Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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 Form 9-331-C for such proposals.)

1. oil well ☐ gas well ☒ other

2. NAME OF OPERATOR
Southland Royalty Company

3. ADDRESS OF OPERATOR
P.O. Drawer 570, Farmington, New Mexico 87401

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1045' FSL & 1695' FWL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

5. LEASE
SF-077652

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
East

9. WELL NO.
10-M

10. FIELD OR WILDCAT NAME
Basin Dakota/Blanco Mesa Verde

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 26, T31N, R12W

12. COUNTY OR PARISH
San Juan

13. STATE
New Mexico

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)
6069' GR

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	☐		☐
FRACTURE TREAT	☐		☐
SHOOT OR ACIDIZE	☐		☐
REPAIR WELL	☐		☐
PULL OR ALTER CASING	☐		☐
MULTIPLE COMPLETE	☐		☐
CHANGE ZONES	☐		☐
ABANDON*	☐		☐
(other) Production Tubing Rpt	X		

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

RECEIVED
SEP 8 1980
OIL CON. COM.
DIST. 3

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.)*

8/27/80 Ran 217 joints (7191') of 1-1/2", 2.90#, EUE tubing landed at 7202'.
Model "R" Packer set at 5224'.
Ran 159 joints (4929') of 1-1/2", 2.76#, IJ tubing landed at 4940'.
SIFT...

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED R. E. Fielder TITLE District Engineer DATE August 28, 1980

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

ACCEPTED FOR RECORD

SEP 04 1980

FARMINGTON DISTRICT

BY BW

*See Instructions on Reverse Side

NMOCC

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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 Form 9-331-C for such proposals.)

1. oil well ☐ gas well ☒ other

2. NAME OF OPERATOR
Southland Royalty Company

3. ADDRESS OF OPERATOR
P.O. Drawer 570, Farmington, New Mexico 87401

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1045' FSL & 1695' FWL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

5. LEASE
SF-077652

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
East

9. WELL NO.
10-M

10. FIELD OR WILDCAT NAME
Basin Dakota/Blanco Mesaverde

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 26, T31N, R12W

12. COUNTY OR PARISH
San Juan

13. STATE
New Mexico

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)
6069' GR

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	☐		☐
FRACTURE TREAT	☐		☐
SHOOT OR ACIDIZE	☐		☐
REPAIR WELL	☐		☐
PULL OR ALTER CASING	☐		☐
MULTIPLE COMPLETE	☐		☐
CHANGE ZONES	☐		☐
ABANDON*	☐		☐
(other) Perforation & Stimulation	X		

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form. change on Form 9-330.)

RECEIVED
SEP 10 1980
OIL CON. COM.
DIST. 3

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.)*

8/16/80 Perforated the Lower Dakota at 7107', 7135', 7155', 7161', 7167', 7173', 7179', 7202', 7208', 7214'. (Total of 10 holes.)

8/19/80 Frac'd the Lower Dakota with 77,958 gals 30# 1% KCl water and 21,673# of 20/40 sand. AIR 16 BPM, ATP 3300 psi, ISIP 2300 psi.
Perforated the Upper Dakota at 6979', 6991', 7043', 7049', 7059', 7065', 7071', 7077', 7083'. (Total of 9 holes.)

8/20/80 Frac'd the Upper Dakota with 97,446 gals gel 1% KCl water and 23,447# of 20/40 sand. AIR 16 BPM, ATP 3200 psi, ISIP 1400 psi.

8/23/80 Perforated the Mesa Verde at 4834', 4840', 4846', 4852', 4858', 4864', 4873', 4879', 4885', 4891', 4902', 4925', 4930', 5020', 5025', 5036', 5042', 5092'. (Total of 18 holes.)
Frac'd the Mesa Verde with 122,094 gals of slick water and 49,500# of 20/40 sand. AIR 35 BPM, ATP 500 psi, ISIP Vac.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED R. E. Fielder TITLE District Engineer DATE August 28, 1980

(This space for Federal or State office use)

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

ACCEPTED FOR RECORD
SEP 9 1980
FARMINGTON DISTRICT
BY H. Bodrug

*See Instructions on Reverse Side

NMOCC

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 10-4-80	
Company: Southland Royalty Company			Connection: Southern Union Gathering		
Pool: Blanco			Formation: Mesa Verde		Unit
Completion Date: 9-20-80	Total Depth: 7215'		Plug Back TD: 7214'	Elevation: 6069' GR	Farm or Lease Name: EAST
Csg. Size: 7.625 / 5.500	Wt.: 26.40# / 15.5#	d: 6.969 / 4.950	Set At: 4758' / 4591'-7214'	Perforations: From To	Well No.: 10M
Tbg. Size: 1.900	Wt.: 2.76#	d: 1.610	Set At: 4940'	Perforations: From 4834' To 5092'	Unit: N; Sec.: 26; Twp.: 31N; Rge.: 12W
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: GG-Multiple			Packer Set At: 5224'		County: San Juan
Producing Thru: Tubing	Reservoir Temp. °F	Mean Annual Temp. °F	Baro. Press. – P_a: 12.2		State: New Mexico
L	H	Gg: ,700	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps

	FLOW DATA				TUBING DATA		CASING DATA		
NO.	Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI					1034		1041		
1.	2" X 3/4"				263		931		1 Hour
2.					251		906		2 Hours
3.					243		884		3 Hours
4.									
5.									

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	12.365		255.2	1.0000	.9258	1.0000	2921
2.							
3.							
4.							
5.							

NO.	P_t	Temp. °R	T_f	Z
1.				
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas _____ XXXXXX
Specific Gravity Flowing Fluid _____ XXXXX
Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
Critical Temperature _____ R _____ R

RECEIVED
OCT 15 1980
OIL CON. COM.
DIST. 3

P_c 1053.2 P_c^2 1109230.2

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		896.2	803174.4	306055.8
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.6243$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.6267$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 7673$

Absolute Open Flow 7673 Mcfd @ 15.025 Angle of Slope θ _____ Slope, n .75

Remarks: _____

Approved By Division	Conducted By:	Calculated By:	Checked By:
	Tom Wagner	James Smith	L. O. Van Ryan

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 9-27-80	
Company: Southland Royalty Co.			Connection: Southern Union Gathering		
Pool: Basin			Formation: Dakota		Unit
Completion Date: 9-20-80	Total Depth: 7215'		Plug Back TD: 7214'	Elevation: 6069' GR	Farm or Lease Name: EAST
Csg. Size: 7.625 / 5.500	Wt.: 26.40# / 15.5#	d: 6.969 / 4.950	Set At: 4758' / 4591'-7214'	Perforations: From / To	Well No.: #10M
Tbg. Size: 1.900	Wt.: 2.90#	d: 1.610	Set At: 7202'	Perforations: From 6979' To 7214'	Unit: N; Sec.: 26; Twp.: 31N; Rge.: 12W
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: GG-Multiple			Packer Set At: 5224'		County: San Juan
Producing Thru: Tubing	Reservoir Temp. °F	Mean Annual Temp. °F	Baro. Press. – P_a: 12.2		State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
		.700						

	FLOW DATA				TUBING DATA		CASING DATA		
NO.	Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI					606				
1.	2" X 3/4"				4				1 Hour
2.					2				2 Hours
3.					1				3 Hours
4.									
5.									

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	12.365		13.2	1.0000	.9258	1.0000	151
2.							
3.							
4.							
5.							

NO.	P_t	Temp. °R	T_t	Z
1				
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas _____ XXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
Critical Temperature _____ R _____ R

RECEIVED
OCT 15 1980
OIL CON. COM.
DIST. 3

P_c 619.2 P_c^2 382171.2

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		13.2	174.2	381997.0
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0005$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.0003$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 151$

Absolute Open Flow 151 Mcfd @ 15.025 Angle of Slope θ _____ Slope, n .75

Remarks: _____

Approved By Division	Conducted By:	Calculated By:	Checked By:
	Tom Wagner	James Smith	L. O. Van Ryan