

Form 3160-5
(August 2007)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010**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.
NMNM 0025585B

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE – Other instructions on page 2.

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
Shell Oil Company (Western Division)3a. Address
P.O. Box 576, Houston, TX 772103b. Phone No. (include area code)
(832) 337-24347. If Unit of CA/Agreement, Name and/or No.
Cato San Andres Unit8. Well Name and No.
Cato San Andres Unit #1849. API Well No.
30-005-2024310. Field and Pool or Exploratory Area
Cato; San Andres4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
D-03-09S-30E Lot: 4 660 FNL 560 FWL11. Country or Parish, State
Chaves County, New Mexico, USA

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input 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 checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<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.)

Please refer to the attached Plug and Abandonment End of Well Report.

Accepted for Record

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Samantha Baker

Title SGWS Legacy Program Manager

Signature

Samantha Baker

Date

01/27/2025

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title Petroleum Engineer

Date 01/28/2025

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 RFO

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)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13 - Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment.

NOTICES

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

LANGAN**Technical
Memorandum**

300 Union Boulevard, Suite 405 Lakewood, CO 80228 T: 303.262.2000 F: 303.262.2001

To: BLM

From: Langan

Info: Shell

Date: January 17, 2025

Re: Plug and Abandonment – End of Well Report
Cato San Andres Unit #184 / API 30-005-20243
Section 3, Township 9S, Range 30E
Langan Project No.: 781014301

Work Summary:

08/16/24 – Arrived at well 184 location, conducted air quality check and Safety Meeting. Opened 4 1/2" tubing with 0 psi and 0 gas readings. Trenched area for hot tap operations, rigged up to fill with H2O. Filled 4 1/2" with 5 bbls H2O by gravity. Welded collar on 2" bull plug on surface casing, let cool, installed 1 - 2" 2000 psi ball valve. Rigged up Hot Tap machine. Tested to 225 psi, began Hot tap operations with 1/2" bit. Passed through bull plug, retracted bit with 0 psi and 0 gas readings. Rigged down Hot tap machine, installed tapped bull plug. Cut 4 1/2" casing above wellhead, 4 1/2" casing in fair condition, welded on slip collar. Allowed to cool. Began installation of 4 1/2" swedge + 2 - 2" 2000 psi ball valves on 4 1/2". Removed bull plug from opposite side of hot tap, installed 2 - 2" 2000 psi ball valves and tapped plug. Rigged down equipment and prepared move to #179.

12/09/24 - Crew traveled. Inspected equipment and work areas. PJSM - discussed Equipment Inspections, 7 Step, JSA review, overhead lifts and stop work authority, discussed rig move operations. RD WOR off Well #176. Moved all equipment off #176 and onto well #184. Spotted in and RU all equipment except WOR due to wind. Checked pressures, 0 psi on 4 1/2" and 8 5/8". Pressure tested BOP and nipped up. Shut well in and SDFN.

12/10/24 – Crew traveled. PJSM - discussed Equipment Inspections, 7 Step, JSA review, overhead lifts and stop work authority, discussed rig move operations. Inspected equipment and work areas. NPT- waited on weather. Rigged up WOR, working floor and tubing equipment. Made up 3 7/8" tricone and RIH with workstring. EOT at 3389', below CIBP depth and above top perf

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depth. Made calls to management. Laid down 1 joint and POOH with 53 stands in derrick. NPT-Drake, pulled 26 joints and broke brake band on tubing tongs, waited on parts and repair. Continued POOH with tubing. Shut well in and SDFN.

12/11/24 – Crew traveled. PJSM - discussed Equipment Inspections, 7 Step, JSA review, overhead lifts and stop work authority, discussed daily operations. Inspected equipment and work areas, WHP: 4 1/2"=0psi, 8 5/8"=0psi. Made up CIBP and RIH with workstring. Set CIBP at 3359' without issue. Broke circulation with 37 bbls away, pumped total of 52 bbls to clean up wellbore. Attempted to pressure test 4 1/2" casing to 500 psi for 5 minutes, got to 270 psi and began pumping into something at 1.5 bpm. POOH with tubing. RU wireline, pressure tested lubricator to 1500 psi, RIH to perform CBL. Out of hole with logging tools, sent log to Shell and waited on orders. RD wireline. RIH with tag tool to top of CIBP at 3359', prepped to pump plug #1. Pumped cement plug #1: 10 bbls FW spacer + 30 sacks, 6.3 bbls type 1/2 cement with 1.18 yield at 15.6 ppg + 11.2 bbls displacement, POOH with tubing (Estimated plug: 2963' - 3359', 396' plug). POOH with tubing. Out of hole with tubing, shut well in and SDFN.

12/12/24 – Crew traveled. PJSM - discussed Equipment Inspections, 7 Step, JSA review, overhead lifts and stop work authority, discussed daily operations. Inspected equipment and work areas, WHP: 4 1/2"=0 psi, 8 5/8"=10 psi (Bled off). Made up 3.06" tag tool, RIH with tubing and tagged TOC at 2897' (Good tag). Attempted to pressure test 4 1/2" casing, pumped 4 bbls to fill, started injecting with 1.2 bpm at 165 psi (Bad test). Prepped to pump cement plug #2, batched up cement and densometer on truck not reading correctly. Began NPT on Drake, pumped off cement to tank, POOH with tubing and waited on mechanic to fix truck issue. NPT-Drake, superintendent, and mechanic on location, RIH with tubing to TOC at 2897'. Off NPT, recalibrated densometer on cement truck. Broke circulation with 5 bbls and batched up cement. Verified densometer and rig scale match up, densometer at 15.4 ppg, scale reading 15.6 ppg, weighed several times and confirmed readings, got circulation up the 8 5/8". Pumped cement plug #2: 10 bbls FW spacer + 57 sacks, 11.9 bbls type 1/2 cement with 1.18 yield at 15.6 ppg + 8 bbls displacement, POOH with tubing (Estimated plug: 2147' - 2897', 750' plug). POOH with tubing, LD 25 joints, stood back 33 stands. Shut well in, SDFN.

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12/13/24 – Crew traveled. PJSM - discussed Equipment Inspections, 7 Step, JSA review, overhead lifts and stop work authority, discussed daily operations. Inspected equipment and work areas, WHP: 4 1/2"=0 psi, 8 5/8"= on vacuum. Made up 3.06" tag tool, RIH with tubing and tagged TOC at 1956' (191' high). Discussed with Shell engineer, BLM and state about tagging so high, double checked densometer and bbl in/bbl out on new cement truck. Decision made to pump plug #3. Broke circulation with 2.5 bbls away, circulation up 4 1/2" and 8 5/8", shut in 8 5/8" and prepped to pump cement. Pumped cement plug #3: 10 bbls FW spacer + 24 sacks, 5 bbls type 1/2 cement with 1.18 yield at 15.6 ppg and 2% calcium chloride + 6 bbls displacement, POOH with tubing (Estimated plug: 1631' - 1956', 325' plug). Out of hole with tubing, WOC. RIH and tagged TOC at 1584' (47' high). POOH with tubing. Shut well in, SDFN.

12/14/24 – Crew traveled. PJSM - discussed Equipment Inspections, 7 Step, JSA review, overhead lifts and stop work authority, discussed daily operations. Inspected equipment and work areas, WHP: 4 1/2"=0 psi, 8 5/8"= on vacuum. RU wireline, pressure tested to 1500 psi, RIH and perforated at 1578'-1580', WL POOH and rigged down. Pumped cement plug #4: 10 bbls FW spacer + 57 sacks, 11.9 bbls type 1/2 cement with 1.18 yield at 15.6 ppg with 2% CC + 2.5 bbls displacement, POOH with tubing (Estimated plug: 834' - 1584', 750' plug). RIH to tag TOC at 907'. Broke circulation with 0.5 bbls and prepped to pump plug #5. Pumped cement plug #5: 10 bbls FW spacer + 38 sacks, 7.9 bbls type 1/2 cement with 1.18 yield at 15.6 ppg + 1 bbl displacement, POOH with tubing (Estimated plug: 407' - 907', 500' plug). POOH with tubing laying down 28 joints. Out of hole, shut well in and SDFN to WOC.

12/15/24 – Crew traveled. Inspected equipment and work areas, WHP: 4 1/2"=0 psi, 8 5/8"= 0 psi. PJSM - discussed Equipment Inspections, 7 Step, JSA review, overhead lifts and stop work authority, discussed daily operations. Made up 3.06" tag tool and RIH to tag TOC at 448', verified with BLM approval to perforate and pump surface plug. POOH with tubing. RU wireline, pressure tested lubricator to 1500 psi, RIH and perforated 4 1/2" at 316'-319', POOH and rigged down. RIH with tubing and prepped to pump surface plug, broke circulation with 1.5 bbls up the 8 5/8", circulated clean, EOT at 448'. Pumped surface plug between 4 1/2" x 8 5/8" casing to surface, pumped surface plug up the 4 1/2" casing to surface with 177 sacks total (145 sks annulus and 32 sks prod csg), 37.1 bbls with type 1/2 cement with 1.18 yield at 15.6 ppg, POOH with tubing.

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With 1 joint in hole, topped off the 4 1/2" casing to surface. Cleaned up all surface equipment. Began RDMO and ND BOP. Transmission leak while RD WOR, guyed out rig, waited on mechanic, moved available equipment. Crew traveled.

01/08/25 – Completed PJSM with Drake crew and personnel on location, conducted spiral gas check. Checked gas and well pressures. Dug cellar 3 ft down using backhoe. Cement observed at surface in both strings. Installed P&A marker per all local regulations. Backfilled location.



Plug & Abandonment Program
Revision: 0

Cato San Andres Unit 184
D-3-9S-30E
Chaves County, NM

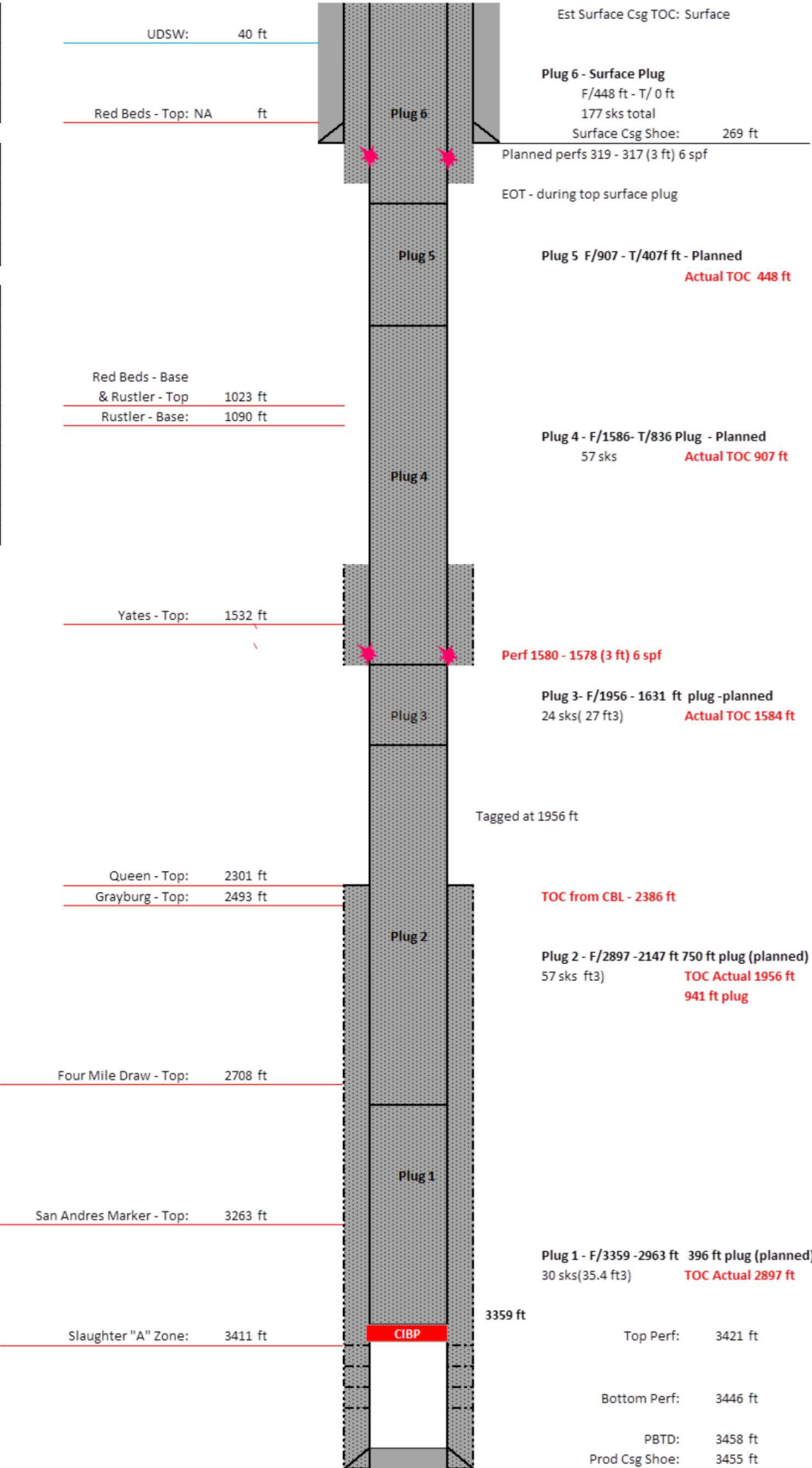
NEW MEXICO - CSAU 184 - WELLBORE SCHEMATIC

Location (Unit-Sec-Twp-Range):	D-3-9S-30E	API: 30-005-20243
Surface Hole Latitude:	33.6035156	
Surface Hole Longitude:	-103.8754578	GL (ft): 0
Bottom Hole Location:	Vertical Well	KB (ft): 10

Surface Casing Information	
Size (in):	8.625
Weight (lb/ft):	24
Grade:	N/A
Hole Size (in):	12.25
Setting Depth:	269

Production Casing Information	
Size (in):	4.5
Weight (lb/ft):	10.5
Grade:	N/A
Hole Size (in):	7.875
Setting Depth:	3455

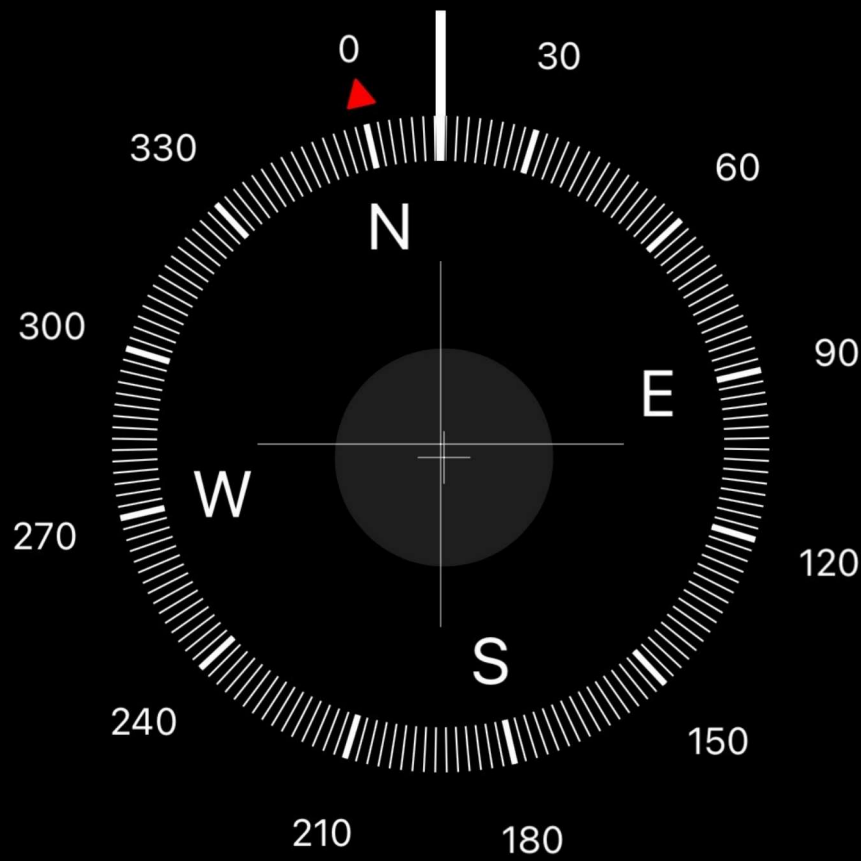
Formation Depth Information	
Formation	MD (ft)
UDSW	40
Red Beds - Top	NA
Red Beds - Base	983
Rustler - Top	1023
Rustler - Base	1090
Yates - Top	1532
Queen - Top	2301
Grayburg - Top	2493
Four Mile Draw - Top	2708
San Andres Marker - Top	3263
Slaughter "A" Zone	3411





2:00

LTE



13° N

33°34'2" N 103°52'32" W

Roswell, NM

4100 ft Elevation

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/oed/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 428362

CONDITIONS

Operator: CANO PETRO OF NEW MEXICO, INC. 801 Cherry Street Fort Worth, TX 76102	OGRID: 248802
	Action Number: 428362
	Action Type: [C-103] Sub. Plugging (C-103P)

CONDITIONS

Created By	Condition	Condition Date
loren.diede	None	2/6/2025