

U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

<b>Well Name:</b> MUDGE A	<b>Well Location:</b> T27N / R11W / SEC 7 / NENE / 36.594116 / -108.038956	<b>County or Parish/State:</b> SAN JUAN / NM
<b>Well Number:</b> 10	<b>Type of Well:</b> OTHER	<b>Allottee or Tribe Name:</b>
<b>Lease Number:</b> NMSF078895	<b>Unit or CA Name:</b>	<b>Unit or CA Number:</b>
<b>US Well Number:</b> 3004506740	<b>Well Status:</b> Gas Well Shut In	<b>Operator:</b> HILCORP ENERGY COMPANY

**Notice of Intent**

**Sundry ID:** 2685710

**Type of Submission:** Notice of Intent

**Type of Action:** Plug and Abandonment

**Date Sundry Submitted:** 08/04/2022

**Time Sundry Submitted:** 10:06

**Date proposed operation will begin:** 09/01/2022

**Procedure Description:** Hilcorp Energy Company requests permission to P&A the subject well per the attached procedures, current and proposed wellbore schematics. The Pre-Disturbance Site Visit was held on 4/6/2022 with Roger Herrera/BLM. The Re-Vegetation Plan is attached. A closed loop system will be used.

**Surface Disturbance**

**Is any additional surface disturbance proposed?:** No

**NOI Attachments**

**Procedure Description**

Mudge\_A\_10\_P\_A\_NOI\_Packet\_20220804100526.pdf

Well Name: MUDGE A

Well Location: T2N / R11W / SEC 7 / NENE / 36.594116 / -108.038956

County or Parish/State: SAN JUAN / NM

Well Number: 10

Type of Well: OTHER

Allottee or Tribe Name:

Lease Number: NMSF078895

Unit or CA Name:

Unit or CA Number:

US Well Number: 3004506740

Well Status: Gas Well Shut In

Operator: HILCORP ENERGY COMPANY

### Conditions of Approval

#### Additional

27N11W07AKkf\_Mudge\_A\_10\_20220808142036.pdf

#### Authorized

General\_Requirement\_PxA\_20220808144818.pdf

2685710\_NOIA\_A\_10\_3004506740\_KR\_08082022\_20220808144756.pdf

### Operator

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: AMANDA WALKER

Signed on: AUG 04, 2022 10:05 AM

Name: HILCORP ENERGY COMPANY

Title: Operations/Regulatory Technician

Street Address: 1111 TRAVIS ST.

City: HOUSTON State: TX

Phone: (346) 237-2177

Email address: mwalker@hilcorp.com

### Field

Representative Name:

Street Address:

City: State: Zip:

Phone:

Email address:

### BLM Point of Contact

BLM POC Name: KENNETH G RENNICK

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5055647742

BLM POC Email Address: krennick@blm.gov

Disposition: Approved

Disposition Date: 08/08/2022

Signature: Kenneth Rennick



## P&A Procedure

General Information			
<b>Well Name</b>	Mudge A 10	<b>Date:</b>	8/3/22
<b>API:</b>	30-045-06740	<b>AFE #</b>	
<b>Field:</b>	San Juan South	<b>County</b>	San Juan
<b>Status:</b>	Well is ACOI		
<b>Subject:</b>	Permanently P&A wellbore		
<b>By:</b>	Wissing		

### Well Data

Surface Casing: 10-3/4" 32.75# J-55 at 103'

Intermediate Casing: 7" 17# J-55 at 1,812'

Production Casing: 4-1/2" 10.5# J-55 8rd @ 1,875'

Production Tubing: 2-3/8" 4.7#; J-55 at 1,833'

Rod String: 3/4" Sucker Rods + insert pump

Current Perforated liner: 1,782' - 1,808'

Current PBTD: 1,865' (cmt plug)

KB: 5'

SIBP: 0 psi since 2018 test; SICP: 16 psi

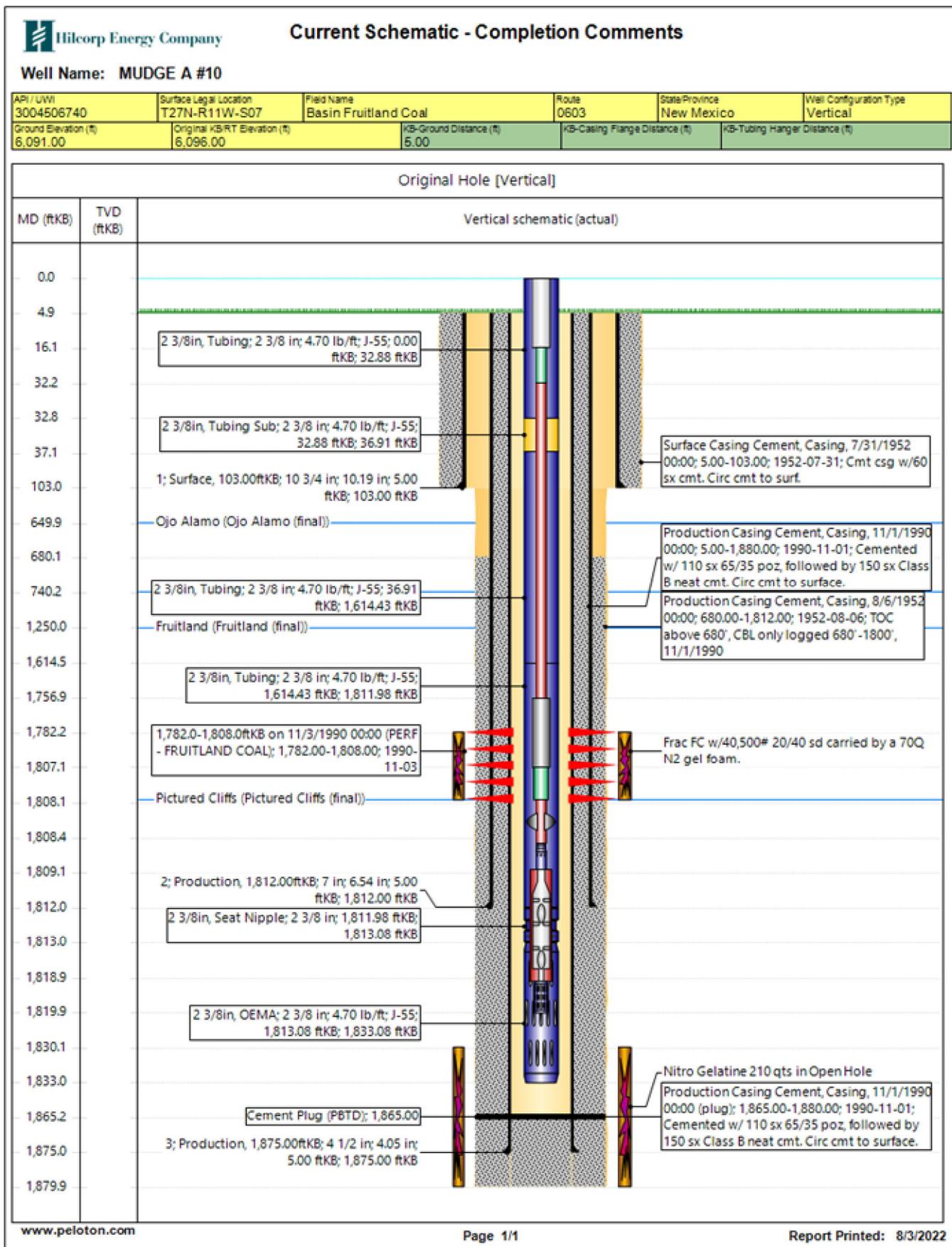
CBLs: log for 7" csg (stopped at 680') and log of 4-1/2" csg

Hold PJSM prior to begin all operations. Properly document all operations via the JSA process. Ensure that all personnel onsite abide by HEC safety protocol, including PPE, housekeeping, and standard guidelines. Verify cathodic protection is off and wellhead instrumentation is properly disconnected from the wellhead. Comply with all NMOCD, BLM, and HEC safety and environmental regulations. Verify there is no H2S present prior to beginning operations. If any H2S is present, take the necessary actions to ensure that the location is safe prior to beginning operations. Observe and record pressures across all strings daily, prior to beginning operations.

Remember to notify NMOCD and BLM 24 hours prior to starting operations on location. This procedure is contingent upon P&A sundry approval by the NMOCD & BLM.

## P&A Rig Procedure

1. MIRU P&A rig and equipment. Record pressures on all csg strings daily. Kill well as needed.
2. TOOH with rods and rod pump.
3. NU BOPs and test. TOOH with 2-3/8" prod tbg.
4. MU 4-1/2" csg scraper and RIH. Clear csg to 1,750'.
5. Set 4-1/2" CICR at 1,740'.
  - a. **Top of FRC perf at 1,782'.**
6. Load wellbore with KCl water and circulate wellbore clean. Pressure test the casing to 500 psi to verify wellbore integrity and plug set.
7. RIH with work string.
8. **Plug #1 (FRC top perf at 1,782')**: RU cementers and pump a 150' balanced cmt plug inside the 4-1/2" csg from 1590'-1740', using 2.5 bbls (18 sx) of 15.8+ ppg Class G cmt.
9. Circulate tbg clean and TOOH with tbg string to 1,300'.
10. **Plug #2 (FRC top at 1,250')**: RU cementers and pump a 150' balanced cmt plug inside the 4-1/2" csg from 1150'-1300', using 2.5 bbls (18 sx) of 15.8+ ppg Class G cmt.
  - a. *Combine Plug #2 with Plug #1 if csg fails a pressure test.*
11. TOOH with tbg to 790'.
12. Verify BH pressure is 0 psi.
13. **Plug #3 (Kirtland top 740', Ojo top at 650')** RU cementers and pump a 240' balanced cmt plug inside the 4-1/2" csg from 550' – 790', using 3.9 bbls (19 sx) of 15.8+ ppg Class G cmt.
14. Circulate tbg clean and TOOH with tbg.
15. RU E-line and perforate the 4-1/2" & 7" csg at 150'. Establish circulation up 10-3/4" x 7" annulus.
16. **Plug #3 (Surface csg shoe at 103')**: RU cementers and pump a 150' inside/outside cmt plug inside the 4-1/2" csg and 10-3/4" x 7" annulus from 0'-150', using 10.7 bbls (52 sx) of 15.8+ ppg Class G cmt.
17. Verify all pressures on all strings are at 0 psi.
18. ND BOP. Cutoff wellhead below grade and weld on labeled P&A marker. Top off wellbore with cmt as needed and fill cellar with 1 ft of cmt.
19. RDMO P&A rig.





# Hilcorp Energy Company

## Wellbore Schematic - PROPOSED

**Cut Whd and weld P&A Marker**

SPUD: 7/31/1952

50' Cmt plug from 0' - 150'  
10.7 bbls (52 sx) Class G, 1.15 yl, 15.8# cmt  
Perf 4-1/2" & 7" csg at 150'

13-3/4" hole  
10-3/4" 32.75# J-55 8rd Csg @ 103'  
Cmt'd w/ 60 sx; cmt to surface

7" CBL stops at 680' but good bond to end of long

Ojo Formation Top (650')  
240' Cmt plug from 550' - 790'  
3.9 bbls (19 sx) Class G, 1.15 yl, 15.8# cmt

Kirtland Formation Top (740')

FRC Formation Top (1,250')  
150' Cmt plug from 1,150' - 1,300'  
2.5 bbls (18 sx) Class G, 1.15 yl, 15.8# cmt

150' Cmt plug from 1,590' - 1,740'  
2.5 bbls (18 sx) Class G, 1.15 yl, 15.8# cmt  
4-1/2" CICR set at 1,740'

Fruitland Coal perms 1,782' - 1,808'

8-3/4" hole  
7" 17# J-55 8rd Csg @ 1,812'  
Cmt'd w/ 100 sx

4-1/2" 10.5# J-55 8rd csg @ 1,875'  
Cmt'd w/ 150 sx, cmt circ to surface (CBL 11/2/90)  
PBD: 1,865'

WELL NAME/NUMBER <b>Mudge A 10</b>	DESCRIPTION <b>Proposed P&amp;A WBD</b>	Ground Elevation: RKB-THF: 5 ft CFH:
FIELD/LEASE/AREA <b>San Juan Basin- Area 6</b>	PREPARED BY M. Wissing	APPROVED/DATE 8/3/2022
		API # 30-045-06740

Hilcorp Energy  
P&A Final Reclamation Plan  
Mudge A 10  
API: 30-045-06740  
T27N-R11W-Sec.7-Unit A  
LAT: 36.594153 LONG: -108.038914 NAD 27  
Footage: 990' FNL & 990' FEL  
San Juan County, NM

1. PRE- RECLAMATION SITE INSPECTION

A pre-reclamation site inspection was completed with Roger Herrera from the BLM and Eufracio Trujillo, Hilcorp Energy SJ South Construction Foreman on April 6, 2022.

2. LOCATION RECLAMATION PROCEDURE

1. Reclamation work will begin in summer.
2. Removal of all equipment, anchors, flowlines, cathodic, and pipelines.
3. All trash and debris will be removed within a 50' buffer outside of the location disturbance during reclamation.
4. Rip compacted soil and walk down disturbed portion of well pad.
5. Remove all gravel from berms, pads, and meter run and use on lease road where needed.
6. Hilcorp Energy meter run will be removed. Riser will be barricaded and blinded.

3. ACCESS ROAD RECLAMATION PROCEDURE

1. The well access road will be closed with a berm at highway.
2. Reclaim road by ripping and seeding.

4. SEEDING PROCEDURE

1. A NAPI seed mix will be used for all reclaimed and disturbed areas of the well pad and lease road.
2. Drill seed will be done where applicable, and all other disturbed areas will be broadcast seeded and harrowed. Broadcast seeding will be applied at a double the rate of seed.
3. Timing of the seeding will be when the ground is not frozen or saturated.

5. WEED MANAGEMENT

1. No noxious weeds were identified during this onsite.

**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 H<sub>2</sub>S.

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.

(October 2012 Revision)

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

AFMSS 2 Sundry ID 2685710

Attachment to notice of Intention to Abandon

Well: Mudge A 10

**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. The following modifications to your plugging program are to be made:
  - a) Bring the bottom of the Surface Plug down to 153'.
3. Farmington Office is to be notified at least 24 hours before the plugging operations commence at (505) 564-7750.

You are also required to place cement excesses per 4.2 and 4.4 of the attached General Requirements.

Office Hours: 7:45 a.m. to 4:30 p.m.

K. Rennick 8/8/2022

**BLM FLUID MINERALS  
P&A Geologic Report**

**Date Completed:** 08/08/2022

Well No. Mudge A #10 (API# 30-045-06740)	Location	990	FNL	&	990	FEL
Lease No. NMSF078895	Sec. 07	T27N			R11W	
Operator Hilcorp Energy Company	County	San Juan		State	New Mexico	
Total Depth 1880'	PBTD 1865'	Formation Fruitland Coal				
Elevation (GL) 6091'		Elevation (KB) 6096'				

Geologic Formations	Est. Top	Est. Bottom	Log Top	Log Bottom	Remarks
San Jose Fm					
Nacimiento Fm	Surface	650			Surface/possible freshwater sands
Ojo Alamo Ss	650	740			Aquifer (possible freshwater)
Kirtland Shale	740	1250			Possible gas
Fruitland Fm	1250	1808			Coal/Gas/Water
Pictured Cliffs Ss	1808	PBTD			Gas
Lewis Shale					
Chacra					
Cliff House Ss					
Menefee Fm					
Point Lookout Ss					
Mancos Shale					
Gallup					
Greenhorn					
Graneros Shale					
Dakota Ss					
Morrison Fm					

Remarks:

P &amp; A

- Bring the bottom of the Surface Plug down to 153'.

- The plugs proposed in the P&A procedure, with recommended changes, will adequately protect any freshwater sands in this well bore.
- Fruitland Coal perfs 1782' – 1808'.
- Well was originally open-hole completed from 1830' – 1880' in the Pictured Cliffs. Recompletion in the Fruitland Coal occurred in 1990, when 4.5" casing was run inside existing 7" casing and cemented to surface.

Reference Well:

1) **Formation Tops**  
Same

Prepared by: Chris Wenman

**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 Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS  
 Action 132278

**CONDITIONS**

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 132278
	Action Type: [C-103] NOI Plug & Abandon (C-103F)

**CONDITIONS**

Created By	Condition	Condition Date
kpickford	Notify NMOCD 24 Hours Prior to beginning operations	8/11/2022
kpickford	Adhere to BLM approved COAs and plugs. See GEO report.	8/11/2022