



Scale 1:240 Imperial

Well Name: Nancy #5-17  
 Surface Location: 789' FNL, 1538' FWL, Sec. 17-17S-13W  
 Bottom Location:  
 API: 15-009-26163-0000  
 License Number:  
 Spud Date: 2/10/2017 Time: 6:00 PM  
 Region: Barton County  
 Drilling Completed: 2/17/2017 Time: 10:30 AM  
 Surface Coordinates:  
 Bottom Hole Coordinates:  
 Ground Elevation: 1961.00ft  
 K.B. Elevation: 1972.00ft  
 Logged Interval: 2800.00ft To: 3540.00ft  
 Total Depth: 3540.00ft  
 Formation: Lansing Kansas City  
 Drilling Fluid Type: Chemical/Fresh Water Gel

**OPERATOR**

Company: Shelby Resources, LLC  
 Address: 621 17th St, Suite 1155  
 Denver, CO 80293  
 Contact Geologist: Janine Sturdavant  
 Contact Phone Nbr: 303-907-2209 / 720-274-4682  
 Well Name: Nancy #5-17  
 Location: 789' FNL, 1538' FWL, Sec. 17-17S-13W  
 API: 15-009-26163-0000  
 Pool:  
 State: Kansas Field: Trapp  
 Country: USA

**LOGGED BY**



Company: Shelby Resources, LLC  
 Address: 621 17th St, Suite 1155  
 Denver, CO 80293  
 Phone Nbr: 203-671-6034  
 Logged By: Geologist Name: Jeremy Schwartz

**NOTES**

The Shelby Resources, LLC Nancy #5-17 was drilled to a total depth of 3540', bottoming in the Arbuckle. A TookeDaq gas detector was employed in the drilling of said well.

Five DST's were conducted throughout the Lansing-Kansas City and Arbuckle zones. The DST Reports can be found at the bottom of this log.

Due to DST results, sample shows, gas kicks, and log analysis it was determined by all parties involved to further test the well through production casing. The dry samples were saved and will be available for further review at the Kansas Geological Society Well Sample Library, located in Wichita, KS.

Respectfully Submitted,  
Jeremy Schwartz  
Geologist

**CONTRACTOR**

Contractor: Sterling Drilling Co

Rig #: 5  
 Rig Type: mud rotary  
 Spud Date: 2/10/2017  
 TD Date: 2/17/2017  
 Rig Release:

Time: 6:00 PM  
 Time: 10:30 AM  
 Time:

### ELEVATIONS

K.B. Elevation: 1972.00ft      Ground Elevation: 1961.00ft  
 K.B. to Ground: 11.00ft

DATE	DEPTH	ACTIVITY
Monday, February 13, 2017	3050'	Geologist Jeremy Schwartz on location @ 1245hrs, ~3050', drlg ahead through Heebner, Toronto, Douglas, Brown Lime, CFS @ 3208', drop survey
	3208'	Strap out, conduct bit trip, successful bit trip, resume drlg ahead through Lansing,
Tuesday, February 14, 2017	3276'	CFS @ 3276', conduct DST #1 in the Lansing "A-D", successful test, resume drlg
	3296'	through Lansing "G", CFS @ 3296', resume drlg
Wednesday, February 15, 2017	3431'	CFS @ 3431', conduct DST #2 in the Lansing "H-K", successful test, resume drlg,
	3450'	CFS @ 3443', resume drlg, CFS @ 3450', conduct DST #3 in the Arbuckle
Thursday, February 16, 2017	3456'	successful test, CFS @ 3456', conduct DST #4 in the Arbuckle, successful test
	3463'	resume drlg, CFS @ 3463', conduct DST #5 in the Arbuckle, succesful test,
Wednesday, February 17, 2016	3463'	resume drlg ahead to TD, TD of 3540' reached @ 1030hrs, CTCH 1hr, drop survey
	3540'	come out of the hole to conduct logging operations, logging operations
		complete @ 1700hrs, Geologist Jeremy Schwartz off location @ 1715hrs

FORMATION	SHELBY RESOURCES, LLC												ENERGY THREE, INC				SHELBY RESOURCES, LLC			
	NANCY #5-17						NANCY #1-17						CREST TRUST #1				NANCY #3-17			
	NW-SW-NE-NW 17-17S-13W						C-N/2-SW-NW 17-17S-13W						N/2-N/2-SE-NW 17-17S-13W				NE-SW-SE-NW 17-17S-13W			
	KB		1972		KB		1992		KB		1961		KB		1978					
	LOG TOPS		SAMPLE TOPS		COMP. CARD		LOG	SMPL.	COMP. CARD		LOG	SMPL.	COMP. CARD		LOG	SMPL.				
DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	CORR.	CORR.	DEPTH	DATUM	CORR.	CORR.	DEPTH	DATUM	CORR.	CORR.					
ANHYDRITE TOP	908	1064	909	1063	928	1064	+ 0	- 1	898	1063	+ 1	+ 0	916	1062	+ 2	+ 1				
BASE	934	1038	937	1035	956	1036	+ 2	- 1	926	1035	+ 3	+ 0	944	1034	+ 4	+ 1				
TOPEKA	2906	-934	2906	-934	2920	-928	- 6	- 6	2895	-934	+ 0	+ 0	2912	-934	+ 0	+ 0				
KING HILL	2973	-1001	2972	-1000	2986	-994	- 7	- 6	2962	-1001	+ 0	+ 1	2978	-1000	- 1	+ 0				
QUEEN HILL	3037	-1065	3036	-1064	3050	-1058	- 7	- 6	3025	-1064	- 1	+ 0	3042	-1064	- 1	+ 0				
HEEBNER SHALE	3124	-1152	3120	-1148	3138	-1146	- 6	- 2	3113	-1152	+ 0	+ 4	3129	-1151	- 1	+ 3				
TORONTO	3142	-1170	3142	-1170	3156	-1164	- 6	- 6	3132	-1171	+ 1	+ 1	3144	-1166	- 4	- 4				
DOUGLAS SHALE	3151	-1179	3150	-1178	3166	-1174	- 5	- 4	3141	-1180	+ 1	+ 2	3157	-1179	+ 0	+ 1				
BROWN LIME	3205	-1233	3205	-1233	3218	-1226	- 7	- 7	3196	-1235	+ 2	+ 2	3212	-1234	+ 1	+ 1				
LKC	3214	-1242	3214	-1242	3228	-1236	- 6	- 6	3210	-1249	+ 7	+ 7	3219	-1241	- 1	- 1				
LKC G	3289	-1317	3290	-1318	3300	-1308	- 9	- 10	3277	-1316	- 1	- 2	3292	-1314	- 3	- 4				
MUNCIE CREEK	3340	-1368	3341	-1369	3354	-1362	- 6	- 7	3328	-1367	- 1	- 2	3344	-1366	- 2	- 3				
LKC H	3346	-1374	3348	-1376	3361	-1369	- 5	- 7	3336	-1375	+ 1	- 1	3349	-1371	- 3	- 5				
STARK SHALE	3402	-1430	3403	-1431	3413	-1421	- 9	- 10	3387	-1426	- 4	- 5	3402	-1424	- 6	- 7				
BKC	3424	-1452	3425	-1453	3438	-1446	- 6	- 7	3415	-1454	+ 2	+ 1	3429	-1451	- 1	- 2				
ARBUCKLE	3436	-1464	3441	-1469	3476	-1484	+ 20	+ 15	3443	-1482	+ 18	+ 13	3455	-1477	+ 13	+ 8				
RTD			3540	-1568	3539	-1547		- 21	3475	-1514		- 54	3525	-1547		- 21				
LTD	3540	-1568			3537	-1545	- 23		3474	-1513	- 55		3528	-1550	- 18					

### ROCK TYPES






 Congl	 Lmst fw<7 shale, gry	 Carbon Sh shale, red
 Dolprim		

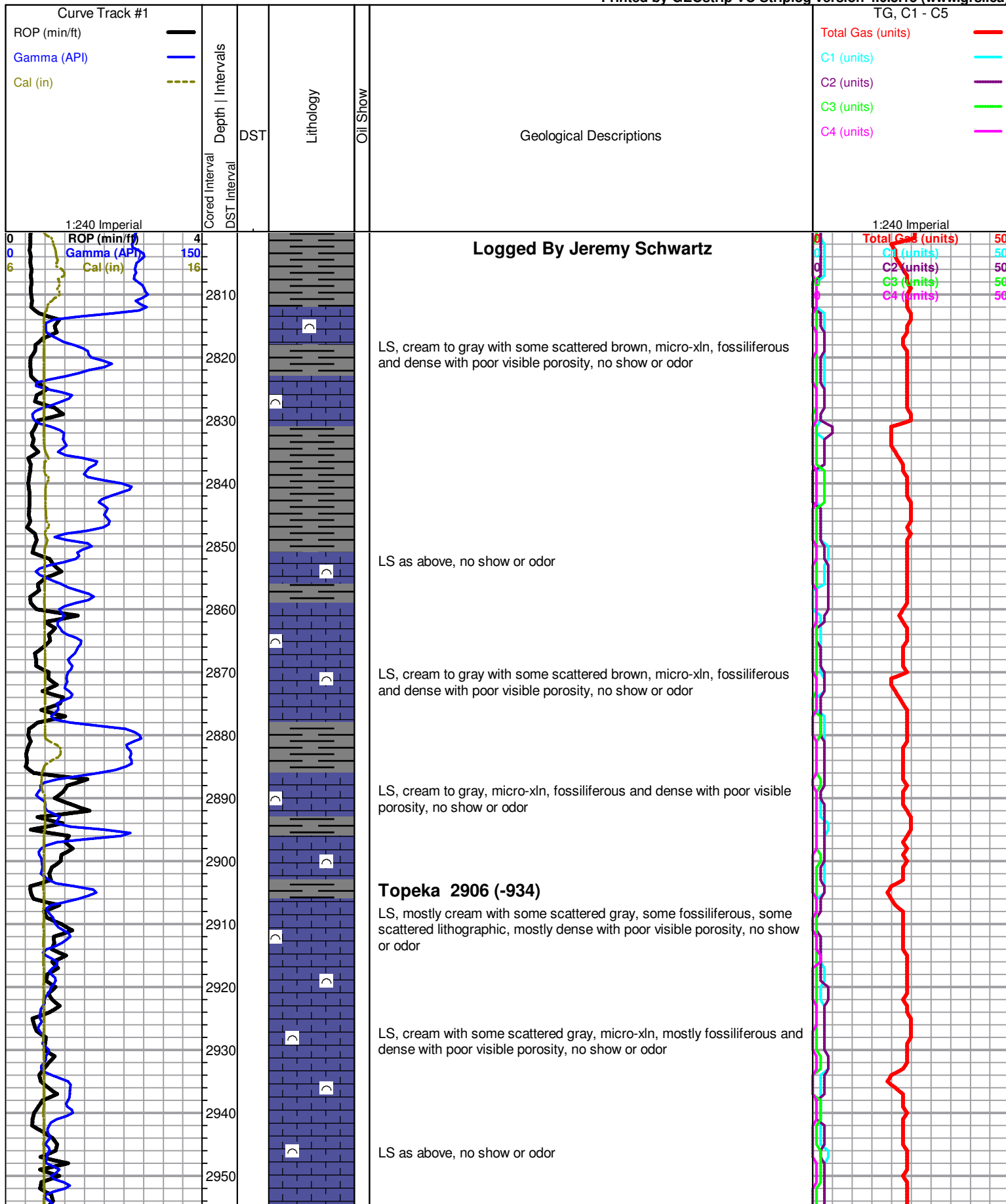
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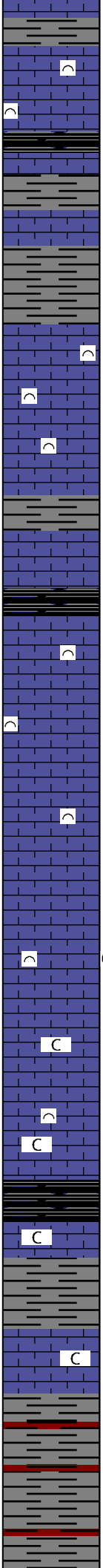
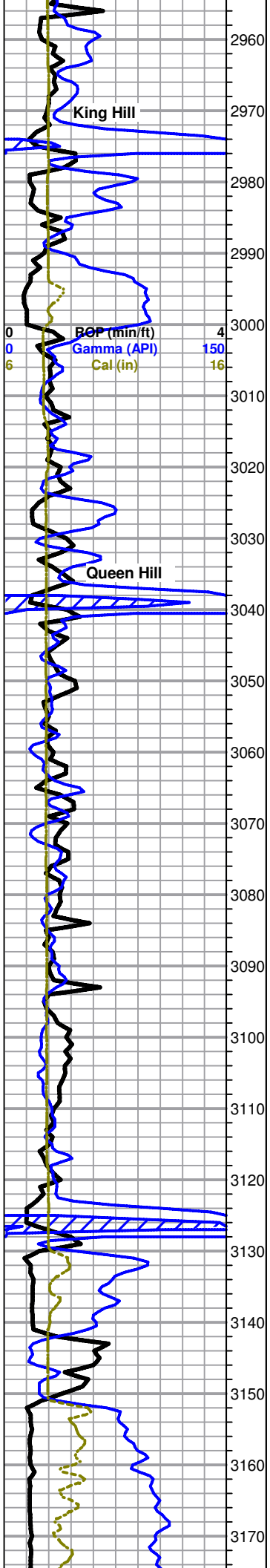
<b>MINERAL</b> △ Chert White P Pyrite	<b>FOSSIL</b> ∩ Bioclastic or Fragmental	<b>STRINGER</b> ~~~~ Chert ■ Limestone ••• Sandstone — Shale — red shale	<b>TEXTURE</b> C Chalky
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### OTHER SYMBOLS

<b>MISC</b> DR Daily Report Digital Photo Document Folder	<b>DST</b> ■ DST Int ■ DST alt
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-  Link
-  Vertical Log File
-  Horizontal Log File
-  Core Log File
-  Drill Cuttings Rpt





LS, cream with some scattered gray, micro-xln, fossiliferous with some scattered lithographic, dense with poor visible porosity, no show or odor

LS, cream to gray with some very scattered brown, mostly micro-xln with some very scattered crypto-xln, fossiliferous to lithographic and dense with poor visible porosity, no show or odor

LS, cream with some scattered gray, micro-xln, fossiliferous to lithographic and dense with poor visible porosity, no show or odor

LS as above, no show or odor

LS, cream to light gray, micro-xln, fossiliferous and dense with poor visible porosity, with some very scattered cream, crypto-xln, lithographic and dense with poor visible porosity, no show or odor

LS, cream, micro-xln, mostly lithographic and dense with poor visible porosity, few very small chips with re-crystalized edges and poor wet to tarry black stain on edges only, poor visible porosity, NSFO, no odor

LS, cream, micro-xln, mostly lithographic with some scattered fossiliferous, poor visible porosity, some scattered soft and chalky in part, fairly chalky sample, no show or odor

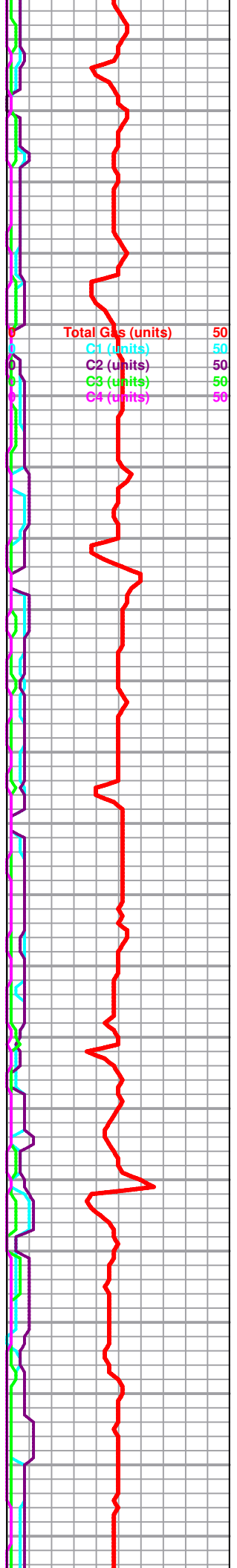
**Heebner 3120 (-1148)**  
Shale, black carbonaceous

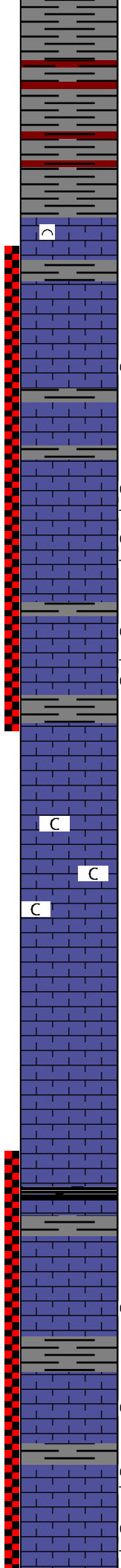
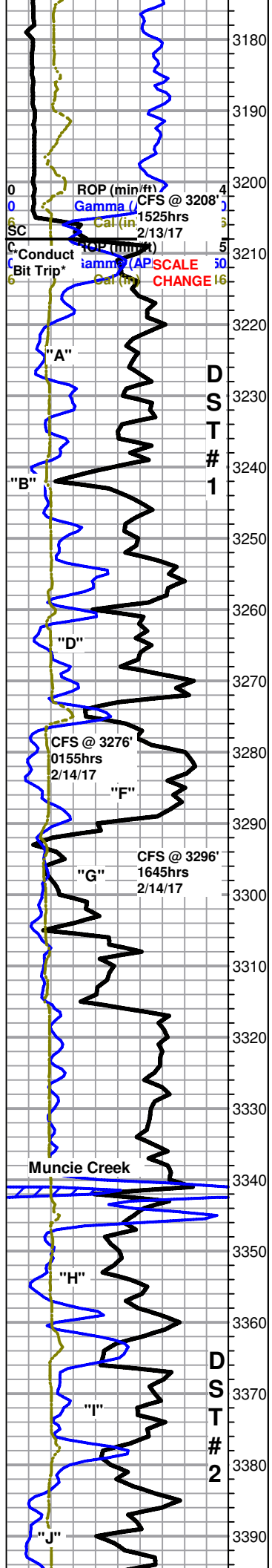
**Toronto 3142 (-1170)**  
LS, cream with some scattered tan to white, micro-crypto xln, mostly lithographic and dense with poor visible porosity, slightly chalky, no show or odor

**Douglas Shale 3150 (-1178)**  
Shale, mostly gray with some very scattered red, mostly soft and waxy

Shale as above

Total Gas (units)	50
C1 (units)	50
C2 (units)	50
C3 (units)	50
C4 (units)	50



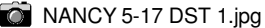


Shale as above, with slight influx red

**Brown Lime 3205 (-1233)**

LS, brown, micro-xln, fossiliferous and very dense with no visible porosity, no show or odor

**Lansing 3214 (-1242)**



LS, cream to gray with some scattered white, mostly lithographic and dense with poor visible porosity, some scattered slightly fossiliferous, no show or odor

○ LS, cream, micro-xln, mostly lithographic and dense with poor visible porosity, few scattered chips (<5%) with some poor to fair pinpoint to very slightly vuggy edges with very scattered light golden brown stain around porosity only, upon break few chips with VSSFO, NSFO in tray, some scattered dull yellow fluor., fair fleeting odor in cup

● LS, cream, micro-xln, mostly lithographic with poor visible porosity, with some scattered (~20%) fair oomoldic to slightly vuggy porosity with scattered to mostly saturated light golden brown stain in porosity and matrix, with fair show gas bubbles in porosity as well, upon break slight to good show free oil in some chips (very light brown droplets), chips show fair inter-xln porosity and darker stain in some scattered areas, scattered to even dull yellow fluor., in some chips, NSFO in tray, fair odor

\* LS as above with shows appearing to be slightly dropping out, NSFO in tray, poor odor

○ LS, cream, micro-xln, mostly lithographic with some very scattered slightly fossiliferous, with some scattered (~15%) with some scattered fair pinpoint porosity to few scattered small vugs with scattered light brown stain and slight to fair show gas bubbles mostly around porosity only, upon break or when agitated chips have fair to good show free oil, some scattered dull yellow fluor., good show free oil in tray, fair odor

\* 3276' 30" LS, cream to gray, micro-xln, fossiliferous to lithographic, mostly poor visible porosity, few very scattered chips with slight inter-fossil porosity and poor stain, few with very slightly vuggy edges, upon break VSSFO in few chips, NSFO in tray, poor odor

○ 3276' 60" Mostly same as above, NSFO in tray, poor odor

● LS, cream, crypto-micro xln, lithographic and dense with poor visible porosity, no show or odor

\* 3296' 30" LS, cream, crypto-micro xln, mostly lithographic and dense with poor visible porosity, with some very scattered sub-oolitic to sub-oomoldic and few chips oomoldic, barren with poor visible oomold porosity, fairly chalky, no show or odor

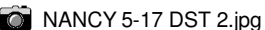
○ 3296' 60" LS, cream, micro-xln, mostly sub-oomoldic to oomoldic with some scattered sub-oolitic, barren with poor visible oomold porosity, chalky, no show or odor

\* LS, cream, micro-xln, oomoldic to sub-oomoldic with some scattered sub-oolitic, barren with poor visible oomold porosity, no show or odor

○ LS, cream to gray, micro-xln, mostly lithographic and dense with poor visible porosity, with some scattered sub-oomoldic, barren with poor visible oomold porosity, no show or odor

\* LS, gray to cream, micro-xln, lithographic and dense with poor visible porosity, no show or odor

○ LS as above, no show or odor



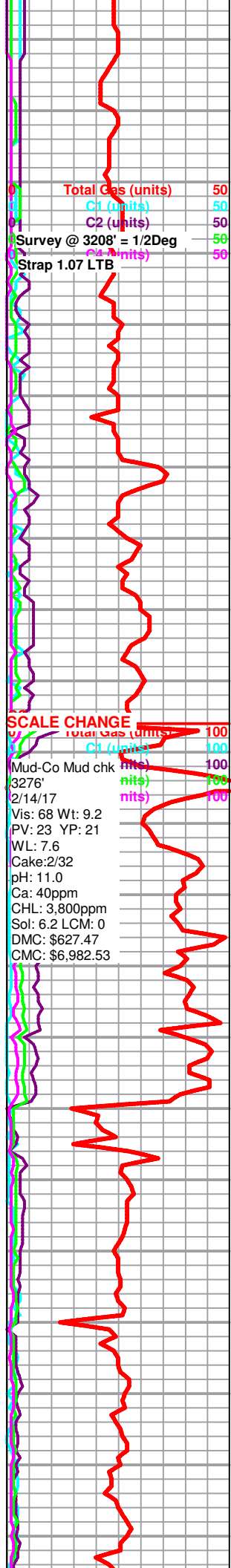
○ LS, cream to gray with some very scattered brown, micro-xln, lithographic and dense with poor visible porosity, no show or odor

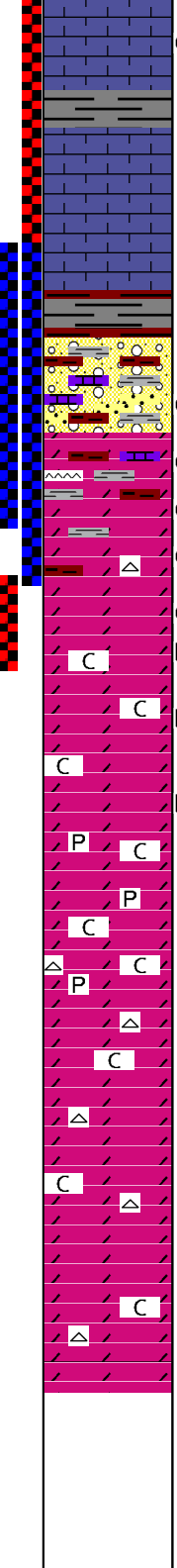
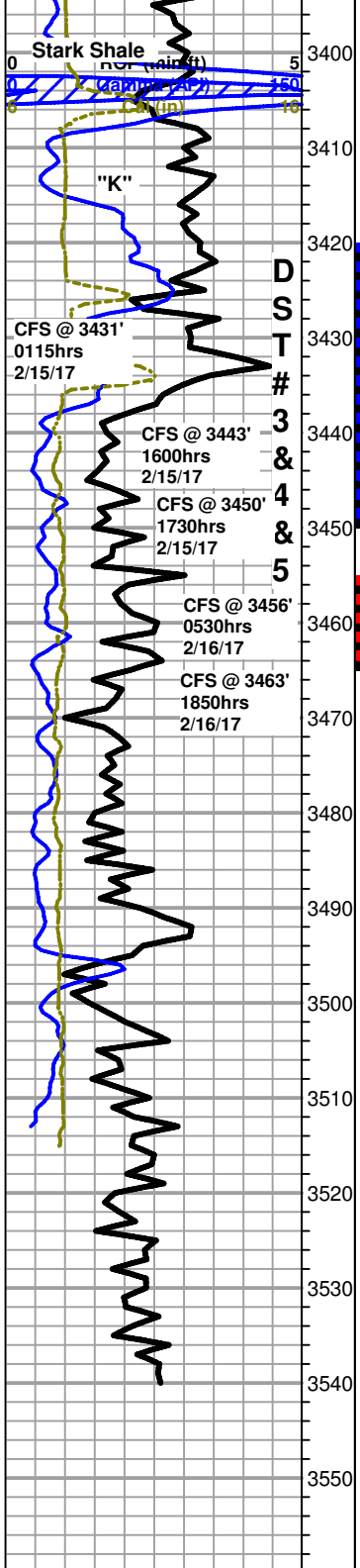
\* LS, cream to gray, micro-xln, lithographic and dense, with few chips oomoldic with fair visible oomold porosity, most barren, upon break 2 chips show very scattered stain in 3464' 60" Mostly same as above, with some very scattered stain on few chips, one chip with some scattered heavy, tarry free oil, upon break SSFO, also with some scattered gilsonitic stain on some chips, NSFO in tray, no odor

○ LS, mostly cream with some scattered gray, micro-xln, lithographic with poor visible porosity, with few very scattered chips with several very small edge vugs and poor very scattered stain in porosity only, upon break VSSFO and poor visible inter-xln porosity with some very scattered dull yellow fluor., NSFO in tray, no odor

\* LS, cream to gray with some scattered white, micro-xln, lithographic and dense with poor visible porosity, barren, with some very scattered chips white to cream, micro-xln, with few scattered fairly large vugs mostly around edges, no visible stain, upon break NSFO or visible inter-xln stain on most, few chips with trace very light golden stain that increase in color and saturation under lamp for several minutes, chips with dull fluor., and very weak slow cut with lighter fluid with milky white fluor., fair show gas bubbles in wet tray, NSFO, poor odor

○ LS, cream to gray, micro-xln, lithographic and dense with poor visible porosity, barren, with few very scattered chips with one to two small vugs and show of gas bubbles as above,





NSFO in tray, no flour., no odor

LS, cream to gray with some very scattered white, micro-xln, lithographic and dense with poor visible porosity, barren, with few very scattered small chips with few small vugs to slightly vuggy edge porosity with brown stain in porosity only, some too dense to break, few with fair show free oil upon break and slight to fair show gas bubbles in porosity as well, NSFO in tray, no flour., or odor

LS, mostly cream with some very scattered light gray and white, micro-xln, lithographic and dense with poor visible porosity, no show, flour., or odor

3431' 30" LS, cream to gray with some very scattered white, micro-xln, lithographic and dense with poor visible porosity, no show or odor

**BKC 3425 (-1453)**

3431' 60" LS as above, with slight influx gray and red shale, no show or odor

3443' 30" Gray and red shale, with scattered cream to gray LS and some very scattered tan to orange and opaque cherts, no show or odor

**Arbuckle 3441 (-1469)**

NANCY 5-17 DST 3.jpg  
 NANCY 5-17 DST 4.jpg  
 NANCY 5-17 DST 5.jpg

3443' 60" Conglomerate as above, with some very scattered SS, vf-grained, sub-angular to sub-rounded and fairly well sorted, with scattered stain that increases to saturated under lamp, fairly friable, upon break fair show free oil, few clusters slowly bleed oil to surface under lamp, found few small chips dolomite, brown, sucrosic to some scattered sub-rhombic to rhombic development with few small vugs, saturated stain, fair show free oil upon break, SSFO in tray, fair odor

3450' 60" Mixed LS, shales, and cherts, with slight influx dolomite, cream to off-white, micro-xln, sucrosic to sub-sucrosic, some dense, some fairly friable with scattered stain to free oil droplets in matrix, upon break chips show scattered inter-xln stain and fair inter-xln porosity with fair to good show free oil, most chips increase to saturated stain when left under lamp, with few very scattered chips sub-rhombic to rhombic with few scattered small vugs and fair inter-xln porosity with saturated stain, SSFO in tray, fair pungent odor

3456' 60" Dolomite, cream with some very scattered white, micro-xln, mostly sub-sucrosic and dense, barren, with some scattered sucrosic, fairly friable with very scattered to scattered stain, upon break most have slight to fair show free oil, with some very scattered sub-rhombic with scattered fair visible porosity and mostly very scattered stain, some slightly to fairly chalky, also with fairly abundant gray and red shale with some scattered white chert, SSFO in tray, poor odor

3463' 30" Dolomite, cream to off-white, micro-xln, mostly sub-sucrosic and dense with poor visible porosity, barren, few very scattered chips sub-rhombic and fairly friable with mostly poor visible porosity, some slightly to fairly chalky, no show or odor

~3470" Dolomite, mostly cream with some scattered off-white to light brown, micro-xln, mostly dense and barren with poor visible porosity, some with very scattered gilsonitic stain, with some scattered sub-rhombic, some fairly friable, few chips with several small vugs and scattered gilsonitic stain, slightly chalky, no show or odor

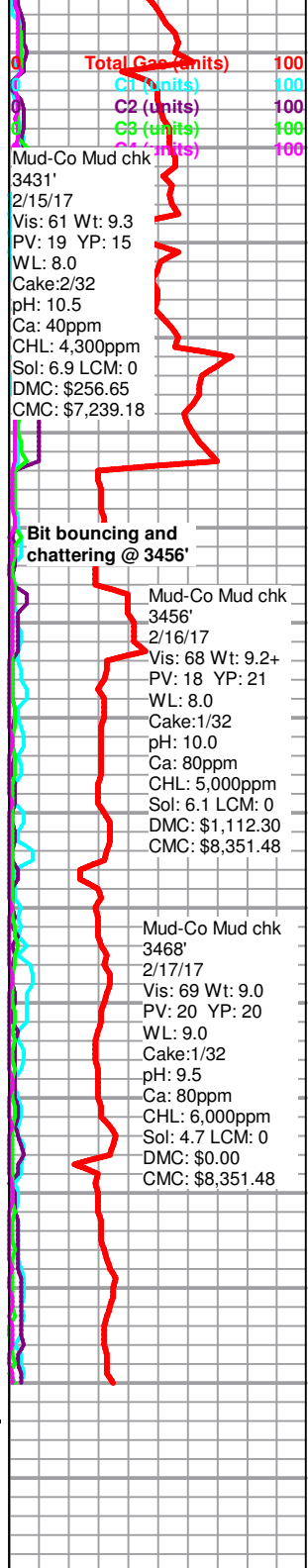
~3480" Dolomite as above, with influx sub-rhombic, most fairly friable, some with scattered pyrite inclusions, some very scattered gilsonitic stain, most completely barren, slightly chalky, no show or odor

~3490" Dolomite, cream to light brown and some scattered white, micro-xln, mostly sub-rhombic with some scattered rhombic and some sucrosic to sub-sucrosic, some with fair visible porosity, barren, fairly chalky, few chips with some scattered pyrite inclusions, with some scattered white chert, no show or odor

~3500-3520 Dolomite as above, no show or odor

LS, cream to light brown, micro-xln, mostly sub-sucrosic and dense with poor visible porosity, with some very scattered sub-rhombic with mostly poor visible porosity, with some very scattered white chert, few chips oolitic, slightly chalky, no show or odor

Dolomite, mostly cream with some scattered light brown, sub-rhombic to sub-sucrosic with some very scattered rhombic development on few chips, some sub-rhombic with fair visible porosity, barren, most sub-sucrosic is dense with poor visible porosity, with some scattered white chert, trace oolitic, less chalky, no show or odor



**Rotary TD 3540' @ 1030hrs 2/17/17**  
**Eli Wireline Services Logging TD @ 3540'**  
**Complete Logging Operations @ 1700hrs 2/17/17**  
**Geologist Jeremy Schwartz off location @ 1715hrs 2/17/17**



# DRILL STEM TEST REPORT

SHELBY RESOURCES LLC

17-17S-13W

2717 CANAL BLVD SUITE C  
HAYS, KANSAS 67601

NANCY 5-17

Job Ticket: 12

DST#: 1

ATTN: JEREMY SCHWARTZ

Test Start: 2017.02.14 @ 05:10:00

## GENERAL INFORMATION:

Formation: **LANSING A-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:04:00

Time Test Ended: 12:47:00

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1-36

Interval: **3209.00 ft (KB) To 3276.00 ft (KB) (TVD)**

Reference Elevations: 1972.00 ft (KB)

Total Depth: 3276.00 ft (KB) (TVD)

1961.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

## Serial #: 9139

### Inside

Press@RunDepth: 405.57 psia @ 3271.34 ft (KB)

Capacity: 5000.00 psia

Start Date: 2017.02.14 End Date: 2017.02.14

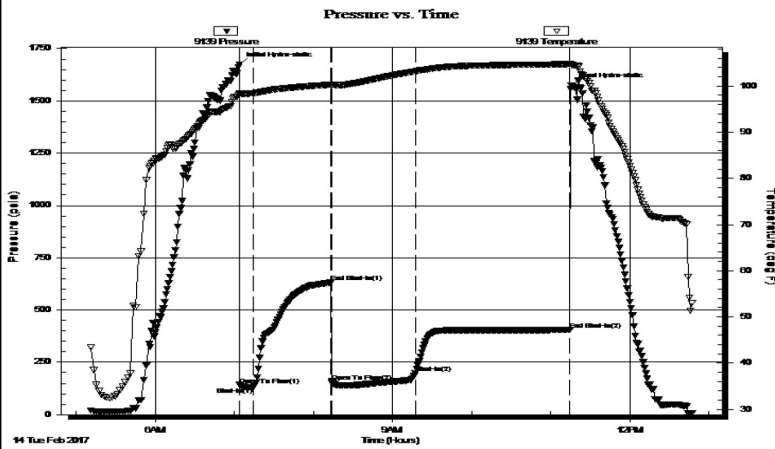
Last Calib.: 2017.02.14

Start Time: 05:10:00 End Time: 12:47:30

Time On Btm: 2017.02.14 @ 07:03:30

Time Off Btm: 2017.02.14 @ 11:15:30

TEST COMMENT: 1ST OPENING 10 MINUTES WEAK BUILDING BLOW BUILT TO 6 INCHES INTO THE WATER  
 1ST SHUT-IN 60 MINUTES NO BLOW BACK  
 2ND OPENING 60 MINUTES WEAK BLOW BUILT TO BOTTOM OF A 5 GALLON BUCKET IN 28 MINUTES  
 2ND SHUT-IN 90 MINUTES NO BLOW BACK



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1674.56	98.47	Initial Hydro-static
1	141.76	98.22	Open To Flow (1)
11	130.35	98.45	Shut-In(1)
70	631.67	100.33	End Shut-In(1)
70	158.57	100.16	Open To Flow (2)
134	198.63	103.22	Shut-In(2)
251	405.57	104.78	End Shut-In(2)
252	1573.98	104.61	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	MUDDY FROTHY OIL	0.15
60.00	SLIGHTY OIL CUT MUD	0.30
0.00	5 GAS 15 OIL 10 WATER 70 MUD	0.00
60.00	VERY SLIGHTLY OIL CUT MUD	0.30
0.00	5 OIL 95 MUD	0.00

## Gas Rates

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

# DRILL STEM TEST REPORT



SHELBY RESOURCES LLC

17-17S-13W

2717 CANAL BLVD SUITE C  
HAYS, KANSAS 67601

NANCY 5-17

Job Ticket: 01148

DST#: 2

ATTN: JEREMY SCHWARTZ

Test Start: 2017.02.15 @ 03:57:00

**GENERAL INFORMATION:**

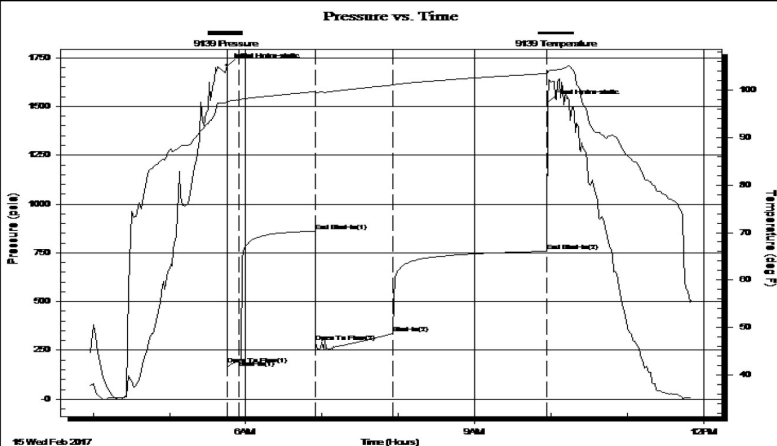
Formation: **LANSING H-K**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 05:46:00 Tester: GENE BUDIG  
 Time Test Ended: 11:52:00 Unit No: 1  
 Interval: **3336.00 ft (KB) To 3431.00 ft (KB) (TVD)** Reference Elevations: 1972.00 ft (KB)  
 Total Depth: 3336.00 ft (KB) (TVD) 1961.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 11.00 ft

**Serial #: 9139**

**Inside**

Press@RunDepth: 757.58 psia @ 3425.94 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2017.02.15 End Date: 2017.02.15 Last Calib.: 1899.12.30  
 Start Time: 03:57:00 End Time: 11:50:30 Time On Btm: 2017.02.15 @ 05:45:00  
 Time Off Btm: 2017.02.15 @ 09:57:30

TEST COMMENT: 1ST OPENING 10 MINUTES WEAK BLOW BUILT TO 9 1/2 INCHES INTO THE WATER  
 1ST SHUT-IN 60 MINUTES NO BLOW BACK  
 2ND OPENING 60 MINUTES WEAK BLOW BUILT TO THE BOTTOM OF THE BUCKET IN 19 MINUTES  
 2ND SHUT-IN 120 MINUTES NO BLOW BACK



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1709.06	97.62	Initial Hydro-static
1	176.31	97.25	Open To Flow (1)
10	197.93	97.93	Shut-In(1)
70	861.03	99.73	End Shut-In(1)
70	292.55	99.40	Open To Flow (2)
131	335.48	101.08	Shut-In(2)
251	757.58	103.51	End Shut-In(2)
253	1523.82	104.05	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
150.00	MUD	0.74
300.00	MUDDY WATER	3.66
0.00	CHLORIDES 57,000	0.00

**Gas Rates**

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



# DRILL STEM TEST REPORT



SHELBY RESOURCES LLC

17-17S-13W

2717 CANAL BLVD SUITE C  
HAYS, KANSAS 67601

NANCY 5-17

Job Ticket: 01149

DST#: 3

ATTN: JEREMY SCHWARTZ

Test Start: 2017.02.16 @ 08:40:00

**GENERAL INFORMATION:**

Formation: **ARBUCKLE**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:14:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1

Interval: **3420.00 ft (KB) To 3450.00 ft (KB) (TVD)**

Reference Elevations: 1972.00 ft (KB)

Total Depth: 3450.00 ft (KB) (TVD)

1961.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 9139**

**Inside**

Press@RunDepth: 1105.52 psia @ 3445.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2017.02.15

End Date: 2017.02.16

Last Calib.: 2017.02.16

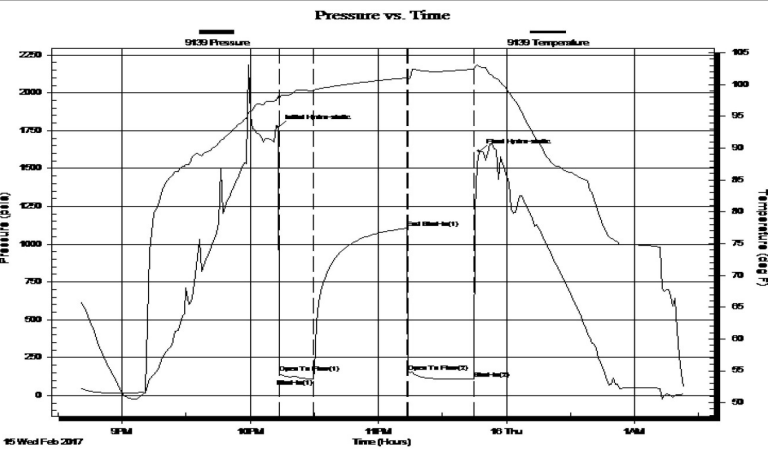
Start Time: 20:40:00

End Time: 01:23:30

Time On Btm: 2017.02.15 @ 22:13:00

Time Off Btm: 2017.02.15 @ 23:47:00

TEST COMMENT: 1ST OPENING 15 MINUTES VERY WEAK SURFACE BLOW FOR 11 MINUTES AND DIED  
 1ST SHUT-IN 45 MINUTES NO BLOW BACK  
 2ND OPENING 30 MINUTES VERY WEAK SURFACE BLOW FOR 30 MINUTES AND PULLED THE TOOL  
 2ND SHUT-IN 0 NONE TAKEN



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1772.75	98.26	Initial Hydro-static
1	148.73	97.71	Open To Flow (1)
17	107.01	99.07	Shut-In(1)
61	1105.52	101.06	End Shut-In(1)
61	155.92	100.76	Open To Flow (2)
92	108.92	102.46	Shut-In(2)
94	1613.87	102.80	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
5.00	CLEAN OIL	0.02
55.00	OIL CUT MUD 45 OILK 55 MUD	0.27

**Gas Rates**

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

# DRILL STEM TEST REPORT



SHELBY RESOURCES LLC

17-17S-13W

2717 CANAL BLVD SUITE C  
HAYS, KANSAS 67601

NANCY 5-17

Job Ticket: 01150

DST#: 4

ATTN: JEREMY SCHWARTZ

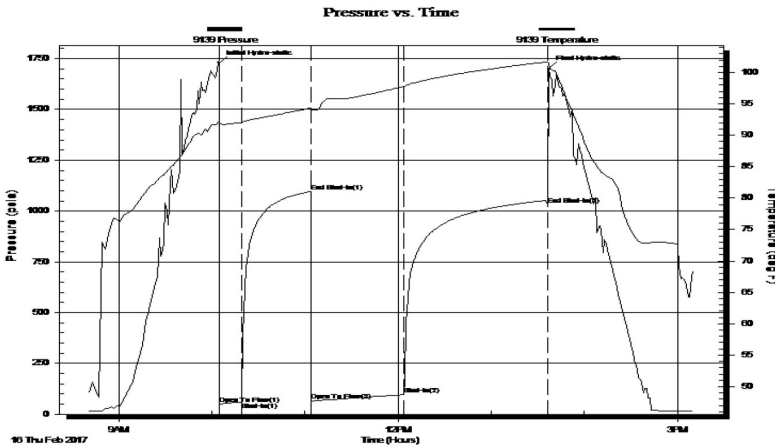
Test Start: 2017.02.16 @ 08:40:00

**GENERAL INFORMATION:**

Formation: **ARBUCKLE**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 09:46:00  
 Time Test Ended: 00:00:00  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: GENE BUDIG  
 Unit No: 1  
 Interval: **3420.00 ft (KB) To 3456.00 ft (KB) (TVD)**  
 Total Depth: 3456.00 ft (KB) (TVD)  
 Reference Elevations: 1972.00 ft (KB)  
 1961.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 KB to GR/CF: 11.00 ft

**Serial #: 9139** **Inside**  
 Press@RunDepth: 1032.54 psia @ 3451.00 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2017.02.16 End Date: 2017.02.16 Last Calib.: 2017.02.16  
 Start Time: 08:40:00 End Time: 15:10:30 Time On Btm: 2017.02.16 @ 10:04:30  
 Time Off Btm: 2017.02.16 @ 13:37:00

**TEST COMMENT:** 1ST OPENING 15 MINUTES WEAK BLOW BUILT TO 2 INCHES INTO THE WATER  
 1ST SHUT-IN 45 MINUTES NO BLOW BACK  
 2ND OPENING 60 MINUTES WEAK BLOW BUILT TO 5 1/2 INCHES INTO THE WATER  
 2ND SHUT-IN 90 MINUTES NO BLOW BACK



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1730.76	92.24	Initial Hydro-static
1	52.27	91.82	Open To Flow (1)
15	60.60	92.03	Shut-In(1)
59	1095.77	94.34	End Shut-In(1)
60	66.27	93.96	Open To Flow (2)
119	96.60	97.74	Shut-In(2)
212	1032.54	101.68	End Shut-In(2)
213	1703.12	101.54	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
15.00	clean oil	0.07
35.00	oil cut mud 10 oil 90 mud	0.17
60.00	oil cut mud 5 oil 95 mud	0.30

**Gas Rates**

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

# DRILL STEM TEST REPORT



SHELBY RESOURCES LLC

17-17S-13W

2717 CANAL BLVD SUITE C  
HAYS, KANSAS 67601

NANCY 5-17

Job Ticket: 01151

DST#: 5

ATTN: JEREMY SCHWARTZ

Test Start: 2017.02.17 @ 21:55:00

## GENERAL INFORMATION:

Formation: **ARBUCKLE**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:29:00

Time Test Ended: 04:35:00

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1

Interval: **3455.00 ft (KB) To 3463.00 ft (KB) (TVD)**

Reference Elevations: 1972.00 ft (KB)

Total Depth: 3463.00 ft (KB) (TVD)

1961.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

## Serial #: 9139

## Inside

Press@RunDepth: 1144.23 psia @ 3458.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2017.02.16

End Date: 2017.02.17

Last Calib.: 2017.02.17

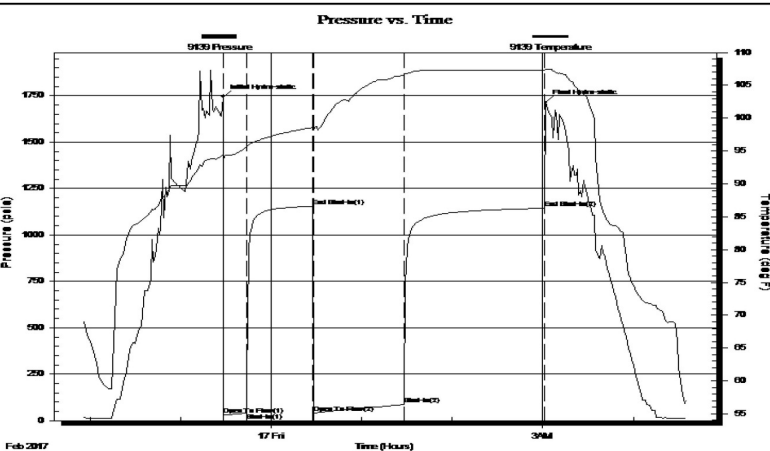
Start Time: 21:55:00

End Time: 04:35:00

Time On Btm: 2017.02.16 @ 23:28:00

Time Off Btm: 2017.02.17 @ 03:02:00

TEST COMMENT: 1ST OPENING 15 MINUTES WEAK BUILDING BLOW BUILT TO 1 1/2 INCHES INTO THE WATER  
 1ST SHUT-IN 45 MINUTES  
 2ND OPENING 60 MINUTES WEAK BUILDING BLOW BUILT TO 5 1/2 INCHES INTO THE WATER  
 2ND SHUT-IN 90 MINUTES



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1742.91	94.37	Initial Hydro-static
1	30.60	93.53	Open To Flow (1)
16	40.61	95.52	Shut-In(1)
60	1154.47	98.58	End Shut-In(1)
60	42.72	98.17	Open To Flow (2)
120	87.11	106.58	Shut-In(2)
213	1144.23	107.34	End Shut-In(2)
214	1713.31	107.46	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	WATER WITH A TRACE OF OIL	0.59
0.00	LESS THAN 1 PERCENT OIL	0.00

## Gas Rates

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