Water Flood Well

MISSOURI OIL AND GAS COUNCIL

Form OGC - 3

APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK

APPLICATION TO DRILL ☒ DEEPEN ☐ PLUG BACK ☐

NAME OF COMPANY OR OPERATOR Emery Energy, Inc. DATE 10-9-81

Box 519 (Address) Osawatomie (City) Kansas 66064 (State)

DESCRIPTION OF WELL AND LEASE

Name of lease	Well number	Elevation (ground)
Jack Beary	D-59	1075.7 ~~1073.5~~

WELL LOCATION (give footage from section lines)

241.5 ft. from (N) ~~(S)~~ sec. line 1064 ft. from (E) ~~(W)~~ sec. line

WELL LOCATION Section 4 Township 46N Range 33W County Cass

Nearest distance from proposed location to property or lease line: 15 feet

Distance from proposed location to nearest drilling, completed or applied – for well on the same lease: 225' feet

Proposed depth	Rotary or Cable tools	Approx. date work will start
680'	Rotary	10-13-81

Number of acres in lease: 24½

Number of wells on lease, including this well, completed in or drilling to this reservoir: 21

Number of abandoned wells on lease: 0

If lease, purchased with one or more wells drilled, from whom purchased: Name McGown Drilling Address Mound City, Kansas

No. of Wells: producing 19 inactive 0 abandoned 0

Status of Bond

Single Well ☐ Amt. _____ Blanket Bond ☒ Amt. 20,000

☒ ON FILE ☐ 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:

amt.	size	wt./ft.	cem.
20'	7"	30#	yes
660'	2-3/8	4.5	yes

Approved casing – To be filled in by State Geologist

amt.	size	wt./ft.	cem.

I, the undersigned, state that I am the Vice-President of the Emery Energy, Inc (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 Devon M. Hurst

Permit Number: 20224

Approval Date: 10/28/81

Approved By: IRS Wallace B. Hurst

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

DISPOSAL WELL (into Produced Fm)

☐ SAMPLES REQUIRED

☒ SAMPLES NOT REQUIRED

WATER SAMPLES REQUIRED @:

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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.

Non owned by Tom Oil Co.

Note: Permit approval for drilling only, not injection. Approval or denial for injection determined after Mechanical Integrity Test results reviewed and official notification given.

Missouri Oil and Gas Council — Form OGC-3I

INJECTION WELL PERMIT APPLICATION: to drill, deepen, plug back, or convert an existing well

APPLICATION TO DRILL ☑ DEEPEN ☐ PLUG BACK ☐ CONVERSION ☐

NAME OF COMPANY OR OPERATOR Tom Oil Co. DATE 12/6/85

Route 4 (Address) Paola (City) KS 66071 (State)

DESCRIPTION OF WELL AND LEASE

Name of lease: Jack Beary | Well number: D-59 | Elevation (ground): 1075.7

WELL LOCATION (give footage from section lines): 741.5 ft. from (N) (S) sec line; 1064 ft. from (E) (W) sec line

WELL LOCATION: Section 4 Township 46N Range 33W | COUNTY: CASS

Nearest distance from proposed location to property or lease line: 15 feet

Distance from proposed location to nearest drilling, completed or applied - for well on the same lease: 225 feet

Proposed depth: 680 | Rotary or Cable tools | Drilling Contractor, name and address | Approx. date work will start: see note

Number of acres in lease: 24½ | Number of wells on lease, including this well, completed in or drilling to this reservoir: 21 | Number of abandoned wells on lease: 0

If lease purchased with one or more wells drilled, from whom purchased?
Name ~~[illegible]~~
Address

No of Wells: producing 19; injection; inactive 0; abandoned 0

Status of Bond: Single Well ☐ Amt. ; Blanket Bond ☑ Amt. 20,000 — ☑ ON FILE ☐ ATTACHED

Outline Proposed Stimulation Program

Proposed casing program

amt.	size	wt/ft	cem.
20'	7"	30#	yes
660'	2-3/8"	4.5	yes

Approved casing - To be filled in by State Geologist

amt.	size	wt/ft	cem.
✓	✓	✓	✓
✓	✓	✓	✓

I, the undersigned, state that I am the Partner of the Tom Oil (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

Permit Number 20224

Approved Date 12/6/85

Approved by Wallace B. Howe BW

☐ SAMPLES REQUIRED ☑ SAMPLES NOT REQUIRED

WATER SAMPLES REQUIRED @

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

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.

8/1/84

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MISSOURI OIL AND GAS COUNCIL

MAR 29 1982

Form OGC-5

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

Disposal Well

MO. OIL & GAS COUNCIL

New Well [X] Work-Over [ ] Deepen [ ] Plug Back [ ] Same Reservoir [ ] Different Reservoir [ ] Oil [ ] Gas [ ] Dry [ ]

Owner: Emery Energy, Inc.	Address: Box 519, Osawatomie, Ks 66064
Lease Name: Jack Beary Lease	Well Number: D-59
Location: 741.5' FNL & 1064' FEL	Sec. — TWP-Range or Block & Survey: Sec. 4, Twp. 46N, Range 33W
County: Cass	Permit number (OGC3 number): 20224

Date spudded	Date total depth reached	Date completed, ready to produce	Elevation (DF, RKB, RT or Gr.) feet	Elevation of casing hd. flange feet
11-381	11-4-81	11-4-81	1075.7 Gr.	same as surface

Total depth	P. B. T. D
640'	631'

Producing interval (s) for this completion	Rotary tools used (interval)	Cable tools used (interval)
N/A	From 0 to TD; Drilling Fluid used water, air	From ..... to None

Was this well directionally drilled?	Was directional survey made?	Was copy of directional survey filed?	Date filed
no	no	no	N/A

Type of electrical or other logs run (list logs filed with the State Geologist)	Date filed
Gamma Ray, Neutron, CCL	3-23-82

CASING RECORD

Casing (report all strings set in well—conductor, surface, intermediate, producing, etc.)

Purpose	Size hole drilled	Size casing set	Weight (lb./ft.)	Depth set	Sacks cement	Amt. pulled
surface	9"	6"	35	20'	none	
Production	6.25"	4"	10.6	635'	83 & 4 sx gel	

TUBING RECORD			LINER RECORD				
Size	Depth set	Packer set at	Size	Top	Bottom	Sacks cement	Screen (ft.)
N/A in.	ft.	ft.	in.	ft.	ft.		

PERFORATION RECORD			ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD	
Number ~~SeXK~~	Size & type	Depth Interval	Am't. & kind of material used	Depth Interval
	1-11/16	glass, 586-588-	Clay Stab. - 10	Salt- 1
10 Shots		589-593-594-599-	Water Gel - 1	Sand 20-40- 10
		600-601&602		Sand 10-20- 20
		INITIAL PRODUCTION		586 to 602

Date of first production	Producing method (indicate if flowing, gas lift or pumping—if pumping, show size & type of pump:)
N/A	Disposal Well

Date of test	Hrs. tested	Choke size	Oil prod. during test bbls.	Gas prod. during test MCF	Water prod. during test bbls.	Oil gravity API (Corr.)

Tubing pressure	Casing pressure	Cal'ted rate of Production per 24 hrs.	Oil bbls.	Gas MCF	Water bbls.	Gas—oil ratio

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

Method of disposal of mud pit contents:

CERTIFICATE: I, the undersigned, state that I am the V-President of the Emery Energy, Inc (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.

Devon M. Hurst

Signature Devon M. Hurst

Remit two copies: one will be returned

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DETAIL OF FORMATIONS PENETRATED

Formation	Top	Bottom	Description*
	0	8	soil
	8	45	lime
	45	74	shale
	74	83	lime
	83	98	sand
	98	115	shale
	115	120	lime
	120	125	carb. shale
	125	170	shale
	170	201	lime
	201	205	carb. shale
	205	226	lime
	226	230	carb. shale
	230	243	lime (hertha)
	243	245	carb. shale
	245	254	lime
	254	286	shale
	286	291	sand
	291	346	shale
	346	359	sand
	359	372	shale
	372	376	carb. shale
	376	378	coal
	378	396	sand
	396	408	shale
	408	412	sand
	412	426	shale
	426	430	lime
	430	433	carb. shale
	433	439	lime
	439	442	carb. shale
	442	444	coal
	444	449	lime
	449	466	sand
	466	477	sand
	477	482	shale
	482	486	lime
	486	500	carb. shale
	500	584	shale
	584	612	sand
	612	630	shale TD

*Show all important zones of porosity, detail of all cores, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

INSTRUCTIONS:

Attach drillers log or other acceptable log of well if available.

MECHANICAL INTEGRITY TEST REPORT

Test Date: 8-28 and 29-03

Operator: TOWN OIL COMPANY
Contact Person: Lester Town
Address: 16205 West 287th St. Paola, Ks. 66071
Phone: 913-294-2125

Lease Berry Well # 59-D
County CASS Permit # 20224

TEST INFORMATION:

Type MIT: Pressure ✓ Radioactive Tracer Survey___ Temperature Survey___

	Run #1	Run #2	Run #3
Start Time:	1:00 pm 8-28		
End Time:	1:00 pm 8-29		
Length of Test: (Start Time minus End Time)	24 hrs,		
Initial Pressure (PSI):	100#		
Ending Pressure (PSI):	100#		
Pressure Change: (Initial Pressure minus Ending Pressure)	0#		

Fluid used for test (water, nitrogen, CO2, ect.): Air

Comments about test: 232' of fluid 99.76# calculated
Perfs 579'-590'
Fluid depression test

The bottom of the tested zone is shut in with float shoe and cement at a depth of 579' ft. In signing the form below, it is certified that the above indicated well was tested for mechanical integrity on the date shown at the top of this page.

Signed: Stanley P. Hamlinkle EOR
Operator Contact Person or Approved Agent Title

DO NOT WRITE BELOW THIS LINE

Results were: Satisfactory ✓ Not Satisfactory___
State Agent: Witnessed: Yes ✓ No___
REMARKS: Witnessed by Ted Fritz EPA 8-29-03
Computer Update___ FILE WITH PERMIT!

OGC Misc Form 1

MECHANICAL INTEGRITY TEST REPORT

Test Date: 10/23/98

Operator: Town Oil Co
Contact Person: Lester Town
Address: 16205 W. 287th St. Paola, KS 66071
Phone: 913-294-2125

Lease Beary Well # D-59
County Cass Permit # 20224

TEST INFORMATION:

Type MIT: Pressure X Radioactive Tracer Survey___ Temperature Survey___

	Run #1	Run #2	Run #3
Start Time:	1040		
End Time:	1110		
Length of Test: (Start Time minus End Time)	30 min		
Initial Pressure (PSI):	90		
Ending Pressure (PSI):	90		
Pressure Change: (Initial Pressure minus Ending Pressure)	0 H		

Fluid used for test (water, nitrogen, CO2, ect.): air

Comments about test: perf @ 579'

The bottom of the tested zone is shut in with Packer at a depth of ~~510'~~ 529' ft. In signing the form below, it is certified that the above indicated well was tested for mechanical integrity on the date shown at the top of this page.

Signed: Lester Town — Operator Contact Person or Approved Agent

Operator — Title

DO NOT WRITE BELOW THIS LINE

Results were: Satisfactory X Not Satisfactory___
State Agent: Sherri Stover Witnessed: Yes X No___
REMARKS:
Computer Update: FILE WITH PERMIT!

OGC Misc Form 1

MECHANICAL INTEGRITY TEST REPORT

Test Date: 4 Oct 1994

Operator: Town Oil
Contact Person: Lester Town
Address: 16205 West 287th St PAOLA KAN 66071
Phone: 913 294 2125

Lease Berry Well # 59-D
County CASS Permit # 20224
T46N - R33W

TEST INFORMATION:

Type MIT: Pressure___ Radioactive Tracer Survey___ Temperature Survey___

	Run #1	Run #2	Run #3
Start Time:	0830		
End Time:	0950		0950
Length of Test: (Start Time minus End Time)			
Initial Pressure (PSI):	105#		105#
Ending Pressure (PSI):	100		100
Pressure Change: (Initial Pressure minus Ending Pressure)			5#

Fluid used for test (water, nitrogen, CO2, ect.): Fluid DePression

Comments about test: Perf's At 579' 340' to water
239' of fluid in Hole or well x .433 = 102.77

The bottom of the tested zone is shut in with Float Shoe & Cement at a depth of _____ft. In signing the form below, it is certified that the above indicated well was tested for mechanical integrity on the date shown at the top of this page.

Signed: Sterling P. Hambuckle E.O.R.
Operator Contact Person or Approved Agent — Title

DO NOT WRITE BELOW THIS LINE

Results were: Satisfactory X Not Satisfactory___
State Agent: HW Baker Witnessed: Yes X No___
REMARKS:
Computer Update SB FILE WITH PERMIT!

OGC Misc Form 1

MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM
INJECTION WELL MONITORING REPORT

FORM 2010-15

TOTAL P.02

INSTRUCTIONS ▸ RECORD INJECTION RATE AND INJECTION PRESSURE AT LEAST MONTHLY WITH THE RESULTS SUBMITTED ANNUALLY.

COUNTY	PERMIT NUMBER	OPERATOR	WELL NUMBER
Cass	037 20224	Town Oil Co.	Beary D-59

MONTH	INJECTION RATE - bpd/gpm	INJECTION PRESSURE - psig	DATE MEASUREMENT TAKEN	REMARKS
(01) JAN.	10	400	1-28-06	
(02) FEB.	10		2-28-06	
(03) MARCH	10		3-28-06	
(04) APRIL	10		4-28-06	
(05) MAY	10		5-28-06	
(06) JUNE	10		6-28-06	
(07) JULY	10		7-28-06	
(08) AUG.	10		8-28-06	
(09) SEPT.	10		9-28-06	
(10) OCT.	10		10-28-06	
(11) NOV.	10		11-28-06	
(12) DEC.	10		12-28-06	

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MO 780-0008 (8-05)

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MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM

INJECTION WELL MONITORING REPORT

FORM OGC-12

INSTRUCTIONS ▸ RECORD INJECTION RATE AND INJECTION PRESSURE AT LEAST MONTHLY WITH THE RESULTS SUBMITTED ANNUALLY.

COUNTY	PERMIT NUMBER	OPERATOR	WELL NUMBER
CASS	20224	TOWN OIL COMPANY	BEARY D-59

MONTH	INJECTION RATE - bpd/gpm	INJECTION PRESSURE - psig	DATE MEASUREMENT TAKEN	REMARKS
(01) JAN.	10	400	1-31-08	RECEIVED
(02) FEB.	10	400	2-28-08	JAN 23 2009
(03) MARCH	10	400	3-31-08	Mo Oil & Gas Council
(04) APRIL	10	400	4-30-08	
(05) MAY	10	400	5-31-08	
(06) JUNE	10	400	6-30-08	
(07) JULY	10	400	7-31-08	
(08) AUG.	10	400	8-31-08	
(09) SEPT.	10	400	9-30-08	
(10) OCT.	10	400	10-31-08	
(11) NOV.	10	400	11-30-08	
(12) DEC.	10	400	12-31-08	

MO 780-0208 (8-06)

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GEOLOGICAL SURVEY PROGRAM

INJECTION WELL MONITORING REPORT

FORM GSC-12

INSTRUCTIONS ▸	RECORD INJECTION RATE AND INJECTION PRESSURE AT LEAST MONTHLY WITH THE RESULTS SUBMITTED ANNUALLY.			
COUNTY CASS		PERMIT NUMBER 20224	OPERATOR TOWN OIL COMPANY	WELL NUMBER BEARY D-59
MONTH	**INJECTION RATE - bpd/gpm**	**INJECTION PRESSURE - psig**	**DATE MEASUREMENT TAKEN**	**REMARKS**
(01) JAN.	10	400	1-31-09	
(02) FEB.	10	400	2-28-09	
(03) MARCH	10	400	3-31-09	
(04) APRIL	10	400	4-30-09	
(05) MAY	10	400	5-31-09	
(06) JUNE	10	400	6-30-09	
(07) JULY	10	400	7-31-09	
(08) AUG.	10	400	8-31-09	
(09) SEPT.	10	400	9-30-09	
(10) OCT.	10	400	10-31-09	
(11) NOV.	10	400	11-30-09	
(12) DEC.	10	400	12-31-09	

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Mo Oil & Gas Council

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