

|                                |   |   |
|--------------------------------|---|---|
| Well Name: CARRACAS 11B        | Well Location: T32N / R4W / SEC 11 / SWSE / 36.99553 / -107.21973 | County or Parish/State: RIO ARRIBA / NM |
| Well Number: 15                | Type of Well: OTHER   | Allottee or Tribe Name:                 |
| Lease Number: NMNM28812        | Unit or CA Name: 2H CARRACAS 14B - FRCL                           | Unit or CA Number: NMNM112654           |
| US Well Number: 300392478600S1 | Well Status: Gas Well Shut In                                     | Operator: MORNINGSTAR OPERATING LLC     |

Notice of Intent

Sundry ID: 2742193

Type of Submission: Notice of Intent      Type of Action: Plug and Abandonment

Date Sundry Submitted: 07/21/2023      Time Sundry Submitted: 09:12

Date proposed operation will begin: 08/30/2023

Procedure Description: MorningStar Operating requests approval of the attached P&A procedure for the Carracas 11B15. Also attached are the WBDs and Reclamation Plan.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

- Reclamation\_Plan\_\_\_Carracas\_11B\_\_15\_20230721091012.pdf
- Carracas\_11B\_15\_WBD\_Current\_and\_Proposed\_PA\_20230721090941.pdf
- Carracas\_11B\_15\_Proposed\_PA\_Procedure\_20230721090923.pdf

|                                |   |   |
|--------------------------------|---|---|
| Well Name: CARRACAS 11B        | Well Location: T32N / R4W / SEC 11 / SWSE / 36.99553 / -107.21973 | County or Parish/State: RIO ARRIBA / NM |
| Well Number: 15                | Type of Well: OTHER   | Allottee or Tribe Name:                 |
| Lease Number: NMNM28812        | Unit or CA Name: 2H CARRACAS 14B - FRCL                           | Unit or CA Number: NMNM112654           |
| US Well Number: 300392478600S1 | Well Status: Gas Well Shut In                                     | Operator: MORNINGSTAR OPERATING LLC     |

Conditions of Approval

Additional

2742193\_NOI\_PnA\_Carracas\_11B\_15\_3003924786\_MHK\_07262023\_20230726145702.pdf

General\_Requirement\_PxA\_20230726141913.pdf

PxA\_32N04W11OKkf\_Carracas\_11B\_015\_20230726135523.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: CONNIE BLAYLOCK | Signed on: JUL 21, 2023 09:10 AM |
| Name: MORNINGSTAR OPERATING LLC                |                                  |
| Title: Regulatory Technician                   |                                  |
| Street Address: 400 W 7th St.                  |                                  |
| City: Forth Worth                              | State: TX                        |
| Phone: (817) 334-7882                          |                                  |
| Email address: CBLAYLOCK@MSPARTNERS.COM        |                                  |

Field

|                                       |        |      |
|---------------------------------------|--------|------|
| Representative Name: Amy Byars        |        |      |
| Street Address:                       |        |      |
| City:                                 | State: | Zip: |
| Phone:                                |        |      |
| Email address: abyars@txopartners.com |        |      |

BLM Point of Contact

|                              |                                      |
|------------------------------|--------------------------------------|
| BLM POC Name: MATTHEW H KADE | BLM POC Title: Petroleum Engineer    |
| BLM POC Phone: 5055647736    | BLM POC Email Address: MKADE@BLM.GOV |
| Disposition: Approved        | Disposition Date: 07/26/2023         |
| Signature: Matthew Kade      |                                      |

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

AFMSS 2 Sundry ID 2742193

Attachment to Notice of Intention to Plug and Abandon

Well: Carracas 11B #015 (API#30-039-24786)

**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 modification to your plugging program is made:
  - a. Adjust Plug #3 (Nacimiento) to cover BLM formation top pick @ 648'.
3. **NOTIFICATION:** Farmington Office is to be notified at least 24 hours before the plugging operations commence at (505) 564-7750.
4. **Deadline of Completion of Operations:** Complete the plugging operation within one year from the approval date of the Notice of Intent to Plug and Abandon. If unable to meet deadline, notify the Bureau of Land Management's Farmington Field Office prior to the deadline via Sundry Notice (Form 3160-5) Notice of Intent detailing the reason for the delay and the date the well is to be plugged.

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.

M. Kade (mkade@blm.gov/505-564-7736) 7/26/2023

**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), through the Automated Fluid Minerals Support System (AFMSS) 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) and 43 CFR 3172.12(a)(10). 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.

## BLM FFO Fluid Minerals P&A Geologic Report

AFMSS ID: 2742193

Date Completed: 7/26/2023

|            |                            |        |            |           |                |      |
|------------|----------------------------|--------|------------|-----------|----------------|------|
| Well No.   | Carracas 11B #015          | SHL    | 600        | FSL       | 1590           | FEL  |
| API No.    | 3003924786                 |        | SWSE       | Sec. 11   | T32N           | R04W |
| Lease No.  | NMNM 28812                 | BHL    | Same       |           |                |      |
| Operator   | Morningstar Operating, LLC |        |            |           |                |      |
| Elev. (KB) | 6411                       | County | Rio Arriba | State     | NM             |      |
| TVD        | 2529                       | PBTD   | 2361       | Formation | Fruitland Coal |      |

| Formation Top      | MD (ft KB) | Remarks                  |
|--------------------|------------|--------------------------|
| San Jose Fm.       | Surface    | Surface/freshwater sands |
| Nacimiento Fm.     | 648        | Water                    |
| Ojo Alamo Ss       | 1650       | Water                    |
| Kirtland Fm.       | 1815       | Water/possible gas       |
| Fruitland Fm.      | 2198       | Coal/gas/water           |
| Pictured Cliffs Ss | 2350       | Possible gas             |
| Lewis Shale        |            |                          |
| Chacra             |            |                          |
| Cliff House Ss     |            |                          |
| Menefee Fm.        |            |                          |
| Point Lookout Fm.  |            |                          |
| Mancos Shale       |            |                          |
| Gallup             |            |                          |
| Greenhorn Ls       |            |                          |
| Graneros Shale     |            |                          |
| Dakota Ss          |            |                          |
| Morrison Fm.       |            |                          |

Remarks:

Reference Well:

- Fruitland perfs 2280' - 2322'.

**1) Formation Tops**  
Same

- Adjust Plug #3 (Nacimiento) to cover BLM formation top pick @ 648'.

Prepared by: Chris Wenman

## Proposed P&amp;A Procedure

## Carracas 11B-15

*Notify Farmington BLM Office at least 24hrs in advance to plugging operations 505 564-7750*

1. MIRU
2. POOH w/ sucker rods and pump. POOH tbg.
3. Run a bit and csg scraper to 2255'.
4. Set CIBP @ 2230'.
5. Plug 1 (Fruitland and lateral)
  - a. Spot **18sx** Class G cement on top of CIBP.
6. Circulate hole with mud laden fluid.
7. Original CBL shows TOC ~1007'. No CBL run necessary.
8. Plug 2 (Kirtland and Ojo)
  - a. Pump balanced plug **31sx** Class G cement.
    - i. From 1600-1865'
9. Plug 3 (Nacimiento)
  - a. Perforate 450'.
  - b. Attempt to establish circulation...
    - i. if none, spot plug to 325' in 5.5" estimated **15sx** needed.
    - ii. If established, estimated **70sx** required to fill annulus 450' to 325' (including 100% excess in pipe/formation section) and inside 5.5".
    - iii. Perf squeeze and plug from 450-325'
10. Plug 4 (surface shoe circulation attempt)
  - a. Perforate 261'.
  - b. Attempt to establish circulation...
    - i. if none, spot plug to surface in 5.5" estimated **31sx** needed.
    - ii. If established, estimated **103sx** required to fill annulus (including 100% excess in pipe/formation section) and inside 5.5".
  - c. Ensure cement at surface on all strings of casing, top off as needed.
11. Cut off wellhead below surface casing flange.
12. Install P&A Marker.

**Estimated 150 sx to 222 sx cement needed in total.**

*Please make sure all excess volumes are as follows:*

*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.*

*4.4 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.*





Southland Royalty Company LLC

## Carracas 11B-15 Rio Arriba County, NM

Sec 11, 32N-4W

TD – 2,530' MD/TVD

PBSD – 2361' TVD

12 1/4" hole to 211'

Sfc Csg: 5 jts – 9 5/8" 36# J-55 LT&amp;C

Setting Depth: 211 ft

Cement

195 sx Class B

circ. 5.5 bbls cmt to surface

8 3/4" hole to 2530'

Prod. Csg: 63 jts 5.5" 15.5# J-55 LT&amp;C

Setting Depth: 2529 ft

Cement

259 sx 65/35

Tail: 100 sx Class G

Full returns through job no cmt to surf

Estimated TOC ~1007' per CBL

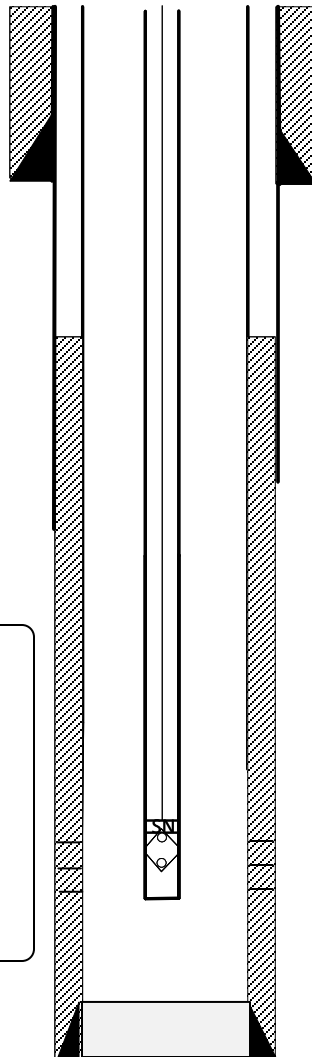
### Perforations 10/1990

2280-2286' (24 holes, 4 spf)

2288-2300' (48 holes, 4 spf)

2317-2322' (24 holes, 4 spf)

Acidized w/ 500 gals 15% HCL. Frac with  
2001 bbls 35# x-link and 23.3 klbs 40/70  
And 207.9 klbs 20/40 sand



Prepared by: BBerry

Date: 07/20/2023

KB = 12.0 ft

GL = 6,393 ft

API# 30-039-24786

Spud Date: 07/31/1990

First Delivered: 01/01/2011

| Name         | Tops  |       |
|--------------|-------|-------|
|              | MD    | TVD   |
| Ojo Alamo Ss | 1,650 | 1,650 |
| Kirtland Sh  | 1,815 | 1,815 |
| Fruitland Fm | 2,198 | 2,198 |
|              |       |       |
|              |       |       |
|              |       |       |

### Tbg Detail – 10/22/2014

75 jts 2.375" 4.7# J-55 tubing @ 2369' – notched collar, mud anchor, and perf sub below SN

Rod String - 2" X 1-1/2" X 16' RWAC PUMP, (40) 3/4" X 25' RODS W/ MOLDED & SNAP ON GUIDES, (52) 3/4" X 25' PLAIN RODS, (1) 3/4" X 2' PONY ROD. PU 1-1/4' X 26' POLISH ROD



Southland Royalty Company LLC

## Carracas 11B-15 Rio Arriba County, NM

Sec 11, 32N-4W

TD – 2,530' MD/TVD

PBSD – 2361' TVD

12 1/4" hole to 211'

Sfc Csg: 5 jts – 9 5/8" 36# J-55 LT&amp;C

Setting Depth: 211 ft

Cement

195 sx Class B

circ. 5.5 bbls cmt to surface

8 3/4" hole to 2530'

Prod. Csg: 63 jts 5.5" 15.5# J-55 LT&amp;C

Setting Depth: 2529 ft

Cement

259 sx 65/35

Tail: 100 sx Class G

Full returns through job no cmt to surf

Estimated TOC ~1007' per CBL

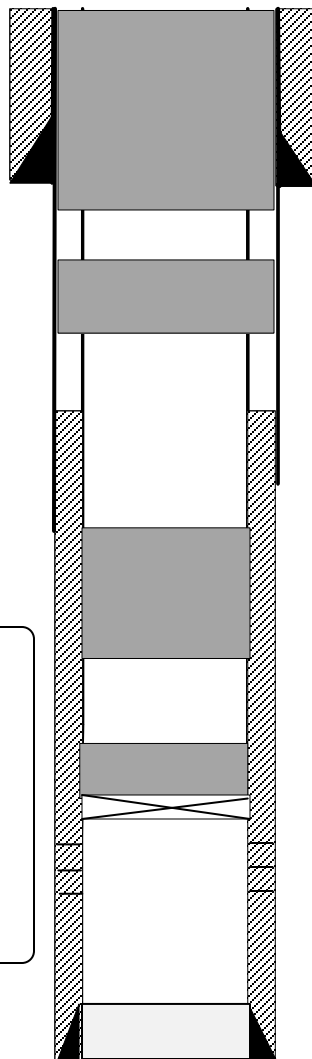
### Perforations 10/1990

2280-2286' (24 holes, 4 spf)

2288-2300' (48 holes, 4 spf)

2317-2322' (24 holes, 4 spf)

Acidized w/ 500 gals 15% HCL. Frac with  
2001 bbls 35# x-link and 23.3 klbs 40/70  
And 207.9 klbs 20/40 sand



Plug 4 (surface shoe plug)

Perfs @ 261'

Attempt to establish circulation.

Pump/circ. cmt to surf ~ 103sx

If no circ., ~31sx needed to cap  
inside casing.

Plug 3 (~Nacimiento plug)

Perfs @ 450'

Attempt to establish circulation.

Pump/circ. cmt to 325' w/ ~70sx

If no circ., ~15sx needed to cap  
inside casing.

PLUG 2 (Ojo/Kirtland)

31 sx balanced plug

from 1865-1600'

Plug 1 (Fruitland prod)

CIBP @ 2230' with 18sx cmt on top;

TOC ~2080'

Prepared by: BBerry

Date: 07/21/2023

KB = 12.0 ft

GL = 6,393 ft

API# 30-039-24786

Spud Date: 07/31/1990

First Delivered: 01/01/2011

| Name         | Tops  |       |
|--------------|-------|-------|
|              | MD    | TVD   |
| Nacimiento   | 376   | 376   |
| Ojo Alamo Ss | 1,650 | 1,650 |
| Kirtland Sh  | 1,815 | 1,815 |
| Fruitland Fm | 2,198 | 2,198 |
|              |       |       |
|              |       |       |

## **P&A RECLAMATION PLAN**

**Carracas 11B #15**

**T32N R4W SEC. 11**

**36.99575°, -107.21974°**

**API: 30-039-24786**

### **General Notes:**

- MorningStar Operating LLC. will comply with the requirements in accordance with the approved Sundry Notice associated with this submittal.
- MorningStar Operating LLC. will notify the BLM & USFS at least 48 hours prior to commencing reclamation earthwork.
- MorningStar Operating LLC. will notify the BLM & USFS at least 48 hours prior to commencing with seeding application.
- Underground production piping on the well site will be removed or abandoned-in-place.
- If present, all MorningStar Operating LLC. power poles, rectifiers, solar panels, and radio equipment will be removed. Cathodic groundbeds will be plugged and abandoned.
- Rig anchors found on site will be removed.
- Disturbance will be limited to the well site footprint and access road boundaries.
- Surface equipment and trash, if any, will be removed.
- If present, gravel will be removed from the well pad surface. Gravel may be used as fill material at the base of the cut slope or on a nearby lease road as road-base.
- The P&A marker will be permanent and comply with NMOCD regulations.

### **Well Site Reclamation:**

- Mature healthy vegetation on the site perimeter will be left to the extent practical.
- Fill material on the location will be used to reclaim the site to near original and natural topography as is practical. A bulldozer/trackhoe will be used to push/pull in the location edges to remove features to approximate the natural contours more closely.
- Natural drainage patterns will be established when possible and practical.
- Silt traps will be utilized to mitigate erosion where applicable.
- The well pad and surrounding area are hilly and consists of clay loam soil.
- The pad will be ripped, scarified, or disked to a depth adequate for establishing a suitable root zone.
- Prior to seeding, the disturbed areas will be left with a rough surface to facilitate moisture and seed retention.

**Access Road Reclamation:**

- The associated access road will be reclaimed to near original and natural topography as is practical.
- Culverts will be removed, and drainage restored with rolling dips to help mitigate erosion.
- Boulders from cut slope will be placed across the entrance of the reclaimed location to prevent future access to the reclaimed well site.

**Revegetation:**

The planned initial seed mixture and application rates for the Pinyon/Juniper Community identified during the site visit will be as follows. The seed application rates may be adjusted according to various methods of application.

| Species                | Select |                        | Lbs/acre (PLS)* |
|------------------------|--------|------------------------|-----------------|
| Mountain Mahogany      | X      | Pick one out of two    | 2.0             |
| Antelope Bitterbrush   |        |                        | 2.0             |
| Western Wheatgrass     | X      | Pick two out of three  | 2.0             |
| Bottle Brush Squartail | X      |                        | 3.0             |
| Needleandthread        |        |                        | 3.0             |
| Indian Ricegrass       | X      | Pick three out of five | 3.5             |
| Blue Gamma             | X      |                        | 2.0             |
| Sand Dropseed          | X      |                        | .5              |
| Prairie Junegrass      |        |                        | 2.0             |
| Muttongrass            |        |                        | 2.0             |
| Scarlet Globemallow    |        | Pick one out of two    | .25             |
| Utah Sweetvetch        | X      |                        | .25             |
| TOTAL                  |        |                        |                 |

\* Minimum if drill seeded. Double this rate if broadcast or hydroseeded.

- Seeding will be broadcast so the rates will be doubled and a rake or harrow will be used to incorporate the seed into the soil.
- Seed mixtures will be certified weed-free and the seeding records (bag labels) or other official documentation will be available to the BLM prior to seeding, upon request.
- Seeding will occur as soon as reasonably possible following completion of earthwork activities and timed for successful germination.
- The need for soil amendments is not expected or proposed.
- Certified weed-free mulch will be broadcast to help facilitate vegetation growth.

**Weed Management:**

- MorningStar Operating LLC's objective is to implement an integrated weed management program to control weed populations and establish desirable vegetation.
- If needed, weed management and control will be performed in an environmental conscious manner by a properly licensed contractor and within compliance of federal and state laws and regulations.

**Monitoring:**

- MorningStar Operating LLC. will submit a Sundry Notice informing the BLM the earthwork and seeding are completed.
- After establishment of adequate vegetation, MorningStar Operating LLC. will coordinate with the USFS and take photos of the site. This information will be submitted with a Sundry Notice (FAN) requesting approval of the reclaimed location.
- Any fencing installed to assist with re-vegetation will be removed once there is an agreement from the USFS that adequate vegetation growth has been obtained.

## Proposed P&amp;A Procedure

## Carracas 11B-15

*Notify Farmington BLM Office at least 24hrs in advance to plugging operations 505 564-7750*

1. MIRU
2. POOH w/ sucker rods and pump. POOH tbg.
3. Run a bit and csg scraper to 2255'.
4. Set CIBP @ 2230'.
5. Plug 1 (Fruitland)
  - a. Spot **18sx** Class G cement on top of CIBP.
6. Circulate hole with mud laden fluid.
7. Original CBL shows TOC ~1007'. No CBL run necessary.
8. Plug 2 (Kirtland and Ojo)
  - a. Pump balanced plug **31sx** Class G cement.
    - i. From 1600-1865'
9. Plug 3 (Nacimiento)
  - a. Perforate 698'.
  - b. Attempt to establish circulation...
    - i. if none, spot plug to 548' in 5.5" estimated **18sx** needed.
    - ii. If established, estimated **84sx** required to fill annulus 698' to 548' (including 100% excess in pipe/formation section) and inside 5.5".
    - iii. Perf squeeze and plug from 698-548'
10. Plug 4 (surface shoe circulation attempt)
  - a. Perforate 261'.
  - b. Attempt to establish circulation...
    - i. if none, spot plug to surface in 5.5" estimated **31sx** needed.
    - ii. If established, estimated **103sx** required to fill annulus (including 100% excess in pipe/formation section) and inside 5.5".
  - c. Ensure cement at surface on all strings of casing, top off as needed.
11. Cut off wellhead below surface casing flange.
12. Install P&A Marker.

**Estimated 150 sx to 236 sx cement needed in total.**

*Please make sure all excess volumes are as follows:*

*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.*

*4.4 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.*



Southland Royalty Company LLC

## Carracas 11B-15 Rio Arriba County, NM

Sec 11, 32N-4W

TD – 2,530' MD/TVD

PBSD – 2361' TVD

12 1/4" hole to 211'

Sfc Csg: 5 jts – 9 5/8" 36# J-55 LT&amp;C

Setting Depth: 211 ft

Cement

195 sx Class B

circ. 5.5 bbls cmt to surface

8 3/4" hole to 2530'

Prod. Csg: 63 jts 5.5" 15.5# J-55 LT&amp;C

Setting Depth: 2529 ft

Cement

259 sx 65/35

Tail: 100 sx Class G

Full returns through job no cmt to surf

Estimated TOC ~1007' per CBL

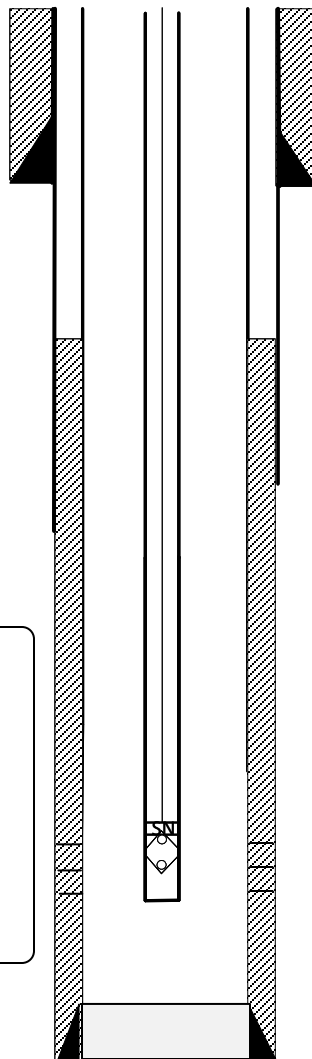
### Perforations 10/1990

2280-2286' (24 holes, 4 spf)

2288-2300' (48 holes, 4 spf)

2317-2322' (24 holes, 4 spf)

Acidized w/ 500 gals 15% HCL. Frac with  
2001 bbls 35# x-link and 23.3 klbs 40/70  
And 207.9 klbs 20/40 sand



Prepared by: BBerry

Date: 07/20/2023

KB = 12.0 ft

GL = 6,393 ft

API# 30-039-24786

Spud Date: 07/31/1990

First Delivered: 01/01/2011

| Name         | Tops  |       |
|--------------|-------|-------|
|              | MD    | TVD   |
| Ojo Alamo Ss | 1,650 | 1,650 |
| Kirtland Sh  | 1,815 | 1,815 |
| Fruitland Fm | 2,198 | 2,198 |
|              |       |       |
|              |       |       |
|              |       |       |

### Tbg Detail – 10/22/2014

75 jts 2.375" 4.7# J-55 tubing @ 2369' – notched collar, mud anchor, and perf sub below SN

Rod String - 2" X 1-1/2" X 16' RWAC PUMP, (40) 3/4" X 25' RODS W/ MOLDED & SNAP ON GUIDES, (52) 3/4" X 25' PLAIN RODS, (1) 3/4" X 2' PONY ROD. PU 1-1/4' X 26' POLISH ROD





Southland Royalty Company LLC

## Carracas 11B-15 Rio Arriba County, NM

Sec 11, 32N-4W

TD – 2,530' MD/TVD

PBSD – 2361' TVD

12 1/4" hole to 211'

Sfc Csg: 5 jts – 9 5/8" 36# J-55 LT&amp;C

Setting Depth: 211 ft

Cement

195 sx Class B

circ. 5.5 bbls cmt to surface

8 3/4" hole to 2530'

Prod. Csg: 63 jts 5.5" 15.5# J-55 LT&amp;C

Setting Depth: 2529 ft

Cement

259 sx 65/35

Tail: 100 sx Class G

Full returns through job no cmt to surf

Estimated TOC ~1007' per CBL

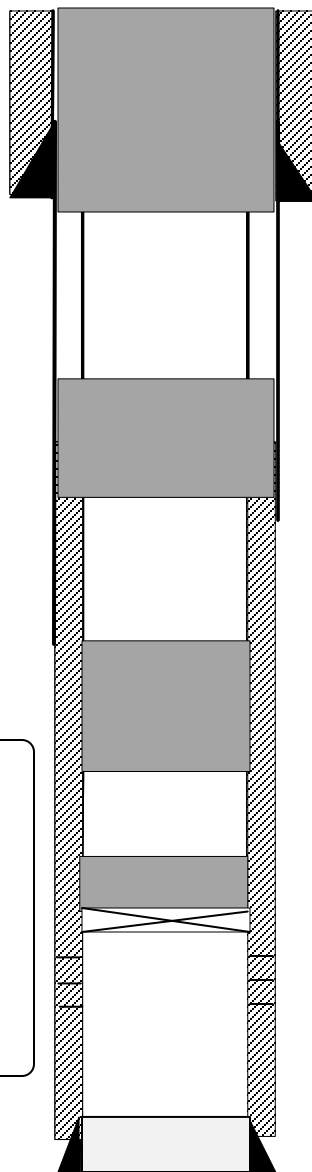
### Perforations 10/1990

2280-2286' (24 holes, 4 spf)

2288-2300' (48 holes, 4 spf)

2317-2322' (24 holes, 4 spf)

Acidized w/ 500 gals 15% HCL. Frac with  
2001 bbls 35# x-link and 23.3 klbs 40/70  
And 207.9 klbs 20/40 sand



Plug 4 (surface shoe plug)

Perfs @ 261'

Attempt to establish circulation.

Pump/circ. cmt to surf ~ 103sx

If no circ., ~31sx needed to cap  
inside casing.

Plug 3 (~Nacimiento plug)

Perfs @ 698'

Attempt to establish circulation.

Pump/circ. cmt to 548' w/ ~84sx

If no circ., ~18sx needed to cap  
inside casing.

PLUG 2 (Ojo/Kirtland)

31 sx balanced plug

from 1865-1600'

Plug 1 (Fruitland prod)

CIBP @ 2230' with 18sx cmt on top;

TOC ~2080'

Prepared by: BBerry  
Date: 07/21/2023  
Updated with COAs 07/31/2023

KB = 12.0 ft

GL = 6,393 ft

API# 30-039-24786

Spud Date: 07/31/1990  
First Delivered: 01/01/2011

| Name         | Tops  |       |
|--------------|-------|-------|
|              | MD    | TVD   |
| Nacimiento   | 648   | 648   |
| Ojo Alamo Ss | 1,650 | 1,650 |
| Kirtland Sh  | 1,815 | 1,815 |
| Fruitland Fm | 2,198 | 2,198 |
|              |       |       |
|              |       |       |

**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 247843

CONDITIONS

|  |   |
|--|---|
| Operator:<br>MorningStar Operating LLC<br>400 W 7th St<br>Fort Worth, TX 76102 | OGRID:<br>330132                                    |
|  | Action Number:<br>247843                            |
|  | Action Type:<br>[C-103] NOI Plug & Abandon (C-103F) |

CONDITIONS

| Created By    | Condition  | Condition Date |
|---------------|--|----------------|
| john.harrison | Accepted for record - NMOCD 8/4/23. BLM approved P&A 7/26/23 | 8/4/2023       |