

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

U.S. DEPARTMENT OF THE INTERIOR
P.O. BOX 1130
HOUSTON, NEW MEXICO 88240
SUBMIT IN TRIPLICATE
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

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. <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER | | 5. LEASE DESIGNATION AND SERIAL NO. NM-0997 |
| 2. NAME OF OPERATOR Southland Royalty Company | | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME |
| 3. ADDRESS OF OPERATOR 21 Desta Drive, Midland, Texas 79705 | | 7. UNIT AGREEMENT NAME |
| 1. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface Unit Letter F, 1980' FNL & 1980' FWL Sec. 22, T18S, R33E | | 8. FARM OR LEASE NAME Aztec "22" Federal |
| 14. PERMIT NO. | | 9. WELL NO. 1 |
| 15. ELEVATIONS (Show whether DF, RT, GR, etc.) 3855.1' GR | | 10. FIELD AND POOL, OR WILDCAT South Corbin (Wolfcamp) |
| | | 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 22, T18S, R33E |
| | | 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 | <input type="checkbox"/> | WATER SHUT-OFF | <input type="checkbox"/> |
| FRACTURE TREAT | <input type="checkbox"/> | FRACTURE TREATMENT | <input type="checkbox"/> |
| SHOOT OR ACIDIZE | <input type="checkbox"/> | SHOOTING OR ACIDIZING | <input type="checkbox"/> |
| REPAIR WELL | <input type="checkbox"/> | (Other) | <input type="checkbox"/> |
| (Other) | Re-Enter Strawn | (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.)*

Cmt Squeeze existing Bone Spring & Wolfcamp perforations & re-enter the Strawn - -
Procedure Attached.

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

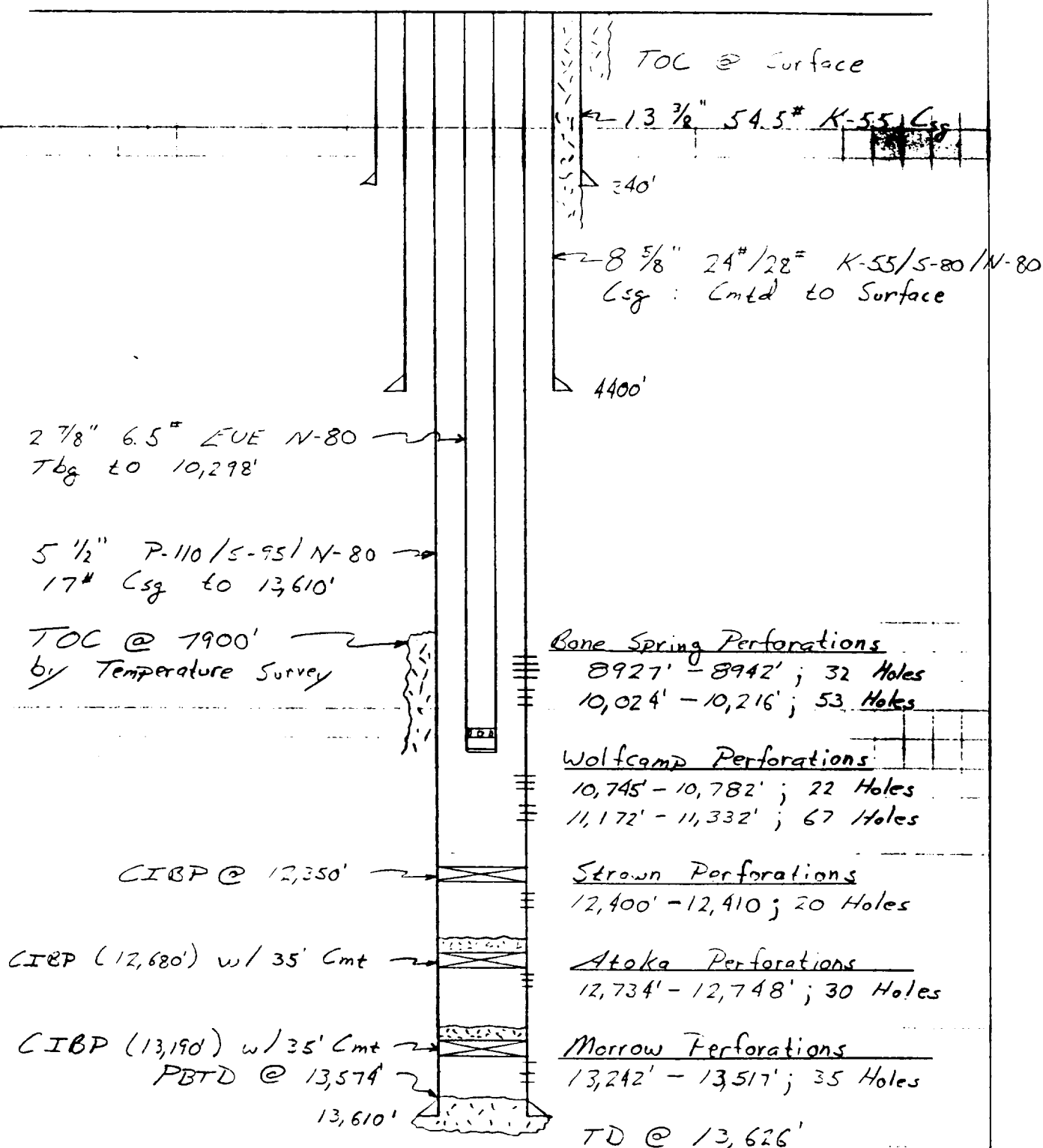
| | | |
|--|---|---------------------------|
| SIGNED <u>Robert L. Bradshaw</u> | TITLE <u>Sr. Staff Env./Reg. Specialist</u> | DATE <u>July 17, 1989</u> |
| (This space for Federal or State office use) | | |
| APPROVED BY <u>Shannon J. Shaw</u> | FOR <u>Shannon J. Shaw</u> | DATE <u>7-31-89</u> |
| CONDITIONS OF APPROVAL, IF ANY: | | |

*See Instructions on Reverse Side

Aztec "22" #1
South Corbin Field
Lea County, New Mexico

Current Wellbore

As of 3/11/89 DPS



Aztec "22" #1
South Corbin Field
Lea County, New Mexico

Strawn Reentry Procedure

1. MIRU pulling unit. ND wellhead. NU BOP. POH with $\pm 10,300'$ of 2 7/8" 6.5# EUE N-80 tubing, SN, perforated sub, and mud anchor.
2. MIRU wireline company. RU wireline pressure control. RIH with a gauge ring and junk basket suitable for 5 1/2" 17# casing. RIH to 11,150'. POH. RIH with a cement retainer. Set cement retainer at 11,120'. POH.
3. RIH with cement retainer seals and 11,120' of 2 7/8" tubing. Partially sting into retainer and test tubing to 5500 psi. Sting fully into retainer.
4. MIRU cement company. NU surface lines and test to 5500 psi. Inject into Wolfcamp perforations (11,172'-11,332') with fresh water at 2-3 bpm. Inject 20-30 bbls noting pressure and rate. Using injectivity results, estimate squeeze cement volumes and rates. Cement squeeze Wolfcamp perforations (11,172'-11,332') with the following cement slurry:

| | | <u>Lead</u> | <u>Tail</u> |
|---------------------|---|----------------------------------|---------------|
| Type | : | Class H | Class H |
| Additives | : | 1.0% Fluid Loss 0.1% Retarder | 0.3% Retarder |
| Thickening Time | : | 5 1/4 hrs | 4 hrs |
| Yield | : | 1.17 | 1.17 |
| Density | : | 15.6 | 15.6 |
| Fluid Requirements: | | 5.18 | 5.18 |

Displace cement to retainer. Do not over displace. Pull out of retainer and reverse out any excess cement. POH.

5. RIH with cement retainer and 10,690' of 2 7/8" tubing. Set cement retainer at 10690'. Partially sting out of retainer and test tubing to 5500 psi. Sting fully into retainer.
6. MIRU cement company. NU surface lines and test to 5500 psi. Inject into Wolfcamp perforations (10,745'-10,778') with fresh water at 2-3 bpm. Inject 20-30 bbls noting pressure and rate. Using injectivity results, estimate squeeze cement volumes and rates. Cement squeeze Wolfcamp perforations (10,745'-10,778') using the before mentioned cement designs. Displace cement to retainer. Do not over displace. Pull out of retainer and reverse out any excess cement. POH.

7. RIH with cement retainer and 9970' of 2 7/8" tubing. Set cement retainer at 9970'. Partially sting out of retainer and test tubing to 5500 psi. Sting fully into retainer.
8. MIRU cement company. NU surface lines and test to 5500 psi. Inject into Wolfcamp perforations (10,022'-10,216') with fresh water at 2-3 bpm. Inject 20-30 bbls noting pressure and rate. Using injectivity results, estimate squeeze cement volumes and rates. Cement squeeze ~~Wolfcamp~~ perforations (10,022'-10,216') using the before mentioned cement designs. Displace cement to retainer. Do not over displace. Pull out of retainer and reverse out any excess cement. POH. *→ Bone Spring (SJS)*
9. RIH with cement retainer and 8870' of 2 7/8" tubing. Set cement retainer at 8870'. Partially sting out of retainer and test tubing to 5500 psi. Sting fully into retainer.
10. MIRU cement company. NU surface lines and test to 5500 psi. Inject into Wolfcamp perforations (8,927'-8,942') with fresh water at 2-3 bpm. Inject 20-30 bbls noting pressure and rate. Using injectivity results, estimate squeeze cement volumes and rates. Cement squeeze ~~Wolfcamp~~ perforations (~~10,745'-10,778'~~) using the before mentioned cement designs. Displace cement to retainer. Do not over displace. Pull out of retainer and reverse out any excess cement. POH. WOC *→ Bone Spring (SJS) → 8927' - 8942'*
11. MIRU reverse unit. RIH with 4 3/4" bit, 6 3-1/2" drill collars, and 2 7/8" tubing. Drill-out cement retainer and cement to ±9000'. Close BOP and test cement squeeze to 1500 psi. If perforations are taking fluid, contact production engineer and discuss remedial squeeze plans. If cement squeeze holds pressure, continue with procedure.
12. RIH and drill-out cement retainer and cement to 10,300'. Close BOP and test to 1500 psi. If perforations are taking fluid, contact production engineer and discuss remedial squeeze plans. If cement squeeze holds pressure, continue with procedure.
13. RIH and drill-out cement retainer and cement to 10,850'. Close BOP and test to 1500 psi. If perforations are taking fluid, contact production engineer and discuss remedial squeeze plans. If cement squeeze holds pressure, continue with procedure.
14. RIH and drill-out cement retainer and cement to 11,400'. Close BOP and test to 1500 psi. If perforations are taking fluid, contact production engineer and discuss remedial squeeze plans. If cement squeeze holds pressure, continue with procedure.

15. RIH to CIBP at 12,400'. Tag CIBP. Circulate hole clean with treated 2% KCl water. Drill-out CIBP and push CIBP to PBTD ($\pm 12,645'$). POH.
16. RIH with a SN (2.25" ID), one joint of 2 7/8" tubing, production packer suitable for 5 1/2" 17# casing, ON/OFF tool, and $\pm 12,270'$ of 2 7/8" 6.5# N-80 EUE tubing. Set packer at $\pm 12,270'$. ND BOP. NU wellhead.
17. Swab/flow test Strawn zone. Allow well to clean-up and stabilize. NU production facilities and perform required state tests. Report daily test volumes to Midland office.

Approved: _____ Date: _____
T. J. Huchton

RRS 5/15/89

Aztec "22" #1
South Corbin Field
Lea County, New Mexico

MECHANICAL DATA

| <u>Type Tubular:</u> | <u>OD</u> <u>(in)</u> | <u>ID</u> <u>(in)</u> | <u>Weight</u> <u>(#/ft)</u> | <u>Grade</u> | <u>Conn.</u> | <u>Depth</u> <u>(ft)</u> | <u>Collapse</u> <u>(psi)</u> | <u>Burst</u> <u>(psi)</u> | <u>Tensile</u> <u>(M lbs)</u> | <u>TOC</u> <u>(ft)</u> |
|------------------------|--------------------------|--------------------------|--------------------------------|--------------|--------------|-----------------------------|---------------------------------|------------------------------|----------------------------------|---------------------------|
| Surface Casing | 13-3/8 | 12.615 | 54.5 | K-55 | STC | 340 | 1,130 | 2,730 | 547 | Surf |
| Intermediate Casing | 8-5/8 | 8.097 | 24 | K-55 | STC | 0-1970 | 1,370 | 2,950 | 263 | Surf |
| | 8-5/8 | 8.097 | 24 | S-80 | STC | 1970-2576 | --- | --- | --- | --- |
| | 8-5/8 | 8.017 | 28 | N-80 | STC | 2576-4400 | --- | --- | --- | --- |
| Production Casing | 5-1/2 | 4.892 | 17 | P-110 | BUTT | 0-560 | 7,460 | 10,640 | 568 | 7,900 |
| | 5-1/2 | 4.892 | 17 | S-95 | BUTT | 560-2149 | 6,930 | 9,190 | 480 | --- |
| | 5-1/2 | 4.892 | 17 | N-80 | LTC | 2149-11,580 | 6,280 | 7,740 | 348 | --- |
| | 5-1/2 | 4.892 | 17 | S-95 | LTC | 11,580-13,626 | 6,930 | 9,190 | 374 | --- |
| <u>Tubing:</u> | 2 7/8 | 2.441 | 6.5 | N-80 | EUE | 10,300 | 11,160 | 10,570 | 145 | --- |