

Form 3160-5  
(June 2019)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2021**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**5. Lease Serial No.  
NMSF078764  
6. If Indian, Allottee or Tribe Name**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		7. If Unit of CA/Agreement, Name and/or No. NMNM78407E
2. Name of Operator LOGOS OPERATING, LLC		8. Well Name and No. ROSA UNIT 645H
3a. Address 2010 AFTON PLACE FARMINGTON, NM 87401	3b. Phone No. (include area code) (505) 278-8720	9. API Well No. 30-039-31415
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) SEC 19 T31N R05W NENW UNIT C 943 FNL 424 FWL		10. Field and Pool or Exploratory Area BASIN MANCOS
		11. Country or Parish, State RIO ARRIBA COUNTY, NM

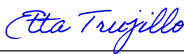
## 12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

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 Well	
	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Integrity	
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other - Production	
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Casing	
<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 recompleat 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 performed 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 recompleat 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 determined that the site is ready for final inspection.)

9/13/22 - MIRU. ND WH. NU BOP. Tag cmt @ 2923'. RU swivel. DO cmt to DV tool @ 2985' & 4540'.  
 9/14/22 - PT INT csg to 1500psi/30mins. Test good. TOO. RU WL. Run CBL. RD WL. TIH w/8-1/2" bit, tag cmt @ 5560'. RU swivel. Circ. DO cmt @ 5560' to float collar.  
 9/15/22 - Cont DO cmt to float collar @ 6085'. TOO. w/bit. RU WL. Run CBL. RD WL. TIH w/8-1/2" bit, tag fill @ 6017'. RU swivel. CO. DO FC & shoe to 6179'. TOO. RU cmt crew. Mix and pump 237sx cmt (65bbls, 365cuft) 13.6#, 1.54 yield. Displaced w/31bbls of FW. PU to 4500'. Reverse Circ. Sqz cmt to 1500psi, 7bbls. SIW. WOC. Received verbal approval from Monica Kuehling (NMOCD) & Virgil Lucero (BLM) on 9/2/2022 to squeeze shoe and move forward without uphole remediation (see attached).  
 9/16/22 - TIH tag cmt @ 5242'. RU. Reverse circ. DO cmt to 5488'. Circ. TOO. RDMO. ND BOP. Install night cap.  
 10/9-10/22 - Walk rig from Rosa Unit 647H. NU BOP's. DO cmt f/5488' t/6185'. Wash down to 6290'. Drill 8.5" hole f/6290' t/6295'. Circ & displace water w/11.8ppg OBM.  
 10/11-12/22 - TIH and circ/displace with OBM. Received verbal approval from Monica Kuehling (NMOCD) & Virgil Lucero (BLM) to squeeze shoe (see attached). Mix and pump 330sx cmt (67.6bbls, 380cuft) 13.6#, 1.15 yield. Displaced w/93bbls of WBM. POOH. Circ. Sqz cmt 16bbls to 1600psi. WOC. Wash down to TOC @ 5918'.  
 10/13-17/22 - Drill cmt f/5918' t/6295'. Circ. TOO. TIH drill 8.5" hole f/6299' t/10,974'. Circ. Attempt to wash down, lost returns. Break circ. wash down to 10,900'. Spot & szq with LCM. Circ @ 10,974'. Circ and wash. No losses. TOO.  
 10/18-28/22 - TIH to 10,300'. Wash & ream. Cont drilling 8.5" hole f/10,974' t/14,415' (TD reached on 10/25/22). Heavy mud losses to wellbore. Circ gas out of hole @ 5995'. TIH w/8.5" tri-cone bit. Circ, experiencing loss returns. Cont to cir, wash & ream. Break circulation, full returns. LDDP. RU casing equipment. RIH w/5.5" csg to 160'.  
 10/29/22 - Cont to TIH w/5.5" to 1148'.  
 10/30/22 - TIH w/324jts 5-1/2" P-110 20.0# BTC csg landed @ 14,397', FC @ 14,327', Toe Sleeves @ 14,281' - 14,283' & 14,234' - 14,237'. Circ. RD csg crew.  
 10/31/22 - RU cementers. Pump lead cmt w/360sxs(129bbls, 727cf) @ 12.4ppg, 2.02yld, and Tail w/1774sxs(493bbls, 2767cf) @ 13.2ppg, 1.56yld. Displaced w/323bbls. Bumped plug on 10/31/22 @ 07:43hr. 0 bbls cmt to surface. Estimated TOC @ 4920'. ND BOP. RD.  
 11/1 -3/22 - Cont to RD derrick equipment. RR.

Pressure test will be included in the completions sundry.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) Etta Trujillo		Title Regulatory Specialist
Signature 		Date 11/10/2022

**THE SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by	Title	Date
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.	Office	

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)



## 9-5/8" Remediation Plan

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**DATE:** 9/02/2022

**CURRENT WELL INFORMATION:**

- Surface casing set at 350' MD (Reference to Ensign T223 KB – 24.5')
- 12-1/4" intermediate section drilled to TD at 6,285' MD on 08/13/2022
- 9-5/8" 47 ppf L-80 BTC intermediate casing currently set at 6,132' MD
- 9-5/8" intermediate casing float collar is currently set at 6,086' MD
- DV tools (top) located at 2,985' and 4,540'
- 9-5/8" casing run summary below:
  - Ran 9-5/8" casing to 6,132' MD where casing became stuck. Made multiple attempts to regain circulation and work casing free with no success.
- Formation Tops:
  - Ojo Alamo – 2433'
  - Kirtland – 2,559'
  - Fruitland – 3,044' MD
  - Pictured Cliffs – 3,384' MD
  - Mesaverde – 4,619' MD
  - Mancos – 6,203' MD
- 9-5/8" Cement Summary below:
  - Stage 1:
    - RIH with perf guns and stacked out at 6,035' MD. Perforated 4 spf with 0.41" penetration at 6,033'. Circulated casing at 300 gpm.
    - Mix & pump cmt 40 bbls fresh water, Lead cmt 73 bbls (255 sx) 12 ppg, Tail cmt 120 bbls (307 sx) 15.8 ppg, Tail 55 bbls 13.6 ppg Drop plug & displace w/ 424 bbls mud. (Shut well in w/ 600 psi). WOC. Open DV tool and circulate - no cement circulated.
  - Stage 2:
    - Mix & pump cmt 40 bbls fresh water, Lead cmt 104 bbls (255 sx) 12 ppg, Tail cmt 95 bbls (307 sx) 13.2 ppg, drop plug & displace w/ 386 bbls, bump plug. Drop bomb, open DV tool & circulate 486 bbls. No cement circulated - blue dye was present.

Rosa Unit 645H  
9-5/8" Remediation Plan

- Stage 3:
  - Mix & pump 40 bbls dye, Lead 385 bbls (940 sx) 12 ppg, Tail 87 bbls (282 sx), 13.2 ppg, Drop plug & displaced w/ 218 bbls mud, Bumped plug, closed DV tool, 8 bbls good cmt back to surface.

### **PROCEDURE:**

1. PU 8-1/2" cleanout BHA
2. Drill out the DV tool @ 2,985'.
3. Continue in the hole and drill out the 2nd DV tool @ 4,540'.
4. TOO H and rig up to run CBL.
  - Run CBL from 4,670' (50'+ below bottom of Mesaverde) to 2,785'. (200' above DV tool) Note: Stage 3 circulated cement to surface and does not require CBL above 2,985'.
  - Ensure cement isolation between Mesaverde top at 4,619' (cement across 4,569' - 4,669'), PC top at 3,384' (3,334' - 3,434') and FTC top at 3044' (2,994' - 3,094').
  - Send CBL to the office for review and regulatory agency notifications.
5. Pressure test intermediate casing to 1500 psi for 30 minutes with third-party pressure testers.
6. After a successful casing test, wait for approval to move forward with the following operations. TIH with clean out BHA and drill out cement, float collar @ 6,086' and shoe @ 6,132'.
7. TOO H and lay down BHA.
8. Strap in hole with 2-7/8" work string. Based on hole conditions, TIH to plug set depth at ~6,275'.
9. Circulate and condition mud while RU cementers and test all lines to 5,000 psi.
10. Break circulation and establish pump pressures and rates
11. Pumping Schedule:
  - Plug – 283 sx / 58 bbls – Premium Plug back Cement (f/6,285 MD – 6,000' MD)
    - Slurry Weight 15.8 ppg
    - Slurry Yield 1.15 cfs
    - Water Ratio 5.0 gal/sx
    - Top of cement 6,000'
    - 153' of 12.25" open hole + 100% excess
    - 132' of 9-5/8" cased hole + 50' excess
12. Displace with 36.4 bbls – 5 = 31.4 bbls of Mud/water displacement cut short by 5 bbls for cement to fall out of workstring while POOH (pulling dry pipe).
13. POOH with 19 stands **slowly** as to not leave a void in center of the balanced plug.
14. Circulate bottoms up twice with pipe moving slowly +/- 5'. Check for cement returns at shakers.
15. Rig down cementers. Shut well in and hold pressure on casing.
16. WOC a minimum of 12 hours before attempting to tag or 18 hrs before drilling cement plug.  
Reference Lab reports
17. TIH and tag cement plug. TOO H. Proceed with lateral drilling operations.

**From:** [Vanessa Fields](#)  
**To:** [Kuehling, Monica, EMNRD](#); [vlucero@blm.gov](mailto:vlucero@blm.gov)  
**Cc:** [Etta Trujillo](#); [Randy Edgeington](#); [Krista McWilliams](#)  
**Subject:** RE: [EXTERNAL] Rosa Unit #645H API# 30-039-31415 Remediation Plan Verbal Approval Request  
**Date:** Friday, September 2, 2022 3:28:51 PM  
**Attachments:** [image001.png](#)

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Thank you, Monica. LOGOS received BLM verbal approval from Virgil Lucero at 1:46 pm today.

A Sundry will be submitted with the attached procedure and email string.

Thank you,  
Vanessa Fields  
Regulatory Manager  
Email: [vfields@logosresourcesllc.com](mailto:vfields@logosresourcesllc.com)  
Office: 505-787-2218  
Cell: 505-320-1243



---

**From:** Kuehling, Monica, EMNRD <[monica.kuehling@state.nm.us](mailto:monica.kuehling@state.nm.us)>  
**Sent:** Friday, September 2, 2022 3:02 PM  
**To:** Vanessa Fields <[vfields@logosresourcesllc.com](mailto:vfields@logosresourcesllc.com)>; [vlucero@blm.gov](mailto:vlucero@blm.gov)  
**Cc:** Etta Trujillo <[etrujillo@logosresourcesllc.com](mailto:etrujillo@logosresourcesllc.com)>; Randy Edgeington <[redgeington@logosresourcesllc.com](mailto:redgeington@logosresourcesllc.com)>; Krista McWilliams <[kmcwilliams@logosresourcesllc.com](mailto:kmcwilliams@logosresourcesllc.com)>  
**Subject:** RE: [EXTERNAL] Rosa Unit #645H API# 30-039-31415 Remediation Plan Verbal Approval Request

Hello all

The cement work is approved by NMOCD with prior approval from the BLM

Concerning the logging – 2785 to 4670 – if cement is not found at 4670 the log will need to be ran deeper.

Submit the log with a current wellbore schematic for review and approval before proceeding.

Thank you

Monica Kuehling

Compliance Officer Supervisor  
Deputy Oil and Gas Inspector  
New Mexico Oil Conservation Division  
North District  
Office Phone: 505-334-6178 ext. 123  
Cell Phone: 505-320-0243

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**From:** Vanessa Fields <[vfields@logosresourcesllc.com](mailto:vfields@logosresourcesllc.com)>  
**Sent:** Friday, September 2, 2022 1:09 PM  
**To:** [vlucero@blm.gov](mailto:vlucero@blm.gov); Kuehling, Monica, EMNRD <[monica.kuehling@state.nm.us](mailto:monica.kuehling@state.nm.us)>  
**Cc:** Etta Trujillo <[etrujillo@logosresourcesllc.com](mailto:etrujillo@logosresourcesllc.com)>; Randy Edgeington <[redgeington@logosresourcesllc.com](mailto:redgeington@logosresourcesllc.com)>; Krista McWilliams <[kmcwilliams@logosresourcesllc.com](mailto:kmcwilliams@logosresourcesllc.com)>  
**Subject:** [EXTERNAL] Rosa Unit #645H API# 30-039-31415 Remediation Plan Verbal Approval Request  
**Importance:** High

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good afternoon,

LOGOS request to receive verbal approval on the referenced remediation plan for the Rosa Unit #645H.

Once both agencies grant approval, the remediation plan will be submitted via Sundry.

Thank you,

Vanessa Fields  
Regulatory Manager  
Email: [vfields@logosresourcesllc.com](mailto:vfields@logosresourcesllc.com)  
Office: 505-787-2218  
Cell: 505-320-1243





## Rosa Unit 645H Cement Shoe Plug

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**DATE:** 10/11/2022

**CURRENT WELL INFORMATION:**

- Surface casing set at 350' MD (Reference to Ensign T223 KB – 24.5')
- 12-1/4" intermediate section drilled to TD at 6,285' MD on 08/13/2022
- 8-1/2" production section drilled to TD of 6,295' MD on 10/11/2022
- 9-5/8" 47 ppf L-80 BTC intermediate casing currently set at 6,132' MD
- 9-5/8" intermediate casing float collar is currently set at 6,086' MD
- DV tools (top) located at 2,985' and 4,540'
- 9-5/8" casing run summary below:
  - Ran 9-5/8" casing to 6,132' MD where casing became stuck. Made multiple attempts to regain circulation and work casing free with no success.
- Formation Tops:
  - Ojo Alamo – 2433'
  - Kirtland – 2,559'
  - Fruitland – 3,044' MD
  - Pictured Cliffs – 3,384' MD
  - Mesaverde – 4,619' MD
  - Mancos – 6,203' MD
- 9-5/8" Cement Summary below:
- CBL Ran on 9/15/2022
  - Good cement from 5,870' to 4,100', 3230'-540'. \*Verbal approval was given from BLM and OCD on 9/15/2022 to move forward without up-hole remediation. Continued with Shoe squeeze as approved via remediation plan approved on 9/2/2022.
  - Stage 1:
    - RIH with perf guns and stacked out at 6,035' MD. Perforated 4 spf with 0.41" penetration at 6,033'. Circulated casing at 300 gpm.
    - Mix & pump cmt 40 bbls fresh water, Lead cmt 73 bbls (255 sx) 12 ppg, Tail cmt 120 bbls (307 sx) 15.8 ppg, Tail 55 bbls 13.6 ppg Drop plug & displace w/ 424 bbls mud. (Shut well in w/ 600 psi). WOC. CBL Ran on 9/15/2022 - TOC 4100'.

Rosa Unit 645H

Cement Plug

- Stage 2:
  - Mix & pump cmt 40 bbls fresh water, Lead cmt 104 bbls (255 sx) 12 ppg, Tail cmt 95 bbls (307 sx) 13.2 ppg, drop plug & displace w/ 386 bbls. TOC by CBL 9/15/2022 – 4100’
- Stage 3:
  - Mix & pump 40 bbls dye, Lead 385 bbls (940 sx) 12 ppg, Tail 87 bbls (275 sx), 13.2 ppg, Drop plug & displaced w/ 218 bbls mud, Bumped plug, closed DV tool, 8 bbls good cmt back to surface. TOC by CBL 540’.
- Previous Shoe Squeeze:
  - Mix & pump 65 bbls of 13.6 ppg, 1.54 cuft/sx, 365 cuft, (237 sx). Squeeze cement to 1500 psi.

**Proposed Shoe Squeeze:****PROCEDURE:**

1. TIH to plug set depth at ~6,295’.
2. Circulate and condition mud while RU cementers and psi test cement lines.
3. Break circulation and establish pump pressures and rates
4. Pumping Schedule:
  - Plug – 330 sx / 67 bbls – Premium Plug back Cement (f/6,295 MD – 5,625’ MD)  
Slurry Weight 15.8 ppg  
Slurry Yield 1.15 cfs  
Top of cement 5,625’
5. Slowly pull out of the hole at 3 minutes/stand for 10 stands to a depth of 5,365’ MD (260’ TOC).
6. Circulate bottoms up.
7. Shut down. Close BOP.
8. Begin squeezing cement.
  - If pressure is present indicating a successful “squeeze” of the loss zone, continue squeezing the cement to a MAX total of 23 bbls. This will leave 13 bbls => 178’ of cement inside casing.
9. WOC for 6 hours while holding final squeeze pressure.
10. Release pressure and circulate bottoms up.
11. POOH.
12. Proceed with lateral drilling operations upon successful squeeze.

**From:** [Kuehling, Monica, EMNRD](#)  
**To:** [Vanessa Fields](#)  
**Cc:** [Krista McWilliams](#); [Drilling](#); [Etta Trujillo](#); [Randy Edgeington](#); [Randall Klingler](#)  
**Subject:** RE: [EXTERNAL] Fwd: Rosa Unit 645H Requested Shoe Squeeze  
**Date:** Tuesday, October 11, 2022 2:29:50 PM

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NMOCD approves procedure with prior approval from the BLM

Thank you

Monica Kuehling  
Compliance Officer Supervisor  
Deputy Oil and Gas Inspector  
New Mexico Oil Conservation Division  
North District  
Office Phone: 505-334-6178 ext. 123  
Cell Phone: 505-320-0243  
Email - [monica.kuehling@emnrd.nm.gov](mailto:monica.kuehling@emnrd.nm.gov)

---

**From:** Vanessa Fields <[vfields@logosresourcesllc.com](mailto:vfields@logosresourcesllc.com)>  
**Sent:** Tuesday, October 11, 2022 1:31 PM  
**To:** Kuehling, Monica, EMNRD <[monica.kuehling@emnrd.nm.gov](mailto:monica.kuehling@emnrd.nm.gov)>  
**Cc:** Krista McWilliams <[kmcwilliams@logosresourcesllc.com](mailto:kmcwilliams@logosresourcesllc.com)>; Drilling <[Drilling@logosresourcesllc.com](mailto:Drilling@logosresourcesllc.com)>; Etta Trujillo <[etrujillo@logosresourcesllc.com](mailto:etrujillo@logosresourcesllc.com)>; Randy Edgeington <[redgeington@logosresourcesllc.com](mailto:redgeington@logosresourcesllc.com)>; Randall Klingler <[rklingler@logosresourcesllc.com](mailto:rklingler@logosresourcesllc.com)>  
**Subject:** [EXTERNAL] Fwd: Rosa Unit 645H Requested Shoe Squeeze

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good afternoon Monica.

Please find attached the referenced procedure as discussed on the phone.

Thank you,

Vanessa Fields



Well Name: ROSA UNIT	Well Location: T31N / R5W / SEC 19 / NENW / 36.889712 / -107.406179	County or Parish/State: RIO ARRIBA / NM
Well Number: 645H	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMSF078764	Unit or CA Name: ROSA UNIT-MANCOS PA	Unit or CA Number: NMNM78407E
US Well Number: 300393141500X1	Well Status: Drilling Well	Operator: LOGOS OPERATING LLC

Subsequent Report

Sundry ID: 2702530

Type of Submission: Subsequent Report

Date Sundry Submitted: 11/11/2022

Date Operation Actually Began: 09/13/2022

Type of Action: Other

Time Sundry Submitted: 07:58

**Actual Procedure:** 9/13/22 - MIRU. ND WH. NU BOP. Tag cmt @ 2923'. RU swivel. DO cmt to DV tool @ 2985' & 4540'. 9/14/22 - PT INT csg to 1500psi/30mins. Test good. TOOH. RU WL. Run CBL. RD WL. TIH w/8-1/2" bit, tag cmt @ 5560'. RU swivel. Circ. DO cmt @ 5560' to float collar. 9/15/22 - Cont DO cmt to float collar @ 6085'. TOOH w/bit. RU WL. Run CBL. RD WL. TIH w/8-1/2" bit, tag fill @ 6017'. RU swivel. CO. DO FC & shoe to 6179'. TOOH RU cmt crew. Mix and pump 237sx cmt (65bbbs,365cuft) 13.6#, 1.54 yield . Displaced w/31bbbs of FW. PU to 4500'. Reverse Circ. Sqz cmt to 1500psi, 7bbbs. SIW. WOC. Received verbal approval from Monica Kuehling (NMOCD) & Virgil Lucero (BLM) on 9/2/2022 to squeeze shoe and move forward without uphole remediation (see attached). 9/16/22 - TIH tag cmt @ 5242'. RU. Reverse circ. DO cmt to 5488'. Circ. TOOH. RDMO. ND BOP. Install night cap. 10/9-10/22 - Walk rig from Rosa Unit 647H. NU BOP's. DO cmt f/5488' t/6185'. Wash down to 6290'. Drill 8.5" hole f/6290' t/6295'. Circ & displace water w/11.8ppg OBM. 10/11-12/22 - TIH and circ/displace with OBM. Received verbal approval from Monica Kuehling (NMOCD) & Virgil Lucero (BLM) to squeeze shoe (see attached). Mix and pump 330sx cmt (67.6bbbs, 380cuft) 13.6#, 1.15 yield. Displaced w/93bbbs of WBM. POOH. Circ. Sqz cmt 16bbbs to 1600psi. WOC. Wash down to TOC @ 5918'. 10/13-17/22 - Drill cmt f/5918' t/6295'. Circ. TOOH. TIH drill 8.5" hole f/6299' t/10,974'. Circ. Attempt to wash down, lost returns. Break circ. wash down to 10,900'. Spot & szq with LCM. Circ @ 10,974'. Circ and wash. no losses. TOOH. 10/18-28/22 - TIH to 10,300'. Wash & ream. Cont drilling 8.5" hole f/10,974' t/14,415' (TD reached on 10/25/22). Heavy mud losses to wellbore. Circ gas out of hole @ 5995'. TIH w/8.5" tri-cone bit. Circ, experiencing loss returns. Cont to cir, wash & ream. Break circulation, full returns. LDDP. RU casing equipment. RIH w/5.5" csg to 160'. 10/29/22 - Cont to TIH w/5.5" to 1148'. 10/30/22 - TIH w/324jts 5-1/2" P-110 20.0# BTC csg landed @ 14,397', FC @ 14,327', Toe Sleeves @ 14,281' - 14,283' & 14,234' - 14,237'. Circ. RD csg crew. 10/31/22 - RU cementers. Pump lead cmt w/360sxs(129bbbs, 727cf) @ 12.4ppg, 2.02yld, and Tail

Well Name: ROSA UNIT	Well Location: T31N / R5W / SEC 19 / NENW / 36.889712 / -107.406179	County or Parish/State: RIO ARRIBA / NM
Well Number: 645H	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMSF078764	Unit or CA Name: ROSA UNIT-MANCOS PA	Unit or CA Number: NMNM78407E
US Well Number: 300393141500X1	Well Status: Drilling Well	Operator: LOGOS OPERATING LLC

w/1774sxs(493bbls, 2767cf) @ 13.2ppg, 1.56yld. Displaced w323bbls. Bumped plug on 10/31/22 @ 07:43hr. 0 bbls cmt to surface. Estimated TOC @ 4920'. ND BOP. RD. 11/1 -3/22 - Cont to RD derrick equipment. RR. Pressure test will be included in the completions sundry.

SR Attachments

Actual Procedure

Rosa\_Unit\_645H\_Approved\_Remediation\_Plans\_20221111075415.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: ETTA TRUJILLO

Signed on: NOV 11, 2022 07:58 AM

Name: LOGOS OPERATING LLC

Title: Regulatory Specialist

Street Address: 2010 AFTON PLACE

City: FarmingtonState: NM

Phone: (505) 324-4154

Email address: ETRUJILLO@LOGOSRESOURCESLLC.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: Accepted

Disposition Date: 11/14/2022

Signature: Kenneth Rennick

**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 158482

CONDITIONS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 158482
	Action Type: [C-103] Sub. Drilling (C-103N)

CONDITIONS

Created By	Condition	Condition Date
plmartinez	None	11/15/2022