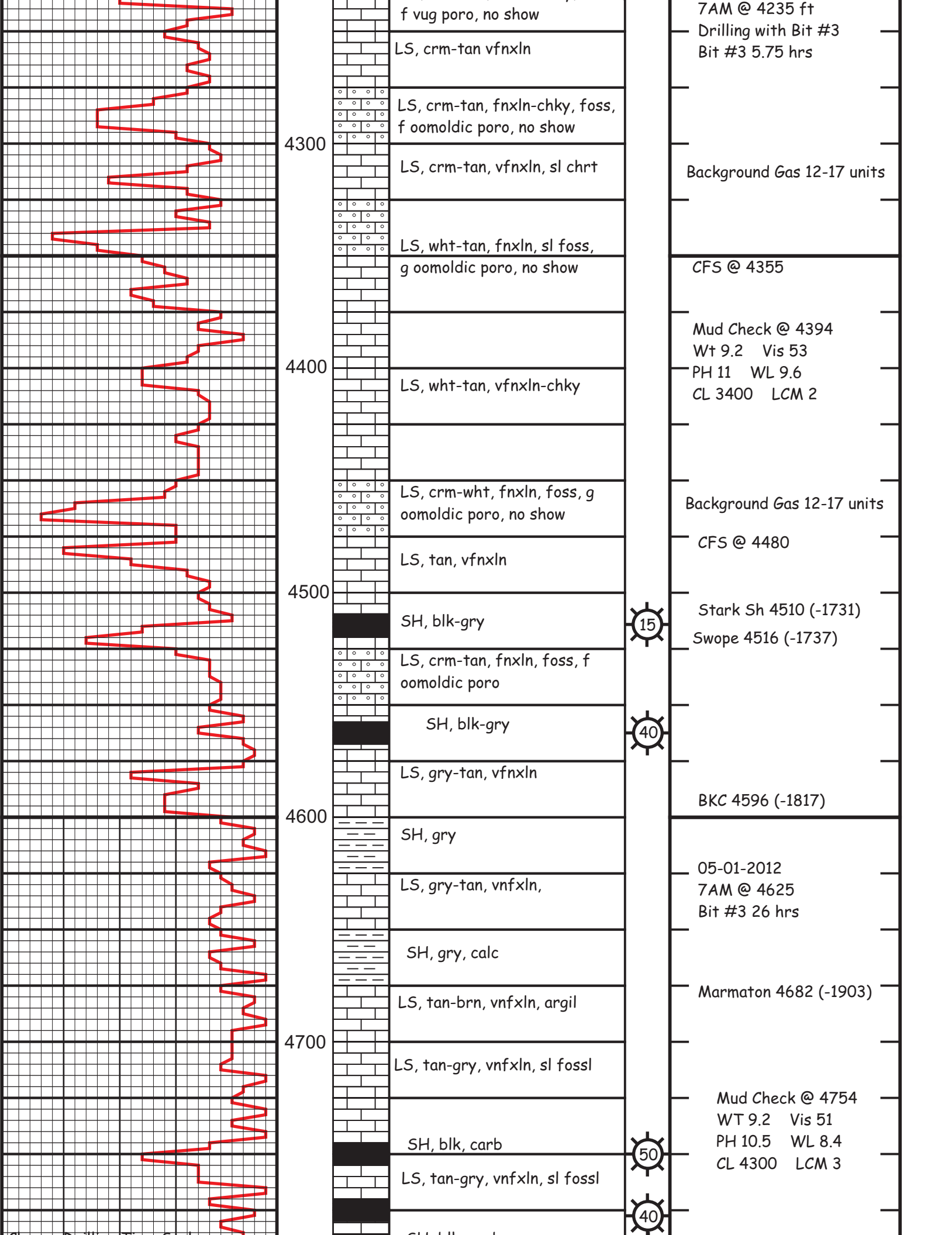
Background Gas 14 units

CHASE 2720 (+65)

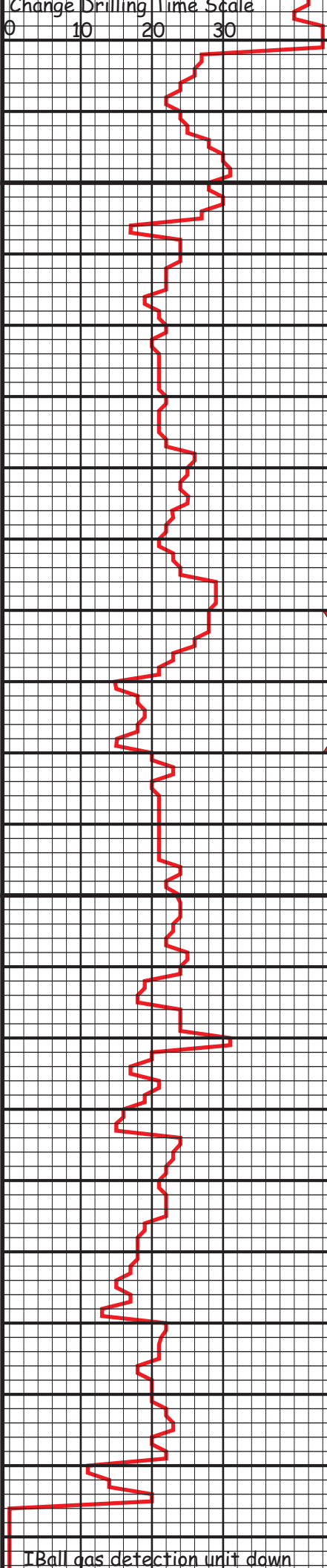
No gas increase

Background Gas 14 units





Change Drilling Time Scale



4800	SH, blk, carb
	LS, tan-brn, vnfxn, sl chrt
	SH, blk, carb with some gry
	LS, tan-brn-gry, vnfxn, sl chrt
4900	SH, gry-blk
	LS, tan-brn, vnfxn, sl chrt
	SH, gry-blk
	LS, gry, fxln, v aren, looks weathered
	SH, gry-blk
	LS, wht, fxln, v aren
	LS, wht, fxln, v aren
5000	LS, wht, fxln, v aren
	LS, wht-tan, fnxln, V oolitic f intrprt & intrxn poro, solid oil sat, q show free oil, q fluor
	Sample mostly cave
	LS, gry-tan, fnxln, some chky, oolitic, no vis poro
5100	LS, gry-tan, fnxln, some chky, oolitic, no vis poro
	LS, gry-tan, fnxln, some chky, oolitic, no vis poro
	LS, gry-tan, v fnxln, sl ltgry chrt, no vis poro
	DOLO, gry-tan, fnxln, calc, trc ltgry chrt, f intrxn poro, no show.
5200	LS, gry-tan, fnxln-dolo, calc, trc ltgry chrt
	DOLO, gry-tan-brn, fnxln, trc ltgry chrt, f intrxn poro, no show.
	LS, gry-tan, fnxln-dolo, calc, trc ltgry chrt
	LS, gry-tan, fnxln-dolo, sl foss, sl chky
5300	DOLO, gry-tan-brn, fnxln, trc ltgry chrt, f intrxn poro, no show.
	LS, gry-tan, fnxln-dolo, sl foss,

150	Cherokee Sh 4784 (-2005)
	Background Gas 40 units
100	
	Background Gas 30 units
	05-02-2012 7 AM @ 4930 Bit #3 50.25 hrs
	St Gen 4960 (-2181)
	Background Gas 15 units Mud Check @ 4983 WT 9.0 Vis 62 PH 10.5 WL 8.4 CL 2300 LCM 4
55	St Louis A zone 5020 (-2235)
58	CFS @ 5050 05-03-2012 7AM @ 5050 Bit #3 60 hrs Background Gas > 300 units Background Gas 15 units
227	St Louis C zone 5103 (-2318)
210	CFS @ 5130
	SPERGEN 5170 (-2385)
	Background Gas 45 units
	05-04-2012 7 am @ 5275 Bit #3 76 hrs Background Gas 55 units
	Warsaw 5355 (-2570)

IBall gas detection unit down

