

State of New Mexico  
Energy, Minerals and Natural Resources Department

**Susana Martinez**  
Governor

**Ken McQueen**  
Cabinet Secretary

**Matthias Sayer**  
Deputy Cabinet Secretary

**David R. Catanach, Division Director**  
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-4 or 3160-5 form.

Operator Signature Date: 11/8/2017

Well information:

API WELL #	Well Name	Well #	Operator Name	Type	Stat	County	Surf. Owner	UL	Sec	Twp	N/S	Rng	W/E
30-039-31362-00-00	CARRACAS 32 5 24	001	SOUTHLAND ROYALTY COMPANY LLC	G	N	Rio Arriba	F	L	24	32	N	5	W

### Drilling/Casing Change

#### Conditions of Approval:

(See the below checked and additional conditions)

- File C-104 and completion report for the Basin Mancos for review and approval before returning to production
- If the Dakota is returned to production and is produced with the Mancos, file DHC prior to producing.
- Notify Aztec OCD 24hrs prior to casing & cement.
- Hold C-104 for directional survey & "As Drilled" Plat  Hold C-104 for  NSL,  NSP,  DHC
- Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- Ensure compliance with 19.15.17
- Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
- Regarding Hydraulic Fracturing, review EPA Underground Injection Control Guidance 84
- Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.
- Well-bore communication is regulated under 19.15.29 NMAC. This requires well-bore Communication to be reported in accordance with 19.15.29.8.

#### Additional requirements

NMOCD Approved by Signature

11/20/17  
Date

Final document (C-102) for review and approval of this sundry was rec'd on 12/11/17. Official date of approval should be 12/11/17. NMOCD AV

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED  
OMB NO. 1004-0137  
Expires: January 31, 2018

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*

NOV 15 2017

5. Lease Serial No.  
NMNM30586

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

**SUBMIT IN TRIPLICATE - Other instructions on page 2**

Farmington Field Office  
Bureau of Land Management

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other	8. Well Name and No. CARRACAS 32-5 24 1
2. Name of Operator SOUTHLAND ROYALTY COMPANY LLC Contact: ROBBIE A GRIGG E-Mail: rgrigg@mspartners.com	9. API Well No. 30-039-31362
3a. Address 400 WEST 7TH STREET FORT WORTH, TX 76102	10. Field and Pool or Exploratory Area MANCOS
3b. Phone No. (include area code) Ph: 817-334-7842	11. County or Parish, State RIO ARRIBA COUNTY, NM
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 24 T32N R05W Mer NMP NWSW 2610FSL 897FWL 36.965641 N Lat, 107.319504 W Lon	

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Deepen
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Hydraulic Fracturing
	<input type="checkbox"/> Production (Start/Resume)
	<input type="checkbox"/> Reclamation
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Well Integrity
	<input type="checkbox"/> Other
	<input type="checkbox"/> Alter Casing
	<input type="checkbox"/> New Construction
	<input checked="" type="checkbox"/> Recomplete
	<input type="checkbox"/> Temporarily Abandon
	<input type="checkbox"/> Plug and Abandon
	<input type="checkbox"/> Water Disposal
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Plug Back
	<input type="checkbox"/> Change Plans
	<input type="checkbox"/> Convert to Injection

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

SRC REQUESTS APPROVAL TO:

1. SET CIBP W/10' CMT OVER EXISTING DAKOTA PERFS.
2. PERF AD ACIDIZE MANCOS B
3. RETURN WELL TO PRODUCTION

SEE ATTACHED PROCEDURE AND WELLBORE DIAGRAMS FOR YOUR APPROVAL.

**BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS**

OIL CONS. DIV DIST. 3

NOV 17 2017

\* Set minimum 50' of cement above CIBP at 8740'

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

Electronic Submission #394484 verified by the BLM Well Information System For SOUTHLAND ROYALTY COMPANY LLC, sent to the Farmington

Name (Printed/Typed) ROBBIE A GRIGG	Title SUPVR REGULATORY REPORTING
Signature (Electronic Submission)	Date 11/08/2017

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>Troy Salyers</u>	Title <u>Engineer</u>	Date <u>11/15/17</u>
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		
Office <u>FFO</u>		

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

(Instructions on page 2)

\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\*

NMOCDAV

DEC 11 2017

District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720  
District II  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources  
Department

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.  
Santa Fe, NM 87505

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

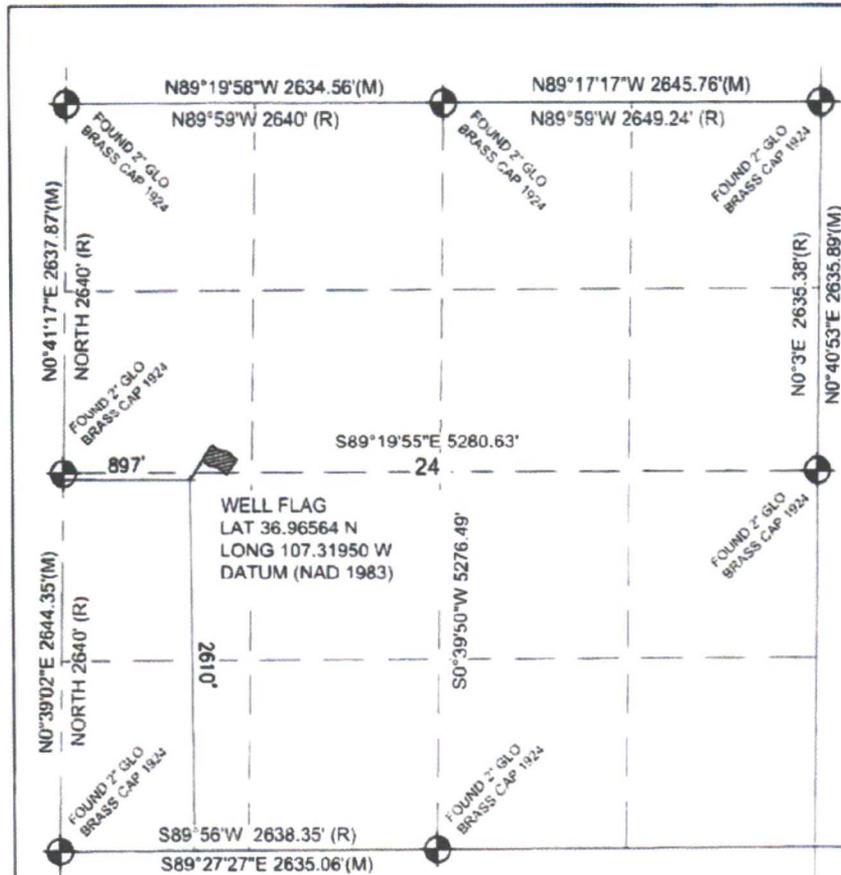
<sup>1</sup> API Number 30-039-31302		<sup>2</sup> Pool Code 97232	<sup>3</sup> Pool Name BASIN MANCOS
<sup>4</sup> Property Code <del>35034</del> 319414	<sup>5</sup> Property Name CARRACAS 32-5 24		<sup>6</sup> Well Number <del>24-1</del>
<sup>7</sup> OGRID No. 162928	<sup>8</sup> Operator Name SOUTHLAND ROYALTY, LLC		<sup>9</sup> Elevation 7368'

<sup>10</sup> Surface Location									
UL or lot no.	Section	Township	Range	Lat. Lin.	Feet from the	North/South line	Feet from the	East/West line	County
P	24	32N	5W	L	2610'	SOUTH	897'	WEST	RIO ARRIBA

<sup>11</sup> Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lat. Lin.	Feet from the	North/South line	Feet from the	East/West line	County
P	24	32N	5W	L	2610'	SOUTH	897'	WEST	RIO ARRIBA

<sup>12</sup> Dedicated Acres W/2, 320± AC.	<sup>13</sup> Joint of Infill I	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



<sup>17</sup>OPERATOR CERTIFICATION

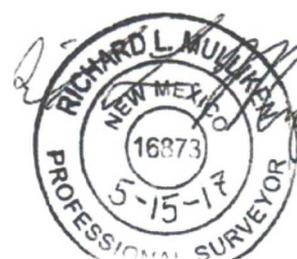
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

*Robbie A Grigg* 5/14/17  
Signature Date  
Robbie A Grigg  
Printed Name  
rgrigg@msppartners.com  
E-mail Address

<sup>18</sup>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 supervision, and that the same is true and correct to the best of my belief.

Survey Date: MAY 15, 2017  
Signature and Seal of Professional Surveyor



RICHARD L. MULLIKEN  
Certificate Number 16873

\*File complete & correct  
C-102's



Southland Royalty Company

AFE# 177198

11/8/2017

**TA Dakota, Complete Mancos B  
Carracas 32-5 24 #1  
Rio Arriba County, NM**

1. Stop N2 Injection and wait ~24 hours for well to die.
2. MIRU PU. Install 5k BOP and flowback spool.
3. POOH w/ tbg
4. MU and RIH w/ mech set CIBP on tbg and set @ 8,740'
5. Roll Hole w/ Clay Stabilized Wtr and POOH w/ tbg
6. NU 10K Wellhead Isolation Tool and pressure test casing to 7,500 psi
7. ND Isolation Tool for WL
8. MIRU WL Unit
9. RIH and run CCL to correlate. POOH.
10. RIH and dump bail 2 sx cmt on top of CIBP @ 8,740.
11. Perforate Mancos B w/ 1spf, 0.42" dia, 90° Phase as follows:

<i>Mancos B Perfs</i>	
8108-8111'	3', 4 Holes
8119-8122'	3', 4 Holes
8146-8149'	3', 4 Holes
8153-8156'	3', 4 Holes
8178-8181'	3', 4 Holes
8203-8206'	3', 4 Holes

8108-8206' 18' Net Perfs, 24 Holes

12. RIH w/ 30' Acid Bailer and dump 18 gal 15% HCL on lower perfs @ 8178'
13. RDMO WL Unit.
14. NU Isolation Tool.
15. MIRU frac equipment
16. Acid Stimulation of Mancos B

Acid - 15% HCL = 2,000 Gals	
Fresh H2O = 46,200 Gals	1,100 Bbls
Average Rate = 30 bpm	

17. Start Pumping Acid @ 6-8 bpm and drop 36 bio balls to breakdown formation.
18. Pump 1000 Gal Acid and then drop 1 ball every 5 seconds for remainder of acid. Flush w/ 188.1 bbls to top perf
19. Shut in Well for ISIP, 5, 10, 15 on acid. Wait 30 minutes, surge balls off perfs and continue pumping.
20. Pump clay stabilized water for remainder of job @ 30 bpm if attainable.
21. Get ISIP, 5, 10, 15.
22. Rig up well to flow thru choke and into Separator. Flare produced gas as necessary.
23. Obtain Flowback supervisor for overnight monitoring. No need for additional iron as no sand is being pumped.
24. Attempt to flow well up casing over weekend.
25. Blow down well. Kill well with treated water if necessary.
26. RIH w/ 2.375" prod tbg and land @ 8,100'
27. ND BOPs.
28. NU Prod tree and test.
29. Sawb well as necessary.
30. RDMO workover rig. Turn well to sales.

**Carracas 32-5 24 #1**  
**Rio Arriba County, NM**

**AFE# 177198**

**D&J #3**

**KB = 16**

API# 30-039-31362  
 Spud Date 8/31/2017  
 Rig Release 9/20/2017  
 Days to Drill 20 days from Spud to Rig Release

GL 7340 ft  
 KB 7356 ft

**TD 8953 ft**  
**Surface Casing 13 3/8" 54.5 lb/ft J-55 ST&C 17 jts**  
 Setting Depth @ 620 ft  
 Float Shoe 2.00 ft  
 Shoe Joint(s) 32.05 ft  
 Float Collar 2.00 ft @ 584 ft

**Cement**  
 Lead 475 sx 13.5# 1.85 yield  
 Circulated 85 bbls cement to surface

**Intermediate Casing 8 5/8" 32 lb/ft N-80 LT&C 102 jts**  
 Setting Depth @ 4509 ft  
 Float Shoe 1.4 ft  
 Shoe Joint 44.65 ft  
 Float Collar 1 ft @ 4462 ft  
 DV Tool @ 3400 ft

**Cement**  
 Stage 1 Lead 300 sx 12.3# 1.97 yield  
 Tail 140 sx 13.5# 1.3 yield  
 Circulated 50 bbls good cmt off DV Tool  
 Open DV-Stage 2 Lead 875 sx 12.3# 1.95 yield  
 Lead 145 sx 13.5# 1.31 yield  
 Circulated 70 bbls good cmt to surface.

**Production Casing 5 1/2" 17 lb/ft P-110 LT&C 201 jts**  
 Setting Depth 8938 ft  
 Float Shoe 1.3  
 Shoe Joint 44.4  
 Float Collar 1 ft @ 8891 ft  
**PBTD 8891 ft**

**Cement**  
 Lead 715 sx 13.3# 1.36 yield  
 Bumped plug, flushed with freshwater + clay web.

**Proposed Perfs**  
 Top Perforation Limit 8108 ft  
 Bottom Perforation Limit 8206 ft  
 Completed Length of Vertical 98 ft (Top to bottom perf)  
 Perf Diameter 0.42 in  
 Perf Phasing 90 deg

	Top ft MD	Bottom ft MD	Stage Length ft	Shot/Ft #	# Holes	TVD
<b>Stage 1</b>	8108	8111	3	1	4	
	8119	8122	3	1	4	
	8146	8149	3	1	4	
	8153	8156	3	1	4	
	8178	8181	3	1	4	
	8203	8206	3	1	4	

Total Holes 24

### Proposed Perforations

Well Name Carracas 32-5 24 #1  
Formation Rio Arriba County, NM

### Proposed Perforations

Top Perf	Btm Perf	SPF	Phasing	Perf Diam (in)	No. Holes	
8,108	- 8,111	1	90	0.42	4	Holes
8,119	8,122	1	90	0.42	4	Holes
8,146	8,149	1	90	0.42	4	Holes
8,153	8,156	1	90	0.42	4	Holes
8,178	- 8,181	1	90	0.42	4	Holes
8,203	- 8,206	1	90	0.42	4	Holes
					24	Total Holes

**Carracas 32-5 24 #1  
Rio Arriba County, NM**

**Contact Information**

Contacts	Email	Phone	
		(Business)	(Cell)
<b>MorningStar Partners - Ft. Worth Office</b>		<b>817 - 334 - 7800</b>	
Chris Arnold - Operations Engineer	<a href="mailto:carnold@mspartners.com">carnold@mspartners.com</a>	817 - 334 - 8033	214 - 708 - 2908
Brodie Savage - Operations Engineer	<a href="mailto:bsavage@mspartners.com">bsavage@mspartners.com</a>	817 - 334 - 7745	817 - 965 - 3532
Bill Frey - Operations Manager	<a href="mailto:bfrey@mspartners.com">bfrey@mspartners.com</a>	817 - 334 - 7709	
Paten Morrow - Geology Manager	<a href="mailto:pmorrow@mspartners.com">pmorrow@mspartners.com</a>	817 - 334 - 7705	
Robert Cepero - Geologist	<a href="mailto:rcepero@mspartners.com">rcepero@mspartners.com</a>	817 - 334 - 8025	
Mike Williams - Reservoir Manager	<a href="mailto:mwilliams@mspartners.com">mwilliams@mspartners.com</a>	817 - 334 - 7821	
Brandon Hudson - Reservoir Engineer	<a href="mailto:bhudson@mspartners.com">bhudson@mspartners.com</a>	817 - 334 - 7843	
George Ramsey - Drilling Engineer	<a href="mailto:gramsey@mspartners.com">gramsey@mspartners.com</a>	817 - 334 - 7704	
<b>Aztec Field Office</b>		<b>505 - 333 - 4869</b>	
John Hampton - Lead Foreman	<a href="mailto:JHampton@ctfieldsvcs.com">JHampton@ctfieldsvcs.com</a>		505 - 330 - 4377
Mike Howe - Foreman	<a href="mailto:MHowe@ctfieldsvcs.com">MHowe@ctfieldsvcs.com</a>		505 - 330 - 3058
Jason Peace - Foreman	<a href="mailto:JPeace@ctfieldsvcs.com">JPeace@ctfieldsvcs.com</a>		505 - 419 - 6055
Eric Thomas - Foreman	<a href="mailto:EThomas@ctfieldsvcs.com">EThomas@ctfieldsvcs.com</a>		505 - 330 - 4366
David Goodwin - Automation Technician	<a href="mailto:DGoodwin@ctfieldsvcs.com">DGoodwin@ctfieldsvcs.com</a>		505 - 330 - 0762
Henry Valdez - Consultant	<a href="mailto:hvaldez@consultant.com">hvaldez@consultant.com</a>		505 - 320 - 5740



Southland Royalty Company

OIL CONS. DIV DIST. 3

NOV 17 2017

Prepared by: CArnold  
Date: 11/6/2017

KB = 16 ft  
GL = 7,340 ft  
KB = 7,356 ft  
API# 30-039-31362

Spud Date: 08/31/2017  
DK Frac Date: 10/07/2017

### Carracas 32-5 24 #1 Rio Arriba County, NM

TD - 8,953 ft MD

17 1/2" hole to 620'.  
Surface Csg: 17jts 13 3/8" 54.5# lb/ft J-55 ST&C  
Setting Depth: 618 ft kb

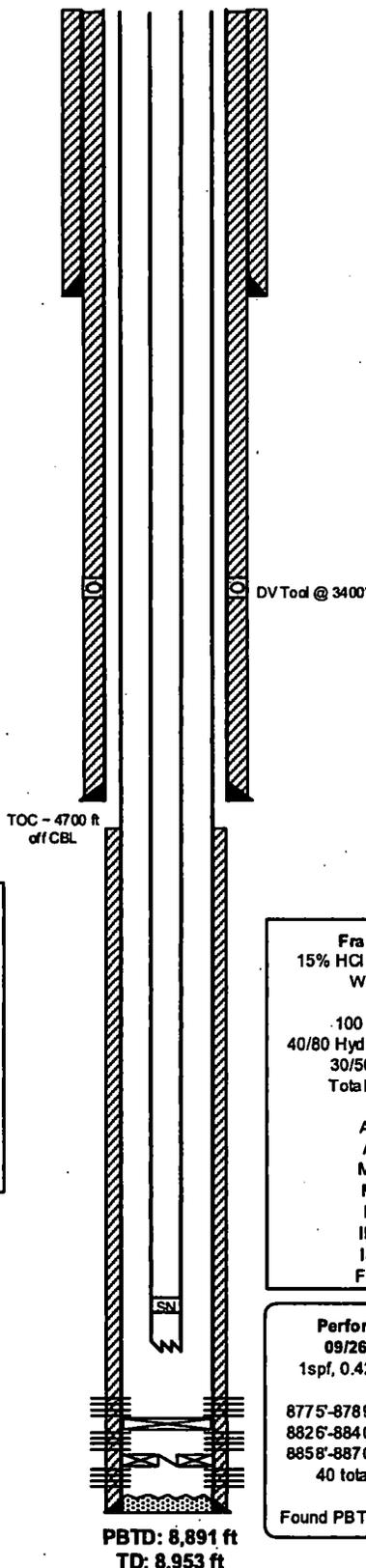
Cement  
475sx 13.5# 1.85yield surface cmt.  
Circulate 85 bbls good cmt to surface

12 1/2" hole to 4,533'.  
Int Csg: 102jts 8 5/8" 32# N-80 LT&C  
Setting Depth, FS: 4,509 ft  
Float Collar: 4,462 ft  
Hyd DV Tool: 3400 ft

Cement  
Stage 1: Lead-300sx 12.3# 1.97yield.  
Tail-140sx 13.5# 1.3yield  
Circ 50 bbls good cmt off DV tool  
Stage 2: Lead-875sx 12.3# 1.95yield  
Tail-145sx 13.5# 1.31yield.  
Circ 70 bbls good cmt to surface.

7 7/8" hole to 8,953'.  
Prod Csg: 201 jts 5.5" 17# P-110 LT&C  
Setting depth, FS: 8,938 ft  
PBD, FC: 8,891 ft

Cement  
715sx 13.3# 1.36 yield cmt.  
Top of cmt: ~ 4700 ft (based on CBL)



Prod Tbg 10/19/2017:  
2.375" 4.7# L-80 tbg  
268 jts, 1.78" ID SN, 1 Jt w/  
RBP Ret. Tool on EOT  
EOT= 8,737' ; SN= 8,701'

FM Tops	
Nacimiento	- 1675 ft
Ojo Alamo	- 3326 ft
Kirtland Shale	- 3531 ft
Fruitland Coal	- 3842 ft
Pictured Cliffs	- 4056 ft
Lewis Shale	- 4533 ft
Cliffhouse	- 6152 ft
Menefee	- 6430 ft
Point Lookout	- 6567 ft
Mancos Shale	- 7140 ft
Greenhorn	- 8612 ft
Graneros	- 8657 ft
Dakota	- 8763 ft

Frac DK - 10/07/2017  
15% HCl (50 bioballs) - 2500 gal  
Water - 4,916 bbls

100 Mesh - 38,900 lbs  
40/80 Hydroprop LWC - 73,125 lbs  
30/50 CRC - 27,180 lbs  
Total Prop - 139,205 lbs

ATR - 69.5 BPM  
ATP - 4,950 psi  
MTR - 69.8 BPM  
MTP - 5,472 psi  
ISIP - 2,495 psi  
IFG - 0.716 psi/ft  
ISDP - 3,707 psi  
FFG - 0.853 psi/ft

RBP @ 8808'  
CICR @ 8854'

Perforations  
09/26/2017  
1spf, 0.42", 60deg

8775'-8789'; 14 holes  
8826'-8840'; 14 holes  
8858'-8870'; 12 holes  
40 total holes

Found PBD at 8873 ft

PBD: 8,891 ft  
TD: 8,953 ft



Southland Royalty Company

# PROPOSED

Prepared by: CArnold  
Date: 11/08/2017

KB = 16 ft  
GL = 7,340 ft  
KB = 7,356 ft  
API# 30-039-31362

Spud Date: 08/31/2017  
DK Frac Date: 10/07/2017

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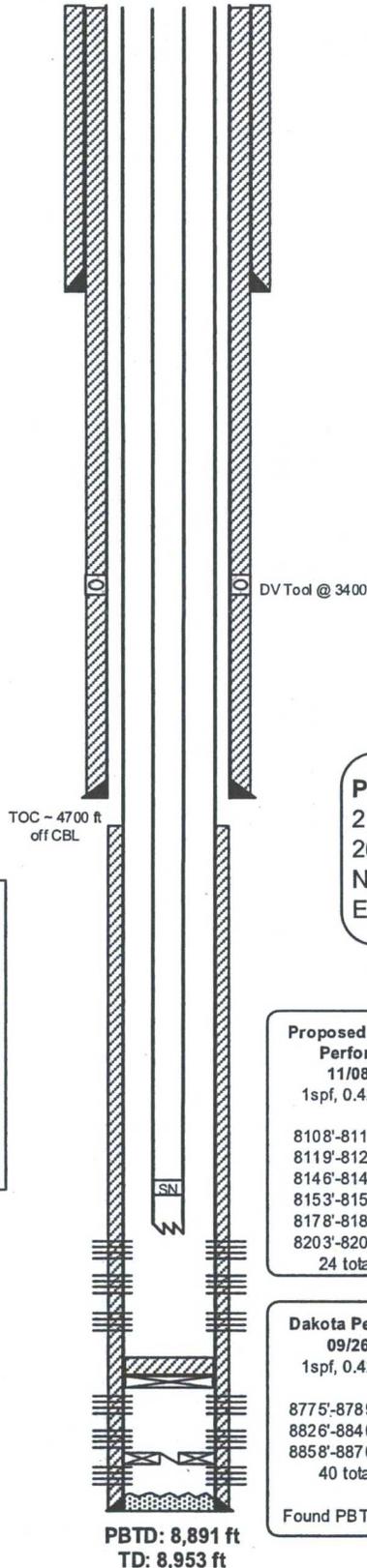
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Cement  
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Mancos Shale	- 7140 ft
Greenhorn	- 8612 ft
Graneros	- 8657 ft
Dakota	- 8763 ft

**Proposed Prod Tbg 11/08/2017:**  
2.375" 4.7# L-80 tbg  
268 jts, 1.78" ID SN,  
NC Tail Jt  
EOT= 8,100' ; SN= 8,069'

**Proposed Mancos B Perforations**  
11/08/2017  
1spf, 0.42", 90deg  
  
8108'-8111'; 4 holes  
8119'-8122'; 4 holes  
8146'-8149'; 4 holes  
8153'-8156'; 4 holes  
8178'-8181'; 4 holes  
8203'-8206'; 4 holes  
24 total holes

**Dakota Perforations**  
09/26/2017  
1spf, 0.42", 60deg  
  
8775'-8789'; 14 holes  
8826'-8840'; 14 holes  
8858'-8870'; 12 holes  
40 total holes  
  
Found PBTD at 8873 ft

**Frac DK - 10/07/2017**  
15% HCl (50 bioballs) - 2500 gal  
Water - 4,916 bbls  
  
100 Mesh - 38,900 lbs  
40/80 Hydroprop LWC - 73,125 lbs  
30/50 CRC - 27,180 lbs  
Total Prop - 139,205 lbs  
  
ATR - 69.5 BPM  
ATP - 4,950 psi  
MTR - 69.8 BPM  
MTP - 5,472 psi  
ISIP - 2,495 psi  
IFG - 0.716 psi/ft  
ISDP - 3,707 psi  
FFG - 0.853 psi/ft

CIBP @ 8740'  
w/ 10' Cmt  
CICR @ 8854'