

FORM MUST BE TYPED

SIDE ONE

7-9-16W
COPY

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION FORM
ACO-1 WELL HISTORY
DESCRIPTION OF WELL AND LEASE

Operator: License # 8735Name: S & M Oil Co.Address P. O. Box 296City/State/Zip Plainville, KS 67663Purchaser: Farmland Industries, Inc.Operator Contact Person: Steve CrawfordPhone (913) 434-2829Contractor: Name: Prairie Drilling, Inc.License: 30964Wellsite Geologist: Steve Crawford

Designate Type of Completion

☒ New Well ☐ Re-Entry ☐ Workover☒ Oil ☐ SWD ☐ SIOW ☐ Temp. Abd.☐ Gas ☐ ENHR ☐ SIGW☐ Dry ☐ Other (Core, WSW, Expl., Cathodic, etc.)

If Workover/Re-Entry: old well info as follows:

Operator: _____

Well Name: _____

Comp. Date _____ Old Total Depth _____

☐ Deepening ☐ Re-perf. ☐ Conv. to Inj/SWD☐ Plug Back ☐ PSTD☐ Commingled ☐ Docket No. _____☐ Dual Completion ☐ Docket No. _____☐ Other (SWD or Inj?) ☐ Docket No. _____

<u>5-30-92</u>	<u>6-5-92</u>	<u>6-18-92</u>
Spud Date	Date Reached TD	Completion Date

API NO. 15- 163-23203County RooksNW - NE - NE - Sec. 7 Twp. 9 Rge. 16 ☒ E4950 Feet from ☒ N (circle one) Line of Section990 Feet from ☒ E (circle one) Line of SectionFootages Calculated from Nearest Outside Section Corner:
NE, SE, NW or SW (circle one)Lease Name Brown C Well # 1Field Name Westhusin EastProducing Formation Kansas CityElevation: Ground 1926 KB 1934Total Depth 3375 PSTD 3363Amount of Surface Pipe Set and Cemented at 215 FeetMultiple Stage Cementing Collar Used? ☐ Yes ☒ NoIf yes, show depth set perf. 1224 FeetIf Alternate II completion, cement circulated from 1224feet depth to surface w/ 300 sx int.Drilling Fluid Management Plan SLT 2 7-20-93
(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 No. _____

Quarter Sec. Twp. S Rng. E/W

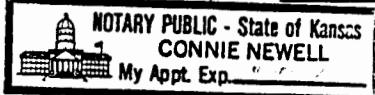
County _____ Docket No. _____

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

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.

Signature Steve CrawfordTitle Owner Date 7-14-93Subscribed and sworn to before me this 14 day of July, 19 93.

Notary Public _____

Date Commission Expires 4-9-94

K.C.C. OFFICE USE ONLY	
F	Letter of Confidentiality Attached
C	Wireline Log Received
G	Geologist Report Received
Distribution	
☒ KCC	☐ SWD/Rep
☒ KGS	☐ NGPA
	☐ Other (Specify)
JUL 20 1993	

Form ACO-1 (7-91)

SIDE TWO

Operator Name S & M Oil Co.Lease Name Brown CWell # 1Sec. 7 Twp. 9 Rge. 16☐ East
☒ WestCounty Rooks

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressure, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken
(Attach Additional Sheets.)☐ Yes ☒ No

Samples Sent to Geological Survey

☐ Yes ☒ No

Cores Taken

☐ Yes ☒ NoElectric Log Run
(Submit Copy.)☒ Yes ☐ No

List All E.Logs Run:

☒ Log

Formation (Top), Depth and Datums

☐ Sample

Name

Top

Datum

Anhydrite

1222

1257

Topeka

2811

3029

Heebner

3029

3032

Kansas City

3069

3317

CASING RECORD

☐ New ☒ 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
Surface	12 1/4	8 5/8	20	215	60/40 poz	135	2% gel 3% c.c.
Production	7 7/8	5 1/2	14	3363	60/40 poz	675	6% gel 1/4 lb. F.s

ADDITIONAL CEMENTING/SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
☐ Perforate				
☐ Protect Casing				
☐ Plug Back TD				
☐ Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
1	3079, 3125, 3134, 3163, 3175, 3190,	9,000 HCL	3079-32
	3230, 3235, 3249, 3258	Limited entry 700 psi	

TUBING RECORD	Size	Set At	Packer At	Liner Run	☐ Yes ☒ No
	2 3/8	3308	---		
Date of First, Resumed Production, SWD or Inj.	Producing Method ☐ Flowing ☒ Pumping ☐ Gas Lift ☐ Other (Explain)				
6-18-92					
Estimated Production Per 24 Hours	Oil	Bbls.	Gas	Mcf	Wct
	24		---	180	
				Bbls.	Gas-Oil Ratio
					Gravity
					34

Disposition of Gas:

METHOD OF COMPLETION

Production Interval

☒ Vented ☐ Sold ☐ Used on Lease
(If vented, submit ACD-18.)

☐ Open Hole ☒ Perf. ☐ Dually Comp. ☐ Commingled
☐ Other (Specify) _____

3079-3258

COPY

PETROLITE

Petrolite Oil Field Chemicals Group
Mid-Continent Region Technical Services

5801 West 10th Street
Great Bend, Kansas 67530
(816) 792-7728

WATER ANALYSIS REPORT

COMPANY: CRAWFORD PETROLEUM

REPORT DATE: 5-29-92

LEASE: BROWN C-1 *Dwelling Water*

SAMPLE DATE: 5-29-92

ANALYSIS NO.: FIELD

ENGINEER: ROD SUTTER

1. pH	5		
2. H ₂ S (QUALITATIVE)	NEGATIVE		
3. SPECIFIC GRAVITY	1.000		
		mg/L	* meg/L
4. METHYL ORANGE ALKALINITY (CaCO ₃)		250	
5. BICARBONATE (HCO ₃)		305	5 HCO ₃
6. CHLORIDE (Cl)		666	19 Cl
7. SULFATES (SO ₄)		TRACE	0 SO ₄
8. CALCIUM (Ca)		280	14 Ca
9. MAGNESIUM (Mg)		24	2 Mg
10. TOTAL HARDNESS (CaCO ₃)		800	
11. TOTAL IRON (Fe)		N/A	
12. BARIUM (Ba)		N/A	
13. STRONTIUM (Sr)		N/A	
14. SODIUM (Na)		184	8 Na
15. TEMPERATURE (F)		70 DEG.	
16. RESISTIVITY (OHM-METERS)		N/A	
17. CALCIUM SULFATE (CaSO ₄ CALCULATED)		0	

* meg/L = Milli equivalent per liter

CALCIUM CARBONATE SCALE INDEX: STIFF - DAVIS METHOD
CALCIUM SULFATE SOLUBILITY: SKILLMAN-McDONALD-STIFF METHOD

TEMPERATURE (F) CALCIUM CARBONATE CALCIUM SULFATE

180 F	-0.61
160 F	-0.83
140 F	-0.92
120 F	-1.19
100 F	-1.36
80 F	-1.51

S.G. = SPECIFIC GRAVITY N.D. = NOT DETECTED N/A = NOT AVAILABLE

CALCIUM CARBONATE SCALE INDEX:
(+) = SCALE

CALCIUM SULFATE SOLUBILITY (UNITS = mg/L)
Meg (CaSO₄) X 68.07 = CaSO₄ mg/L

COMPARE mg/L CaSO₄ FROM LINE #17 WITH SOLUBILITY VALUES IN THE ABOVE TABLE

Respectfully Submitted
PETROLITE CORP.
ROD SUTTER

RECEIVED
STATE CORPORATION COMMISSION

JUL 20 1993

WICHITA, KANSAS