

Submit a 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

DHC-5357

Form C-103
Revised July 18, 2013

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

WELL API NO.
30-039-25584
5. Indicate Type of Lease
STATE [] FEE []
6. State Oil & Gas Lease No.
NMSF078771

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 X [] Other
2. Name of Operator
LOGOS OPERATING LLC
3. Address of Operator
2010 AFTON PLACE FARMINGTON, NM 87401
4. Well Location
Unit Letter C : 1250' feet from the N line and 2245' feet from the W line
Section 11 Township 31N Range 6W NMPM County RIO ARRIBA
11. Elevation (Show whether DR, RKB, RT, GR, etc.)
6247'

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

NOTICE OF INTENTION TO:
PERFORM REMEDIAL WORK [] PLUG AND ABANDON []
TEMPORARILY ABANDON [] CHANGE PLANS []
PULL OR ALTER CASING [] MULTIPLE COMPL []
DOWNHOLE COMMINGLE X
CLOSED-LOOP SYSTEM []
OTHER: []
SUBSEQUENT REPORT OF:
REMEDIAL WORK [] ALTERING CASING []
COMMENCE DRILLING OPNS. [] P AND A []
CASING/CEMENT JOB []
OTHER: []

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.

Pre-approved Pool Division Order R-13122.

Pools to be commingled: Mesa Verde (72319) and Basin Dakota (71599)

Perforated Intervals:

Mesa Verde: 5419'-6059'

Basin Dakota: 7960'-8143'

Fixed percentages allocation based upon production date 73.8% Mesa Verde and 26.2% Basin Dakota. This is based upon the historic production of both the Mesa Verde and Basin Dakota production zones within the well.

Commingling will not reduce the value of the reserves.

Interest owners in the spacing unit have not been notified of the intent of the downhole commingle per order R-12991. BLM has been notified on the sundry notice form 3160-5, attached.

Spud Date: []

Rig Release Date: []

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

SIGNATURE Lacey Granillo TITLE Regulatory Specialist DATE 3/4/24

Type or print name Lacey Granillo E-mail address: lgranillo@logosresourcesllc.com PHONE: 5057870118

For State Use Only

APPROVED BY: Dean R McClure TITLE Petroleum Engineer DATE 03/28/2024

Conditions of Approval (if any):

CONDITIONS OF APPROVAL

If an alteration is made to the Well or a condition within the Well changes which may cause the allocation of production to the Pools as approved within this Permit to become inaccurate, then no later than sixty (60) days after that event, the Operator shall submit Form C-103 to the OCD Engineering Bureau describing the event and include a revised allocation plan. If OCD denies the revised allocation plan, this Permit shall terminate on the date of such action.

If the downhole commingling of the Pools reduces the value of the oil and gas production to less than if it had remained segregated, no later than sixty (60) days after the decrease in value has occurred the Operator shall submit a new downhole commingling application to OCD to amend this Permit to remove the pool that caused the decrease in value. If the Operator fails to submit a new application, this Permit shall terminate on the following day, and if OCD denies the application, this Permit shall terminate on the date of such action.

If a completed interval of the Well is altered from what is submitted within this application, then no later than sixty (60) days after the alteration, the Operator shall submit Form C-103 to the OCD Engineering Bureau detailing the alteration and completed interval.

The Operator shall calculate the oil and gas production average during the fourth year after the commencement of commingling, which shall be used to establish a fixed percentage of the total oil and gas production that shall be allocated to each of the Pools ("fixed percentage allocation plan"). No later than ninety (90) days after the fourth year, the Operator shall submit a Form C-103 to the OCD Engineering Bureau that includes the fixed percentage allocation plan and all data used to determine it. If the Operator fails to do so, this Permit shall terminate on the following day. If OCD denies the fixed percentage allocation plan, this Permit shall terminate on the date of such action. If OCD approves the percentage allocation plan with or without modifications, then the approved percentage allocation plan shall be used to determine oil and gas allocation starting on the date of such action until the Well is plugged and abandoned.

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Well Name: ROSA UNIT	Well Location: T31N / R6W / SEC 11 / NENW / 36.91771 / -107.433	County or Parish/State: RIO ARRIBA / NM
Well Number: 9A	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMSF078771	Unit or CA Name: ROSA UNIT--MV	Unit or CA Number: NMNM78407A
US Well Number: 3003925584	Well Status: Producing Gas Well	Operator: LOGOS OPERATING LLC

Notice of Intent

Sundry ID: 2778449

Type of Submission: Notice of Intent

Type of Action: Commingling (Subsurface)

Date Sundry Submitted: 03/07/2024

Time Sundry Submitted: 01:31

Date proposed operation will begin: 03/07/2024

Procedure Description: Down hole Commingle LOGOS Operating requests to downhole commingle the Mesaverde and Dakota per the attached procedure. Note: Attached C103 Commingle submitted to NMOCD

NOI Attachments

Procedure Description

C_103_rosa_unit_9A_downhole_commingle_20240307133059.pdf

FOR_REGULATORY__Rosa_Unit_009A___Commingle_Allocation_Procedure__with_attachments_final_2024_0307133059.pdf

Well Name: ROSA UNIT

Well Location: T31N / R6W / SEC 11 / NENW / 36.91771 / -107.433

County or Parish/State: RIO ARRIBA / NM

Well Number: 9A

Type of Well: CONVENTIONAL GAS WELL

Allottee or Tribe Name:

Lease Number: NMSF078771

Unit or CA Name: ROSA UNIT--MV

Unit or CA Number: NMNM78407A

US Well Number: 3003925584

Well Status: Producing Gas Well

Operator: 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: LACEY GRANILLO

Signed on: MAR 07, 2024 01:31 PM

Name: LOGOS OPERATING LLC

Title: REGULATORY SPECIALIST

Street Address: 2010 AFTON PLACE

City: FARMINGTON State: NM

Phone: (505) 324-4145

Email address: LGRANILLO@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: 03/08/2024

Signature: Kenneth Rennick



DOWNHOLE COMMINGLE PROCEDURE AND ALLOCATION-NMOCD (2024)

Rosa Unit 9A

30-039-25584

1250' FNL & 2245' FWL

Section 11, T31N, R06W

Rio Arriba, New Mexico

LAT: 36.9180298° N LONG: -107.4335175° W

Mesaverde/Dakota

PROJECT OBJECTIVE:

Remove packer, run gyro survey, and set a bridge plug above the Dakota perforations. Pending results of the gyro survey, an additional bridge plug may be set below the Mesaverde perforations to isolate the Mancos formation during offset development. 2-3/8" tubing will be run, and the well will remain shut in for the duration of offset development. Once offset development is completed, the Mesaverde will be produced with plunger lift via the 2-3/8" tubing, leaving the Dakota temporarily abandoned for ~six (6) months. Once uplift and an updated baseline production decline for the Mesaverde is established, the bridge plugs set above the Dakota will be milled out and the well will be downhole commingled.

WORKOVER PROCEDURE:

1. Hold safety meeting. MIRU workover rig. Place fire and safety equipment in strategic locations. Comply with all LOGOS, BLM, and NMOCD rules and regulations.
2. Lay flow lines. Check and record casing and tubing pressures. Sell pressure down to line. Kill well if necessary.
3. Nipple down wellhead and nipple up BOP.
4. Release Mesaverde tubing string. Trip out of hole with Mesaverde tubing string and lay down.
5. Release Dakota tubing string. Trip out of hole with Dakota tubing string and lay down.
6. Run in hole with packer plucker to retrieve Model D Packer at 6600'. Trip out of hole with packer plucker assembly and string.
7. Rig up wireline to run gyro survey.
8. Set bridge plug within 50' of the top Dakota perforation.
9. Based on results of gyro survey, if necessary for new well drilling, set a second bridge plug within 50' below the Mesaverde perforations.
10. Trip in hole with 2-3/8" tubing.
11. SI well for offset drilling.
12. Once offset drilling is complete, install plunger lift to produce the Mesaverde only.
13. After ~6 months, pull the tubing, and trip in hole to mill out the bridge plugs set above the Dakota perforations and push to bottom.
14. Run in hole with single 2-3/8" production tubing string and install plunger lift.
15. Return to production as a Mesaverde/Dakota commingle.

PRODUCTION ALLOCATION

Because uplift is expected from both zones by commingling the well, a fixed production allocation established by historical well behavior is not expected to be accurate. Therefore, LOGOS proposes a six (6) month period of production testing the Mesaverde during which a bridge plug will be over the Dakota, 2-3/8" tubing and plunger lift will be installed for the Mesaverde, and a baseline Mesaverde production rate and decline will be established. After six (6) months of production, the bridge plug will be removed from the Dakota, the tubing will be landed at a depth ideal for Mesaverde and Dakota commingled production, and the commingle allocation will be made using a subtraction methodology in which gas beyond the established Mesaverde rate and decline is allocated to the Dakota. The subtraction allocation methodology will be employed for 4 years, unless both formations exhibit declines that are easily predictable by decline analysis. If such is the case, a sundry will be submitted to use a fixed percentage allocation method.

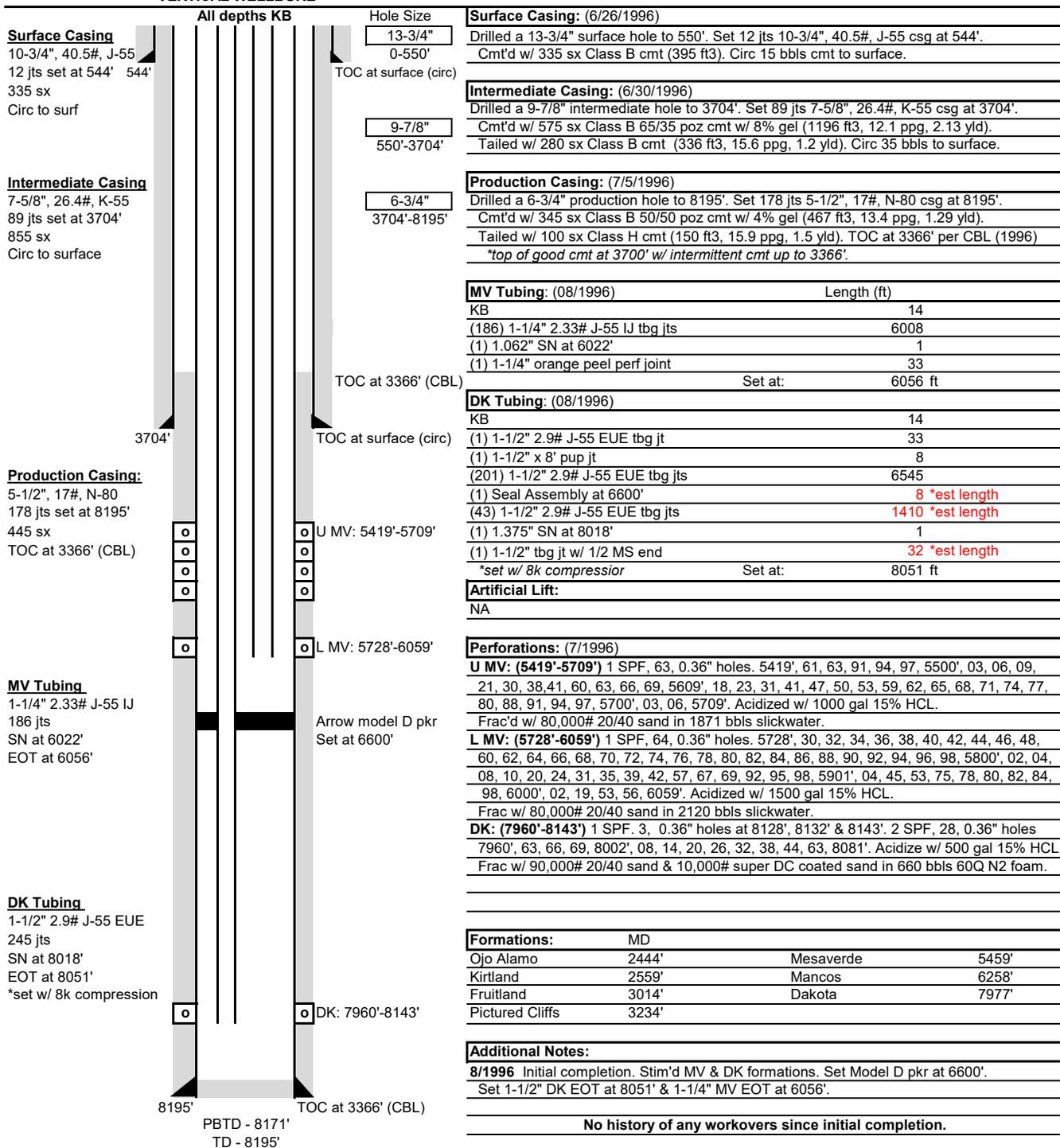


Wellbore Schematic

Well Name: Rosa Unit 9A
 Location: C-11-31N-06W 1250' FNL & 2245' FWL
 County: Rio Arriba, NM
 API #: 30-039-25584
 Co-ordinates: Lat 36.9180298, Long -107.4335175 NAD83
 Elevations: GROUND: 6247'
 KB: 6261'
 Depths (KB): PBDT: 8171'
 TD: 8195'

Date Prepared: 2/15/2024 Moss
 Reviewed By: 3/4/2024 Peace
 Last Updated:
 Spud Date: 6/24/1996
 Completion Date: 8/5/1996
 Last Workover Date: N/A

VERTICAL WELLBORE



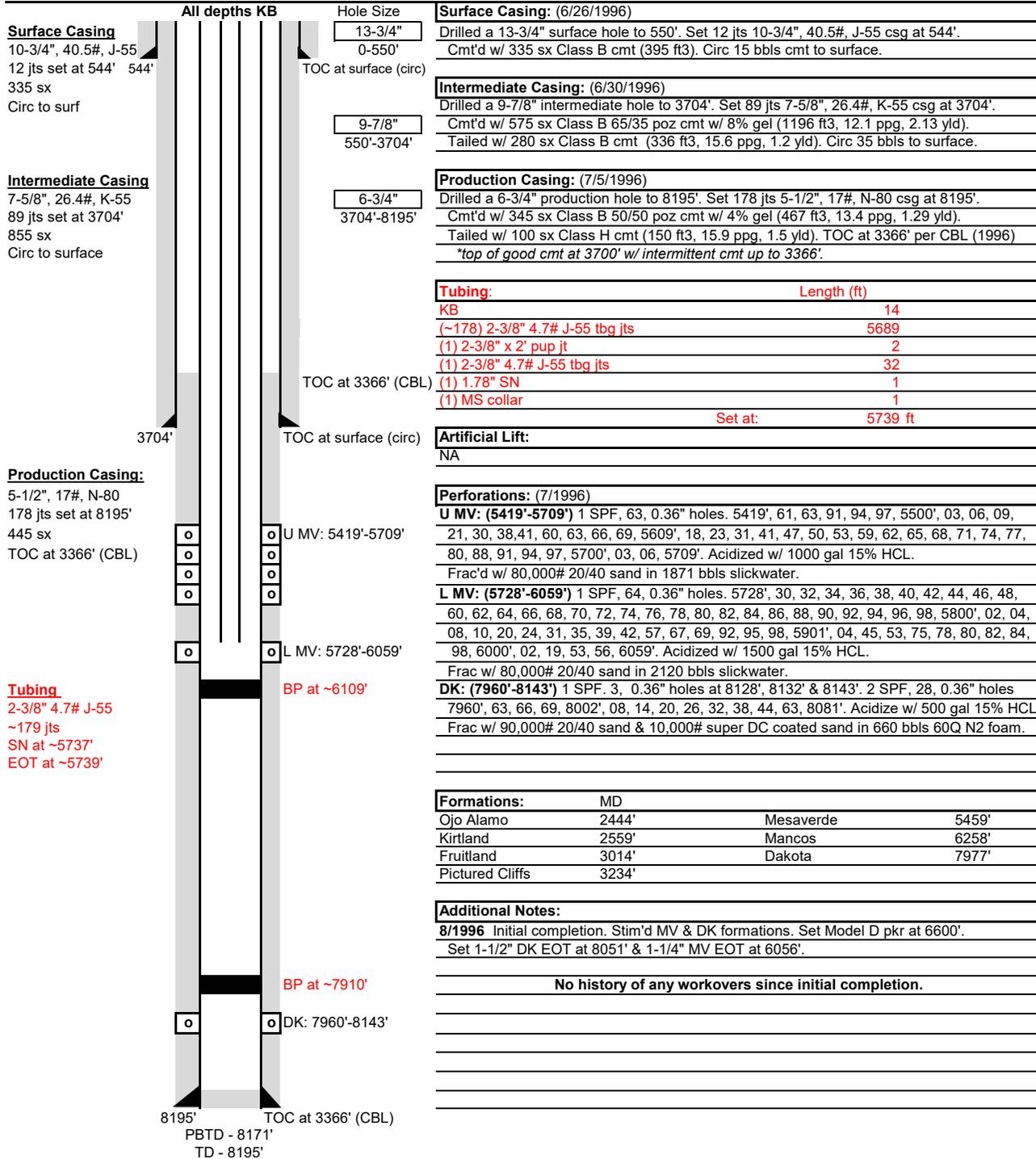


Proposed MV Only Wellbore Schematic

Well Name: Rosa Unit 9A
 Location: C-11-31N-06W 1250' FNL & 2245' FWL
 County: Rio Arriba, NM
 API #: 30-039-25584
 Co-ordinates: Lat 36.9180298, Long -107.4335175 NAD83
 Elevations: GROUND: 6247'
 KB: 6261'
 Depths (KB): PBDT: 8171'
 TD: 8195'

Date Prepared: 2/15/2024 Moss
 Reviewed By: 3/4/2024 Peace
 Last Updated:
 Spud Date: 6/24/1996
 Completion Date: 8/5/1996
 Last Workover Date: N/A

VERTICAL WELLBORE



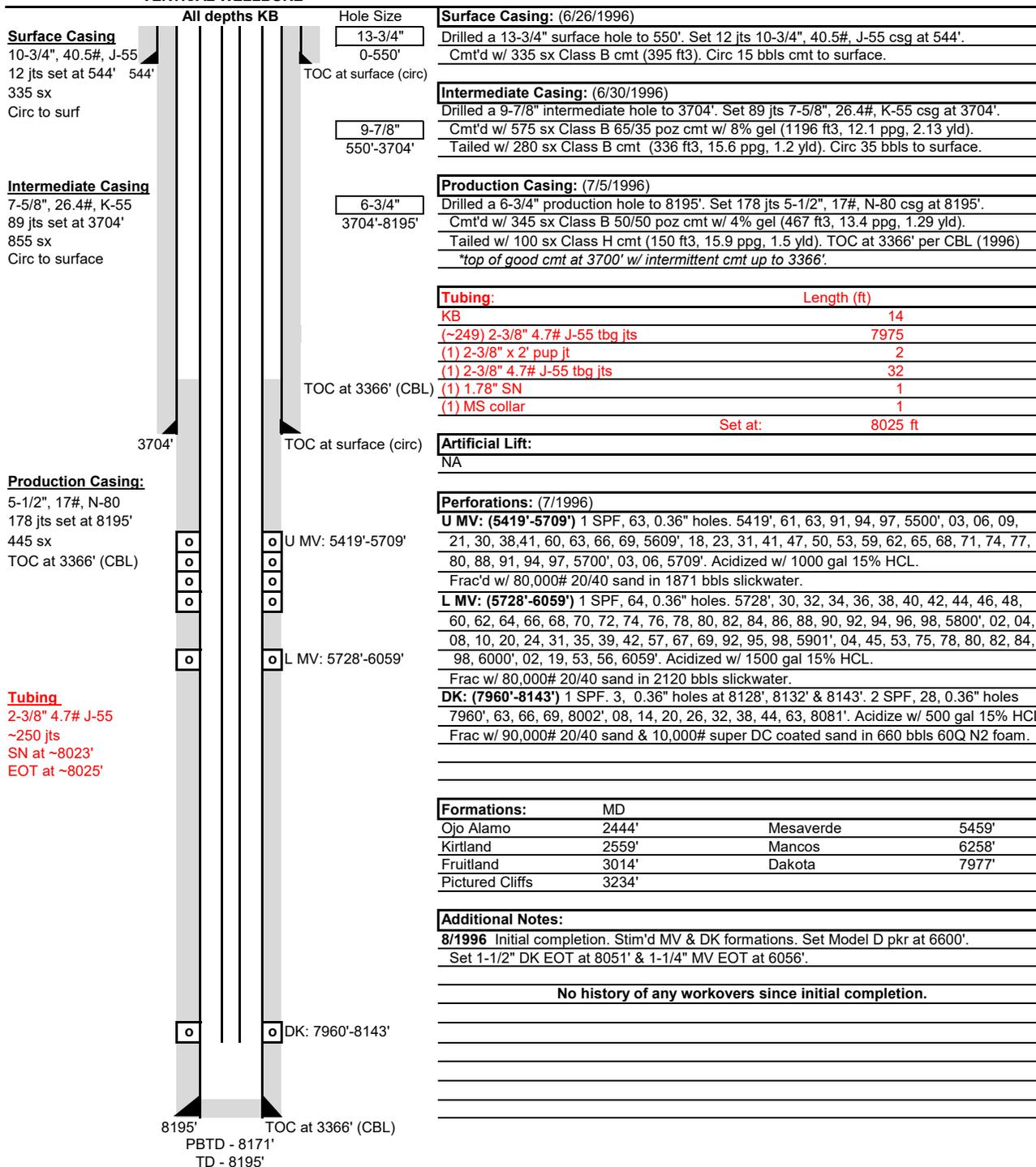


Proposed Downhole Commingle Wellbore Schematic

Well Name: Rosa Unit 9A
 Location: C-11-31N-06W 1250' FNL & 2245' FWL
 County: Rio Arriba, NM
 API #: 30-039-25584
 Co-ordinates: Lat 36.9180298, Long -107.4335175 NAD83
 Elevations: GROUND: 6247'
 KB: 6261'
 Depths (KB): PBDT: 8171'
 TD: 8195'

Date Prepared: 2/15/2024 Moss
 Reviewed By: 3/4/2024 Peace
 Last Updated:
 Spud Date: 6/24/1996
 Completion Date: 8/5/1996
 Last Workover Date: N/A

VERTICAL WELLBORE



Surface Casing: (6/26/1996)
 Drilled a 13-3/4" surface hole to 550'. Set 12 jts 10-3/4", 40.5#, J-55 csg at 544'.
 Cmt'd w/ 335 sx Class B cmt (395 ft3). Circ 15 bbls cmt to surface.

Intermediate Casing: (6/30/1996)
 Drilled a 9-7/8" intermediate hole to 3704'. Set 89 jts 7-5/8", 26.4#, K-55 csg at 3704'.
 Cmt'd w/ 575 sx Class B 65/35 poz cmt w/ 8% gel (1196 ft3, 12.1 ppg, 2.13 yld).
 Tailed w/ 280 sx Class B cmt (336 ft3, 15.6 ppg, 1.2 yld). Circ 35 bbls to surface.

Production Casing: (7/5/1996)
 Drilled a 6-3/4" production hole to 8195'. Set 178 jts 5-1/2", 17#, N-80 csg at 8195'.
 Cmt'd w/ 345 sx Class B 50/50 poz cmt w/ 4% gel (467 ft3, 13.4 ppg, 1.29 yld).
 Tailed w/ 100 sx Class H cmt (150 ft3, 15.9 ppg, 1.5 yld). TOC at 3366' per CBL (1996)
 *top of good cmt at 3700' w/ intermittent cmt up to 3366'.

Tubing:	Length (ft)
KB	14
(~249) 2-3/8" 4.7# J-55 tbq jts	7975
(1) 2-3/8" x 2' pup jt	2
(1) 2-3/8" 4.7# J-55 tbq jts	32
(1) 1.78" SN	1
(1) MS collar	1
Set at:	8025 ft

Artificial Lift:
 NA

Perforations: (7/1996)
U MV: (5419'-5709') 1 SPF, 63, 0.36" holes. 5419', 61, 63, 91, 94, 97, 5500', 03, 06, 09, 21, 30, 38, 41, 60, 63, 66, 69, 5609', 18, 23, 31, 41, 47, 50, 53, 59, 62, 65, 68, 71, 74, 77, 80, 88, 91, 94, 97, 5700', 03, 06, 5709'. Acidized w/ 1000 gal 15% HCL.
 Frac'd w/ 80,000# 20/40 sand in 1871 bbls slickwater.
L MV: (5728'-6059') 1 SPF, 64, 0.36" holes. 5728', 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 5800', 02, 04, 08, 10, 20, 24, 31, 35, 39, 42, 57, 67, 69, 92, 95, 98, 5901', 04, 45, 53, 75, 78, 80, 82, 84, 98, 6000', 02, 19, 53, 56, 6059'. Acidized w/ 1500 gal 15% HCL.
 Frac w/ 80,000# 20/40 sand in 2120 bbls slickwater.
DK: (7960'-8143') 1 SPF, 3, 0.36" holes at 8128', 8132' & 8143'. 2 SPF, 28, 0.36" holes 7960', 63, 66, 69, 8002', 08, 14, 20, 26, 32, 38, 44, 63, 8081'. Acidize w/ 500 gal 15% HCL.
 Frac w/ 90,000# 20/40 sand & 10,000# super DC coated sand in 660 bbls 60Q N2 foam.

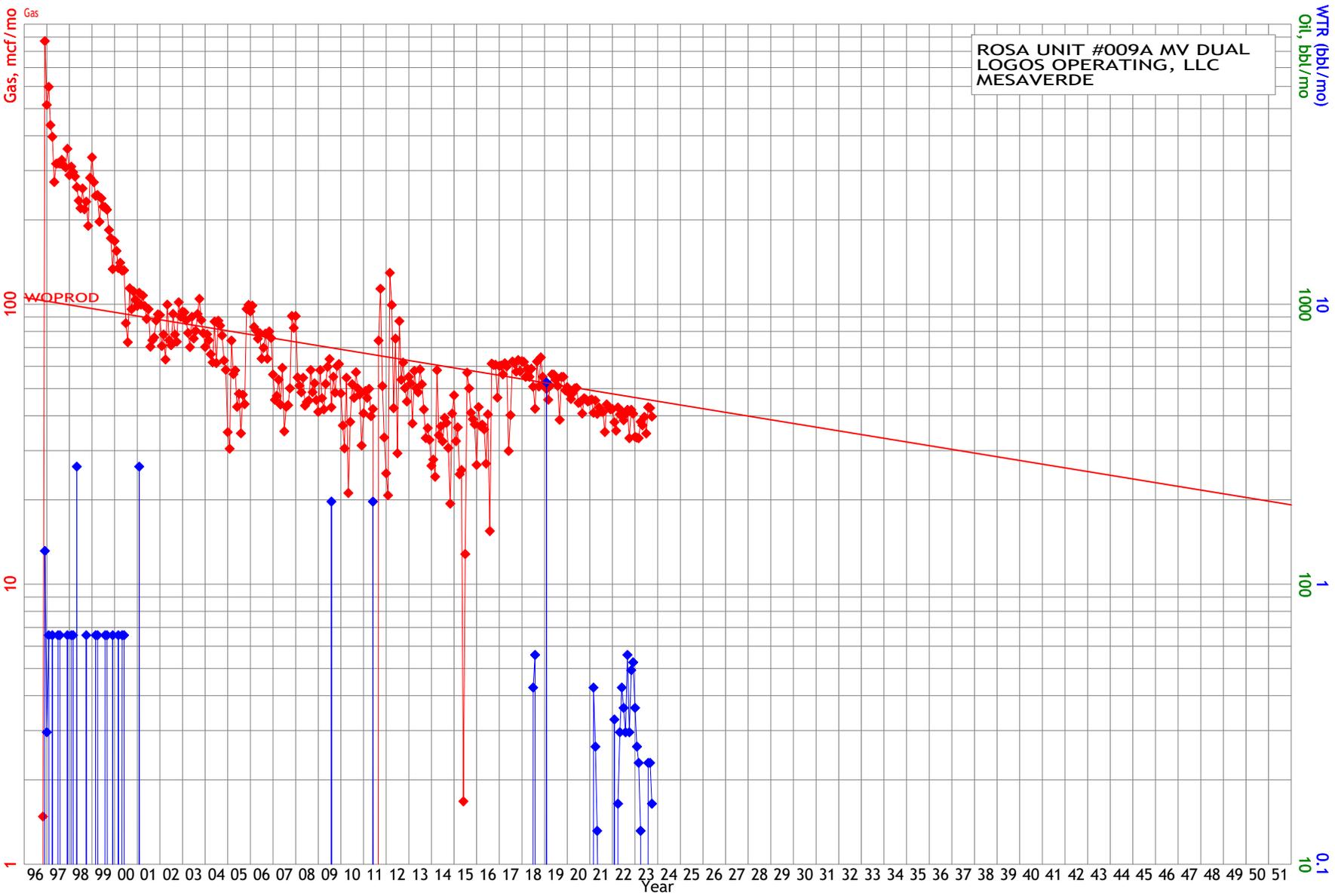
Formations:	MD		
Ojo Alamo	2444'	Mesaverde	5459'
Kirtland	2559'	Mancos	6258'
Fruitland	3014'	Dakota	7977'
Pictured Cliffs	3234'		

Additional Notes:
8/1996 Initial completion. Stim'd MV & DK formations. Set Model D pkr at 6600'.
 Set 1-1/2" DK EOT at 8051' & 1-1/4" MV EOT at 6056'.

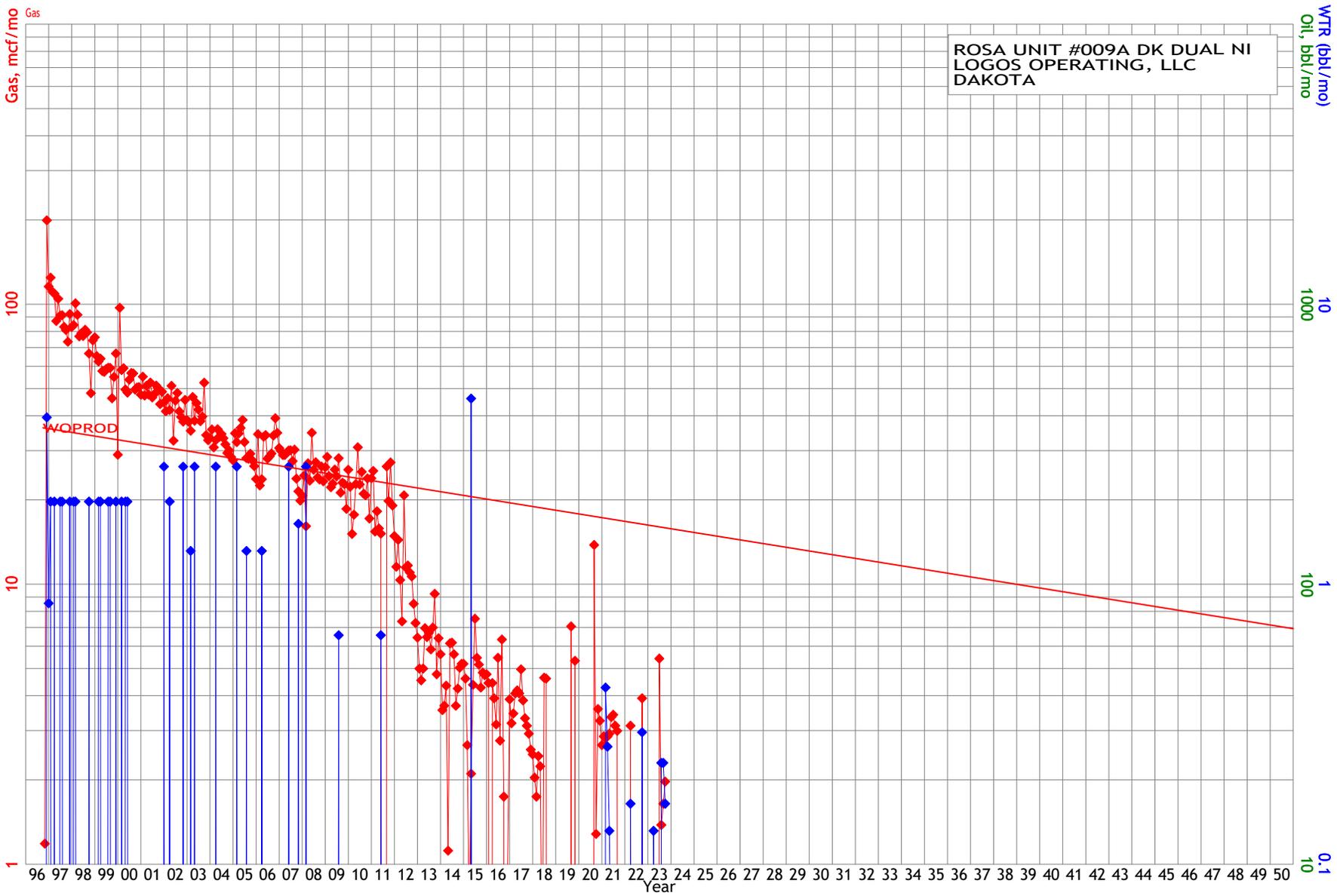
No history of any workovers since initial completion.

DK: 7960'-8143'

8195' TOC at 3366' (CBL)
 PBDT - 8171'
 TD - 8195'



Gas, mcf/mo	—	Oil, bbl/mo	◆—◆	WTR (bbl/mo)	◆—◆
Qual=	WOPROD	Ref=	10/2023	Ref=	10/2023
Ref=	10/2023	Cum=	0	Cum=	1032
Cum=	839435				
Rem=	509872				
EUR=	1349307				
Yrs=	91.000				
Qi=	45.4				
b=	0.000000				
De=	3.000000				
Qab=	2.8				



ROSA UNIT #009A DK DUAL NI
LOGOS OPERATING, LLC
DAKOTA

Gas, mcf/mo	—	Oil, bbl/mo	◆—◆	WTR (bbl/mo)	◆—◆
Qual=	WOPROD	Ref=	10/2023	Ref=	10/2023
Ref=	10/2023	Cum=	0	Cum=	2140
Cum=	252429				
Rem=	179038				
EUR=	431467				
Yrs=	92.083				
Qi=	15.9				
b=	0.000000				
De=	3.000000				
Qab=	1.0				

From: [Lacey Granillo](#)
To: [McClure, Dean, EMNRD](#)
Cc: [Vanessa Fields](#); [Roberts, Kelly, EMNRD](#); [Catlain Richardson](#); [Kaitlyn Moss](#); [Etta Trujillo](#); [Krista McWilliams](#); [Courtney Peace](#); [Marcia Brueggenjohann](#)
Subject: RE: [EXTERNAL] RE: Action ID: 320001; DHC-5357
Date: Wednesday, March 27, 2024 1:46:59 PM
Attachments: [image001.png](#)
[FOR REGULATORY Rosa Unit 009A - Commingle Allocation-Procedure with attachments 3-27-24 FINAL.pdf](#)

Good afternoon, Dean-

Please see attached updated DHC allocation procedure for the Rosa Unit 009A.

Thank you,

Lacey Granillo

Regulatory Specialist

Cell: 505-787-0118

lgranillo@logosresourcesllc.com



From: McClure, Dean, EMNRD <Dean.McClure@emnrn.nm.gov>
Sent: Wednesday, March 27, 2024 8:26 AM
To: Lacey Granillo <lgranillo@logosresourcesllc.com>
Cc: Vanessa Fields <vfields@logosresourcesllc.com>; Roberts, Kelly, EMNRD <Kelly.Roberts@emnrn.nm.gov>; Catlain Richardson <CRichardson@logosresourcesllc.com>; Kaitlyn Moss <kmoss@logosresourcesllc.com>; Etta Trujillo <etrujillo@logosresourcesllc.com>; Krista McWilliams <kmcwilliams@logosresourcesllc.com>; Courtney Peace <cpeace@logosresourcesllc.com>; Marcia Brueggenjohann <mbrueggenjohann@logosresourcesllc.com>
Subject: RE: [EXTERNAL] RE: Action ID: 320001; DHC-5357

The Division had approved DHC-5357 which authorized Logos to downhole commingle pools within its Rosa Unit #9A well (API no. 30-039-25584) on March 26, 2024.

Upon further review the Division has now determined that the allocation method proposed will not be protective of correlative rights and is now revoking approval of DHC-5357 as originally proposed by Logos on March 4, 2024. Logos at its discretion may provide a new proposal for DHC-5357 and the Rosa Unit #9A well, which will then be

reviewed by the Division.

Dean McClure
Petroleum Engineer, Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
(505) 469-8211

From: Lacey Granillo <lgranillo@logosresourcesllc.com>
Sent: Tuesday, March 26, 2024 2:32 PM
To: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Cc: Vanessa Fields <vfields@logosresourcesllc.com>; Roberts, Kelly, EMNRD <Kelly.Roberts@emnrd.nm.gov>; Catlain Richardson <CRichardson@logosresourcesllc.com>; Kaitlyn Moss <kmoss@logosresourcesllc.com>; Etta Trujillo <etrujillo@logosresourcesllc.com>; Krista McWilliams <kmcwilliams@logosresourcesllc.com>; Courtney Peace <cpeace@logosresourcesllc.com>
Subject: [EXTERNAL] RE: Action ID: 320001; DHC-5357

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

Dean,

Based on our most recent operator notes, it is apparent that the failure impacting the Dakota is simply as a result of the well falling below critical lift in 1-1/2" tubing string currently installed in the Dakota. The Dakota formation builds pressure and is unable to unload fluids to surface briefly, but not in enough volume to allow the well to continue to producing. Due to the packer and the small tubing size, plunger lift cannot be employed to help the Dakota unload. However, by commingling the well, we can run a single string of 2-3/8" tubing to both zones, and the Dakota will benefit from both plunger lift and the inflow of the Mesa Verde gas to lift fluids, thereby allowing the Dakota to return it to its original decline curve.

Please let me know if I can provide any additional information.

Lacey Granillo

Regulatory Specialist

Cell: 505-787-0118

lgranillo@logosresourcesllc.com



From: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Sent: Tuesday, March 26, 2024 1:58 PM
To: Lacey Granillo <lgranillo@logosresourcesllc.com>
Cc: Vanessa Fields <vfields@logosresourcesllc.com>; Roberts, Kelly, EMNRD <Kelly.Roberts@emnrd.nm.gov>
Subject: Action ID: 320001; DHC-5357

To whom it may concern (c/o Lacey Granillo for Logos Resources, LLC),

The Division is reviewing the following application:

Action ID	320001
Admin No.	DHC-5357
Applicant	Logos Operating, LLC (289408)
Title	ROSA UNIT #009A
Sub. Date	03/04/2024

Please provide the following additional supplemental documents:

-

Please provide additional information regarding the following:

- Reference is made in the application to a failure that impacted production. It appears that production from the Dakota was impacted ~2012 and production since was discounted when determining the production curve. Please provide a bit more information regarding the failure that took place and why allocation should be determined based off the production curve generated from prior to that failure.

Additional notes:

-

All additional supplemental documents and information may be provided via email and should be done by replying to this email. The produced email chain will be uploaded to the file for this application.

Please note that failure to take steps to address each of the requests made in this email within 10 business days of receipt of this email may result in the Division rejecting the application requiring the submittal of a new application by the applicant once it is prepared to address each of the topics raised.

Dean McClure

Petroleum Engineer, Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
(505) 469-8211

From: [McClure, Dean, EMNRD](#)
To: "[Lacey Granillo](#)"
Cc: [Vanessa Fields](#); [Roberts, Kelly, EMNRD](#); [Catlain Richardson](#); [Kaitlyn Moss](#); [Etta Trujillo](#); [Krista McWilliams](#); [Courtney Peace](#); mbrueggenjohann@logosresourcesllc.com
Subject: RE: [EXTERNAL] RE: Action ID: 320001; DHC-5357
Date: Wednesday, March 27, 2024 8:25:00 AM
Attachments: [image001.png](#)

The Division had approved DHC-5357 which authorized Logos to downhole commingle pools within its Rosa Unit #9A well (API no. 30-039-25584) on March 26, 2024.

Upon further review the Division has now determined that the allocation method proposed will not be protective of correlative rights and is now revoking approval of DHC-5357 as originally proposed by Logos on March 4, 2024. Logos at its discretion may provide a new proposal for DHC-5357 and the Rosa Unit #9A well, which will then be reviewed by the Division.

Dean McClure
Petroleum Engineer, Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
(505) 469-8211

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Cc: Vanessa Fields <vfields@logosresourcesllc.com>; Roberts, Kelly, EMNRD <Kelly.Roberts@emnrd.nm.gov>; Catlain Richardson <CRichardson@logosresourcesllc.com>; Kaitlyn Moss <kmoss@logosresourcesllc.com>; Etta Trujillo <etrujillo@logosresourcesllc.com>; Krista McWilliams <kmcwilliams@logosresourcesllc.com>; Courtney Peace <cpeace@logosresourcesllc.com>
Subject: [EXTERNAL] RE: Action ID: 320001; DHC-5357

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

Dean,

Based on our most recent operator notes, it is apparent that the failure impacting the Dakota is simply as a result of the well falling below critical lift in 1-1/2" tubing string currently installed in the Dakota. The Dakota formation builds pressure and is unable to unload fluids to surface briefly, but not in enough volume to allow the well to continue to producing. Due to the packer and the small tubing size, plunger lift cannot be employed to help the Dakota unload. However, by commingling the well, we can run a single string of 2-3/8" tubing to both zones, and the Dakota will benefit from both plunger lift and the inflow of the Mesa Verde gas

to lift fluids, thereby allowing the Dakota to return it to its original decline curve.

Please let me know if I can provide any additional information.

Lacey Granillo

Regulatory Specialist

Cell: 505-787-0118

lgranillo@logosresourcesllc.com



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Sent: Tuesday, March 26, 2024 1:58 PM
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Cc: Vanessa Fields <vfields@logosresourcesllc.com>; Roberts, Kelly, EMNRD <Kelly.Roberts@emnrd.nm.gov>
Subject: Action ID: 320001; DHC-5357

To whom it may concern (c/o Lacey Granillo for Logos Resources, LLC),

The Division is reviewing the following application:

Action ID	320001
Admin No.	DHC-5357
Applicant	Logos Operating, LLC (289408)
Title	ROSA UNIT #009A
Sub. Date	03/04/2024

Please provide the following additional supplemental documents:

-

Please provide additional information regarding the following:

- Reference is made in the application to a failure that impacted production. It appears that production from the Dakota was impacted ~2012 and production since was discounted when determining the production curve. Please provide a bit more information regarding the failure that took place and why allocation should be determined based off the production curve generated from prior to that failure.

Additional notes:

All additional supplemental documents and information may be provided via email and should be done by replying to this email. The produced email chain will be uploaded to the file for this application.

Please note that failure to take steps to address each of the requests made in this email within 10 business days of receipt of this email may result in the Division rejecting the application requiring the submittal of a new application by the applicant once it is prepared to address each of the topics raised.

Dean McClure
Petroleum Engineer, Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
(505) 469-8211

State of New Mexico
Energy, Minerals and Natural Resources

DHC-5357

Form C-10
Revised July 18, 2012

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

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

WELL API NO. 30-039-25584
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. NMSF078771
7. Lease Name or Unit Agreement Name ROSA UNIT
8. Well Number 9A
9. OGRID Number 289408
10. Pool name or Wildcat BASIN DAKOTA/BLANCO MESA V
11. Evaluation (Show whether DR, RKB, RT, GR, etc.) 6247'

1. UNDRY 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 X Other

2. Name of Operator
LOGOS OPERATING LLC

3. Address of Operator
2010 AFTON PLACE FARMINGTON, NM 87401

4. Well Location
Unit Letter C : 1250' from the N line and 2245' from the W line
Section 11 Township 31N Range 6W NMP County RIO ARRIBA

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 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 X			
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 19.15.7.1 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Pre-approved Pool Division Order R-13122.

Pools to be commingled: Mesa Verde (72319) and Basin Dakota (71599)

Perforated Intervals:

Mesa Verde: 5419'-6059'

Basin Dakota: 7960'-8143'

Fixed percentages allocation based upon production date 73.8 % Mesa Verde and 26.2 % Basin Dakota. This is based upon the historic production of both the Mesa Verde and Basin Dakota production zones within the well.

Commingling will not reduce the value of the reserves.

Interest owners in the spacing unit have not been notified of the intent of the downhole commingling per order R-12991. BLM has been notified on the sundry notice form 500-5, attached.

Spud Date:

Rig Release Date:

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

SIGNATURE Lacey Granillo TITLE Regulatory Specialist DATE 3/4/24

Type or contact name Lacey Granillo E-mail address: lgranillo@logosresourcesllc.com PHONE: 5057870118

For State Use Only

APPROVED BY: Dean R McClure TITLE Petroleum Engineer DATE 03/26/2024

Conditions of Approval (if any):

CONDITIONS OF APPROVAL

If an alteration is made to the Well or a condition within the Well changes which may cause the allocation of production to the Pools as approved within this Permit to become inaccurate, then no later than sixty (60) days after that event, the Operator shall submit Form C-103 to the OCD Engineering Bureau describing the event and include a revised allocation plan. If OCD denies the revised allocation plan, this Permit shall terminate on the date of such action.

If the downhole commingling of the Pools reduces the value of the oil and gas production to less than if it had remained segregated, no later than sixty (60) days after the decrease in value has occurred the Operator shall submit a new downhole commingling application to OCD to amend this Permit to remove the pool that caused the decrease in value. If the Operator fails to submit a new application, this Permit shall terminate on the following day, and if OCD denies the application, this Permit shall terminate on the date of such action.

If a completed interval of the Well is altered from what is submitted within this application, then no later than sixty (60) days after the alteration, the Operator shall submit Form C-103 to the OCD Engineering Bureau detailing the alteration and completed interval.

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Well Name: ROSA UNIT	Well Location: T31N / R6W / SEC 11 / NENW / 36.91771 / -107.433	County or Parish/State: RIO ARRIBA / NM
Well Number: 9A	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMSF078771	Unit or CA Name: ROSA UNIT--MV	Unit or CA Number: NMNM78407A
US Well Number: 3003925584	Well Status: Producing Gas Well	Operator: LOGOS OPERATING LLC

Notice of Intent

Sundry ID: 2778449

Type of Submission: Notice of Intent

Type of Action: Commingling (Subsurface)

Date Sundry Submitted: 03/07/2024

Time Sundry Submitted: 01:31

Date proposed operation will begin: 03/07/2024

Procedure Description: Down hole Commingle LOGOS Operating requests to downhole commingle the Mesaverde and Dakota per the attached procedure. Note: Attached C103 Commingle submitted to NMOCD

NOI Attachments

Procedure Description

C_103_rosa_unit_9A_downhole_commingle_20240307133059.pdf

FOR_REGULATORY__Rosa_Unit_009A__Commingle_Allocation_Procedure__with_attachments_final_2024_0307133059.pdf

Well Name: ROSA UNIT

Well Location: T31N / R6W / SEC 11 / NENW / 36.91771 / -107.433

County or Parish/State: RIO ARRIBA / NM

Well Number: 9A

Type of Well: CONVENTIONAL GAS WELL

Allottee or Tribe Name:

Lease Number: NMSF078771

Unit or CA Name: ROSA UNIT--MV

Unit or CA Number: NMNM78407A

US Well Number: 3003925584

Well Status: Producing Gas Well

Operator: 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: LACEY GRANILLO

Signed on: MAR 07, 2024 01:31 PM

Name: LOGOS OPERATING LLC

Title: REGULATORY SPECIALIST

Street Address: 2010 AFTON PLACE

City: FARMINGTON State: NM

Phone: (505) 324-4145

Email address: LGRANILLO@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: 03/08/2024

Signature: Kenneth Rennick



DOWNHOLE COMMINGLE PROCEDURE AND ALLOCATION-NMOC D (2024)

Rosa Unit 9A
30-039-25584
1250' FNL & 2245' FWL
Section 11, T31N, R06W
Rio Arriba, New Mexico
LAT: 36.9180298° N LONG: -107.4335175° W
Mesaverde/Dakota

PROJECT OBJECTIVE:

Remove packer, run gyro survey, and, pending results, set a bridge plug above the Dakota perforations and a bridge plug below the Mesaverde perforations to isolate the Mancos formation during offset development. Once offset development is complete, mill out bridge plugs and downhole commingle Mesaverde and Dakota.

WORKOVER PROCEDURE:

1. Hold safety meeting. MIRU workover rig. Place fire and safety equipment in strategic locations. Comply with all LOGOS, BLM, and NMOCD rules and regulations.
2. Lay flow lines. Check and record casing and tubing pressures. Sell pressure down to line. Kill well if necessary.
3. Nipple down wellhead and nipple up BOP.
4. Release Mesaverde tubing string. Trip out of hole with Mesaverde tubing string and lay down.
5. Release Dakota tubing string. Trip out of hole with Dakota tubing string and lay down.
6. Run in hole with packer plucker to retrieve Model D Packer at 6600'. Trip out of hole with packer plucker assembly and string.
7. Rig up wireline to run gyro survey. Based on results of gyro survey, if necessary for new well drilling, set bridge plug within 50' of the top Dakota perforations. Set a second bridge plug within 50' below the Mesaverde perforations.
8. SI well for offset drilling.
9. Once offset drilling is complete, trip in hole and mill out bridge plugs and push to bottom.
10. Run in hole with single 2-3/4" production tubing string.
11. Return to production as Mesaverde/Dakota commingle.

PRODUCTION ALLOCATION

Historic production data from both zones in this well was gathered and analyzed. Historical and forecasted rates were used to determine allocations due to a failure that impacted production potential and cumulative allocation accuracy.

Production Rates

Total Production Rate	61 Mcfpd
Mesaverde Production Rate	45 Mcfpd
Dakota Production Rate	16 Mcfpd

MV allocation = MV rate/total rate = 45/61 = **73.8%**

DK allocation = DK rate/total rate = 16/61 = **26.2%**

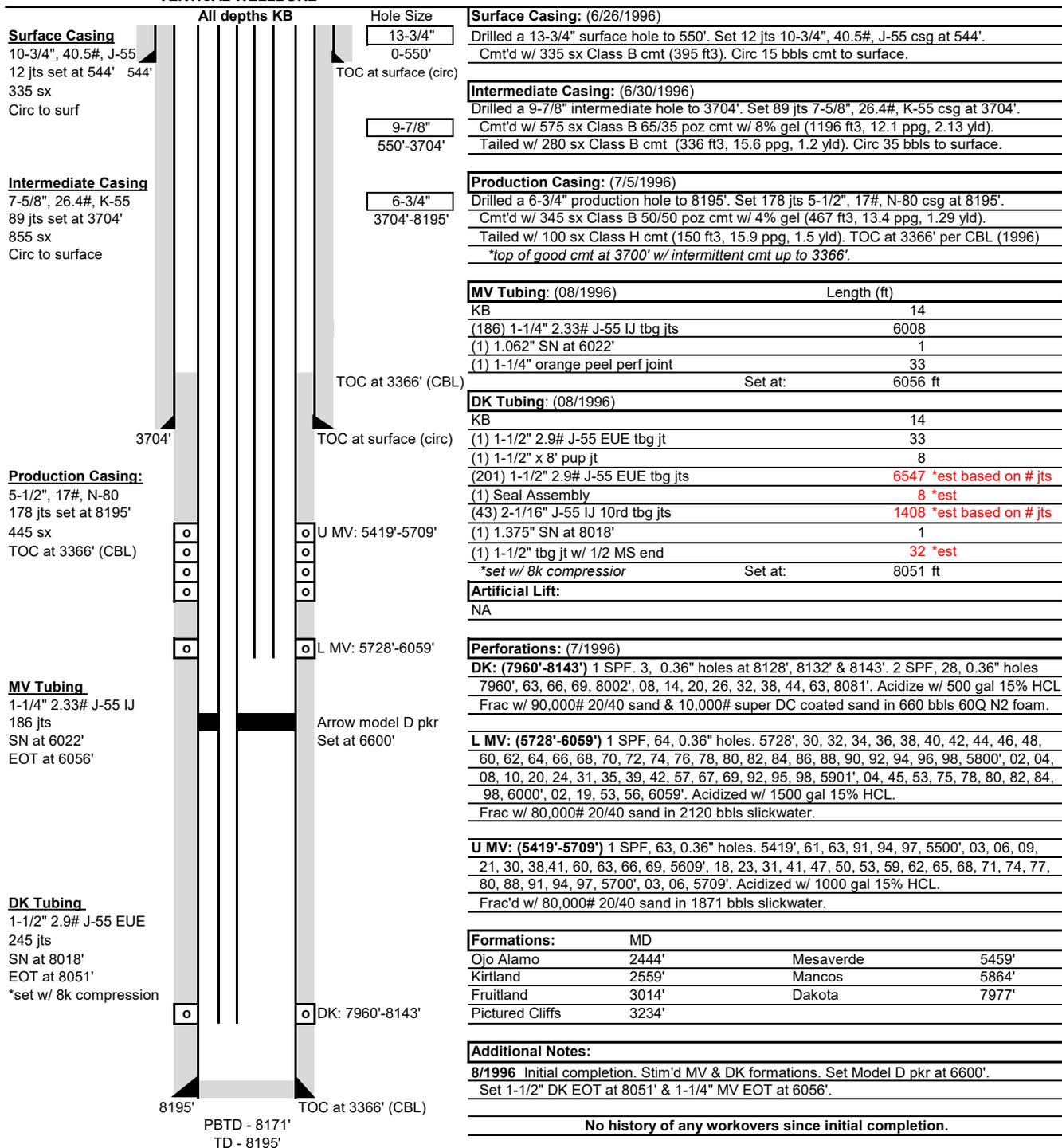


Wellbore Schematic

Well Name: Rosa Unit 9A
 Location: C-11-31N-06W 1250' FNL & 2245' FWL
 County: Rio Arriba, NM
 API #: 30-039-25584
 Co-ordinates: Lat 36.9180298, Long -107.4335175 NAD83
 Elevations: GROUND: 6247'
 KB: 6261'
 Depths (KB): PBDT: 8171'
 TD: 8195'

Date Prepared: 2/15/2024 Moss
 Reviewed By:
 Last Updated:
 Spud Date: 6/24/1996
 Completion Date: 8/5/1996
 Last Workover Date: N/A

VERTICAL WELLBORE



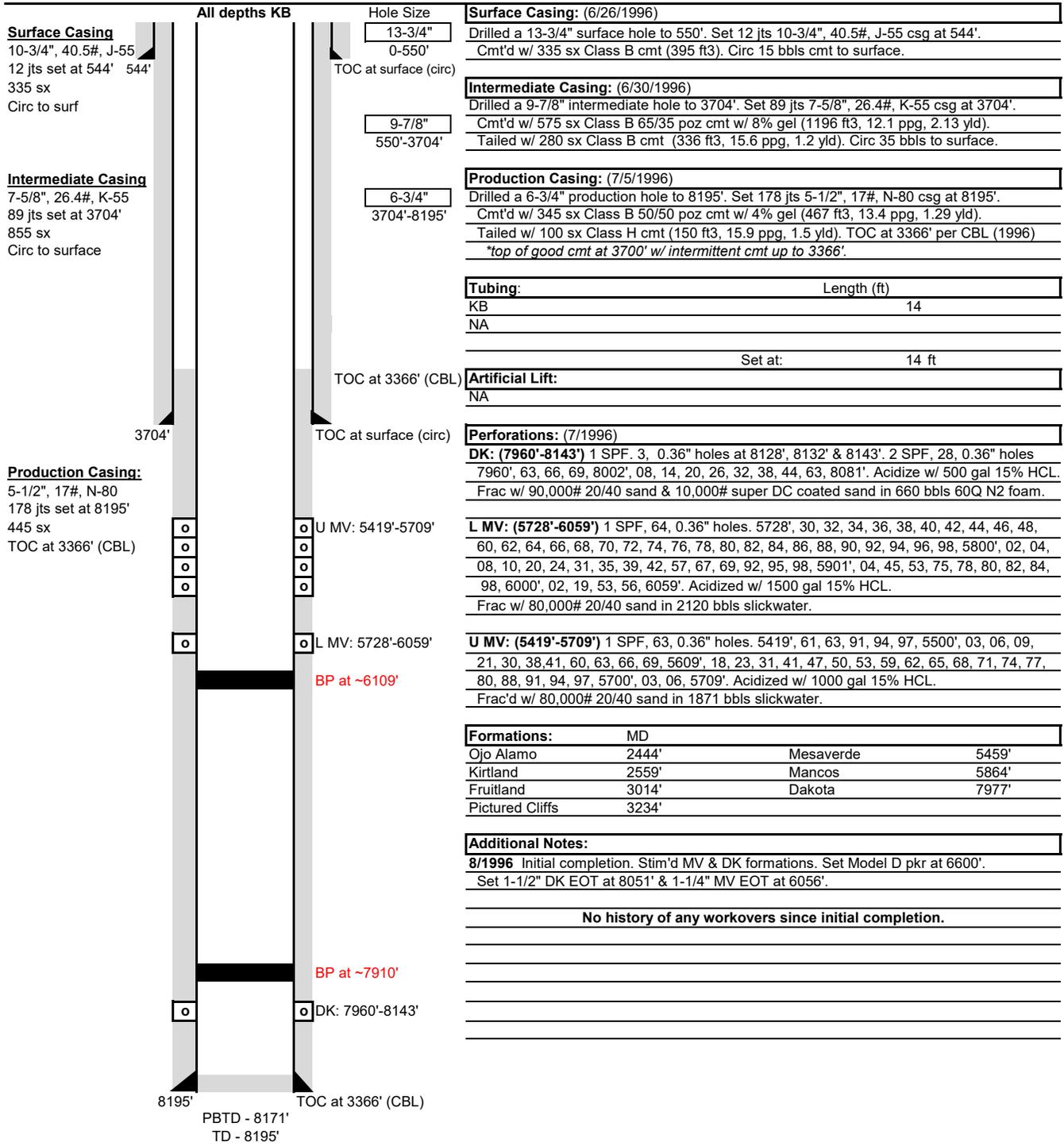


Proposed Isolation Wellbore Schematic

Well Name: Rosa Unit 9A
 Location: C-11-31N-06W 1250' FNL & 2245' FWL
 County: Rio Arriba, NM
 API #: 30-039-25584
 Co-ordinates: Lat 36.9180298, Long -107.4335175 NAD83
 Elevations: GROUND: 6247'
 KB: 6261'
 Depths (KB): PBDT: 8171'
 TD: 8195'

Date Prepared: 2/15/2024 Moss
 Reviewed By:
 Last Updated:
 Spud Date: 6/24/1996
 Completion Date: 8/5/1996
 Last Workover Date: N/A

VERTICAL WELLBORE



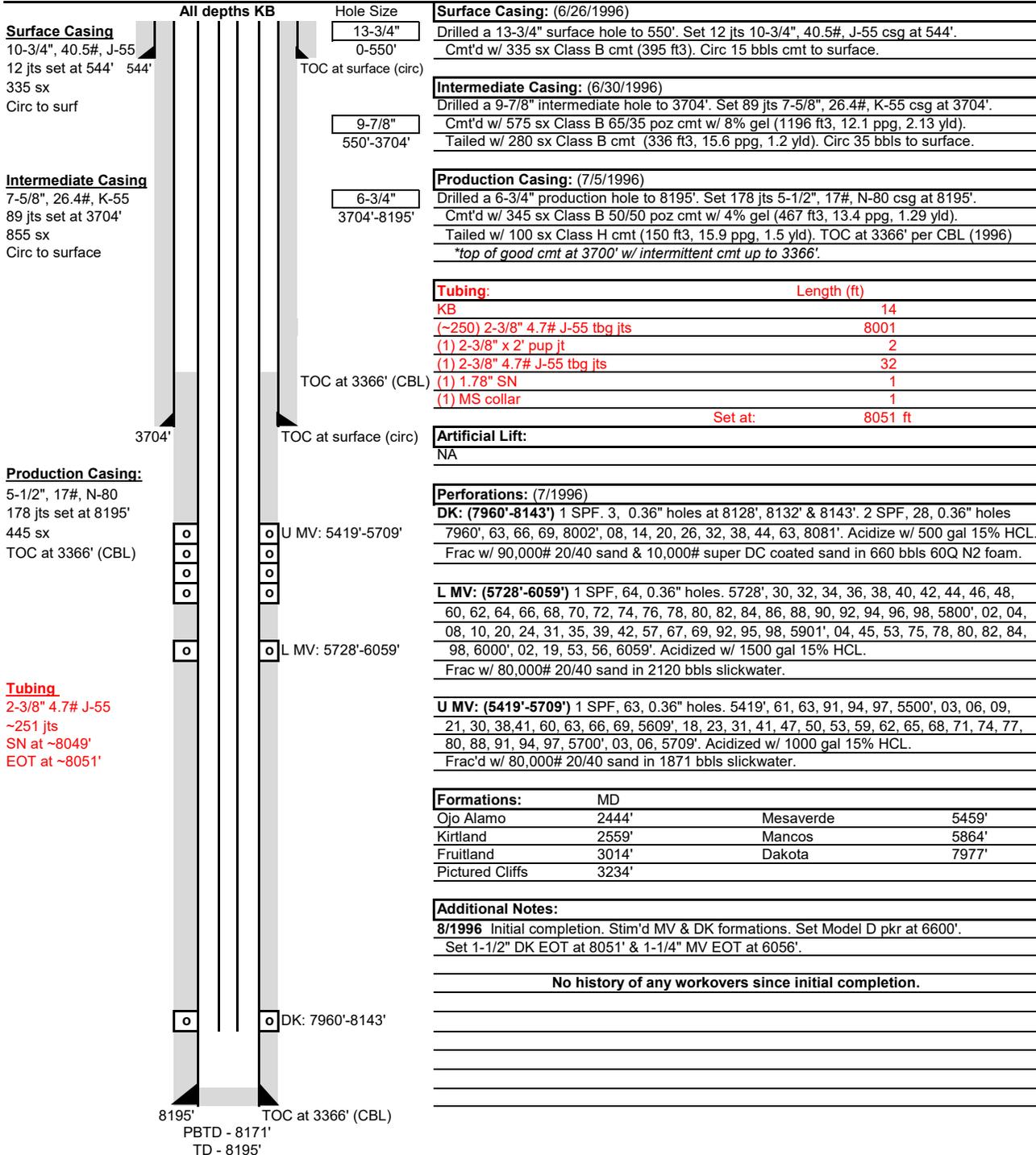


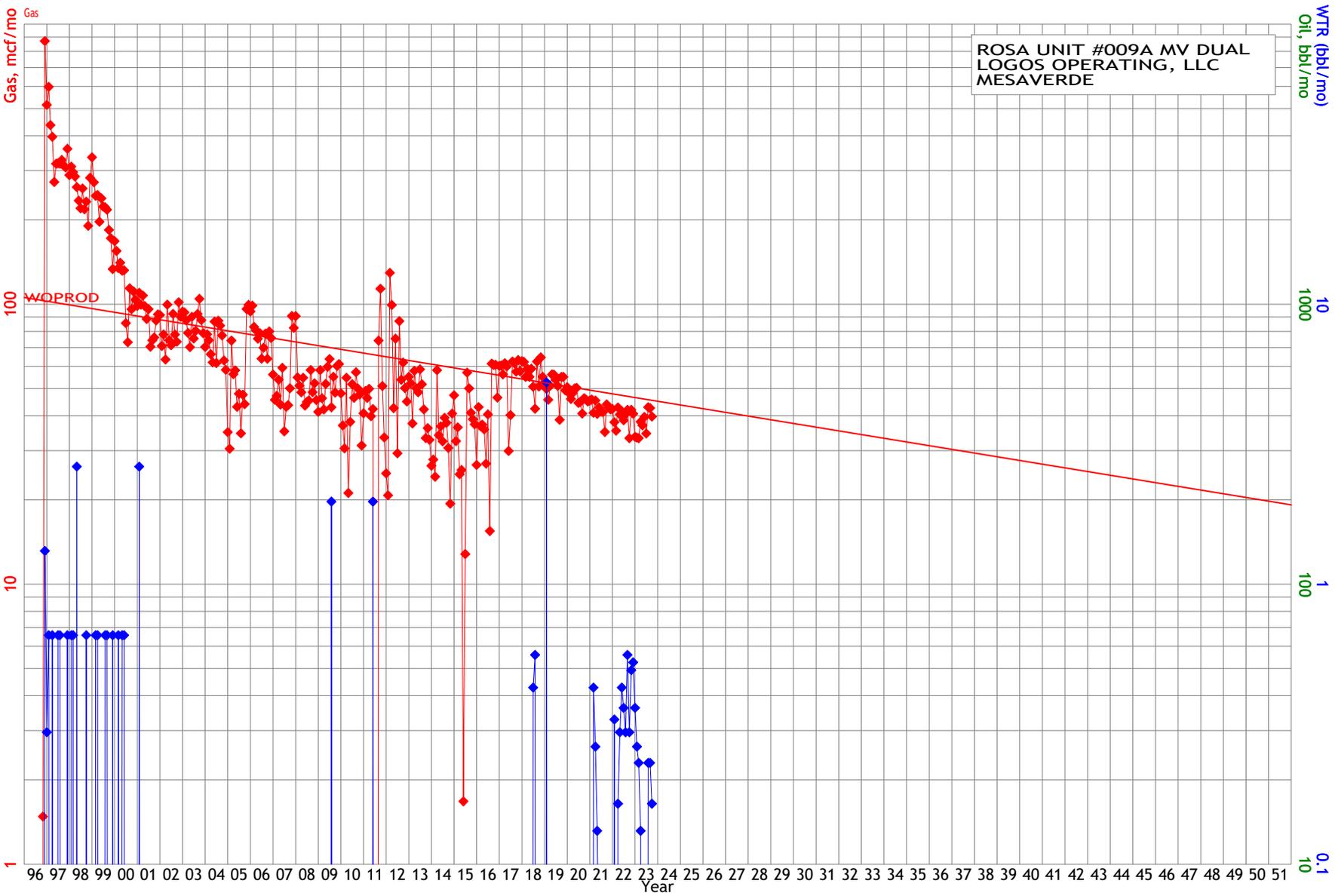
Proposed Downhole Commingle Wellbore Schematic

Well Name: Rosa Unit 9A
 Location: C-11-31N-06W 1250' FNL & 2245' FWL
 County: Rio Arriba, NM
 API #: 30-039-25584
 Co-ordinates: Lat 36.9180298, Long -107.4335175 NAD83
 Elevations: GROUND: 6247'
 KB: 6261'
 Depths (KB): PBDT: 8171'
 TD: 8195'

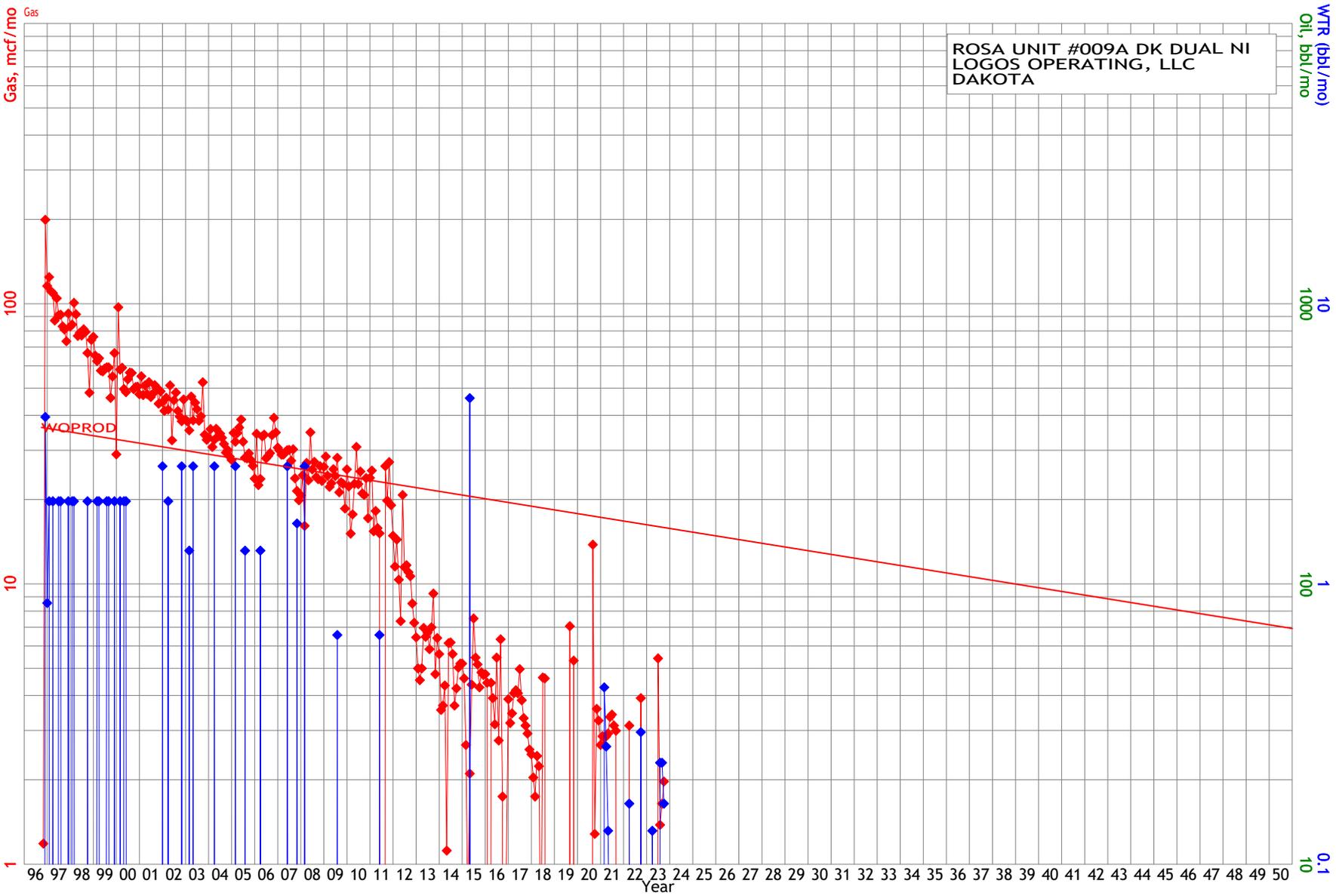
Date Prepared: 2/15/2024 Moss
 Reviewed By:
 Last Updated:
 Spud Date: 6/24/1996
 Completion Date: 8/5/1996
 Last Workover Date: N/A

VERTICAL WELLBORE

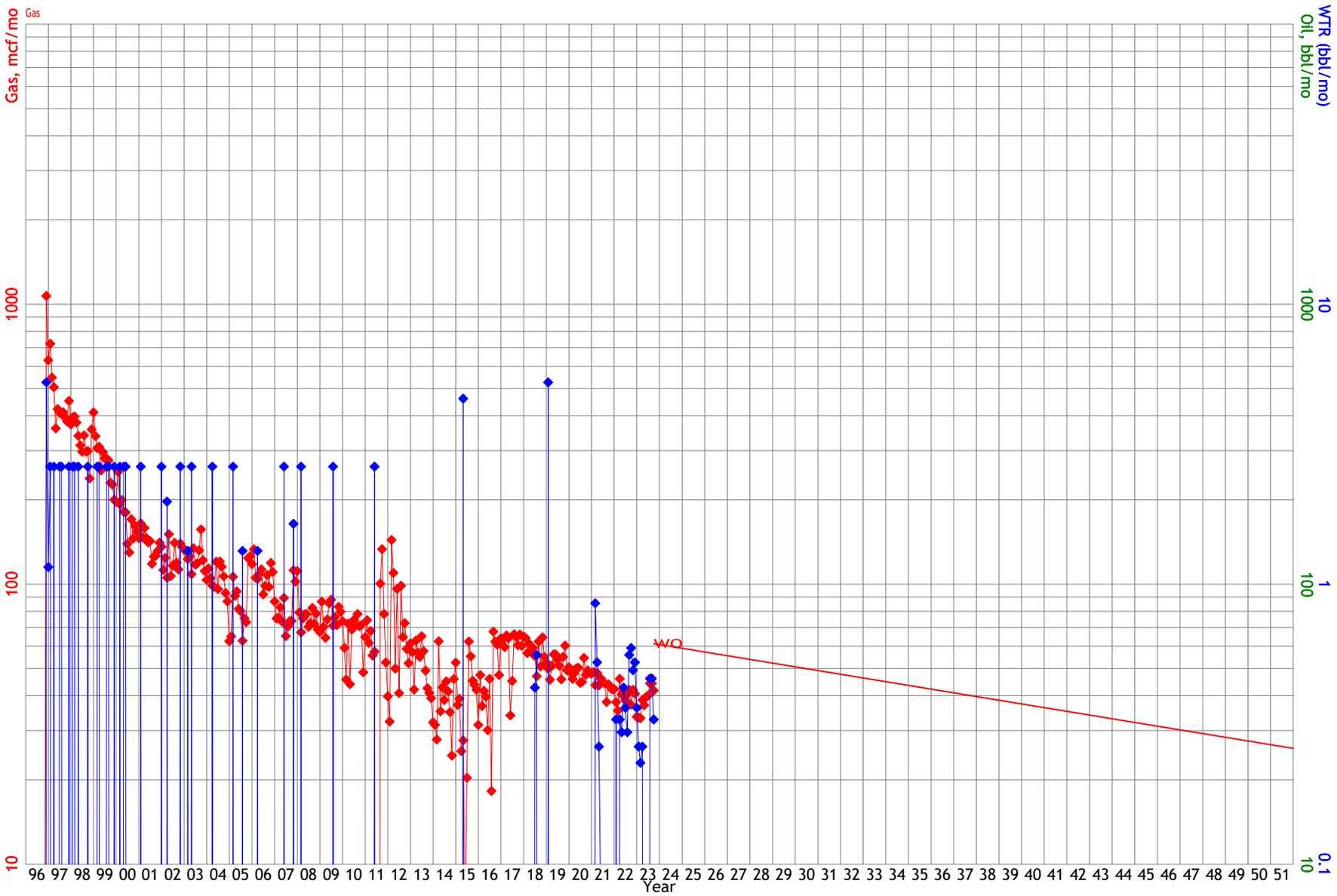




Gas, mcf/mo	—	Oil, bbl/mo	◆—◆	WTR (bbl/mo)	◆—◆
Qual=	WOPROD	Ref=	10/2023	Ref=	10/2023
Ref=	10/2023	Cum=	0	Cum=	1032
Cum=	839435				
Rem=	509872				
EUR=	1349307				
Yrs=	91.000				
Qi=	45.4				
b=	0.000000				
De=	3.000000				
Qab=	2.8				



Gas, mcf/mo	—	Oil, bbl/mo	◆—◆	WTR (bbl/mo)	◆—◆
Qual=	WOPROD	Ref=	10/2023	Ref=	10/2023
Ref=	10/2023	Cum=	0	Cum=	2140
Cum=	252429				
Rem=	179038				
EUR=	431467				
Yrs=	92.083				
Qi=	15.9				
b=	0.000000				
De=	3.000000				
Qab=	1.0				



Gas, mcf/mo	—	Oil, bbl/mo	◆—◆	WTR (bbl/mo)	◆—◆
Calc=	WO	Ref=	10/2023	Ref=	10/2023
Rem=	1091864	Cum=	0	Cum=	3172
EUR=	1780774				
Yrs=	92.083				

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

COMMENTS

Action 320001

COMMENTS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 320001
	Action Type: [C-107] Down Hole Commingle (C-107A)

COMMENTS

Created By	Comment	Comment Date
dmcclure	On 03/26/2024, The Division initially approved DHC-5357; On 03/27/2024, The Division revoked its prior approval of DHC-5357, but allowed Logos to submit an amended allocation plan; On 03/28/2024, The Division approved DHC-5357 under the amended allocation plan.	3/28/2024

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 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 320001

CONDITIONS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 320001
	Action Type: [C-107] Down Hole Commingle (C-107A)

CONDITIONS

Created By	Condition	Condition Date
dmcclure	If an alteration is made to the Well or a condition within the Well changes which may cause the allocation of production to the Pools as approved within this Permit to become inaccurate, then no later than sixty (60) days after that event, the Operator shall submit Form C-103 to the OCD Engineering Bureau describing the event and include a revised allocation plan. If OCD denies the revised allocation plan, this Permit shall terminate on the date of such action.	3/26/2024
dmcclure	If the downhole commingling of the Pools reduces the value of the oil and gas production to less than if it had remained segregated, no later than sixty (60) days after the decrease in value has occurred the Operator shall submit a new downhole commingling application to OCD to amend this Permit to remove the pool that caused the decrease in value. If the Operator fails to submit a new application, this Permit shall terminate on the following day, and if OCD denies the application, this Permit shall terminate on the date of such action.	3/26/2024
dmcclure	If a completed interval of the Well is altered from what is submitted within this application, then no later than sixty (60) days after the alteration, the Operator shall submit Form C-103 to the OCD Engineering Bureau detailing the alteration and completed interval.	3/26/2024
dmcclure	The Operator shall calculate the oil and gas production average during the fourth year after the commencement of commingling, which shall be used to establish a fixed percentage of the total oil and gas production that shall be allocated to each of the Pools ("fixed percentage allocation plan"). No later than ninety (90) days after the fourth year, the Operator shall submit a Form C-103 to the OCD Engineering Bureau that includes the fixed percentage allocation plan and all data used to determine it. If the Operator fails to do so, this Permit shall terminate on the following day. If OCD denies the fixed percentage allocation plan, this Permit shall terminate on the date of such action. If OCD approves the percentage allocation plan with or without modifications, then the approved percentage allocation plan shall be used to determine oil and gas allocation starting on the date of such action until the Well is plugged and abandoned.	3/28/2024