

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISIONWELL COMPLETION OR RECOMPLETION FORM
ACO-1 WELL HISTORY

DESCRIPTION OF WELL AND LEASE

Operator: License # 5886
Name CHIEF DRILLING CO., INC.
Address 151 N. Main Suite #700
Wichita, Kansas 67202
City/State/Zip

Purchaser Kach Oil Co.

Operator Contact Person E.W. Shelton, Jr.,
Phone Vice President 262-3791

Contractor: License # 5883
Name Warrior Drilling Co.

Wellsite Geologist Mitch Allen
Phone 316-262-3791

Designate Type of Completion

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

If OWO: old well info as follows:

Operator
Well Name
Comp. Date Old Total Depth

WELL HISTORY

Drilling Method:

☒ Mud Rotary ☐ Air Rotary ☐ Cable

5-28-87 6-07-87 7-02-87
Spud Date Date Reached TD Completion Date
4550' 4501'
Total Depth PBTD

Amount of Surface Pipe Set and Cemented at 259' feet
Multiple Stage Cementing Collar Used? ☐ Yes ☒ No
If yes, show depth set feet
If alternate 2 completion, cement circulated
from 1950' feet depth to Surf w/ 200' cmt

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 F.W. Shelton, Jr., Vice President
Title Date

Subscribed and sworn to before me this 15 day of July 1987
Notary Public Martha E. Gustin

Date Commission Expires



API NO. 15-101-21,388-00-00

County Lane

NE NW SW Sec 1 Twp 18S Rge 27 ☐ East ☒ West

2310 Ft North from Southeast Corner of Section
4290 Ft West from Southeast Corner of Section

(Note: Locate well in section plat below)

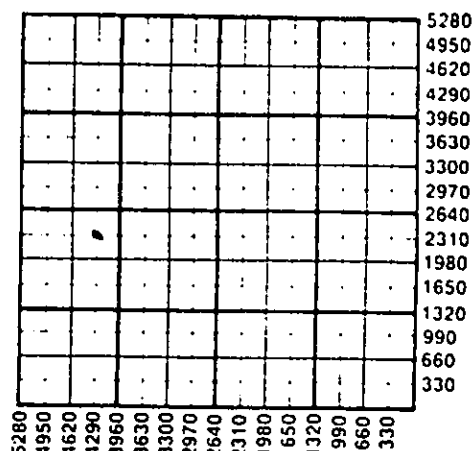
Lease Name Herl "A" Well # 1

Field Name D-40 SW

Producing Formation Lansing

Elevation: Ground 2561 KB 2566

Section Plat



WATER SUPPLY INFORMATION

Disposition of Produced Water: ☐ Disposal
Docket # ☐ Repressuring

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

Source of Water:

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
SW/4 Sec 1 Twp 18Rge 2 ☐ East ☒ West
Creek

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

K.C.C. OFFICE USE ONLY		
☒	Letter of Confidentiality Attached	
☐	Wireline Log Received	
☐	Drillers Timelog Received	
Distribution		
☒	KCC	☐ SWD/Rep ☐ NGPA
☒	KGS	☐ Plug ☐ Other
(Specify)		

Form ACO-1 (7-84)

07-16-1987

Operator Name Chief Drilling Co., Inc. Lease Name HERL "A" Well #.....1.....

Sec....1..... Twp....18S. Rge....27... ☐ East
☒ West County.....Lane.....

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

5-02-87 DST #1 4099-4134 (Lans. 180) 30-30-60-60 IF: st bl off bottom in 3", FF: st bl off bottom in 5", Rec. 495' GIP, 30' HO&GCM, 170' CGO, IBHP: 1065# FBHP: 1092# IFF: 62-89 FFP: 98-125
6-03-87 DST #2 4129-4169 (Lans. 200) 30-30-60-60 IF: st bl off bottom 1", FF: st bl off bottom 3" Rec. 1430' GIP, 110' HO&GCM, 250' CIGO, 620' W, chlor, 90,000 ppm, IBHP: 1119#, FBHP: 1119#, IFF: 89-178 FFP: 250-419
6-04-87 DST #3 Missrun (hit bridge going in hole)
DST #4 4168-4205 (Lans. 220) 30-30-60-60 IF: st bl off bottom in 15", FF: st bl off bottom in 15", Rec. 370' GIP, 30' HO&GCM, 60' C1 GO, 90' W, chl. 87,000 ppm, IBHP: 1074# FBHP: 1056#, IFF: 80-107 FFP: 116-151
6-05-87 DST #5 4221-4320 Marmaton 30-30-30-30 IF: wk bl died 15", Rec. 5' M, IBHP: 89# FBHP: 80#, IFF: 80-80 FFP: 80-80
6-06-87 DST #6 4372-4430 (Ft. Scott) 30-30-60-60 IF: st bl off bottom in 30", FF: st bl in 2", Rec. 1000' GIP, 5' C1 GO, 90' HO&GCM, IBHP: 125#, FBHP: 223# IFF: 89-89 FFP: 89-89
6-07-87 DST #7 4475-4502 (Mississippi) 30-30-60-60 IF: fr bl, FF: fr bl, Rec. 63' S1 MO, 94# O 6# M, tr W, IBHP: 930# FBHP: 930# IFF: 89-89 FFP: 89-89
6-08-87 DST #8 4478-4507 (Miss) 30-30-30-30 IF: fr bl, FF: wk bl, Rec. 50' MCO, 88# O, 12# M, tr W, IBHP: 894# FBHP: 804# IFF: 44-44 FFP: 62-62
6-09-87 Ran 117 jts. 4548' used 4 1/2" csg, set @ 4548' 2' off bottom, centralizers @ 4535', 4455', 4339', 4200', 4250', 4097', 1950', basket @ 1950', float @ 4534', cem w/200 sks ASC, 10 bbl disco flush 10 bbl WFR 2 flush plug down @ 11:00 pm

Name	Top	Bottom
FORMATION TOPS:		
Anhydrite	1938 + 628	E-LOG TOPS: 1936 + 630
Base Anhydr	1971 + 595	Base Anhydr
Heebner	3828 - 1262	Heebner
Toronto	3845 - 1279	Toronto
Lansing	3865 - 1299	Lansing
Muncie Cr.	4032 - 1466	Muncie Cr
Stark	4130 - 4134	Stark
BKC	4203 - 1637	BKC
Marmaton	4232 - 1666	Marmaton
Pawnee	4340 - 1774	Pawnee
Ft. Scott	4382 - 1816	Ft. Scott
Cher. Shale	4407 - 1841	Cher. Shale
Miss. Dolo.	4491 - 1925	Miss. LS
RTD	4550 - 1984	Miss. Dolo.
		LTD

Well Log

0	54	Surface Clay
54	915	Clay & Sand
915	1938	Shale
1938	1971	Anhydrite
1971	4115	Shale
4115	4382	Lime & Shale
4382	4550	Lime
4550		RTD

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#.....	259'....	60/40.	160..	3%cc.2%gel
Production...	7.7/8	4.1/2"	10.5#...	4548'..	ASC....	200..	10hbl.disco flush 10 bblWFR

PERFORATION RECORD

Shots Per Foot	Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
4.sh.per'	4486-4492!..acidized.w/300.gal	15%.INS.5GPM.@.500#.max	psi.....
.....	acidized.w/1000.gal.15%.SGA.1	1.1/2.BPM.@.450#.max	psi.....
4.sh.per'	4378-4381.treated.250.gal.15%	INS.1.1/4.BPM.....	psi.....
4.sh.per'	4110-4114.acidized.w/300.gal.15%	INS.1.1/2.BPM.@.500#.max	psi.....
acidized	w/1000 gal 15% SGA 2 BPM, @ 150#	max psi	

TUBING RECORD	Size	Set At	Packer at	Liner Run	☐ Yes ☒ No
	2 3/8"	4498.00	NA		

Date of First Production	Producing Method
7-02-87	☐ Flowing ☒ Pumping ☐ Gas Lift ☐ Other (explain).....

Estimated Production Per 24 Hours	Oil	Gas	Water	Gas-Oil Ratio	Gravity
	45 Bbls	-0- MCF	12 Bbls	CFPB	37

METHOD OF COMPLETION

Production Interval

Disposition of gas: ☐ Vented
☐ Sold
☐ Used on Lease

☐ Open Hole ☒ Perforation
☐ Other (Specify)
☒ Single
☐ Dually Completed
☐ Conmingled

....4486-4492...
.....

RELEASED

AUG 16 1988

FROM CONFIDENTIAL

15-101-21388-00-00

CHIEF DRILLING CO., Inc.

Drilling Contractors - Oil Producers

151 N. MAIN
SUITE 700

WICHITA, KANSAS 67202

RELEASED**AUG 16 1988**V. RICHARD HOOVER
PRESIDENTDAILY DRILLING REPORT
API: 15-101-21,388
RIG #1**FROM CONFIDENTIAL** (b)(7)(D), 262-3791HERL "A" #1 (#2547)
NE NW SW SEC. 1-18S-27W
LANE COUNTY, KANSASELEVATION: 2561 GR
2563 DF
2566 KB

5-25-87 Moved in 3 loads
 5-26-87 Moving in on location
 5-27-87 Rained out, repairing rig
 5-28-87 Finished moving in, spudded in @ 5:00 p.m.
 ran 6 jts. 259', new 20# 8 5/8", set @ 259'
 cem w/160 sks 60/40 posmix, 3%cc, 2%gel,
 Plug down @ 10:30
 5-29-87 Drilling @ 360'
 5-30-87 Drilling @ 2010'
 5-31-87 Drilling @ 2905'
 6-01-87 Drilling @ 3500'
 6-02-87 DST #1 4099-4134 (Lans. 180) 30-30-60-60
 IF: st bl off bottom in 3", FF: st bl off
 bottom in 5", Rec. 495' GIP, 30' HO&GCM,
 170' CGO, IBHP: 1065# FBHP: 1092# IFP: 62-89
 FFP: 98-125
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 Rec. 1430' GIP, 110' HO&GCM, 250' ClGO, 620'
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 IF: fr bl, FF: fr bl, Rec. 63' Sl MO, 94% O
 6% M, tr W, IBHP: 930# FBHP: 930# IFP: 89-
 89 FFP: 89-89
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 bl, FF: wk bl, Rec. 50' MCO, 88% O, 12% M,
 tr W, IBHP: 894# FBHP: 804# IFP: 44-44 FFP:
 62-62
 6-09-87 Ran 117 jts. 4548' used 4 1/2" csg, set @ 4548'
 2' off bottom, centralizers @ 4535', 4455', 4339',
 4200', 4250', 4097', 1950', basket @ 1950', float
 @ 4534', cem w/200 sks ASC, 10 bbl disco flush 10 bbl WFR 2 flush
 Plug down @ 11:00 pm

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BKC	4203 - 1637
Marmaton	4232 - 1666
Pawnee	4340 - 1774
Ft. Scott	4382 - 1816
Cher. Shale	4407 - 1841
Miss. Dolo.	4491 - 1925
RTD	4550 - 1984

E-LOG TOPS:

Anhydrite	1936 + 630
Base Anhydr	
Heebner	3820 - 1254
Toronto	3838 - 1272
Lansing	3859 - 1293
Muncie Cr	4028 - 1462
Stark	4125 - 1559
BKC	4200 - 1634
Marmaton	4227 - 1661
Pawnee	4327 - 1761
Ft. Scott	4377 - 1811
Cher. Shale	4402 - 1836
Miss. LS	4479 - 1913
Miss. Dolo.	4486 - 1920
LTD	4546 - 1980

KANSAS GEOLOGICAL SURVEY
WICHITA BRANCH

JUL 17 1987

STATE OF KANSAS

JUN

AUG 1 1987

JUL 1 1987

15-101-21388-00-00

CHIEF DRILLING CO., Inc.

Drilling Contractors - Oil Producers

151 N. MAIN BUILDING

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WICHITA, KANSAS 67202

RELEASED

AUG 16 1988

V. RICHARD HOOVER
PRESIDENT

DAILY COMPLETION REPORT

FROM CONFIDENTIAL

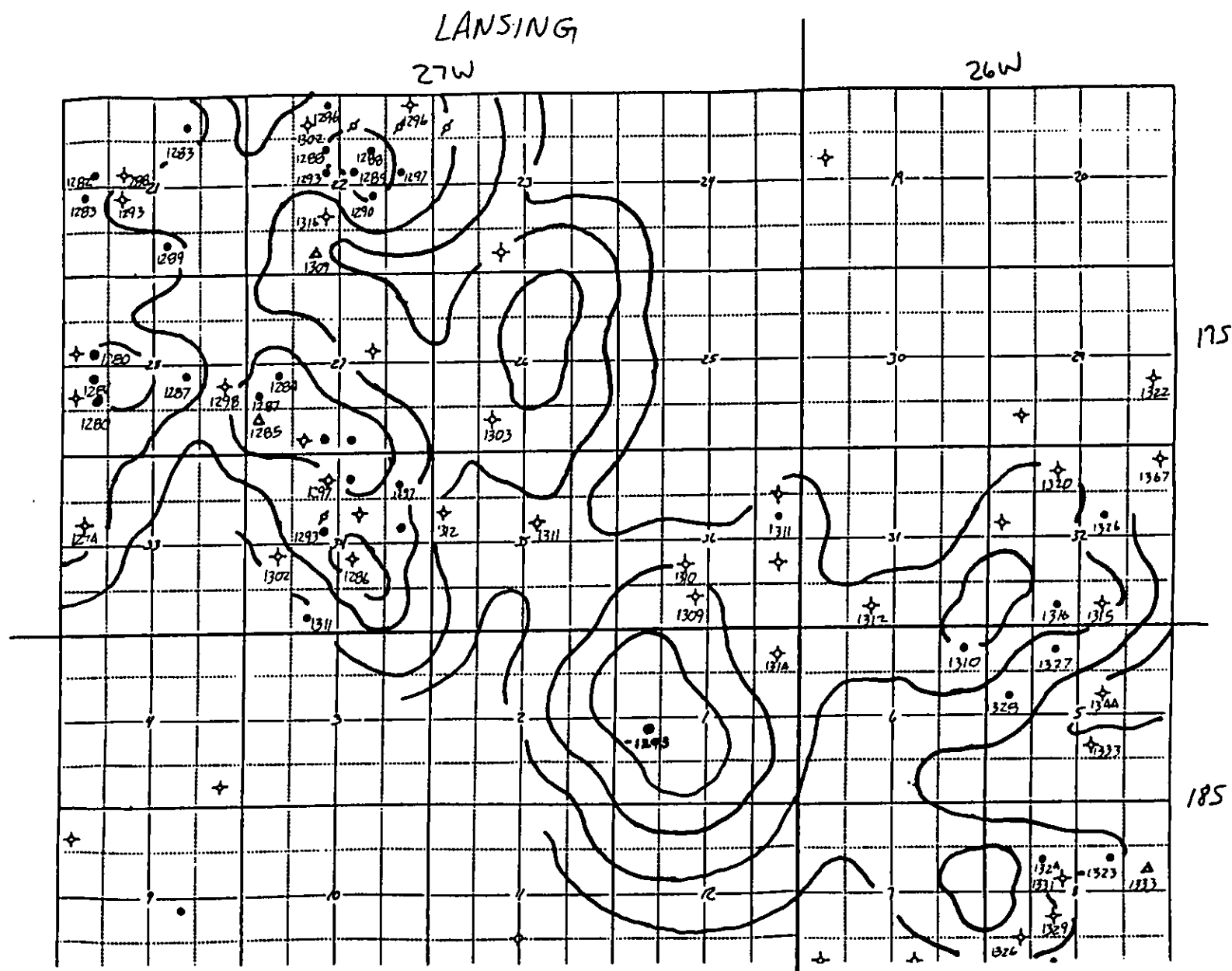
(316) 262-3791

HERL "A" #1
NE NW SW SEC. 1-18S-27W
LANE COUNTY, KANSAS

- 6-16-87 Moved in double drum, rigged up, checked bottom.
- 6-17-87 Ran Gamma-Ray Correlation Bond log, log indicated very poor bond.
Perforated Miss. from 4486-4492 w/four holes per ft. swabbed hole,
1/2 hr test 1/2 bbl fluid, show of O
1/2 hr test 1/2 bbl fluid, show of O
- 6-18-87 Overnight fill up - 120' O, 20' W, Gravity 37, Acidized w/300 gall.
INS, 5 gall per min., 500# max pressure, load 78 bbls. swab back 77 bbls
1 hr 1.16 bbls., O w/trace W
2 hr 1.16 bbls., O w/trace W
1/2 hr .58 bbls., O w/trace W
- 6-19-87 590' fill up, 530' O, 60' W, acidized w/1000 gall SGA @ 1 1/2 bbls
per min., 200# max pressure, load 101 bbls., swab back 85 bbls.,
1/2 hr test .58 bbls., 94% O
- 6-22-87 834' fill up, 672' O, 212' W, perf. 4 holes per ft. 4378-4381
(Ft. Scott) set plug @ 4395'
1/2 hr test 1/4 bbl., 10% O
acidized w/250 gall. INS 100# max pressure, @ 1/4 bbl per min.
Load 76 bbls., swab back 74 bbls.
1/2 hr test 1/4 bbl. fluid 40% O
1/2 hr test 1/4 bbl. fluid 50% O
- 6-23-87 106' fill up, 46' O, 60' W, perf. 4 holes per ft. 4110-4114 (Lans 180)
set retrievable plug @ 4215' swabbed down hole dry, acidized w/300 gall
INS @ 1 1/4 bbls per min., 500# max pressure, load 74 bbls., swabbed
back 65 bbls.,
1/2 hr test 1.74 bbls., fluid 50% O
1/2 hr test 1.64 bbls., fluid 60% O
- 6-24-87 Shut down because of weather
- 6-25-87 1773' fill up, 1561' O, 212' W,
1/2 hr test 1.74 bbls., fluid 46% O
1/2 hr test .87 bbls., fluid 60% O
1/2 hr test 1.16 bbls., fluid 60% O
acidized w/1000 gall SGA 2 bbls. per min., 200# max pressure
load 106 bbls., swab down 70.87
1/2 hr test 2.90 bbls., 50% O
1/2 hr test 2.90 bbls., 62% O
1/2 hr test 2.32 bbls., 74% O
1/2 hr test 1.74 bbls., 89% O
- 6-26-87 1271' fill up, 1061' O, 210' W, cem top from 1950' up, 255' from surf.
- 6-29-87 Pulled out of hole with bridge plug
- 6-30-87 Ran 26' Mud anchor, 142 jts 2 3/8" tbg, 4454', 4-6' subs, 1 - 4' sub,
4498' total, ran 180 3/4" rods, 2 x 1 1/2 x 12' THD pump, 1 - 16'
polish rod,
- 7-01-87 Laying lead line, hooking up tanks
- 7-02-87 P.O.P.
- 7-07-87 23 bbls. O, 12 bbls. W
- 7-10-87 48 bbls. O, 12 bbls. W
- 7-11-87 43 bbls. O, 12 bbls. W
- 7-12-87 40 bbls. O, 12 bbls. W Sold first tank of Oil

JUL 16 1987

Township 18, Range 27W, County LANE, State KANSAS,



HERL A^N 1

SIA 110 1000 1990

JUL 29 1987

DEBORAH L. HARRIS and
NATHAN KATZ

NY 105713