

Form 3160-5 (June 2015)	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT	FORM APPROVED OMB No. 1004-0137 Expires: January 31, 2018
SUNDRY NOTICES AND REPORTS ON WELLS <i>Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.</i>		5. Lease Serial No. NMNM 0022636
		6. If Indian, Allottee or Tribe Name N/A

SUBMIT IN TRIPLICATE - Other instructions on page 2		7. If Unit of CA/Agreement, Name and/or No. Cato San Andres Unit
1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		8. Well Name and No. Cato San Andres Unit #139
2. Name of Operator Shell Oil Company (Western Division)		9. API Well No. 30-005-20131
3a. Address P.O. Box 576, Houston, TX 77210	3b. Phone No. (include area code) (832) 337-2434	10. Field and Pool or Exploratory Area Cato; San Andres
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description) K-22-08S-30E 1980 FSL 1980 FWL		11. 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 type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity	
	<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	<input type="checkbox"/> Other	
<input type="checkbox"/> Final Abandonment Notice	<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 recompleate 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 perfonned 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 detennined 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 Legacy Program Manager
Signature	Date 08/20/2025

THE SPACE FOR FEDERAL OR STATE OFFICE USE		
Approved by	Title Petroleum Engineer	Date 08/21/2025
	Office RFO	

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.

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. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

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: Bureau of Land Management (BLM)

From: Langan

Info: Shell Oil Company (Western Division)

Date: August 8, 2025

Re: Plug and Abandonment – End of Well Report
Cato San Andres Unit #139 / API 30-005-20131
Section 22, Township 8S, Range 30E
Langan Project No.: 781014301

Work Summary:

05/07/25 – NPT due to BLM Prairie Chicken Restrictions from 0600-0800. Held pre-job safety meeting. MIRU Drake Well Services Rig 26. Perform derrick/DROPS inspection prior to standing up derrick. Load and tally 2.375" work string and confirm 0 PSI on 9.625" surface casing, 4.5" production casing and tubing. SDFN.

05/08/25 – NPT due to BLM Prairie Chicken Restrictions from 0600-0800. Held pre-job safety meeting - discussed Exclusion Zones, AAR, equipment inspections, JSA review. Conducted Haz Hunt with crew, and conducted table top drill - H2S at surface. Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" 0 PSI from 0900 to 0936. MIRU cement pump to 4.5" prod casing. Open 4.5" prod casing and pumped 5 bbls fresh water at 3 bpm. Well went on vacuum. Monitor pressure for 30 min (0936-1006). Pull stuffing box and pick up on prod tubing - 6,000 lbs. Pull polished rod and pony rod. Set floor, MU rod bop and rod table. From 1030-1210: TOOH with rods, and pump, scan for NORM. 119-3/4" rods, 21-7/8" rods, 3-6' pony rods and polished rod. RD rod retrieval equipment, stab TIW valve and make rig ready to pull tubing from 1210 to 1300. Stump test BOP - 250 PSI low test and 800 PSI high test 1300-1330. Perform draw down test on closing unit. RD existing wellhead and RU rig wellhead. NU rig BOP. RU rig floor, pick up tongs and set slips. Perform housekeeping. Well secure, SDFN.

05/09/25 – NPT due to BLM Prairie Chicken Restrictions from 0600-0800. Held pre-job safety meeting - discussed Exclusion Zones, AAR, equipment inspections, JSA review. Conducted

Technical Memorandum

Plug and Abandonment – End of Well Report
Cato San Andres Unit #139 / API 30-005-20131
Section 22, Township 8S, Range 30E
Langan Project No.: 781014301
August 8, 2025- Page 2 of 4

operational hazard discussion around scheduled tasks for the day. Inspected equipment and work areas from 0900-1000. Checked WHP, 4.5" 0 PSI, tubing 0 PSI and 9 5/8" had a slight blow which dissipated shortly after opening. Had to move work string from one side of the catwalk to the other in order to haul off pulled tubing. Remove TIW and TOO H with 114 joints of 2.375" prod tubing and meter for NORM. There was no anchor attached. Load removed 2.375" tubing and rods on to float and hauled off. TIH with 2.375" work string and 3.875" junk mill. On depth at top perforation - 3,460' w/ 108 joints. TOO H standing back. All tubing out of the hole. Secure well, perform housekeeping and SDFN.

05/10/25 – NPT due to BLM Prairie Chicken Restrictions from 0600-0800. Held pre-job safety meeting - discussed Exclusion Zones, AAR, equipment inspections, JSA review. Conducted operational hazard discussion around scheduled tasks for the day. Inspected equipment and work areas from 0900 to 1010. Checked WHP, 4.5" 0 PSI, 9 5/8" 0 PSI and tubing 0 PSI. MU 4.5" (3.6" OD) CIBP with centralizer and TIH. Set plug at 3,408', pick up off of plug and set down with 1,000 lbs. Plug held. Lay down 1 joint, MU TPW and pressure test to 1,500 PSI and break circulation with 31 bbls. Circulate hole until clean with an additional 60 bbls (total of 91 bbls) at 2.6-3 bpm. Shut in 4.5" casing and pressure test to 500 PSI. Lost 400 PSI in less than a minute. Pick up joint and TIH and tag plug at 3,408'. TOO H standing back. OOH. Break out and lay down setting tool. ND stopping head and NU wireline flange and single ram BOP. Make up lube and 21', 2.75" OD RCBL BHA with centralizers. PU and make up lube to BOP. Attempt to pressure test, but Blind rams unable to hold pressure from above. Break lube off and pick up RCBL BHA and pull into lube. Open well and RIH logging down with RCBL BHA and tag plug at 3,410'. POOH at 60 FPM and log out. Tools at surface, shut in well and RDMO WL. NU rig stripping head. TIH w/ 2.375" workstring & mule shoe BHA from derrick to 3,400', RU TPW and pressure test to 1,500 PSI. EOT 3,400', pumped 5 bbls of FW to establish circulation. Pumped plug 1 Stg, with 8 bbls (38 SKS) @ 2.5 bpm w/50 PSI of 15.6 ppg type I/II cement (without CaCl₂), 1.18 Yield, pumped 11 bbls FW displacement @ 3 bpm w/ 60 PSI, Plug - 503'. TOO H to surface and wash up cement pump. At surface, secure wellhead, perform housekeeping and SDFN.

05/11/25 – NPT due to BLM Prairie Chicken Restrictions from 0600-0800. Held pre-job safety meeting - discussed Exclusion Zones, AAR, equipment inspections, JSA review. Conducted

Technical Memorandum

Plug and Abandonment – End of Well Report
Cato San Andres Unit #139 / API 30-005-20131
Section 22, Township 8S, Range 30E
Langan Project No.: 781014301
August 8, 2025- Page 3 of 4

operational hazard discussion around scheduled tasks for the day. Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" 0 PSI and tubing 0 PSI. TIH with 2.375" work string and mule shoe. Tag TOC @ 2,885' (525' gain). Lay down 1 joint. RU TPW to tubing, rig up to 4.5" casing, and pressure test TPW to 1,500 PSI. Break circulation with 1.5 bbls. Circulate 5 bbls FW and pressure test casing to 500 PSI. Test failed at 300 PSI. Plug 2 - Pump 57 sks (11.4 bbls) of 15.6 ppg type I/II cement, 1.18 Yield w/ 2% CaCl₂, (720' plug) @ 3.5 bpm w/ 50 PSI, pumped 8 bbls FW displacement @ 3.5bpm w/ 50 PSI. TOOH and WOC. TIH with 2.375" work string and mule shoe. Tag TOC @ 2,100' (740' gain). RU TPW to tubing, rig up to 4.5" casing, and pressure test TPW to 1,500 PSI. Break circulation with 1.5 bbls. Circulate 5 bbls FW. Plug 3 - Pump 35 sks (7.4 bbls) of 15.6 ppg type I/II cement, 1.18 Yield w/o 2% CaCl₂, (720' plug) @ 5.5 bpm w/ 150 PSI, pumped 6 bbls FW displacement @ 3.5bpm w/ 50 PSI. TOOH 1,636' and reverse out. TOOH with remaining work string. All work string on surface. Secure well, perform housekeeping and SDFN.

05/12/25 – NPT due to BLM Prairie Chicken Restrictions from 0600-0800. Held pre-job safety meeting - discussed Exclusion Zones, AAR, equipment inspections, JSA review. Conducted operational hazard discussion around scheduled tasks for the day. Inspected equipment and work areas from 0900 to 0930. Checked WHP, 4.5" 0 PSI, 9 5/8" 0 PSI and tubing 0 PSI. NU WL BOP, tie on lube and grease head. Pressure test failed at 250 PSI. No surface leaks. MU 7' BHA with 2 guns, 6 spf, 18 grams. Pull into lube, open well and RIH. Tag TOC @ 1,619' (481' gain). Perforate from 1,615'-1,618' POOH. RDMO WL equipment. TIH with 2.375" work string with mule shoe and retag TOC at 1,619'. RU TPW to tubing, rig up to 4.5" casing, and pressure test TPW to 1,500 PSI. Break circulation with 1.0 bbls. Circulate 5 bbls FW. Plug 4 - Pump 52 sks (10.8 bbls) of 15.6 ppg type I/II cement, 1.18 Yield w/ 2% CaCl₂, (679' plug) @ 3.3 bpm w/ 70 PSI, pumped 3 bbls FW displacement @ 3.5bpm w/ 50 PSI. TOOH and WOC. Cement pump lost vacuum breaker (controls pressure to push cement into tub) during wash up. TIH with 2.375" work string with mule shoe and retag TOC at 1,304' (315' gain). TOOH. All work string on surface. Secure well, perform housekeeping and SDFN.

05/13/25 – NPT due to BLM Prairie Chicken Restrictions from 0600-0800. Held pre-job safety meeting - discussed Exclusion Zones, AAR, equipment inspections, JSA review. Conducted

Technical Memorandum

Plug and Abandonment – End of Well Report
Cato San Andres Unit #139 / API 30-005-20131
Section 22, Township 8S, Range 30E
Langan Project No.: 781014301
August 8, 2025- Page 4 of 4

operational hazard discussion around scheduled tasks for the day. Replace vacuum breaker on cement pump. Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" 0 PSI and tubing 0 PSI. TIH with 2.375" work string with mule shoe. Retag TOC @ 1,304' (315' gain). RU TPW and pressure test to 1,500 PSI. RU return line from 4.5" casing to tank. Plug 5 - Pump 55 sks (11.6 bbls) of 15.6 ppg type I/II cement, 1.18 Yield w/ 2% CaCl₂, (679' plug) @ 2.5 bpm w/ 90 PSI, pumped 2 bbls FW displacement @ 2.5bpm w/90 PSI. TOOH to 575' and reverse circulate until returns clean, TOOH with remaining pipe and WOC. Sustained winds of 20-25 mph with +30 mph gusts. Secure well, perform housekeeping and SDFN.

05/14/25 – NPT due to BLM Prairie Chicken Restrictions from 0600-0800. Held pre-job safety meeting - discussed Exclusion Zones, AAR, equipment inspections, JSA review. Conducted operational hazard discussion around scheduled tasks for the day. Inspected equipment and work areas, checked WHP, 4.5" 0 PSI, 9 5/8" 0 PSI and tubing 0 PSI. TIH with 2.375" work string with mule shoe and tag TOC @ 582' (722' gain). TOOH. MIRU WL and pressure test to 225 PSI for 5 minutes. Unable to pressure up and sustain pressure past 225 PSI. Pick up 7'-gun string, 6 spf and 18-gram charges. RIH and perforate from 522'-525' and POOH. RDMO WL. RU TPW to 4.5" casing and 9.625" surface pipe. Pressure test to 1,500 PSI. Open and break circulation with 5.5 bbls. Continue pumping until returns clean (22.5 bbls). TIH with 2.375" work string with mule shoe. EOT 582'. Plug 6 - Pump 200 sks (40 bbls) of 15.6 ppg type I/II cement, 1.18 Yield w/ 2% CaCl₂, @ 2.5 bpm w/ 50 PSI, until cement returns are seen at surface. Shut in 9.625" and continue pumping cement until cement returns to surface. TOOH until 1 joint remaining and top off. Wash up and RD cement equipment. RD well head and all rig support equipment. Too windy to lay down derrick at 1200. Perform housekeeping and SDFN.

07/22/2025 - Arrived on location at 139 and held safety meeting with on-site personnel. Dug out the cellar with R/U welder on location. Performed wellhead cutoff. Cement was at surface in both strings. Installed marker per all local regulations. Backfilled cellar.



Plug & Abandonment Program

Cato San Andres Unit 139
K-22-8S-30E
Chaves County, NM

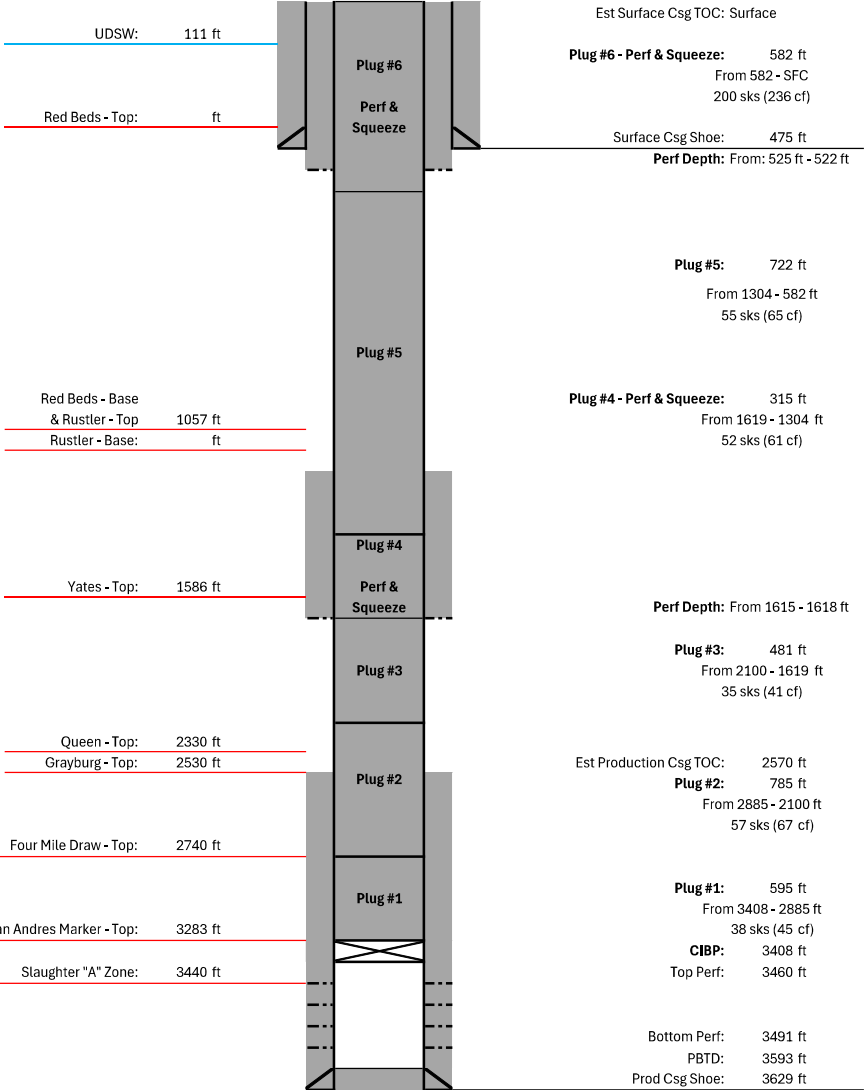
NEW MEXICO - CSAU 139 - P&A SCHEMATIC ACTUAL

Location (Unit-Sec-Twp-Range): K-22-8S-30E API: 30-005-20131
Surface Hole Latitude: 33.6035156
Surface Hole Longitude: -103.8702393 GL (ft): 0
Bottom Hole Location: Vertical Well KB (ft): 10

Surface Casing Information	
Size (in):	9.625
Weight (lb/ft):	53.5
Grade:	0
Hole Size (in):	11
Setting Depth:	475

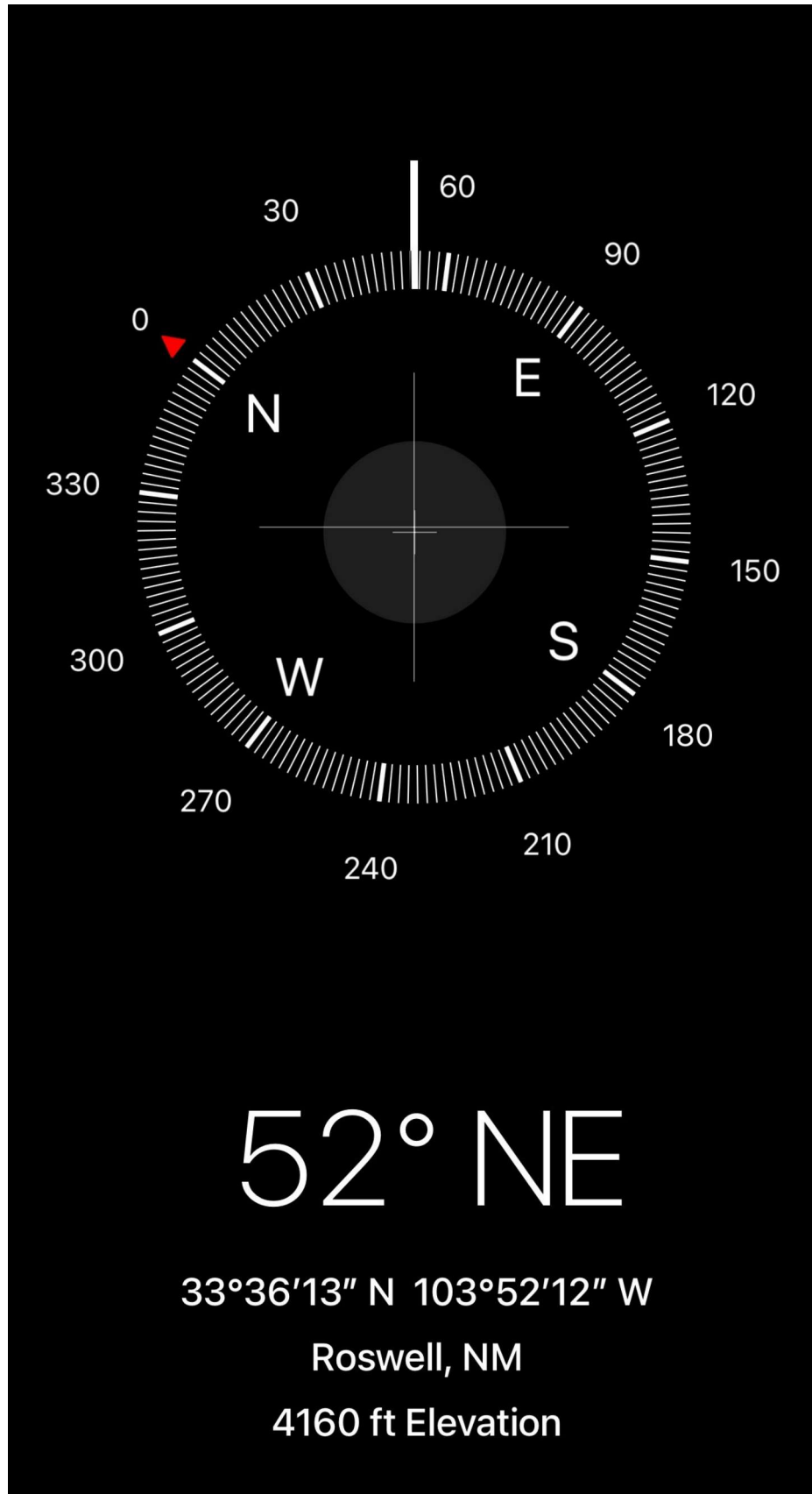
Production Casing Information	
Size (in):	4.5
Weight (lb/ft):	10.5
Grade:	
Hole Size (in):	7.875
Setting Depth:	3629

Formation Depth Information	
Formation	MD (ft)
USDW	111
Red Beds - Top	
Red Beds - Base	1057
Rustler - Top	1057
Rustler - Base	
Yates - Top	1586
Queen - Top	2330
Grayburg - Top	2530
Four Mile Draw - Top	2740
San Andres Marker - Top	3283
Slaughter "A" Zone	3440









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 499420

CONDITIONS

Operator: CANO PETRO OF NEW MEXICO, INC. 801 Cherry Street Fort Worth, TX 76102	OGRID: 248802
	Action Number: 499420
	Action Type: [C-103] Sub. Plugging (C-103P)

CONDITIONS

Created By	Condition	Condition Date
loren.diede	None	8/27/2025