JAMES C. MUSGROVE

Petroleum Geologist, LLC 212 Main Street P.O. Box 215 Claflin, KS 67525

Office (620) 588-4250

Res. Claflin (620) 587-3444

Mai Oil Operations Kirkman #1 NE-SE-NW-NE (780' FNL & 1670' FEL) Section 29-21s-14w Stafford County, Kansas

Page 1

Dry and Abandoned

Contractor:

Southwind Drilling Co. (rig #1)

Commenced:

November 30, 2015

Completed:

December 6, 2015

Elevation:

1949' K.B., 1947' D.F., 1941' G.L.

Casing program:

Surface; 8 5/8" @ 810'

Production, none

Sample:

Samples saved and examined 3000' to the Rotary Total Depth.

Drilling time:

One (1) foot drilling time recorded and kept 3000' to the Rotary Total Depth.

Measurements:

All depths measured from the Kelly Bushing.

Drill Stem Tests:

There were two (2) Drill Stem Tests ran by Trilobite Testing Co.

Electric Log:

None

<u>Formation</u>	Sample Depth	Sub-Sea Datum
A ra bu and risk o	965	+1084
Anhydrite	865	
Base Anhydrite	895	+1054
Heebner	3928	-1979
Toronto	3320	-1371
Douglas	3338	-1389
Brown Lime	3412	-1463
Lansing	3422	-1473
Base Kansas City	3656	-1707
Viola	3697	-1748
Simpson Shale	3738	-1789
Simpson Sand	3758	-1809
Arbuckle	3796	-1847
Rotary Total Depth	3805	-1856

(All tops and zone(s) determination were made from a correlation of drilling time log and sample analysis.)

Mai Oil Operations Kirkman #1 NE-SE-NW-NE (780' FNL & 1670' FEL) Section 29-21s-14w Stafford County, Kansas

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

TOPEKA SECTION

3000-3298'

No shows of oil and /or gas was noted in drilling of the Topeka Section, see attached sample log/geological report.

TORONTO SECTION

3320-3328'

Limestone, white, cream, finely crystalline, few fossiliferous, poor visible porosity, chalky in part.

LANSING SECTION

3420-3428'	Limestone, cream, white, finely crystalline, oolitic, slightly chalky, poor visible porosity, no shows.
3442-3448'	Limestone, cream, white, finely crystalline, oolitic, pinpoint porosity, chalky in part, no shows.
3463-3470'	Limestone, white, cream, finely crystalline, oolitic, chalky, poor pinpoint and inter-crystalline type porosity, trace stain, no free oil and no odor in fresh samples.
3480-3488'	Limestone, white, cream, oolitic, scattered porosity chalky in part, no shows.
3496-3501'	Limestone, cream, tan, finely crystalline, oolitic, sucrosic in part, poorly developed porosity, trace stain, no free oil and no odor.
3506-3517'	Limestone, white, cream finely crystalline, oolitic, oomoldic, fair oomoldic porosity, chalky in part, no shows.
3524-3536'	Limestone, cream, tan, finely crystalline, oolitic, few sub-oomoldic, chalky, plus white/cream, boney chert.
3543-3548'	Limestone, cream, tan, finely crystalline, chalky in part, oolitic, oomoldic, poor to fair oomoldic porosity, no show of free oil and faint odor in fresh samples.
3565-3574'	Limestone, cream, tan, finely crystalline, oolitic, poorly developed porosity, few chalky, no shows.
3583-3588'	Limestone, cream, finely crystalline, oomoldic, fair porosity, dark brown stain, show of free oil and fair odor in fresh samples.
3583-3588'	Limestone, cream, finely crystalline, oomoldic, fair porosity, dark brown stain, show of free oil and fair odor in fresh samples.

Mai Oil Operations Kirkman #1 NE-SE-NW-NE (780' FNL & 1670' FEL) Section 29-21s-14w Stafford County, Kansas

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3596-3603'

Limestone, cream, white, finely crystalline, oolitic, poor visible porosity, no shows.

Drill Stem Test #1

3537-3610

Times:

30-45-45-60

Blow:

Fair

Recovery:

90'muddy water

Pressures: ISIP

555

psi

FSIP 539

psi

IFP 56-59 FFP 54-70 psi psi

HSH 1813-1774

psi

3621-3626'

Limestone, cream, tan, finely crystalline, oolitic, scattered porosity, trace stain, no free oil and no odor in fresh sample.

3626-3638'

Limestone, cream, gray, finely crystalline, chalky, few cherty, no shows.

VOILA SECTION

3697-3716'

Chert; white, semi-tripolotic, scattered porosity, dark brown to black stain, no show of free oil and faint to fair odor in fresh samples.

3716-3726'

Chert, as above, plus limestone, white/gray, cherty, dense.

3726-3738'

Chert and limestone, as above.

SIMPSON SECTION

3758-3774'

Sand, white, clear, medium grained, well rounded, well sorted, calcareous in part, glauconitic, light brown stain, show of free oil and faint odor in fresh samples.

Drill Stem Test #2

3727-3770

Times:

30-30-30-30

Blow:

Weak

Recovery:

3' mud

Pressures: ISIP 39

FSIP 41

psi psi

IFP 36-33 psi

37-39 FFP

psi

HSH 1923-1891

psi

Mai Oil Operations Kirkman #1 NE-SE-NW-NE (780' FNL & 1670' FEL) Section 29-21s-14w Stafford County, Kansas

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ARBUCKLE SECTION

3796-3805'

Dolomite, cream, tan, finely crystalline, fair inter-crystalline porosity, black dead oil stain, no free oil and fair odor in fresh samples.

Rotary Total Depth

3805

Recommendations:

The Mai Oil Operations Inc., Kirkman #1, was plugged and abandoned at the Rotary Total Depth of 3805'.

Respectfully yours,

Kurt Talbott

Petroleum Geologist



DRILL STEM TEST REPORT

Mai Oil Operation Inc

8411 Preston Road Suite 800 Dallas TX 75225+5520

ATTN: Kurt Talbot

29-21s-14w Stafford,KS

Kirkman #1

Job Ticket: 61963

DST#: 1

Test Start: 2015.12.04 @ 17:45:00

GENERAL INFORMATION:

Time Test Ended: 23:40:46

Formation:

LKC H-J

Deviated:

No Whipstock: Time Tool Opened: 19:18:46

ft (KB)

Test Type: Conventional Bottom Hole (Initial)

Tester:

Ken Swinney

Unit No:

58

KB to GR/CF:

1949.00 ft (KB)

Reference Bevations:

1941.00 ft (CF) 8.00 ft

Interval: 3537.00 ft (KB) To 3610.00 ft (KB) (TVD)
Total Depth: 3610.00 ft (KB) (TVD)

7.88 inches Hole Condition: Fair

Hole Diameter:

Serial #: 6838

Press@RunDepth:

Inside

70.70 psig @

3606.28 ft (KB) End Date:

2015.12.04

Capacity:

8000.00 psig

Start Date: Start Time:

2015.12.04 17:45:01

End Time:

23:40:46

Last Calib.: Time On Btm:

2015.12.04 2015.12.04 @ 19:18:16

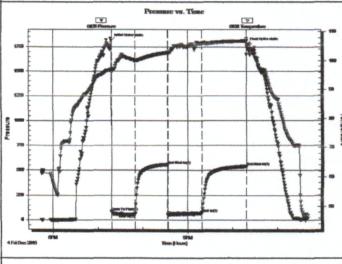
Time Off Btm: 2015.12.04 @ 22:19:16

TEST COMMENT: IFP 30 Minutes Weak blow built to 5"

ISI 45 Minutes No blow back

FFP 45 Minutes Weak blow built to 4 1/2"

FSI 60 Minutes No blow back



1		PI	RESSUR	E SUMMARY
Ī	Time	Pressure	Temp	Annotation
1	(Min.)	(psig)	(deg F)	
1	0	1813.54	96.76	Initial Hydro-static
1	1	86.85	96.22	Open To Flow (1)
1	32	59.74	99.93	Shut-In(1)
1	75	555.17	102.85	End Shut-In(1)
Tempera	76	54.95	102.58	Open To Flow (2)
2	121	70.70	106.06	Shut-In(2)
-	181	539.14	106.89	End Shut-In(2)
1	181	1774.64	105.62	Final Hydro-static
1				
1				
1				
1				
-				

Recovery

Description	Volume (bbl)
Muddy Water	1.26
Mud 30% Water 70%	0.00
	Muddy Water

Gas Rates

Choke (inches) Pressure (psig)

Gas Rate (Mcf/d)

Printed: 2015.12.07 @ 09:46:26

Trilobite Testing, Inc

Ref. No: 61963



DRILL STEM TEST REPORT

Mai Oil Operation Inc

29-21s-14w Stafford,KS

8411 Preston Road Suite 800 Dallas TX 75225+5520

Kirkman #1

Job Ticket: 61964

DST#: 2

ATTN: Kurt Talbot

Test Start: 2015.12.05 @ 16:25:00

GENERAL INFORMATION:

Formation:

Simpson Sand

Deviated:

No Whipstock:

ft (KB)

Test Type: Conventional Bottom Hole (Initial)

Ken Swinney

Unit No:

58

Reference Bevations:

1949.00 ft (KB)

KB to GR/CF:

1941.00 ft (CF) 8.00 ft

interval:

Time Tool Opened: 17:44:16

Time Test Ended: 20:59:46

3727.00 ft (KB) To 3770.00 ft (KB) (TVD)

Total Depth: Hole Diameter:

Serial #: 6838

3770.00 ft (KB) (TVD)

7.88 inches Hole Condition: Fair

Capacity:

8000.00 psig

Press@RunDepth: Start Date:

Inside

38.52 psig @ 2015.12.05

3766.00 ft (KB) End Date:

2015.12.05

Last Calib .:

2015.12.05

Start Time:

16:25:01

End Time:

20:59:46

Time On Btm:

2015.12.05 @ 17:44:01

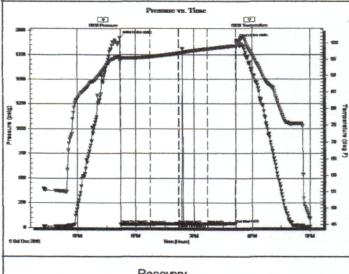
Time Off Btm: 2015.12.05 @ 19:44:01

TEST COMMENT: IFP 30 Minutes Weak surface blow, died after 18 minutes

ISI 30 Minutes No blow back

FFP 30 Minutes Dead no blow - Flush tool - Light surge then dead

FSI 30 Minutes No blow back



-	PRESSURE SUMMARY					
1	Time	Pressure	Temp	Annotation		
	(Min.)	(psig)	(deg F)			
	0	1923.89	95.80	Initial Hydro-static		
	1	36,19	94.49	Open To Flow (1)		
	31	33.69	95.77	Shut-In(1)		
	61	39.20	96.77	End Shut-In(1)		
	61	37.90	96.78	Open To Flow (2)		
	91	38.52	98.13	Shut-In(2)		
	120	41.03	99.12	End Shut-In(2)		
	120	1891.65	100.69	Final Hydro-static		
1						
1						

Length (ft)	Description	Volume (bbl)
3.00	Mud 100%	0.04

Gas Rates

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

Trilobite Testing, Inc

Ref. No: 61964

Printed: 2015.12.07 @ 09:40:55

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

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

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

No. 1302

Sec.	Twp. Range (County State On Location Finish
Date 12 -1 - 15 29	21 19 5+	afford KS 1:15 Am
KO V W	Location	on Radoum Ks - 2N to 170 Rd 3/
Lease MICKII	Well No. #/	Owner F S/Tinto
Contractor Santali	1 3	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish
Type Job Sur Sare	The second of the second	cementer and helper to assist owner or contractor to do work as listed.
Hole Size 12 1/4"	T.D. 8101	Charge Mas al Operations
Csg. 8 5/8"	Depth 810'	Street
Tbg. Size	Depth	City State
Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor.
Cement Left in Csg. 201	Shoe Joint 20	Cement Amount Ordered 450 69/46 39/ CC 24/ Gel
Meas Line	Displace 50 1/4 BCS	12476-801
EQUIPM	ENT	Common
Pumptrk No. Cementer Helper S	ita	Poz. Mix
Bulktrk No. Driver Driver	QC .	Gel.
Bulktrk No. Driver Driver	Λ,	Calcium
JOB SERVICES	& REMARKS	Hulls
Remarks: Center did	Circulate	Salt
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Mouse Hole		Kol-Seal
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		Mileage
		FLOAT EQUIPMENT
		Guide Shoe
		Centralizer
		Baskets
		AFU Inserts
	- 7 C C D V D	Float Shoe
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GLOBAL CEMENTING, L.L.C.

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JBING SIZE DEPTH	AMOON	OKDEKED	V. H S	896
RILL PIPE 412 X-N DEPTH @ 3779			14 -10	240
OOL DEPTH	1			
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