

State of New Mexico
Energy, Minerals and Natural Resources Department

Michelle Lujan Grisham
Governor

Sarah Cottrell Propst
Cabinet Secretary

Todd E. Leahy, JD, PhD
Deputy Secretary

Adrienne Sandoval, 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: 1/23/2020

Well information:

30-039-30158 SAN JUAN 30 4 UNIT #105

SOUTHLAND ROYALTY COMPANY LLC

Application Type:

☒ P&A ☐ Drilling/Casing Change ☐ Location Change

☐ Recomplete/DHC (For hydraulic fracturing operations review EPA Underground injection control Guidance #84; Submit Gas Capture Plan form prior to spudding or initiating recompletion operations)

☐ Other:

Conditions of Approval:

- Notify NMOCD 24 Hours prior to commencing activities
- In addition to BLM-approved plugs
 - Include a plug 4190'-4090.' OCD P.C. pick @ 4140.'
 - Include a plug 4062'-3962.' OCD Fruitland pick @ 4012.'
 - Include plug 3570'-3925.' OCD Kirtland pick @ 3875,' Ojo Alamo pick @ 3620.'
 - Include plug 2555'-2445.' OCD Nacimiento pick @ 2505.'

Brandon Panell
NMOCD Approved by Signature

6/4/2020

Date

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTOCD Received
4/22/2020FORM 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.
NMSF079485A

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

1. Type of Well

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

8. Well Name and No.

SAN JUAN 30-4 UNIT 105

2. Name of Operator

SOUTHLAND ROYALTY COMPANY LLC

Contact: ERIC KITTINGER

Email: EKITTINGER@MSPARTNERS.COM

9. API Well No.

30-039-30158-00-S1

3a. Address

400 W 7TH STREET
FORT WORTH, TX 76102

3b. Phone No. (include area code)

Ph: 817-334-8302

10. Field and Pool or Exploratory Area
BASIN FRUITLAND COAL

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

Sec 18 T30N R4W SESW 1180FSL 1965FWL
36.807658 N Lat, 107.295773 W Lon

11. County or Parish, State

RIO ARRIBA COUNTY, NM

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
	<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 San Juan 30-4 Unit #105.
Attached are the Proposed Procedure, WBDs, and Reclamation Plan.

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

Electronic Submission #500437 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 01/24/2020 (20AMW0150SE)

Name (Printed/Typed) CONNIE BLAYLOCK

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 01/23/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By JOE KILLINS

Title ENGINEER

Date 04/22/2020

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 ****

AV

**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.

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: SJ 30-4 105

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. Submit electronic copy of the CBL for verification to the following addresses: jkillins@blm.gov , jhoffman@blm.gov and Brandon.Powell@state.nm.us . Based on CBL review inside/outside plugs and volumes may be adjusted accordingly. Please review the General Requirements document to ensure volumes meet required excess inside and outside casing.
 - a. BLM tops are based on the attached geologic report. Plugs will be adjusted based on cement coverage indicated by the CBL. Do not proceed with any plugging operations prior to reviewing CBL results with BLM and revising plug depths.
4. Ensure all plugs cover 50 feet above and below indicated formation tops with plugs meeting General requirements. Minimum inside plug to include 50' excess cement. See attached BLM geologic report.

PROPOSED P&A PROCEDURE

SAN JUAN 30-4 UNIT #105

1. MIRU.
2. POOH w/ tubing.
3. Run a casing scraper to 4,400'
4. Set CIBP @ 4,400'
5. Spot 8 sx Class B Cement on top of plug. (est'd TOC @ 4,300). WOC. Tag TOC.
6. RU and run CBL.
7. Circulate hole with mud laden fluid.
8. Spot balanced cement plug from 3,655' – 3,755' with 8 sx Class B cement. WOC. Tag TOC.
9. Spot balanced cement plug from 3,445' – 3,545' with 8 sx Class B cement. WOC. Tag TOC.
10. Spot balanced cement plug from 2,318' – 2,418' with 8 sx Class B cement. WOC. Tag TOC.
11. Spot balanced cement plug from 340' to surface with 28 sx cement. Ensure cement at surface on all strings of casing.
12. Cut off wellhead below surface casing flange. Install P&A marker.

BLM FLUID MINERALS Geologic Report

Date Completed: 4/14/20

Well No.	San Juan 30-4 Unit # 105		Location	1180'	FSL	&	1965'	FWL
Lease No.	NMSF079485A		Sec. 18	T30N			R4W	
Operator	Southland		County	Rio Arriba		State	New Mexico	
Total Depth	4748' MD	PBTD 4700' MD	Formation	Basin Fruitland Coal				
Elevation (GL) 7423'			Elevation (KB) 7436' (est.)					

Geologic Formations	Est. Top	Est. Bottom	Log Top	Log Bottom	Remarks
San Jose Fm			Surface	2360'	Surface/Fresh water sands
Nacimiento/Animas Fm			2360'	3510'	Fresh water sands
Ojo Alamo Ss			3510'	3730'	Aquifer (fresh water)
Kirtland Shale			3730'	3970'	
Fruitland Fm			3970'	4160'	Coal/Gas/Possible water
Pictured Cliffs Ss			4160'	4250'	Gas
Lewis Shale			4250'		
Chacra (upper)					Probable water or dry
La Ventana Tongue					Probable water or dry
Cliff House Ss (main)					Water/Possible gas
Menefee Fm					Coal/Ss/Water/Possible O&G
Point Lookout Ss					Probable water/Possible O&G
Mancos Shale					Source rock
Gallup					O&G/Water
Dakota					O&G/Water

Remarks:

P & A

- The subject well is a non-vertical sidetrack. The P&A procedure lacks any submitted formation top depths, either in measured (MD) or true vertical depth (TVD). The depths listed in the schematic diagram are a mixture of measured depths and true vertical depths. The formation tops in this report are TVD and the operator must ensure that the plugs are placed at the correct vertical depths.

- Please ensure that the tops of the Pictured Cliffs, Fruitland, and Nacimiento formations as well as the entire Ojo Alamo aquifer, identified in this report, are isolated by proper placement of cement plugs. This will protect the freshwater sands in this well bore.

Reference Well:

1) Burlington
SJ 30-4 Unit # 7
800' FSL, 800' FEL
T30N, R4W, Sec 18
GL= 7425'

Fm. Tops

Prepared by: Walter Gage



Southland Royalty Company LLC

PROPOSED P&A

GL = 7,423 ft
KB = 7,438 ft
API# 30-039-30158

San Juan 30-4 Unit #105 Rio Arriba County, NM

Spud Date: 09/12/2008

First Vertical Sidetrack: 04/19/2009

Second Vertical Sidetrack: 05/09/2009

Mainbore: TD @ 4219'; Fish @ 3914'; PBDT @ 3840'
Vertical Sidetrack: TD - 4,269' MD; PBDT - 4,264'
Horizontal Sidetrack: TD - 5,831' MD; PBDT - 5,800' MD

17.5" hole to 285'
Conductor Csg: 6 jts 13.375" 48# H-40 LT&C
Setting Depth: 284'

Cement
265sx Class G, 1/4#/sx flocele, 2% CaCl2
Circulate 5 bbls to surface

8.75" hole to 4610'
Intermediate Csg: 112 jts 7.0" 23# J-55 LT&C
Setting Depth: 4160'

Cement
First stage: 150sx 65/35 Class G, 5#/sx gilsonite, 1/4#/sx flocele
Circulate 38 bbls to surface
Circulating between stages
Second Stage: 575sx Class G 65/35 cmt 2% CaCl2, 10#/sx gilsonite, 1/4#/sx flocele
Circulate 55 bbls to surface

Set temporary plug in the 7" 23 ppf intermediate casing, due to drilling restrictions, continue drilling 4/1/2009

Began drilling lateral w/ 6.25" bit, BHA stuck at 5249'. Backed off drill pipe at 4409', set 7" plug at 4200'. Load 7" with 100bbls 2% CaCl2 with EE-6 BACT & ANHIB II packer fluid. RIH 32 jts 2.375" killstring, no BOP

Bridge plug set at 431674098' MD/TV.D. Now sidetracking well due to economic constraints.

12.25 Hole to 2000'
Surface Csg: 44 jts 9.625" 32.3# H-40 ST&C
Setting depth: 2000'

Cement
Lead: 390sx light premium, 1/4#/sx flocele, 2% CaCl2
Tail: 380sx class G 1/4#/sx flocele
Cement 20 bbls to surface

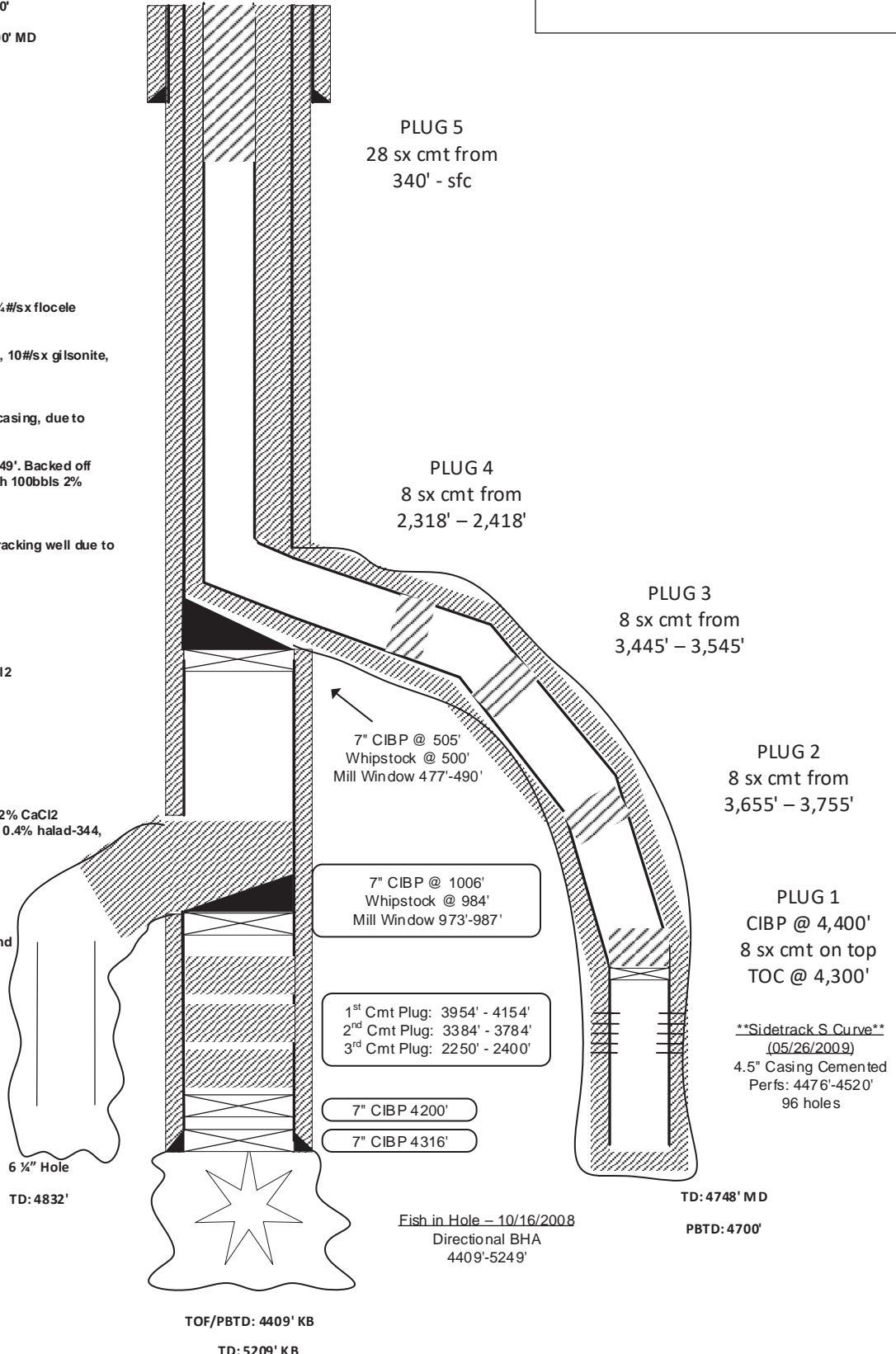
6.25" hole to 4748'
112 jts 4.5" 11.6# J-55 LT&C casing
Setting depth: 4746'

Cement
Lead: 320sx class G 10#/sx gilsonite, 1/4#/sx flocele, 2% CaCl2
Tail: 220sx class G, 1% bentonite, 0.2% defoamer, 0.4% halad-344, 5#/sx gilsonite, 1/4#/sx flocele
TOC 1200' from CBL

Perf Fruitland 4476'-4482', 4502'-4520'
96 holes, 4 SPF
Acidized w/ 1000 gal 15# HCL
Frac w/ 103,371 gal Delta 140 & 102,700# 20/40 sand

Abandon First Sidetrack 05/08/2009

5.5" csg in hole, TOF @ 1700'
Pump first cmt plug 1300'-1500'
40sx class G
Second cmt plug 900'-1100'
40sx class G





Southland Royalty Company LLC

San Juan 30-4 Unit #105 Rio Arriba County, NM

Mainbore: TD @ 4219'; Fish @ 3914'; PBDT @ 3840'
Vertical Sidetrack: TD - 4,269' MD; PBDT - 4,264'
Horizontal Sidetrack: TD - 5,831' MD; PBDT - 5,800' MD

17.5" hole to 285'
Conductor Csg: 6 jts 13.375" 48# H-40 LT&C
Setting Depth: 284'

Cement
265sx Class G, 1/4#/sx flocele, 2% CaCl2
Circulate 5 bbls to surface

8.75" hole to 4610'
Intermediate Csg: 112 jts 7.0" 23# J-55 LT&C
Setting Depth: 4160'

Cement
First stage: 150sx 65/35 Class G, 5#/sx gilsonite, 1/4#/sx flocele
Circulate 38 bbls to surface
Circulating between stages
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Cement 20 bbls to surface

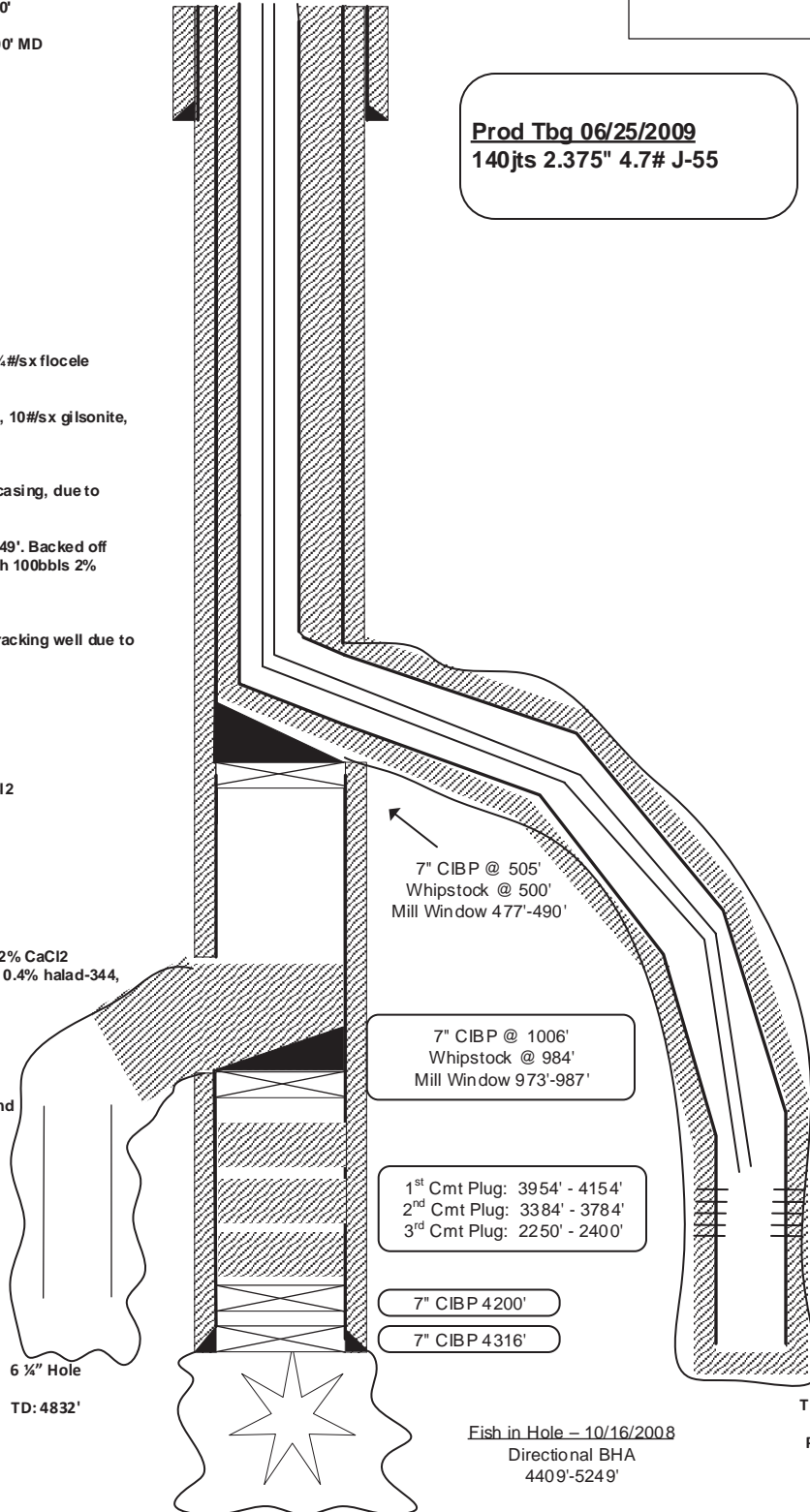
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TOC 1200' from CBL

Perf Fruitland 4476'-4482', 4502'-4520'
96 holes, 4 SPF
Acidized w/ 1000 gal 15# HCL
Frac w/ 103,371 gal Delta 140 & 102,700# 20/40 sand

Abandon First Sidetrack 05/08/2009

5.5" csg in hole, TOF @ 1700'
Pump first cmt plug 1300'-1500'
40sx class G
Second cmt plug 900'-1100'
40sx class G



Prod Tbg 06/25/2009
140jts 2.375" 4.7# J-55

Prepared by: SThompson
Date: 01/11/2019

GL = 7,423 ft
KB = 7,438 ft
API# 30-039-30158

Spud Date: 09/12/2008
First Vertical Sidetrack: 04/19/2009
Second Vertical Sidetrack: 05/09/2009

****Sidetrack S Curve****
(05/26/2009)
4.5" Casing Cemented
Perfs: 4476'-4520'
96 holes

P&A RECLAMATION PLAN
San Juan 30-4 Unit #105

Reclamation will be deferred due to the San Juan 30-4 Unit #105 being a twin pad with the San Juan 30-4 Unit #41. Reclamation will be completed when the San Juan 30-4 Unit #41 is plugged & abandoned.