Submit 5 Copies
Appropriate District Office
DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
ergy, Minerals and Natural Resources Departm

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-104
Revised 1-1-89
See Instructions
at Bottom of Page

REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

I.

Operator	Well API No.
Southland Royalty Company	30-025-22096
Address	
21 Desta Dr., Midland, TX 79705	

Reason(s) for Filing *(Check proper box)*

- New Well [ ]
- Recompletion [X]
- Change in Operator [ ]
- Other *(Please explain)* [ ]

Change in Transporter of:
Oil [ ] Dry Gas [ ]
Casinghead Gas [ ] Condensate [ ]

If change of operator give name and address of previous operator _____

II. DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	Pool Name, Including Formation	Kind of Lease State, Federal or Fee	Lease No.
Federal "MA"	2	~~West~~ South Corbin (Bone Spring)	~~State~~ Federal	NM-0997

Location
Unit Letter I : 1980 Feet From The South Line and 660 Feet From The East Line
Section 21 Township 18 South Range 33 East , NMPM, Lea County

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil [X] or Condensate [ ]	Address *(Give address to which approved copy of this form is to be sent)*
Pride Pipeline	P.O. Box 2436, Abilene, Texas 79604
Name of Authorized Transporter of Casinghead Gas or Dry Gas [ ]	Address *(Give address to which approved copy of this form is to be sent)*
Phillips 66 Natural Gas Co. EFFECTIVE: Feb 1, 1990 GPM Gas Corporation	4001 Penbrook, Odessa, Texas 79762

If well produces oil or liquids, give location of tanks.	Unit	Sec.	Twp.	Rge.	Is gas actually connected?	When ?
	I	21	18 S	33 E	Yes	

If this production is commingled with that from any other lease or pool, give commingling order number: PC-767

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v	Diff Res'v
	x					x		

Date Spudded	Date Compl. Ready to Prod.	Total Depth	P.B.T.D.
10/15/90 (Plug Back)	11/06/90	13,463'	9,770'
Elevations *(DF, RKB, RT, GR, etc.)*	**Name of Producing Formation**	**Top Oil/Gas Pay**	**Tubing Depth**
3825.9' GR.	2nd Bone Spring		9,520'
Perforations			**Depth Casing Shoe**
9,550'-9,600'--2 spf, 90 degree phasing (102 holes total)			13,463'

TUBING, CASING AND CEMENTING RECORD

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT
17-1/2"	13-3/8"	349'	300 sx-Circulated
11"	8-5/8"	4,984'	900 sx
7-7/8"	5-1/2"	13,463'	1000 sx
	2-7/8" (tbg)	9,520'	

V. TEST DATA AND REQUEST FOR ALLOWABLE

OIL WELL *(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours.)*

Date First New Oil Run To Tank	Date of Test	Producing Method *(Flow, pump, gas lift, etc.)*	
11/06/90	12/10/90	2-1/2" x 1-1/4" x 24' Pump	
Length of Test	**Tubing Pressure**	**Casing Pressure**	**Choke Size**
24 hrs.			
Actual Prod. During Test	**Oil - Bbls.**	**Water - Bbls.**	**Gas- MCF**
	50	15	50

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method *(pilot, back pr.)*	**Tubing Pressure (Shut-in)**	**Casing Pressure (Shut-in)**	**Choke Size**

VI. OPERATOR CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Robert L. Bradshaw
Signature
Robert L. Bradshaw — Env./Reg. Spec.
Printed Name — Title
12 December 1990 — 915-686-5678
Date — Telephone No.

OIL CONSERVATION DIVISION

Date Approved DEC 17 1990

By ORIGINAL SIGNED BY JERRY SEXTON
DISTRICT I SUPERVISOR

Title _____

INSTRUCTIONS: This form is to be filed in compliance with Rule 1104

1) Request for allowable for newly drilled or deepened well must be accompanied by tabulation of deviation tests taken in accordance with Rule 111.
2) All sections of this form must be filled out for allowable on new and recompleted wells.
3) Fill out only Sections I, II, III, and VI for changes of operator, well name or number, transporter, or other such changes.
4) Separate Form C-104 must be filed for each pool in multiply completed wells.

Form 3160-5
(July 1989)
(Formerly 9-331)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CONTACT RECEIVING OFFICE FOR NUMBER OF COPIES REQUIRED (Other instructions on reverse side)

RECEIVED

BLM Roswell District
Modified Form No.
NM060-3160-4

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT-" for such proposals.)

1. OIL WELL [X] GAS WELL [ ] OTHER	5. LEASE DESIGNATION AND SERIAL NO.: NM-0997
	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	7. UNIT AGREEMENT NAME:
2. NAME OF OPERATOR: Southland Royalty Company	8. FARM OR LEASE NAME: Federal "MA"
3. ADDRESS OF OPERATOR: 21 Desta Dr., Midland, TX 79705	3a. AREA CODE & PHONE NO.: 915-686-5600
	9. WELL NO.: 2
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1980' FSL & 660' FEL	10. FIELD AND POOL, OR WILDCAT: ~~West~~ Corbin (Bone Spring)
	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 21, T18S, R33E
14. PERMIT NO.	15. ELEVATIONS (Show whether DF, RT, GR, etc.): 3826' GR.
	12. COUNTY OR PARISH: Lea
	13. STATE: NM

16. **Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other) Plugback-Wolfcamp to Bone Spring			[X]
(Other)			[ ]	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

10/15/90--Initiate work to recomplete to the Bone Spring. RIH w/5-1/2" CIBP and set @10,438'. Dumped 35' cmt on plug.
Ran CBL/CCL/GR from 10,422'-8000' w/150 psi on csg. TOC @9900'. TIH w/4" csg gun. Shot @ 9800'-9802' 4 spf (8 holes). Unable to pump into perfs.
RIH w/4" guns. Perf. 2nd Bone Spring 9550'-9600' 2spf (102 holes). Loaded csg & pressured to 2000 psi w/no communication. Set RBP @9771' & packer @9304'. Acdz w/2500 gallons 7-1/2% NEFe HCl. Tagged acid w/SB104 RA material. Flushed to bottom perf. No flow down from perfs but uncertain about flow up. Began swabbing. Retrieved RBP & pkr. Set cmt retainer @9480'. Pumped 650 sx Premium Plus 50-50 Silicalite, 0.2 CFR-2. Cmt @ 3BPM out perfs @ 9550'-9600' and up annulus. Had full returns out 5-1/2" x 8-5/8" annulus. Pulled up & reversed out 3 sx cmt.
Drilled out retainer & cmt. Ran temp. survey & found TOC @ 4850'. Drilled cmt from 9482'-9615'.
Perf from 9550'-9575' (102 holes total). Acidize w/2500 gal. 7-1/2% NEFe HCl. Frac. w/ 31,000 gals. Hybergel 35 carrying 29,000# 20/40 Ottawa sand & 85,800# HS sand.
Swabbed well. RIH w/ 2-7/8" production string. Set TAC in 10 pts. tension. RIH w/2-1/2" x 1-1/4" x 24' pump. Bottom of tbg @9520' & bottom of SN @9484'.
Set & balanced pumping unit.

18. I hereby certify that the foregoing is true and correct

SIGNED Robert L. Bradshaw TITLE Sr. Staff Env./Reg. Spec. DATE 08 November 1990

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Form 3160-3
(July 1989)
(formerly 9-331C)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CONTACT REC NG
OFFICE FOR NU R
OF COPIES REQUIRED
(Other instructions on reverse side)

BLM Roswell District
Modified Form No.
NM060-3160-2

30-025-22096

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: NM-0997

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WORK: DRILL ☐ DEEPEN ☐ PLUG BACK ☒

b. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ OTHER — SINGLE ZONE ☒ MULTIPLE ZONE ☐

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Federal "MA"

2. NAME OF OPERATOR: Southland Royalty Company

3a. AREA CODE & PHONE NO.: 915-686-5600

9. WELL NO.: 2

3. ADDRESS OF OPERATOR: 21 Desta Dr., Midland, TX 79705

10. FIELD AND POOL, OR WILDCAT: ~~West~~ South Corbin (Bone Spring)

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1980' FSL & 660' FEL Unit J
At proposed prod. zone: Same

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 21, T18S, R33E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 12 miles southeast of Maljamar, NM

12. COUNTY OR PARISH: Lea

13. STATE: NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 660'

16. NO. OF ACRES IN LEASE: 960

17. NO. OF ACRES ASSIGNED TO THIS WELL: 40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: 1950'

19. PROPOSED DEPTH: 10,403' (Plug Back)

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show Whether DF, RT, GR, ETC.): 3826' GR.

22. APPROX. DATE WORK WILL START*: ASAP

23. PROPOSED CASING AND CEMENTING PROGRAM

HOLE SIZE	CASING SIZE	WEIGHT/FOOT	GRADE	THREAD TYPE	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	48#	H-40	STC	349'	300 sx
11"	8-5/8"	32#	J-55	STC	4984'	900 sx
7-7/8"	5-1/2"	20# & 17#	N-80	LTC & Butt	13,461'	1000 sx

Recomplete from the Wolfcamp to the Bone Spring according to the attached recompletion procedure.

RECEIVED
NOV 13 1990
O. C. D.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED Robert L. Bradshaw TITLE Sr. Staff Env./Reg. Spec. DATE 08 November 1990

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE 11-16-90

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

TITLE 18 U.S.C. SECTION 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
Revised 1-1-89

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator	Lease	Well No.
SOUTHLAND ROYALTY COMPANY	FEDERAL "MA"	2

Unit Letter	Section	Township	Range	County
I	21	18 SOUTH	33 EAST NMPM	LEA

Actual Footage Location of Well:
1980 feet from the SOUTH line and 660 feet from the EAST line

Ground level Elev.	Producing Formation	Pool	Dedicated Acreage:
3825.9'	BONE SPRING	SOUTH CORBIN	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

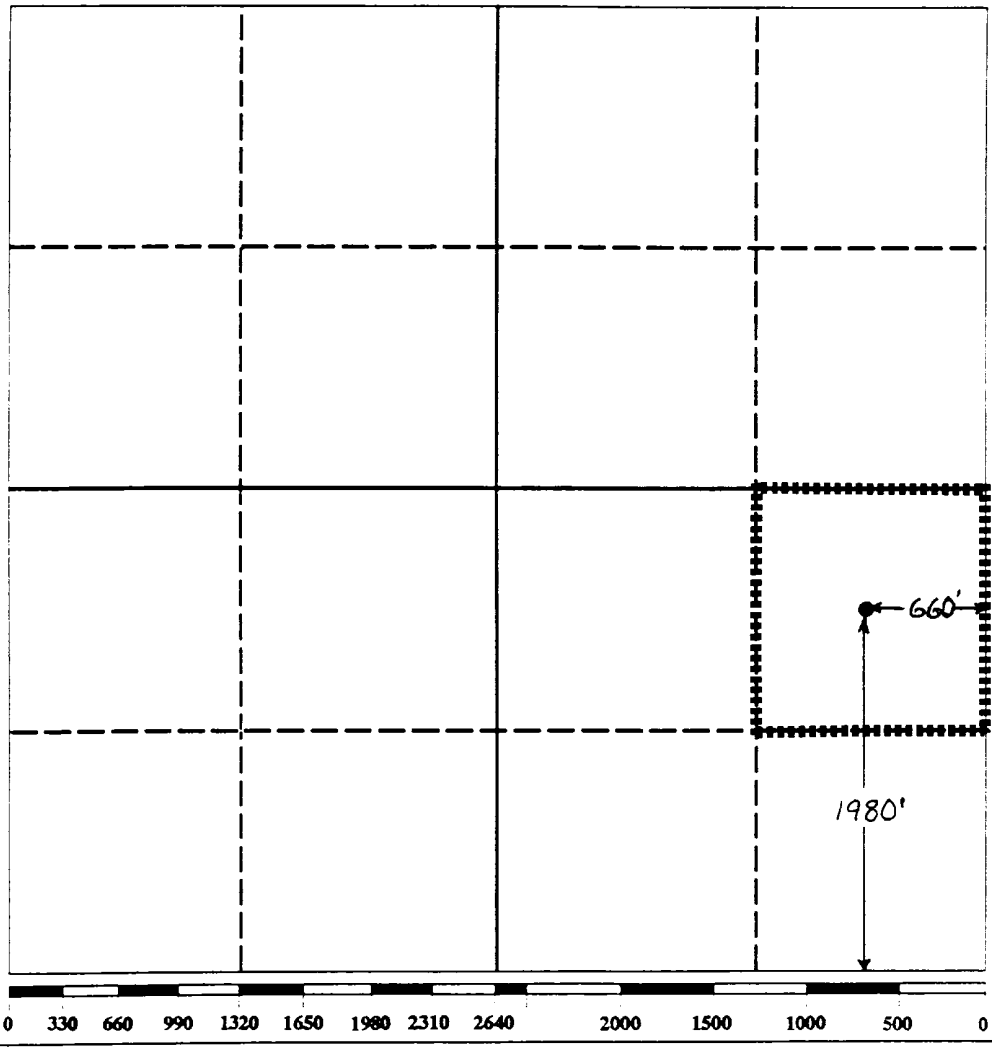
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?

☐ Yes ☐ No If answer is "yes" type of consolidation _____

If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if neccessary. _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein in true and complete to the best of my knowledge and belief.

Robert L. Bradshaw
Signature

ROBERT L. BRADSHAW
Printed Name

SR. STAFF ENV/REG SPEC.
Position

MERIDIAN OIL INC.
Company

NOVEMBER 9, 1990
Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my knowledge and belief.

APRIL 4, 1967
Date Surveyed

Original Signed by John W. West
Signature & Seal of Professional Surveyor

676
Certificate No.

Federal MA Com. #2
South Corbin Field
Lea County, New Mexico

Recompletion Procedure

1. MIRU pulling unit. ND pumping tee. POOH with rod string and pump. Kill well with 2% KCl water. ND tubing head. NU BOP. Release TAC and POOH with production tubing.

2. RU electric line. RU pack-off head on top of BOP. RIH with junk basket/gauge ring for 5 1/2" casing to 10450'. POOH. RIH with 5 1/2" CIBP and set at 10450'. POOH.

3. RU 3 1/2" x 40' dump bailer. RIH and dump bail 35' of cement on top of CIBP. POOH. Test casing to 1500 psi.

4. RU GR/CBL/CET/CCL tool. RIH and log from 10450' to 8000' with 1500 psi being held on casing. POOH. Contact production engineer with results.

   If cement bond is adequate across pay zones, proceed with step 9.

   If remedial cementing is required, proceed with step 5. This procedure assumes TOC @ 9950' as noted in well file. Modifications to cementing procedure may be required based on log results.

5. RU electric line to perforate. RIH with 2' 4" casing guns (4 SPF, 90° phasing). Perforate with top shot at 9850'. POOH.

6. RU reverse unit. Establish circulation down 5 1/2" casing taking returns on 5 1/2" x 8 5/8" annulus. Record rates/pressures.

7. TIH with 2 7/8" 6.5# N-80 tubing with 5 1/2" cement retainer. Set retainer at 9750'. Load 2 7/8" x 5 1/2" annulus. Test tubing to 6000 psi. Establish circulation through 2 7/8" tubing taking returns on 5 1/2" x 8 5/8" annulus. Record rates/pressures. Pump the following cement slurry as per the attached Halliburton recommendation:

   Type: Class C
   Volume: 600 sx
   Additives: .5% HALAD-322
   Yield: 1/18 ft/sk
   Density: 15.8 ppg
   Fluid Requirements: 5.2 gal/sk

   Displace cement to retainer with recommended flush. Sting out of retainer and reverse out 1 1/2 tubing volumes or until clean. Circulate and condition hole with treated 2% KCl water. POOH.

8. WOC 24 hours. RU electric line. RU pack-off head on top of BOP. RIH with GR/CBL/CET/CCL tool. Log from PBTD to TOC with 1500 psi on 5 1/2" casing. POOH. Contact production engineer and discuss cement bond results. WOC an additional 24 hours. Load 5 1/2" x 8 5/8" annulus. Test 5 1/2" casing to 5000 psi.

2nd Bone Spring Sand

9. RU electric line to perforate. RIH with 4" casing guns and perforate the 2nd Bone Spring sand at 9550'-9600' (2 spf, 90° phasing, total 102 holes). POOH and RD electric line.

10. TIH with 5 1/2" treating packer, 2.25" SN, and 2 7/8" 6.5# N-80 tubing. Set packer below perforations and test tubing to 5000 psi. Release packer. Pickle tubing with 250 gallons of 7 1/2% NEFe HCl acid. Reverse out pickling fluids. PU and set packer at 9450'. NU stimulation valve.

11. MIRU stimulation company. RU surface lines and test to 5000 psi. Place 1000 psi on 2 7/8" x 5 1/2" annulus. Monitor throughout the job. Pump 2500 gallons of 7 1/2% NEFe HCl acid. Space out 150 RCNBS (sp gr = 1.3) throughout the job. Displace acid to bottom perforation with treated 2% KCl water. If ballout occurs, surge balls off perfs and continue with displacement.

Treating Rate	=	4-5 bpm
Treating Pressure	=	3500 psi
Maximum Treating Pressure	=	5000 psi

RDMO stimulation company.

12. Swab test well recording rates/volumes/cuts. Send water samples to lab for full water analysis.

    a. If zone is wet, set CIBP at 9500'.
    b. If zone is productive, continue with procedure.

13. ND stimulation valve. Release packer and RIH through perforations. POOH.

14. MIRU stimulation company. ND BOP. NU flanged frac valve. RU surface lines and test to 5000 psi. Fracture stimulate the 2nd Bone Spring sand perforations (9550'-9600') according to the attached fracture stimulation schedule. Radioactively tag the pad and sand stages with scandium and iridium isotopes respectively.

Fracture Fluid Volume/Type	=	34000 gal Hyborgel 40
Proppant	=	15300 lbs 20/40 Ottawa sand
	=	68000 lbs 20/40 Super HS sand
Treating Rate	=	35 bpm
Treating Pressure	=	3800 psi
Maximum Treating Pressure	=	5000 psi

Flush stimulation to top perforation with treated 2% KCl water.

15. Shut well in to RD stimulation company and RU flowline. Leave well SI overnight. Flow well back on 8/64" choke to recover load water.

16. Kill well with treated 2% KCl water. ND frac valve. NU BOP. RIH with 4 3/4" bit and 2 7/8" tubing. Reverse out sand fill. POOH.

17. TIH with 5 1/2" treating packer, 2.25" SN, and 2 7/8" 6.5# N-80 tubing. Set packer at ±9450'. Swab test well recording rates/volumes/cuts. If well does not flow, continue with procedure.

18.* RU wireline. RIH with tandeum BHP gauges to 9400'. Record static BHP for a minimum 24 hrs. Monitor surface pressure with chart recorder. POOH making static gradient stops at 9000', 8000', 6000', 4000', 2000'. RD wireline.

1st Bone Spring Sand

19. Release packer and POOH.

20. RU electric line. RU packoff head on top of BOP. RIH and set CIBP at 8900'. POOH.

21. RU electric line to perforate. TIH with 4" casing guns and perforate the 1st Bone Spring sand at 8620'-8670' (2 spf, 90° phasing, total 102 holes). POOH and RD electric line.

22. TIH with 5 1/2" treating packer, 2.25" SN, and 2 7/8" 6.5# N-80 tubing. Set packer below perforations and test tubing to 5000 psi. Release packer. PU and set packer at 8520'. NU stimulation valve.

23. MIRU stimulation company. RU surface lines and test to 5000 psi. Place 1000 psi on 2 7/8" x 5 1/2" annulus. Monitor throughout the job. Pump 2500 gallons of 7 1/2% NEFe HCl acid. Space out 150 RCNBS (sp gr = 1.3) throughout the job. Displace acid to bottom perforation with treated 2% KCl water. If ballout occurs, surge balls off perfs and continue with displacement.

Treating Rate	=	4-5 bpm
Treating Pressure	=	3300 psi
Maximum Treating Pressure	=	5000 psi

RDMO stimulation company.

24. Swab test well recording rates/volumes/cuts. If fluid entry is limited, continue with fracturing procedure.

25. ND stimulation valve. Release packer and RIH through perforations. POOH.

26. MIRU stimulation company. ND BOP. NU flanged frac valve. RU surface lines and test to 5000 psi. Fracture stimulate the 1st Bone Spring sand perforations (8620'-8670') according to the attached fracture stimulation schedule. Radioactively tag the pad and sand stages with scandium and iridium isotopes respectively.

Fracture Fluid Volume/Type	=	36000 gal Hyborgel 40
Proppant	=	17600 lbs 20/40 Ottawa sand
	=	68000 lbs 20/40 Super HS sand
Treating Rate	=	35 bpm
Treating Pressure	=	3600 psi
Maximum Treating Pressure	=	5000 psi

Flush stimulation to top perforation with treated 2% KCl water.

27. Shut well in to RD stimulation company and RU flowline. Leave well SI overnight. Flow well back on 8/64" choke to recover load water.

28. Kill well with treated 2% KCl water. ND frac valve. NU BOP. RIH with 4 3/4" bit and 2 7/8" tubing. Reverse out sand fill. POOH.

29. TIH with 5 1/2" treating packer, 2.25" SN, and 2 7/8" tubing. Set packer at 8520'. Swab test well recording rates/volumes/cuts. If well does not flow, continue with procedure.

30.* RU wireline. RIH with tandum BHP gauges to 8470'. Record static BHP for a minimum 24 hrs. Monitor surface pressure with chart recorder. POOH making static gradient stops at 8000', 7000', 6000', 4000', 2000'. RD wireline.

31. Release packer and POOH.

32. TIH with 4 3/4" bit and 2 7/8" tubing. Drillout CIBP at 8900'. Clean out to PBTD (9750'). POOH.

33. RU electric line. RU packoff head on top of BOP. TIH with 3 5/8" PRISM tool and log from PBTD to 8500'. POOH and RD electric line.

34. TIH with production tubing as follows (assuming both zones to be commingled):

- Bull plugged MA
- Perforated sub
- Mechanical SN (2.25" ID)
- 5 1/2" TAC
- ±8500' of 2 7/8" 6.5# N-80 tubing

Set TAC with SN above perfs. ND BOP. NU pump tee. TIH with following rod string:

- 2 1/2" x 1 1/2" x 24' RHBM pump
- 5625' of 3/4" EL steel sucker rods with FHSMC
- 2875' of 7/8" EL steel sucker rods with FHSMC

NOTE: Verify rod design with actual test data prior to installation.

Hang rods on beam. Report production volumes to the Midland office. Sheave well as required to keep well pumped off if possible. After 1-2 months, contact production engineer to discuss lowering pump setting depth.

Approved John E. Barnes for Date 10-8-90
T. J. Harrington

645.7 RPA ~~BHO~~

ARTIFICAL LIFT

MERIDIAN OIL

CURRENT WELL BORE DESIGN

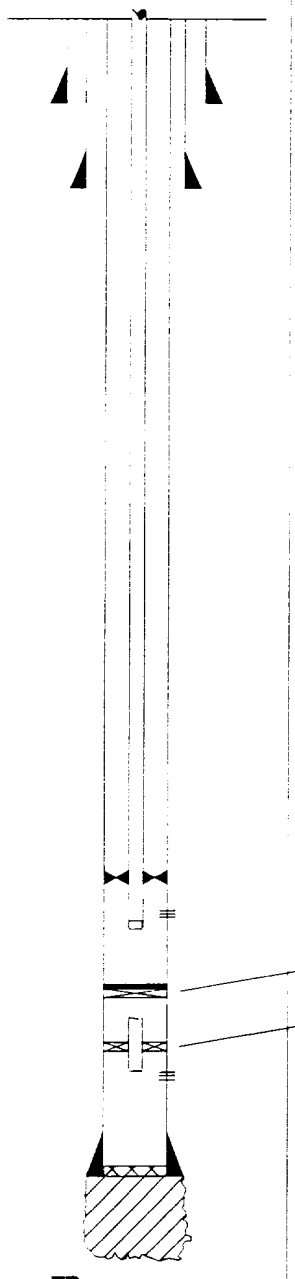
WELL NAME: FEDERAL MA #2 | **PROD. ZONE:** WOLFCAMP | **DATE:** 9/14/90

LOCATION: SEC 21 T18S R33E | **COUNTY** LEA | **STATE:** NEW MEXICO

D. P. NO.: 19900 | **G L:** 3826 | **K B:** 16

PROPERTY NO.: 0-023298

AUTHOR: J. E. KRAMER



TD: 13463'

PBTD: 12835'

OPEN HOLE SIZE:

DESCRIPTION

PUMPING UNIT :

BAKER CMI 320-256-120

WELL HEAD: N/A

CASING PROGAM:

13-3/8" 48.0# H-40 STC @ 349'

8-5/8" 32.0# J-55 STC @ 4984'

5-1/2" 20/17# N-80 LTC/BUTT @ 13463'

TUBING DATA:

2-7/8" 6.5# N-80 (348 JTS + 8 JTS below TAC)

NIPPLE (TYPE - I.D. - DEPTH)

SEAT NIPPLE @ 11186'

PACKER ASSEMBLY AND/OR TAC:

5-1/2" TAC @ 10991'

SUCKER ROD DATA:

97 1" grade "D" steel rods

107 7/8" grade "D" steel rods

237 3/4" grade "D" steel rods

PUMP DATA 2-1/2" X 1-1/2" X 22' RHBM

NOTES / REMARKS:

BGR 8/30/90

ARTIFICAL LIFT

MERIDIAN OIL

PROPOSED WELL BORE DESIGN

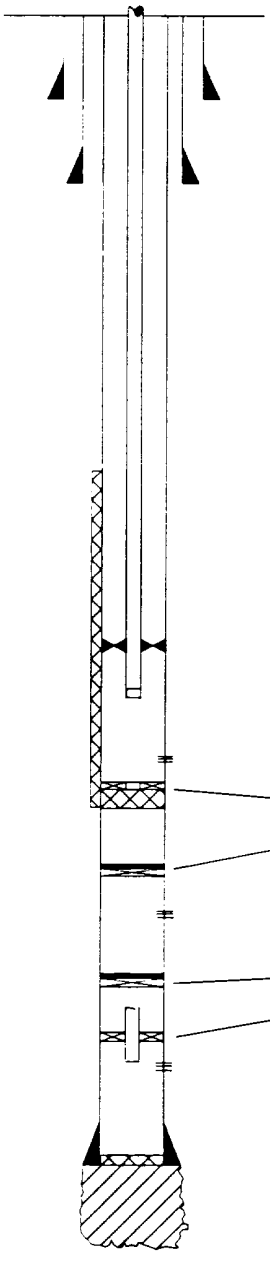
WELL NAME: FEDERAL MA #2 | **PROD. ZONE:** BONE SPRING | **DATE:** 9/14/90

LOCATION: SEC 21 T18S R33E | **COUNTY** LEA | **STATE:** NEW MEXICO

D. P. NO.: REQ NEW # | **G.L.:** 3826 | **K.B.:** 16

PROPERTY NO.: 0-023298

AUTHOR: J. E. KRAMER



TD: 13463'

PBTD: 9750'

OPEN HOLE SIZE:

DESCRIPTION

TOC est @ 6000'

BONE SPRING PERFS
8620'-8670' (2 SPF, 102 Holes)
9550'-9600' (2 SPF, 102 Holes)

PERF @ 9850';CMT RET @ 9750'

CIBP @ 10450' (capped w/cmt)

WOLFCAMP PERFS
10518'-10541' (sqzd w/75 sx)
11048'-11217' (SELECTIVE,2 SPF)

CIBP @ 12850' (capped w/cmt)

PKR @ 13180'/ TBG cut @ 12920'

MORROW PERFS
13218'-424' (SELECT,4 SPF,192 Holes)

PUMPING UNIT :

BAKER CMI 320-256-120

(Put unit in 2nd crank hole)

WELL HEAD: N/A

CASING PROGAM:

13-3/8" 48.0# H-40 STC @ 349'

8-5/8" 32.0# J-55 STC @ 4984'

5-1/2" 20/17# N-80 LTC/BUTT @ 13463'

TUBING DATA:

2-7/8" 6.5# N-80 (8500')

NIPPLE (TYPE - I.D. - DEPTH)

SEAT NIPPLE (2.25" ID) set 100' above perfs

PACKER ASSEMBLY AND/OR TAC:

SUCKER ROD DATA:

115 7/8" EL steel rods w/ FHSMC

225 3/4" EL steel rods w/ FHSMC

PUMP DATA 2-1/2" X 1-1/2" X 24' RHBM

NOTES / REMARKS:

BDR 8/30/90

Submit 5 Copies
Appropriate District Office
DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Depart.

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-104
Revised 1-1-89
See Instructions
at Bottom of Page

REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

I.

Operator	Well API No.
Southland Royalty Company	30-025-22096

Address: 21 Desta Dr., Midland, TX 79705

Reason(s) for Filing *(Check proper box)*

New Well ☐
Recompletion ☐
Change in Operator ☐
Change in Transporter of: Oil ☐ Dry Gas ☒ Condensate ☐ Casinghead Gas ☐
Other *(Please explain)* ☐
Change oil transporter until commingle permit is amended and production can go to battery.

If change of operator give name and address of previous operator _____

II. DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	Pool Name, Including Formation	Kind of Lease State, Federal or Fee	Lease No.
Federal "MA"	2	~~West~~ South Corbin (Bone Spring)	Federal	NM-0997

Location
Unit Letter I : 1980 Feet From The South Line and 660 Feet From The East Line
Section 21 Township 18 South Range 33 East , NMPM, Lea County

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil ☒ or Condensate ☐	Address *(Give address to which approved copy of this form is to be sent)*
Pride Pipeline	P.O. Box 2436, Abilene, Texas 79604
Name of Authorized Transporter of Casinghead Gas ☒ or Dry Gas ☐	Address *(Give address to which approved copy of this form is to be sent)*
Phillips 66 Natural Gas Co.	4001 Penbrook, Odessa, Texas 79762

If well produces oil or liquids, give location of tanks.	Unit	Sec.	Twp.	Rge.	Is gas actually connected?	When ?
	I	21	18 S	33 E	Yes	

If this production is commingled with that from any other lease or pool, give commingling order number: PC-767--currently being amended.

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v	Diff Res'v

Date Spudded	Date Compl. Ready to Prod.	Total Depth	P.B.T.D.
Elevations *(DF, RKB, RT, GR, etc.)*	Name of Producing Formation	Top Oil/Gas Pay	Tubing Depth
Perforations			Depth Casing Shoe

TUBING, CASING AND CEMENTING RECORD

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT

V. TEST DATA AND REQUEST FOR ALLOWABLE

OIL WELL *(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours.)*

Date First New Oil Run To Tank	Date of Test	Producing Method *(Flow, pump, gas lift, etc.)*	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas- MCF

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method *(pitot, back pr.)*	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size

VI. OPERATOR CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Robert L. Bradshaw
Signature

Robert L. Bradshaw — Env./Reg. Spec.
Printed Name — Title

15 November 1990 — 915-686-5678
Date — Telephone No.

OIL CONSERVATION DIVISION

Date Approved _____

By _____

Title _____

INSTRUCTIONS: This form is to be filed in compliance with Rule 1104

1) Request for allowable for newly drilled or deepened well must be accompanied by tabulation of deviation tests taken in accordance with Rule 111.
2) All sections of this form must be filled out for allowable on new and recompleted wells.
3) Fill out only Sections I, II, III, and VI for changes of operator, well name or number, transporter, or other such changes.
4) Separate Form C-104 must be filed for each pool in multiply completed wells.