

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

Operator: License # 6234Name: Petroleum Production Management, Inc.Address 209 E. William, Suite 200City/State/Zip Wichita, KS 67202Purchaser: Pawnee Pipeline & Marketing, Inc.Operator Contact Person: Frank E. Novy, Sr. V.P.Phone (316) 265-4651Contractor: Name: Murfin Drilling CompanyLicense: 30606Wellsite Geologist: Joe Baker

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:

Operator: _____

Well Name: _____

Comp. Date _____ Old Total Depth _____

☐ Deepening ☐ Re-perf. ☐ Conv. to Inj/SWD☐ Plug Back ☐ PBTD☐ Commingled ☐ Docket No. _____☐ Dual Completion ☐ Docket No. _____☐ Other (SWD or Inj?) ☐ Docket No. _____Spud Date 9-25-94 Date Reached TD 9-29-94 Completion Date 9-30-94API NO. 15- 055-21334County Finney - - C - NW Sec. 22 Twp. 21S Rge. 34W X E
W3960 Feet from N (circle one) Line of Section3860 3960 Feet from E (circle one) Line of SectionFootages Calculated from Nearest Outside Section Corner:
NE. SE NW or SW (circle one)Lease Name Lang Well # 6Field Name HugotonProducing Formation ChaseElevation: Ground 2965' KB 2970'Total Depth 2750' PBTD 2704'Amount of Surface Pipe Set and Cemented at 8 its. @ 361 FeetMultiple Stage Cementing Collar Used? ☐ Yes ☒ No

If yes, show depth set _____ Feet

If Alternate II completion, cement circulated from 2749'feet depth to surface w/ 720 sx cmt.Drilling Fluid Management Plan ALT 2 27 8-11-95
(Data must be collected from the Reserve Pit)Chloride content 51.000 ppm Fluid volume 4300 bblsDewatering method used allowed to dry naturally

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 Frank E. NovyTitle Senior Vice President Date 12-22-94Subscribed and sworn to before me this 18th day of May, 19 95.Notary Public Connie L. CrookDate Commission Expires 12-12-96

K.C.C. OFFICE USE ONLY
F Letter of Confidentiality Attached
C ☒ Wireline Log Received
C ☒ Geologist Report Received

Distribution
☒ KCC ☐ SWD/Rep ☐ NGPA
☒ KGS ☐ Plug ☐ Other (Specify) FS

AMENDED TO ADD IP CORRECT ALT II INFO

RECEIVED

KANSAS CORPORATION COMMISSION Form ACO-1 (7-91)

MAY 22 1995

CONSERVATION DIVISION
WICHITA, KS

SIDE TWO

Operator Name Petroleum Production Management, Inc. Lease Name Lang Well # 6Sec. 22 Twp. 21S Rge. 34W
☐ East
☒ WestCounty Finney

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
(Attach Additional Sheets.)Samples Sent to Geological Survey ☒ Yes ☐ NoCores Taken ☐ Yes ☒ NoElectric Log Run ☒ Yes ☐ No
(Submit Copy.)

List All E.Logs Run:

DLL-MSFL
CNCD-GR-caliper
Complex Lith. Analysis
Cement Bond-MSG-CCL
Tracer Scan

☒ Log Formation (Top), Depth and Datums ☐ Sample

Name	Top	Datum
B/Stone Corral	2063'	+907
Herrington	2504'	+466
Krider	2541'	+429
Winfield	2579'	+391
Towanda	2641'	+329
Fort Riley	2696'	+274

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"	23#	361'	60/40 poz.	220	3% CC, 2% gel
Production	7 7/8"	4 1/2"	9 1/2#	2749'	HLC	500	2% CC, 10# gil/sx
					prem EA2	100	5% calseal, .6%

ADDITIONAL CEMENTING/SQUEEZE RECORD

Halad 322, 15% salt, Circ. 62 sx. to pit.

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
4	2650-80' - Towanda	2000 gal. 15% FE acid each zone (total)	
4	2602-08', 2630-36' - Winfield	6000 gal.) frac perfs w/952 bbls.	
4	2542-52' - Krider	Boragel & 127,700# 10-20 mesh sand	

TUBING RECORD	Size 2 3/8"	Set At 2511'	Packer At	Liner Run	☐ Yes ☒ No
Date of First, Resumed Production, SWD or Inj. 2-4-95	Producing Method ☐ Flowing ☒ Pumping ☐ Gas Lift ☐ Other (Explain)				
Estimated Production Per 24 Hours	Oil Bbls. 0	Gas Mcf 73	Water Bbls. 25	Gas-Oil Ratio NA	Gravity

Disposition of Gas:

METHOD OF COMPLETION

Production Interval

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

☐ Open Hole ☒ Perf. ☐ Dually Comp. ☐ Commingled

☐ Other (Specify)

DAILY WELL RECORD

ORIGINAL

POOL HugotonAPI NO. 15-055-21334

WC _____

AFE NO. _____

LEASE: Lang Gas Unit #6 Sec. 22 Twp. 21S Rge. 34W Spot C NWLOCATION: 3960 FSL, 3060 FEL Sec. 22-21S-34WELEVATION: 2965 GR 2970 KB County Finney State KansasOPERATOR: Petroleum Production Management, Inc. Phone (316) 265-4651CONTRACTOR: Murfin Drilling Co. - Rig #3 Phone (316) 267-3241CORRELATION WELL Lang #4

FORMATION TOPS	SAMPLE TOPS	LOG TOPS	MIRT 9-25-94
B/Stone Corral	2063 +907 (-2)	2063 +907	SPUD 2:30 p.m. 9-25-94
Herrington	2505 +464 (-1)	2504 +466	SURFACE 8 jts. 8 5/8" @ 361
Krider	2536 +434 (-3)	2541 +429	w/220 sx. 60/40 poz. 3%
Winfield	2578 +393 (+4)	2579 +391	CaCl 2% gel.
Towanda	2646 +324 (+1)	2641 +329	REMARKS
Fort Riley	2696 +274 (+3)	2696 +274	RECEIVED KANSAS CORPORATION COMMISSION
RTD	2750 +240	2750 +240	DEC 22 1994

DATE

REPORT

CONSERVATION DIVISION

9-25-94 MIRT. Spud w/12 1/4" bit @ 2:30 p.m. Set 8 jts. 8 5/8" @ 361 w/220 sx. 60/40 poz. 3% CaCl 2% gel. Circ. 5 bbls. cmt. to surface. Plug dn. @ 8:30 p.m. 9-25-94. Drilled out @ 8:30 a.m. 9-26-94.

9-26-94 Dev. 1/2° @ 361. Drilling ahead.

9-27-94 Dev. 1/2° @ 846', 3/4° @ 1370'. MW - 9.0. Vis. - 35.
7:00 a.m. Drilling @ 1980'.

9-28-94 Dev. 3/4° @ 2410. MW - 9.3. Vis. 47. Wtr. loss 15.2 cc. Chlorides 5100.
12:00 a.m. RTD @ 2560'. Condition hole for DST #1 2510-60' (Krider).
8:30 a.m. DST #1 - 2510-60' (Krider) Open 60, SI 60, Open 60, SI 60. 1st open - strong blow in 8 min. GTS - 30 min. 9 MCF thru 1/4" choke. 2nd open - GTS immed. Gauge & stab. @ 38 MCF thru 1/2" choke. Rec. 80' sli. GCM. IFP-80-84. ISIP 450#. FFP-86-86. FSIP 450#. Temp. 107#.
2:00 p.m. TIH w/drill pipe.
4:00 p.m. RTD 2620'. Condition hole for DST #2 2583-2620' (Winfield).
5:00 p.m. On btm. for DST #2

9-29-94 MW - 9.3. Vis. 43. Wtr. loss 16.00 cc. Chlorides 4750.

ORIGINAL

Page 2 Petroleum Production Management, Inc. - Lang Gas Unit #6

9-29-94
2:00 a.m. DST #2 - 2583-2620' (Winfield) Open 90, SI 60, Open 90, SI 90. 1st open - weak blow, build to strong off btm. of bucket in 64 min. 2nd open - strong blow. GTS 30 min. Stab. @ 2 MCF thru 1/4" choke. Rec. 70' sli. GCM. IFP-30-36. ISIP 450#. FFP-50-52. FSIP 450#. Temp. 107#.

8:00 a.m. RTD 2685'. POOH to test Towanda.

12:00 p.m. On btm. to test.
DST #3 - 2650-2685' (Towanda) Open 60, SI 60, Open 60, SI 60. 1st open - strong blow immediately. GTS 20 min. Stab. @ 83 MCF. 2nd open - gas immediately. Stab. @ 121 MCF. Rec. 90' GCM. IFP-30-60. ISIP 460#. FFP-50-70. FSIP 460#. Temp. 107°.

8:30 p.m. RTD 2750'. Conditioning hole to log.

9:30 p.m. Pulling drill pipe to log.

9-30-94
Dev. 3/4° @ 2750'. MW - 9.3. Vis. 45. Wtr. loss 12.00 cc. Chlorides 4600.

4:30 a.m. Logging complete. Halliburton Wireline ran DLL-MSFL & CND-GR-caliper. LTD 2750'.

5:30 a.m. Condition hole to run csg.

6:00 a.m. Start laying dn. drill pipe.

7:40 a.m. Drill pipe layed dn. Disconnect BOP & lines.

9:00 a.m. Ready to run prod. csg.

9:15 a.m. Install guide shoe on shoe jt. & PU 44' 4 1/2" shoe jt. & install insert float in 1st collar. TIH w/85 jts. 4 1/2" 9 1/2# used - tested to 4000# 8 RD csg. Ran 10 centralizers. Ran 2 cement baskets - 1 @ approx. 2190' & 1 @ approx. 1285'.

10:45 a.m. Tag up on btm @ 2750'. Set csg. 1' off btm. @ 2749'. RU Halliburton to cmt. Pump 40 bbl. - 3% salt wtr. Pump 500 gal. mud flush - mix 2 sx. gel & mix & pump 500 sx. HLC w/2% Cal - 10#gil/sx. Tail in w/100 sx. premium EA-2 cmt. containing 5% calcium seal, .6% Halad - 322 - 15% salt. Pump cmt. in turbulent flow @ 6 BPM while reciprocating csg. Max. pumping cmt. press. 500#. Had full circulation thruout job. Circ. 62 sx. cmt. to pit. Plug dn. @ 2705' - pressure csg. to 1000#. Held ok for 4 min. Release press. - float holding ok. Transfer csg. to bradenhead slips. RDMO Halliburton. Release rig - zero point 7' ABH.

12:44 p.m.

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DEC 22 1994

CONSERVATION DIVISION
WICHITA, KS

PETROLEUM PRODUCTION MANAGEMENT, INC.

ORIGINAL

WELL REPORT

X Completion
 _____ Workover

POOL _____ LEASE # _____

API# 15-055-21334 AFE # _____

LEASE Lang #6 Sec. 22 Twp. 21S Rge. 34W Spot C NW

ZERO POINT 7' ABH ELEV. 2965 GR KB CO. Finney STATE Kansas

OPERATOR Petroleum Production Management, Inc. RTD 2750 LTD 2750 PBTD _____

CONTRACTOR Gressel Well Service CSG. SIZE & 8 5/8" @ 361' 23#
 DEPTH SET 4 1/2" @ 2749' WT. 9 1/2#

NEW OIL WELL _____ Perfs. _____ Zone _____

NEW GAS WELL X Perfs. 2542-52' Zone Krider
 Perfs. 2602-08' & 2630-36' Zone Winfield
 Perfs. 2650-80' Zone Towanda
 B.P. _____

OLD OIL WELL _____ Perfs. _____ Zone _____

OLD GAS WELL _____ Perfs. _____ Zone _____

B.P. _____ DEC 22 1994

REMARKS: _____

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REPORT

10-28-94 MIRU Gressel WS. PU 4 1/2" csg. scraper w/blade bit on btm. & TIH on 86 jts. 2 3/8" EUE tbg. Tagged up @ PBTd 2705'. PU 1 jt. tbg. & SD for weekend. Cost - 600 rig, 200 scraper & bit, 225 supervision. Daily cost - \$1,025

10-29-94 SD for weekend.

10-30-94 SD for weekend.

10-31-94 POOH w/tbg., scraper & blade bit. Lay dn. blade bit & scraper. RU HLS. PU GR-CCL-bond log tool & TIH. LTD 2701'. Log from 2701' to 2000' and from 1600' to 1000'. POOH w/logging tool. Lay dn. logging tool & PU 3 3/8" csg. gun dressed w/4 SPF - 32 gram charge & TIH. Tie into collars & perf as follows:

2650-80'	Towanda	total 120 holes
2630-36' & 2602-08'	Winfield	total 48 holes
2542-52'	Krider	total 40 holes

POOH w/gun. All shots fired. RDMO HLS. SDFN. Cost - 6500 Hal, 1000 rig, 450 supervision.

Daily cost - \$7,950

Cum. cost - \$8,975

11-1-94 SICP 30#. PU Halliburton RBP & RTTS pkr. & TIH on 2 3/8" EUE tbg. Set RBP @ 2687'. PU pkr. & set @ 2639'. Acidized Towanda perfs w/2000 gal. 15% FE-NE acid @ max. press. 350# & treat zone @ 2.9 BPM @ 340#. ISIP 257#. Release pkr. & lower pkr. to RBP & PU RBP to 2639' & set. PU pkr. to 2579' & set. Acidize Winfield - 2 sets of perfs - w/2000 gal. 15% FE-NE acid @ 372# max. press. & treat zone @ 2.8 BPM @ 340#. ISIP 283#. Release pkr. & lower to RBP & raise RBP to 2579' & set.

11-1-94 Cont.

Raise pkr. to 2530' & set. Acidize Krider perfs w/2000 gal. 15% FE-NE acid @ max. press. 350#. Treat zone @ 2.9 BPM @ 340#. ISIP 0#. Lower pkr. & latch onto RBP & POOH w/tbg. Lay dn. RBP & RTTS & shut well in for night. Total load to recover 185 bbls. Max. press 500#. Avg. press. 350#. Avg. inj. rate 2.5 BPM. Cost - 1000 rig, 5200 Hal., 1500 tools, 450 supervision.

Daily cost - \$8,150

Cum. cost - \$17,125

11-2-94 7:00 a.m. - RU Halliburton & prepare to frac. 9:10 a.m. - frac Towanda, Winfield & Krider perfs dn. 4 1/2" csg. w/952 bbl. Boragel G-3195 fluid system. Pump 15,000 gal. pad @ 41 BPM @ 520#. Pump 3000 gal. w/2 PPG 10-20 sd. @ 41 BPM @ 450#. Pump 2000 gal. w/3 PPG 10-20 sd. @ 41 BPM @ 380#. Pump 2000 gal. w/4 PPG 10-20 sd. @ 41 BPM @ 330#. Pump 3000 gal. w/5 PPG 10-20 sd. @ 41 BPM @ 287#. Pump 4000 gal. w/6 PPG 10-20 sd. @ 41 BPM @ 290#. Pump 4000 gal. w/7 PPG 10-20 sd. @ 41 BPM @ 275#. Pump 5000 gal. w/8 PPG 10-20 sd @ 41 BPM @ 260#. Pump 1730 gal. flush @ 42 BPM @ 400#. ISIP 165#. 5 min. - 88#. 10 min. - 44#. 15 min. - 13#. Total sand pumped 127,700# 10-20 mesh sd. Tag frac sd. w/R.A. material. Job complete @ 9:58 a.m. SDFN. Cost - 32,000 Hal., 1000 rig, 1000 wtr., 1000 frac tank, 450 supervision.

Daily cost - \$35,450

Cum. cost - \$52,575

11-3-94 RU sand pump. Found 40' of fill in hole. Cleaned sand out to 2704'. RU HLS & ran tracer scan log from 2693-2400'. RD HLS. Ran 80 jts. 2 3/8" EUE tbg., 15.82' MA, 1/10' SN - btm. of string @ 2511.29'. Ran 2" X 1 1/2" X 10' M-M pump w/6' gas anchor, 2' pony on top, 98 - 5/8" rods, 3 - 6' - 5/8" pony rods on tops, 1 1/4" X 16' polish rod w/5' liner. HOB @ 5:00 p.m. RDMO Gressel WS. Cost - 3250 tbg., 1500 rods, 1000 pump, 2000 pumping unit, 1000 motor, 225 supervision.

Daily cost - \$8,975

Cum. cost - \$61,550

11-5-94 MI & set Bethlehem D-40 pumping unit w/C-66 engine & portable propane tank. 1:00 p.m. - POP.

11-6-94 Pumping wtr. to pit. CP 260#.

11-7-94 Pumping mist of wtr. & gas blowing to pit. CP 360#. Shut dn. - waiting on gas line.

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