

Santa Fe Main Office Phone: (505) 476-3441 Fax: (55) 476-3462 General Information Phone: (505) 629-6116 Online Phone Directory Visit: https://www.emnrd.nm.gov/ocd/contact-us/	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	C-104 Revised July 9, 2024 Submit Electronically Via OCD Permitting
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REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT**Section 1 - Operator and Well Information**

Submittal Type: ☒ Test Allowable (C-104RT) ☐ New Well (C-104NW) ☐ Recomplete (C-104RC) ☐ Pay Add (C-104RC) ☐ Amended	
Operator Name: LOGOS OPERATING, LLC	OGRID: 289408
Property Name and Well Number: ROSA UNIT 706H	Property Code: 320608
Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal	API Number: 30-039-31437
Pool Name: BASIN MANCOS	Pool Code: 97232

Section 2 – Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
I	7	31N	5W		2571' FSL	1293' FEL	36.913848	-107.399158	Rio Arriba

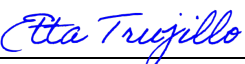
Section 3 – Completion Information

Producing Method Flowing	Ready Date ~10/14/2024	Perforations MD ~7407 – 20,764'	Perforations TVD ~6915' – 6877'
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Section 4 – Action IDs for Submissions and Order Numbers

List Action IDs for Drilling Sundries	Was an Order required / needed (Y/N), if yes list Order number:
C-104 RT Action ID (if C-104NW):	Communitization Agreement ☒ Yes ☐ No, Order No. NMNM078407E
Surface Casing Action ID: 336026	Unit: ☒ Yes ☐ No, Order No. R-13457
Intermediate 1 Casing Action ID: 365109	Compulsory Pooling: ☐ Yes ☒ No, Order No.
Intermediate 2 Casing Action ID: N/A	Down Hole Commingling: ☐ Yes ☒ No, Order No.
Production Casing Action ID: 368585	Surface Commingling: ☐ Yes ☒ No, Order No.
All casing was pressure tested in accordance with NMAC ☒ Yes ☐ No	Non-standard Location: ☐ Yes ☒ No ☐ Common ownership Order No.
Liner 1 Action ID: N/A	Non-standard Proration: ☐ Yes ☒ No, Order No.
Casing was installed prior to OCD's Action ID system (Y/N): N	Simultaneous Dedication: ☐ Yes ☒ No, Order No.

Section 5 - Operator Signature and Certification

☒ I hereby certify that the required Water Use Report has been, or will be, submitted for this well's completion.	
☒ I hereby certify that the required Fracfocus disclosure has been, or will be, submitted for this well's completion.	
☒ I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.	
Name 	
Title Regulatory Specialist II	Date 9/25/2024

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024	
		Submittal Type	☐ Initial Submittal
			☐ Amended Report
		☒ As Drilled	

WELL LOCATION INFORMATION

API Number 30-039-31437	Pool Code 97232	Pool Name BASIN MANCOS
Property Code 320608	Property Name ROSA UNIT	Well Number 706H
OGRID No. 289408	Operator Name LOGOS OPERATING, LLC	Ground Level Elevation 6295'
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal		Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location

UL I	Section 7	Township 31N	Range 5W	Lot	Feet from N/S Line 2571' SOUTH	Feet from E/W Line 1293' EAST	Latitude 36.913848 °N	Longitude -107.399158 °W	County RIO ARRIBA
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Bottom Hole Location

UL N	Section 10	Township 31N	Range 5W	Lot	Feet from N/S Line 646' SOUTH	Feet from E/W Line 2539' WEST	Latitude 36.908540 °N	Longitude -107.349979 °W	County RIO ARRIBA
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Dedicated Acres 1191.90	Penetrated Spacing Unit: S/2 - Sections 7, 8, 9 & 10	Infill or Defining Well Infill	Defining Well API	Overlapping Spacing Unit ☐ Yes ☒ No	Consolidation Code Unitization
Order Numbers R-13457			Well setbacks are under Common Ownership: ☐ Yes ☒ No		

Kick Off Point (KOP)

UL P	Section 7	Township 31N	Range 5W	Lot	Feet from N/S Line 1300' SOUTH	Feet from E/W Line 948' EAST	Latitude 36.910355 °N	Longitude -107.397974 °W	County RIO ARRIBA
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First Take Point (FTP)

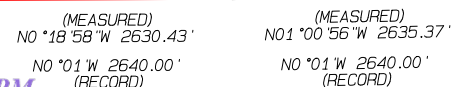
UL P	Section 7	Township 31N	Range 5W	Lot	Feet from N/S Line 1001' SOUTH	Feet from E/W Line 420' EAST	Latitude 36.909535 °N	Longitude -107.396165 °W	County RIO ARRIBA
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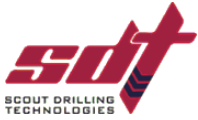
Last Take Point (LTP)

UL N	Section 10	Township 31N	Range 5W	Lot	Feet from N/S Line 639' SOUTH	Feet from E/W Line 2341' WEST	Latitude 36.908522 °N	Longitude -107.350656 °W	County RIO ARRIBA
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Unitized Area or Area of Uniform Interest ROSA UNIT	Spacing Unit Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation
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OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division. <i>Etta Trujillo</i> Signature Etta Trujillo Printed Name etrujillo@logosresourcesllc.com E-mail Address 9/10/2024 Date	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.  JASON C. EDWARDS Signature and Seal of Professional Surveyor Certificate Number 15269 Date of Survey NOVEMBER 15, 2021
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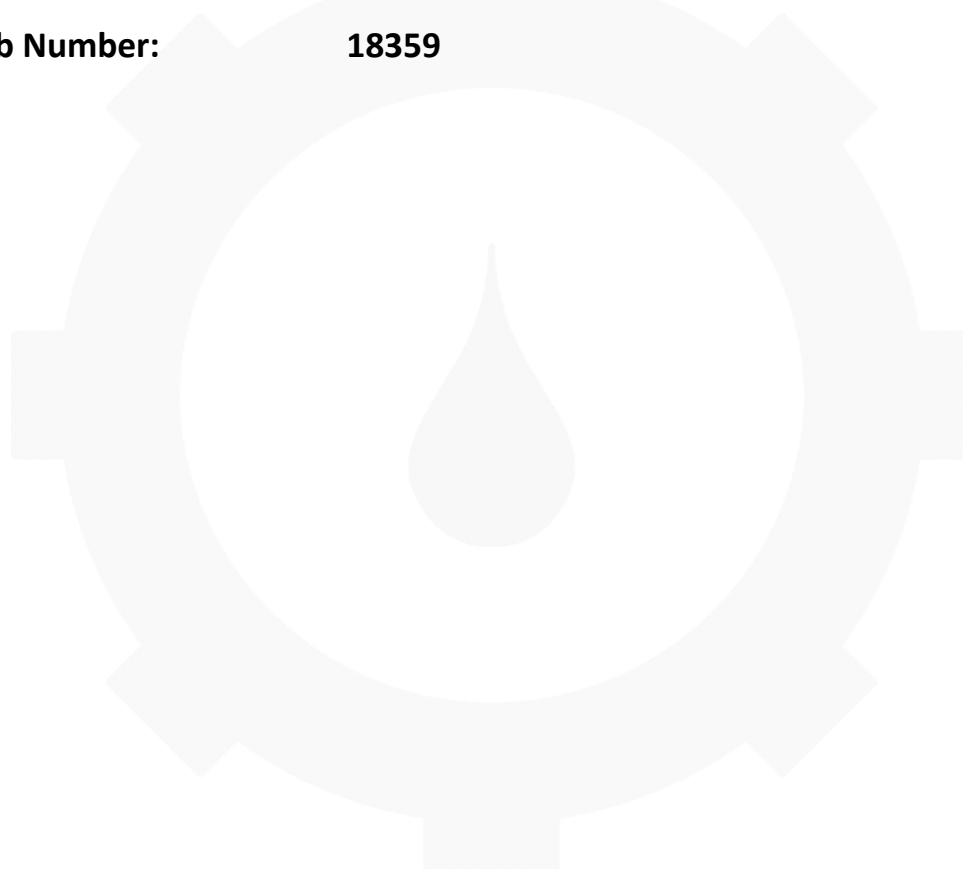
**18359
Logos Operating LLC
Rosa Unit 706H - OH
New Mexico
Rio Arriba
HP 530**

End Of Well Report - 06/25/2024

**Innovative Drilling Solutions
Data-Driven Decision**



Well Name: Rosa Unit 706H
API Number: 3003931437
County: Rio Arriba County, NM
Scout Job Number: 18359



**Scout Drilling Technologies
1125 Beach Airport Road, Conroe, Texas 77301
Office: 936-756-3210
www.scoutdrilltech.com**

Well Summary

		Rosa Unit 706H - OH - Well Summary		
Job #	18359	Operator	Logos Operating LLC	
API Job# / AFE	/20*240107	Field	Rio Arriba, NM (NAD83) - Logos Operating LLC	
Rig	HP 530	Well	Rosa Unit 706H	
County	Rio Arriba	State	New Mexico	
Latitude	36° 54' 49.853" N	Longitude	107° 23' 56.969" W	
Start Date	04/08/2024	Start Depth (Usft)	36.00	
End Date	06/20/2024	End Depth (Usft)	20962.00	
Total Days	27	Total Drilled (Usft)	20926.00	
Cost per day	8929.93	Cost per (Usft)	11.52	
Curve Lndg MD / TVD	20962.00 / 0.00	Formation		
Curve Planned DLS	9.00	Lateral Dip	90.00	

BHA Summary											
BHA #	Bit #	Hole Size (in)	Start (Usft)	End (Usft)	Drilled (Usft)	Avg ROP (Usft/hr)	Slide %	Drig Hrs	Circ Hrs	BRT Hrs	Failed
1	1	26.000	36.00	192.00	156.00	24.31	0.00	6.42	1.53	26.00	
2	1	26.000	0.00	383.00	191.00	32.10	0.00	5.95	1.00	0.00	
3	3	12.250	383.00	6412.00	6029.00	130.83	10.12	46.08	18.85	95.00	
4		12.250	0.00	6412.00	0.00	0.00	0.00	0.00	20.82	0.00	
5	5	8.500	0.00	6425.00	13.00	2.01	0.00	6.48	4.55	0.00	
6	6	8.500	6425.00	20962.00	14537.00	132.23	7.17	109.93	18.38	176.00	

Bit Run Record										
Bit #	Make	Model	Size (in)	Grade In	Grade Out	TFA	Drilled	Drig Hrs	ROP	
1	NOV	SK95	26.000	New		2.071	156.00	6.42	24.31	
1	NOV	SK95	26.000	New		2.071	191.00	5.95	32.10	
3	Ultrerra	WAV616	12.250	New	1-3-CT-G-X-I-PN-TD	1.629	6029.00	46.08	130.83	
			12.250			0.000	0.00	0.00	0.00	
5	Smith	XR+	8.500	1-1-CT-N-E-I-NO-BHA		0.920	13.00	6.48	2.01	
6	Baker Hughes	DD406TS	8.500	New	1-1-WT-A-X-I-CT-TD	0.994	14537.00	109.93	132.23	

Motor Summary									
BHA #	Make	Model	Lobes	Stages	OD (in)	Bend	Bit to Bend	Drilled (Usft)	ROP (Usft/hr)
1	Scout	Turbo Scout	7/8	3.9	9.620	0.00	0.00	156.00	24.31
2	Scout	Turbo Scout	7/8	3.9	9.620	0.00	0.00	191.00	32.10
3	Scout	Turbo Drill	7/8	5.9	9.620	2.12	7.55	6029.00	130.83
6	Scout	CAM	5/6	9.6	7.120	1.75	5.41	14537.00	132.23

Personnel Summary						
Day DD	Night DD	Day MWD	Night MWD	Day Co Man	Night CO Man	Drilling Eng
Marc Keim	Chris Hite	JC Slanton	JC Slanton	Andrew Baltess	Brian Mitchell	Ryan Haddow
Martin Leafstedt	Martin Leafstedt	Tyler Sjogren	Marlin Martin	Brian Mitchel	John Holland	
Will Drake			Marlon Martin	Ryan Buford	Ryan Buford	

Phase Summary							
Phase	Days	Drilled (Usft)	Avg ROP (Usft/hr)	NPT (Rig/Dir)	# BHA's	Drig Hrs	
SURFACE: SURFACE	2.62	347.00	28.06	5.05 / 0.00	2	12.37	
INT-1: INTERMEDIATE 1	9.00	6029.00	130.83		2	46.08	
CRVLAT: CURVE/LATERAL	9.98	14550.00	124.98	1.77 / 0.00	2	116.42	
STBY: STANDBY	4.40						
Total	26.00	20926.00	119.67	6.82 / 0.00	6	174.87	

Phase Summary - Per BHA											
Phase / BHA	From (Usft)	To (Usft)	Rot ROP	Rot Dist	Slide ROP	Slide Dist	Slide %	Tot Drill	Avg ROP	Tot Hrs	Slide Hrs
SURFACE: SURFACE-BHA #1 (Surface)	36.00	192.00	24.31	156.00	0.00	0.00	0.00	156.00	24.31	6.42	0.00
SURFACE: SURFACE-BHA 2 (Surface)	192.00	383.00	32.10	191.00	0.00	0.00	0.00	191.00	32.10	5.95	0.00
INT-1: INTERMEDIATE 1-BHA 3 (Intermediate)	383.00	6412.00	148.26	5419.00	63.99	610.00	10.12	6029.00	130.83	46.08	9.53
INT-1: INTERMEDIATE 1-BHA 4 (Int Cleanout)	6412.00	6412.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRVLAT: CURVE/LATERAL-BHA 5 (DV drill out)	6412.00	6425.00	2.01	13.00	0.00	0.00	0.00	13.00	2.01	6.48	0.00
CRVLAT: CURVE/LATERAL-BHA 6 (Curve/Lateral)	6425.00	20962.00	152.72	13495.00	48.32	1042.00	7.17	14537.00	132.23	109.93	21.57

**Innovative Drilling Solutions
Data-Driven Decision**



PROPOSED VS. ACTUAL PLOT FINAL SURVEY REPORT

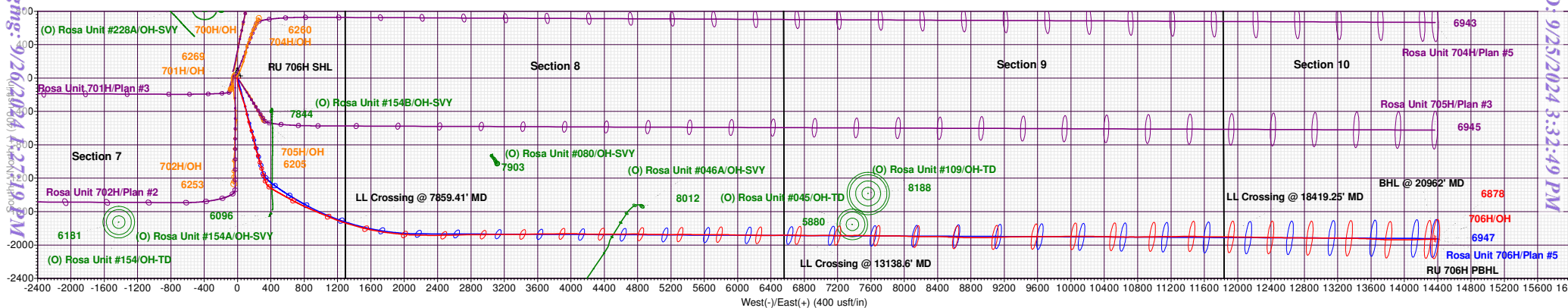
**Scout Drilling Technologies
1125 Beach Airport Road, Conroe, Texas 77301
Office: 936-756-3210
www.scoutdrilltech.com**



County: Rio Arriba, NM (NAD83)
Site: Rosa Unit 24
Well: Rosa Unit 706H
Depth Reference: 6295+30 @ 6325.00usft (H&P 530)
Rig: H&P 530
Plan: OH
Job #: 18359



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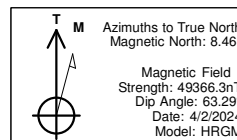


ANNOTATIONS

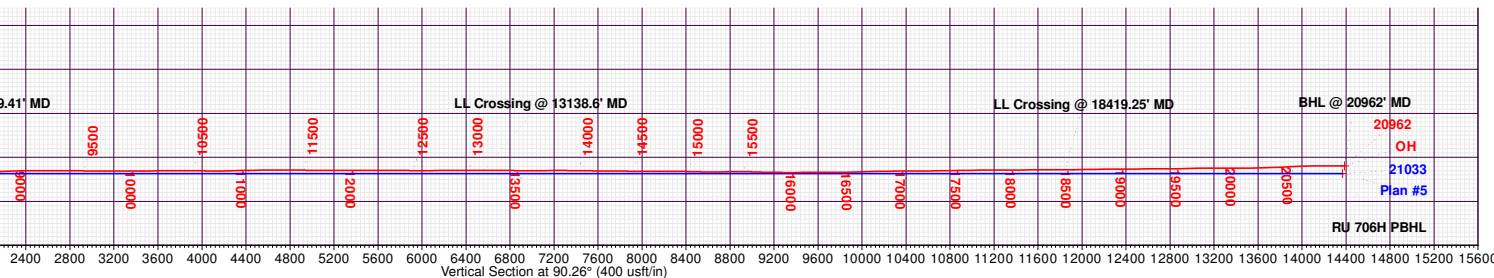
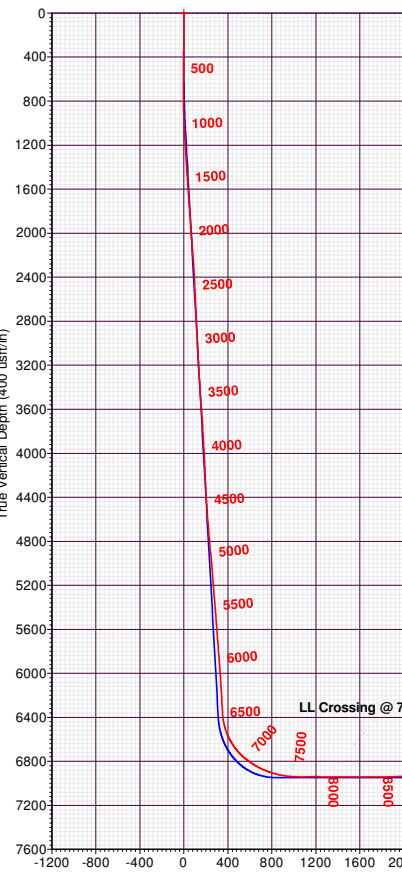
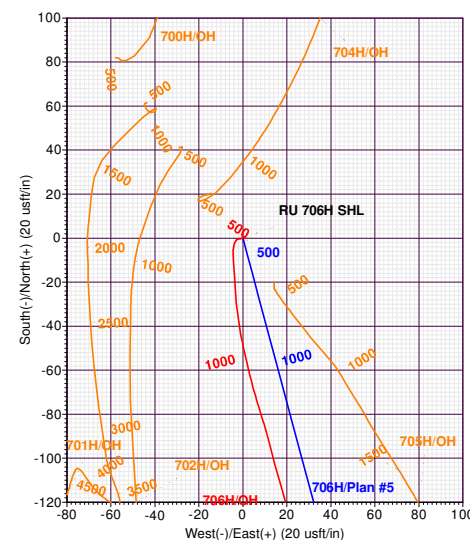
MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect Departure	Annotation
7859.41	88.82	107.69	6941.95	-1736.34	1294.54	1302.40	LL Crossing @ 7859.41' MD
13138.60	90.05	89.41	6919.45	-1882.73	6557.34	6565.81	LL Crossing @ 13138.6' MD
18419.25	90.25	89.58	6913.32	-1901.75	11836.64	11845.15	LL Crossing @ 18419.25' MD
20962.00	89.50	87.90	6878.02	-1928.65	14378.15	14386.76	BHL @ 20962' MD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
RU 706H SHL	0.00	0.00	0.00	2152256.69	2850017.63	36.913848	-107.399158
RU 706H BHL	6878.02	-1928.65	14378.15	2150393.51	2864404.41	36.908540	-107.349979
RU 706H PBHL	6947.00	-1921.93	14359.18	2150400.14	2864385.41	36.908559	-107.350044



TOTAL CORRECTION: 8.46°



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Logos Operating LLC

Rio Arriba, NM (NAD83)

Rosa Unit 24

Rosa Unit 706H

OH

Design: OH

Standard Survey Report

25 June, 2024

SDT
Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit 706H
Project:	Rio Arriba, NM (NAD83)	TVD Reference:	6295+30 @ 6325.00usft (H&P 530)
Site:	Rosa Unit 24	MD Reference:	6295+30 @ 6325.00usft (H&P 530)
Well:	Rosa Unit 706H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Project	Rio Arriba, NM (NAD83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	Rosa Unit 24				
Site Position:		Northing:	2,152,318.01 usft	Latitude:	36.914017
From:	Lat/Long	Easting:	2,849,973.79 usft	Longitude:	-107.399307
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "		

Well	Rosa Unit 706H					
Well Position	+N/-S	0.00 usft	Northing:	2,152,256.68 usft	Latitude:	36.913848
	+E/-W	0.00 usft	Easting:	2,850,017.63 usft	Longitude:	-107.399158
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	6,295.00 usft
Grid Convergence:		0.26 °				

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HRGM	4/2/2024	8.46	63.29	49,366.26534203

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	90.26	

Survey Program	Date	6/25/2024			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
25.61	321.93	Survey #1 (OH)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4	
321.93	20,892.00	Survey #2 (OH)	MWD+HRGM+MS	MWD + HRGM + Multi-Station Correction	
20,962.00	20,962.00	Survey #3 (OH)	A026Ua_BLIND	OWSG BLIND	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
25.61	0.49	262.42	25.61	-0.01	-0.11	-0.11	1.91	1.91	0.00	
117.41	0.43	245.44	117.41	-0.21	-0.81	-0.81	0.16	-0.07	-18.50	
206.68	0.30	269.16	206.67	-0.35	-1.35	-1.35	0.22	-0.15	26.57	
295.66	0.29	268.76	295.65	-0.36	-1.81	-1.81	0.01	-0.01	-0.45	
321.93	0.27	270.95	321.92	-0.36	-1.94	-1.93	0.09	-0.08	8.34	
423.00	0.47	246.65	422.99	-0.52	-2.55	-2.55	0.25	0.20	-24.04	
511.00	1.64	210.74	510.98	-1.75	-3.53	-3.52	1.46	1.33	-40.81	

SDT

Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit 706H
Project:	Rio Arriba, NM (NAD83)	TVD Reference:	6295+30 @ 6325.00usft (H&P 530)
Site:	Rosa Unit 24	MD Reference:	6295+30 @ 6325.00usft (H&P 530)
Well:	Rosa Unit 706H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
606.00	3.48	183.92	605.88	-5.79	-4.42	-4.40	2.26	1.94	-28.23
665.00	4.73	175.66	664.73	-10.00	-4.36	-4.31	2.34	2.12	-14.00
753.00	6.18	176.40	752.33	-18.35	-3.79	-3.70	1.65	1.65	0.84
847.00	7.78	176.36	845.63	-29.75	-3.07	-2.93	1.70	1.70	-0.04
939.00	10.46	168.05	936.46	-44.14	-0.94	-0.74	3.24	2.91	-9.03
1,030.00	11.22	166.56	1,025.84	-60.83	2.83	3.10	0.89	0.84	-1.64
1,120.00	10.92	162.37	1,114.16	-77.47	7.44	7.80	0.95	-0.33	-4.66
1,211.00	12.47	165.45	1,203.27	-95.20	12.52	12.96	1.84	1.70	3.38
1,306.00	12.84	163.94	1,295.96	-115.27	18.02	18.54	0.52	0.39	-1.59
1,401.00	12.01	164.01	1,388.74	-134.91	23.66	24.28	0.87	-0.87	0.07
1,495.00	11.88	161.23	1,480.70	-153.48	29.47	30.17	0.63	-0.14	-2.96
1,589.00	11.45	159.05	1,572.76	-171.35	35.92	36.70	0.66	-0.46	-2.32
1,684.00	12.55	163.07	1,665.69	-190.03	42.30	43.16	1.45	1.16	4.23
1,779.00	13.53	164.62	1,758.24	-210.62	48.25	49.21	1.10	1.03	1.63
1,967.00	13.14	162.50	1,941.17	-252.21	60.51	61.65	0.33	-0.21	-1.13
2,156.00	13.29	159.66	2,125.16	-293.06	74.52	75.85	0.35	0.08	-1.50
2,251.00	13.53	158.80	2,217.57	-313.66	82.33	83.76	0.33	0.25	-0.91
2,345.00	12.59	163.61	2,309.14	-333.74	89.20	90.72	1.53	-1.00	5.12
2,440.00	11.93	168.00	2,401.98	-353.28	94.17	95.77	1.20	-0.69	4.62
2,535.00	12.10	168.45	2,494.90	-372.64	98.20	99.89	0.20	0.18	0.47
2,629.00	12.51	167.73	2,586.74	-392.24	102.34	104.12	0.47	0.44	-0.77
2,724.00	12.17	167.87	2,679.54	-412.09	106.63	108.50	0.36	-0.36	0.15
2,818.00	12.34	169.11	2,771.40	-431.64	110.61	112.56	0.33	0.18	1.32
2,913.00	12.28	167.13	2,864.22	-451.46	114.77	116.82	0.45	-0.06	-2.08
3,008.00	11.92	164.76	2,957.11	-470.77	119.60	121.74	0.65	-0.38	-2.49
3,102.00	10.77	164.40	3,049.27	-488.60	124.52	126.73	1.23	-1.22	-0.38
3,197.00	10.88	166.80	3,142.58	-505.87	128.95	131.25	0.49	0.12	2.53
3,291.00	13.10	168.34	3,234.52	-524.95	133.13	135.51	2.39	2.36	1.64
3,386.00	13.77	164.44	3,326.93	-546.38	138.34	140.82	1.19	0.71	-4.11
3,480.00	13.71	164.87	3,418.24	-567.91	144.25	146.82	0.13	-0.06	0.46
3,575.00	13.23	162.10	3,510.62	-589.13	150.53	153.20	0.85	-0.51	-2.92
3,670.00	12.71	161.00	3,603.20	-609.35	157.27	160.04	0.61	-0.55	-1.16
3,764.00	12.10	160.67	3,695.00	-628.43	163.90	166.75	0.65	-0.65	-0.35
3,859.00	10.32	162.18	3,788.19	-645.93	169.80	172.73	1.90	-1.87	1.59
3,954.00	10.52	163.00	3,881.62	-662.32	174.94	177.94	0.26	0.21	0.86
4,049.00	9.57	159.73	3,975.16	-678.02	180.21	183.29	1.17	-1.00	-3.44
4,143.00	10.50	167.01	4,067.73	-693.70	184.84	187.99	1.67	0.99	7.74
4,238.00	12.68	170.64	4,160.79	-712.42	188.49	191.72	2.42	2.29	3.82
4,333.00	14.99	168.87	4,253.03	-734.77	192.55	195.89	2.47	2.43	-1.86
4,427.00	13.64	169.43	4,344.11	-757.59	196.93	200.37	1.44	-1.44	0.60
4,522.00	15.14	165.86	4,436.12	-780.64	202.02	205.56	1.83	1.58	-3.76
4,616.00	17.53	166.20	4,526.32	-806.29	208.40	212.05	2.54	2.54	0.36
4,710.00	17.41	165.79	4,615.99	-833.67	215.23	219.01	0.18	-0.13	-0.44

SDT

Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit 706H
Project:	Rio Arriba, NM (NAD83)	TVD Reference:	6295+30 @ 6325.00usft (H&P 530)
Site:	Rosa Unit 24	MD Reference:	6295+30 @ 6325.00usft (H&P 530)
Well:	Rosa Unit 706H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,773.00	15.98	165.82	4,676.33	-851.22	219.66	223.52	2.27	-2.27	0.05
4,867.00	15.96	162.90	4,766.70	-876.12	226.63	230.61	0.85	-0.02	-3.11
4,930.00	17.41	160.44	4,827.05	-893.28	232.34	236.39	2.56	2.30	-3.90
4,993.00	17.33	160.92	4,887.18	-911.02	238.56	242.69	0.26	-0.13	0.76
5,056.00	17.29	164.51	4,947.33	-928.92	244.13	248.34	1.70	-0.06	5.70
5,119.00	16.15	163.50	5,007.66	-946.34	249.12	253.41	1.87	-1.81	-1.60
5,181.00	14.66	165.48	5,067.43	-962.20	253.53	257.90	2.55	-2.40	3.19
5,244.00	14.62	163.63	5,128.39	-977.55	257.77	262.20	0.74	-0.06	-2.94
5,307.00	15.91	163.80	5,189.16	-993.47	262.42	266.93	2.05	2.05	0.27
5,370.00	16.26	162.98	5,249.70	-1,010.20	267.41	271.99	0.66	0.56	-1.30
5,433.00	15.84	164.05	5,310.24	-1,026.90	272.36	277.01	0.82	-0.67	1.70
5,496.00	15.95	163.07	5,370.83	-1,043.44	277.24	281.97	0.46	0.17	-1.56
5,527.00	15.95	163.07	5,400.64	-1,051.59	279.72	284.49	0.00	0.00	0.00
5,590.00	15.56	164.62	5,461.27	-1,068.02	284.48	289.33	0.91	-0.62	2.46
5,653.00	15.64	164.45	5,521.95	-1,084.35	289.00	293.92	0.15	0.13	-0.27
5,715.00	15.67	163.37	5,581.65	-1,100.42	293.64	298.63	0.47	0.05	-1.74
5,778.00	15.46	165.63	5,642.34	-1,116.71	298.16	303.22	1.02	-0.33	3.59
5,841.00	15.84	164.95	5,703.01	-1,133.15	302.47	307.61	0.67	0.60	-1.08
5,904.00	15.73	164.77	5,763.63	-1,149.69	306.95	312.16	0.19	-0.17	-0.29
5,967.00	15.54	162.42	5,824.30	-1,165.98	311.74	317.03	1.05	-0.30	-3.73
6,030.00	14.29	162.43	5,885.18	-1,181.43	316.64	322.00	1.98	-1.98	0.02
6,093.00	13.71	163.34	5,946.31	-1,196.00	321.12	326.55	0.98	-0.92	1.44
6,156.00	13.03	162.27	6,007.60	-1,209.92	325.43	330.91	1.15	-1.08	-1.70
6,219.00	11.88	161.85	6,069.11	-1,222.84	329.61	335.16	1.83	-1.83	-0.67
6,282.00	10.69	160.87	6,130.89	-1,234.53	333.55	339.14	1.91	-1.89	-1.56
6,347.00	9.54	162.15	6,194.88	-1,245.35	337.17	342.82	1.80	-1.77	1.97
6,460.00	8.17	162.25	6,306.53	-1,261.91	342.49	348.21	1.21	-1.21	0.09
6,504.00	8.11	162.07	6,350.09	-1,267.84	344.40	350.15	0.15	-0.14	-0.41
6,599.00	15.69	133.52	6,443.05	-1,283.10	355.80	361.62	9.88	7.98	-30.05
6,693.00	24.67	128.10	6,531.20	-1,304.00	380.51	386.42	9.75	9.55	-5.77
6,787.00	33.55	122.91	6,613.26	-1,330.27	417.83	423.87	9.81	9.45	-5.52
6,882.00	41.80	118.76	6,688.40	-1,359.82	467.72	473.89	9.08	8.68	-4.37
6,976.00	51.23	119.35	6,753.01	-1,392.93	527.26	533.58	10.04	10.03	0.63
7,071.00	58.99	118.99	6,807.31	-1,430.87	595.26	601.74	8.17	8.17	-0.38
7,165.00	64.60	118.09	6,851.72	-1,470.42	668.01	674.67	6.03	5.97	-0.96
7,260.00	70.67	116.59	6,887.85	-1,510.73	746.02	752.87	6.55	6.39	-1.58
7,354.00	76.40	114.01	6,914.49	-1,549.20	827.49	834.51	6.64	6.10	-2.74
7,449.00	82.62	113.56	6,931.78	-1,586.86	912.93	920.12	6.56	6.55	-0.47
7,543.00	88.12	112.70	6,939.36	-1,623.64	999.06	1,006.41	5.92	5.85	-0.91
7,638.00	90.34	112.51	6,940.64	-1,660.15	1,086.74	1,094.27	2.35	2.34	-0.20
7,732.00	90.57	110.40	6,939.89	-1,694.53	1,174.22	1,181.90	2.26	0.24	-2.24
7,827.00	88.02	108.61	6,941.06	-1,726.25	1,263.75	1,271.57	3.28	-2.68	-1.88
7,859.41	88.82	107.69	6,941.95	-1,736.34	1,294.54	1,302.40	3.76	2.47	-2.84
LL Crossing @ 7859.41' MD									

SDT

Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit 706H
Project:	Rio Arriba, NM (NAD83)	TVD Reference:	6295+30 @ 6325.00usft (H&P 530)
Site:	Rosa Unit 24	MD Reference:	6295+30 @ 6325.00usft (H&P 530)
Well:	Rosa Unit 706H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,921.00	90.34	105.94	6,942.41	-1,754.15	1,353.49	1,361.43	3.76	2.47	-2.84
8,016.00	90.10	105.81	6,942.04	-1,780.14	1,444.86	1,452.93	0.29	-0.25	-0.14
8,110.00	90.00	103.61	6,941.96	-1,804.01	1,535.78	1,543.95	2.34	-0.11	-2.34
8,204.00	90.00	100.60	6,941.96	-1,823.72	1,627.68	1,635.94	3.20	0.00	-3.20
8,299.00	90.81	99.83	6,941.29	-1,840.56	1,721.17	1,729.50	1.18	0.85	-0.81
8,394.00	90.27	96.40	6,940.39	-1,853.97	1,815.20	1,823.59	3.65	-0.57	-3.61
8,488.00	91.28	96.18	6,939.12	-1,864.27	1,908.62	1,917.06	1.10	1.07	-0.23
8,583.00	92.05	95.38	6,936.36	-1,873.83	2,003.10	2,011.58	1.17	0.81	-0.84
8,678.00	92.69	91.38	6,932.43	-1,879.43	2,097.83	2,106.34	4.26	0.67	-4.21
8,772.00	92.42	91.09	6,928.24	-1,881.45	2,191.72	2,200.23	0.42	-0.29	-0.31
8,866.00	92.02	92.37	6,924.60	-1,884.29	2,285.60	2,294.13	1.43	-0.43	1.36
8,961.00	90.50	89.09	6,922.51	-1,885.50	2,380.55	2,389.09	3.80	-1.60	-3.45
9,055.00	90.47	89.07	6,921.71	-1,883.99	2,474.54	2,483.06	0.04	-0.03	-0.02
9,150.00	90.10	88.61	6,921.24	-1,882.06	2,569.52	2,578.03	0.62	-0.39	-0.48
9,245.00	90.47	86.75	6,920.77	-1,878.22	2,664.43	2,672.93	2.00	0.39	-1.96
9,339.00	89.39	90.34	6,920.88	-1,875.83	2,758.39	2,766.87	3.99	-1.15	3.82
9,434.00	89.29	90.46	6,921.98	-1,876.50	2,853.38	2,861.86	0.16	-0.11	0.13
9,528.00	89.13	88.88	6,923.27	-1,875.95	2,947.36	2,955.85	1.69	-0.17	-1.68
9,623.00	90.17	90.12	6,923.85	-1,875.13	3,042.36	3,050.83	1.70	1.09	1.31
9,717.00	89.90	89.67	6,923.80	-1,874.95	3,136.36	3,144.83	0.56	-0.29	-0.48
9,812.00	89.43	89.04	6,924.35	-1,873.88	3,231.35	3,239.82	0.83	-0.49	-0.66
9,906.00	89.73	90.52	6,925.04	-1,873.52	3,325.34	3,333.81	1.61	0.32	1.57
10,001.00	90.87	89.33	6,924.54	-1,873.40	3,420.34	3,428.80	1.73	1.20	-1.25
10,095.00	90.57	88.63	6,923.36	-1,871.73	3,514.31	3,522.77	0.81	-0.32	-0.74
10,190.00	90.20	88.01	6,922.72	-1,868.94	3,609.27	3,617.71	0.76	-0.39	-0.65
10,284.00	90.47	89.74	6,922.17	-1,867.09	3,703.25	3,711.68	1.86	0.29	1.84
10,379.00	90.13	90.15	6,921.68	-1,867.00	3,798.25	3,806.68	0.56	-0.36	0.43
10,474.00	90.10	88.44	6,921.49	-1,865.83	3,893.23	3,901.66	1.80	-0.03	-1.80
10,568.00	88.99	90.01	6,922.23	-1,864.56	3,987.22	3,995.64	2.05	-1.18	1.67
10,662.00	89.66	92.10	6,923.34	-1,866.29	4,081.19	4,089.62	2.33	0.71	2.22
10,757.00	90.54	91.33	6,923.17	-1,869.14	4,176.15	4,184.58	1.23	0.93	-0.81
10,852.00	91.61	89.84	6,921.39	-1,870.11	4,271.12	4,279.56	1.93	1.13	-1.57
10,946.00	91.31	90.26	6,919.00	-1,870.19	4,365.09	4,373.53	0.55	-0.32	0.45
11,040.00	91.01	90.41	6,917.09	-1,870.74	4,459.07	4,467.51	0.36	-0.32	0.16
11,135.00	90.84	88.60	6,915.56	-1,869.92	4,554.05	4,562.49	1.91	-0.18	-1.91
11,229.00	90.13	90.76	6,914.76	-1,869.39	4,648.04	4,656.47	2.42	-0.76	2.30
11,323.00	90.03	88.97	6,914.63	-1,869.17	4,742.03	4,750.47	1.91	-0.11	-1.90
11,418.00	89.26	91.95	6,915.22	-1,869.93	4,837.02	4,845.45	3.24	-0.81	3.14
11,512.00	88.96	90.95	6,916.68	-1,872.31	4,930.97	4,939.42	1.11	-0.32	-1.06
11,606.00	90.03	90.59	6,917.51	-1,873.58	5,024.96	5,033.41	1.20	1.14	-0.38
11,701.00	89.97	91.26	6,917.51	-1,875.11	5,119.95	5,128.40	0.71	-0.06	0.71
11,796.00	89.87	89.95	6,917.64	-1,876.11	5,214.94	5,223.40	1.38	-0.11	-1.38
11,890.00	89.87	88.61	6,917.86	-1,874.93	5,308.93	5,317.38	1.43	0.00	-1.43

SDT

Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit 706H
Project:	Rio Arriba, NM (NAD83)	TVD Reference:	6295+30 @ 6325.00usft (H&P 530)
Site:	Rosa Unit 24	MD Reference:	6295+30 @ 6325.00usft (H&P 530)
Well:	Rosa Unit 706H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
11,984.00	90.13	90.79	6,917.86	-1,874.44	5,402.92	5,411.37	2.34	0.28	2.32	
12,079.00	89.70	91.81	6,918.00	-1,876.59	5,497.90	5,506.36	1.17	-0.45	1.07	
12,173.00	90.00	89.75	6,918.24	-1,877.87	5,591.88	5,600.35	2.21	0.32	-2.19	
12,267.00	89.73	89.70	6,918.46	-1,877.42	5,685.88	5,694.34	0.29	-0.29	-0.05	
12,362.00	89.76	88.93	6,918.89	-1,876.29	5,780.87	5,789.33	0.81	0.03	-0.81	
12,456.00	88.82	92.13	6,920.05	-1,877.16	5,874.85	5,883.31	3.55	-1.00	3.40	
12,551.00	90.24	91.56	6,920.83	-1,880.21	5,969.79	5,978.26	1.61	1.49	-0.60	
12,646.00	90.40	90.79	6,920.30	-1,882.16	6,064.77	6,073.25	0.83	0.17	-0.81	
12,740.00	90.34	90.68	6,919.69	-1,883.37	6,158.76	6,167.24	0.13	-0.06	-0.12	
12,835.00	90.13	90.22	6,919.30	-1,884.11	6,253.76	6,262.24	0.53	-0.22	-0.48	
12,929.00	89.97	90.60	6,919.22	-1,884.79	6,347.75	6,356.24	0.44	-0.17	0.40	
13,024.00	89.87	89.09	6,919.35	-1,884.53	6,442.75	6,451.24	1.59	-0.11	-1.59	
13,118.00	90.00	89.05	6,919.46	-1,883.00	6,536.74	6,545.22	0.14	0.14	-0.04	
13,138.60	90.05	89.41	6,919.45	-1,882.73	6,557.34	6,565.81	1.74	0.25	1.73	
LL Crossing @ 13138.6' MD										
13,213.00	90.24	90.69	6,919.26	-1,882.79	6,631.74	6,640.21	1.74	0.25	1.73	
13,308.00	89.80	91.03	6,919.23	-1,884.21	6,726.72	6,735.21	0.59	-0.46	0.36	
13,402.00	89.33	91.53	6,919.94	-1,886.31	6,820.70	6,829.19	0.73	-0.50	0.53	
13,497.00	90.03	89.81	6,920.47	-1,887.42	6,915.69	6,924.18	1.95	0.74	-1.81	
13,592.00	90.03	88.89	6,920.42	-1,886.35	7,010.68	7,019.17	0.97	0.00	-0.97	
13,686.00	90.47	90.61	6,920.01	-1,885.94	7,104.67	7,113.16	1.89	0.47	1.83	
13,781.00	89.93	90.77	6,919.68	-1,887.08	7,199.66	7,208.15	0.59	-0.57	0.17	
13,875.00	89.76	89.69	6,919.94	-1,887.46	7,293.66	7,302.15	1.16	-0.18	-1.15	
13,970.00	89.33	89.08	6,920.69	-1,886.44	7,388.65	7,397.14	0.79	-0.45	-0.64	
14,064.00	89.26	91.16	6,921.85	-1,886.64	7,482.64	7,491.12	2.21	-0.07	2.21	
14,159.00	88.82	90.70	6,923.44	-1,888.18	7,577.61	7,586.10	0.67	-0.46	-0.48	
14,253.00	89.93	90.22	6,924.46	-1,888.93	7,671.60	7,680.10	1.29	1.18	-0.51	
14,348.00	89.60	91.70	6,924.85	-1,890.52	7,766.59	7,775.09	1.60	-0.35	1.56	
14,443.00	89.46	89.41	6,925.63	-1,891.44	7,861.57	7,870.08	2.41	-0.15	-2.41	
14,537.00	90.24	91.86	6,925.88	-1,892.49	7,955.56	7,964.07	2.74	0.83	2.61	
14,632.00	90.07	92.31	6,925.62	-1,895.94	8,050.50	8,059.02	0.51	-0.18	0.47	
14,726.00	89.70	91.50	6,925.81	-1,899.07	8,144.44	8,152.98	0.95	-0.39	-0.86	
14,821.00	89.39	89.74	6,926.57	-1,900.09	8,239.43	8,247.97	1.88	-0.33	-1.85	
14,915.00	89.13	89.63	6,927.78	-1,899.58	8,333.42	8,341.95	0.30	-0.28	-0.12	
15,009.00	88.92	91.90	6,929.38	-1,900.83	8,427.39	8,435.93	2.42	-0.22	2.41	
15,103.00	88.52	91.86	6,931.48	-1,903.92	8,521.32	8,529.87	0.43	-0.43	-0.04	
15,198.00	90.27	91.97	6,932.48	-1,907.09	8,616.26	8,624.82	1.85	1.84	0.12	
15,292.00	90.77	91.53	6,931.63	-1,909.96	8,710.21	8,718.79	0.71	0.53	-0.47	
15,386.00	90.20	90.23	6,930.83	-1,911.40	8,804.19	8,812.77	1.51	-0.61	-1.38	
15,481.00	90.13	90.22	6,930.56	-1,911.78	8,899.19	8,907.77	0.07	-0.07	-0.01	
15,575.00	88.39	89.53	6,931.77	-1,911.57	8,993.18	9,001.76	1.99	-1.85	-0.73	
15,670.00	88.55	87.14	6,934.31	-1,908.81	9,088.10	9,096.67	2.52	0.17	-2.52	
15,764.00	89.19	88.03	6,936.16	-1,904.85	9,181.99	9,190.54	1.17	0.68	0.95	
15,859.00	88.86	90.22	6,937.78	-1,903.40	9,276.96	9,285.50	2.33	-0.35	2.31	

SDT

Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit 706H
Project:	Rio Arriba, NM (NAD83)	TVD Reference:	6295+30 @ 6325.00usft (H&P 530)
Site:	Rosa Unit 24	MD Reference:	6295+30 @ 6325.00usft (H&P 530)
Well:	Rosa Unit 706H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,953.00	90.20	88.61	6,938.55	-1,902.44	9,370.95	9,379.49	2.23	1.43	-1.71
16,048.00	91.08	89.09	6,937.49	-1,900.54	9,465.92	9,474.45	1.06	0.93	0.51
16,142.00	90.34	89.85	6,936.33	-1,899.67	9,559.91	9,568.43	1.13	-0.79	0.81
16,237.00	89.83	88.97	6,936.19	-1,898.69	9,654.90	9,663.42	1.07	-0.54	-0.93
16,331.00	90.30	90.69	6,936.08	-1,898.41	9,748.90	9,757.41	1.90	0.50	1.83
16,425.00	91.31	90.39	6,934.76	-1,899.29	9,842.89	9,851.40	1.12	1.07	-0.32
16,520.00	91.71	87.98	6,932.25	-1,897.94	9,937.84	9,946.35	2.57	0.42	-2.54
16,614.00	91.04	89.49	6,930.00	-1,895.87	10,031.78	10,040.28	1.76	-0.71	1.61
16,709.00	90.87	89.80	6,928.42	-1,895.28	10,126.77	10,135.26	0.37	-0.18	0.33
16,803.00	91.68	91.79	6,926.32	-1,896.59	10,220.73	10,229.23	2.29	0.86	2.12
16,897.00	90.98	90.55	6,924.14	-1,898.50	10,314.68	10,323.19	1.51	-0.74	-1.32
16,991.00	90.27	90.97	6,923.12	-1,899.75	10,408.67	10,417.18	0.88	-0.76	0.45
17,085.00	89.53	91.11	6,923.28	-1,901.46	10,502.65	10,511.17	0.80	-0.79	0.15
17,180.00	90.77	91.22	6,923.03	-1,903.39	10,597.63	10,606.16	1.31	1.31	0.12
17,274.00	91.01	89.58	6,921.57	-1,904.04	10,691.61	10,700.14	1.76	0.26	-1.74
17,369.00	90.71	90.66	6,920.15	-1,904.24	10,786.60	10,795.13	1.18	-0.32	1.14
17,463.00	90.71	88.41	6,918.98	-1,903.48	10,880.58	10,889.11	2.39	0.00	-2.39
17,557.00	90.81	89.42	6,917.73	-1,901.70	10,974.56	10,983.07	1.08	0.11	1.07
17,652.00	90.50	89.58	6,916.65	-1,900.87	11,069.55	11,078.06	0.37	-0.33	0.17
17,746.00	90.20	89.73	6,916.07	-1,900.31	11,163.54	11,172.05	0.36	-0.32	0.16
17,840.00	90.00	88.21	6,915.91	-1,898.62	11,257.53	11,266.03	1.63	-0.21	-1.62
17,935.00	90.40	89.25	6,915.58	-1,896.51	11,352.50	11,360.99	1.17	0.42	1.09
18,030.00	90.98	90.93	6,914.43	-1,896.66	11,447.49	11,455.98	1.87	0.61	1.77
18,124.00	90.00	92.67	6,913.63	-1,899.61	11,541.43	11,549.94	2.12	-1.04	1.85
18,219.00	90.20	90.12	6,913.46	-1,901.92	11,636.40	11,644.91	2.69	0.21	-2.68
18,314.00	89.90	90.29	6,913.38	-1,902.26	11,731.40	11,739.91	0.36	-0.32	0.18
18,408.00	90.13	89.23	6,913.36	-1,901.87	11,825.40	11,833.90	1.15	0.24	-1.13
18,419.25	90.25	89.58	6,913.32	-1,901.75	11,836.64	11,845.15	3.27	1.11	3.07
LL Crossing @ 18419.25' MD									
18,503.00	91.18	92.15	6,912.27	-1,903.01	11,920.37	11,928.88	3.27	1.11	3.07
18,597.00	90.94	91.71	6,910.53	-1,906.18	12,014.30	12,022.83	0.53	-0.26	-0.47
18,692.00	90.84	89.50	6,909.06	-1,907.18	12,109.28	12,117.81	2.33	-0.11	-2.33
18,787.00	90.57	90.93	6,907.89	-1,907.54	12,204.27	12,212.80	1.53	-0.28	1.51
18,881.00	90.54	90.13	6,906.98	-1,908.41	12,298.26	12,306.79	0.85	-0.03	-0.85
18,976.00	90.03	91.65	6,906.50	-1,909.88	12,393.24	12,401.78	1.69	-0.54	1.60
19,070.00	91.04	90.62	6,905.63	-1,911.75	12,487.22	12,495.76	1.53	1.07	-1.10
19,164.00	90.71	90.49	6,904.19	-1,912.66	12,581.20	12,589.75	0.38	-0.35	-0.14
19,259.00	90.37	90.41	6,903.30	-1,913.40	12,676.20	12,684.75	0.37	-0.36	-0.08
19,353.00	89.93	91.80	6,903.05	-1,915.22	12,770.18	12,778.73	1.55	-0.47	1.48
19,447.00	90.61	91.23	6,902.61	-1,917.70	12,864.14	12,872.71	0.94	0.72	-0.61
19,542.00	91.28	88.84	6,901.04	-1,917.76	12,959.12	12,967.69	2.61	0.71	-2.52
19,636.00	90.87	90.32	6,899.28	-1,917.07	13,053.10	13,061.66	1.63	-0.44	1.57
19,731.00	90.61	90.13	6,898.05	-1,917.44	13,148.09	13,156.65	0.34	-0.27	-0.20

SDT
Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit 706H
Project:	Rio Arriba, NM (NAD83)	TVD Reference:	6295+30 @ 6325.00usft (H&P 530)
Site:	Rosa Unit 24	MD Reference:	6295+30 @ 6325.00usft (H&P 530)
Well:	Rosa Unit 706H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
19,825.00	89.97	91.11	6,897.57	-1,918.46	13,242.08	13,250.65	1.25	-0.68	1.04
19,920.00	89.70	89.82	6,897.85	-1,919.23	13,337.08	13,345.65	1.39	-0.28	-1.36
20,014.00	90.61	91.69	6,897.59	-1,920.47	13,431.06	13,439.64	2.21	0.97	1.99
20,109.00	90.34	92.36	6,896.80	-1,923.83	13,526.00	13,534.59	0.76	-0.28	0.71
20,203.00	91.78	92.49	6,895.07	-1,927.80	13,619.90	13,628.50	1.54	1.53	0.14
20,297.00	91.45	94.15	6,892.42	-1,933.24	13,713.70	13,722.33	1.80	-0.35	1.77
20,392.00	92.99	90.49	6,888.74	-1,937.09	13,808.53	13,817.18	4.18	1.62	-3.85
20,486.00	92.96	90.43	6,883.86	-1,937.84	13,902.40	13,911.05	0.07	-0.03	-0.06
20,581.00	91.45	88.83	6,880.20	-1,937.23	13,997.32	14,005.97	2.31	-1.59	-1.68
20,676.00	91.28	89.85	6,877.94	-1,936.13	14,092.29	14,100.93	1.09	-0.18	1.07
20,770.00	89.80	89.08	6,877.05	-1,935.26	14,186.27	14,194.91	1.77	-1.57	-0.82
20,865.00	89.93	87.38	6,877.28	-1,932.32	14,281.23	14,289.85	1.79	0.14	-1.79
20,892.00	89.50	87.90	6,877.41	-1,931.21	14,308.20	14,316.82	2.50	-1.59	1.93
20,962.00	89.50	87.90	6,878.02	-1,928.65	14,378.15	14,386.76	0.00	0.00	0.00
BHL @ 20962' MD									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
RU 706H SHL	0.00	0.00	0.00	0.00	0.00	2,152,256.68	2,850,017.63	36.913848	-107.399158
- actual wellpath hits target center									
- Point									
RU 706H BHL	0.00	0.00	6,878.02	-1,928.65	14,378.15	2,150,393.50	2,864,404.41	36.908540	-107.349979
- actual wellpath hits target center									
- Point									
RU 706H PBHL	0.00	0.00	6,947.00	-1,921.93	14,359.18	2,150,400.14	2,864,385.41	36.908559	-107.350044
- actual wellpath misses target center by 69.54usft at 20943.89usft MD (6877.86 TVD, -1929.31 N, 14360.06 E)									
- Point									

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
7,859.41	6,941.95	-1,736.34	1,294.54	LL Crossing @ 7859.41' MD	
13,138.60	6,919.45	-1,882.73	6,557.34	LL Crossing @ 13138.6' MD	
18,419.25	6,913.32	-1,901.75	11,836.64	LL Crossing @ 18419.25' MD	
20,962.00	6,878.02	-1,928.65	14,378.15	BHL @ 20962' MD	

Checked By: _____	Approved By: _____	Date: _____
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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

ACKNOWLEDGMENTS

Action 386924

ACKNOWLEDGMENTS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 386924
	Action Type: [C-104] Completion Packet - Test Allowable (C-104RT)

ACKNOWLEDGMENTS

☒	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
☒	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.
☒	I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

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

CONDITIONS

Action 386924

CONDITIONS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 386924
	Action Type: [C-104] Completion Packet - Test Allowable (C-104RT)

CONDITIONS

Created By	Condition	Condition Date
plmartinez	RT EXPIRES 12/26/2024.	9/26/2024