

Submit 1 Copy To Appropriate District
Office

District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised July 18, 2013

| |
|---|
| WELL API NO. 30-039-07984 |
| 5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/> |
| 6. State Oil & Gas Lease No. STATE |
| 7. Lease Name or Unit Agreement Name ROSA UNIT |
| 8. Well Number 34 |
| 9. OGRID Number 289408 |
| 10. Pool name or Wildcat BLANCO-MESAVERDE |

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☒ Other

2. Name of Operator
LOGOS OPERATING, LLC

3. Address of Operator
2010 AFTON PLACE FARMINGTON NM 87401

4. Well Location
Unit Letter **B** : **990** feet from the **N** line and **1650** feet from the **E** line
Section **36** Township **32N** Range **06W** NMPM County **RIO ARRIBA**

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
GL: 6646

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

| NOTICE OF INTENTION TO: | | SUBSEQUENT REPORT OF: | |
|--|--|--|--|
| PERFORM REMEDIAL WORK <input type="checkbox"/> | PLUG AND ABANDON <input checked="" type="checkbox"/> | REMEDIAL WORK <input type="checkbox"/> | ALTERING CASING <input type="checkbox"/> |
| TEMPORARILY ABANDON <input type="checkbox"/> | CHANGE PLANS <input type="checkbox"/> | COMMENCE DRILLING OPNS. <input type="checkbox"/> | P AND A <input type="checkbox"/> |
| PULL OR ALTER CASING <input type="checkbox"/> | MULTIPLE COMPL <input type="checkbox"/> | CASING/CEMENT JOB <input type="checkbox"/> | |
| DOWNHOLE COMMINGLE <input type="checkbox"/> | | | |
| CLOSED-LOOP SYSTEM <input type="checkbox"/> | | | |
| OTHER: <input type="checkbox"/> | | OTHER: <input type="checkbox"/> | |

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

In order to comply with the NMOCD BH remediation per rule 19.15.16.11 to prevent waste and protect freshwater.

LOGOS Operating, LLC requests to perform a plug and abandon per the attached procedure, current proposed and wellbore diagram.

Spud Date: 05/07/1959 Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE *Dave Shull* TITLE Regulatory Technician DATE 3/15/23
Type or print name DAVE SHULL E-mail address: dshull@logosresourcesllc.com PHONE: 505-787-2021
For State Use Only
APPROVED BY: *[Signature]* TITLE Petroleum Specialist DATE 3/20/2023
Conditions of Approval (if any):



Rosa Unit 34 P&A Planning

| Formations | Tops (ft) |
|-----------------|-----------|
| Surface | 187 |
| Nacimiento | 777 |
| Ojo Alamo | 2667 |
| Kirtland | 2786 |
| Fruitland | 3186 |
| Pictured Cliffs | 3416 |
| Mesaverde | 5674 |
| CMT Retainer | 5710 |

| | |
|---|--------|
| 5.5" csg capacity (ft3/ft) | 0.1305 |
| 5.5" csg / 8.75" hole capacity (ft3/ft) | 0.2526 |
| 5.5" csg / 9.625" csg capacity (ft3/ft) | 0.2749 |

| | |
|----------------|------|
| Yield (ft3/sk) | 1.15 |
|----------------|------|

| Plugs | Reason | Inside/Outside | Top | Bottom | Total Length of Plug (ft) | Inside Csg Volume (cf/ft) | Outside Csg Volume (cf/ft) | # of sx inside (1.15 yield & 50' excess) | # of sx outside (1.15 yield & 100% excess) | Total # sx |
|-------|-------------------------------|----------------|------|--------|---------------------------|---------------------------|----------------------------|--|--|------------|
| 1 | Perforations/MV Top | Inside | 5610 | 5710 | 100 | 0.1305 | 0.2526 | 17 | 0 | 17 |
| 2 | Pictured Cliffs/Fruitland Top | Inside/Outside | 3136 | 3466 | 330 | 0.1305 | 0.2526 | 43 | 145 | 188 |
| 3 | Ojo Alamo / Kirtland Top | Inside/Outside | 2617 | 2836 | 219 | 0.1305 | 0.2526 | 31 | 97 | 128 |
| 4 | Nacimiento Top | Inside/Outside | 727 | 827 | 100 | 0.1305 | 0.2526 | 17 | 44 | 61 |
| 5 | Surface | Inside/Outside | 0 | 237 | 237 | 0.1305 | 0.2749 | 33 | 79 | 112 |

| | |
|-----------|-----|
| Total Cmt | 506 |
|-----------|-----|



Proposed Plug and Abandonment Procedure

Rosa Unit 34

API: 30-039-07984

Notes:

- LOGOS requests to P&A the subject well.
 - All cement volumes use 100% excess outside pipe and 50' excess inside.
 - All cement will be Class G with a 1.15 cf/sk yield or equivalent.
 - Casing has multiple holes that were identified in 1987, therefore a pressure test of the casing will be forgone, and LOGOS will tag the top of each plug.
1. Comply with all NMOCD, BLM and LOGOS safety rules and regulations. Conduct safety meeting for all personnel on location.
 2. MOL and RU. Lay flow lines. Check and record bradenhead and casing pressures.
 3. TOOH with tubing.
 4. Conduct cement bond log from the cement retainer at 5710' to surface.
 5. **Send cement bond log results to NMOCD and BLM to verify cement volumes and inside/outside plugs.**
 6. **Plug #1: 5610'-5710' (Perforations at 5758' / Mesaverde top: 5674'):** Mix and spot 17 sx Class G cement. WOC and tag top of plug.
 7. **Plug #2: 3136'-3466' (Fruitland top: 3186' / Pictured Cliffs top: 3416'):** Perforate squeeze holes at 3466'. Attempt to establish rate. TIH and set 5.5" CR at 3416'. Mix and pump 188 sx Class G cement, squeeze 145 sx outside casing and leave 43 sx inside casing. WOC and tag top of plug. Top off with extra cement as needed.
 8. **Plug #3: 2617'-2836' (Ojo Alamo top: 2667' / Kirtland top: 2786'):** Perforate squeeze holes at 2836'. Attempt to establish rate. TIH and set 5.5" CR at 2786'. Mix and pump 128 sx Class G cement, squeeze 97 sx outside casing and leave 31 sx inside casing. WOC and tag top of plug. Top off with extra cement as needed.
 9. **Plug #4: 727'-827' (Nacimiento top: 777'):** Perforate squeeze holes at 827'. Attempt to establish rate. TIH and set 5.5" CR at 777'. Mix and pump 61 sx Class G cement, squeeze 44 sx outside casing and leave 17 sx inside casing. WOC and tag top of plug. Top off with extra cement as needed.
 10. **Plug #5: 0'-237' (Surface casing shoe: 187'):** Perforate squeeze holes at 237'. Attempt to establish rate. TIH and set 5.5" CR at 187'. Mix and pump 112 sx Class G cement, squeeze 79 sx outside casing and leave 33 sx inside casing. Top off with extra cement as needed.
 11. ND BOP and cut off wellhead below surface casing flange. Top off with cement if needed. Install P&A marker with cement per regulations. Photograph P&A marker in place. Cut off anchors and restore location per BLM stipulations.

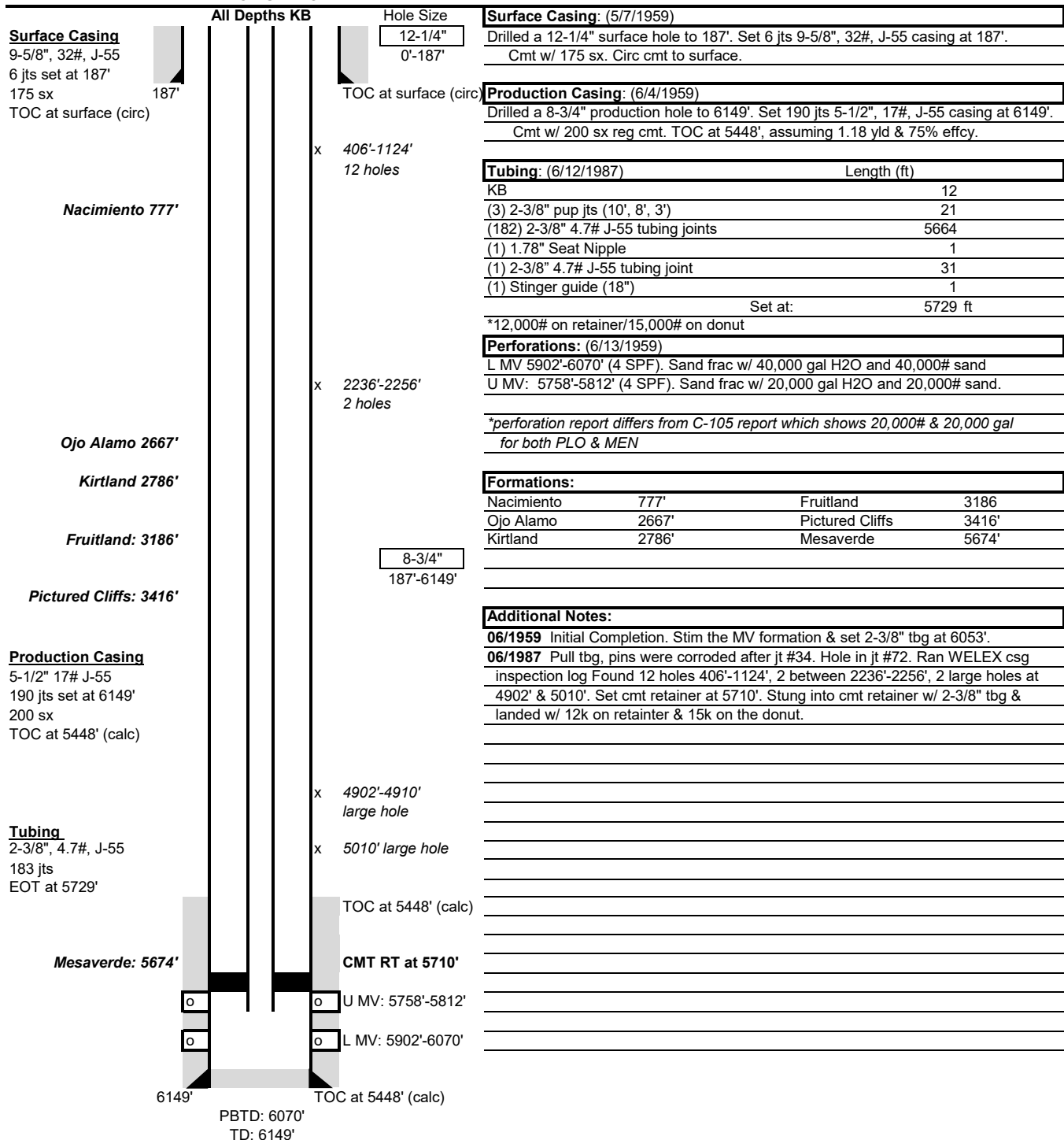


Wellbore Schematic

Well Name: Rosa Unit 34
 Location: Sec 36, T32N, R06W 990' FNL & 1650' FEL
 County: Rio Arriba, NM
 API #: 30-039-07984
 Co-ordinates: Lat 36.9413223 Long -107.4052505
 Elevations: GROUND: 6646'
 KB: 6658'
 Depths (KB): PBTD: 6070'
 TD: 6149'

Date Prepared: 11/18/2020 Gomez
 Reviewed By: 2/15/2023 Moss
 Last Updated: 2/15/2023 Moss
 Spud Date: 5/7/1959
 Completion Date: 6/4/1959
 Last Workover Date: 6/10/1987

DEVIATION UNKNOWN



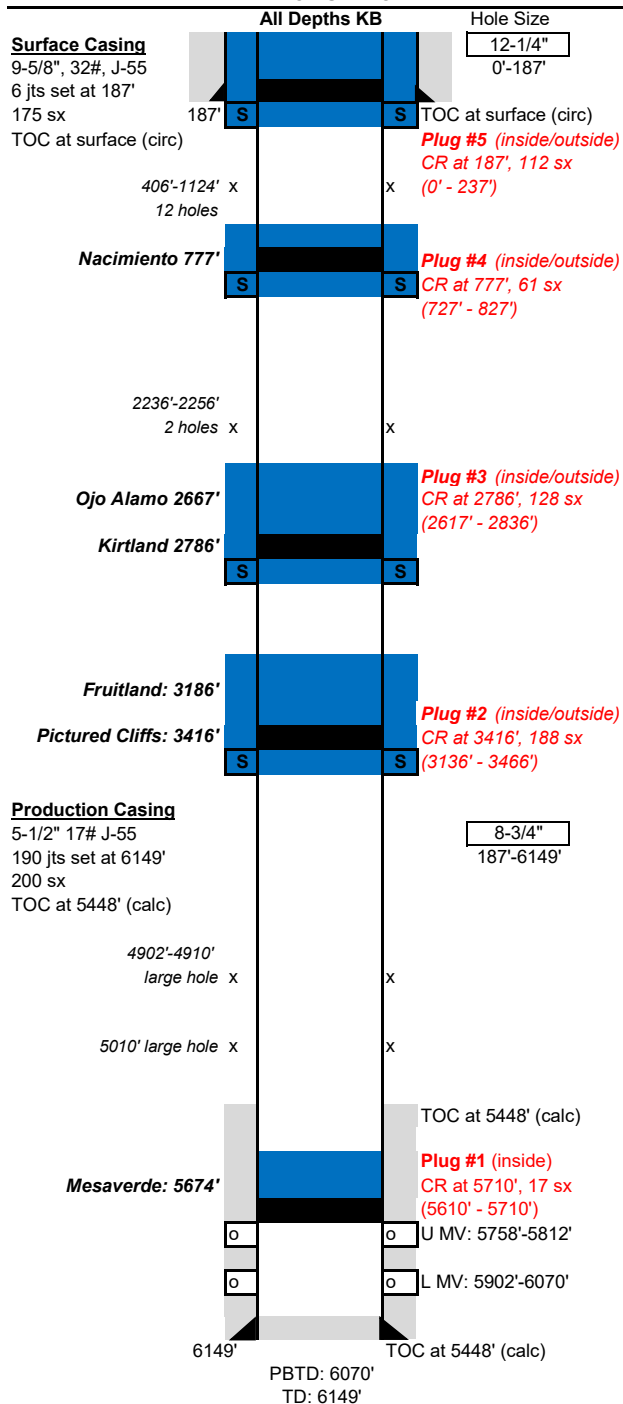


Proposed P&A Wellbore Schematic

Well Name: Rosa Unit 34
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DEVIATION UNKNOWN



Surface Casing: (5/7/1959)
 Drilled a 12-1/4" surface hole to 187'. Set 6 jts 9-5/8", 32#, J-55 casing at 187'.
 Cmt w/ 175 sx. Circ cmt to surface.

Production Casing: (6/4/1959)
 Drilled a 8-3/4" production hole to 6149'. Set 190 jts 5-1/2", 17#, J-55 casing at 6149'.
 Cmt w/ 200 sx reg cmt. TOC at 5448', assuming 1.18 yld & 75% effcy.

Tubing: Length (ft)
 NA

Perforations: (6/13/1959)
 L MV 5902'-6070' (4 SPF). Sand frac w/ 40,000 gal H2O and 40,000# sand
 U MV: 5758'-5812' (4 SPF). Sand frac w/ 20,000 gal H2O and 20,000# sand.

*perforation report differs from C-105 report which shows 20,000# & 20,000 gal for both PLO & MEN

Formations:

| Formation | Depth (ft) |
|-----------------|------------|
| Nacimiento | 777' |
| Ojo Alamo | 2667' |
| Kirtland | 2786' |
| Fruitland | 3186' |
| Pictured Cliffs | 3416' |
| Mesaverde | 5674' |

Additional Notes:
 06/1959 Initial Completion. Stim the MV formation & set 2-3/8" tbg at 6053'.
 06/1987 Pull tbg, pins were corroded after jt #34. Hole in jt #72. Ran WELEX csg inspection log Found 12 holes 406'-1124', 2 between 2236'-2256', 2 large holes at 4902' & 5010'. Set cmt retainer at 5710'. Stung into cmt retainer w/ 2-3/8" tbg & landed w/ 12k on retainer & 15k on the donut.

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

CONDITIONS

Action 198258

CONDITIONS

| | |
|---|---|
| Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401 | OGRID: 289408 |
| | Action Number: 198258 |
| | Action Type: [C-103] NOI Plug & Abandon (C-103F) |

CONDITIONS

| Created By | Condition | Condition Date |
|------------|---|----------------|
| kpickford | CBL required | 3/20/2023 |
| kpickford | Notify NMOCD 24 Hours Prior to beginning operations | 3/20/2023 |