JAMES C. MUSGROVE

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Mai Oil Operations Stoskopf #1 N/2-SW-NW-NW (810' FNL & 330' FEL) Section 9-17s-13w Barton County, Kansas

Page 1

5 1/2" Production Casing Set

Contractor:

Southwind Drilling Co. (rig #3)

Commenced:

June 25, 2014

Completed:

June 27, 2014

Elevation:

1921' K.B., 1919' D.F., 1913' G.L.

Casing program:

Surface; 8 5/8" @ 324'

Production, 5 1/2 @ 3437'

Sample:

Samples saved and examined 2900' to the Rotary Total Depth.

Drilling time:

One (1) foot drilling time recorded and kept 2900 ft. to the Rotary Total

Depth.

Measurements:

All depths measured from the Kelly Bushing.

Drill Stem Tests:

There were one (1) Drill Stem Tests ran by Trilobite Testing Co.

Electric Log:

By Nabors; Dual Induction, Compensated Density/Neutron Log and Micro

Log.

<u>Formation</u>	Log Depth	Sub-Sea Datum
Anhydrite	853	+1068
Base Anhydrite	882	+1039
Heebner	3056	-1135
Toronto	3075	-1154
Douglas	3088	-1167
Brown Line	3137	-1216
Lansing	3150	-1229
Base Kansas City	3360	-1439
Arbuckle	3379	-1458
Rotary Total Depth	3440	-1519
Log Total Depth	3445	-1524

All tops and zones corrected to Electric Log Measurement.

Mai Oil Operations Stoskopf #1 N/2-SW-NW-NW (810' FNL & 330' FEL) Section 9-17s-13w Barton County, Kansas

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SAMPLE ANALYSIS, SHOWS OF OIL, TESTING DATA, ETC.

TOPEKA SECTION

3000-3023'

Limestone, cream to tan, finely crystalline, poorly developed porosity, no

shows.

TORONTO SECTION

3066-3076'

Limestone, cream to tan, finely crystalline, chalky; poor visible porosity,

no shows.

LANSING SECTION

3150-3160'	Limestone, cream to tan, finely crystalline, fossiliferous, poor scattered porosity, no shows.
3176-3186'	Limestone, cream to tan, finely crystalline, chalky few oolitic, poor scattered porosity, trace black stain, show of free oil and faint odor.
3196-3206'	Limestone, cream to tan, finely crystalline, fossiliferous, poor scattered porosity, no shows.
3210-3214'	Limestone, cream, white, finely crystalline, chalky, few fossiliferous, poor scattered porosity, no shows.
3220-3236'	Limestone, cream to white, gray, finely crystalline, few oolitic, poorly developed porosity, no shows.
3280-3290'	Limestone, white/cream, finely crystalline, fossiliferous, poor visible porosity, no shows.
3298-3308'	Limestone, as above.
3317-3330'	Limestone, tan, cream finely crystalline, few fossiliferous, poor visible porosity, no shows.
3340-3354'	Limestone, cream, tan, finely crystalline, fossiliferous, poor porosity; trace black stain; trace of free oil and no odor in fresh sample.
3367-3374'	Limestone, tan, brown, finely crystalline, chalky/few cherty; poor visible porosity, trace of brown stain, show of free oil and faint odor in fresh samples.

ARBUCKLE SECITON

3379-3385' Dolomite, white, fine and medium crystalline, fair vuggy type porosity, brown stain, show of free oil and strong odor in fresh samples.

Mai Oil Operations Stoskopf #1 N/2-SW-NW-NW (810' FNL & 330' FEL) Section 9-17s-13w Barton County, Kansas

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Drill Stem Test #1

3353-3385

Times:

30-30-45-45

Blow:

Strong

Recovery:

50' gas in pipe 1197' clean oil 189' muddy oil (30% mud; 70% oil)

Pressures: ISIP 1006

psi **FSIP 1027** psi 78-300 IFP psi FFP 326-530 psi HSH 1621-1538 psi

3385-3400'

Dolomite, white, gray, finely crystalline poor to fair inter-crystalline

porosity, light brown stain, show of free oil.

3400-3420'

Dolomite, white to gray, finely crystalline, poor scattered porosity, brown

stain, show of free oil and faint odor.

3420-3345'

Dolomite, white, finely crystalline, poor scattered porosity, no shows.

Rotary Total Depth

3340

Log Total Depth

3345

Recommendations:

5 1/2" production casing was set and cemented on the Mai Oil Operations, Stoskopf #1.

Respectfully submitted;

Wyatt Urban

Petroleum Geologist



DRILL STEM TEST REPORT

Mai Oil Operations Inc

9-17s-13w Barton,KS

8411 Preston Rd Ste 800 Dallas TX 75225-5520

Stoskopf #1 Job Ticket: 59263

DST#: 1

ATTN: Wyatt Urban

Test Start: 2014.06.29 @ 04:21:00

GENERAL INFORMATION:

Time Tool Opened: 06:27:15

Time Test Ended: 11:26:00

Formation:

Arbuckle

Deviated:

No Whipstock:

ft (KB)

Test Type: Conventional Bottom Hole (Initial)

Tester:

Jim Svaty

Unit No:

Reference Elevations:

1921.00 ft (KB)

KB to GR/CF:

1913.00 ft (CF) 8.00 ft

Interval: 3353.00 ft (KB) To 3385.00 ft (KB) (TVD)
Total Depth: 3385.00 ft (KB) (TVD)

Hole Diameter:

7.88 inches Hole Condition: Fair

Serial #: 8289

Press@RunDepth:

530.10 psig @ 3357.00 ft (KB)

2014.06.29

Capacity:

8000.00 psig

Start Date: Start Time:

04:21:02

Outside

2014.06.29 End Date: End Time:

11:22:15

Last Calib.: Time On Btm:

2014.06.29 2014.06.29 @ 06:26:45

Time Off Btm: 2014.06.29 @ 08:57:30

TEST COMMENT: 30-IFP- BOB in 2 min.

30-ISIP- Surface Blow to 1". in 10 min. Died in 18 min.

45-FFP- BOB in 2 min. 10 sec.

45-FSIP- No Blow

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20	- Banker 2004		COMM	1.	Time(taxe)	Unida				*

7					-			
PRESSURE SUMMARY								
1	Time	Pressure	Temp	Annotation				
١	(Min.)	(psig)	(deg F)					
	0	1621.34	101.61	Initial Hydro-static				
١	1	77.73	101.28	Open To Flow (1)				
	30	300.27	110.23	Shut-In(1)				
ı	60	1006.42	111.08	End Shut-In(1)				
	60	325.72	110.70	Open To Flow (2)				
	105	530.10	111.52	Shut-In(2)				
	151	1027.05	111.65	End Shut-In(2)				
ı	151	1538.21	111.88	Final Hydro-static				
ı								

Recovery						
Length (ft)	Description	Volume (bbl)				
189.00	MCO 30%m 70%o	2.65				
1197.00	CO 100%	16.79				
0.00	50 GIP	0.00				

Gas Rates

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

Trilobite Testing, Inc

Ref. No: 59263

Printed: 2014.07.01 @ 09:39:25

QUALITY OILWELL CEMENTING, INC. Federal Tax I.D.# 20-2886107

Phone 785-483-2025

Home Office P.O. Box 32 Russell, KS 67665

No. 503

Cell 785-324-1041									
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LWELL CEMENTING, INC. Federal Tax I.D.# 20-2886107 QUALITY OILWEL

Phone 785-483-2025 Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 150

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