

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION

WELL COMPLETION OR RECOMPLETION FORM
ACO-1 WELL HISTORY

DESCRIPTION OF WELL AND LEASE

Operator: License # 8458
Name Trans-Western Operating Co.
Address P.O. Box 276
Golden, Colorado 80402
City/State/Zip

Purchaser

Operator Contact Person D. J. Isern
Phone 303-279-2995

Contractor: License # 6033
Name Murfin Drilling Co.

Wellsite Geologist Russell Bak
Phone 303-457-0042

- Designate Type of Completion
- New Well Re-Entry Workover
 - Oil SWD Temp Abd
 - Gas Inj Delayed Comp.
 - Dry Other (Core, Water Supply etc.)

If ONWO: old well info as follows:
Operator
Well Name
Comp. Date Old Total Depth

WELL HISTORY

Drilling Method:
 Mud Rotary Air Rotary Cable

Spud Date 3-12-86 Date Reached TD 3-21-86 Completion Date 3-22-86

Total Depth 5300 PBTD

Amount of Surface Pipe Set and Cemented at 8-5/8" set @459 feet
Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set feet
If alternate 2 completion, cement circulated from feet depth to w/ SX cmt

API NO. 15-199-20,078-00-60
County Wallace
SE SE SE Sec. 31 Twp. 15S Rge. 42

330 Ft North from Southeast Corner of Section
330 Ft West from Southeast Corner of Section
(Note: Locate well in section plat below)

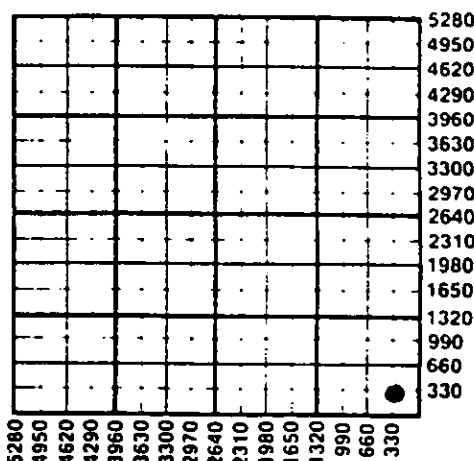
Lease Name Wehrman Well # 4-31

Field Name

Producing Formation

Elevation: Ground 3,882 KB 3,891

Section Plat



WATER SUPPLY INFORMATION

Disposition of Produced Water: Disposal Repressuring
Docket #

Questions on this portion of the ACO-1 call:
Water Resources Board (913) 296-3717

Source of Water: Hauled
Division of Water Resources Permit #

Groundwater Ft North from Southeast Corner (Well) Ft West from Southeast Corner of Sec Twp Rge East West

Surface Water Ft North from Southeast Corner (Stream, pond etc) Ft West from Southeast Corner Sec Twp Rge East West

Other (explain) (purchased from city, R.W.D. #)

INSTRUCTIONS: This form shall be completed in duplicate and filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 90 days after completion or recompletion of any well. Rule 82-3-130 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 drillers time log shall be attached with this form. 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 H W Stach

Title Consultant Date 10-28-86

Subscribed and sworn to before me this 29th day of October 1986

Notary Public Kathleen H. Koch

Date Commission Expires October 25, 1990

K.C.C. OFFICE USE ONLY

- F Letter of Confidentiality Attached
- C Wireline Log Received
- C Drillers Timelog Received

Distribution

- KCC SWD/Rep NGPA
- KGS Plug Other (Specify)

NOV 3 11-03-86

Sec 31 Twp 15S Rge 42E

SIDE TWO

Operator Name Trans-Western Operating Co. Lease Name Wehrman Well # 4-31

Sec. 31 Twp. 15S Rge. 42W East West County Wallace

WELL LOG

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 pressures, 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 Yes No
 Samples Sent to Geological Survey Yes No
 Cores Taken Yes No

Formation Description
 Log Sample

Name	Top	Bottom
Dakota	1,440	
Salt	2,252	
Stone Corral	2,740	
Red Eagle	3,459	
Lansing	4,140	
Morrow Sh	5,015	
St. Genevieve	5,158	

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> 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 1/2"	8-5/8"	24	459	Lite & Comm	240	3% CC

PERFORATION RECORD		Acid, Fracture, Shot, Cement Squeeze Record	
Shots Per Foot	Specify Footage of Each Interval Perforated	(Amount and Kind of Material Used)	Depth

TUBING RECORD	Size	Set At	Packer at	Liner Run	<input type="checkbox"/> Yes <input type="checkbox"/> No

Date of First Production	Producing Method				
	<input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (explain).....				
Estimated Production Per 24 Hours	Oil	Gas	Water	Gas-Oil Ratio	Gravity
	Bbls	MCF	Bbls	CFPB	

METHOD OF COMPLETION

Production Interval

Disposition of gas: Vented Open Hole Perforation
 Sold Other (Specify)
 Used on Lease Dually Completed
 Commingled

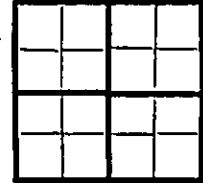
15-199-20078-00-00

WELL LOG

COMPANY Murfin Drilling Company
 250 N. Water, Suite 300
 Wichita, KS 67202
FARM Wehrman NO. 4-31
RID. NO. 21
TOTAL DEPTH 5300
COMM. 03-12-86 **COMP.** 03-22-86
CONTRACTOR Murfin Drilling Company
 250 N. Water, Suite 300
 Wichita, KS 67202
CASING
 20 10
 15 6-5/8" set @ 459' w/120 sx Howco Lite, 3% CC #120
 12 6
 13 5

SEC. 31 **T.** 15S **R.** 42W
LOC. SE SE SE

COUNTY Wallace
 KANSAS



PRODUCTION

FIGURES INDICATE BOTTOM OF FORMATIONS

Soil & Shale	460'
Shale	2743'
Anhydrite	2772'
Shale	3665'
Lime & Shale (RTD)	5300'

Daily Drilling Reports

Trans-Western Wehrman #4-31
 SESESE Sec 31, T15S, R42W
 Wallace County, Kansas
~~Ground~~ Elev: 3891, KB 9'AGL
 Projected TD - 5,300'
 API # 15-199-20,078

- 3-13-86 MIRU Murfin Rig 21 & spud 12½" surface hole @ 4 PM 3-12-86. Drld to 460' & ran 11 jts new 8-8/5", 24# csg (449.29'). Landed @ 459' & cmt to surface w/120 sx lite & 120 sx class 'C' (240 sx total) w/ 3% CaCl by Halliburton. Plug down @ 11 PM & circ to surface. WOC 8 hrs & drl out w/new 7-7/8" HTC R1. Survey ½° @ 460. Drlg in shale w/native mud.
- 3-14-86 Depth 2335'; cut 1875'. drlg in Permian Salt w/native mud. MW 8.9, Vis 27. Survey ¾° @ 1865'. Bit 1 cut 1405' in 18-¾ hrs. Bit 2 HTC-J22 w/3-12's in @ 1865'.
- 3-15-86 Depth 3455', cut 1120', drlg in lime & shale below Neva w/native mud. MW 9.3, Vis 27. Stone Corral anhydrite 2743-2772'.
- 3-16-86 Depth 4075', cut 620'; drlg in lime & shale between Howard & Heebner. MW 8.7, Vis 46, WL 13.2.
- 3-17-86 Depth 4540', cut 465'; drlg in Lower Lansing. MW 8.7, Vis 46, WL 12.8, Cl 7,000.
- 3-18-86 Depth 4890', cut 350'; drlg in the Atoka. MW 9.0, Vis 47, WL 10.2, LC 1#. Lost circ 1½ hrs @ 4675'. Sample tops: Heebner @ 4117', Lansing @ 4175', Marmaton @ 4653', Cherokee @ 4725', Atoka @ 4847'
- 3-19-86 Depth 5120', cut 230'. TIH to tst Morrow, circ samples @ 5120', made short trip, circ & cond 1½ hrs for test. MW 9.2, Vis 49, WL 10.5, Survey ¾° @ 5120'.
- 3-20-86 Depth 5135', cut 15', drlg in Lower Morrow. MW-8.9, Vis 44, WL 10.5, Cl 6,000, LCM 2#. DST #1 - 5010-5120' (misrun). Rec 61' drlg mud w/ 2,000 cc's mud in sampler, tool not opening properly for flow periods. DST #2 - 5010-5120'. 30/60/30/120, open w/fair blow w/½" blow incrs to 1" in bucket, decrs to ½" in 30 min. 2nd opening w/weak blow to dead in 10 min. Rec 35' drlg mud w/1950 cc's of mud and trace of gas in sampler. Pressures inside bomb @ 5112 (field reading):
- IHP - 2537
 IFP - 132-132
 ISIP - 559
 FFP - 163-163
 FSIP - 539
 FHP - 2537
 BHT - 121° F

15-199-20078-00-00

Trans-Western Wehrman #4-31
SESESE Sec 31, T15S, R42W
Wallace County, Kansas
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3-21-86 Depth 5300' TD in Mississippian Lime, cut 135'. MW 9.0, Vis 50, WL 10, Cl 7,000, LCM 2#. Circ & cond 1 hr, circ & TOH for logs. RU Great Guns WL & RIH w/DIL FDC CNL. Hit bridge @ 4794' & could not get thru. TIH w/bit & reamed to TD & circ 1 hr. Tripping out of hole for logs. Survey 1½° @ 5300'. Sample Top: Mississippian Lime @ 5156'.

3-22-86 Depth 5300' TD. Logging tool stopped @ 4950', could not get through to TD. Circ & cond 2 hours. Logging tools went to TD without hitting any bridges. Ran FDC-CNL from TD to 3300', & DIL from TD to 459'. RU BJ Titan & spot cmt plugs in accord w/state instructions as follows:

Plug #1 @ 2750'	w/25 sx
Plug #2 @ 1780'	w/100 sx
Plug #3 @ 480'	w/40 sx
Plug #4 @ 40'	w/10 sx
Rathole	w/15 sx
Mousehole	w/10 sx
	200 sx

Total 200 sx 60/40 Pozmix w/6% gel. Plug and Abandon @ 6:30 PM
3-22-86. Final Report.