

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM 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.5. Lease Serial No.
NMSF079488A

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No. **Carson 302**
Multiple--See Attached9. API Well No. **30-039-27816**
Multiple--See Attached10. Field and Pool or Exploratory Area
BASIN FRUITLAND COAL

11. County or Parish, State

RIO ARRIBA COUNTY, NM

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☐ Oil Well ☐ Gas Well ☒ Other: COAL BED METHANE

2. Name of Operator

SOUTHLAND ROYALTY COMPANY LLC
Contact: ERIC KITTINGER
Email: EKITTINGER@MSPARTNERS.COM

3a. Address

400 W 7TH STREET
FORT WORTH, TX 76102

3b. Phone No. (include area code)

Ph: 817-334-8302

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Multiple--See Attached

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

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 recompleat 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 recompleat 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.

Southland Royalty Company LLC requests approval to plug and abandon the Carson #302.
Attached are the Proposed Procedure, WBDs, and Reclamation Plan.

OCD Received
4/15/2020Notify NMOCD 24
Hours prior to
commencing activities

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

**Electronic Submission #500215 verified by the BLM Well Information System
For SOUTHLAND ROYALTY COMPANY LLC, sent to the Farmington
Committed to AFMSS for processing by ALBERTA WETHINGTON on 01/23/2020 (20AMW0145SE)**

Name (Printed/Typed) CONNIE BLAYLOCK

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 01/22/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USEApproved By JOE KILLINSTitle ENGINEERDate 04/14/2020

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 Farmington

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)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Additional data for EC transaction #500215 that would not fit on the form

Wells/Facilities, continued

Agreement	Lease	Well/Fac Name, Number	API Number	Location
NMSF079488A	NMSF079488A	CARSON 302	30-039-27816-00-S1	Sec 31 T30N R4W NWNE 320FNL 1615FEL 36.774516 N Lat, 107.292841 W Lon
	NMSF079488A	FAC 302 CARSON		Sec 31 T30N R4W Mer NMP NWNE 36.774516 N Lat, 107.292841 W Lon

Revisions to Operator-Submitted EC Data for Sundry Notice #500215

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	ABD NOI	ABD NOI
Lease:	NMSF079488	NMSF079488A
Agreement:		
Operator:	SOUTHLAND ROYALTY COMPANY LLC 400 W 7TH ST FORT WORTH, TX 76102 Ph: 817-334-8302	SOUTHLAND ROYALTY COMPANY LLC 400 W 7TH STREET FORT WORTH, TX 76102 Ph: 871.334.8302
Admin Contact:	ERIC KITTINGER REGULATORY SUPERVISOR E-Mail: EKITTINGER@MSPARTNERS.COM Ph: 817-334-8302	ERIC KITTINGER REGULATORY SUPERVISOR E-Mail: EKITTINGER@MSPARTNERS.COM Ph: 817-334-8302
Tech Contact:	CONNIE BLAYLOCK REGULATORY ANALYST E-Mail: CBLAYLOCK@MSPARTNERS.COM Ph: 817-334-7882	CONNIE BLAYLOCK REGULATORY ANALYST E-Mail: CBLAYLOCK@MSPARTNERS.COM Ph: 817-334-7882
Location:		
State:	NM	NM
County:	RIO ARRIBA	RIO ARRIBA
Field/Pool:	BASIN FRUITLAND COAL	BASIN FRUITLAND COAL
Well/Facility:	CARSON 302 Sec 31 T30N R4W 320FNL 1615FEL	CARSON 302 Sec 31 T30N R4W NWNE 320FNL 1615FEL 36.774516 N Lat, 107.292841 W Lon FAC 302 CARSON Sec 31 T30N R4W Mer NMP NWNE 36.774516 N Lat, 107.292841 W Lon

**UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
FARMINGTON DISTRICT OFFICE
6251 COLLEGE BLVD.
FARMINGTON, NEW MEXICO 87402**

Attachment to notice of
Intention to Abandon:

Re: Permanent Abandonment
Well: Carson 302

CONDITIONS OF APPROVAL

1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."
2. Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 564-7750.
3. Ensure all plugs cover 50 feet above below indicated formation tops with plugs meeting General requirements. Minimum inside plug to include 50' excess cement. See attached BLM geologic report.
 - a. Adjust plug 4 to cover 4220 – 4120 ft plus additional 50 ft excess plug volume. Approximately 29 sx total cement required. BLM Fruitland top (4170 ft md).
 - b. Add an additional plug to cover Nacimiento/Animas formation top. cover 2698-2598 ft plus additional 50 ft excess plug volume. Approximately 29 sx total cement required. BLM Nacimiento top (2648 ft md).

**GENERAL REQUIREMENTS FOR
PERMANENT ABANDONMENT OF WELLS ON FEDERAL AND INDIAN LEASES
FARMINGTON FIELD OFFICE**

1.0 The approved plugging plans may contain variances from the following minimum general requirements.

1.1 Modification of the approved plugging procedure is allowed only with the prior approval of the Authorized Officer, Farmington Field Office.

1.2 Requirements may be added to address specific well conditions.

2.0 Materials used must be accurately measured. (densometer/scales)

3.0 A tank or lined pit must be used for containment of any fluids from the wellbore during plugging operations and all pits are to be fenced with woven wire. These pits will be fenced on three sides and once the rig leaves location, the fourth side will be fenced.

3.1 Pits are not to be used for disposal of any hydrocarbons. If hydrocarbons are present in the pit, the fluids must be removed prior to filling in.

4.0 All cement plugs are to be placed through a work string. Cement may be bull-headed down the casing with prior approval. Cement caps on top of bridge plugs or cement retainers may be placed by dump bailer.

4.1 The cement shall be as specified in the approved plugging plan.

4.2 All cement plugs placed inside casing shall have sufficient volume to fill a minimum of 100' of the casing, or annular void(s) between casings, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.

4.3 Surface plugs may be no less than 50' in length.

4.4 All cement plugs placed to fill annular void(s) between casing and the formation shall be of sufficient volume to fill a minimum of 100' of the annular space plus 100% excess, calculated using the bit size, or 100' of annular capacity, determined from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.

4.5 All cement plugs placed to fill an open hole shall be of sufficient volume to fill a minimum of 100' of hole, as calculated from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug. In the absence of a caliper log, an excess of 100% shall be required.

4.6 A cement bond log or other accepted cement evaluation tool is required to be run if one had not been previously ran or cement did not circulate to surface during the original casing cementing job or subsequent cementing jobs.

5.0 All cement plugs spotted across, or above, any exposed zone(s), when; the wellbore is not full of fluid or the fluid level will not remain static, and in the case of lost circulation or partial returns during cement placement, shall be tested by tagging with the work string.

- 5.1 The top of any cement plug verified by tagging must be at or above the depth specified in the approved plan, without regard to any excess.
- 5.2 Testing will not be required for any cement plug that is mechanically contained by use of a bridge plug and/or cement retainer, if casing integrity has been established.
- 5.3 Any cement plug which is the only isolating medium, for a fresh water interval or a zone containing a prospectively valuable deposit of minerals, shall be tested by tagging.
- 5.4 If perforations are required below the surface casing shoe, a 30 minute minimum wait time will be required to determine if gas and/or water flows are present. If flow is present, the well will be shut-in for a minimum of one hour and the pressure recorded. Short or long term venting may be necessary to evacuate trapped gas. **If only a water flow occurs with no associated gas, shut well in and record the pressures. Contact the Engineer as it may be necessary to change the cement weight and additives.**

6.0 Before setting any cement plugs the hole needs to be rolled. All wells are to be controlled by means of a fluid that is to be of a weight and consistency necessary to stabilize the wellbore. This fluid shall be left in place as filler between all plugs.

- 6.1 Drilling mud may be used as the wellbore fluid in open hole plugging operations.
- 6.2 The wellbore fluid used in cased holes shall be of sufficient weight to balance known pore pressures in all exposed formations.

7.0 A blowout preventer and related equipment (BOPE) shall be installed and tested prior to working in a wellbore with any exposed zone(s); (1) that are over pressured, (2) where the pressures are unknown, or (3) known to contain H₂S.

8.0 Within 30 days after plugging work is completed, file a Sundry Notice, Subsequent Report of Abandonment (Form 3160-5), five copies, with the Field Manager, Bureau of Land Management, 6251 College Blvd., Suite A, Farmington, NM 87402. The report should show the manner in which the plugging work was carried out, the extent, by depth(s), of cement plugs placed, and the size and location, by depth(s), of casing left in the well. Show date well was plugged.

9.0 All permanently abandoned wells are to be marked with a permanent monument as specified in 43 CFR 3162.6(d). Unless otherwise approved.

10.0 If this well is located in a Specially Designated Area (SDA), compliance with the appropriate seasonal closure requirements will be necessary.

All of the above are minimum requirements. Failure to comply with the above conditions of approval may result in an assessment for noncompliance and/or a Shut-in Order being issued pursuant to 43 CFR 3163.1. You are further advised that any instructions, orders or decisions issued by the Bureau of Land Management are subject to administrative review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4 and 43 CFR 4.700.

BLM FLUID MINERALS Geologic Report

Date Completed: 4/9/20

Well No.	Carson # 302		Location	320'	FNL	&	1615'	FEL
Lease No.	NMSF079488		Sec. 31	T30N			R4W	
Operator	Southland		County	Rio Arriba		State	New Mexico	
Total Depth	4216'	PBTD 8362'	Formation Basin Fruitland Coal					
Elevation (GL) 7548'			Elevation (KB) 7560' (est.)					

Geologic Formations	Est. Top	Est. Bottom	Log Top	Log Bottom	Remarks
San Jose Fm			Surface	2648'	Surface/Fresh water sands
Nacimiento/Animas Fm			2648'	3635'	Fresh water sands
Ojo Alamo Ss			3635'	3865'	Aquifer (fresh water)
Kirtland Shale			3865'	4170'	
Fruitland Fm			4170'	4285'	Coal/Gas/Possible water
Pictured Cliffs Ss			4285'	4310'	Gas
Lewis Shale			4310'	6105'	
Chacra (upper)					Probable water or dry
La Ventana Tongue					Probable water or dry
Cliff House Ss (main)			6105'		Water/Possible gas
Menefee Fm					Coal/Ss/Water/Possible O&G
Point Lookout Ss			6655'		Probable water/Possible O&G
Mancos Shale					Source rock
Gallup					O&G/Water
Dakota					O&G/Water

Remarks:

P & A

- Please note that the BLM geologist's picks for the Fruitland and Lewis Shale formation tops vary from the operator's picks

- If adjusted for the BLM tops, the proposed plugging plan will protect resources in the Ojo Alamo, Fruitland, and Pictured Cliffs formations.

- The TD and PBTD are for the horizontal dimensions of this well. The vertical portion of this well was previously plugged back to just below the depth at which the horizontal portion exits the wellbore and will be properly plugged with the proposed P&A plan.

Reference Well:

1)Southland Fm. Tops
SJ 30-4 Unit # 28
1700' FNL, 890' FEL
T30N, R4W, Sec 31
GL= 7571'

Prepared by: Walter Gage

PROPOSED P&A PROCEDURE

CARSON 302

1. MIRU.
2. POOH w/ rods and tubing.
3. Run a casing scraper to 4,900'
4. Set CIBP @ 4,900'
5. Spot 20 sx Class B Cement on top of plug. (est'd TOC @ 4,800). WOC. Tag TOC.
6. RU and run CBL.
7. Circulate hole with mud laden fluid.
8. Spot balanced cement plug from 4,500' – 4,600' with 20 sx Class B cement. WOC. Tag TOC.
9. Spot balanced cement plug from 4,200' – 4,350' with 30 sx Class B cement. WOC. Tag TOC.
10. Spot balanced cement plug from 4,000' – 4,100' with 20 sx Class B cement. WOC. Tag TOC.
11. Spot balanced cement plug from 3,600' – 3,900' with 60 sx Class B cement. WOC. Tag TOC.
12. Perforate 3 holes @ 285'.
13. Pump 110 sx Class B Cement to fill annulus up through bradenhead and production casing string to surface. If unable to circulate, top off as needed.
14. Cut off wellhead below surface casing flange. Install P&A marker.

Carson 302

Rio Arriba County, NM

API 30-039-27816

Prepared By: DMP
Updated: 09-05-2019
Spud Date: 07-02-2008
Completed: 10-31-2008

Ojo Alamo: 3,635'
Kirtland Shale: 3,865'
Fruitland: 4,070'

GL: 7,548'

12-1/4" HOLE

Sfc Csg: 9-5/8",
32.3#, H-40, STC csg
set @ 233'
Cmt w/ 150 sx Class G.
Circ 15 bbls to sfc.

Sept. 2009

Tubing: 2-3/8" landed at 4934'; SN @ 4904'

Rods: 2x1-1/2x16 RWAC, 1.25" K-bar, 1.25"
stabilizer, 1.25" K-bar, 1.25" Stabil, 1.25"
Kbar, 1.25" stabil, 1.25" K-bar, 1.25" Stabil,
1.25" Kbar, 1.25" stabil, 1.25" K-bar,
disconnect, 4650' 3/4" pro-rod, 1 - 3/4" pro-rod,
PR

8-3/4" HOLE

Int. Csg: 7" 23# J-55

LTC @ 5,198'

1st Stage cmt w/ 87 sx
Halliburton Prem Lite 65/
35 & 125 sx Class G. No
cmt to sfc.

2nd Stage cmt w/ 630 sx
Halliburton Lite 65/35.
No cmt to sfc. TOC @
1,143' by CBL.

6-1/4" HOLE

LINER: 5-1/2" 17#

J-55 from 4,760'

– 5,660'

Cmt w/ 75 sx.

Circulated.

LINER with OH Packers:

3-1/2" 9.3# L-80 from 5,464' – 8,256'. With OH Packers @ 8208', 8135', 8130',
7664', 7231', 6801', 6336', & 5900'. Casing packer @ 5601'. Permanent
packer @ 5465' (all depths MD)

MD: 8,363'
TVD: 4,215'

Drill pipe cemented in
place – left in hole.
Backed off at 4988'. Set
CIBP @ 4973'. Milled
window in the 7" from
4954' - 4962'

Perforated Intervals:

6,136' – 8,173'

Frac Ports between OH packers

Equ: 3 spf, total 18 holes

Carson 302

Rio Arriba County, NM

API 30-039-27816

GL: 7,548'

Prepared By: DMP
Updated: 09-05-2019
Spud Date: 07-02-2008
Completed: 10-31-2008

Ojo Alamo: 3,635'
Kirtland Shale: 3,865'
Fruitland: 4,070'
Picture Cliffs: 4,285'
Lewis: 4,580'

