

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

Sundry Notices and Reports on Wells

1. Type of Well
GAS

2. Name of Operator
Southland Royalty

3. Address & Phone No. of Operator
PO Box 4289, Farmington, NM 87499 (505) 326-9700

4. Location of Well, Footage, Sec., T, R, M
800'FNL, 1120'FWL Sec. 7, T-27-N, R-9-W, NMPM

5. Lease Number
SF-077874

6. If Indian, All. or
Tribe Name

7. Unit Agreement Name

8. Well Name & Number
Hanks #23

9. API Well No.

10. Field and Pool
Basin Fritland Coal
Fulcher Kutz PC

11. County and State
San Juan Co, NM

12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA
Type of Submission

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment

Type of Action

☐ Abandonment

☐ Recompletion

☐ Plugging Back

☐ Casing Repair

☐ Altering Casing

☐ Other -

☐ Change of Plans

☐ New Construction

☐ Non-Routine Fracturing

☐ Water Shut off

☐ Conversion to Injection

13. Describe Proposed or Completed Operations

It is intended to complete the Fruitland Coal formation in the existing Pictured Cliffs wellbore and produce the two formations via downhole commingling according to the attached procedure and wellbore diagrams. An application for administrative approval of this commingle was made to the Oil Conservation Division June 10, 1992.

RECEIVED

JUN 29 1992

OIL CON. DIV.
DIST. 3

RECEIVED
BLH

JUN 23 PM 2:40

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

Signed *Robert D. Bland* Title Regulatory Affairs Date 6/16/92

(This space for Federal or State Office use)

APPROVED BY _____ Title _____

CONDITION OF APPROVAL, if any:

APPROVED

JUN 25 1992

AREA MANAGER

NMCCD

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

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

DISTRICT I
P.O. Box 1960, Hobbs, NM 88240

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Southland Royalty Company			Lease Hanks		Well No. 23
Unit Letter D	Section 7	Township 27 North	Range 9 West	County San Juan	
Actual Footage Location of Well: 800 feet from the North line and 1120 feet from the West line					
Ground level Elev. 6554'	Producing Formation Fruitland Coa/Pic.Cliffs	Foot Basin/Fulcher Kutz	Dedicated Acreage: 321.88/161.88 Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 necessary.) _____

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

Not re-surveyed prepared from a plat:
By: Fred B. Kerr Jr.
Dated: 6-27-69

800'

1120'

RECEIVED
JUN 29 1992
OIL CON. DIV.
DIST. 3

OPERATOR CERTIFICATION

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

Signature
Peggy Bradfield

Printed Name
Regulatory Affairs

Position
Southland Royalty

Company

Date
6-22-92

SURVEYOR CERTIFICATION

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

Date Surveyed
6-19-92

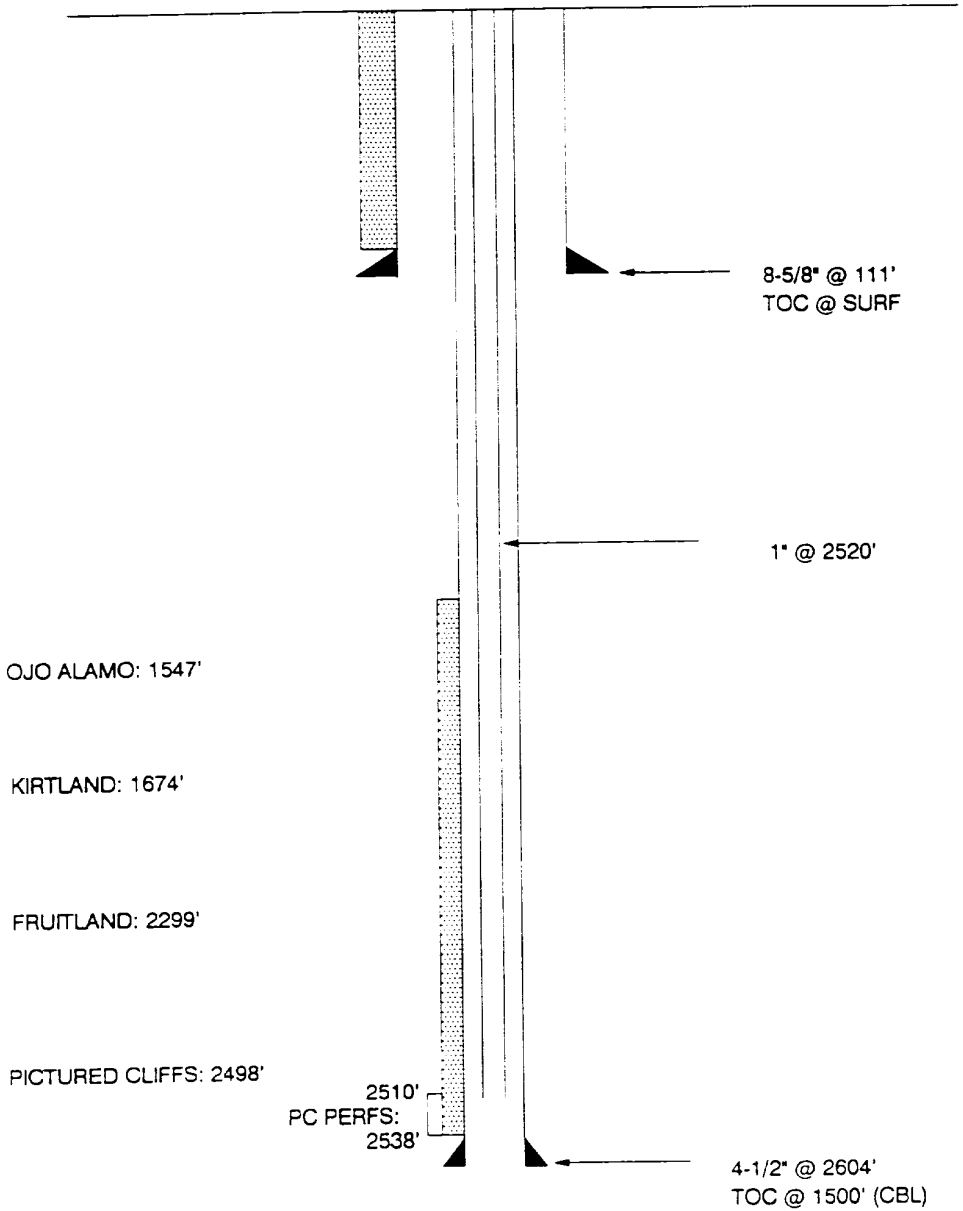
Nearest
C. EDWARDS

Signature
Professional Surveyor

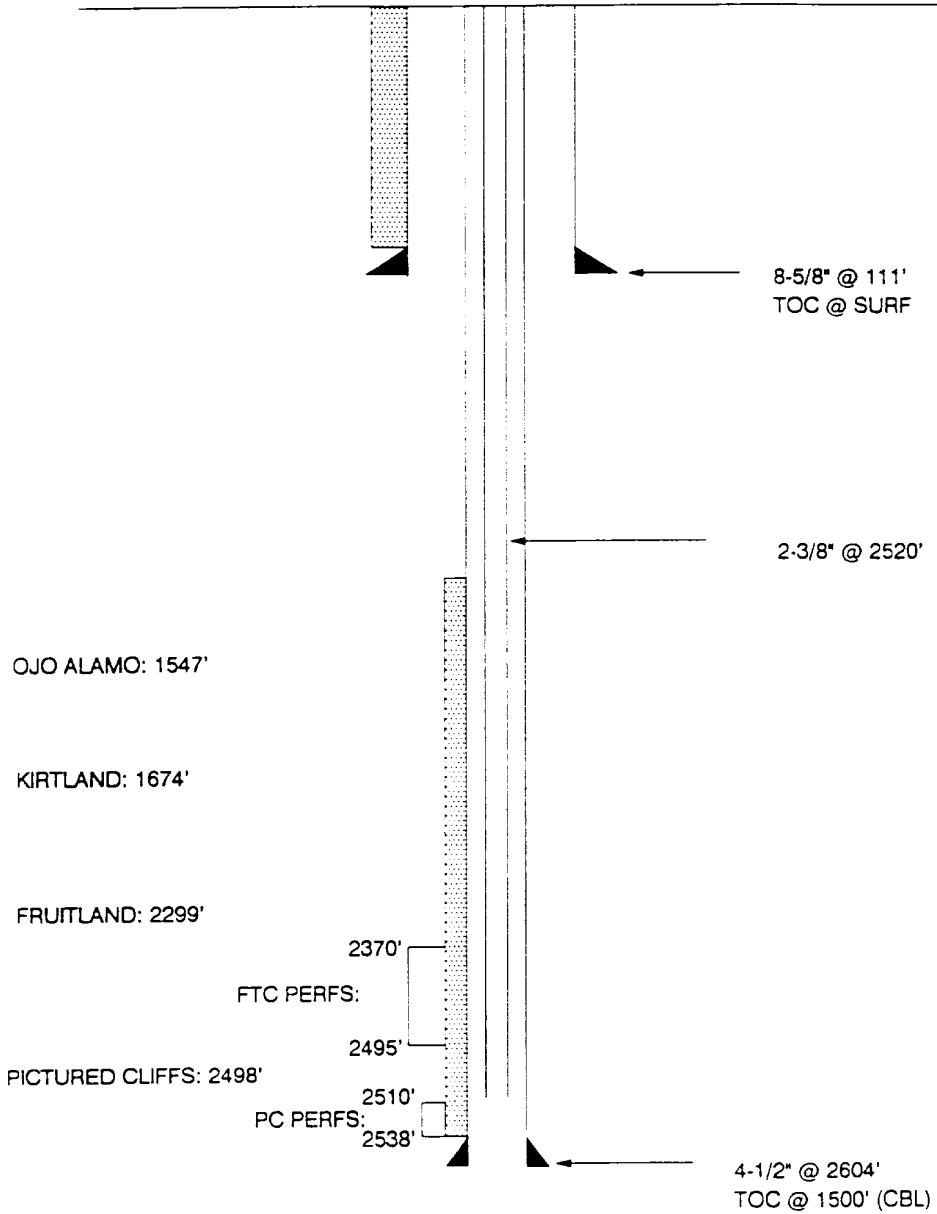
6857

6857

CURRENT
HANKS #23
UNIT D SECTION 7 T27N R9W
SAN JUAN COUNTY, NEW MEXICO



PROPOSED
HANKS #23
UNIT D SECTION 7 T27N R9W
SAN JUAN COUNTY, NEW MEXICO



HANKS #23
Recommend Recompletion Procedure
Unit D Section 7 T27N R9W

1. MOL and RU. Comply to all NMOCB, BLM and MOI rules & regulations. Hold safety meeting. ND wellhead. NU BOP. Test operation of rams. NU two relief lines. Blow well down.
 2. TOOH w/ 2520' of 1" tbg.
 3. TIH w/ csg scraper on 2-3/8" tbg to 2520'. TOOH.
 4. RU Petro wireline and set 5-1/2" retrievable BP as close to the bottom Fruitland coal as top P.C. perms will allow (approx 2500').
 5. Run GR, CNL and CBL from 2500' - 1500'.
 6. Pressure test csg and BP to 1000 psi. If csg fails, isolate csg leaks and squeeze as required. If holes occur at Ojo Alamo depths (approx 1500'), contact production engineering.
 7.
 - a) If squeeze was performed, TIH w/ 3-7/8" bit on 2-3/8" tbg. Drill cmt & CO w/ water to 2500'. Pressure test csg leak repair to 3000 psi. Resq w/ HOWCO "Micro-Matrix" cement to achieve 3000 psi test if necessary.
 - b) If squeeze was not performed, pressure test csg to 3000 psi. If pressure test fails, squeeze as necessary. Pressure test repair to 3000 psi. Use HOWCO "Micro-Matrix" cement to achieve 3000 psi test.
- If csg can not be made to hold 3000 psi, sq to hold 1000 psi.

• IF CSG HOLDS 3000 PSI, FOLLOW PROCEDURE A

• IF CSG CANNOT BE MADE TO HOLD 3000 PSI, SQUEEZE
TO HOLD 1000 PSI AND FOLLOW PROCEDURE B

PROCEDURE A
(Procedure For Fracing Down Csg)
HANKS #23
Unit D Section 7 T27N R9W

8. In preparation of first stage frac, fill 1 - 400 bbl frac tank with 2% KCL water. Filter all water to 25 microns.

*****STAGE 1*****

9. RU Basin Perforating & Perf lower Fruitland coal w/ 4" HSC guns w/ 9.8 gram charges. Shoot approx 2475-2495' w/ 4 SPF. Choose exact perfs from CNL.
10. TIH w/ 2-3/8" tbg and SAP tool w/ 4' spacing. Breakdown perfs with 1/2 bbl/ft at 1 BPM with 9 bbls 15% HCL. Add 0.3% quaternary amine type clay stabilizer, an inhibitor and sequestering agent to the acid. TOOH.
11. RU W.S.I. 4-1/2" hydraulic tree saver. RU D.S. for fracture treatment. Hold safety meeting with all personnel. Pressure test surface lines to 4000 psi. Fracture treat lower coal according to attached schedule at 20 BPM with 45,000 lbs of 20/40 mesh Arizona sand. Tag all sand with 0.4 mCi/1000# Ir-192 tracer. Flush with 1684 gals water. Estimated treating pressure is 2300 psi. MAXIMUM PRESSURE IS LIMITED TO 3000 PSI! Monitor bottomhole and surface treating pressure, rate, foam quality and sand concentration with computer van. Frac during daylight only.
12. PU tree saver, close blind rams. RD tree saver.
13. RU lubricator.
14. RU wireline and set RBP @ 2450'. RD lubricator.
15. In preparation of second stage frac, fill 1 - 400 bbl frac tank with 2% KCL water. Filter all water to 25 microns.

*****STAGE 2*****

16. Perf upper Fruitland coal w/ 4" HSC guns w/ 9.8 gram charges. Shoot approx 2370-78', 2380-86', 2390-96' w/ 4 SPF. Choose exact perfs from CNL.
17. TIH w/ 2-3/8" tbg and SAP tool w/ 4' spacing. Breakdown perfs with 1/2 bbl/ft at 1 BPM with 10 bbls 15% HCL. Add 0.3% quaternary amine type clay stabilizer, an inhibitor and sequestering agent to the acid. TOOH.
18. RU W.S.I. 4-1/2" hydraulic tree saver. RU D.S. for fracture treatment. Hold safety meeting with all personnel. Pressure test surface lines to 4000 psi. Fracture treat upper coal according to attached schedule at 30 BPM with 50,000 lbs of 20/40 mesh Arizona sand. Flush with 1486 gals 70 quality foam. Tag all sand with 0.4 mCi/1000# Ir-192 tracer. Estimated treating pressure is 2300 psi. MAXIMUM PRESSURE IS LIMITED TO 3000 PSI! Monitor bottomhole and surface treating pressure, rate, foam quality and sand concentration with computer van. Frac during daylight only.

•Treat per the attached treatment schedule.

PROCEDURE A
(Procedure For Fracing Down Csg)
HANKS #23
Unit D Section 7 T27N R9W
Page 2

19. Immediately upon completion of the stimulation, flow the well to pit on 1/8" positive choke for 10 minutes. Monitor flow back pressure on square root of time vs pressure plot. SI well for 2 hours for gel break.
20. After gel break, open well through choke manifold & monitor flow. Flow @ 20 bbls/hr, or less if sand is observed.
21. When well ceases to flow, TIH w/ 2-3/8" tbg and retrieving head and clean out upper zone until sand flow stops. Take Pitot gauge before releasing BP. Equalize pressure across BP and flow lower coal until flow stops. Release BP set @ 2450' and TOOH.
21. TIH w/ 2-3/8" tbg and retrieving head and clean out lower coal until sand flow stops. Take Pitot gauge and gas & water samples before releasing BP. Release BP set @ 2500' and TOOH.
23. TIH w/ 2-3/8" tbg and CO to TD. TOOH.
24. Run After-Frac-Gamma-Ray log from TD - 1500'.
25. TIH w/ 2520' of 2-3/8" tbg w/ standard seating nipple one jt off bottom and 2-3/8" expendable check valve on bottom. Land tbg string.
26. ND BOP and NU independent wellhead. Pump off expendable check valve. Take final Pitot gauge. Rig down & release rig.

Approve: _____

J. A. Howieson

VENDORS:

Wireline: (Through CBL)	Petro	326-6669
Wireline:	Basin	327-5244
Fracturing:	D.S.	325-5096
RA Tagging:	Protechnics	326-7133
Cementing:	HOWCO	325-3575
Isolation Tool:	W.S.I.	327-3402

KAS:kas

PROCEDURE B
(Procedure For Fracing Down Frac String)
HANKS #23
Unit D Section 7 T27N R9W

8. In preparation of first stage frac, fill 1 - 400 bbl frac tank with 2% KCL water. Filter all water to 25 microns.

*****STAGE 1*****

9. RU Basin & perf lower Fruitland coal w/ 4" HSC guns w/ 9.8 gram charges. Shoot approx 2475-2495' w/ 4 SPF. Choose exact perfs from CNL.
10. TIH w/ 2-3/8" tbg and SAP tool w/ 4' spacing. Breakdown perfs with 1/2 bbl/ft at 1 BPM with 9 bbls 15% HCL. Add 0.3% quaternary amine type clay stabilizer, an inhibitor and sequestering agent to the acid. TOOH.
11. TIH w/ 2-7/8", 6.4#, 10 RD, NU frac string and set pkr @ 2450'. Pressure test BP to 4000 psi.
12. RU D.S. for fracture treatment. Hold safety meeting with all personnel. Pressure test surface lines to 5000 psi. Fracture treat lower coal according to attached schedule at 20 BPM with 45,000 lbs of 20/40 mesh Arizona sand. Tag all sand with 0.4 mCi/1000# Ir-192 tracer. Flush with 548 gals 70 quality foam. Estimated treating pressure is 2700 psi. MAXIMUM PRESSURE IS LIMITED TO 4000 PSI! Monitor bottomhole and surface treating pressure, rate, foam quality and sand concentration with computer van. Frac during daylight only.
- Treat per the attached treatment schedule.
13. Immediately upon completion of the stimulation, flow the well to pit on 1/8" positive choke for 10 minutes. Monitor flow back pressure on square root of time vs pressure plot. SI well for 2 hours for gel break.
14. After gel break, open well through choke manifold & monitor flow. Flow @ 20 bbls/hr, or less if sand is observed. When well ceases to flow, proceed to Stage 2.
15. In preparation of Stage 2, fill 1 - 400 bbl frac tank with 2% KCL water. Filter all water to 25 microns.

PROCEDURE B
(Procedure For Fracing Down Frac String)
HANKS #23
Unit D Section 7 T27N R9W
Page 2

*****STAGE 2*****

16. RU wireline and set RBP @ 2450'.
17. Perf Upper Fruitland coal w/ 4" HSC guns w/ 9.8 gram charges. Shoot approx 2370-78', 2380-86', 2390-96' w/ 4 SPF. Choose exact perfs from CNL.
18. TIH w/ 2-3/8" tbg and SAP tool w/ 4' spacing. Breakdown perfs with 1/2 bbl/ft at 1 BPM with 10 bbls 15% HCL. Add 0.3% quaternary amine type clay stabilizer, an inhibitor and sequestering agent to the acid. TOOH.
19. TIH w/ 2-7/8", 6.4#, 10 RD, NU frac string and set pkr @ 2300'. Pressure test BP to 4000 psi.
20. RU D.S. for fracture treatment. Hold safety meeting with all personnel. Pressure test surface lines to 5000 psi. Fracture treat upper coal according to attached schedule at 30 BPM with 50,000 lbs of 20/40 mesh Arizona sand. Flush with 524 gals 70 quality foam. Tag all sand with 0.4 mCi/1000# Ir-192 tracer. Estimated treating pressure is 2800 psi. MAXIMUM PRESSURE IS LIMITED TO 4000 PSI! Monitor bottomhole and surface treating pressure, rate, foam quality and sand concentration with computer van. Frac during daylight only.

•Treat per the attached treatment schedule.
21. Immediately upon completion of the stimulation, flow the well to pit on 1/8" positive choke for 10 minutes. Monitor flow back pressure on square root of time vs pressure plot. SI well for 2 hours for gel break.
22. After gel break, open well through choke manifold & monitor flow. Flow @ 20 bbls/hr, or less if sand is observed.
23. When well ceases to flow TOOH w/ pkr & frac string. TIH w/ 2-3/8" tbg and retrieving head and clean out upper coal until sand flow stops. Take Pitot gauge before releasing BP. Release BP set @ 2450' and TOOH.
24. TIH w/ 2-3/8" tbg and retrieving head and clean out lower coal until sand flow stops. Take Pitot gauge and gas & water samples before releasing BP. Release BP set @ 2500' and TOOH.
25. TIH w/ 2-3/8" tbg and CO to TD. TOOH.
26. RU wireline and pack-off and run After-Frac-Gamma-Ray log from TD - 1500'.

PROCEDURE B
(Procedure For Fracing Down Frac String)
HANKS #23
Unit D Section 7 T27N R9W
Page 3

27. TIH w/ 2520' of 2-3/8" tbg w/ standard seating nipple one jt off bottom and 2-3/8" expendable check valve on bottom. Land tbg string.
28. ND BOP and NU independent wellhead. Pump off expendable check valve. Take final Pitot gauge. Rig down & release rig.

Approve: _____

J. A. Howieson

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