

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address LOGOS Operating, LLC 2010 Afton Place Farmington, NM 87401		² OGRID Number 289408	
		³ Reason for Filing Code/ Effective Date New Well	
⁴ API Number 30 – 039-31416	⁵ Pool Name Basin Mancos		⁶ Pool Code 97232
⁷ Property Code 320608	⁸ Property Name Rosa Unit		⁹ Well Number 746H

II. ¹⁰ Surface Location

UL or lot no. C	Section 33	Township 31N	Range 5W	Lot Idn	Feet from the 363	North/South Line North	Feet from the 1685	East/West line West	County Rio Arriba
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¹¹ Bottom Hole Location

UL or lot no. H	Section 35	Township 31N	Range 5W	Lot Idn	Feet from the 2169	North/South line North	Feet from the 65	East/West line East	County Rio Arriba
¹² Lse Code F	¹³ Producing Method Code F		¹⁴ Gas Connection Date		¹⁵ C-129 Permit Number		¹⁶ C-129 Effective Date		¹⁷ C-129 Expiration Date

III. Oil and Gas Transporters

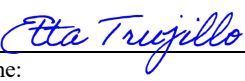
¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
373888	Harvest Four Corners, LLC 1755 Arroyo Dr. Bloomfield, NM 87413	G

IV. Well Completion Data

²¹ Spud Date 4/15/2023	²² Ready Date 10/10/2023	²³ TD 20,953’ MD / 7,075’ TVD	²⁴ PBDT 20,840’ MD / 7,075’ TVD	²⁵ Perforations 7,674’MD / 20,796’MD 7,080’TVD / 7,073’TVD	²⁶ DHC, MC R-13457	
²⁷ Hole Size		²⁸ Casing & Tubing Size		²⁹ Depth Set		³⁰ Sacks Cement
26”		20”, 94#, J-55		364’		764sx (156bbbls, 879cf)
17.5”		13-3/8”, 61#, J-55		3688’		2452sx (4216bbbls, 751cf)
12.25”		9-5/8”, 47#, L-80		6584’		2157sx (650bbbls, 3648cf) DV tool @ 3,774’ & 4,977’
8.5”		5-1/2”, 20#, HCP-110		20,933’		2875sx (837bbbls, 4701cf) TOC @ 3,362’
		2-7/8”, 6.5#, J-55		pending		

V. Well Test Data

³¹ Date New Oil n/a	³² Gas Delivery Date 10/16/2023	³³ Test Date 10/17/2023	³⁴ Test Length 12hrs	³⁵ Tbg. Pressure n/a	³⁶ Csg. Pressure 2597
³⁷ Choke Size 14/64	³⁸ Oil n/a	³⁹ Water 48 bbbls	⁴⁰ Gas 1,495 mcf		⁴¹ Test Method F

⁴² 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. Signature: 		OIL CONSERVATION DIVISION	
Printed name: Etta Trujillo		Approved by: PATRICIA MARTINEZ	
Title: Regulatory Specialist		Title: PETROLEUM SPECIALIST	
E-mail Address: etrujillo@logosresourcesllc.com		Approval Date: 3/6/2024	
Date: 3/5/2024	Phone: (505) 324-4154		



Request for Confidential "Tight Hole" Status

LOGOS Operating, LLC
Rosa Unit 746H
API# 30-039-31416
C Section 33 T31N R05W
Rio Arriba County, New Mexico

Per 19.15.7.16 WELL COMPLETION OR RECOMPLETION REPORT AND LOG (Form C-105); LOGOS Operating, LLC.
Request the Division keep Form C-105 and all pertained documentation confidential as of 12/08/2023 for 90 days acceptance of the referenced documents.

Sincerely,

Etta Trujillo
Regulatory Specialist
Email: etrujillo@logosresourcesllc.com
Office: 505-324-4154
Cell: 505-258-2936

AS-DRILLED WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-31416		² Pool Code 97232	³ Pool Name BASIN MANCOS
⁴ Property Code 320608	⁵ Property Name ROSA UNIT		⁶ Well Number 746H
⁷ OGRID No. 289408	⁸ Operator Name LOGOS OPERATING, LLC		⁹ Elevation 6492'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	33	31N	5W		363	NORTH	1685	WEST	RIO ARRIBA

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	35	31N	5W		2169	NORTH	65	EAST	RIO ARRIBA

¹² Dedicated Acres 960.00	¹³ Joint or Infill N/2 - Sections 33, 34 & 35					¹⁴ Consolidation Code	¹⁵ Order No. R-13457
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and 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 such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Etta Trujillo

3/5/2024

Signature Date

Printed Name

etrujillo@logosresourcesllc.com

E-mail Address

18 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.

Date Revised: MARCH 4, 2024

Date of Survey: APRIL 21, 2016

Signature and Seal of Professional Surveyor

JASON C. EDWARDS

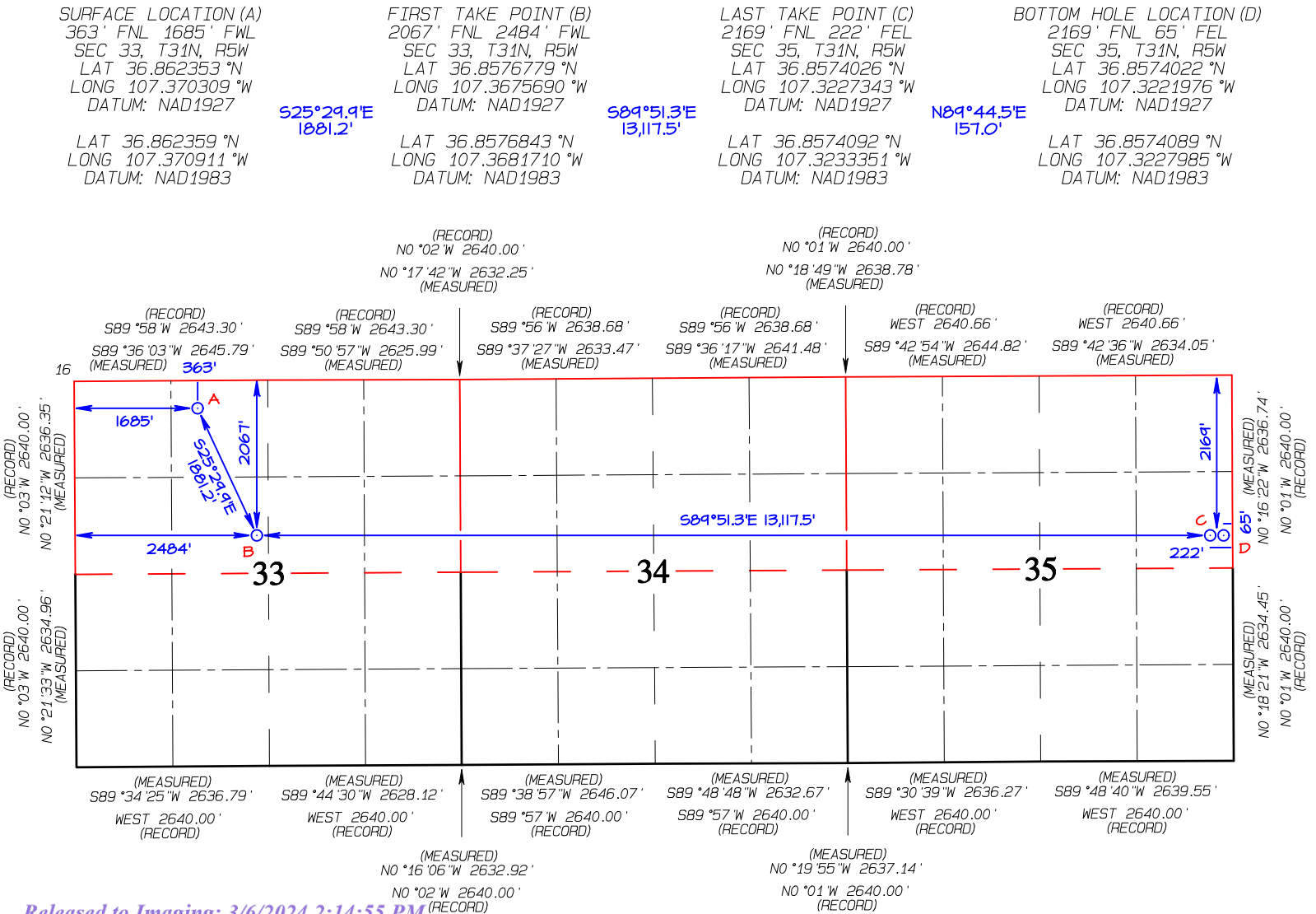
NEW MEXICO

15269

REGISTERED PROFESSIONAL SURVEYOR

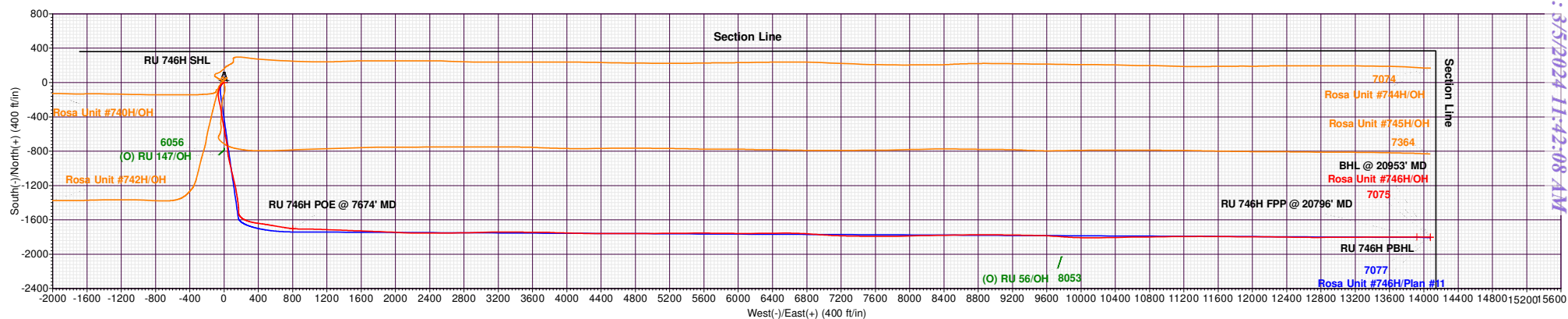
JASON C. EDWARDS

Certificate Number 15269



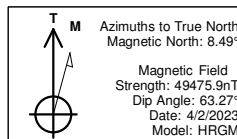


County: Rio Arriba, NM NAD83
 Site: Rosa Unit 31
 Well: Rosa Unit #746H
 Depth Reference: GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
 Rig: H&P 530
 Plan: OH
 Job #: 15948

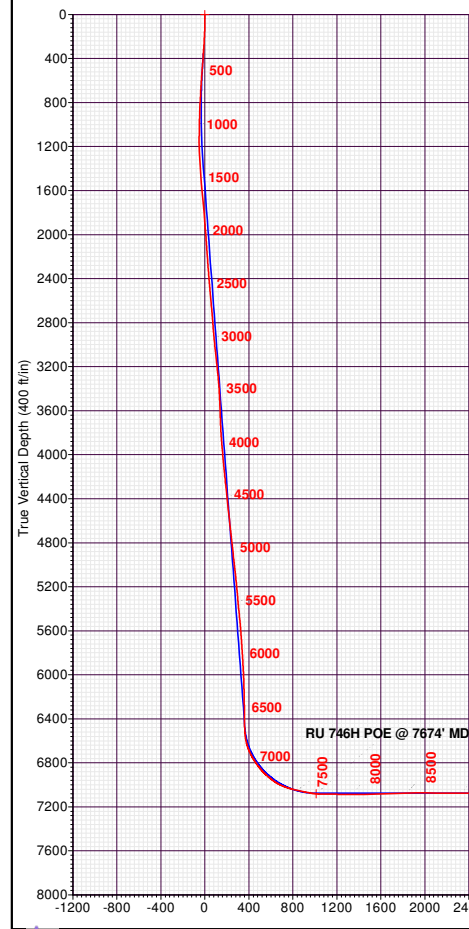
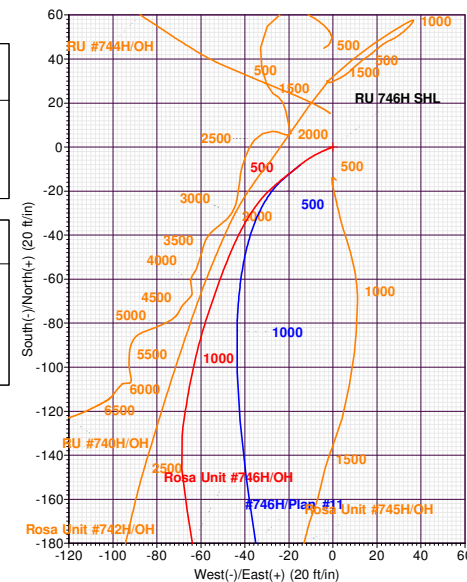


ANNOTATIONS							
MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect Departure	Annotation
7674.00	84.57	95.27	7080.65	-1701.91	801.61	1010.87	RU 746H POE @ 7674' MD
20796.00	89.49	89.40	7073.06	-1798.61	13918.80	14034.52	RU 746H FPP @ 20796' MD
20953.00	89.26	90.24	7074.92	-1798.65	14075.79	15528.39	BHL @ 20953' MD

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
RU 746H SHL	0.00	0.00	0.00	2133550.14	2858366.16	36.8623590	-107.3709110
RU 746H Actual FPP	7073.06	-1798.61	13918.80	2131818.95	2872293.48	36.8574092	-107.3233351
RU 746H BHL	7074.92	-1798.65	14075.79	2131819.66	2872450.47	36.8574089	-107.3227985
RU 746H PBHL	7077.00	-1804.65	14077.19	2131813.67	2872451.90	36.8573924	-107.3227937
RU 746H Actual POE	7080.65	-1701.91	801.61	2131852.13	2859176.00	36.8576843	-107.3681710



TOTAL CORRECTION: 8.49°



Vertical Section at 97.28° (400 ft/in)

Logos Operating LLC

Rio Arriba, NM NAD83

Rosa Unit 31

Rosa Unit #746H - Slot A4

OH

Design: OH

Standard Survey Report

01 December, 2023

SDT
Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #746H - Slot A4
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #746H	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 31			
Site Position:		Northing:	2,133,595.07 usft	Latitude:	36.8624824
From:	Map	Easting:	2,858,361.84 usft	Longitude:	-107.3709251
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "		

Well	Rosa Unit #746H - Slot A4					
Well Position	+N/-S	0.00 ft	Northing:	2,133,550.14 usft	Latitude:	36.8623590
	+E/-W	0.00 ft	Easting:	2,858,366.17 usft	Longitude:	-107.3709110
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,492.00 ft
Grid Convergence:		0.28 °				

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HRGM	4/2/2023	8.49	63.27	49,475.91939884

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	97.28	

Survey Program	Date	12/1/2023			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.00	360.00	Survey #1 (OH)	A020Ga_GYRO-NS	OWSG Gyrocompass Gyro	
450.00	6,539.00	Survey #2 (OH)	B001Mb_MWD+HRGM	OWSG MWD + HRGM	
6,613.00	20,880.00	Survey #3 (OH)	MWD+HRGM+MS	MWD + HRGM + Multi-Station Correction	
20,953.00	20,953.00	Survey #4 (OH)	A026Ua_BLIND	OWSG BLIND	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	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	
100.00	0.98	250.33	100.00	-0.29	-0.81	-0.76	0.98	0.98	0.00	
200.00	3.04	247.21	199.93	-1.60	-4.06	-3.82	2.06	2.06	-3.12	
300.00	5.06	239.72	299.67	-4.85	-10.31	-9.61	2.08	2.02	-7.49	
360.00	5.56	230.29	359.42	-8.05	-14.83	-13.69	1.67	0.83	-15.72	
450.00	6.20	232.04	448.94	-13.82	-22.02	-20.09	0.74	0.71	1.94	
537.00	6.59	226.33	535.40	-20.16	-29.33	-26.54	0.86	0.45	-6.56	

SDT

Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #746H - Slot A4
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #746H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
627.00	8.39	213.68	624.64	-29.19	-36.71	-32.71	2.70	2.00	-14.06
711.00	9.80	205.85	707.58	-40.72	-43.23	-37.71	2.23	1.68	-9.32
806.00	11.38	200.49	800.96	-56.78	-50.03	-42.43	1.96	1.66	-5.64
897.00	11.38	198.73	890.17	-73.69	-56.06	-46.26	0.38	0.00	-1.93
988.00	11.60	194.34	979.35	-91.06	-61.21	-49.17	0.99	0.24	-4.82
1,080.00	11.91	190.65	1,069.42	-109.35	-65.25	-50.86	0.88	0.34	-4.01
1,172.00	11.38	187.31	1,159.53	-127.68	-68.16	-51.43	0.93	-0.58	-3.63
1,267.00	11.51	175.44	1,252.66	-146.43	-68.60	-49.49	2.48	0.14	-12.49
1,361.00	12.00	170.52	1,344.69	-165.42	-66.24	-44.74	1.19	0.52	-5.23
1,456.00	13.18	170.61	1,437.40	-185.84	-62.85	-38.79	1.24	1.24	0.09
1,550.00	14.19	168.68	1,528.73	-207.72	-58.84	-32.04	1.18	1.07	-2.05
1,645.00	15.12	167.53	1,620.64	-231.23	-53.88	-24.14	1.03	0.98	-1.21
1,740.00	15.38	167.71	1,712.29	-255.64	-48.52	-15.73	0.28	0.27	0.19
1,834.00	16.08	169.38	1,802.77	-280.61	-43.47	-7.55	0.89	0.74	1.78
1,929.00	15.60	170.17	1,894.17	-306.13	-38.87	0.25	0.55	-0.51	0.83
2,024.00	15.12	171.14	1,985.77	-330.96	-34.78	7.45	0.57	-0.51	1.02
2,118.00	14.41	170.26	2,076.67	-354.60	-30.91	14.29	0.79	-0.76	-0.94
2,212.00	14.02	171.84	2,167.79	-377.40	-27.31	20.74	0.59	-0.41	1.68
2,307.00	14.28	171.31	2,259.91	-400.37	-23.91	27.03	0.31	0.27	-0.56
2,401.00	14.90	169.03	2,350.88	-423.70	-19.86	34.01	0.90	0.66	-2.43
2,496.00	15.51	170.43	2,442.55	-448.21	-15.42	41.51	0.75	0.64	1.47
2,590.00	16.30	169.47	2,532.95	-473.58	-10.92	49.19	0.89	0.84	-1.02
2,685.00	16.48	169.99	2,624.09	-499.95	-6.14	57.28	0.24	0.19	0.55
2,780.00	16.08	170.35	2,715.28	-526.19	-1.60	65.11	0.43	-0.42	0.38
2,874.00	16.39	171.49	2,805.53	-552.14	2.55	72.51	0.47	0.33	1.21
2,968.00	17.18	170.78	2,895.53	-578.96	6.74	80.07	0.87	0.84	-0.76
3,063.00	17.49	169.73	2,986.21	-606.86	11.53	88.36	0.46	0.33	-1.11
3,158.00	18.28	167.09	3,076.62	-635.43	17.40	97.80	1.19	0.83	-2.78
3,252.00	18.11	167.71	3,165.92	-664.07	23.81	107.79	0.27	-0.18	0.66
3,347.00	16.70	168.06	3,256.57	-691.86	29.77	117.23	1.49	-1.48	0.37
3,441.00	14.99	169.29	3,347.00	-717.02	34.83	125.43	1.85	-1.82	1.31
3,535.00	12.88	173.95	3,438.23	-739.38	38.19	131.60	2.54	-2.24	4.96
3,630.00	11.69	175.97	3,531.05	-759.51	39.98	135.93	1.33	-1.25	2.13
3,649.00	11.29	174.65	3,549.67	-763.29	40.29	136.72	2.52	-2.11	-6.95
3,713.00	11.20	179.13	3,612.44	-775.74	40.97	138.97	1.37	-0.14	7.00
3,776.00	12.09	176.76	3,674.15	-788.44	41.44	141.04	1.60	1.41	-3.76
3,871.00	13.89	175.35	3,766.71	-809.74	42.92	145.21	1.92	1.89	-1.48
3,965.00	15.29	171.84	3,857.68	-833.26	45.60	150.85	1.76	1.49	-3.73
4,060.00	15.91	168.24	3,949.18	-858.41	50.03	158.43	1.21	0.65	-3.79
4,154.00	16.39	169.38	4,039.47	-884.06	55.10	166.71	0.61	0.51	1.21
4,249.00	16.00	167.97	4,130.70	-910.03	60.30	175.16	0.58	-0.41	-1.48
4,343.00	16.61	166.83	4,220.92	-935.79	66.06	184.14	0.73	0.65	-1.21
4,438.00	17.18	166.57	4,311.82	-962.65	72.41	193.85	0.61	0.60	-0.27

SDT

Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #746H - Slot A4
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #746H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,532.00	17.09	167.53	4,401.65	-989.64	78.62	203.42	0.32	-0.10	1.02
4,627.00	16.88	168.24	4,492.51	-1,016.78	84.44	212.64	0.31	-0.22	0.75
4,722.00	16.88	166.21	4,583.41	-1,043.68	90.54	222.10	0.62	0.00	-2.14
4,816.00	17.01	166.21	4,673.33	-1,070.28	97.07	231.95	0.14	0.14	0.00
4,911.00	18.98	166.92	4,763.68	-1,098.83	103.88	242.32	2.09	2.07	0.75
5,005.00	16.39	166.48	4,853.23	-1,126.62	110.44	252.35	2.76	-2.76	-0.47
5,100.00	16.08	165.86	4,944.44	-1,152.41	116.79	261.92	0.37	-0.33	-0.65
5,195.00	18.11	165.95	5,035.24	-1,179.49	123.59	272.10	2.14	2.14	0.09
5,289.00	17.18	167.18	5,124.82	-1,207.20	130.22	282.18	1.07	-0.99	1.31
5,384.00	15.91	168.32	5,215.88	-1,233.63	135.97	291.24	1.38	-1.34	1.20
5,479.00	16.30	171.93	5,307.16	-1,259.59	140.47	299.00	1.13	0.41	3.80
5,573.00	19.20	170.26	5,396.67	-1,287.89	144.94	307.02	3.13	3.09	-1.78
5,668.00	18.59	169.47	5,486.55	-1,318.17	150.35	316.22	0.70	-0.64	-0.83
5,762.00	17.31	171.75	5,575.98	-1,346.74	155.10	324.55	1.55	-1.36	2.43
5,857.00	15.60	171.93	5,667.08	-1,373.38	158.92	331.72	1.80	-1.80	0.19
5,951.00	14.50	173.25	5,757.86	-1,397.58	162.08	337.92	1.23	-1.17	1.40
6,014.00	13.89	172.45	5,818.93	-1,412.91	164.00	341.76	1.02	-0.97	-1.27
6,109.00	13.58	174.39	5,911.22	-1,435.31	166.59	347.17	0.58	-0.33	2.04
6,172.00	12.48	175.35	5,972.59	-1,449.46	167.86	350.23	1.78	-1.75	1.52
6,235.00	11.29	176.15	6,034.24	-1,462.40	168.83	352.83	1.91	-1.89	1.27
6,298.00	10.59	177.73	6,096.10	-1,474.33	169.47	354.98	1.21	-1.11	2.51
6,361.00	9.49	179.31	6,158.13	-1,485.31	169.76	356.66	1.80	-1.75	2.51
6,424.00	8.39	180.63	6,220.37	-1,495.10	169.77	357.91	1.78	-1.75	2.10
6,487.00	6.99	179.66	6,282.80	-1,503.53	169.75	358.95	2.23	-2.22	-1.54
6,539.00	6.20	179.84	6,334.45	-1,509.50	169.77	359.74	1.52	-1.52	0.35
6,613.00	5.62	181.23	6,408.06	-1,517.12	169.71	360.64	0.81	-0.78	1.88
6,697.00	7.50	170.92	6,491.51	-1,526.65	170.48	362.61	2.63	2.24	-12.27
6,791.00	16.54	156.06	6,583.37	-1,544.98	176.90	371.30	10.09	9.62	-15.81
6,886.00	24.90	132.01	6,672.30	-1,570.81	197.31	394.83	12.39	8.80	-25.32
6,981.00	31.75	117.11	6,755.98	-1,595.65	234.51	434.87	10.31	7.21	-15.68
7,075.00	38.39	107.89	6,832.93	-1,615.92	284.40	486.92	9.02	7.06	-9.81
7,170.00	45.98	100.78	6,903.31	-1,631.40	346.15	550.14	9.43	7.99	-7.48
7,265.00	54.72	97.39	6,963.88	-1,642.80	418.31	623.16	9.60	9.20	-3.57
7,359.00	66.78	99.34	7,009.73	-1,654.79	499.28	705.01	12.96	12.83	2.07
7,454.00	76.55	99.74	7,039.58	-1,669.73	588.10	795.00	10.29	10.28	0.42
7,548.00	77.86	99.29	7,060.40	-1,684.88	678.51	886.60	1.47	1.39	-0.48
7,642.00	81.93	97.50	7,076.89	-1,698.38	770.03	979.10	4.72	4.33	-1.90
7,674.00	84.57	95.27	7,080.65	-1,701.91	801.61	1,010.87	10.78	8.26	-6.97
RU 746H POE @ 7674' MD									
7,737.00	89.80	90.93	7,083.74	-1,705.31	864.41	1,073.59	10.78	8.29	-6.89
7,832.00	88.48	90.47	7,085.17	-1,706.47	959.39	1,167.95	1.47	-1.39	-0.48
7,927.00	88.96	91.82	7,087.29	-1,708.37	1,054.34	1,262.38	1.51	0.51	1.42
8,021.00	90.44	92.05	7,087.78	-1,711.54	1,148.28	1,355.96	1.59	1.57	0.24
8,116.00	90.71	92.23	7,086.83	-1,715.09	1,243.21	1,450.58	0.34	0.28	0.19

SDT
Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #746H - Slot A4
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #746H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
8,210.00	92.02	92.28	7,084.59	-1,718.78	1,337.11	1,544.19	1.39	1.39	0.05	
8,305.00	92.22	92.00	7,081.07	-1,722.33	1,431.98	1,638.74	0.36	0.21	-0.29	
8,399.00	91.68	92.31	7,077.88	-1,725.86	1,525.86	1,732.31	0.66	-0.57	0.33	
8,494.00	91.88	92.12	7,074.92	-1,729.53	1,620.74	1,826.89	0.29	0.21	-0.20	
8,588.00	90.03	92.14	7,073.36	-1,733.03	1,714.66	1,920.50	1.97	-1.97	0.02	
8,683.00	89.66	92.57	7,073.61	-1,736.93	1,809.58	2,015.14	0.60	-0.39	0.45	
8,777.00	89.66	92.42	7,074.17	-1,741.02	1,903.49	2,108.81	0.16	0.00	-0.16	
8,872.00	89.66	92.30	7,074.74	-1,744.93	1,998.41	2,203.46	0.13	0.00	-0.13	
8,966.00	89.56	92.14	7,075.38	-1,748.57	2,092.33	2,297.09	0.20	-0.11	-0.17	
9,061.00	89.46	92.05	7,076.19	-1,752.05	2,187.27	2,391.70	0.14	-0.11	-0.09	
9,156.00	89.76	90.02	7,076.84	-1,753.76	2,282.24	2,486.13	2.16	0.32	-2.14	
9,250.00	89.60	90.33	7,077.36	-1,754.05	2,376.24	2,579.41	0.37	-0.17	0.33	
9,345.00	90.77	89.79	7,077.05	-1,754.15	2,471.24	2,673.65	1.36	1.23	-0.57	
9,440.00	90.17	89.61	7,076.27	-1,753.65	2,566.23	2,767.82	0.66	-0.63	-0.19	
9,534.00	89.80	89.24	7,076.30	-1,752.71	2,660.23	2,860.93	0.56	-0.39	-0.39	
9,628.00	91.21	88.93	7,075.47	-1,751.21	2,754.21	2,953.97	1.54	1.50	-0.33	
9,723.00	90.57	88.74	7,073.99	-1,749.28	2,849.18	3,047.92	0.70	-0.67	-0.20	
9,817.00	90.13	88.18	7,073.42	-1,746.75	2,943.14	3,140.81	0.76	-0.47	-0.60	
9,911.00	90.00	88.06	7,073.31	-1,743.67	3,037.09	3,233.61	0.19	-0.14	-0.13	
10,005.00	90.94	89.39	7,072.54	-1,741.57	3,131.06	3,326.56	1.73	1.00	1.41	
10,100.00	90.27	90.96	7,071.54	-1,741.87	3,226.05	3,420.82	1.80	-0.71	1.65	
10,194.00	90.10	90.32	7,071.24	-1,742.92	3,320.05	3,514.19	0.70	-0.18	-0.68	
10,289.00	90.07	89.73	7,071.10	-1,742.96	3,415.05	3,608.43	0.62	-0.03	-0.62	
10,383.00	90.17	90.79	7,070.90	-1,743.38	3,509.04	3,701.72	1.13	0.11	1.13	
10,478.00	90.34	89.36	7,070.48	-1,743.51	3,604.04	3,795.96	1.52	0.18	-1.51	
10,572.00	88.82	90.60	7,071.16	-1,743.47	3,698.03	3,889.20	2.09	-1.62	1.32	
10,667.00	89.13	92.39	7,072.86	-1,745.95	3,792.98	3,983.69	1.91	0.33	1.88	
10,761.00	89.02	91.98	7,074.38	-1,749.54	3,886.90	4,077.31	0.45	-0.12	-0.44	
10,856.00	88.75	91.60	7,076.23	-1,752.50	3,981.84	4,171.85	0.49	-0.28	-0.40	
10,951.00	88.65	91.30	7,078.39	-1,754.91	4,076.78	4,266.34	0.33	-0.11	-0.32	
11,045.00	90.54	91.20	7,079.05	-1,756.96	4,170.75	4,359.81	2.01	2.01	-0.11	
11,139.00	90.07	90.44	7,078.55	-1,758.30	4,264.74	4,453.21	0.95	-0.50	-0.81	
11,234.00	89.53	90.50	7,078.88	-1,759.08	4,359.74	4,547.54	0.57	-0.57	0.06	
11,328.00	90.61	90.45	7,078.77	-1,759.86	4,453.73	4,640.88	1.15	1.15	-0.05	
11,422.00	90.71	89.96	7,077.68	-1,760.20	4,547.72	4,734.15	0.53	0.11	-0.52	
11,516.00	90.10	90.28	7,077.02	-1,760.39	4,641.72	4,827.42	0.73	-0.65	0.34	
11,611.00	90.20	89.43	7,076.77	-1,760.15	4,736.72	4,921.62	0.90	0.11	-0.89	
11,705.00	90.54	89.26	7,076.16	-1,759.08	4,830.71	5,014.72	0.40	0.36	-0.18	
11,800.00	90.67	89.37	7,075.16	-1,757.94	4,925.70	5,108.79	0.18	0.14	0.12	
11,894.00	90.71	90.13	7,074.03	-1,757.53	5,019.69	5,201.98	0.81	0.04	0.81	
11,988.00	91.08	89.39	7,072.56	-1,757.14	5,113.68	5,295.15	0.88	0.39	-0.79	
12,083.00	91.18	89.57	7,070.69	-1,756.28	5,208.65	5,389.26	0.22	0.11	0.19	
12,178.00	91.21	89.60	7,068.71	-1,755.59	5,303.63	5,483.38	0.04	0.03	0.03	

SDT
Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #746H - Slot A4
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #746H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,272.00	91.31	89.52	7,066.64	-1,754.87	5,397.61	5,576.50	0.14	0.11	-0.09
12,367.00	91.58	89.18	7,064.24	-1,753.79	5,492.57	5,670.57	0.46	0.28	-0.36
12,461.00	90.27	90.63	7,062.73	-1,753.63	5,586.55	5,763.77	2.08	-1.39	1.54
12,555.00	90.37	90.32	7,062.20	-1,754.41	5,680.55	5,857.11	0.35	0.11	-0.33
12,649.00	90.27	90.55	7,061.68	-1,755.13	5,774.54	5,950.44	0.27	-0.11	0.24
12,744.00	90.37	90.82	7,061.14	-1,756.26	5,869.54	6,044.80	0.30	0.11	0.28
12,838.00	90.61	90.42	7,060.34	-1,757.28	5,963.53	6,138.17	0.50	0.26	-0.43
12,933.00	90.47	90.08	7,059.45	-1,757.69	6,058.52	6,232.45	0.39	-0.15	-0.36
13,027.00	90.64	89.77	7,058.53	-1,757.57	6,152.52	6,325.67	0.38	0.18	-0.33
13,122.00	90.34	89.66	7,057.72	-1,757.10	6,247.51	6,419.84	0.34	-0.32	-0.12
13,217.00	88.86	89.74	7,058.39	-1,756.60	6,342.50	6,514.00	1.56	-1.56	0.08
13,311.00	88.86	88.31	7,060.26	-1,755.00	6,436.47	6,607.01	1.52	0.00	-1.52
13,406.00	89.19	89.98	7,061.87	-1,753.59	6,531.44	6,701.03	1.79	0.35	1.76
13,500.00	89.80	91.34	7,062.70	-1,754.67	6,625.43	6,794.40	1.59	0.65	1.45
13,595.00	90.13	91.90	7,062.76	-1,757.35	6,720.39	6,888.94	0.68	0.35	0.59
13,690.00	89.80	93.86	7,062.82	-1,762.13	6,815.27	6,983.65	2.09	-0.35	2.06
13,784.00	89.76	94.14	7,063.18	-1,768.68	6,909.04	7,077.50	0.30	-0.04	0.30
13,879.00	89.60	93.86	7,063.71	-1,775.31	7,003.80	7,172.34	0.34	-0.17	-0.29
13,974.00	90.27	92.88	7,063.82	-1,780.89	7,098.64	7,267.12	1.25	0.71	-1.03
14,068.00	90.37	91.82	7,063.29	-1,784.75	7,192.56	7,360.77	1.13	0.11	-1.13
14,162.00	90.00	91.12	7,062.99	-1,787.16	7,286.52	7,454.28	0.84	-0.39	-0.74
14,257.00	90.00	90.79	7,062.99	-1,788.74	7,381.51	7,548.70	0.35	0.00	-0.35
14,352.00	90.20	90.20	7,062.82	-1,789.56	7,476.51	7,643.04	0.66	0.21	-0.62
14,446.00	90.24	90.97	7,062.46	-1,790.52	7,570.50	7,736.39	0.82	0.04	0.82
14,541.00	89.93	90.23	7,062.32	-1,791.52	7,665.49	7,830.75	0.84	-0.33	-0.78
14,635.00	90.17	89.04	7,062.24	-1,790.92	7,759.49	7,923.91	1.29	0.26	-1.27
14,730.00	90.30	89.07	7,061.85	-1,789.35	7,854.48	8,017.93	0.14	0.14	0.03
14,824.00	89.60	88.83	7,061.93	-1,787.63	7,948.46	8,110.94	0.79	-0.74	-0.26
14,919.00	89.50	88.65	7,062.68	-1,785.54	8,043.43	8,204.88	0.22	-0.11	-0.19
15,013.00	89.39	89.05	7,063.59	-1,783.66	8,137.41	8,297.86	0.44	-0.12	0.43
15,108.00	89.36	89.04	7,064.62	-1,782.07	8,232.39	8,391.87	0.03	-0.03	-0.01
15,202.00	89.60	88.56	7,065.48	-1,780.10	8,326.37	8,484.84	0.57	0.26	-0.51
15,297.00	89.36	89.12	7,066.34	-1,778.18	8,421.34	8,578.81	0.64	-0.25	0.59
15,391.00	89.43	89.01	7,067.33	-1,776.65	8,515.33	8,671.84	0.14	0.07	-0.12
15,486.00	89.33	89.32	7,068.36	-1,775.26	8,610.31	8,765.88	0.34	-0.11	0.33
15,580.00	89.36	88.95	7,069.43	-1,773.84	8,704.29	8,858.93	0.39	0.03	-0.39
15,675.00	89.02	89.85	7,070.78	-1,772.85	8,799.28	8,953.02	1.01	-0.36	0.95
15,769.00	88.89	90.58	7,072.49	-1,773.20	8,893.26	9,046.29	0.79	-0.14	0.78
15,864.00	90.27	90.25	7,073.19	-1,773.89	8,988.25	9,140.60	1.49	1.45	-0.35
15,958.00	89.93	91.03	7,073.02	-1,774.94	9,082.25	9,233.97	0.91	-0.36	0.83
16,053.00	90.07	90.54	7,073.02	-1,776.24	9,177.24	9,328.36	0.54	0.15	-0.52
16,147.00	89.87	91.07	7,073.07	-1,777.56	9,271.23	9,421.76	0.60	-0.21	0.56
16,242.00	89.43	90.92	7,073.65	-1,779.21	9,366.21	9,516.19	0.49	-0.46	-0.16
16,337.00	89.46	90.65	7,074.57	-1,780.51	9,461.20	9,610.57	0.29	0.03	-0.28

SDT

Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #746H - Slot A4
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #746H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
16,431.00	89.33	91.83	7,075.57	-1,782.55	9,555.17	9,704.04	1.26	-0.14	1.26
16,526.00	91.41	94.05	7,074.95	-1,787.42	9,650.03	9,798.76	3.20	2.19	2.34
16,620.00	91.21	94.27	7,072.80	-1,794.24	9,743.76	9,892.59	0.32	-0.21	0.23
16,714.00	91.38	93.53	7,070.68	-1,800.63	9,837.51	9,986.40	0.81	0.18	-0.79
16,809.00	91.31	92.33	7,068.45	-1,805.48	9,932.36	10,081.10	1.26	-0.07	-1.26
16,904.00	91.08	90.38	7,066.47	-1,807.73	10,027.31	10,175.57	2.07	-0.24	-2.05
16,998.00	90.81	90.48	7,064.92	-1,808.43	10,121.30	10,268.88	0.31	-0.29	0.11
17,093.00	90.77	89.33	7,063.61	-1,808.28	10,216.28	10,363.09	1.21	-0.04	-1.21
17,187.00	90.94	88.79	7,062.20	-1,806.73	10,310.26	10,456.11	0.60	0.18	-0.57
17,282.00	90.97	88.73	7,060.62	-1,804.68	10,405.23	10,550.05	0.07	0.03	-0.06
17,376.00	89.93	89.01	7,059.88	-1,802.82	10,499.20	10,643.03	1.15	-1.11	0.30
17,471.00	89.83	89.02	7,060.08	-1,801.19	10,594.19	10,737.05	0.11	-0.11	0.01
17,566.00	89.60	89.53	7,060.55	-1,799.99	10,689.18	10,831.12	0.59	-0.24	0.54
17,660.00	89.60	89.31	7,061.21	-1,799.04	10,783.17	10,924.23	0.23	0.00	-0.23
17,755.00	89.53	89.12	7,061.93	-1,797.74	10,878.16	11,018.29	0.21	-0.07	-0.20
17,849.00	89.43	88.79	7,062.79	-1,796.02	10,972.14	11,111.29	0.37	-0.11	-0.35
17,944.00	89.26	89.34	7,063.87	-1,794.47	11,067.12	11,205.31	0.61	-0.18	0.58
18,039.00	89.29	89.27	7,065.07	-1,793.32	11,162.11	11,299.39	0.08	0.03	-0.07
18,133.00	89.26	89.95	7,066.26	-1,792.68	11,256.10	11,392.54	0.72	-0.03	0.72
18,228.00	89.53	89.72	7,067.27	-1,792.41	11,351.09	11,486.73	0.37	0.28	-0.24
18,323.00	89.90	90.49	7,067.74	-1,792.58	11,446.09	11,580.98	0.90	0.39	0.81
18,417.00	90.64	90.64	7,067.30	-1,793.51	11,540.08	11,674.34	0.80	0.79	0.16
18,512.00	90.77	89.95	7,066.13	-1,794.00	11,635.07	11,768.62	0.74	0.14	-0.73
18,606.00	90.54	90.62	7,065.05	-1,794.46	11,729.07	11,861.92	0.75	-0.24	0.71
18,701.00	90.47	90.57	7,064.21	-1,795.45	11,824.06	11,956.27	0.09	-0.07	-0.05
18,795.00	90.64	90.27	7,063.30	-1,796.14	11,918.05	12,049.59	0.37	0.18	-0.32
18,890.00	90.67	90.11	7,062.22	-1,796.45	12,013.04	12,143.86	0.17	0.03	-0.17
18,984.00	90.64	90.44	7,061.14	-1,796.91	12,107.04	12,237.15	0.35	-0.03	0.35
19,079.00	90.40	90.70	7,060.28	-1,797.85	12,202.03	12,331.49	0.37	-0.25	0.27
19,173.00	90.40	90.74	7,059.62	-1,799.03	12,296.02	12,424.87	0.04	0.00	0.04
19,268.00	90.40	90.92	7,058.96	-1,800.41	12,391.01	12,519.27	0.19	0.00	0.19
19,363.00	89.97	90.89	7,058.65	-1,801.91	12,485.99	12,613.68	0.45	-0.45	-0.03
19,457.00	90.03	90.45	7,058.65	-1,803.01	12,579.99	12,707.06	0.47	0.06	-0.47
19,552.00	90.17	90.63	7,058.49	-1,803.90	12,674.98	12,801.40	0.24	0.15	0.19
19,646.00	90.03	90.11	7,058.33	-1,804.51	12,768.98	12,894.72	0.57	-0.15	-0.55
19,741.00	89.23	89.07	7,058.94	-1,803.83	12,863.97	12,988.86	1.38	-0.84	-1.09
19,835.00	89.13	89.17	7,060.28	-1,802.39	12,957.95	13,081.89	0.15	-0.11	0.11
19,930.00	88.49	90.18	7,062.26	-1,801.85	13,052.93	13,176.04	1.26	-0.67	1.06
20,025.00	87.81	90.09	7,065.32	-1,802.07	13,147.88	13,270.25	0.72	-0.72	-0.09
20,119.00	89.03	89.29	7,067.92	-1,801.56	13,241.84	13,363.39	1.55	1.30	-0.85
20,213.00	89.56	90.25	7,069.07	-1,801.19	13,335.83	13,456.57	1.17	0.56	1.02
20,308.00	89.83	89.42	7,069.58	-1,800.91	13,430.83	13,550.77	0.92	0.28	-0.87
20,403.00	89.60	90.10	7,070.05	-1,800.51	13,525.82	13,644.95	0.76	-0.24	0.72

SDT
Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #746H - Slot A4
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #746H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
20,497.00	89.60	90.05	7,070.71	-1,800.64	13,619.82	13,738.20	0.05	0.00	-0.05
20,592.00	89.63	89.61	7,071.34	-1,800.36	13,714.82	13,832.40	0.46	0.03	-0.46
20,686.00	89.46	89.62	7,072.09	-1,799.72	13,808.81	13,925.56	0.18	-0.18	0.01
20,781.00	89.53	89.25	7,072.93	-1,798.79	13,903.80	14,019.66	0.40	0.07	-0.39
20,796.00	89.49	89.40	7,073.06	-1,798.61	13,918.80	14,034.52	1.04	-0.27	1.00
RU 746H FPP @ 20796' MD									
20,880.00	89.26	90.24	7,073.97	-1,798.35	14,002.80	14,117.80	1.04	-0.27	1.00
20,953.00	89.26	90.24	7,074.92	-1,798.65	14,075.79	14,190.24	0.00	0.00	0.00
BHL @ 20953' MD									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
RU 746H SHL - actual wellpath hits target center - Point	0.00	0.00	0.00	0.00	0.00	2,133,550.14	2,858,366.17	36.8623590	-107.3709110
RU 746H Actual FPP - actual wellpath hits target center - Point	0.00	0.00	7,073.06	-1,798.61	13,918.80	2,131,818.94	2,872,293.49	36.8574092	-107.3233351
RU 746H BHL - actual wellpath hits target center - Point	0.00	0.00	7,074.92	-1,798.65	14,075.79	2,131,819.66	2,872,450.47	36.8574088	-107.3227985
RU 746H PBHL - actual wellpath misses target center by 6.50ft at 20953.00ft MD (7074.92 TVD, -1798.65 N, 14075.79 E) - Point	0.00	0.00	7,077.00	-1,804.65	14,077.19	2,131,813.67	2,872,451.90	36.8573924	-107.3227937
RU 746H Actual POE - actual wellpath hits target center - Point	0.00	0.00	7,080.65	-1,701.91	801.61	2,131,852.13	2,859,176.01	36.8576842	-107.3681710

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
7,674.00	7,080.65	-1,701.91	801.61	RU 746H POE @ 7674' MD	
20,796.00	7,073.06	-1,798.61	13,918.80	RU 746H FPP @ 20796' MD	
20,953.00	7,074.92	-1,798.65	14,075.79	BHL @ 20953' MD	

Checked By: _____

Approved By: _____

Date: _____

Logos Operating LLC

Rio Arriba, NM NAD83

Rosa Unit 31

Rosa Unit #746H - Slot A4

OH

Design: OH

Survey Report - Geographic

01 December, 2023

SDT
Survey Report - Geographic

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #746H - Slot A4
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #746H	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 31							
Site Position:		Northing:	2,133,595.07	usft	Latitude:	36.8624824		
From:	Map	Easting:	2,858,361.84	usft	Longitude:	-107.3709251		
Position Uncertainty:	0.00	ft	Slot Radius:	13-3/16	"	Grid Convergence:	0.28	°

Well	Rosa Unit #746H - Slot A4					
Well Position	+N/-S	0.00 ft	Northing:	2,133,550.14 usft	Latitude:	36.8623590
	+E/-W	0.00 ft	Easting:	2,858,366.17 usft	Longitude:	-107.3709110
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,492.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HRGM	4/2/2023	8.49	63.27	49,475.91939884

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	97.28	

Survey Program	Date	12/1/2023			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.00	360.00	Survey #1 (OH)	A020Ga_GYRO-NS	OWSG Gyrocompass Gyro	
450.00	6,539.00	Survey #2 (OH)	B001Mb_MWD+HRGM	OWSG MWD + HRGM	
6,613.00	20,880.00	Survey #3 (OH)	MWD+HRGM+MS	MWD + HRGM + Multi-Station Correction	
20,953.00	20,953.00	Survey #4 (OH)	A026Ua_BLIND	OWSG BLIND	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	2,133,550.14	2,858,366.17	36.8623590	-107.3709110	
100.00	0.98	250.33	100.00	-0.29	-0.81	2,133,549.84	2,858,365.36	36.8623582	-107.3709138	
200.00	3.04	247.21	199.93	-1.60	-4.06	2,133,548.51	2,858,362.12	36.8623546	-107.3709249	
300.00	5.06	239.72	299.67	-4.85	-10.31	2,133,545.23	2,858,355.88	36.8623456	-107.3709463	
360.00	5.56	230.29	359.42	-8.05	-14.83	2,133,542.02	2,858,351.38	36.8623369	-107.3709617	
450.00	6.20	232.04	448.94	-13.82	-22.02	2,133,536.21	2,858,344.22	36.8623210	-107.3709863	
537.00	6.59	226.33	535.40	-20.16	-29.33	2,133,529.84	2,858,336.93	36.8623036	-107.3710113	
627.00	8.39	213.68	624.64	-29.19	-36.71	2,133,520.77	2,858,329.60	36.8622788	-107.3710365	
711.00	9.80	205.85	707.58	-40.72	-43.23	2,133,509.20	2,858,323.14	36.8622471	-107.3710588	

SDT

Survey Report - Geographic

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #746H - Slot A4
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #746H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
806.00	11.38	200.49	800.96	-56.78	-50.03	2,133,493.11	2,858,316.41	36.8622030	-107.3710821
897.00	11.38	198.73	890.17	-73.69	-56.06	2,133,476.17	2,858,310.47	36.8621566	-107.3711027
988.00	11.60	194.34	979.35	-91.06	-61.21	2,133,458.78	2,858,305.40	36.8621089	-107.3711203
1,080.00	11.91	190.65	1,069.42	-109.35	-65.25	2,133,440.47	2,858,301.45	36.8620586	-107.3711341
1,172.00	11.38	187.31	1,159.53	-127.68	-68.16	2,133,422.12	2,858,298.63	36.8620083	-107.3711440
1,267.00	11.51	175.44	1,252.66	-146.43	-68.60	2,133,403.38	2,858,298.28	36.8619568	-107.3711455
1,361.00	12.00	170.52	1,344.69	-165.42	-66.24	2,133,384.40	2,858,300.72	36.8619046	-107.3711375
1,456.00	13.18	170.61	1,437.40	-185.84	-62.85	2,133,363.99	2,858,304.22	36.8618485	-107.3711259
1,550.00	14.19	168.68	1,528.73	-207.72	-58.84	2,133,342.14	2,858,308.33	36.8617884	-107.3711122
1,645.00	15.12	167.53	1,620.64	-231.23	-53.88	2,133,318.65	2,858,313.41	36.8617238	-107.3710952
1,740.00	15.38	167.71	1,712.29	-255.64	-48.52	2,133,294.27	2,858,318.88	36.8616568	-107.3710769
1,834.00	16.08	169.38	1,802.77	-280.61	-43.47	2,133,269.32	2,858,324.06	36.8615882	-107.3710596
1,929.00	15.60	170.17	1,894.17	-306.13	-38.87	2,133,243.82	2,858,328.78	36.8615181	-107.3710439
2,024.00	15.12	171.14	1,985.77	-330.96	-34.78	2,133,219.01	2,858,332.99	36.8614499	-107.3710299
2,118.00	14.41	170.26	2,076.67	-354.60	-30.91	2,133,195.39	2,858,336.98	36.8613850	-107.3710167
2,212.00	14.02	171.84	2,167.79	-377.40	-27.31	2,133,172.61	2,858,340.68	36.8613224	-107.3710044
2,307.00	14.28	171.31	2,259.91	-400.37	-23.91	2,133,149.65	2,858,344.20	36.8612593	-107.3709928
2,401.00	14.90	169.03	2,350.88	-423.70	-19.86	2,133,126.35	2,858,348.36	36.8611952	-107.3709789
2,496.00	15.51	170.43	2,442.55	-448.21	-15.42	2,133,101.85	2,858,352.91	36.8611278	-107.3709638
2,590.00	16.30	169.47	2,532.95	-473.58	-10.92	2,133,076.51	2,858,357.54	36.8610582	-107.3709484
2,685.00	16.48	169.99	2,624.09	-499.95	-6.14	2,133,050.16	2,858,362.44	36.8609857	-107.3709320
2,780.00	16.08	170.35	2,715.28	-526.19	-1.60	2,133,023.94	2,858,367.12	36.8609137	-107.3709165
2,874.00	16.39	171.49	2,805.53	-552.14	2.55	2,132,998.01	2,858,371.39	36.8608424	-107.3709023
2,968.00	17.18	170.78	2,895.53	-578.96	6.74	2,132,971.21	2,858,375.71	36.8607687	-107.3708880
3,063.00	17.49	169.73	2,986.21	-606.86	11.53	2,132,943.34	2,858,380.63	36.8606921	-107.3708716
3,158.00	18.28	167.09	3,076.62	-635.43	17.40	2,132,914.80	2,858,386.65	36.8606136	-107.3708516
3,252.00	18.11	167.71	3,165.92	-664.07	23.81	2,132,886.19	2,858,393.19	36.8605349	-107.3708297
3,347.00	16.70	168.06	3,256.57	-691.86	29.77	2,132,858.43	2,858,399.29	36.8604586	-107.3708093
3,441.00	14.99	169.29	3,347.00	-717.02	34.83	2,132,833.30	2,858,404.47	36.8603895	-107.3707920
3,535.00	12.88	173.95	3,438.23	-739.38	38.19	2,132,810.95	2,858,407.94	36.8603281	-107.3707805
3,630.00	11.69	175.97	3,531.05	-759.51	39.98	2,132,790.83	2,858,409.83	36.8602728	-107.3707744
3,649.00	11.29	174.65	3,549.67	-763.29	40.29	2,132,787.06	2,858,410.15	36.8602624	-107.3707733
3,713.00	11.20	179.13	3,612.44	-775.74	40.97	2,132,774.61	2,858,410.89	36.8602282	-107.3707710
3,776.00	12.09	176.76	3,674.15	-788.44	41.44	2,132,761.90	2,858,411.42	36.8601933	-107.3707694
3,871.00	13.89	175.35	3,766.71	-809.74	42.92	2,132,740.61	2,858,413.01	36.8601348	-107.3707643
3,965.00	15.29	171.84	3,857.68	-833.26	45.60	2,132,717.11	2,858,415.80	36.8600702	-107.3707552
4,060.00	15.91	168.24	3,949.18	-858.41	50.03	2,132,691.98	2,858,420.35	36.8600012	-107.3707400
4,154.00	16.39	169.38	4,039.47	-884.06	55.10	2,132,666.36	2,858,425.55	36.8599307	-107.3707227
4,249.00	16.00	167.97	4,130.70	-910.03	60.30	2,132,640.41	2,858,430.87	36.8598593	-107.3707049
4,343.00	16.61	166.83	4,220.92	-935.79	66.06	2,132,614.68	2,858,436.76	36.8597886	-107.3706852
4,438.00	17.18	166.57	4,311.82	-962.65	72.41	2,132,587.84	2,858,443.24	36.8597148	-107.3706635
4,532.00	17.09	167.53	4,401.65	-989.64	78.62	2,132,560.89	2,858,449.58	36.8596407	-107.3706423
4,627.00	16.88	168.24	4,492.51	-1,016.78	84.44	2,132,533.78	2,858,455.53	36.8595662	-107.3706224
4,722.00	16.88	166.21	4,583.41	-1,043.68	90.54	2,132,506.91	2,858,461.76	36.8594923	-107.3706016
4,816.00	17.01	166.21	4,673.33	-1,070.28	97.07	2,132,480.34	2,858,468.42	36.8594192	-107.3705792
4,911.00	18.98	166.92	4,763.68	-1,098.83	103.88	2,132,451.83	2,858,475.37	36.8593408	-107.3705560
5,005.00	16.39	166.48	4,853.23	-1,126.62	110.44	2,132,424.07	2,858,482.06	36.8592645	-107.3705335
5,100.00	16.08	165.86	4,944.44	-1,152.41	116.79	2,132,398.31	2,858,488.54	36.8591936	-107.3705118
5,195.00	18.11	165.95	5,035.24	-1,179.49	123.59	2,132,371.26	2,858,495.47	36.8591192	-107.3704886
5,289.00	17.18	167.18	5,124.82	-1,207.20	130.22	2,132,343.58	2,858,502.23	36.8590431	-107.3704659
5,384.00	15.91	168.32	5,215.88	-1,233.63	135.97	2,132,317.18	2,858,508.11	36.8589705	-107.3704463
5,479.00	16.30	171.93	5,307.16	-1,259.59	140.47	2,132,291.25	2,858,512.74	36.8588992	-107.3704309
5,573.00	19.20	170.26	5,396.67	-1,287.89	144.94	2,132,262.97	2,858,517.34	36.8588215	-107.3704156
5,668.00	18.59	169.47	5,486.55	-1,318.17	150.35	2,132,232.71	2,858,522.90	36.8587383	-107.3703971
5,762.00	17.31	171.75	5,575.98	-1,346.74	155.10	2,132,204.16	2,858,527.78	36.8586598	-107.3703809

SDT

Survey Report - Geographic

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #746H - Slot A4
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #746H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,857.00	15.60	171.93	5,667.08	-1,373.38	158.92	2,132,177.54	2,858,531.73	36.8585867	-107.3703678
5,951.00	14.50	173.25	5,757.86	-1,397.58	162.08	2,132,153.36	2,858,535.01	36.8585202	-107.3703570
6,014.00	13.89	172.45	5,818.93	-1,412.91	164.00	2,132,138.04	2,858,537.00	36.8584781	-107.3703505
6,109.00	13.58	174.39	5,911.22	-1,435.31	166.59	2,132,115.65	2,858,539.70	36.8584165	-107.3703416
6,172.00	12.48	175.35	5,972.59	-1,449.46	167.86	2,132,101.51	2,858,541.04	36.8583777	-107.3703373
6,235.00	11.29	176.15	6,034.24	-1,462.40	168.83	2,132,088.58	2,858,542.07	36.8583422	-107.3703340
6,298.00	10.59	177.73	6,096.10	-1,474.33	169.47	2,132,076.64	2,858,542.77	36.8583094	-107.3703318
6,361.00	9.49	179.31	6,158.13	-1,485.31	169.76	2,132,065.67	2,858,543.12	36.8582792	-107.3703308
6,424.00	8.39	180.63	6,220.37	-1,495.10	169.77	2,132,055.88	2,858,543.18	36.8582523	-107.3703307
6,487.00	6.99	179.66	6,282.80	-1,503.53	169.75	2,132,047.45	2,858,543.19	36.8582292	-107.3703308
6,539.00	6.20	179.84	6,334.45	-1,509.50	169.77	2,132,041.47	2,858,543.25	36.8582128	-107.3703307
6,613.00	5.62	181.23	6,408.06	-1,517.12	169.71	2,132,033.86	2,858,543.22	36.8581918	-107.3703310
6,697.00	7.50	170.92	6,491.51	-1,526.65	170.48	2,132,024.33	2,858,544.04	36.8581657	-107.3703283
6,791.00	16.54	156.06	6,583.37	-1,544.98	176.90	2,132,006.04	2,858,550.54	36.8581153	-107.3703064
6,886.00	24.90	132.01	6,672.30	-1,570.81	197.31	2,131,980.30	2,858,571.08	36.8580444	-107.3702366
6,981.00	31.75	117.11	6,755.98	-1,595.65	234.51	2,131,955.64	2,858,608.40	36.8579761	-107.3701094
7,075.00	38.39	107.89	6,832.93	-1,615.92	284.40	2,131,935.61	2,858,658.38	36.8579205	-107.3699389
7,170.00	45.98	100.78	6,903.31	-1,631.40	346.15	2,131,920.43	2,858,720.21	36.8578779	-107.3697279
7,265.00	54.72	97.39	6,963.88	-1,642.80	418.31	2,131,909.38	2,858,792.42	36.8578466	-107.3694812
7,359.00	66.78	99.34	7,009.73	-1,654.79	499.28	2,131,897.78	2,858,873.46	36.8578137	-107.3692044
7,454.00	76.55	99.74	7,039.58	-1,669.73	588.10	2,131,883.28	2,858,962.35	36.8577726	-107.3689008
7,548.00	77.86	99.29	7,060.40	-1,684.88	678.51	2,131,868.56	2,859,052.82	36.8577310	-107.3685918
7,642.00	81.93	97.50	7,076.89	-1,698.38	770.03	2,131,855.51	2,859,144.42	36.8576939	-107.3682790
7,674.00	84.57	95.27	7,080.65	-1,701.91	801.61	2,131,852.13	2,859,176.01	36.8576842	-107.3681710
RU 746H POE @ 7674' MD									
7,737.00	89.80	90.93	7,083.74	-1,705.31	864.41	2,131,849.04	2,859,238.82	36.8576749	-107.3679564
7,832.00	88.48	90.47	7,085.17	-1,706.47	959.39	2,131,848.34	2,859,333.80	36.8576717	-107.3676317
7,927.00	88.96	91.82	7,087.29	-1,708.37	1,054.34	2,131,846.90	2,859,428.77	36.8576665	-107.3673072
8,021.00	90.44	92.05	7,087.78	-1,711.54	1,148.28	2,131,844.18	2,859,522.72	36.8576578	-107.3669861
8,116.00	90.71	92.23	7,086.83	-1,715.09	1,243.21	2,131,841.09	2,859,617.67	36.8576480	-107.3666616
8,210.00	92.02	92.28	7,084.59	-1,718.78	1,337.11	2,131,837.85	2,859,711.58	36.8576378	-107.3663406
8,305.00	92.22	92.00	7,081.07	-1,722.33	1,431.98	2,131,834.76	2,859,806.47	36.8576281	-107.3660164
8,399.00	91.68	92.31	7,077.88	-1,725.86	1,525.86	2,131,831.68	2,859,900.36	36.8576184	-107.3656955
8,494.00	91.88	92.12	7,074.92	-1,729.53	1,620.74	2,131,828.47	2,859,995.26	36.8576083	-107.3653712
8,588.00	90.03	92.14	7,073.36	-1,733.03	1,714.66	2,131,825.44	2,860,089.19	36.8575987	-107.3650501
8,683.00	89.66	92.57	7,073.61	-1,736.93	1,809.58	2,131,821.99	2,860,184.13	36.8575879	-107.3647257
8,777.00	89.66	92.42	7,074.17	-1,741.02	1,903.49	2,131,818.35	2,860,278.06	36.8575767	-107.3644047
8,872.00	89.66	92.30	7,074.74	-1,744.93	1,998.41	2,131,814.90	2,860,372.99	36.8575659	-107.3640803
8,966.00	89.56	92.14	7,075.38	-1,748.57	2,092.33	2,131,811.72	2,860,466.94	36.8575559	-107.3637592
9,061.00	89.46	92.05	7,076.19	-1,752.05	2,187.27	2,131,808.70	2,860,561.89	36.8575463	-107.3634347
9,156.00	89.76	90.02	7,076.84	-1,753.76	2,282.24	2,131,807.45	2,860,656.87	36.8575416	-107.3631101
9,250.00	89.60	90.33	7,077.36	-1,754.05	2,376.24	2,131,807.62	2,860,750.87	36.8575408	-107.3627888
9,345.00	90.77	89.79	7,077.05	-1,754.15	2,471.24	2,131,807.98	2,860,845.87	36.8575405	-107.3624641
9,440.00	90.17	89.61	7,076.27	-1,753.65	2,566.23	2,131,808.93	2,860,940.86	36.8575418	-107.3621394
9,534.00	89.80	89.24	7,076.30	-1,752.71	2,660.23	2,131,810.33	2,861,034.85	36.8575444	-107.3618181
9,628.00	91.21	88.93	7,075.47	-1,751.21	2,754.21	2,131,812.29	2,861,128.82	36.8575485	-107.3614968
9,723.00	90.57	88.74	7,073.99	-1,749.28	2,849.18	2,131,814.68	2,861,223.78	36.8575538	-107.3611722
9,817.00	90.13	88.18	7,073.42	-1,746.75	2,943.14	2,131,817.66	2,861,317.73	36.8575607	-107.3608510
9,911.00	90.00	88.06	7,073.31	-1,743.67	3,037.09	2,131,821.20	2,861,411.66	36.8575691	-107.3605299
10,005.00	90.94	89.39	7,072.54	-1,741.57	3,131.06	2,131,823.74	2,861,505.62	36.8575749	-107.3602087
10,100.00	90.27	90.96	7,071.54	-1,741.87	3,226.05	2,131,823.91	2,861,600.61	36.8575740	-107.3598840
10,194.00	90.10	90.32	7,071.24	-1,742.92	3,320.05	2,131,823.32	2,861,694.61	36.8575711	-107.3595627
10,289.00	90.07	89.73	7,071.10	-1,742.96	3,415.05	2,131,823.74	2,861,789.61	36.8575710	-107.3592380
10,383.00	90.17	90.79	7,070.90	-1,743.38	3,509.04	2,131,823.77	2,861,883.60	36.8575698	-107.3589167
10,478.00	90.34	89.36	7,070.48	-1,743.51	3,604.04	2,131,824.10	2,861,978.60	36.8575694	-107.3585920

SDT

Survey Report - Geographic

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #746H - Slot A4
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #746H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,572.00	88.82	90.60	7,071.16	-1,743.47	3,698.03	2,131,824.59	2,862,072.59	36.8575694	-107.3582707
10,667.00	89.13	92.39	7,072.86	-1,745.95	3,792.98	2,131,822.57	2,862,167.55	36.8575626	-107.3579462
10,761.00	89.02	91.98	7,074.38	-1,749.54	3,886.90	2,131,819.44	2,862,261.49	36.8575527	-107.3576252
10,856.00	88.75	91.60	7,076.23	-1,752.50	3,981.84	2,131,816.94	2,862,356.43	36.8575445	-107.3573007
10,951.00	88.65	91.30	7,078.39	-1,754.91	4,076.78	2,131,814.99	2,862,451.39	36.8575379	-107.3569761
11,045.00	90.54	91.20	7,079.05	-1,756.96	4,170.75	2,131,813.40	2,862,545.37	36.8575322	-107.3566549
11,139.00	90.07	90.44	7,078.55	-1,758.30	4,264.74	2,131,812.51	2,862,639.36	36.8575285	-107.3563337
11,234.00	89.53	90.50	7,078.88	-1,759.08	4,359.74	2,131,812.19	2,862,734.36	36.8575263	-107.3560090
11,328.00	90.61	90.45	7,078.77	-1,759.86	4,453.73	2,131,811.86	2,862,828.36	36.8575241	-107.3556877
11,422.00	90.71	89.96	7,077.68	-1,760.20	4,547.72	2,131,811.98	2,862,922.35	36.8575232	-107.3553664
11,516.00	90.10	90.28	7,077.02	-1,760.39	4,641.72	2,131,812.24	2,863,016.35	36.8575226	-107.3550451
11,611.00	90.20	89.43	7,076.77	-1,760.15	4,736.72	2,131,812.94	2,863,111.34	36.8575232	-107.3547204
11,705.00	90.54	89.26	7,076.16	-1,759.08	4,830.71	2,131,814.47	2,863,205.33	36.8575261	-107.3543991
11,800.00	90.67	89.37	7,075.16	-1,757.94	4,925.70	2,131,816.07	2,863,300.31	36.8575292	-107.3540744
11,894.00	90.71	90.13	7,074.03	-1,757.53	5,019.69	2,131,816.93	2,863,394.30	36.8575303	-107.3537532
11,988.00	91.08	89.39	7,072.56	-1,757.14	5,113.68	2,131,817.78	2,863,488.28	36.8575313	-107.3534319
12,083.00	91.18	89.57	7,070.69	-1,756.28	5,208.65	2,131,819.10	2,863,583.25	36.8575336	-107.3531073
12,178.00	91.21	89.60	7,068.71	-1,755.59	5,303.63	2,131,820.25	2,863,678.23	36.8575355	-107.3527826
12,272.00	91.31	89.52	7,066.64	-1,754.87	5,397.61	2,131,821.43	2,863,772.20	36.8575374	-107.3524614
12,367.00	91.58	89.18	7,064.24	-1,753.79	5,492.57	2,131,822.96	2,863,867.15	36.8575403	-107.3521368
12,461.00	90.27	90.63	7,062.73	-1,753.63	5,586.55	2,131,823.57	2,863,961.13	36.8575407	-107.3518156
12,555.00	90.37	90.32	7,062.20	-1,754.41	5,680.55	2,131,823.25	2,864,055.13	36.8575385	-107.3514943
12,649.00	90.27	90.55	7,061.68	-1,755.13	5,774.54	2,131,822.99	2,864,149.13	36.8575365	-107.3511730
12,744.00	90.37	90.82	7,061.14	-1,756.26	5,869.54	2,131,822.32	2,864,244.13	36.8575333	-107.3508483
12,838.00	90.61	90.42	7,060.34	-1,757.28	5,963.53	2,131,821.75	2,864,338.12	36.8575305	-107.3505270
12,933.00	90.47	90.08	7,059.45	-1,757.69	6,058.52	2,131,821.80	2,864,433.12	36.8575293	-107.3502023
13,027.00	90.64	89.77	7,058.53	-1,757.57	6,152.52	2,131,822.38	2,864,527.11	36.8575295	-107.3498810
13,122.00	90.34	89.66	7,057.72	-1,757.10	6,247.51	2,131,823.31	2,864,622.10	36.8575308	-107.3495563
13,217.00	88.86	89.74	7,058.39	-1,756.60	6,342.50	2,131,824.27	2,864,717.09	36.8575321	-107.3492316
13,311.00	88.86	88.31	7,060.26	-1,755.00	6,436.47	2,131,826.32	2,864,811.05	36.8575364	-107.3489105
13,406.00	89.19	89.98	7,061.87	-1,753.59	6,531.44	2,131,828.20	2,864,906.01	36.8575403	-107.3485858
13,500.00	89.80	91.34	7,062.70	-1,754.67	6,625.43	2,131,827.57	2,865,000.00	36.8575372	-107.3482646
13,595.00	90.13	91.90	7,062.76	-1,757.35	6,720.39	2,131,825.35	2,865,094.98	36.8575298	-107.3479400
13,690.00	89.80	93.86	7,062.82	-1,762.13	6,815.27	2,131,821.03	2,865,189.87	36.8575166	-107.3476157
13,784.00	89.76	94.14	7,063.18	-1,768.68	6,909.04	2,131,814.93	2,865,283.67	36.8574985	-107.3472952
13,879.00	89.60	93.86	7,063.71	-1,775.31	7,003.80	2,131,808.76	2,865,378.47	36.8574803	-107.3469713
13,974.00	90.27	92.88	7,063.82	-1,780.89	7,098.64	2,131,803.64	2,865,473.33	36.8574649	-107.3466471
14,068.00	90.37	91.82	7,063.29	-1,784.75	7,192.56	2,131,800.24	2,865,567.27	36.8574542	-107.3463261
14,162.00	90.00	91.12	7,062.99	-1,787.16	7,286.52	2,131,798.28	2,865,661.24	36.8574475	-107.3460049
14,257.00	90.00	90.79	7,062.99	-1,788.74	7,381.51	2,131,797.16	2,865,756.24	36.8574431	-107.3456802
14,352.00	90.20	90.20	7,062.82	-1,789.56	7,476.51	2,131,796.80	2,865,851.24	36.8574408	-107.3453555
14,446.00	90.24	90.97	7,062.46	-1,790.52	7,570.50	2,131,796.29	2,865,945.23	36.8574381	-107.3450343
14,541.00	89.93	90.23	7,062.32	-1,791.52	7,665.49	2,131,795.76	2,866,040.23	36.8574353	-107.3447096
14,635.00	90.17	89.04	7,062.24	-1,790.92	7,759.49	2,131,796.81	2,866,134.22	36.8574368	-107.3443883
14,730.00	90.30	89.07	7,061.85	-1,789.35	7,854.48	2,131,798.84	2,866,229.20	36.8574411	-107.3440636
14,824.00	89.60	88.83	7,061.93	-1,787.63	7,948.46	2,131,801.02	2,866,323.17	36.8574457	-107.3437423
14,919.00	89.50	88.65	7,062.68	-1,785.54	8,043.43	2,131,803.56	2,866,418.14	36.8574514	-107.3434177
15,013.00	89.39	89.05	7,063.59	-1,783.66	8,137.41	2,131,805.91	2,866,512.10	36.8574565	-107.3430965
15,108.00	89.36	89.04	7,064.62	-1,782.07	8,232.39	2,131,807.95	2,866,607.07	36.8574608	-107.3427718
15,202.00	89.60	88.56	7,065.48	-1,780.10	8,326.37	2,131,810.37	2,866,701.04	36.8574661	-107.3424506
15,297.00	89.36	89.12	7,066.34	-1,778.18	8,421.34	2,131,812.75	2,866,796.00	36.8574713	-107.3421260
15,391.00	89.43	89.01	7,067.33	-1,776.65	8,515.33	2,131,814.74	2,866,889.98	36.8574754	-107.3418047
15,486.00	89.33	89.32	7,068.36	-1,775.26	8,610.31	2,131,816.59	2,866,984.95	36.8574792	-107.3414801
15,580.00	89.36	88.95	7,069.43	-1,773.84	8,704.29	2,131,818.46	2,867,078.93	36.8574830	-107.3411588
15,675.00	89.02	89.85	7,070.78	-1,772.85	8,799.28	2,131,819.92	2,867,173.91	36.8574856	-107.3408341

SDT

Survey Report - Geographic

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #746H - Slot A4
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #746H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
15,769.00	88.89	90.58	7,072.49	-1,773.20	8,893.26	2,131,820.02	2,867,267.89	36.8574846	-107.3405129	
15,864.00	90.27	90.25	7,073.19	-1,773.89	8,988.25	2,131,819.79	2,867,362.89	36.8574826	-107.3401882	
15,958.00	89.93	91.03	7,073.02	-1,774.94	9,082.25	2,131,819.20	2,867,456.88	36.8574797	-107.3398669	
16,053.00	90.07	90.54	7,073.02	-1,776.24	9,177.24	2,131,818.35	2,867,551.88	36.8574760	-107.3395422	
16,147.00	89.87	91.07	7,073.07	-1,777.56	9,271.23	2,131,817.49	2,867,645.87	36.8574723	-107.3392210	
16,242.00	89.43	90.92	7,073.65	-1,779.21	9,366.21	2,131,816.30	2,867,740.86	36.8574677	-107.3388963	
16,337.00	89.46	90.65	7,074.57	-1,780.51	9,461.20	2,131,815.46	2,867,835.86	36.8574640	-107.3385716	
16,431.00	89.33	91.83	7,075.57	-1,782.55	9,555.17	2,131,813.88	2,867,929.83	36.8574583	-107.3382504	
16,526.00	91.41	94.05	7,074.95	-1,787.42	9,650.03	2,131,809.47	2,868,024.72	36.8574449	-107.3379262	
16,620.00	91.21	94.27	7,072.80	-1,794.24	9,743.76	2,131,803.10	2,868,118.48	36.8574260	-107.3376058	
16,714.00	91.38	93.53	7,070.68	-1,800.63	9,837.51	2,131,797.17	2,868,212.27	36.8574084	-107.3372854	
16,809.00	91.31	92.33	7,068.45	-1,805.48	9,932.36	2,131,792.77	2,868,307.14	36.8573950	-107.3369612	
16,904.00	91.08	90.38	7,066.47	-1,807.73	10,027.31	2,131,790.98	2,868,402.09	36.8573887	-107.3366366	
16,998.00	90.81	90.48	7,064.92	-1,808.43	10,121.30	2,131,790.73	2,868,496.08	36.8573867	-107.3363154	
17,093.00	90.77	89.33	7,063.61	-1,808.28	10,216.28	2,131,791.35	2,868,591.07	36.8573870	-107.3359907	
17,187.00	90.94	88.79	7,062.20	-1,806.73	10,310.26	2,131,793.35	2,868,685.04	36.8573912	-107.3356695	
17,282.00	90.97	88.73	7,060.62	-1,804.68	10,405.23	2,131,795.86	2,868,779.99	36.8573967	-107.3353449	
17,376.00	89.93	89.01	7,059.88	-1,802.82	10,499.20	2,131,798.17	2,868,873.96	36.8574017	-107.3350237	
17,471.00	89.83	89.02	7,060.08	-1,801.19	10,594.19	2,131,800.27	2,868,968.93	36.8574061	-107.3346990	
17,566.00	89.60	89.53	7,060.55	-1,799.99	10,689.18	2,131,801.93	2,869,063.92	36.8574093	-107.3343743	
17,660.00	89.60	89.31	7,061.21	-1,799.04	10,783.17	2,131,803.33	2,869,157.90	36.8574118	-107.3340530	
17,755.00	89.53	89.12	7,061.93	-1,797.74	10,878.16	2,131,805.10	2,869,252.88	36.8574153	-107.3337283	
17,849.00	89.43	88.79	7,062.79	-1,796.02	10,972.14	2,131,807.26	2,869,346.85	36.8574199	-107.3334071	
17,944.00	89.26	89.34	7,063.87	-1,794.47	11,067.12	2,131,809.27	2,869,441.83	36.8574240	-107.3330824	
18,039.00	89.29	89.27	7,065.07	-1,793.32	11,162.11	2,131,810.89	2,869,536.80	36.8574271	-107.3327578	
18,133.00	89.26	89.95	7,066.26	-1,792.68	11,256.10	2,131,811.98	2,869,630.79	36.8574288	-107.3324365	
18,228.00	89.53	89.72	7,067.27	-1,792.41	11,351.09	2,131,812.72	2,869,725.78	36.8574294	-107.3321118	
18,323.00	89.90	90.49	7,067.74	-1,792.58	11,446.09	2,131,813.00	2,869,820.78	36.8574288	-107.3317871	
18,417.00	90.64	90.64	7,067.30	-1,793.51	11,540.08	2,131,812.53	2,869,914.78	36.8574262	-107.3314658	
18,512.00	90.77	89.95	7,066.13	-1,794.00	11,635.07	2,131,812.50	2,870,009.77	36.8574247	-107.3311411	
18,606.00	90.54	90.62	7,065.05	-1,794.46	11,729.07	2,131,812.49	2,870,103.76	36.8574233	-107.3308199	
18,701.00	90.47	90.57	7,064.21	-1,795.45	11,824.06	2,131,811.96	2,870,198.76	36.8574205	-107.3304952	
18,795.00	90.64	90.27	7,063.30	-1,796.14	11,918.05	2,131,811.73	2,870,292.75	36.8574185	-107.3301739	
18,890.00	90.67	90.11	7,062.22	-1,796.45	12,013.04	2,131,811.87	2,870,387.74	36.8574175	-107.3298492	
18,984.00	90.64	90.44	7,061.14	-1,796.91	12,107.04	2,131,811.88	2,870,481.74	36.8574162	-107.3295279	
19,079.00	90.40	90.70	7,060.28	-1,797.85	12,202.03	2,131,811.39	2,870,576.73	36.8574135	-107.3292032	
19,173.00	90.40	90.74	7,059.62	-1,799.03	12,296.02	2,131,810.67	2,870,670.73	36.8574101	-107.3288820	
19,268.00	90.40	90.92	7,058.96	-1,800.41	12,391.01	2,131,809.75	2,870,765.72	36.8574062	-107.3285573	
19,363.00	89.97	90.89	7,058.65	-1,801.91	12,485.99	2,131,808.71	2,870,860.71	36.8574020	-107.3282326	
19,457.00	90.03	90.45	7,058.65	-1,803.01	12,579.99	2,131,808.06	2,870,954.71	36.8573988	-107.3279113	
19,552.00	90.17	90.63	7,058.49	-1,803.90	12,674.98	2,131,807.63	2,871,049.71	36.8573963	-107.3275866	
19,646.00	90.03	90.11	7,058.33	-1,804.51	12,768.98	2,131,807.48	2,871,143.71	36.8573945	-107.3272653	
19,741.00	89.23	89.07	7,058.94	-1,803.83	12,863.97	2,131,808.62	2,871,238.70	36.8573962	-107.3269406	
19,835.00	89.13	89.17	7,060.28	-1,802.39	12,957.95	2,131,810.52	2,871,332.67	36.8574001	-107.3266194	
19,930.00	88.49	90.18	7,062.26	-1,801.85	13,052.93	2,131,811.51	2,871,427.64	36.8574014	-107.3262948	
20,025.00	87.81	90.09	7,065.32	-1,802.07	13,147.88	2,131,811.75	2,871,522.59	36.8574007	-107.3259702	
20,119.00	89.03	89.29	7,067.92	-1,801.56	13,241.84	2,131,812.71	2,871,616.55	36.8574020	-107.3256491	
20,213.00	89.56	90.25	7,069.07	-1,801.19	13,335.83	2,131,813.55	2,871,710.53	36.8574029	-107.3253278	
20,308.00	89.83	89.42	7,069.58	-1,800.91	13,430.83	2,131,814.28	2,871,805.53	36.8574035	-107.3250031	
20,403.00	89.60	90.10	7,070.05	-1,800.51	13,525.82	2,131,815.14	2,871,900.52	36.8574045	-107.3246784	
20,497.00	89.60	90.05	7,070.71	-1,800.64	13,619.82	2,131,815.47	2,871,994.52	36.8574040	-107.3243571	
20,592.00	89.63	89.61	7,071.34	-1,800.36	13,714.82	2,131,816.21	2,872,089.51	36.8574047	-107.3240324	
20,686.00	89.46	89.62	7,072.09	-1,799.72	13,808.81	2,131,817.30	2,872,183.51	36.8574063	-107.3237111	
20,781.00	89.53	89.25	7,072.93	-1,798.79	13,903.80	2,131,818.69	2,872,278.49	36.8574087	-107.3233864	

SDT
Survey Report - Geographic

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #746H - Slot A4
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #746H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
20,796.00	89.49	89.40	7,073.06	-1,798.61	13,918.80	2,131,818.94	2,872,293.49	36.8574092	-107.3233351
RU 746H FPP @ 20796' MD									
20,880.00	89.26	90.24	7,073.97	-1,798.35	14,002.80	2,131,819.61	2,872,377.48	36.8574098	-107.3230480
20,953.00	89.26	90.24	7,074.92	-1,798.65	14,075.79	2,131,819.66	2,872,450.47	36.8574088	-107.3227985
BHL @ 20953' MD									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
RU 746H SHL - actual wellpath hits target center - Point	0.00	0.00	0.00	0.00	0.00	2,133,550.14	2,858,366.17	36.8623590	-107.3709110
RU 746H Actual FPP - actual wellpath hits target center - Point	0.00	0.00	7,073.06	-1,798.61	13,918.80	2,131,818.94	2,872,293.49	36.8574092	-107.3233351
RU 746H BHL - actual wellpath hits target center - Point	0.00	0.00	7,074.92	-1,798.65	14,075.79	2,131,819.66	2,872,450.47	36.8574088	-107.3227985
RU 746H PBHL - actual wellpath misses target center by 6.50ft at 20953.00ft MD (7074.92 TVD, -1798.65 N, 14075.79 E) - Point	0.00	0.00	7,077.00	-1,804.65	14,077.19	2,131,813.67	2,872,451.90	36.8573924	-107.3227937
RU 746H Actual POE - actual wellpath hits target center - Point	0.00	0.00	7,080.65	-1,701.91	801.61	2,131,852.13	2,859,176.01	36.8576842	-107.3681710

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
7,674.00	7,080.65	-1,701.91	801.61	RU 746H POE @ 7674' MD	
20,796.00	7,073.06	-1,798.61	13,918.80	RU 746H FPP @ 20796' MD	
20,953.00	7,074.92	-1,798.65	14,075.79	BHL @ 20953' MD	

Checked By: _____	Approved By: _____	Date: _____
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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

SUBMIT IN TRIPLICATE - Other instructions on page 2		7. If Unit of CA/Agreement, Name and/or No.
1. Type of Well ☐ Oil Well ☒ Gas Well ☐ Other		8. Well Name and No. ROSA UNIT 746H
2. Name of Operator LOGOS OPERATING, LLC		9. API Well No. 30-039-31416
3a. Address 2010 AFTON PLACE FARMINGTON, NM 87401	3b. Phone No. (include area code) (505) 278-8720	10. Field and Pool or Exploratory Area BLANCO MANCOS
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) SEC 33 T31N R05W NENW (C) 363' FNL 1685' FWL		11. Country or Parish, State RIO ARriba COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA				
TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☒ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Completions
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

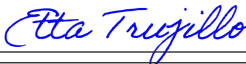
1413. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical 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 recompleation 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.)

8/4/2023 - MIRU WL. Run CBL (TOC @ 3,362'). RDMO

8/11 - 9/10/2023 - MIRU. Open toe sleeves @ 20,745' - 20,749' & 20,793' - 20,796' (48perfs). RU Frac. Frac'd stage 1 w/230,440 lbs Proppant, 100 mesh, 40/70 sand, 7,069bbl slickwater. Set DFP @ 20,734'. PU fire gun. Perf intervals @ 20,719' - 7,674' w/5 & 6 SPF, .38" Dia, 60 phasing, Total of 2,872 perfs.. Frac'd w/30,052,790 lbs Proppant, 100mesh & 40/70 sand, 787,511bbls slickwater. RIH set kill plug @ 7,644'. PT to 6500psi. POOH. Well secured.

10/07 - 10/10/2023 - MIRU CTU. DO kill plug @ 7,644'. Circulate, CO & DO composite frac plugs. POOH w/2-3/8" CT and drill out BHA. Well secured. RDMO CTU & all equipment.

Per the approved operations plan, the 2-7/8", 6.5#, J-55, EUE tubing will be run once volumes and pressures decline and could be close to a year after the well is brought online.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) Etta Trujillo	Title Regulatory Specialist
Signature 	Date 12/05/2023

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	

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.**

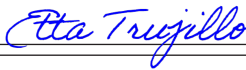
5. Lease Serial No. NMSF078773
6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2		7. If Unit of CA/Agreement, Name and/or No. NMNM78407E
1. Type of Well ☐ Oil Well ☒ Gas Well ☐ Other		8. Well Name and No. ROSA UNIT 746H
2. Name of Operator LOGOS OPERATING, LLC		9. API Well No. 30-039-31416
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) SEC 33 T31N R05W NENW (C) 363'FNL 1685' FWL		11. Country or Parish, State RIO ARRIBA COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA				
TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☒ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

6113. 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 recompleate 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 perfonned 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 recompleation 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 detennined that the site is ready for final inspection.)

First delivery date: 10/16/2023
TP: 0 CP: 2260
Initial MCF: 115 MCF

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) Etta Trujillo	Title Regulatory Specialist
Signature 	Date 10/30/2023

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

(Instructions on page 2)

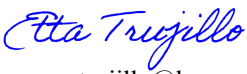
From: blm-afmss-notifications@blm.gov
To: [Etta Trujillo](#)
Subject: Well Name: ROSA UNIT, Well Number: 746H, Notification of Well Completion Acceptance
Date: Friday, December 8, 2023 11:25:42 AM

The Bureau of Land Management

Notice of Acceptance for Well Completion Report

- Operator Name: **LOGOS OPERATING LLC**
- Well Name: **ROSA UNIT**
- Well Number: **746H**
- US Well Number: **3003931416**
- Well Completion Report Id: **WCR2023120890410**

This notification is automatically generated. Please do not reply to this message as this account is not monitored.

Submit To Appropriate District Office Two Copies <u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 811 S. First St., Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Rd., Aztec, NM 87410 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505		State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505				Form C-105 Revised April 3, 2017				
WELL COMPLETION OR RECOMPLETION REPORT AND LOG										
4. Reason for filing: ☒ COMPLETION REPORT (Fill in boxes #1 through #31 for State and Fee wells only) ☐ C-144 CLOSURE ATTACHMENT (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC)						5. Lease Name or Unit Agreement Name ROSA UNIT				
						6. Well Number: 746H				
7. Type of Completion: ☒ NEW WELL ☐ WORKOVER ☐ DEEPENING ☐ PLUGBACK ☐ DIFFERENT RESERVOIR ☐ OTHER										
8. Name of Operator LOGOS OPERATING, LLC						9. OGRID 289408				
10. Address of Operator 2010 AFTON PLACE, FARMINGTON, NM 87401						11. Pool name or Wildcat BASIN MANCOS				
12. Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County
Surface:	C	33	31N	R05W		363'	FNL	1685'	FWL	RIO ARRIBA
BH:	H	35	31N	R05W		2169'	FNL	65'	FEL	RIO ARRIBA
13. Date Spudded 4/15/2023	14. Date T.D. Reached 7/28/2023		15. Date Rig Released 7/30/2023		16. Date Completed (Ready to Produce) 10/10/2023			17. Elevations (DF and RKB, RT, GR, etc.) 6492'		
18. Total Measured Depth of Well 20,953' MD / 7,075' TVD			19. Plug Back Measured Depth 20,840' MD / 7,075' TVD		20. Was Directional Survey Made? Y			21. Type Electric and Other Logs Run CBL		
22. Producing Interval(s), of this completion - Top, Bottom, Name BASIN MANCOS (7073' - 7081') TVD										
23. CASING RECORD (Report all strings set in well)										
CASING SIZE		WEIGHT LB./FT.		DEPTH SET		HOLE SIZE		CEMENTING RECORD		AMOUNT PULLED
20"		94.0#		364' (GL)		26"		764 sks		Circ 26bbls to surface
13-3/8"		61.0#		3688'		17.5"		2452 sks		Circ 176bbls to surface
9-5/8"		47.0#		6584'		12.25"		2157 sks		20bbls (DV tool @ 4977' & 3774')
5-1/2"		20.0#		20,933'		8.5"		2875 sks		TOC @ 3362' (CBL)
24. LINER RECORD						25. TUBING RECORD				
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN		SIZE	DEPTH SET		PACKER SET	
						Pending				
26. Perforation record (interval, size, and number) 20,796' MD to 7,674' MD, 0.38" , 5 & 6SPF, 2,920 total perfs						27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC. DEPTH INTERVAL AMOUNT AND KIND MATERIAL USED 20,796' MD - 7,674' MD Frac'd 67 stages of 30,283,230lbs Proppant, 794,580bbls of Slickwater and 40/70 sand/100# mesh				
28. PRODUCTION										
Date First Production		Production Method (<i>Flowing, gas lift, pumping - Size and type pump</i>)				Well Status (<i>Prod. or Shut-in</i>)				
10/16/2023		Flowing				Producing				
Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl	Gas - MCF	Water - Bbl.	Gas - Oil Ratio			
10/17/2023	12hrs	14/64		n/a	1,495 mcf	48 bbls	n/a			
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (<i>Corr.</i>)				
n/a	2597		n/a	2,438 mcf	437 bbls	n/a				
29. Disposition of Gas (<i>Sold, used for fuel, vented, etc.</i>) SOLD							30. Test Witnessed By			
31. List Attachments										
32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.							33. Rig Release Date:			
34. If an on-site burial was used at the well, report the exact location of the on-site burial:										
Latitude _____ Longitude _____ NAD83										
I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief										
Signature 			Name Etta Trujillo			Title Regulatory Specialist			Date 12/8/2023	
E-mail Address etrujillo@logosresourcesllc.com										

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy	T. Canyon	T. Ojo Alamo 2738'	T. Penn A"
T. Salt	T. Strawn	T. Kirtland 2855'	T. Penn. "B"
B. Salt	T. Atoka	T. Fruitland 3232'	T. Penn. "C"
T. Yates	T. Miss	T. Pictured Cliffs 3646'	T. Penn. "D"
T. 7 Rivers	T. Devonian	T. Cliff House 5749'	T. Leadville
T. Queen	T. Silurian	T. Menefee 5785'	T. Madison
T. Grayburg	T. Montoya	T. Point Lookout 5989'	T. Elbert
T. San Andres	T. Simpson	T. Mancos 6481'	T. McCracken
T. Glorieta	T. McKee	T. Gallup	T. Ignacio Otzte
T. Paddock	T. Ellenburger	Base Greenhorn	T. Granite
T. Blinebry	T. Gr. Wash	T. Dakota	
T. Tubb	T. Delaware Sand	T. Morrison	
T. Drinkard	T. Bone Springs	T. Todilto	
T. Abo	T.	T. Entrada	
T. Wolfcamp	T.	T. Wingate	
T. Penn	T.	T. Chinle	
T. Cisco (Bough C)	T.	T. Permian	

No. 1, from.....to.....
No. 2, from.....to.....
No. 3, from.....to.....
No. 4, from.....to.....

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to.....feet.....
 No. 2, from.....to.....feet.....
 No. 3, from.....to.....feet.....

From	To	Thickness In Feet	Lithology

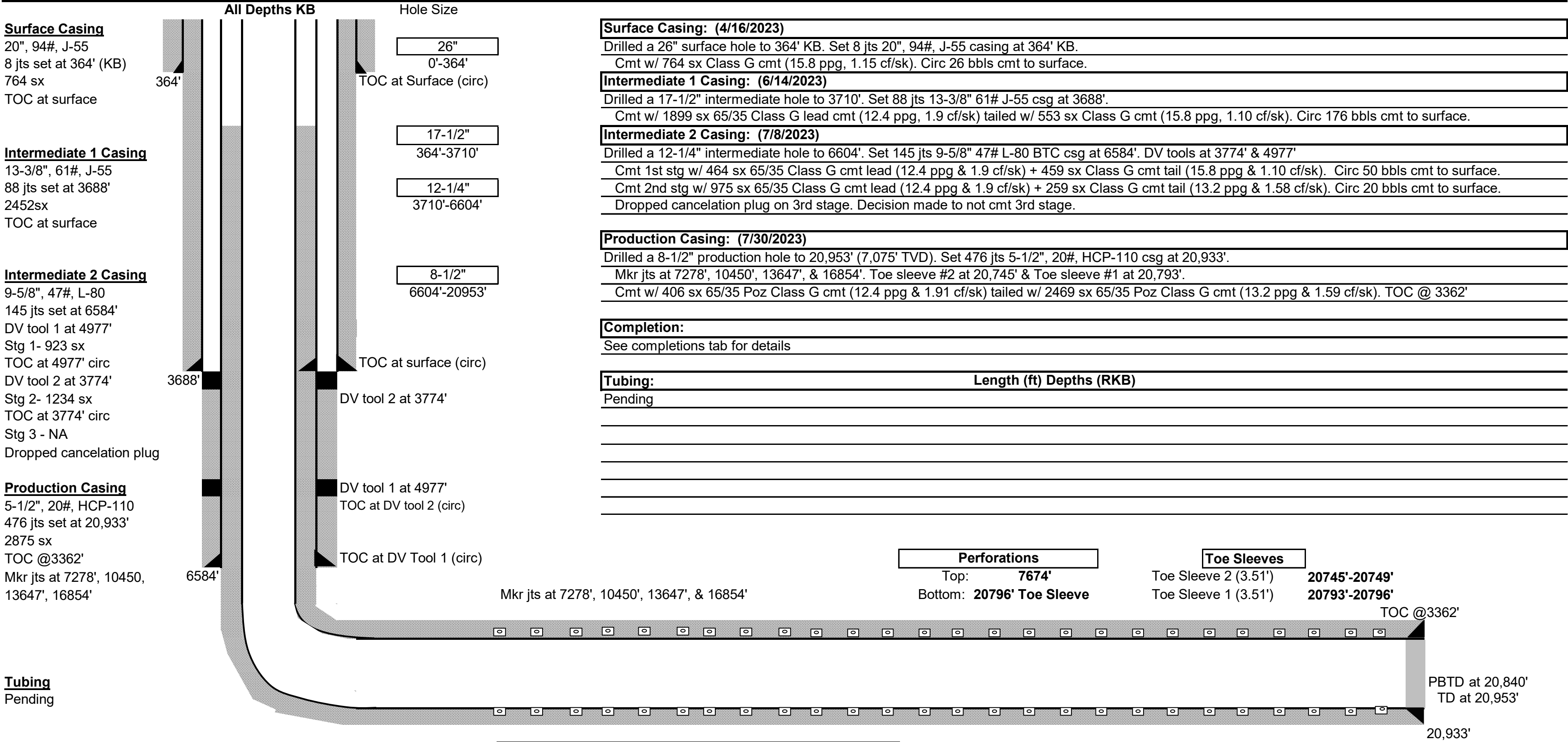


Wellbore Schematic

Well Name: Rosa Unit 746H
Location: C - Sec 33, T31N, R05W, 363' FNL, 1685' FW
County: Rio Arriba, NM
API #: 30-039-31416
Co-ordinates: 36.862318, -107.370906 NAD83
Operator: LOGOS Operating, LLC

Ground Elevation: 6492'
KB Elevation: 6522'
TD (TVD): 7075'
TD (MD): 20,953'
PBSD (MD): 20,840'

Prepared By: 8/1/2023 Moss
Reviewed By: 8/8/2023 chr
Last Updated: 9/15/2023 Gomez
Spud Date: 4/15/2023
Completion Date:
Last Workover Date:



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 320296

ACKNOWLEDGMENTS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 320296
	Action Type: [C-104] Tight Hole Completion Packet (C-104CT)

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.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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CONDITIONS

Action 320296

CONDITIONS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 320296
	Action Type: [C-104] Tight Hole Completion Packet (C-104CT)

CONDITIONS

Created By	Condition	Condition Date
plmartinez	File 3160-4 Completion Report within 10 days to NMOCD after BLM approval.	3/6/2024