

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

APPLICATION TO DRILL DEEPEN PLUG BACK
for an oil well or gas well

NAME OF COMPANY OR OPERATOR Prairie Energy Corporation DATE July 20, 1983
8600 West 110th St., Suite 202 Overland Park Kansas 66210
Address City State

DESCRIPTION OF WELL AND LEASE			
Name of lease <u>Knoche</u>	Well number <u>5</u>	Elevation (ground) <u>1035</u>	
WELL LOCATION (give footage from section lines) <u>175</u> ft. from (S) sec. line <u>2162</u> ft. from (W) sec. line			
WELL LOCATION Section <u>4</u> Township <u>46</u> Range <u>33</u>		County <u>Cass</u>	
Nearest distance from proposed location to property or lease line: <u>175</u> feet		Distance from proposed location to nearest drilling, completed or applied for well on the same lease: <u>330</u> feet	
Proposed depth <u>700</u>	Drilling contractor, name & address <u>Layne-Western</u>	Rotary or Cable Tools <u>Rotary</u>	Approx. date work will start <u>7/25/83</u>
Number of acres in lease <u>About 40</u>		Number of wells on lease, including this well, completed in or drilling to this reservoir: <u>5</u> Number of abandoned wells on lease: <u>unknown</u>	
If lease, purchased with one or more wells drilled, from whom purchased: Name <u>General Energy</u> Address <u>Mound City, KS</u>		No. of Wells: producing <u>3</u> injection _____ inactive _____ abandoned _____	
Status of Bond Single Well <input type="checkbox"/> Amt. _____ Blanket Bond <input checked="" type="checkbox"/> Amt. <u>\$30,000</u>			<input checked="" type="checkbox"/> ON FILE <input type="checkbox"/> ATTACHED
Remarks: (If this is an application to deepen or plug back, briefly describe work to be done, giving present producing zone and expected new producing zone) use back of form if needed.			
Proposed casing program:		Approved casing -- To be filled in by State Geologist	
amt.	size	wt./ft.	cem.
<u>25</u>	<u>7"</u>	<u>16</u>	<u>5</u>
<u>650</u>	<u>2 7/8"</u>	<u>7</u>	<u>80</u>
_____	_____	_____	_____
_____	_____	_____	_____
I, the undersigned, state that I am the <u>Land Manager</u> of the <u>Prairie Energy Co.</u> (company), and that I am authorized by said company to make this report, and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.			
Signature: <u>Stephen R. Hughes</u>			

Permit Number: 20397
Approval Date: 7/22/83
Approved By: Wallace B. Howe
BHW

- Drillers log required
- E-logs required if run
- Core analysis required if run
- Drill stem test info. required if run
- Samples required
- Samples not required

RECEIVED

Note: This Permit not transferable to any other person or to any other location.
Remit two copies to: Missouri Oil and Gas Council
P.O. Box 250 Rolla, Mo. 65401
One will be returned for driller's signature

JUL 22 1983

MO. OIL & GAS COUNCIL

Approval of this permit by the Oil and Gas Council does not constitute endorsement of the geologic merits of the proposed well nor endorsement of the qualifications of the permittee.

WATER SAMPLES REQUIRED @

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

New Well Workover Deepen Plug Back Injection Same Reservoir Different Reservoir Oil Gas Dry

Owner Prairie Energy Corporation		Address 8600 West 110th Street Suite 202 Overland Park, Kansas 66210			
Lease Name Knoche		Well Number 5			
Location 175' from S line; 2162' from W line			Sec., Twp., and Range or Block and Survey Sec 4, Tp. 46 R 33		
County Cass	Permit number (OGC 3 or OGC 31) 20397				
Date spudded 8/1/83	Date total depth reached 8/4/83	Date completed, ready to produce or inject 8/1/83	Elevation (DF, RKR, RT, or Gr.) feet 1035'	Elevation of casing hd. flange feet	
Total depth 627'	P. B. T. D. 590'				
Producing or injection interval(s) for this completion Squirrel		Rotary tools used (interval) From 0 to TD Drilling Fluid used air		Cable tools used (interval) From _____ to _____	
Was this well directionally drilled? No	Was directional survey made? N/A	Was copy of directional survey filed? N/A	Date filed N/A		
Type of electrical or other logs run (list logs filed with the State Geologist) Gamma Ray Neutron			Date filed with report		

CASING RECORD

Casing report all strings set in well -- conductor, surface, intermediate, producing, etc.1

Purpose	Size hole drilled	Size casing set	Weight (lb. ft.)	Depth set	Sacks cement	Amt. pulled
surface	9"	6 5/8	13'	20.5	5	
casing	5 5/8	2 7/8	7.5'	590'		

TUBING RECORD

LINER RECORD

Size	Depth set	Packer set at	Size	Top	Bottom	Sacks cement	Screen (ft.)
in.	ft.	ft.	in.	ft.	ft.	ft.	

PERFORATION RECORD

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

Number per ft	Size & type	Depth Interval	Amount and kind of material used	Depth Interval
		551.5-555	25 sks sand	
			45 bbls. water	

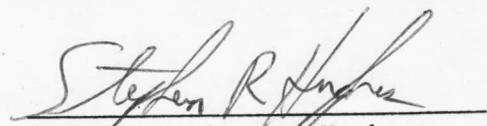
INITIAL PRODUCTION

Date of first production or injection		Producing method (indicate if flowing, gas lift, or pumping -- if pumping, show size and type of pump) pumping, 1 1/2" insert pump, 5' barrel				
Date of test 9/1/83	Hrs. tested	Choke size 1"	Oil produced during test bbls.	Gas produced during test MCF	Water produced during test bbls.	Oil gravity API (Corr.)
Tubing pressure	Casing pressure	Cal'ated rate of Production per 24 hours	Oil 1/4 bbls.	Gas MCF	Water 2 bbls.	Gas - oil ratio

Disposition of gas (state whether vented, used for fuel or sold):

Method of disposal of mud pit contents
Buried

CERTIFICATE: I, the undersigned, state that I am the Land Manager of the Prairie Energy Corporation (company), and that I am authorized by said company to make this report, and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge


Signature Stephen R. Hughes

See Attached Drillers Log

RECEIVED
OCT 24 1983
MO. OIL & GAS COUNCIL
3/12/1982



MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI OIL AND GAS COUNCIL
PLUGGING RECORD

FORM OGC-7

OWNER Colt Energy, Inc.		ADDRESS 304 N Jefferson, Iola, KS 66749			
NAME OF LEASE Knoche		WELL NUMBER 5	PERMIT NUMBER (OGC-3 OR OGC-3I NUMBER) 20397		
LOCATION OF WELL 175FSL 2162FWL		SEC. TWP. RING OR BLOCK & SURVEY 4-46-33		COUNTY Cass	
APPLICATION TO DRILL THIS WELL WAS FILED IN NAME OF: Prairie Energy, Corporation		HAS THIS WELL EVER PRODUCED OIL OR GAS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	CHARACTER OF WELL AT COMPLETION (INITIAL PRODUCTION) OIL (BBL/DAY) .25		DRY? no
DATE ABANDONED 6-20-97	TOTAL DEPTH 627	AMOUNT WELL PRODUCING PRIOR TO ABANDONMENT OIL (BBL/DAY) .25		GAS (MCF/DAY) 2	
Name of each formation containing oil or gas. Indicate which formation open to well bore at time of abandonment.		Fluid content of each formation		Depth interval of each formation	
Squirrel		Oil		551.5-555	
SIZE PIPE	PUT IN WELL (FT)	PULLED OUT (FT)	LEFT IN WELL (FT)	GIVE DEPTH AND METHOD OF PARTING CASING (SHOT, RIPPED, ETC.)	PACKERS AND SHOES
6 5/8	20.5'		20.5'		Ran 1" in to TD Pumped 20sxs Cement to surface Pulled 1" out Hooked on to 2" squeezed well Closed in @750PSI Well Plugged
2 7/8	590'		590'		
WAS WELL FILLED WITH MUD-LADEN FLUID?		INDICATE DEEPEST FORMATION CONTAINING FRESH WATER			
NAME AND ADDRESSES OF ADJACENT LEASE OPERATORS OR OWNERS OF THE SURFACE					
NAME		ADDRESS		DIRECTION FROM THIS WELL	
METHOD OF DISPOSAL OF MUD PIT CONTENTS		Pumped out Pushed in		MO Oil & Gas Council	
NOTE FILE THIS FORM IN DUPLICATE WITH: (USE REVERSE SIDE FOR ADDITIONAL DETAIL)					
CERTIFICATE ▶ I, the undersigned, state that I am the _____ Agent of the <u>Colt Energy, Inc.</u> (Company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct, and complete to the best of my knowledge.					
SIGNATURE <i>Dennis Hershner</i>				DATE 7-22-97	

RECEIVED
JUL 24 1997

TEST BORING LOG

Project Prairie Energy Corporation
Knoche Lease
 Address _____
 City & State Cass County, Missouri

Boring No. No. 5 Sheet 1 of 5
 Surface Elevation _____ Offset _____
 Date Started 8/1/83 Completed 8/4/83
 Driller V. R. Campbell Rig D-15

Abbreviations: A.O. - Auger Only R.B. - Rock Bit C.W. - Core Water
 H.A. - Hollow Auger S.S. - Split Spoon C.A. - Core Air
 W.B. - Wash Bore S.T. - Shelby Tube F.B. - Finger Bit

DEPTH		METHOD	PENETRATION RECORD		CORE RECOVERY	SAMPLE DESCRIPTION COLOR-MATERIAL-MOISTURE-CLAY CONSISTENCY SAND DENSITY
FROM	TO		POCKET PENETRO-METER	NO. OF BLOWS		
0.0'	2.0'	RB				Brown limestone
2.0'	10.0'	RB				Red shale
10.0'	35.0'	RB				Gray shale
35.0'	44.0'	RB				Brown limestone
44.0'	55.0'	RB				Gray shale
55.0'	58.0'	RB				Red shale
58.0'	73.0'	RB				Gray shale
73.0'	75.0'	RB				Gray limestone
75.0'	77.0'	RB				Black shale
77.0'	93.0'	RB				Gray shale
93.0'	95.0'	RB				Brown limestone
95.0'	114.0'	RB				Gray sandy shale
114.0'	118.0'	RB				Brown limestone
118.0'	129.0'	RB				Gray shale
129.0'	130.0'	RB				Brown limestone
130.0'	138.0'	RB				Gray shale

RECEIVED
OCT 24 1983
 MO. OIL & GAS COUNCIL

REMARKS: (Casing, Water Loss, Etc.) _____ Water Level _____ Time _____ Date _____ (Completion)

TEST BORING LOG

Project Prairie Energy Corporation

Boring No. No. 5 Sheet 2 of 5

Surface Elevation _____ Offset _____

Address _____

Date Started _____ Completed _____

City & State _____

Driller _____ Rig _____

Abbreviations: A.O. - Auger Only R.B. - Rock Bit C.W. - Core Water
 H.A. - Hollow Auger S.S. - Split Spoon C.A. - Core Air
 W.B. - Wash Bore S.T. - Shelby Tube F.B. - Finger Bit

DEPTH		METHOD	PENETRATION RECORD		CORE RECOVERY	SAMPLE DESCRIPTION COLOR-MATERIAL-MOISTURE-CLAY CONSISTENCY SAND DENSITY
FROM	TO		POCKET PENETRO-METER	NO. OF BLOWS		
138.0'	140.0'	RB				Brown limestone
140.0'	144.0'	RB				Gray shale
144.0'	155.0'	RB				Brown limestone
155.0'	164.0'	RB				Gray limestone
164.0'	165.0'	RB				Black shale
165.0'	169.0'	RB				Gray limestone
169.0'	171.0'	RB				Black shale
171.0'	175.0'	RB				Gray shale
175.0'	195.0'	RB				Gray limestone
195.0'	197.0'	RB				Gray shale
197.0'	198.0'	RB				Black shale
198.0'	200.0'	RB				Brown limestone
200.0'	205.0'	RB				Gray shale
205.0'	211.0'	RB				Gray limestone
211.0'	215.0'	RB				Gray shale
215.0'	216.0'	RB				Gray limestone

REMARKS: (Casing, Water Loss, Etc.)

Water Level

Time

Date

(Completion)

TEST BORING LOG

Project Prairie Energy Corporation

Boring No. No. 5 Sheet 3 of 5

Surface Elevation _____ Offset _____

Address _____

Date Started _____ Completed _____

City & State _____

Driller _____ Rig _____

Abbreviations: A.O. - Auger Only R.B. - Rock Bit C.W. - Core Water
 H.A. - Hollow Auger S.S. - Split Spoon C.A. - Core Air
 W.B. - Wash Bore S.T. - Shelby Tube F.B. - Finger Bit

DEPTH		METHOD	PENETRATION RECORD		CORE RECOVERY	SAMPLE DESCRIPTION COLOR-MATERIAL-MOISTURE-CLAY CONSISTENCY SAND DENSITY
FROM	TO		POCKET PENETRO-METER	NO. OF BLOWS		
216.0'	235.0'	RB				Gray shale
235.0'	265.0'	RB				Gray sandy shale
265.0'	313.0'	RB				Gray shale
313.0'	335.0'	RB				Gray sandy shale
335.0'	345.0'	RB				Gray shale
345.0'	360.0'	RB				Gray sandy shale
360.0'	375.0'	RB				Gray shale
375.0'	385.0'	RB				Gray sandy shale
385.0'	390.0'	RB				Red shale
390.0'	394.0'	RB				Gray shale
394.0'	398.0'	RB				Gray limestone
398.0'	400.0'	RB				Black shale
400.0'	402.0'	RB				Brown limestone
402.0'	414.0'	RB				Gray shale
414.0'	421.0'	RB				Gray limestone
421.0'	431.0'	RB				Gray shale

REMARKS: (Casing, Water Loss, Etc.) _____ Water Level _____ Time _____ Date _____ (Completion)

TEST BORING LOG

Project Prairie Energy Corporation

Boring No. No. 5 Sheet 4 of 5

Surface Elevation _____ Offset _____

Address _____

Date Started _____ Completed _____

City & State _____

Driller _____ Rig _____

Abbreviations: A.O. - Auger Only R.B. - Rock Bit C.W. - Core Water
 H.A. - Hollow Auger S.S. - Split Spoon C.A. - Core Air
 W.B. - Wash Bore S.T. - Shelby Tube F.B. - Finger Bit

DEPTH		METHOD	PENETRATION RECORD		CORE RECOVERY	SAMPLE DESCRIPTION COLOR-MATERIAL-MOISTURE-CLAY CONSISTENCY SAND DENSITY
FROM	TO		POCKET PENETRO-METER	NO. OF BLOWS		
431.0'	432.0'	RB				Black shale
432.0'	443.0'	RB				Gray shale
443.0'	447.0'	RB				Brown limestone
447.0'	450.0'	RB				Black shale
450.0'	453.0'	RB				Gray shale
453.0'	455.0'	RB				Gray sandstone w/trace oil
455.0'	458.0'	RB				Gray sandstone
458.0'	465.0'	RB				Gray sandy shale
465.0'	466.0'	RB				Brown limestone
466.0'	474.0'	RB				Gray shale
474.0'	475.0'	RB				Black shale
475.0'	490.0'	RB				Gray shale
490.0'	491.0'	RB				Black shale
491.0'	495.0'	RB				Gray sandstone
495.0'	506.0'	RB				Gray sandy shale
506.0'	507.0'	RB				Brown sandstone, oil

REMARKS: (Casing, Water Loss, Etc.)

Water Level

Time

Date

(Completion)

TEST BORING LOG

Project Prairie Energy Corporation

Boring No. No. 5 Sheet 5 of 5

Surface Elevation _____ Offset _____

Address _____

Date Started _____ Completed _____

City & State _____

Driller _____ Rig _____

Abbreviations: A.O. - Auger Only R.B. - Rock Bit C.W. - Core Water
 H.A. - Hollow Auger S.S. - Split Spoon C.A. - Core Air
 W.B. - Wash Bore S.T. - Shelby Tube F.B. - Finger Bit

DEPTH		METHOD	PENETRATION RECORD		CORE RECOVERY	SAMPLE DESCRIPTION COLOR-MATERIAL-MOISTURE-CLAY CONSISTENCY SAND DENSITY
FROM	TO		POCKET PENETRO-METER	NO. OF BLOWS		
507.0'	517.0'	CW1			10.0'	Gray sandy shale, w/trace oil
517.0'	526.0'	CW2			9.0'	Gray sandy shale
526.0'	536.0'	CW3			10.0'	Gray shale
536.0'	545.5'	CW4			9.5'	Same
545.5'	550.0'	CW5				Same
550.0'	555.5'	CW5			10.0'	Brown sandstone w/limestone & shale seams oil
555.5'	564.5'	CW6				Brown sandstone, oil
564.5'	565.5'	CW6			10.0'	Gray shale
565.5'	575.5'	CW7			7.0'	Same
575.5'	610.0'	RB				Same
610.0'	611.0'	RB				Black shale
611.0'	620.0'	RB				Gray shale
620.0'	622.0'	RB				Black shale
622.0'	627.0'	RB				Gray shale
627.0'	Total depth					

REMARKS: (Casing, Water Loss, Etc.)

6 5/8"

Set 20.5' of 8" surface pipe _____ Water Level _____ Time _____ Date _____ (Completion)

Set 590' of 2-7/8" casing _____

Layne-Western Company, Inc.

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES, ROLLA, MISSOURI

COUNTY Cass
 COMPANY OR OWNER Prairie Energy Corp.
 FARM Knoche WELL NO. # 5
 LOCATION 175'FSL, 2162'FWL SEC 4 T 46 R 33
 CONTRACTOR/DRILLER V.R. Campbell
 COMMENCED 8-1-83 COMPLETED 8-4-83
 PRODUCTION Oil $\frac{1}{4}$ bbls./day
 CASING RECORD _____
 WATER RECORD _____
 SOURCE OF LOG _____
 REMARKS OGC # 20397

MGS LOG NO. Driller's

- + -	- + -	- + -	- + -
- + -	- + -	- + -	- + -
- + -	- + -	- + -	- + -
- + -	- + -	- + -	- + -

NO. SAMPLES _____ SAMPLES RECEIVED _____

ELEV. 1035'
 TOTAL DEPTH 627'
 SWL _____

FORMATION	FROM (ft)	TO (ft)	FORMATION	FROM (ft)	TO (ft)
Brown limestone	0	2	Gray shale	216	235
Red shale	2	10	Gray sandy shale	235	265
Gray shale	10	35	Gray shale	265	313
Brown limestone	35	44	Gray sandy shale	313	335
Gray shale	44	55	Gray shale	335	345
Red shale	55	58	Gray sandy shale	345	360
Gray shale	58	73	Gray shale	360	375'
Gray limestone	73	75	Gray sandy shale	375	385
Black shale	75	77	Red shale	385	390
Gray shale	77	93	Gray shale	390	394
Brown limestone	93	95	Gray limestone	394	398
Gray sandy shale	95	114	Black shale	398	400
Brown limestone	114	118	Brown limestone	400	402
Gray shale	118	129	Gray shale	402	414
Brown limestone	129	130	Gray limestone	414	421
Gray shale	130	138	Gray shale	421	431
Brown limestone	138	140	Black shale	431	432
Gray shale	140	144	Gray shale	432	443
Brown limestone	144	155	Brown limestone	443	447
Gray limestone	155	164	Black shale	447	450
Black shale	164	165	Gray shale	450	453
Gray limestone	165	169	Gray sandstone w/trace oil	453	455
Black shale	169	171	Gray sandstone	455	458
Gray shale	171	175	Gray sandy shale	458	465
Gray limestone	175	195	Brown limestone	465	466
Gray shale	195	197	Gray shale	466	474
Black shale	197	198	Black shale	474	475
Brown limestone	198	200	Gray shale	475	490
Gray shale	200	205	Black shale	490	491
Gray limestone	205	211	Gray sandstone	491	495
Gray shale	211	215	Gray sandy shale	495	506
Gray limestone	215	216	Brown sandstone, oil	506	507

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES, ROLLA, MISSOURI

COUNTY Cass
 COMPANY OR OWNER Prairie Energy Corp.
 FARM Knoche WELL NO. # 5
 LOCATION 175'FSL, 2162'FWL SEC 4 T 46 R 33
 CONTRACTOR/DRILLER V.R.Campbell
 COMMENCED 8-1-83 COMPLETED 8-4-83
 PRODUCTION Oil $\frac{1}{4}$ bbls./day
 CASING RECORD _____
 WATER RECORD _____
 SOURCE OF LOG _____
 REMARKS OGC # 20397

MGS LOG NO. Drillers

-+--	-+--	-+--	-+--
-+--	-+--	-+--	-+--
-+--	-+--	-+--	-+--
-+--	-+--	-+--	-+--

NO. SAMPLES _____ SAMPLES RECEIVED _____

ELEV. 1035'
 TOTAL DEPTH 627'
 SWL _____

FORMATION	FROM (ft)	TO (ft)	FORMATION	FROM (ft)	TO (ft)
Gray sandy shale, w/trace oil	507	517			
Gray sandy shale	517	526			
Gray shale	526	550			
Brown sandstone w/limestone & shale seams, oil.	550	555			
Brown sandstone, oil	555	564.5			
Gray shale	564.5	610			
Black shale	610	611			
Gray shale	611	620			
Black shale	620	622			
Gray shale	622	627			
T.D.	627'				

Permit #: 20397

Date Issued: 7.22.83

County: Cass

Date Cancelled:

CONFIDENTIAL UNTIL:

Date Plugged:

COMMENTS:

OGC FORMS	Date Received
1	
2	
3	
3i	7-22-83
4	
4i	
5	10-24-83
6	
7	
8	
11	
12	
Misc. Form 2	

	TYPE	ID #	Date Received
Logs	drillers		
	test boring		
Samples	chip core		
	water		
Analyses	core		
	Additional Submitted Data:		