



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1070323
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: _____

1070323

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: <input type="checkbox"/> Yes <input type="checkbox"/> No
----------------	-------	---------	------------	---

Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____						
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: _____ _____
--	--	---

Form	ACO1 - Well Completion
Operator	Grand Mesa Operating Company
Well Name	WEL-ZAN 1-30
Doc ID	1070323

Tops

Name	Top	Datum
Stone Corral	2309	+643
Bs/Stone Corral	2327	+625
Heebner	3897	-945
Lansing	3939	-987
Muncie Creek	4114	-1162
Stark	4212	-1260
Hushpuckney	4255	-1303
Marmaton	4321	-1369
Little Osage	4451	-1499
Johnson	4540	-1588
Morow	4606	-1654
Mississippian	4648	-1696
LTD	4802	-1850



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Grand Mesa Operating Company

30-16s-32w

1700 N Waterfront PKWY
BLDG 600 Wichita, KS 67206-5514

Wel-Zan 1-30

Job Ticket: 45434

DST#: 1

ATTN: John Goldsmith

Test Start: 2011.12.05 @ 00:40:00

GENERAL INFORMATION:

Formation: **Lansing "A-C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:25:00

Time Test Ended: 09:56:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jace McKinney

Unit No: 46

Interval: 3932.00 ft (KB) To 3990.00 ft (KB) (TVD)

Reference Elevations: 2952.00 ft (KB)

Total Depth: 3990.00 ft (KB) (TVD)

2947.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8675

Inside

Press @ Run Depth: 333.31 psig @ 3933.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.12.05

End Date:

2011.12.05

Last Calib.: 2011.12.05

Start Time: 00:40:01

End Time:

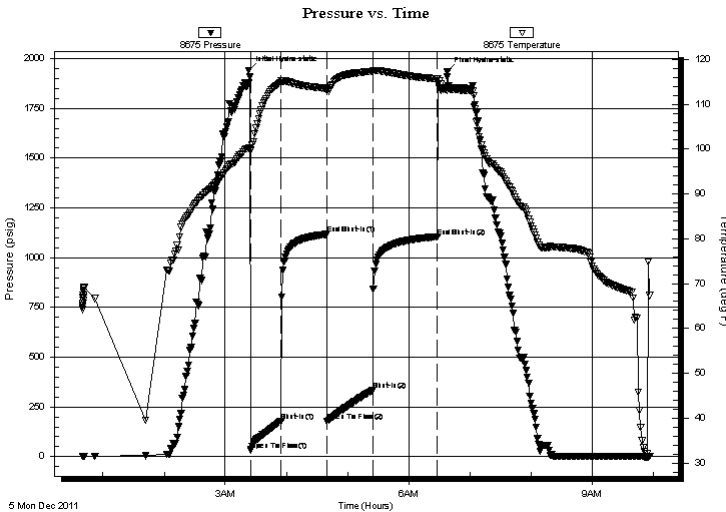
09:56:30

Time On Btm: 2011.12.05 @ 03:23:00

Time Off Btm: 2011.12.05 @ 06:38:00

TEST COMMENT: B.O.B. in 9 min.
Bled off for 5 min. No return blow
B.O.B. in 10 min.
Bled off for 5 min. No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1940.77	100.32	Initial Hydro-static
2	31.61	99.62	Open To Flow (1)
32	179.05	114.86	Shut-In(1)
77	1117.61	113.51	End Shut-In(1)
77	178.40	112.97	Open To Flow (2)
122	333.31	117.37	Shut-In(2)
186	1105.59	115.63	End Shut-In(2)
195	1933.44	113.30	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
556.00	100%W	6.73
124.00	mcw 50%M 50%W	1.74

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Grand Mesa Operating Company

30-16s-32w

1700 N Waterfront PKWY
BLDG 600 Wichita, KS 67206-5514

Wel-Zan 1-30

Job Ticket: 45434

DST#: 1

ATTN: John Goldsmith

Test Start: 2011.12.05 @ 00:40:00

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:

60000 ppm

Viscosity: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
556.00	100%W	6.732
124.00	mcw 50%M 50%W	1.739

Total Length: 680.00 ft Total Volume: 8.471 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

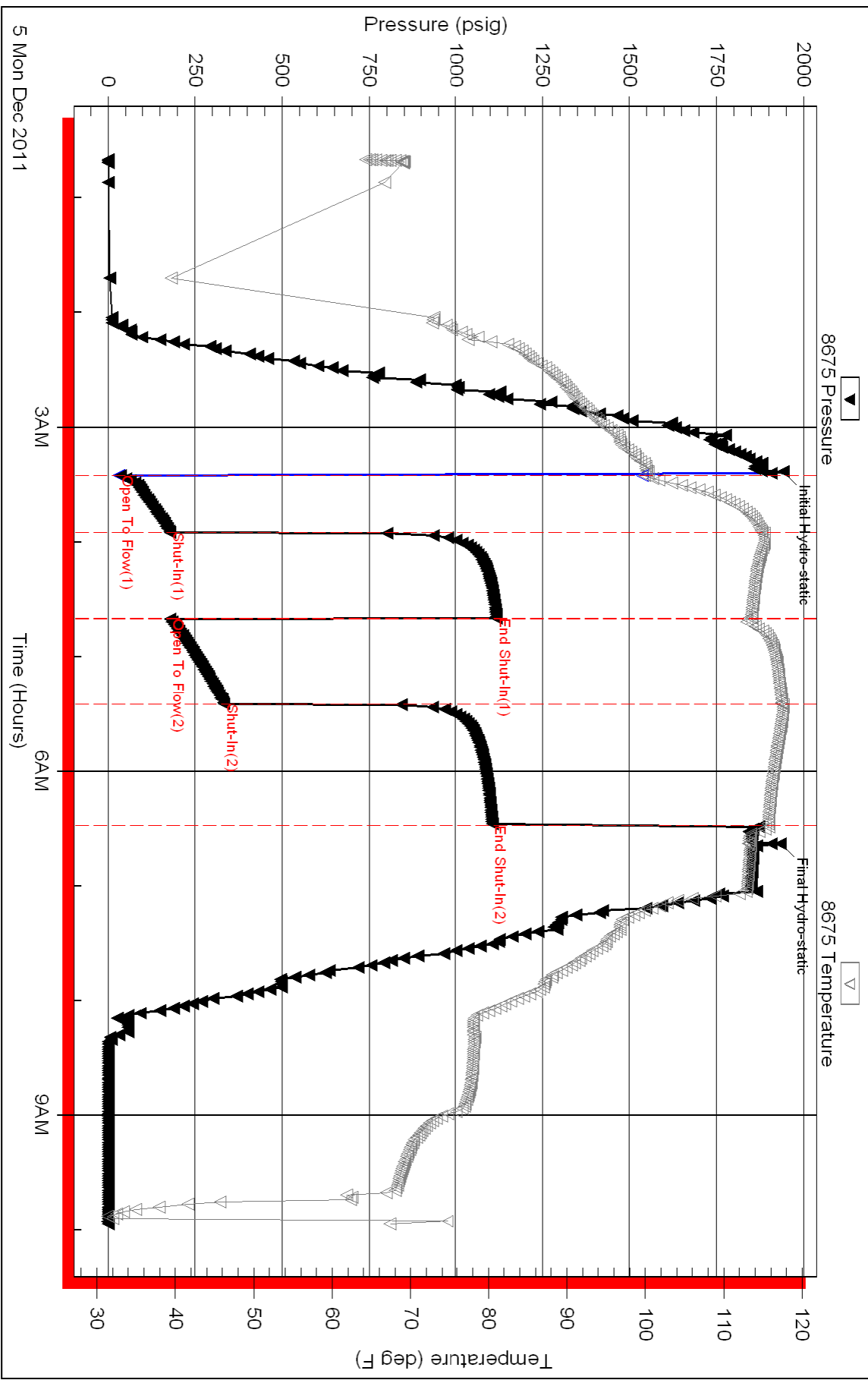
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .28 @ 20 F = 60,000

Pressure vs. Time





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Grand Mesa Operating Company

30-16s-32w

1700 N Waterfront PKWY
BLDG 600 Wichita, KS 67206-5514

Wel-Zan 1-30

Job Ticket: 45435

DST#: 2

ATTN: John Goldsmith

Test Start: 2011.12.05 @ 22:25:00

GENERAL INFORMATION:

Formation: **Kansas City "E"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:44:00

Time Test Ended: 06:24:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

Interval: 4026.00 ft (KB) To 4061.00 ft (KB) (TVD)

Reference Elevations: 2952.00 ft (KB)

Total Depth: 4061.00 ft (KB) (TVD)

2947.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8675

Inside

Press @ Run Depth: 319.94 psig @ 4027.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.12.05

End Date:

2011.12.06

Last Calib.:

2011.12.06

Start Time: 22:25:01

End Time:

06:24:45

Time On Btm:

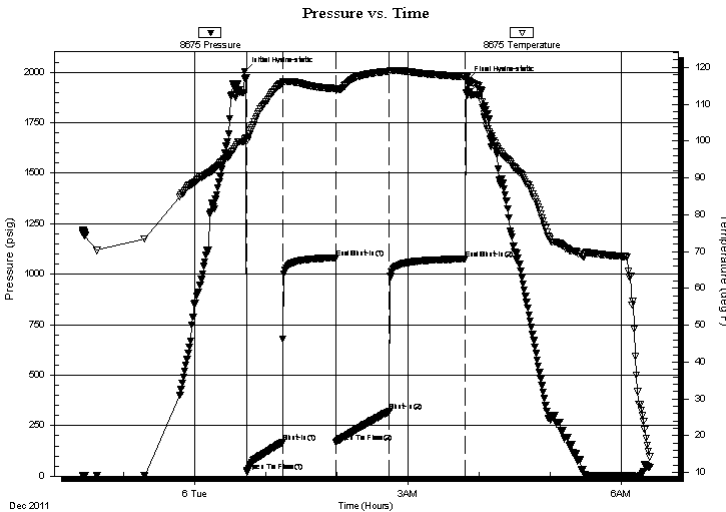
2011.12.06 @ 00:42:00

Time Off Btm:

2011.12.06 @ 03:49:45

TEST COMMENT: B.O.B. in 10 min.
Bled off for 5 min. Weak return blow
B.O.B. in 11 min.
Bled off for 5 min. No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2004.29	100.16	Initial Hydro-static
2	22.96	100.03	Open To Flow (1)
32	167.87	115.77	Shut-In(1)
77	1081.35	114.30	End Shut-In(1)
78	169.02	113.77	Open To Flow (2)
123	319.94	118.93	Shut-In(2)
187	1075.97	117.46	End Shut-In(2)
188	1956.55	117.64	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
540.00	100% W	6.51

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Grand Mesa Operating Company

30-16s-32w

1700 N Waterfront PKWY
BLDG 600 Wichita, KS 67206-5514

Wel-Zan 1-30

Job Ticket: 45435

DST#: 2

ATTN: John Goldsmith

Test Start: 2011.12.05 @ 22:25:00

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:

50000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
540.00	100% W	6.508

Total Length: 540.00 ft Total Volume: 6.508 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

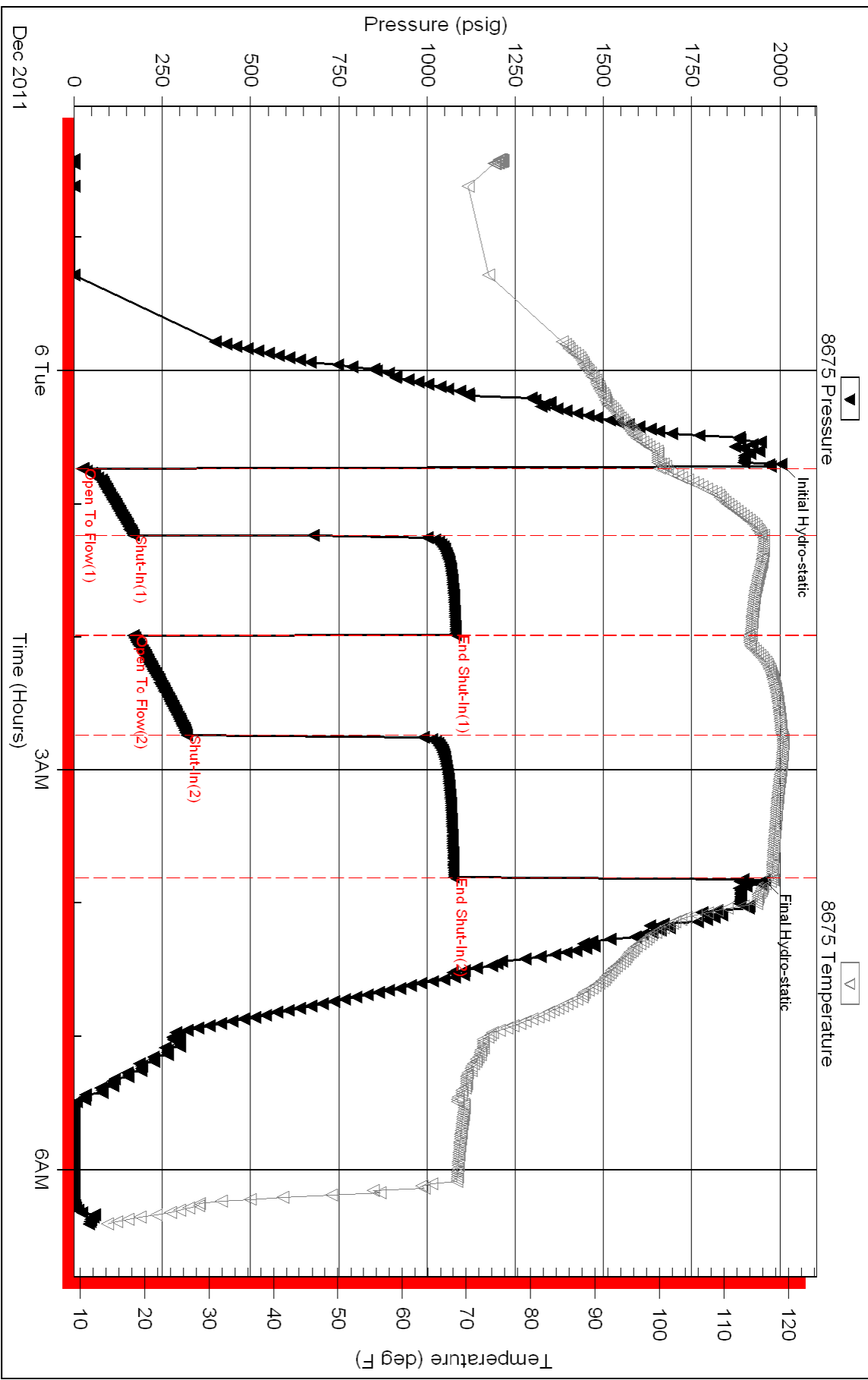
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .30 @ 30 F = 50,000

Pressure vs. Time





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Grand Mesa Operating Company

30-16s-32w

1700 N Waterfront PKWY
BLDG 600 Wichita, KS 67206-5514

Wel-Zan 1-30

Job Ticket: 45436

DST#: 3

ATTN: John Goldsmith

Test Start: 2011.12.07 @ 01:15:00

GENERAL INFORMATION:

Formation: **Kansas City "J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:55:15

Time Test Ended: 08:04:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

Interval: 4171.00 ft (KB) To 4203.00 ft (KB) (TVD)

Reference Elevations: 2952.00 ft (KB)

Total Depth: 4203.00 ft (KB) (TVD)

2947.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8675

Inside

Press @ Run Depth: 23.82 psig @ 4172.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.12.07

End Date:

2011.12.07

Last Calib.:

2011.12.07

Start Time: 01:15:01

End Time:

08:04:30

Time On Btm:

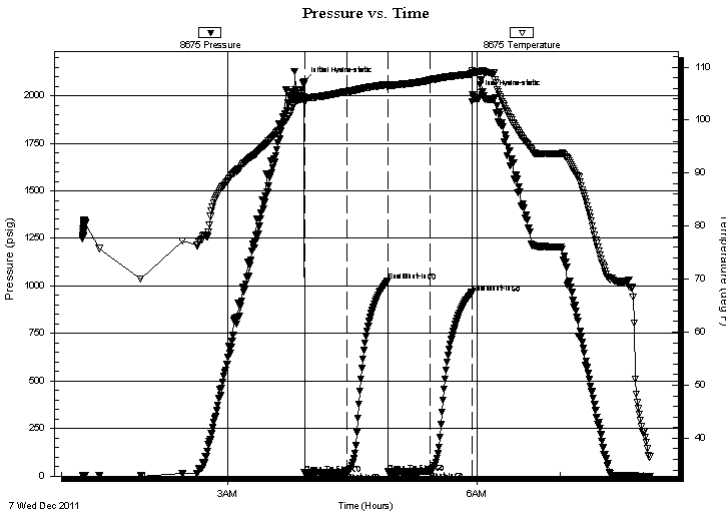
2011.12.07 @ 03:55:00

Time Off Btm:

2011.12.07 @ 05:56:45

TEST COMMENT: Built to 1/2" blow
No return blow
Weak surface blow, Died at 25 min.
No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2075.14	104.37	Initial Hydro-static
1	17.24	103.39	Open To Flow (1)
31	20.69	105.37	Shut-In(1)
61	1025.88	106.70	End Shut-In(1)
61	21.93	106.09	Open To Flow (2)
91	23.82	107.55	Shut-In(2)
121	965.56	108.69	End Shut-In(2)
122	2004.76	108.97	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100% Mud with oil scum	0.02

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Grand Mesa Operating Company

30-16s-32w

1700 N Waterfront PKWY
BLDG 600 Wichita, KS 67206-5514

Wel-Zan 1-30

Job Ticket: 45436

DST#: 3

ATTN: John Goldsmith

Test Start: 2011.12.07 @ 01:15:00

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: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.58 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3100.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	100% Mud with oil scum	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

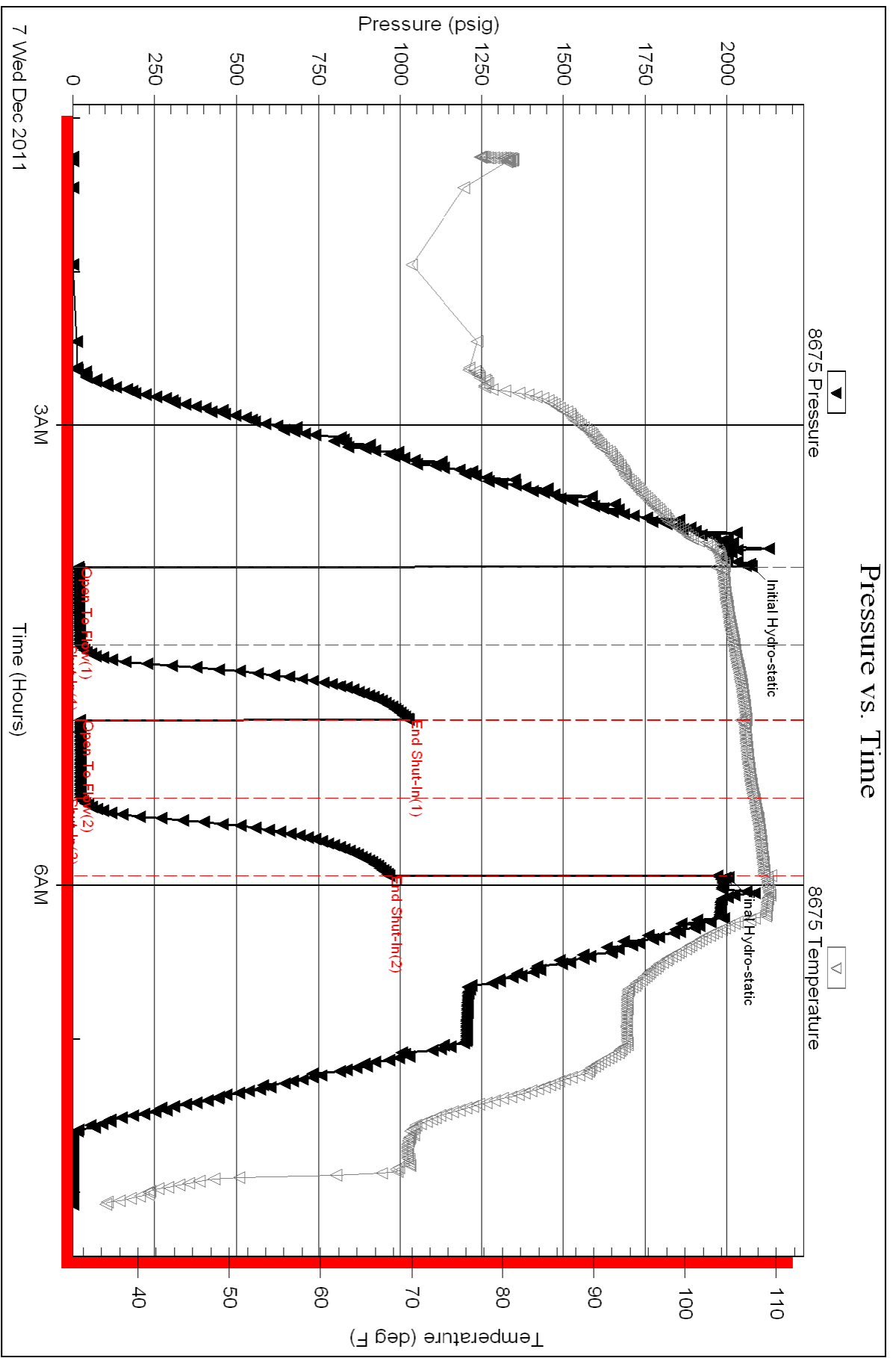
Serial #: 8675

Inside

Grand Mesa Operating Company

Well-Zan 1-30

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 45436

Printed: 2011.12.07 @ 08:23:50



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Grand Mesa Operating Company

30-16s-32w

1700 N Waterfront PKWY
BLDG 600 Wichita, KS 67206-5514

Wel-Zan 1-30

Job Ticket: 45437

DST#: 4

ATTN: John Goldsmith

Test Start: 2011.12.07 @ 15:55:00

GENERAL INFORMATION:

Formation: **Kansas City "K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:55:00

Time Test Ended: 22:22:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

Interval: 4204.00 ft (KB) To 4237.00 ft (KB) (TVD)

Reference Elevations: 2952.00 ft (KB)

Total Depth: 4237.00 ft (KB) (TVD)

2947.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8675 Inside

Press @ Run Depth: 498.25 psig @ 4205.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.12.07

End Date:

2011.12.07

Last Calib.:

2011.12.07

Start Time: 15:55:01

End Time:

22:22:15

Time On Btm:

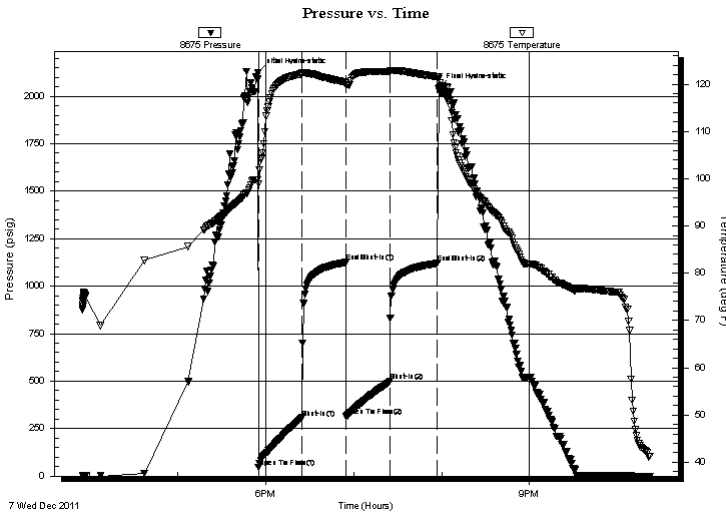
2011.12.07 @ 17:54:45

Time Off Btm:

2011.12.07 @ 19:58:15

TEST COMMENT: B.O.B. in 5 min.
Bled off for 5 min. No return blow
B.O.B. in 5 min.
Bled off for 5 min. No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2122.99	99.73	Initial Hydro-static
1	44.69	98.95	Open To Flow (1)
30	307.73	122.14	Shut-In(1)
60	1125.60	120.37	End Shut-In(1)
61	315.65	119.86	Open To Flow (2)
90	498.25	122.69	Shut-In(2)
123	1120.81	121.57	End Shut-In(2)
124	2043.79	121.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
750.00	100% Water	9.45
250.00	50%M 50%W	3.51

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Grand Mesa Operating Company

30-16s-32w

1700 N Waterfront PKWY
BLDG 600 Wichita, KS 67206-5514

Wel-Zan 1-30

Job Ticket: 45437

DST#: 4

ATTN: John Goldsmith

Test Start: 2011.12.07 @ 15:55:00

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: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
750.00	100% Water	9.453
250.00	50%M 50%W	3.507

Total Length: 1000.00 ft Total Volume: 12.960 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

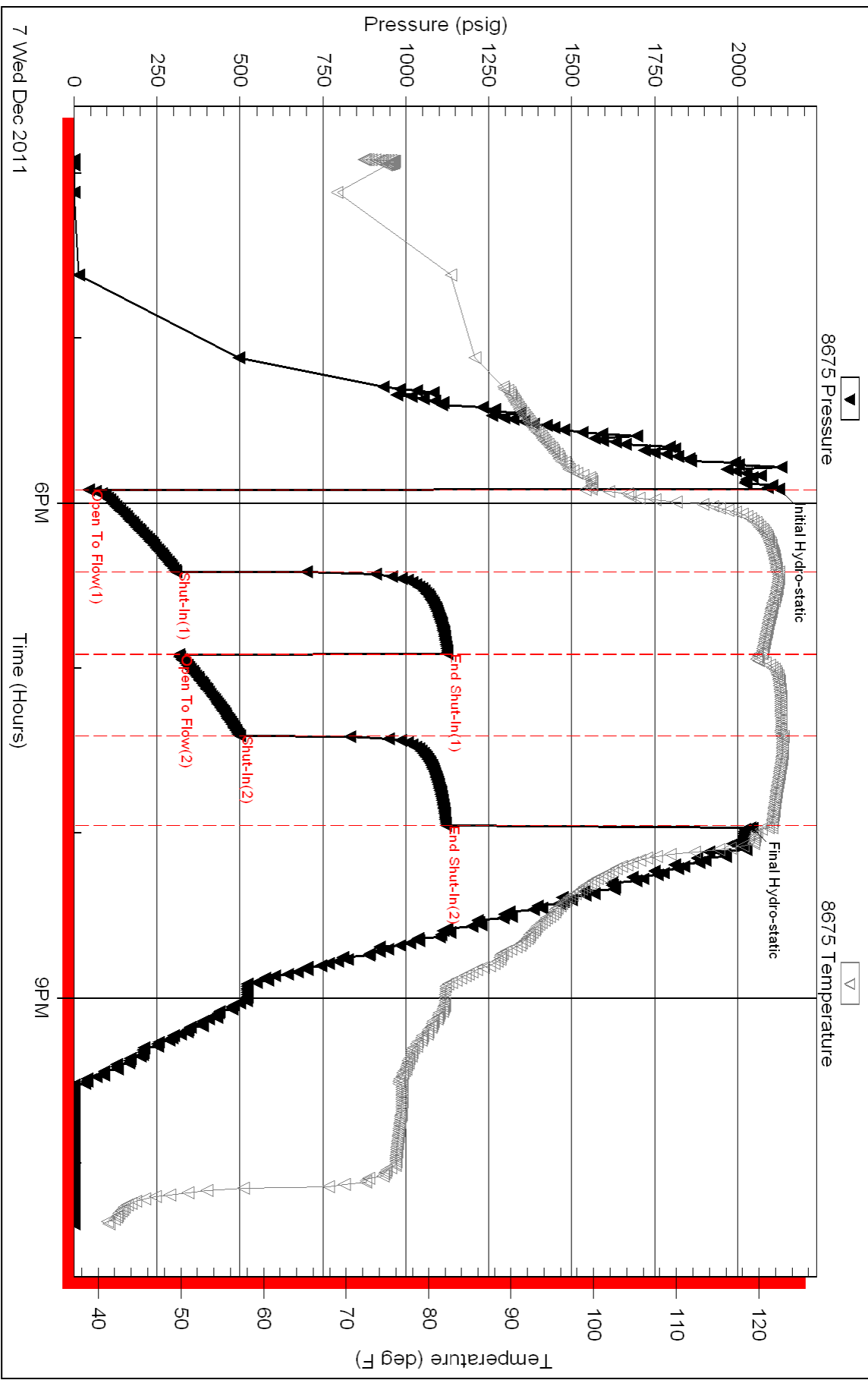
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



7 Wed Dec 2011



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Grand Mesa Operating Company

30-16s-32w

1700 N Waterfront PKWY
BLDG 600 Wichita, KS 67206-5514

Wel-Zan 1-30

ATTN: John Goldsmith

Job Ticket: 45438

DST#: 5

Test Start: 2011.12.09 @ 15:40:00

GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:19:30

Time Test Ended: 23:18:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

Interval: 4518.00 ft (KB) To 4567.00 ft (KB) (TVD)

Reference Elevations: 2952.00 ft (KB)

Total Depth: 4567.00 ft (KB) (TVD)

2947.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8675

Inside

Press @ Run Depth: 23.67 psig @ 4519.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.12.09

End Date:

2011.12.09

Last Calib.:

2011.12.09

Start Time: 15:40:01

End Time:

23:18:30

Time On Btm:

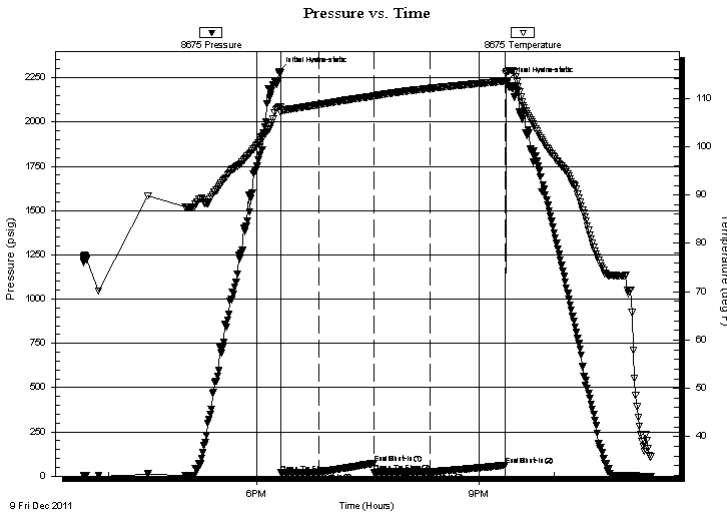
2011.12.09 @ 18:18:00

Time Off Btm:

2011.12.09 @ 21:21:45

TEST COMMENT: Built to 1" blow
No return blow
Weak surface blow
No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2286.44	108.30	Initial Hydro-static
2	18.82	107.00	Open To Flow (1)
32	22.79	108.70	Shut-In(1)
77	72.73	110.45	End Shut-In(1)
77	19.18	110.46	Open To Flow (2)
122	23.67	112.07	Shut-In(2)
183	61.38	113.55	End Shut-In(2)
184	2227.98	115.44	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100% Mud with oil scum	0.02

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Grand Mesa Operating Company

30-16s-32w

1700 N Waterfront PKWY
BLDG 600 Wichita, KS 67206-5514

Wel-Zan 1-30

Job Ticket: 45438

DST#: 5

ATTN: John Goldsmith

Test Start: 2011.12.09 @ 15:40:00

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: 62.00 sec/qt

Cushion Volume: bbl

Water Loss: 8.77 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure: psig

Salinity: 1800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	100% Mud with oil scum	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

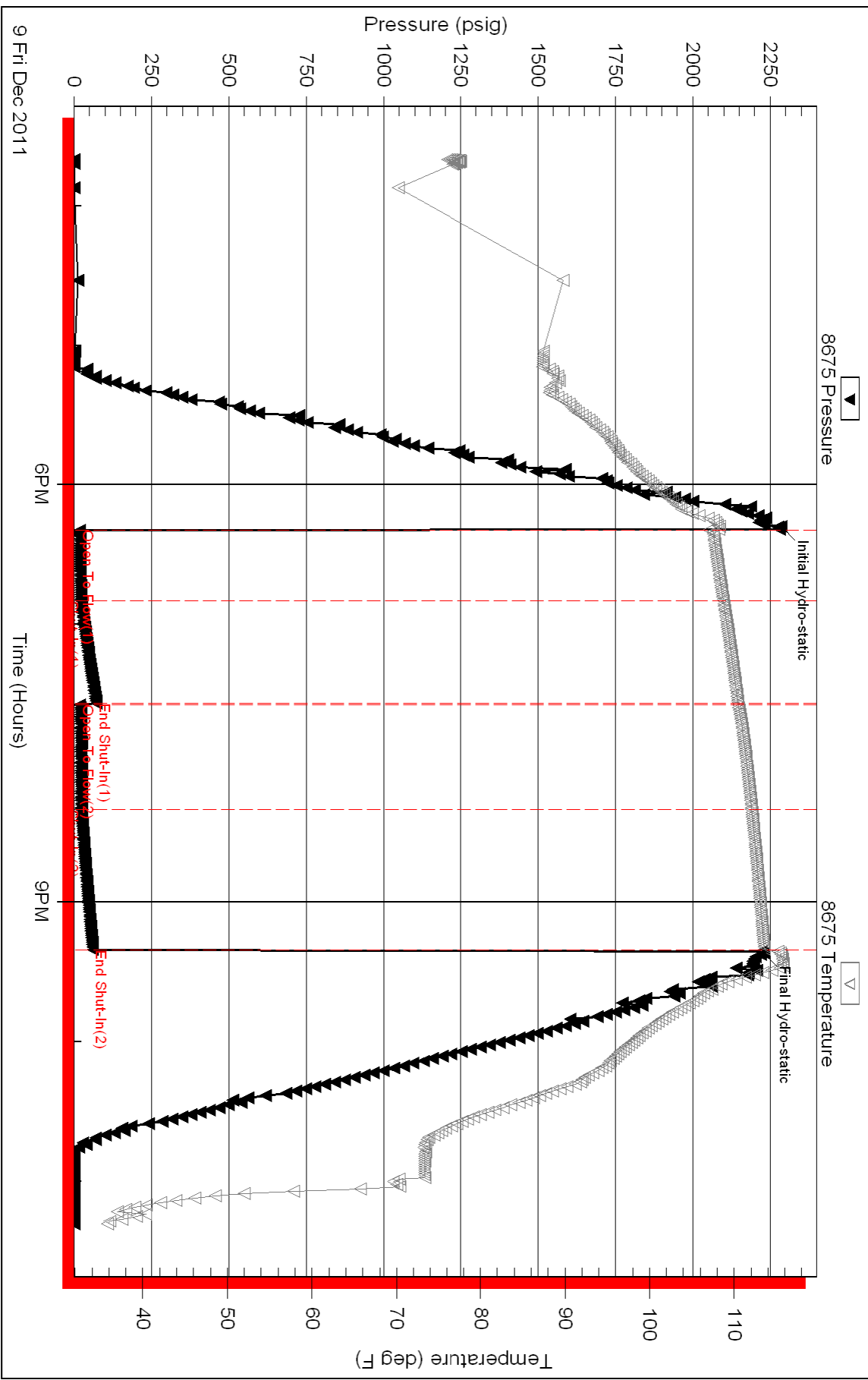
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Grand Mesa Operating Company

30-16s-32w

1700 N Waterfront PKWY
BLDG 600 Wichita, KS 67206-5514

Wel-Zan 1-30

Job Ticket: 45439

DST#: 6

ATTN: John Goldsmith

Test Start: 2011.12.10 @ 11:00:00

GENERAL INFORMATION:

Formation: **Atoka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:37:30

Time Test Ended: 18:12:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

Interval: 4565.00 ft (KB) To 4609.00 ft (KB) (TVD)

Reference Elevations: 2952.00 ft (KB)

Total Depth: 4609.00 ft (KB) (TVD)

2947.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8675

Inside

Press @ Run Depth: 19.61 psig @ 4566.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.12.10

End Date:

2011.12.10

Last Calib.: 2011.12.10

Start Time: 11:00:01

End Time:

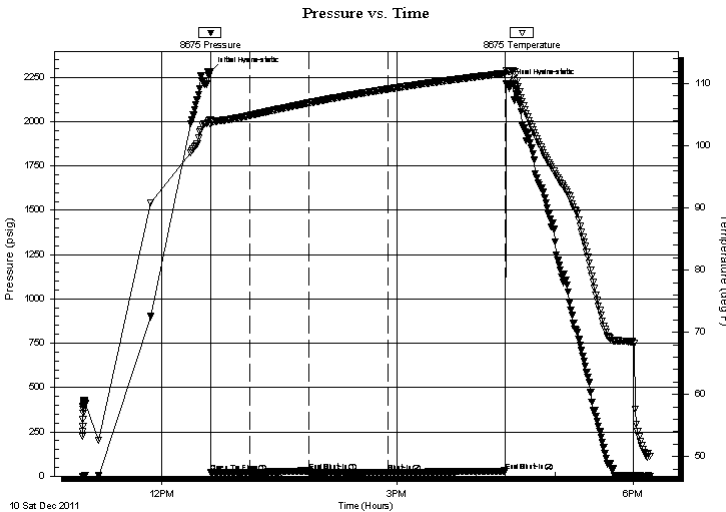
18:12:30

Time On Btm: 2011.12.10 @ 12:37:15

Time Off Btm: 2011.12.10 @ 16:23:15

TEST COMMENT: Built to 1" blow
Weak surface return blow
Built to 1/4" blow
No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2279.98	104.09	Initial Hydro-static
1	19.08	103.43	Open To Flow (1)
30	19.74	104.88	Shut-In(1)
75	29.76	106.88	End Shut-In(1)
76	19.55	106.89	Open To Flow (2)
136	19.61	109.13	Shut-In(2)
225	28.79	111.66	End Shut-In(2)
226	2214.32	112.05	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	100% Mud with oil spots	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Grand Mesa Operating Company

30-16s-32w

1700 N Waterfront PKWY
BLDG 600 Wichita, KS 67206-5514

Wel-Zan 1-30

Job Ticket: 45439

DST#: 6

ATTN: John Goldsmith

Test Start: 2011.12.10 @ 11:00:00

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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4200.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	100% Mud with oil spots	0.005

Total Length: 1.00 ft Total Volume: 0.005 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

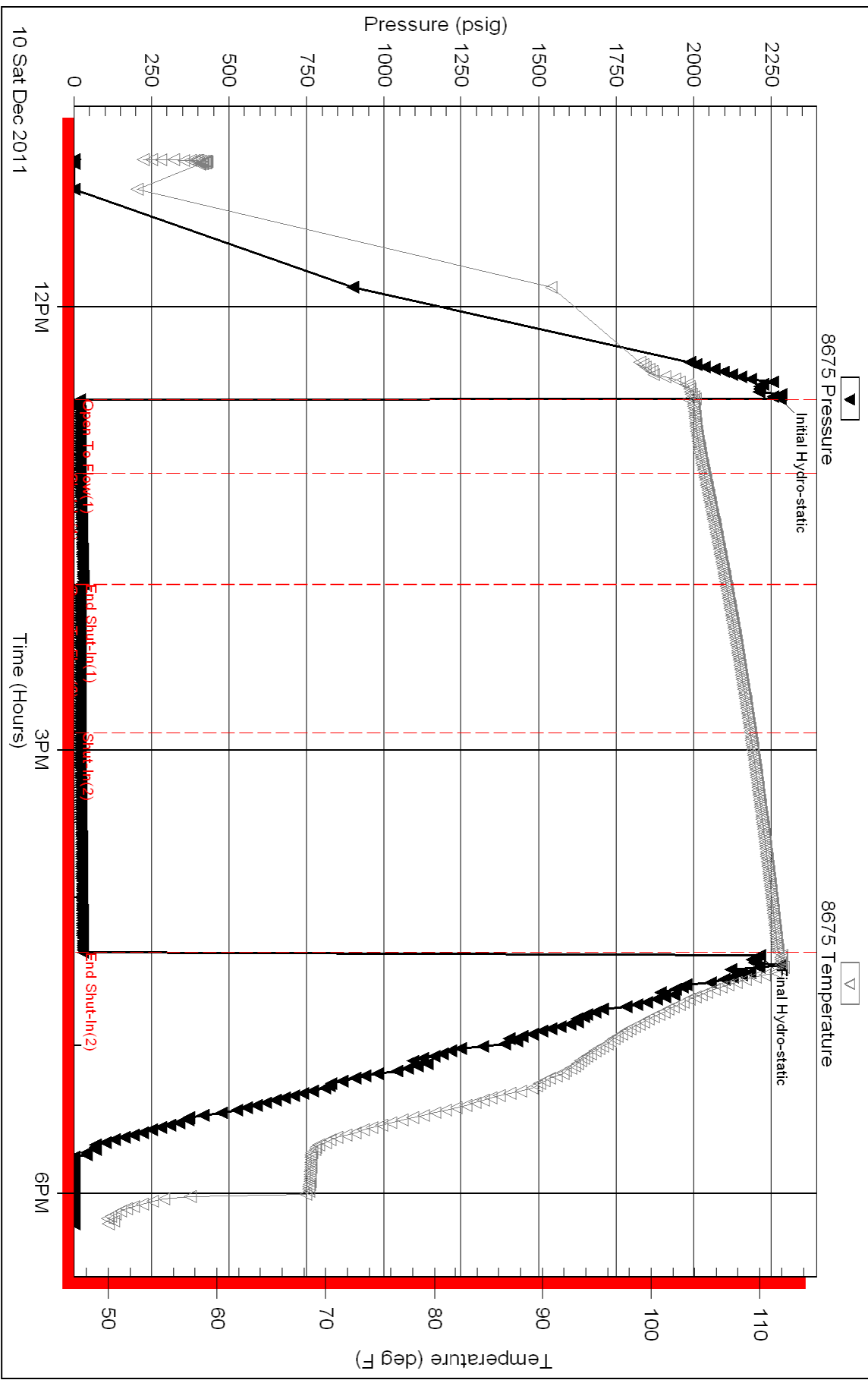
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



GRAND MESA

OPERATING COMPANY

(316) 265-3000
FAX: (316) 265-3455

1700 N. WATERFRONT PARKWAY
BLDG. 600
WICHITA, KANSAS 67208-5514

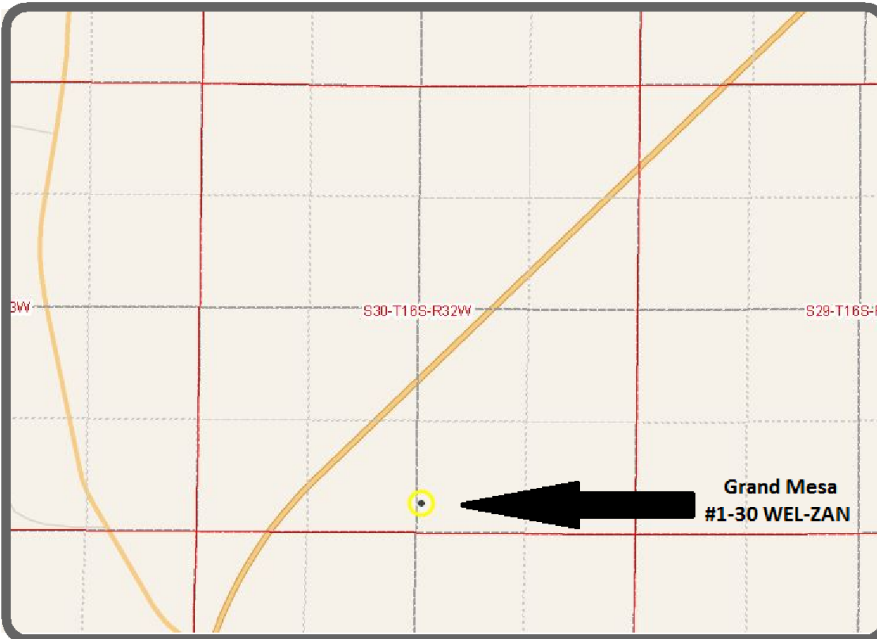
Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: #1-30 WEL-ZAN
Location: 330' FSL, 2502' FEL, SECTION 30-16S-32W
License Number: API: 15-171-20858
Spud Date: 11/30/2011
Surface Coordinates: LAT 38.6282967
LONG -100.8979283
Bottom Hole Coordinates: Vertical hole
Ground Elevation (ft): 2947' K.B. Elevation (ft): 2952'
Logged Interval (ft): 3600' To: RTD Total Depth (ft): 4800'
Formation: Spergen at RTD
Type of Drilling Fluid: Chemical
Region: Scott County
Drilling Completed: 12/11/2011

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

GEOLOGIST

Name: John Goldsmith
Company: John Goldsmith WellSite Service
Address: 322 Greenwood Ct.
Cheney, KS 67025
316-640-0236



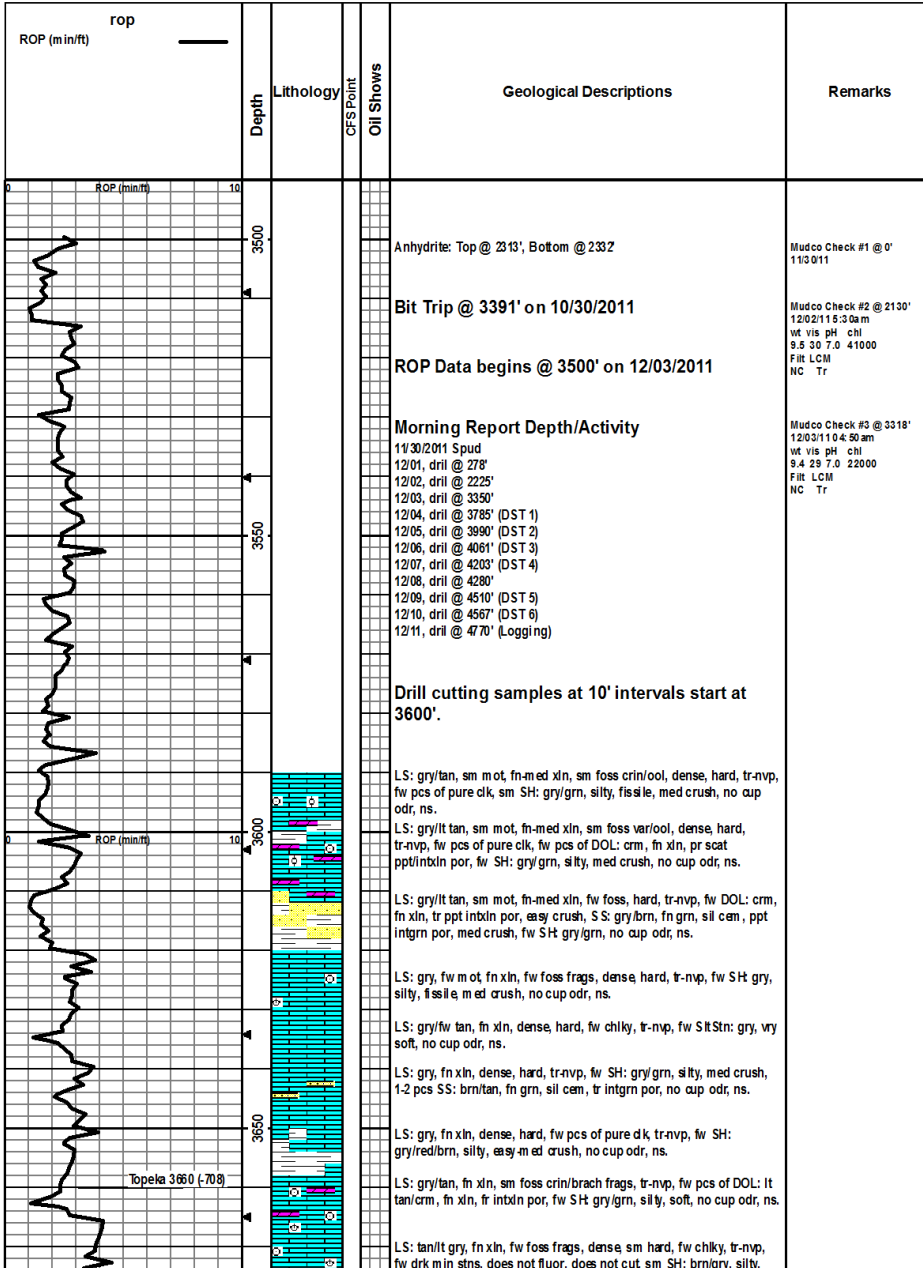
COMMENTS

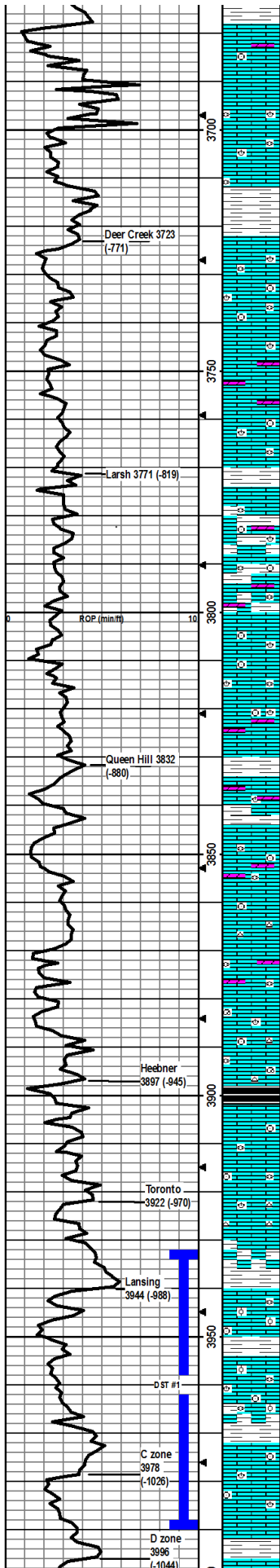
Contractor: Murfin Drilling Company Rig #24
Pusher: Tony Martin
Surface Casing: 6 joints of 8 5/8" set at 278'
Production Casing: No production casing installed, well was plugged.
Mud by: MudCo
DST's by: Tribolite Testing
Logs by: Weatherford (DIL, CN-CD, ML, CS)
RTD=4800'
LTD=4802'

FORMATION TOPS

FORMATION	SAMPLE TOPS		LOG TOPS	
	Depth	Datum	Depth	Datum
Queen Hill	3660'	-708	3658'	-706
Heebner Shale	3897'	-945	3897'	-945

Toronto	3922'	-970	3918'	-966
Lansing	3940'	-988	3940'	-988
Muncie Creek Shale	4113'	-1161	4113'	-1161
Stark Shale	4211'	-1259	4211'	-1259
Hushpuckney Shale	4252'	-1302	4252'	-1302
Marmaton	4327'	-1375	4327'	-1375
Upper Fort Scott	4430'	-1478	4430'	-1478
Little Osage Shale	4450'	-1498	4450'	-1498
Excello Shale	4468'	-1516	4467'	-1515
Johnson Zone	4540'	-1588	4541'	-1589
Morrow	4604'	-1652	4604'	-1652
Mississippian	4646'	-1694	4646'	-1694
RTD	4800'	-1848		
LTD			4802'	-1852





med crush, no cup odr, nsfo.

LS: gry/fw tan, fn xln, fw sandy, gritty, sm foss brach/crin/frags, tr-nvp, fw drk min stns, does not cut, 1-2 pcs of DOL: lt tan/crm, fn xln, fr intbld por, no cup odr, nsfo

LS: gry/tan, fn xln, sm gritty, sandy, dense, brittle, med crush, sm clk, tr-nvp, no cup odr, ns.

LS: tan, fn xln, sm v foss fuss/frags, dense, brittle, tr-nvp, sm SH: drk gry/gry, silty, fw soft, med crush, no cup odr, ns.

LS: gry/tan/sm drk gry, fn xln, sm foss brach/fuss, dense mostly uniform, sm drk min stns, does not fluor, does not cut, sm SH: gry/grn/blk, silty, sm waxy, fw carb, no cup odr, ns.

LS: gry/tan, fw mott, fn xln, sm foss brach/crin/fuss, dense, sm clk, tr intbld por, fw pcs of pure clk, abund SH: gry/grn, silty, med crush, fw pcs v soft SltStn, no cup odr, ns

LS: tan, fn xln, foss fuss/crin/brach, dense, brittle, mostly uniform, tr-nvp, fw pcs of pure clk, sm SH: gry/drk gry, silty, easy-med crush, no cup odr, ns

LS: gry/lt tan, fn xln, foss crin/fuss/frags, dense, clk, mostly uniform, pr intbld por, sm DOL: tan, fn xln, scat ppt intbld por, fw SH: gry/red-brn, silty, med crush, no cup odr, ns.

LS: tan, fn xln, foss fuss/frags, dense, mostly uniform, pr intbld por, abund DOL: tan, fn xln, scat ppt intbld por, no cup odr, ns.

LS: lt gry/tan, fn xln, foss frags, chiky, dense brittle, tr-nvp, fw drk min stns, does not cut, sm SH: gry/grn, silty, sm waxy, med crush, no cup odr, ns.

LS: lt tan, fn xln, foss frags/fuss, fw clk, dense brittle, tr-nvp, fw drk min stns, no cut, sm SH: gry, silty, med crush, no cup odr, ns.

LS: lt tan/gry, fn xln, sm foss frags, dense, tr-nvp, fw pcs of pure chl, fw pcs od DOL: tan, fn xln, scat ppt intbld por, sm SH: gry/red-brn, silty, med crush, no cup odr, ns.

LS: lt gry/tan, med xln, foss crin/brach/fuss, pr ppt intbld por, fw pcs pure chl, fw pcs DOL: tan, fn xln, pr ppt intbld por, sm SH: gry/grn, silty, sm waxy, med crush, no cup odr, ns.

LS: lt tan/crm, fn xln, foss brach/fuss/frags, rare ppt intbld por, dense brittle, no cup odr, ns.

LS: lt tan, fn-med xln, foss brach/crin, rare ool, dense, fw pcs pure chl, tr-nvp, no cup odr, ns.

LS: gry/lt tan, fn xln, foss crin/frags, brittle, tr rare ppt intbld por, 1-2 pcs of DOL: crm, fn xln, foss, fr ppt intbld por, fw SH: gry/red-brn, silty, no cup odr, ns.

LS: lt gry/lt tan, fn xln, sm foss, dense, fw chiky, tr-nvp, sm DOL: crm, fn xln, foss, dense, rare ppt intbld por, fw SH: gry/red-brn, silty, med crush, no cup odr, ns.

LS: lt tan, fn xln, dense, hard, tr-nvp, fw pcs of pure chl, abund SH: gry/drk gry, silty, fissile, med crush, no cup odr, ns.

LS: crm/lt tan, fn xln, foss fuss/crin/frags, dense, brittle, tr-nvp, fw pcs of pure chl, fw pcs of DOL: gry/lt brn, fn xln, pr ppt intbld por, hard, fw SH: gry/drk gry, silty, med crush, no cup odr, ns.

LS: gry, sm mott, fn xln, foss fuss/crin, hard, tr-nvp, fw pcs pure chl, fw Chert: gry, opaque sharp, fw SH: drk gry/gry, silty, med, crush, no cup odr, ns.

LS: lt tan/crm, fn xln, fw gritty, foss fuss/brach, brittle, fw chiky, rare ppt intbld por, sm DOL: gry/tan, fn xln, tr intbld por, no cup odr, ns.

LS: lt gry/tan, sm mott, fn xln, sm chiky, foss brach/gast, brittle, rare infoss por, drk m in stn, does not fluor, does not cut, no cup odr, ns.

LS: lt gry/tan, fn xln, sm chiky, foss crin/gast, brittle, rare infoss por, fw Chert: gry/opaque, sm SH: gry/grn/blk, silty, fissile, sm carb, no cup odr, ns.

LS: lt tan, fn xln, sm chiky, foss frags, pr ppt intbld por, sm SH: gry/drk gry, silty, fissile, fw carb, med crush, no cup odr, ns.

LS: lt tan/gry, fn xln, sm chiky, foss crin/fuss/frags, tr intbld/infoss por, sm SH: gry/grn, silty, sm waxy, easy-med crush, no cup odr, ns.

LS: crm/lt tan, micro-fn xln, foss var, dense, brittle, pr ppt infoss por, sfo, 4-6 pcs/tray, scat dul yd fluor, wk stream cut pal blu, drk dead oil stns, sm Chert: gry, sharp, v slight cup odr.

LS: fw pcs same as above, mostly lt tan, fn xln, sm foss frags, deanse, hard, tr rare intbld por, fw Chert crm/wht opaque fw SH: gry/grn, silty, med crush, no cup odr.

LS: lt tan/crm, micro-fn xln, foss var, fw ool, sm fr-gd infoss/ool por, dense, dul yel/gold fluor, stream cut pal blu, v slight cup odr, fr sfo 4-6 pcs/tray, sm SH: gry/grn, silty, med crush.

LS: Much of the same as above, less pcs w/ sfo, more SH: gry/grn, silty, fissile, soft, v slight cup odr, sfo.

LS: lt tan/crm, fn xln, foss var, sm ool, mostly dense, fw pcs w/ fr infoss/ool por, dul yd gold fluor, stream cut pal blu, sfo 3-4 pcs/tray, slight cup odr, abund SH: gry/grn, silty, sm waxy, med crush.

LS: 2 pcs Much like above, most likely from up hole, mostly tan, fn xln, foss brach/crin, sm ool, dense hard, tr-nvp, fw pcs of chl, abund SH: gry/grn, silty, sm waxy, easy-med crush, no cup odr.

LS: lt tan/crm, fn xln, foss brach/crin/frags, dense, fw ool, scat ppt-fr intbld/rare infoss por, sfo, v slight cup odr, dul yel fluor, stream cut pal blu, 4-5 pcs/tray in 30" sm pl, 1-2 in 60" sm pl, fw patchy stns in drys.

SH: gry/grn/red-brn, silty, soft-med crush, no cup odr, ns.

LS: lt tan/crm, micro-fn xln, foss var, dense, sm hard, rare intbld por, sm

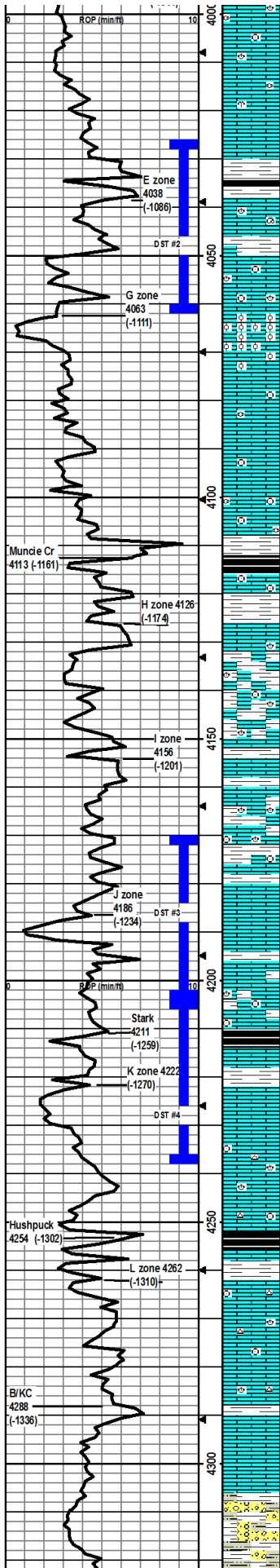
Mudco Check #4 @ 3728'
 1204115:00am
 wt vis pH chl
 8.8 62 9.5 1800
 Filt LCM
 8.8 2

DST1) 3932-3990

30454560
 1st) BOB in 5"
 2nd) BOB in 10"
 IFF 32-179#
 ISIP 1118# FSP
 FFP 178-333#
 110 SF
 HP 1941-1833#
 Recvd: 556' W, 12.4' MCW

CFS @ 3990'
 30" 60"

Mudco Check #5 @ 3990'



SH: gry/grn, silty, soft no cup odr, no fluor, ns.

LS: lt gry/tan, fn xln, sm foss, dense, hard, scat vug por, fw SH: gry/grn, soft, no cup odr, no fluor, no stns in drys, ns.

LS: tan, med-fn xln, dense, hard, fw pcs chiky, rare vug por, fw SH: gry/grn/red-brn, silty, med crush, no cup odr, ns.

LS: tan, fn-med xln, hard, sm pcs with rare vug por, mostly tr-nvp, sm SH: gry/drkr gry, silty fissile, med crush, no cup odr, ns.

LS: tan, med xln, hard, brittle, fw pcs ool, sm chiky, tr-nvp, abund SH: gry/red-brn, silty, med crush, no cup odr, ns.

LS: lt tan, fn xln, sm foss gast/brach, sm chiky, scat ppt intxn/rare vug por, fw dark spots of dead oil, stream pal blu out when crush, no cut w/o break, abund of SH: gry/drkr gry/blk, fissile, med crush, fw carb, no cup odr, nsfo.

LS: lt tan, fn xln, fw crs xln, sm foss crin/brach/var, sm v dense sm hard, sm pr intxn por, agn sm spotty stns, much like above in the 30" and 60" sm SH: gry/grn, silty, med crush, no cup odr, nsfo.

LS: drk tan, fn xln, profus oolcast, v gd oolcast por, dul yd fluor, no cut, ns.

LS: lt tan/lt gry, fn xln, sm profus oolcast w/ v gd oolcast por, mostly dense, chiky, tr-nvp, no cup odr, ns.

LS: crm/lt tan, micro xln, fw foss, dense, sm chiky, brittle, tr-pr intxn por, no cup odr, ns.

LS: lt tan, micro-fn xln, fw foss, dense, chiky, brittle, sm pure chik, tr-nvp, no cup odr, ns.

LS: lt tan, fn xln, foss fuss/crin/frags, mostly dense, brittle, rare tr-pr intfoss por, abund SH: gry/red-brn/gm/org, silty, med crush, no cup odr, ns.

SH: gry/grn/blk, silty, soft-med crush, sm carb, sm LS: crm/lt tn, micro-fn xln, sm foss var, sm chiky, dense, brittle, no cup odr, ns.

SH: gry/red-brn/org, silty, soft-med crush, sm LS: lt tan/gry, micro-fn xln, sm foss brach/fuss, dense, sm hard, fw chiky, rare tr of intfoss por/rare spotty intxn por, no cup odr, ns.

LS: lt tan, micro-fn xln, foss brach/frags, dense, brittle, sm chiky, tr-nvp, abund SH: gry/red-brn/gm, silty, soft, sm v soft much like Silstn, no cup odr, ns.

LS: lt tan, fn xln, foss frags, fw ool, brittle, sm chik pcs, pr intxn por, abund SH: gry/grn/red-brn, silty, med crush, no cup odr, ns.

SH: gry/grn/red-brn, silty, soft-med crush, fw LS: tan/gry, fn xln, foss var, tr ppt intxn/foss por, fw LS: lt tan, fn xln, oolcast, fr oolcast por, no cup odr, ns.

Sample return quality is bad, mostly SH: gry/grn/red-brn, silty, easy-med crush, sm LS: lt tan/crm, fn xln, sm foss, sm ool, sm dense, fw hard, most tr-nvp, fw with tr-pr intxn por, no cup odr, ns.

SH: gry/red-brn, silty, soft-med crush, sm LS: lt tan, fn xln, fw foss, sm desne, rare pr intxn por, no cup odr, ns.

LS: lt tan, micro-fn xln, sm oolcast, sm foss brach/frags, scat fr vuglsm v gd oolcast por, dul yd fluor, stream cut pal blu, fr-gd sfo in svrl pcs/try, gd cup odr.

30" smpl LS: much like above, fw less ps/try w/ sho, sm SH: gry/grn/brn, silty, med crush, fr sfo, 60" sm pl LS: only 3-4 pcs/tray w/ sho, mostly dense, w/ tr-nvp.

LS: lt tan, fn xln, fw foss crin/brach/frags, mostly dense, brittle, tr-nvp, abund SH: gry/drkr gry/blk, silty, med crush, fissile, sm carb, no cup odr, ns.

LS: tan, fn xln, foss crin/var, sm dense mostly hard, tr-nvp, sm SH: gry/brn/blk, silty, med crush, sm carb, no cup odr, ns.

LS: crm/lt tan, micro-fn xln, sm dense, gd intxn/rare fr vug por, dul yd fluor, stream cut pal blu, mostly drk oil little free oil on crush in water w/ fw gas bub, slight cup odr, rfo, mostly the same in 30" sm pl, w/ less cup odr, 60" sm pl had very fw pcs w/ sho and no cup odr.

LS: lt tan, fn xln, fw foss var, sm chiky, brittle, mostly uniform, tr of ppt por, sm Chert white, opaque, sharp, no cup odr, nsfo.

LS: lt tan, fn xln, foss fuss/crin, mostly uniform, fw chiky, scat pr intxn por, sm SH: gry/brn/blk, silty, med crush, fissile, sm carb, svrl pcs of Chert gry/pearl, trans, sharp, no cup odr, ns.

LS: tan/lt gry, fn xln, foss crin/brach, scat ppt intxn por, fw pcs with sm light string, wk dul yd fluor, slw cut blu when crush, v fw oil spts on crush in water, svrl pcs Chert: wht opaque, sharp, foss, no cup odr, vsslo, v fw lght patchy stns in drys.

LS: lt tan/crm, fn xln, sm foss var, mostly dense, rare ppt intxn por, fw pcs Chert: gry/wht, sharp, fw SH: gry/grn/brn, silty, fissile easy-med crush, no cup odr, ns.

LS: lt tan/lt gry, fn xln, fw foss var, mostly dense, pr intxn por, fw SH: gry/grn/brn, silty, sm fissile, easy-med crush, no cup odr, ns.

LS: lt tan, fn xln, sm chiky, mostly dense, brittle, pr ppt intxn por, abund of SH: gry/grn/brn, silty, fissile, easy-med crush, no cup odr, ns.

LS: lt tan, fn xln fw chiky, pr ppt intxn por, abund SH: gry/grn/brn, silty, fissile, easy-med crush, fw Silstn: gry, v soft, fw S: gry, fn gm, sil cem, med crush, sm glauc, no cup odr, ns.

Much of the same as above, sm LS: lt gry/lt tan, fn xln, most dense, sm ppt intxn por, sm Chert wht/gry, opaque, sharp, no cup odr, ns.

12/5/11 4:50 am
wt vis pH chl
9.0 57 10.0 2500
FIL LCM
8.8 3

DST2) 4026-4061
3045/4560
1st) BOB in 10"
2nd) BOB in 11"
IFP 23-168#
ISIP 1081#
FFP 169-320#
1076#
HP 2004-1957#
Recvd: 540' W

CFS @ 4061'
30"60"

Mudco Check #6 @ 4080'
12/6/11 11:30am
wt vis pH chl
9.1 59 9.5 3100
FIL LCM
9.8 5

DST3) 4171-4203
3030/3030
1st) Built to 1/2"
2nd) Weak surface died at 2"
IFP 17-21#
ISIP 1026#
FFP 22-24#
966#
HP 2075-2005#
Recvd: 5' Mud w/ oil specs

Stop to circulate to clean out hole. Return sample quality was bad.

Mudco Check #7 @ 4203'
12/7/11 11:30am
wt vis pH chl
9.2 56 10.0 3800
FIL LCM
8.8 6

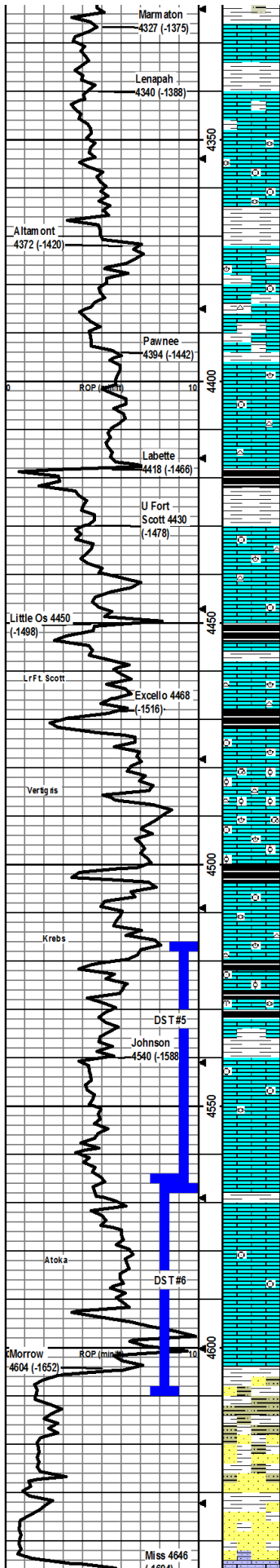
CFS @ 4203'
30"60"

CFS @ 4237'
30"60"

DST4) 4204-4237
3030/3030
1st) BOB in 5"
2nd) BOB in 5"
IFP 45-308#
ISIP 1126#
FFP 316-498#
1121#
HP 2123-2044#
Recvd: 750' of water, 2 60' of MCW

CFS @ 4314'
30"60"

Mudco Check #8 @ 4320'



LS: crm/lt tan, micro-fn xln, mostly dense, pr intxn por, 2-3 pcs with
 spotted vsfo, scat dul yel fluor, slw stream out pal blu, sm SH:
 gry/brn/grn, silty, fissile, soft, no cup odr.

SH: gry/grn/brn, silty, mostly fissile, med crush, fw LS: lt tan, fn xln,
 mostly dense, tr-nvp, no cup odr, ns.

SH: gry/grn/red-brn, silty, mostly soft, sm med crush, no cup odr, ns.

Mostly SH as above, sm LS: lt tan, fn xln, foss var, mostly dense
 brittle, tr ppt intfoss por, no cup odr, ns.

LS: tan/lt tan, fn-med xln, foss frags, dense, hard, tr-nvp, abund SH:
 gry/grn/red-brn, silty, sm waxy, easy-med crush, no cup odr, ns.

LS: crm/lt tan, micro-fn xln, dense, hard, tr-nvp, abund SH:
 gry/grn/red-brn, silty, soft, no cup odr, ns.

LS: lt tan, fn xln, sm foss crin/frags, mostly dense, tr-nvp, abund SH:
 gry/grn/red-brn, silty, easy-med crush, fw Chert: wht, opaque, sharp,
 no cup odr, ns.

LS: tan, fn xln, sm v foss var, sm dense/hard, tr-nvp, abund SH:
 mostly same as above, no cup odr, ns.

LS: lt tan, micro-fn xln, fw foss, mostly dense, tr-nvp, abund SH:
 gry/grn/red-brn, silty, med crush, no cup odr, ns.

LS: tan/lt gry, fn xln, dense, sm hard, tr-nvp, fw Chert: gry, sharp, no
 cup odr, ns.

SH: gry/grn/red-brn/bk, silty, fissile, med crush, sm carb, no cup odr,
 ns.

LS: tan/lt gry, fn xln, foss brach/crin/frags, tr ppt intxn por, abund SH:
 gry/red-brn, silty, sm fissile, easy-med crush, no cup odr, ns.

LS: tan/lt gry, fn-med xln, sm foss, sm hard, tr-nvp, sm SH:
 gry/red-brn, silty, soft, fw Chert: wht, trans, foss, no cup odr, ns.

LS: gry, fn xln, sm foss, fw chiky, sm flakey, tr-nvp, abund SH:
 gry/red-brn/bk, silty, sm carb, no cup odr, ns.

LS: tan/lt gry, fn-med xln, sm dense, sm flakey, scat pr intxn por, sm
 drk dead oil stns on 3-4 pcs, wk dul yel fluor, slw wk pal blu cut,
 abund SH: gry/grn/bk, silty, sm carb, med crush, no cup odr, nsfo.

LS: lt tan/lt gry, fn-med xln, sm foss var, fw chiky, sm scat ppt intxn
 por, fw pcs Chert wht, opaque, sharp, sm SH: gry/brn/bk, silty,
 fissile, med crush, no cup odr, ns.

LS: tan/lt gry, sm ool, fn-med xln, foss brach/gas/crin, scat pr intxn
 por, 1-2 pcs w/ v sm all oil spots, wk out pal blu, does not fluor well,
 vsfo, no cup odr, sm SH: gry/bk, silty, fissile, carb.

LS: tan/lt gry, fn-crst xln, profus foss gas/brach, sm ool, sm dense,
 rare pr intxn/intfoss por, sm Chert: gry, trans, foss, sm SH: gry/dkr
 gry, silty, med crush, no cup odr, ns.

LS: tan/lt gry, fn xln, foss frags/var, fw ool, sm flakey, sm pr intxn por,
 fw Chert: gry, trans, foss, sm SH: gry/bk, silty, fissile, sm carb, no
 cup odr, ns.

LS: lt tan, fn xln, foss frags/var, fw pcs flakey, mostly dense/brittle, fw
 pcs hard, rare ppt intxn por, fw pcs of pure chl, fw SH: gry/bk, silty,
 soft, fw carb, no cup odr, ns.

LS: lt gry/lt tan, fn xln, fw foss frags, dense, mostly uniform, hard,
 tr-nvp, fw pcs Chert: gry, foss, sharp, no cup odr, ns.

LS: lt tan, fn xln, sm foss crin/ool, sm chiky, tr-nvp, sm SH:
 gry/brn/bk, silty, med crush, sm fissile, sm carb, no cup odr, ns.

LS: crm/lt tan, fn xln, fw foss frags, mostly dense, sm chiky, pr ppt
 intxn por, abund SH: gry/grn, silty, fissile, med crush, no cup odr, ns.

LS: lt tan, fn xln, foss crin/var/frags, sm dense, rare ppt intxn por, 2 v
 small pcs w/ lght stning, scat dul yel fluor, wk slw stream out pal blu,
 abund SH: gry/grn/brn, silty, easy-med crush, no cup odr, vsfo.

LS: lt tan, fn xln, mostly dense, sm pr-fr ppt intxn por, fw v sm all pcs
 w/ sfo, scat dul yel fluor, stream out pal blu, sm SH: gry/brn, silty,
 fissile, easy-med crush, no cup odr, nsfo.

30" smpl LS: same as above, only had 2-3 v small pcs w/ vsfo, 60"
 LS: much as above, only 2 small pcs w/ sfo, abund of SH: gry/grn,
 silty, easy-med crush, no cup odr.

LS: tan/lt grn, micro-fn xln, mostly dense, scat pr intxn/rare vug var,
 vsfo in 4-6 pcs/try, difficult to break out of porosity, drk dead oil, scat
 dul yel fluor, wk slw out pal blu, no cup odr.

LS: lt tan, micro-fn xln, foss crin/var, bit of pr ppt intxn por, fw spts
 of patchy stns, dul fluor, no cut, no sfo, no cup odr.

LS: lt tan/gry, fn xln, tr-nvp, brittl e scat fr ppt intxn por, fw w/ ppt
 spts fo, no cup odr, fw stns, wk cut, scat dul yel fluor.

LS: drk tan/gry, micro- xln, dense, hard, nvp, sm LS: crm/lt tan, fn xln,
 fr intxn por, brittle svl stained pcs, fw pcs w/ fny drops of fo, wk
 fluor, wk cut, vsfo, faint cup odr.

30" smpl LS: much of the same as above, only 1-2 pcs with stning, 60"
 smpl had nsfo, abund SH: gry/grn, silty, easy-med crush.

SH: gry/dkr gry, silty, fissile, med crush, SS: lt gry/gry, fn grn, sub
 rnd, sil cem, fw glauc, no cup odr, ns.

SS: wht/tan, fn grn, sub rnd, sil cem, sm w/ tiny blk specs, possibly
 dead oil, no cup odr, no fluor, no cut, fw SH: gry/lt gry, v silty, sm v
 soft, nsfo.

SS: wht/tan, fn grn, sub rnd, sil cem, tiny blk specs, possibly dead oil
 no cup odr, no fluor, no cut, sm SH: gry/dkr gry, silty, fissile, med
 crush, nsfo.

LS: wht, fn xln, brittle, sandy, gritty, well sorted, pr intgrn por, sm drk

wt vis pH chl
 9.1 46 10.5 3000
 FIT LCM
 7.2 4

Return Samples were bad,
 stopped to circ to clean up
 samples.

Mudco Check #9 @ 4530'
 12/9/11 9:40 am
 wt vis pH chl
 9.3 57 10.5 3400
 FIT LCM
 7.2 5

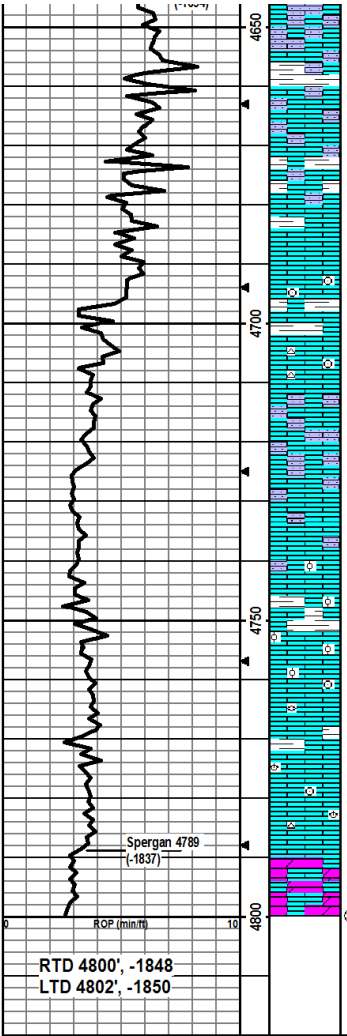
DST5) 4518-4567
 30454560
 1st) Built to 1"
 2nd) Wk surface
 I/P 19-23#
 ISIP 73#
 FFP 19-24# F SIP 61#
 HP 2286-2228#
 Recvd: 5' Mud w/ oil s cum

CFS @ 4567'
 30"60"

DST6) 4565-4609
 30456090
 1st) Built to 1"
 2nd) Built to 114"
 I/P 19-20#
 ISIP 30#
 FFP 20-20# F SIP 29#
 HP 2280-2214#
 Recvd: 1' OSM

CFS @ 4609'
 30"60"

MudcoCheck #10 @ 4609'
 12/10/11 7:30 am
 wt vis pH chl
 9.3 52 10.0 4200
 FIT LCM
 7.2 5



min stns, no fluor, no cut, sm sh: gry/grn, silty, sm sort, med crush, no cup odr, ns

LS: wht, fn xln, brittle, sandy, gritty, well sorted, pr intgrn por, sm LS: lt tan, micro-fn xln, dense, hard, tr-nvp, abund of SH: gry/grn/brn, silty, sm fissile, easy-med crush, no cup odr, ns.

LS: tan, fn xln, dense, brittle, tr-nvp, 2 tiny pcs w/ possible lght string, no fluor, did not cut, sm LS: wht, fn xln, gritty/sandy, pr inbkn por, no cup odr, nsfo.

LS: tan, micro-fn xln, dense, brittle, mostly uniform, tr-nvp, fw pcs w/ drk m in stns, does not fluor, does not cut, fw SH: gry/grn, silty, fissile, easy-med crush, no cup odr, ns

LS lt tan, fn xln, dense, brittle, mostly uniform, tr-nvp, fw pcs pure chlk, sm SH: gry/grn, silty, fissile, easy-med crush, no cup odr, ns.

LS: crm/lt tan, micro-fn xln, fw foss frags, dense, brittle, tr-nvp, fw pcs chlk, v fw pcs of SH: gry/grn, silty, soft, no cup odr, ns.

LS: crm/lt tan, fn xln, mostly dense, brittle, sm pcs w/ tr-pr inbkn por, fw drk m in stns, no cut, no fluor, fw Chert: white, opaque, sharp, fw SH: gry/brn, silty, soft, no cup odr, ns.

LS: wht, fn xln, sandy, gritty, glauc, rounded clusters, pr intgrn por, fw LS: lt tan, fn xln, dense, hard, tr-nvp, no cup odr, ns.

LS: wht/gry, fn xln, sandy gritty, pr intgrn por, small blk spts of min stns, no fluor, no cut, fw LS: lt tan, fn xln, dense, tr-nvp, sm SH: gry/grn, silty, soft, no cup odr, ns.

LS: crm/lt tan, micro-fn xln, dense, brittle, tr-nvp, fw LS: wht/gry, fn xln, sandy, pr intgrn por, fw SH: gry/grn, silty, soft, no cup odr, ns.

LS: lt tan, micro xln, fw foss/ool, dense, brittle, tr-nvp, fw LS: wht/gry, fn xln, gritty, pr intgrn por, sm SH: gry/grn, silty, med crush, no cup odr, ns.

LS: tan, fn xln, fw crs xln, sm foss/ool, fw dense, brittle, tr-nvp, fw SH: gry/grn, silty, fissile, soft, no cup odr, ns.

LS: crm/lt tan, micro-fn xln, sm foss frags, sm dense, brittle, tr-nvp, fw SH: gry/grn, silty, soft, no cup odr, ns.

LS: lt tan, fn xln, fw foss frags, sm dense, mostly brittle, tr-nvp, fw SH: gry/grn, fissile, easy crush, no cup odr, ns.

LS: lt tan, fn xln, fw foss brach/frags, brittle, pr inbkn por, fw pcs Chert: wht, opaque, sharp, no cup odr, ns.

DOL: lt pink, fn xln, semi-trans, fr-gd inbkn por, med crush, no fluor, no cut, sm LS: lt tan, fn xln, fw foss frags, brittle, tr-nvp, no cup odr, ns.

Driller adjusted more weight on the bit

MudcoCheck #11 @ 4710'
12/11/11 8:20am
wt vis pH chl
9.5 57 9.5 4400
FHT LCM
8.8 5

CFS @ 4800'
30"/60"

RTD 4800', -1848
LTD 4802', -1850

ALLIED CEMENTING CO., LLC. 035291

Federal Tax I.D.# 20-5975804

DEBIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:

Oakley

DATE <u>11-30-11</u>	SEC. <u>30</u>	TWP. <u>16</u>	RANGE <u>32</u>	CALLED OUT	ON LOCATION	JOB START <u>10:00 am</u>	JOB FINISH <u>10:30 pm</u>
WELZAR BASE	WELL# <u>1-30</u>	LOCATION <u>Oakley 35's E into</u>			COUNTY <u>SCOTT</u>	STATE <u>KS</u>	
OLD OR (NEW) (Circle one)							

CONTRACTOR Murfin 24 OWNER same

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. 236' CEMENT

CASING SIZE 8 7/8 DEPTH 236' AMOUNT ORDERED 165 sks com

TUBING SIZE DEPTH 396cc 2969cc

DRILL PIPE DEPTH

TOOL DEPTH

RES. MAX MINIMUM

WEAS. LINE SHOBJOINT

CEMENT LEFT IN CSG. 15'

BRFS.

DISPLACEMENT 14.07

EQUIPMENT

PUMP TRUCK CEMENTER Andrew

1423-281 HELPER Jerry

BULK TRUCK

1404 DRIVER Chris

BULK TRUCK DRIVER

HANDLING 124 sks @ 2.125 391.50

MILEAGE 11.8 sk/mile 669.90

TOTAL 4155.60

REMARKS:

Cement did circulate

Thank you

CHARGE TO: Grand mesa

STREET

CITY STATE ZIP

SERVICE

DEPTH OF JOB

PUMP TRUCK CHARGE 1125.00

EXTRA FOOTAGE @

MILEAGE 35 miles @ 2.00 745.00

MANIFOLD head @ 200.00

Light vehicle @ 4.00 140.00

TOTAL 1710.00

PLUG & FLOAT EQUIPMENT

@

@

@

@

@

TOTAL

SALES TAX (If Any)

TOTAL CHARGES

DISCOUNT IF PAID IN 30 DAYS

PRINTED NAME Anthony Martin

SIGNATURE Anthony Martin

To Allied Cementing Co., 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.

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
Ward Loyd, Commissioner
Thomas E. Wright, Commissioner

Sam Brownback, Governor

January 04, 2012

Ronald N. Sinclair
Grand Mesa Operating Company
1700 N WATERFRONT PKWY BLDG 600
WICHITA, KS 67206-5514

Re: ACO1
API 15-171-20858-00-00
WEL-ZAN 1-30
SE/4 Sec.30-16S-32W
Scott 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,
Ronald N. Sinclair