

**JAMES C. MUSGROVE**

Petroleum Geologist, LLC  
212 Main Street  
P.O. Box 215  
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Mai Oil Operations  
Wagner #4  
SW-NE-NW  
Section 7-17s-14w  
Barton County, Kansas

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**Dry and Abandoned**

**Contractor:** Southwind Drilling Co. (rig #3)  
**Commenced:** July 14, 2014  
**Completed:** July 19, 2014  
**Elevation:** 1955' K.B., 1953' D.F., 1947' G.L.  
**Casing program:** Surface; 8 5/8" @ 938'  
Production, none  
**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:** -None-  
**Electric Log:** -None-

<u>Formation</u>	<u>Sample Depth</u>	<u>Sub-Sea Datum</u>
Anhydrite	938	+1017
Base Anhydrite	962	+993
Heebner	3138	-1183
Toronto	3153	-1198
Lansing	3200	-1245
Base Kansas City	3403	-1448
Conglomerate	3418	-1463
Arbuckle	3466	-1511
Rotary Total Depth	3475	-1520

All tops and zones determinations were made from a correlation of Drilling Time Log and Sample Analysis.

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

**TOPEKA SECTION**

3081-3090' Limestone, gray, fossiliferous, chalky, trace black stain, no show of free oil and no odor in fresh samples.

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**TORONTO SECTION**

3154-3164' Limestone, white, cream, gray, chalky, fossiliferous in part, no shows.

**LANSING SECTION**

3200-3206' Limestone, gray, tan, finely crystalline, fossiliferous, poor porosity; no shows.

3218-3224' Limestone, gray, fossiliferous, chalky, poorly developed porosity, poor stain, no free oil and no odor in fresh samples.

3234-3242' Limestone, gray, white, sub-oolitic, chalky, poor porosity, trace poor stain, no free oil and no odor in fresh samples.

3270-3276' Limestone, white, oolitic, few granular, chalky, poor spotty stain, no free oil and no odor in fresh samples.

3287-3293' Limestone, white, gray, oolitic, chalky, sparry calcite cement, brown and black stain, show of free oil and questionable odor in fresh sample.

3300-3306' Limestone, as above, plus white/tan oolitic chert, no shows.

3341-3348' Limestone, tan, oolitic, chalky, scattered porosity, brown spotty stain, no free oil and faint odor.

3356-3362' Limestone, white, cream, oolitic, chalky, poor visible porosity, black and gray stain, no show of free oil and faint and fair odor in fresh samples.

3366-3376' Limestone, as above, few sub-oolitic, chalky, trace black and gray stain, no free oil and no odor in fresh samples.

3392-3396' Limestone, tan, fossiliferous, chalky, questionable stain, no show free oil and no odor, plus amber chert.

**CONGLOMERATE SECTION**

3418-3430' Varied colored soft shale, plus trace limestone; fossiliferous, chalky, black stain, no free oil and no odor.

3430-3465' Varied colored oolitic opaque chert in matrix of red blood red shale.



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**ARBUCKLE SECTION**

3466-3475' Dolomite, white, cream, finely crystalline, fair porosity, black and gray stain, weak show of free oil and faint odor in fresh samples, plus iron pyrite.

**Rotary Total Depth 3475-1520**

**Recommendations:**

The Mai Oil Operations, Inc., Wagner #4, was plugged and abandoned at the Rotary Total Depth 3475 (-1520).

Respectfully submitted;



James C. Musgrove  
Petroleum Geologist





# 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. 090

Date	7-15-14	Sec.	7	Twp.	17	Range	14	County	Barton	State	Ks	On Location		Finish	8:00AM
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Location Eggs 4 Sale + 281 - 4 W, 1 N, 14 E

Lease	Wagner	Well No.	4	Owner	JJ S/Into
Contractor	Southwind		3	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.	
Type Job	Surface			Charge To	mai oil
Hole Size	12 1/4"	T.D.	938'	Street	
Csg.	8 5/8"	Depth	938'	City	
Tbg. Size		Depth		State	
Tool		Depth		The above was done to satisfaction and supervision of owner agent or contractor.	
Cement Left in Csg.	30'	Shoe Joint	30'	Cement Amount Ordered 400 60/40 3 3/4 cc 2 1/2 Gel	
Meas Line		Displace	57 3/4 B/s	V4 # Fl - seal	

**EQUIPMENT**

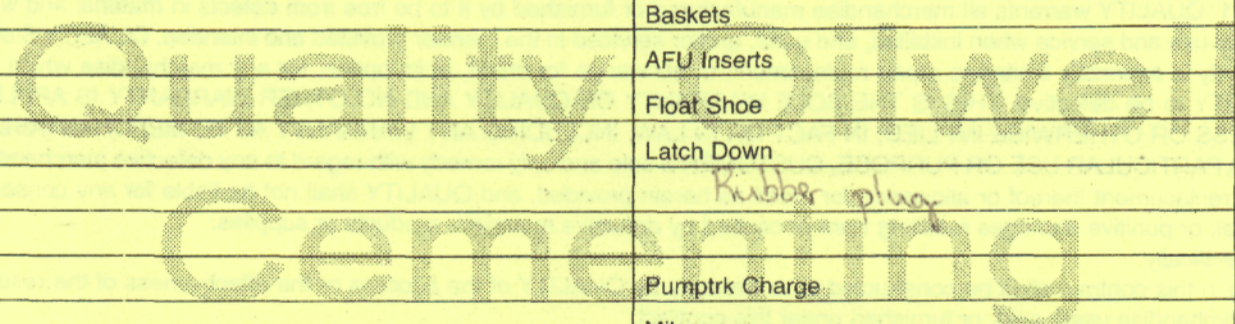
Pumptrk	16	No.	Cementer		Common
			Helper	Billy	Poz. Mix
Bulktrk	13	No.	Driver	Clayton	Gel.
			Driver		Calcium
Bulktrk	p.u.	No.	Driver	Rick	

**JOB SERVICES & REMARKS**

Remarks:	Cement did - Circulate	Hulls
Rat Hole		Salt
Mouse Hole		Flowseal
Centralizers		Kol-Seal
Baskets		Mud CLR 48
D/V or Port Collar		CFL-117 or CD110 CAF 38
		Sand
		Handling
		Mileage

**FLOAT EQUIPMENT**

	Guide Shoe
	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down
	Rubber plug
	Pumptrk Charge
	Mileage



X Signature		Tax
		Discount
		Total Charge

*Kent*