

<b>Well Name:</b> ROSA UNIT	<b>Well Location:</b> T31N / R5W / SEC 33 / NWSW / 36.856045 / -107.373405	<b>County or Parish/State:</b> RIO ARRIBA / NM
<b>Well Number:</b> 752H	<b>Type of Well:</b> CONVENTIONAL GAS WELL	<b>Allottee or Tribe Name:</b>
<b>Lease Number:</b> NMSF078773	<b>Unit or CA Name:</b>	<b>Unit or CA Number:</b> NMNM078407E
<b>US Well Number:</b> 3003931460	<b>Operator:</b> LOGOS OPERATING LLC	

**Notice of Intent**

**Sundry ID:** 2808501

**Type of Submission:** Notice of Intent

**Type of Action:** Other

**Date Sundry Submitted:** 08/26/2024

**Time Sundry Submitted:** 02:49

**Date proposed operation will begin:** 08/26/2024

**Procedure Description:** LOGOS Operating request a change in plans for the following: Per OCD's COA: Surface casing shall be sat and cemented prior to drilling into the Ojo Alamo formation. BOPE shall be installed and tested at this point. LOGOS Operating received verbal approval on 8/26/24 from Ward Rikala (NMOCD) to use the reference 20" diverter system. Attached: Operations plan.

**Surface Disturbance**

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

**NOI Attachments**

**Procedure Description**

3160\_005\_Rosa\_Unit\_752H\_Change\_in\_Plan\_Include\_Surface\_Diverter\_20240826\_20240826144836.pdf

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<b>US Well Number:</b> 3003931460	<b>Operator:</b> LOGOS OPERATING LLC	

**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:** AUG 26, 2024 02:49 PM

**Name:** LOGOS OPERATING LLC

**Title:** Regulatory Specialist

**Street Address:** 2010 AFTON PLACE

**City:** Farmington **State:** 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:** Approved **Disposition Date:** 08/29/2024

**Signature:** Kenneth Rennick

Form 3160-5  
(June 2019)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB  
No. 1004-0137 Expires:  
December 31, 2024

**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. NMSF078773
6. If Indian, Allottee or Tribe Name

<b>SUBMIT IN TRIPLICATE</b> - Other instructions on page 2		7. If Unit of CA/Agreement, Name and/or No.
1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		8. Well Name and No. ROSA UNIT 752H
2. Name of Operator LOGOS OPERATING, LLC		9. API Well No. 30-039-31460
3a. Address 2010 AFTON PLACE FARMINGTON, NM 87401	3b. Phone No. (include area code) (505) 278-8720	10. Field and Pool or Exploratory Area BASIN MANCOS
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description) UNIT E SEC 33 T31N 5W 2611' FNL 950' FWL		11. Country or Parish, State RIO ARRIBA, NEW MEXICO

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" 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
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

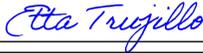
13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths 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 recompletion 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.)

LOGOS Operating request a change in plans for the following:

Per OCD's COA: *Surface casing shall be sat and cemented prior to drilling into the Ojo Alamo formation. BOPE shall be installed and tested at this point.*

LOGOS Operating received verbal approval on 8/26/24 from Ward Rikala (NMOCD) to use the reference 20" diverter system.

Attached: Operations plan.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)	
Etta Trujillo	Title Regulatory Specialist
Signature 	Date 8/26/2024

**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)



## LOGOS Operating, LLC Operations Plan

*Note: This procedure will be adjusted onsite based upon actual conditions*

Date:	August 26, 2024	Pool:	Basin Mancos
Well Name:	Rosa Unit 752H	GL Elevation:	6,534'
Surface Location:	Sec 33, T31N, R5W 2611' FNL, 950' FWL (36.856182° N, -170.373413° W – NAD83)	KB:	30'
Bottom Hole Location:	Sec 31, T31N, R5W 1006' FSL, 167' FWL (36.851616° N, -107.407217° W – NAD83)	Measured Depth:	16,874' (KB)
Lease Serial CA Serial	# NMSF078773 # NMNM78407E	County:	Rio Arriba

### I. GEOLOGY

A. Formation Tops (Based on KB Elevation): Estimated top of important geological markers:  
SURFACE FORMATION – NACIMIENTO

NAME	MD	TVD	NAME	MD	TVD
OJO ALAMO	2744'	2682'	*POINT LOOKOUT	5977'	5799'
KIRTLAND	2894'	2827'	*MANCOS	6465'	6270'
*FRUITLAND	3268'	3187'	KICKOFF POINT	6678'	6475'
*PICTURED CLIFFS	3643'	3549'	LANDING POINT	7674'	7084'
LEWIS	3756'	3658'	TD	16874'	7062'
CHACRA	4864'	4726'			
*CLIFF HOUSE	5727'	5558'			
MENEFEE	5756'	5586'			

\* indicates depth at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered.

B. **MUD LOGGING PROGRAM:** Mudlogger on location from KOP to TD.

C. **LOGGING PROGRAM:** LWD GR from surface casing to TD.

D. **NATURAL GAUGES:** Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

### II. DRILLING

A. **MUD PROGRAM:** LSND mud (WBM) was used to drill the 26"/24" conductor hole. LSND (WBM) will be used to drill the 17-1/2" surface hole and 12-1/4" intermediate hole. A LSND (WBM) or (OBM) will be used to drill the 8-1/2" curve and lateral portion of the wellbore. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses.

Above ground steel pits will be used for fluid and cuttings while drilling. In the unlikely event that a tank develops a leak, upon immediate visual discovery, the fluid would be transferred to another tank and contaminated soil would be removed and disposed. Any leaks, spills or other undesirable events will be reported in accordance with BLM NTL 3A. Rig crews will monitor the tanks at all times.



- B. **BOP TESTING:** The BOPE will be tested to **250 psi (Low) for 5 minutes** and **3000 psi (High) for 10 minutes**. Pressure test surface casing to **600 psi for 30 minutes** and intermediate casing to **1500 psi for 30 minutes**. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. The drum brakes will be inspected and tested each tour. BOP equipment will be tested every 30 days, after any repairs are made to the BOP equipment, and after the BOP equipment is subjected to pressure. Annular preventers will be functionally operated at least once per week. Pipe and blind rams shall be activated each trip or but not more than once a day. The New Mexico Oil & Gas Conservation Commission and the BLM will be notified 24 hours in advance of testing of BOPE. **All tests and inspections will be recorded and logged with time and results.** A full BOP test will be conducted when initially installed for the first well on the pad or if seals subject to test pressure are broken, following related repairs and at a minimum of 30 day intervals. A BOPE Shell Test only will be conducted for subsequent wells on the pad when seals subject to pressure have not been broken or repaired and fall within the 30 day interval of first full test.
- C. **GeoHazards:** There are no Geohazards
- D. **Maximum Anticipated Pressure:** 7,084' TVD x 0.43 = 3,047 psi
- E. **H2S Concerns:** There is no record of any naturally occurring H2S in any formation in the Rosa Unit. No H2S is anticipated in this formation or this well.

III. **MATERIALS**

A. **CASING EQUIPMENT:**

CASING TYPE	OHSIZE (IN)	DEPTH (MD)	CSG SIZE	WEIGHT	GRADE	CONN
CONDUCTOR (Pre-set)	26" or 24"	348' (GL)	20"	94 LBS	J-55 or equiv	LTC/BTC
SURFACE	17.5"	3,693'	13.375"	54.5 LBS	J-55 or equiv	LTC/BTC
INTERMEDIATE	12.25"	6,540'	9.625"	43.5 LBS	N-80 or equiv	LTC/BTC
PRODUCTION	8.5"	16,874'	5.5"	20 LBS	P-110 or equiv	LTC/BTC

NOTE: All casing depths are approximate, based on KB elevation and will be based on drilling conditions +/- 50'. Weights, grades and connections will be based on availability and may vary but will be equivalent or greater.

B. **FLOAT EQUIPMENT:**

1. **CONDUCTOR CASING:** Was Pre-set at (348' GL) on 6/13/2024
2. **SURFACE CASING:** 13-3/8" cement nose guide shoe with float. Place float collar one joint above the shoe. Install (1) centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) centralizer at 2,500 ft., 2,000ft., 1,500 ft., 1,000 ft., and 500ft.
  - Casing will be kept fluid filled during drilling
3. **INTERMEDIATE CASING:** 9-5/8" cement float shoe. Place float collar one joint above the shoe. Install (1) centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) centralizer at 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft. Optional use of DV Tools (2) will be strategically placed above loss circulation zones anticipated in the Mesaverde and Fruitland Coal. Optional use of cancellation plugs for DV tools may be used if losses while cementing are not encountered. Optional use of an ICP may be used in conjunction with DV Tools.
4. **PRODUCTION CASING:** Run 5-1/2" casing with cement nose guide Float Shoe, 5-1/2" full or pup joints as necessary, Landing Collar, 5-1/2" full or pup joints as necessary, at least (1) one Toe Sleeve (Sliding Sleeve) positioned inside the applicable production area. Centralizer program will be determined by wellbore conditions. Production casing to be pressure tested



during completion operations with frac stack installed.

**C. CEMENTING:**

(Note: Cement type and volumes may be adjusted onsite due to actual conditions and availability)

1. CONDUCTOR: Was Pre-set at 348' (GL) on 6/13/2024.
2. SURFACE: Surface casing shall be kept fluid-filled while running into the hole to meet BLM minimum collapse requirements. The surface casing will be cemented in 1 stage. If cement does not circulate to the surface, a CBL will be run to determine TOC.

Surface - 13-3/8"	Top	Footage	Cement (ft3/ft) Annular Capacity	Excess (30%)	Total (ft3)	Total (bbl)	Slurry Yield (ft3/sk)	Sacks Cement	Density (PPG)
Stage 1 Tail	3,093	600	0.6947	1.3	575	102	1.10	523	15.8
Stage 1 Lead - OH	348	2,745	0.6947	1.3	2,479	442	1.90	1305	12.4
Stage 2 Lead - Cased	-	348	1.019	1	355	63	1.90	187	12.4
					<b>3,409</b>	<b>607</b>		<b>2015</b>	

Set Depth 3693

3. INTERMEDIATE : Intermediate casing shall be kept fluid filled while running in to the hole to meet BLM minimum collapse requirements. The intermediate casing will be cemented in 2 or 3 stages using DV/STAGE tools in order to reduce cement losses and maximize cement coverage. Operator proposes optional DV tools and optional ICP's above anticipated loss circulation zones in the Mesaverde and in the Fruitland coal. If losses are not observed during the second stage a cancelation plug will be pumped and the remaining cement will be pumped during stage 2. If cement does not circulate to the DV tool(s) or to surface, a CBL will be run to determine

Intermediate - 9-5/8"	Top	Footage	Cement (ft3/ft) Annular Capacity	Excess (30%)	Total (ft3)	Total (bbl)	Slurry Yield (ft3/sk)	Sacks Cement	Density (PPG)
Stage 1 Tail	6,040	500	0.3132	1.3	220	39	1.10	200	15.8
Stage 1 Lead	4,939	1,101	0.3132	1.3	448	80	1.90	236	12.4
					<b>668</b>	<b>119</b>		<b>436</b>	
Stage 2 Tail	4,339	600	0.3132	1.3	244	44	1.58	155	13.2
Stage 2 Lead	3,593	746	0.3132	1.3	304	54	1.90	160	12.4
Stage 2 Lead - Cased	3,493	100	0.3627	1	36	6	1.90	19	12.4
Stage 2 Totals					<b>584</b>	<b>104</b>		<b>334</b>	
Int 2 Totals					<b>1,253</b>	<b>223</b>		<b>770</b>	
<b>Contingency</b>									
Stage 3 Tail	3,693	75	0.3132	1.3	31	5	1.58	19	13.2
Stage 3 Tail - Cased	3,193	500	0.3490	1	175	31	1.58	110	13.2
Stage 3 Lead - Cased	-	3,193	0.3490	1	1,114	198	1.90	587	12.4
Contingency Stage 3 Totals					<b>1,319</b>	<b>235</b>		<b>716</b>	

Set Depth 6540

TOC. Calculations based on 30% excess for open hole and cement to surface. Actual excess pumped will be determined by well conditions.

4. PRODUCTION: Production casing will be cemented in 1 stage with 100' of cement overlap above intermediate shoe. A CBL, or alternatively, a Temperature Survey will be used to determine TOC.



Production - 5-1/2"	Top	ft	Cement (ft3/ft) Annular Capacity	Excess (15%)	Total (ft3)	Total (bbl)	Slurry Yield (ft3/sk)	Sacks Cement	Density (PPG)
Cased Lead	6,440	100	0.2531	1	25	5	1.59	16	13.2
Open Hole Lead	6,540	10,334	0.2291	1.15	2,728	486	1.59	1,716	13.2
					2,753	490		1,732	

Set depth 16874

Calculations based on 15% excess for open hole and 100' overlap into intermediate casing. Actual volumes will vary.

Cement calculations are used for volume estimation. Well conditions will dictate final cement job design. Actual volumes will be calculated and determined by conditions onsite. All cement slurries will meet or exceed minimum BLM and New Mexico Oil Conservation Division requirements. Slurries used will be the slurries listed above or equivalent slurries depending on service provider selected. Cement yields may change depending on slurries selected. All waiting on cement times shall be a minimum of 8 hours or adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

**IV. COMPLETION**

**A. CBL**

CBLs and/or Temperature Surveys will be performed as needed or required to determine cement top if cement is not circulated.

**B. PRESSURE TEST**

C. Pressure test 5-1/2" casing to 0.22 psi/ft \* 7,084' TVD = 1559 psi for 30 minutes. Increase pressure to Open RSI sleeves.

**D. STIMULATION**

Stimulate with sand and water. Isolate stages with flow through or dissolvable frac plugs. Drill out frac plugs and flowback lateral.

**E. PRODUCTION TUBING**

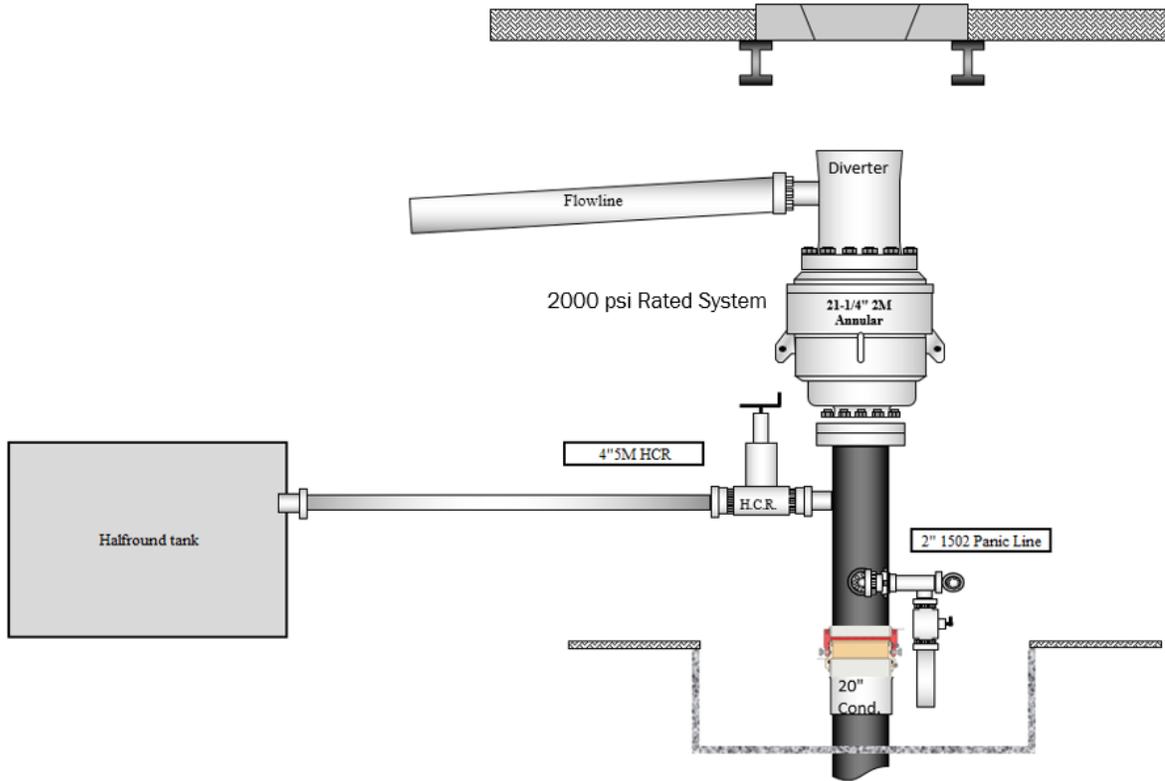
2-7/8", 6.5#, J-55 or L-80, EUE tubing will be run once volumes and pressures dictate. Due to the extremely high initial flow rates and pressures seen in offset wells, tubing will be installed once it is safe to do so, typically 12-36 months after completion.

\*NOTE: Although this horizontal well may be drilled past the applicable setbacks, an unorthodox location application is not required because the completed interval in this well, as defined by 19.15.16.7 8(1) NMAC, will be entirely within the applicable setbacks. This approach complies with all applicable rules, including 19.15.16.14 A(3) NMAC, 19.15.16.14 8(2) NMAC, 19.15.16.15 8(2)NMAC, and 19.15.16.15. 8(4) NMAC.



**BOP Equipment**

**Surface Hole Diverter**



**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 379134

**CONDITIONS**

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 379134
	Action Type: [C-103] NOI Change of Plans (C-103A)

**CONDITIONS**

Created By	Condition	Condition Date
ward.rikala	All original COA's still apply. Additionally if cement is not circulated to surface during drilling operations, then a CBL is required.	8/30/2024