### Cano Petro Inc.

# Plug And Abandonment Procedure Graves #008

660' FSL & 660' FEL, Section 6, 8S, 31E Chaves County, NM / API 30-005-20621

- 1. Hold pre-job safety meeting. Comply with all NMOCD, BLM safety and environmental regulations. Test rig anchors prior to moving in rig if not rigged to base beam.
- 2. Check casing, tubing, and Bradenhead pressures.
- 3. Remove existing piping on casing valve. RU blow lines from casing valves and begin blowing down casing pressure. Kill well as necessary. Ensure well is dead or on a vacuum.
- 4. ND wellhead and NU BOP. Function test BOP.
- 5. P/U 4-1/2" bit or casing scraper on 2-3/8" work string and round trip as deep as possible above top perforation at 3,686'.
- 6. P/U 4-1/2" CR, TIH and set CR at +/- 3,636'. Pressure test tubing to 1000 psi. Sting out of CR. Load hole, and pressure test casing to 800 psi. If casing does not test, then spot or tag subsequent plugs as appropriate. POOH w/ tubing.
- 7. RU wireline and run CBL with 500 psi on casing from CR at 3,636' to surface to identify TOC. Adjust plugs as necessary for new TOC. Email log copy to

Brandon Powell at <u>Brandon.powell@state.nm.us</u> upon completions of logging operations.

- 8. Rig up to pump cement down tubing. Pump water to establish rate down tubing.
- 9. Circulate wellbore with 9.5 ppg salt gel.

NOTE: All Plugs Include 100% excess outside casing and 50% Excess inside casing

10. Plug 1 (San Andres Perforations and formation top 3,636'-2,844', 62 Sacks Type I/II Cement)

Mix 62 sx Type I/II cement and spot a balanced plug inside casing to cover the San Andres perforations and formation top.

11. Plug 2 (Queen Formation Top 2,550'-1,127', 25 Sacks Type I/II Cement)

Mix 25 sx Type I/II cement and spot a balanced plug inside casing to cover the Queen formation top.

12. Plug 3 (7 Rivers and Yates Formation Tops 2,000'-1,672', 26 Sacks Type I/II Cement)

Mix 26 sx Type I/II cement and spot a balanced plug inside casing to cover the 7 Rivers and Yates formation tops.

13. Plug 4 (Anhy Formation Top and Surface Casing Shoe 1,450'-1,240', 66 Sacks Type I/II Cement)

Mix 66 sx Type I/II cement and spot a balanced plug inside casing to cover the Yates formation top and surface casing shoe.

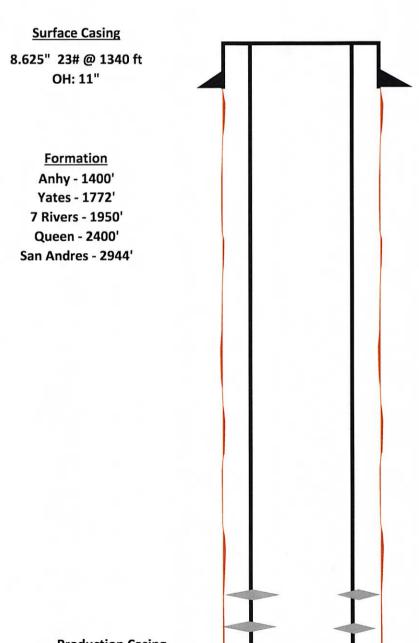
### 14. Plug 5 (Surface 600'-Surface, 187 Sacks Type I/II Cement)

Attempt to pressure test the bradenhead annulus to 300 psi; note the volume to load. If BH annulus holds pressure, then establish circulation out casing valve with water. Mix approximately 187 sx cement and spot a balanced plug from 600' to surface, circulate good cement out of casing valve. TOH and LD tubing. Shut well in and WOC. If BH annulus does not test, then perforate at the appropriate depth and attempt to circulate cement to surface filling the casing from 600' and the annulus from the squeeze holes to surface. Shut in well and WOC.

15. ND cementing valves and cut off wellhead. Fill annuli with cement as necessary. Install P&A marker to comply with regulations. Record GPS coordinate for P&A marker on tower report. Photograph P&A marker in place. RD, MOL and restore location per BLM stipulations.

## **Existing Wellbore Diagram**

Cano Petro Of New Mexico Graves #008 API: 30-005-20621 Chaves County, New Mexico



Perforations 3686 feet - 3822 feet

Production Casing 4.5" 9.5# @ 3907 feet OH: 7.875"

### **Proposed Wellbore Diagram**

Cano Petro Of New Mexico Graves #008 API: 30-005-20621 **Chaves County, New Mexico** 

### Plug 5

600 feet - Surface 600 foot plug

187 Sacks of Type I/II Cement

### Plug 4

1450 feet - 1240 feel 210 foot plug 66 Sacks of Type I/II Cement

### Plug 3

2000 feet - 1672 feet 328 foot plug 26 Sacks of Type I/II Cement

### Plug 2

2450 feet - 2127 feet 323 foot plug 25 Sacks of Type I/II Cement

### Plug 1

3636 feet - 2844 feet 792 foot plug 62 sacks of Type I/II Cement

### **Perforations**

3686 feet - 3822 feet

**Formation** Anhy - 1400'

**Surface Casing** 8.625" 23#@ 1340 ft

OH: 11"

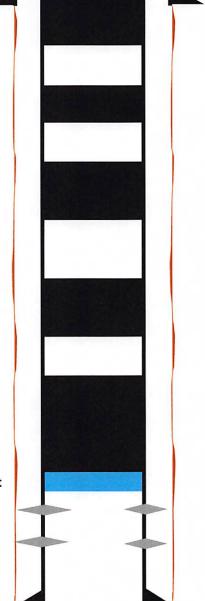
Yates - 1772'

7 Rivers - 1950' Queen - 2400'

San Andres - 2944'

Retainer @ 3636 feet **Production Casing** 

4.5" 9.5# @ 3907 feet OH: 7.875"



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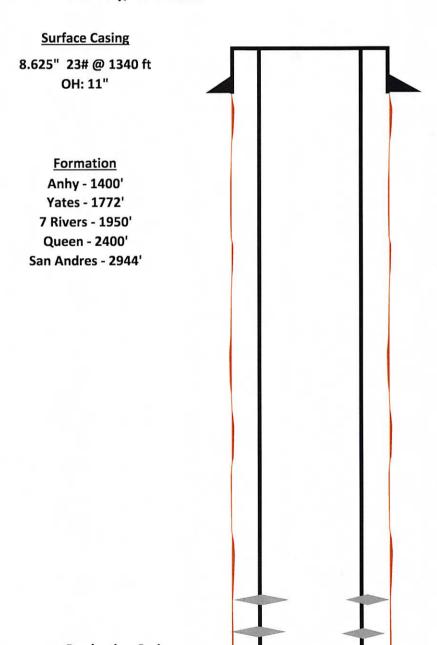
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### **Perforations**

3686 feet - 3822 feet

Surface Casing 8.625" 23# @ 1340 ft

OH: 11"

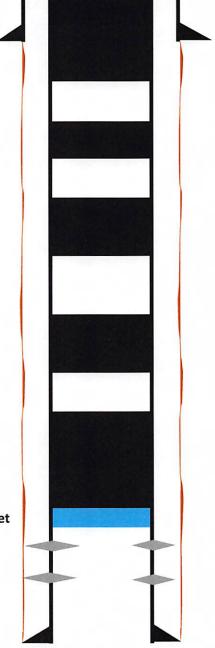
### Formation Anhy - 1400'

Yates - 1772' 7 Rivers - 1950' Queen - 2400'

San Andres - 2944'

### Retainer @ 3636 feet

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District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720 District II

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District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

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 203550

### **CONDITIONS**

Operator:	OGRID:
J.A. Drake Well Service Inc.	330485
607 W Pinon	Action Number:
Farmington, NM 87401	203550
	Action Type:
	[C-103] NOI Plug & Abandon (C-103F)

#### CONDITIONS

Created By		Condition Date
john.harrison	None	4/21/2023