

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Form C-104
Revised August 1, 2011

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit one copy to appropriate District Office

☐ AMENDED REPORT

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 Test Allowable	
⁴ API Number 30-039-31415	⁵ Pool Name Basin Mancos		⁶ Pool Code 97232
⁷ Property Code 320608	⁸ Property Name Rosa Unit		⁹ Well Number 645H

II. 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	19	31N	5W	1	943	FNL	424	FWL	Rio Arriba

¹¹ Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	21	31N	5W		45	FNL	362	FEL	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

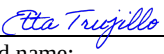
¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
373888	Harvest Four Corners, LLC 1755 Arroyo Dr. Bloomfield NM 87413	G

IV. Well Completion Data

²¹ Spud Date 4/08/2022	²² Ready Date ~11/19/2022	²³ TD 14415' MD / 6953' TVD	²⁴ PBTD 14327' MD / 6952' TVD	²⁵ Perforations ~7520' MD / ~14283' MD ~6940' TVD / ~6952' TVD	²⁶ DHC, MC R-13457
²⁷ Hole Size		²⁸ Casing & Tubing Size	²⁹ Depth Set		³⁰ Sacks Cement
17-1/2"		13-3/8", 54.5#, J-55	325'		395sx (81bbbs - 454cf)
12-1/4"		9-5/8", 47.0#, L-80	6132'		2717sx (900bbbs - 5045cf) DV @ 4540' & 2985'
8-1/2"		5 1/2", 20#, P-110	14,397'		2134sx (622bbbs - 3494cf) TOC ~4920'
		2 7/8", 6.5#, J-55	pending		

V. Well Test Data

³¹ Date New Oil	³² Gas Delivery Date ~11/19/2022	³³ Test Date	³⁴ Test Length	³⁵ Tbg. Pressure	³⁶ Csg. Pressure
³⁷ Choke Size	³⁸ Oil	³⁹ Water	⁴⁰ Gas		⁴¹ Test Method

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: 	
Title: Regulatory Specialist		Title: Petroleum Specialist	
E-mail Address: etrujillo@logosresourcesllc.com		Approval Date: 11/17/2022	
Date: 11/14/2022	Phone: 505-324-4154		

1625 N. French Drive, Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462State of New Mexico
Energy, Minerals & Natural Resources DepartmentSubmit one copy to
Appropriate District OfficeOIL CONSERVATION DIVISION
1220 South St. Francis Drive
Santa Fe, NM 87505☐ AMENDED REPORT

AS-DRILLED WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-31415	² Pool Code 97232	³ Pool Name BASIN MANCOS
⁴ Property Code 320608	⁵ Property Name ROSA UNIT	⁶ Well Number 645H
⁷ GRID No. 289408	⁸ Operator Name LOGOS OPERATING, LLC	⁹ Elevation 6305'

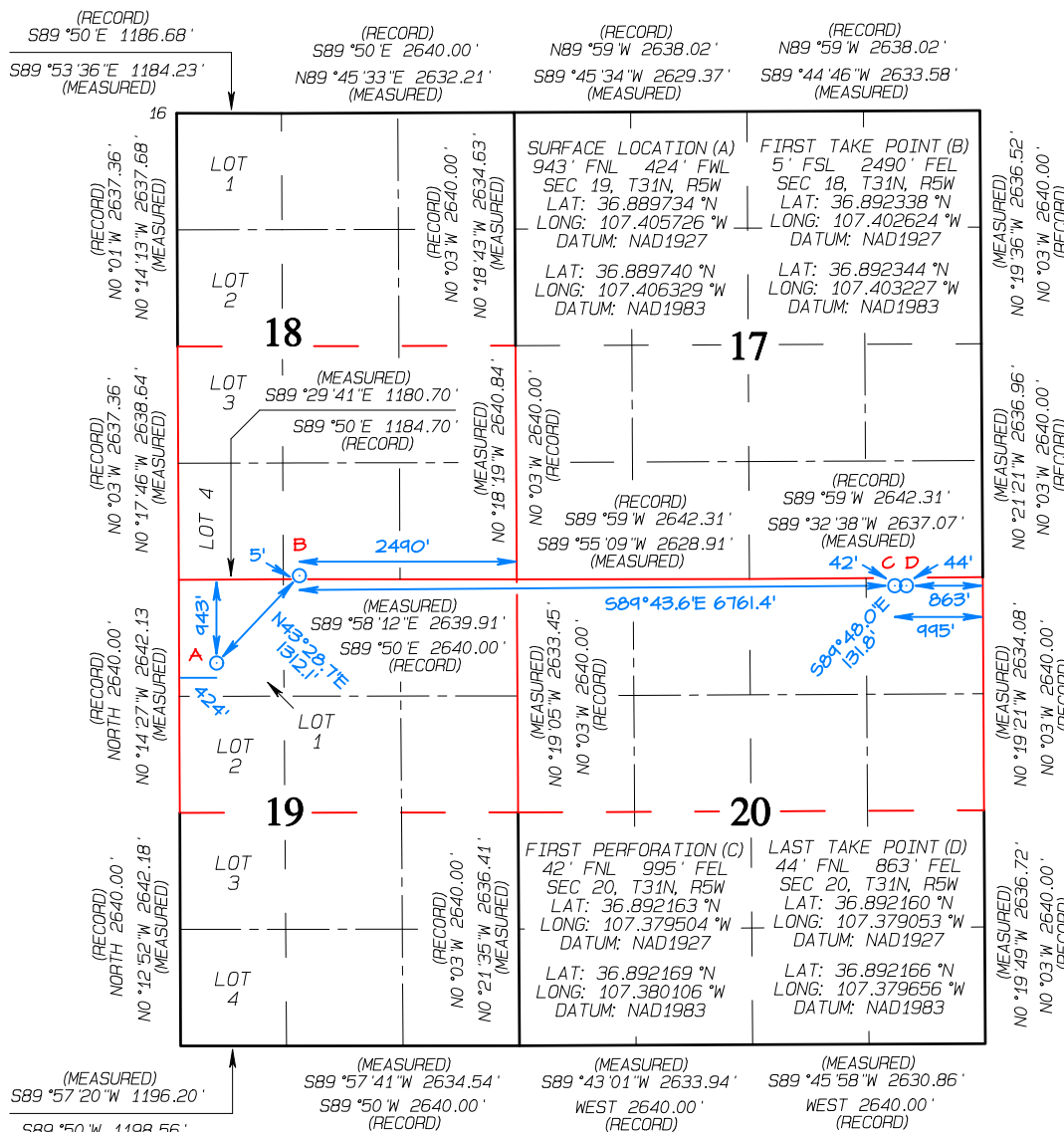
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	19	31N	5W	1	943	NORTH	424	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
A	20	31N	5W		44	NORTH	863	EAST	RIO ARriba

¹² Dedicated Acres 783.84	S/2 - Section 18 N/2 - Section 19 N/2 - Section 20	¹³ Joint or Infill	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 DIVISION¹⁷ 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.

Signature: Etta Trujillo Date: 11/17/2022Printed Name: Etta Trujillo
Signature: 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: NOVEMBER 17, 2022
Date of Survey: JANUARY 2, 2015

Signature and Seal of Professional Surveyor

Jason C. Edwards
Certificate Number 15269



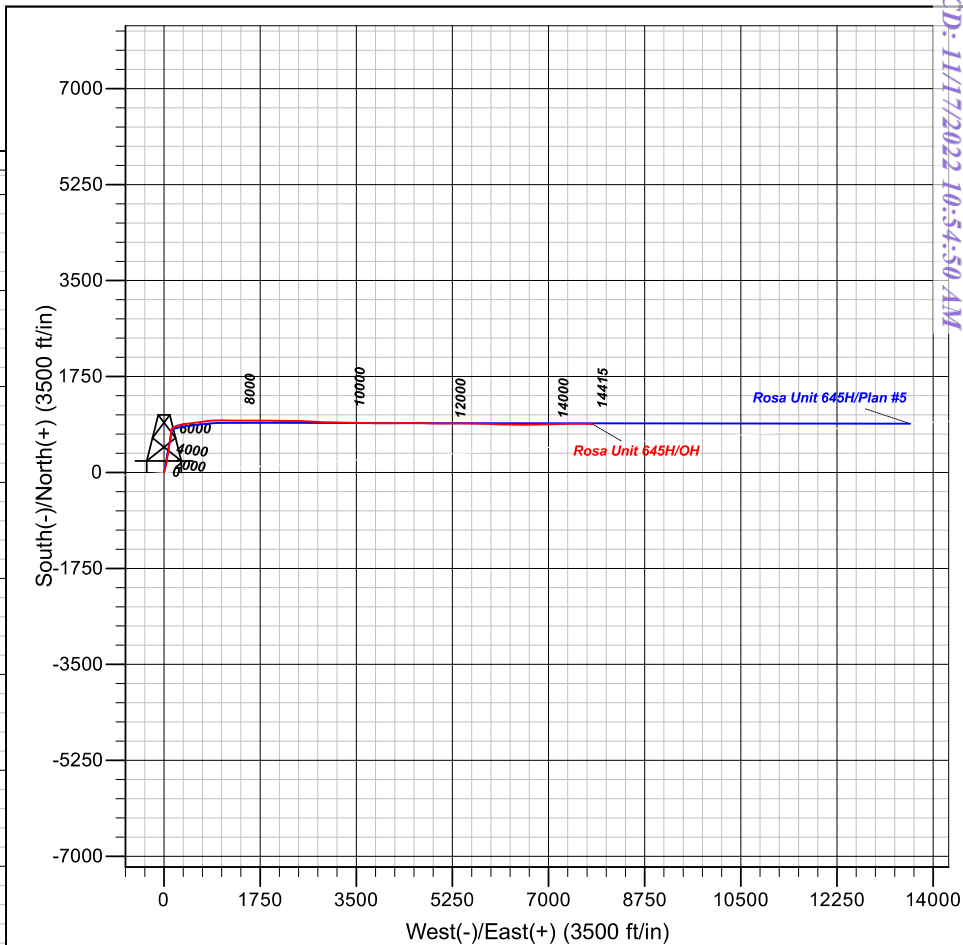
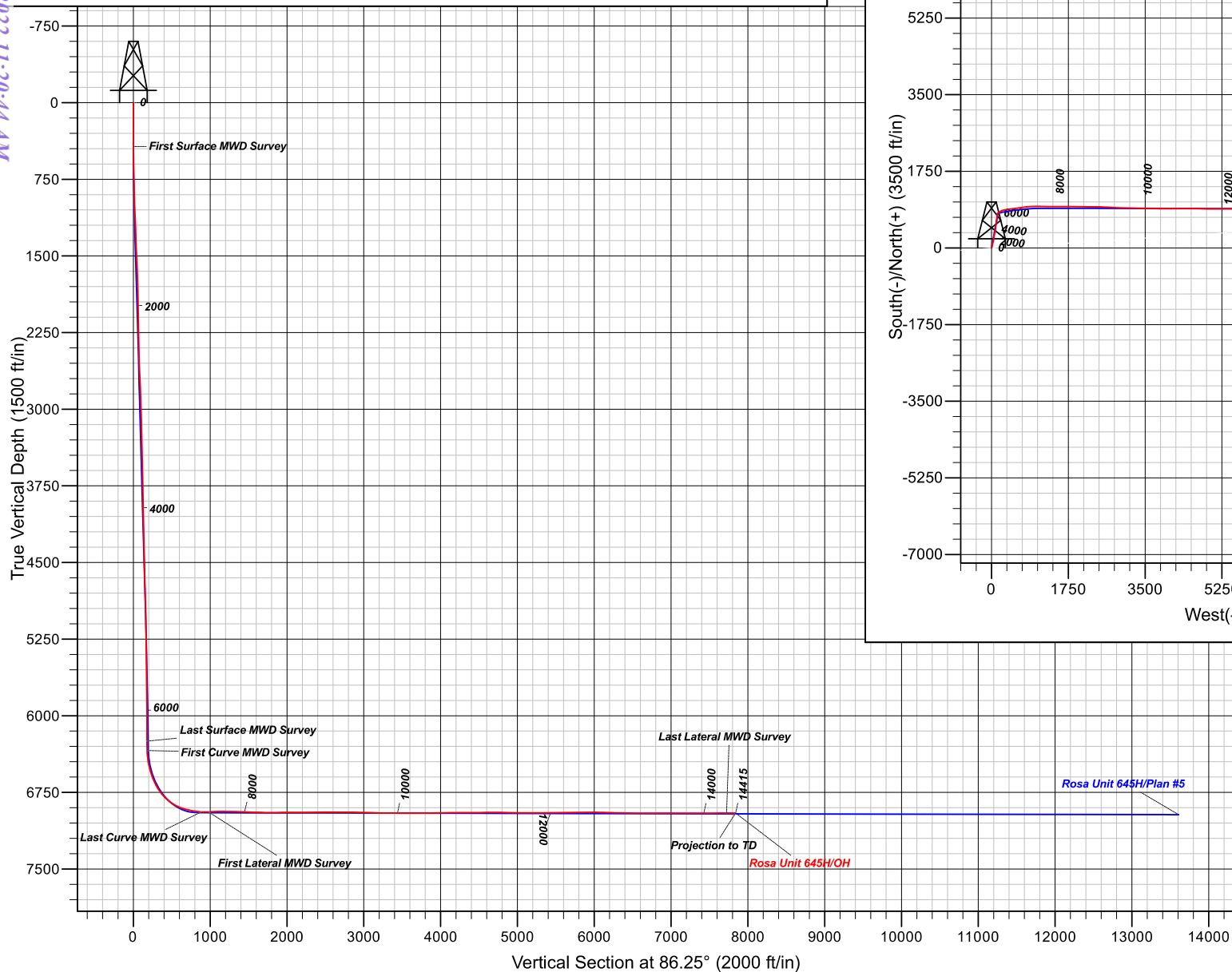
Company Name: Logos Operating LLC
 Project: Rio Arriba, NM NAD83
 Site: Rosa Unit 27
 Well: Rosa Unit 645H
 Wellbore: OH



WELL DETAILS: Rosa Unit 645H

GL 6305' & RKB 24.5' @ 6329.50ft (Ensign T223) 6305.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	2143470.1710	2847960.5370	36.8897396	-107.4063290	B8



Design: OH (Rosa Unit 645H/OH)

Created By: Janie Collins Date: 18:33, November 01 2022

PROJECT DETAILS: Rio Arriba, NM NAD83

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Western Zone

System Datum: Mean Sea Level
 Local North: True



Logos Operating LLC

Rio Arriba, NM NAD83

Rosa Unit 27

Rosa Unit 645H - Slot B8

OH

Design: OH

Standard Survey Report

01 November, 2022





Lonestar Consulting, LLC

Survey Report



Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit 645H - Slot B8
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6305' & RKB 24.5' @ 6329.50ft (Ensign T223)
Site:	Rosa Unit 27	MD Reference:	GL 6305' & RKB 24.5' @ 6329.50ft (Ensign T223)
Well:	Rosa Unit 645H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	edm

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 27			
Site Position:		Northing:	2,143,451.5859 usft	Latitude:	36.8896880
From:	Lat/Long	Easting:	2,848,002.4398 usft	Longitude:	-107.4061860
Position Uncertainty:		0.00 ft	Slot Radius:	13.200 in	

Well		Rosa Unit 645H - Slot B8				
Well Position	+N/-S	0.00 ft	Northing:	2,143,470.1710 usft	Latitude:	36.8897395
	+E/-W	0.00 ft	Easting:	2,847,960.5370 usft	Longitude:	-107.4063290
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,305.00 ft
Grid Convergence:		0.26 °				

Wellbore	OH					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)	
	HDGM2022	8/6/2022	8.58	63.33	49,568.50000000	
	HDGM2022	10/9/2022	8.57	63.33	49,551.40000000	

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	86.25	

Survey Program	Date	11/1/2022			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
428.00	6,302.00	Survey #1 - Surface MWD Survey (OH)	MWD+HDGM	OWSG MWD + HDGM	
6,396.00	7,439.00	Survey #2 - Curve MWD Survey (OH)	MWD+HDGM	OWSG MWD + HDGM	
7,532.00	14,415.00	Survey #3 - Lateral MWD Survey (OH)	MWD+HDGM	OWSG MWD + HDGM	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
428.00	0.39	124.34	428.00	-0.82	1.20	1.15	0.09	0.09	0.00	
521.00	1.86	29.31	520.98	0.32	2.20	2.22	2.08	1.58	-102.18	
584.00	3.16	21.59	583.92	2.82	3.34	3.52	2.13	2.06	-12.25	
677.00	4.53	13.30	676.71	8.78	5.13	5.69	1.59	1.47	-8.91	



Lonestar Consulting, LLC

Survey Report



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Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6305' & RKB 24.5' @ 6329.50ft (Ensign T223)
Site:	Rosa Unit 27	MD Reference:	GL 6305' & RKB 24.5' @ 6329.50ft (Ensign T223)
Well:	Rosa Unit 645H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	edm

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
766.00	5.64	9.94	765.36	16.51	6.69	7.76	1.29	1.25	-3.78
857.00	7.15	12.52	855.79	26.44	8.69	10.40	1.69	1.66	2.84
947.00	9.42	13.42	944.84	39.08	11.62	14.15	2.53	2.52	1.00
1,037.00	9.81	13.85	1,033.58	53.68	15.16	18.64	0.44	0.43	0.48
1,127.00	9.64	13.23	1,122.28	68.46	18.72	23.16	0.22	-0.19	-0.69
1,222.00	9.53	13.53	1,215.96	83.85	22.38	27.82	0.13	-0.12	0.32
1,317.00	9.82	12.72	1,309.61	99.40	26.01	32.45	0.34	0.31	-0.85
1,413.00	9.75	15.12	1,404.21	115.23	29.93	37.40	0.43	-0.07	2.50
1,508.00	9.82	16.50	1,497.83	130.77	34.33	42.81	0.26	0.07	1.45
1,603.00	9.42	18.43	1,591.49	145.91	39.09	48.55	0.54	-0.42	2.03
1,699.00	9.39	12.30	1,686.21	161.02	43.24	53.68	1.04	-0.03	-6.39
1,794.00	9.22	5.82	1,779.96	176.16	45.66	57.09	1.12	-0.18	-6.82
1,889.00	8.83	6.62	1,873.78	190.97	47.27	59.66	0.43	-0.41	0.84
1,984.00	8.54	5.94	1,967.69	205.23	48.85	62.16	0.32	-0.31	-0.72
2,079.00	7.80	7.39	2,061.73	218.64	50.40	64.60	0.81	-0.78	1.53
2,175.00	7.55	8.13	2,156.87	231.35	52.13	67.15	0.28	-0.26	0.77
2,269.00	7.06	5.24	2,250.10	243.21	53.54	69.33	0.65	-0.52	-3.07
2,364.00	6.92	5.26	2,344.40	254.72	54.59	71.14	0.15	-0.15	0.02
2,459.00	7.26	8.57	2,438.67	266.36	56.01	73.31	0.56	0.36	3.48
2,555.00	8.19	14.66	2,533.80	278.97	58.65	76.77	1.29	0.97	6.34
2,649.00	9.08	15.59	2,626.73	292.60	62.33	81.34	0.96	0.95	0.99
2,744.00	9.34	16.45	2,720.51	307.21	66.53	86.48	0.31	0.27	0.91
2,840.00	9.29	15.11	2,815.24	322.16	70.76	91.68	0.23	-0.05	-1.40
2,935.00	9.18	11.17	2,909.01	337.00	74.22	96.11	0.68	-0.12	-4.15
3,030.00	8.49	11.42	3,002.89	351.31	77.08	99.89	0.73	-0.73	0.26
3,126.00	7.55	11.89	3,097.95	364.43	79.78	103.45	0.98	-0.98	0.49
3,221.00	8.38	9.71	3,192.03	377.36	82.24	106.74	0.93	0.87	-2.29
3,317.00	9.03	8.38	3,286.92	391.70	84.52	109.95	0.71	0.68	-1.39
3,411.00	9.64	6.76	3,379.68	406.82	86.52	112.94	0.71	0.65	-1.72
3,507.00	9.14	7.04	3,474.39	422.37	88.40	115.83	0.52	-0.52	0.29
3,602.00	8.85	6.96	3,568.22	437.11	90.21	118.60	0.31	-0.31	-0.08
3,697.00	7.75	4.03	3,662.23	450.75	91.54	120.83	1.24	-1.16	-3.08
3,793.00	7.89	3.45	3,757.33	463.79	92.40	122.53	0.17	0.15	-0.60
3,888.00	7.37	3.98	3,851.49	476.38	93.21	124.17	0.55	-0.55	0.56
3,983.00	7.18	6.10	3,945.73	488.36	94.26	126.00	0.35	-0.20	2.23
4,078.00	7.45	9.36	4,039.95	500.34	95.90	128.41	0.52	0.28	3.43
4,174.00	7.91	14.76	4,135.09	512.87	98.59	131.92	0.89	0.48	5.63
4,269.00	8.40	12.90	4,229.13	525.95	101.81	135.99	0.59	0.52	-1.96
4,364.00	8.90	10.52	4,323.05	539.94	104.70	139.79	0.65	0.53	-2.51
4,459.00	7.94	8.35	4,417.03	553.66	106.99	142.97	1.06	-1.01	-2.28
4,554.00	6.96	4.68	4,511.23	565.89	108.41	145.19	1.15	-1.03	-3.86
4,649.00	5.54	7.35	4,605.66	576.17	109.47	146.92	1.53	-1.49	2.81



Lonestar Consulting, LLC

Survey Report



Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit 645H - Slot B8
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6305' & RKB 24.5' @ 6329.50ft (Ensign T223)
Site:	Rosa Unit 27	MD Reference:	GL 6305' & RKB 24.5' @ 6329.50ft (Ensign T223)
Well:	Rosa Unit 645H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	edm

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,745.00	5.59	16.73	4,701.21	585.25	111.41	149.45	0.95	0.05	9.77
4,840.00	7.07	14.87	4,795.63	595.33	114.24	152.93	1.57	1.56	-1.96
4,935.00	9.13	12.25	4,889.67	608.35	117.34	156.88	2.20	2.17	-2.76
5,002.00	9.92	11.25	4,955.75	619.20	119.60	159.84	1.20	1.18	-1.49
5,097.00	9.05	5.48	5,049.45	634.66	121.91	163.15	1.36	-0.92	-6.07
5,193.00	9.56	2.23	5,144.19	650.15	122.94	165.20	0.76	0.53	-3.39
5,288.00	9.07	2.31	5,237.94	665.51	123.55	166.81	0.52	-0.52	0.08
5,382.00	8.44	2.12	5,330.84	679.81	124.10	168.30	0.67	-0.67	-0.20
5,477.00	7.90	2.61	5,424.88	693.30	124.65	169.73	0.57	-0.57	0.52
5,572.00	7.14	2.75	5,519.06	705.72	125.24	171.12	0.80	-0.80	0.15
5,635.00	6.58	2.88	5,581.61	713.23	125.60	171.98	0.89	-0.89	0.21
5,762.00	5.76	6.51	5,707.87	726.83	126.69	173.96	0.71	-0.65	2.86
5,826.00	4.88	8.69	5,771.60	732.71	127.47	175.12	1.41	-1.38	3.41
5,889.00	3.66	6.34	5,834.42	737.36	128.10	176.05	1.96	-1.94	-3.73
5,952.00	3.50	1.16	5,897.30	741.28	128.36	176.56	0.57	-0.25	-8.22
6,016.00	3.77	359.96	5,961.17	745.34	128.39	176.87	0.44	0.42	-1.88
6,080.00	4.54	359.73	6,025.00	749.98	128.38	177.16	1.20	1.20	-0.36
6,143.00	4.28	358.38	6,087.81	754.82	128.30	177.40	0.44	-0.41	-2.14
6,206.00	3.96	357.53	6,150.65	759.34	128.14	177.53	0.52	-0.51	-1.35
6,233.00	3.82	354.48	6,177.59	761.17	128.02	177.52	0.93	-0.52	-11.30
6,302.00	3.80	354.70	6,246.43	765.73	127.58	177.39	0.04	-0.03	0.32
6,396.00	6.85	18.60	6,340.03	774.15	129.08	179.44	3.95	3.24	25.43
6,492.00	16.24	39.09	6,434.01	790.04	139.40	190.77	10.53	9.78	21.34
6,586.00	23.19	50.46	6,522.48	812.06	162.00	214.76	8.41	7.39	12.10
6,682.00	29.84	61.54	6,608.39	835.51	197.63	251.86	8.61	6.93	11.54
6,776.00	37.00	71.57	6,686.86	855.64	245.13	300.56	9.60	7.62	10.67
6,870.00	46.70	79.62	6,756.84	870.79	305.80	362.09	11.78	10.32	8.56
6,966.00	55.70	82.01	6,816.94	882.62	379.58	436.50	9.57	9.38	2.49
7,061.00	65.59	82.87	6,863.45	893.47	461.57	519.01	10.44	10.41	0.91
7,155.00	73.15	82.36	6,896.55	904.78	548.74	606.74	8.06	8.04	-0.54
7,248.00	79.98	82.01	6,918.14	917.08	638.30	696.92	7.35	7.34	-0.38
7,345.00	82.53	81.73	6,932.89	930.64	733.21	792.50	2.64	2.63	-0.29
7,439.00	88.66	84.52	6,940.11	941.84	826.20	886.03	7.16	6.52	2.97
7,532.00	91.88	86.87	6,939.67	948.82	918.92	979.01	4.29	3.46	2.53
7,627.00	91.14	89.32	6,937.17	951.98	1,013.83	1,073.92	2.69	-0.78	2.58
7,722.00	90.13	91.33	6,936.11	951.44	1,108.81	1,168.67	2.37	-1.06	2.12
7,815.00	88.79	91.25	6,936.99	949.34	1,201.78	1,261.30	1.44	-1.44	-0.09
7,909.00	88.73	90.79	6,939.02	947.67	1,295.75	1,354.95	0.49	-0.06	-0.49
8,003.00	88.69	90.32	6,941.14	946.76	1,389.72	1,448.66	0.50	-0.04	-0.50
8,097.00	88.32	89.83	6,943.59	946.64	1,483.68	1,542.42	0.65	-0.39	-0.52
8,225.00	89.09	90.42	6,946.49	946.36	1,611.65	1,670.09	0.76	0.60	0.46
8,320.00	90.13	90.61	6,947.13	945.50	1,706.64	1,764.83	1.11	1.09	0.20



Lonestar Consulting, LLC

Survey Report



Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit 645H - Slot B8
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6305' & RKB 24.5' @ 6329.50ft (Ensign T223)
Site:	Rosa Unit 27	MD Reference:	GL 6305' & RKB 24.5' @ 6329.50ft (Ensign T223)
Well:	Rosa Unit 645H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	edm

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
8,413.00	90.13	90.45	6,946.92	944.64	1,799.64	1,857.57	0.17	0.00	-0.17	
8,508.00	90.17	89.57	6,946.67	944.63	1,894.64	1,952.36	0.93	0.04	-0.93	
8,602.00	90.30	91.13	6,946.29	944.05	1,988.63	2,046.12	1.67	0.14	1.66	
8,698.00	90.27	91.30	6,945.81	942.02	2,084.61	2,141.76	0.18	-0.03	0.18	
8,791.00	90.34	90.55	6,945.31	940.52	2,177.59	2,234.44	0.81	0.08	-0.81	
8,886.00	90.10	90.32	6,944.95	939.80	2,272.59	2,329.19	0.35	-0.25	-0.24	
8,981.00	90.27	89.87	6,944.64	939.64	2,367.59	2,423.98	0.51	0.18	-0.47	
9,075.00	90.67	91.40	6,943.87	938.60	2,461.58	2,517.69	1.68	0.43	1.63	
9,169.00	90.13	92.63	6,943.22	935.29	2,555.52	2,611.21	1.43	-0.57	1.31	
9,263.00	90.30	92.35	6,942.86	931.21	2,649.43	2,704.66	0.35	0.18	-0.30	
9,359.00	89.06	92.76	6,943.40	926.93	2,745.33	2,800.07	1.36	-1.29	0.43	
9,453.00	89.09	92.28	6,944.92	922.80	2,839.22	2,893.50	0.51	0.03	-0.51	
9,547.00	88.83	92.40	6,946.62	918.96	2,933.13	2,986.95	0.30	-0.28	0.13	
9,642.00	88.89	91.82	6,948.51	915.46	3,028.05	3,081.44	0.61	0.06	-0.61	
9,737.00	88.69	91.68	6,950.52	912.56	3,122.98	3,175.98	0.26	-0.21	-0.15	
9,833.00	89.73	90.93	6,951.84	910.37	3,218.94	3,271.59	1.34	1.08	-0.78	
9,928.00	89.80	90.74	6,952.23	908.99	3,313.93	3,366.29	0.21	0.07	-0.20	
10,024.00	89.40	90.51	6,952.90	907.94	3,409.93	3,462.01	0.48	-0.42	-0.24	
10,119.00	89.46	91.03	6,953.85	906.67	3,504.91	3,556.71	0.55	0.06	0.55	
10,215.00	90.50	91.08	6,953.88	904.90	3,600.89	3,652.37	1.08	1.08	0.05	
10,308.00	90.50	91.30	6,953.07	902.97	3,693.87	3,745.02	0.24	0.00	0.24	
10,404.00	90.50	90.93	6,952.23	901.10	3,789.85	3,840.67	0.39	0.00	-0.39	
10,501.00	90.90	90.34	6,951.05	900.02	3,886.83	3,937.38	0.73	0.41	-0.61	
10,597.00	90.67	90.32	6,949.73	899.47	3,982.82	4,033.12	0.24	-0.24	-0.02	
10,692.00	90.40	89.78	6,948.84	899.39	4,077.82	4,127.91	0.64	-0.28	-0.57	
10,786.00	90.34	89.31	6,948.24	900.14	4,171.81	4,221.75	0.50	-0.06	-0.50	
10,881.00	90.44	88.44	6,947.59	902.00	4,266.79	4,316.65	0.92	0.11	-0.92	
10,973.00	89.83	89.28	6,947.37	903.83	4,358.77	4,408.55	1.13	-0.66	0.91	
11,067.00	90.47	89.64	6,947.13	904.72	4,452.77	4,502.41	0.78	0.68	0.38	
11,161.00	90.84	90.89	6,946.05	904.28	4,546.76	4,596.17	1.39	0.39	1.33	
11,256.00	89.56	91.94	6,945.72	901.94	4,641.73	4,690.78	1.74	-1.35	1.11	
11,350.00	89.56	91.81	6,946.44	898.86	4,735.67	4,784.32	0.14	0.00	-0.14	
11,446.00	89.60	91.37	6,947.15	896.20	4,831.63	4,879.90	0.46	0.04	-0.46	
11,541.00	89.30	90.86	6,948.06	894.35	4,926.61	4,974.55	0.62	-0.32	-0.54	
11,636.00	89.43	90.49	6,949.11	893.23	5,021.60	5,069.27	0.41	0.14	-0.39	
11,730.00	89.73	90.07	6,949.80	892.77	5,115.59	5,163.03	0.55	0.32	-0.45	
11,825.00	89.60	89.45	6,950.36	893.17	5,210.59	5,257.85	0.67	-0.14	-0.65	
11,921.00	90.27	90.05	6,950.47	893.59	5,306.59	5,353.67	0.94	0.70	0.63	
12,015.00	90.67	89.67	6,949.69	893.82	5,400.58	5,447.48	0.59	0.43	-0.40	
12,110.00	90.54	90.86	6,948.69	893.38	5,495.58	5,542.24	1.26	-0.14	1.25	
12,207.00	90.67	90.67	6,947.67	892.08	5,592.56	5,638.93	0.24	0.13	-0.20	
12,303.00	90.97	89.95	6,946.29	891.56	5,688.55	5,734.68	0.81	0.31	-0.75	



Lonestar Consulting, LLC

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Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	edm

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
12,398.00	90.37	91.12	6,945.18	890.68	5,783.54	5,829.41	1.38	-0.63	1.23	
12,493.00	89.93	92.26	6,944.93	887.87	5,878.49	5,923.98	1.29	-0.46	1.20	
12,588.00	89.97	91.96	6,945.02	884.38	5,973.43	6,018.48	0.32	0.04	-0.32	
12,683.00	88.62	92.20	6,946.19	880.93	6,068.36	6,112.98	1.44	-1.42	0.25	
12,777.00	88.89	91.76	6,948.23	877.68	6,162.28	6,206.49	0.55	0.29	-0.47	
12,873.00	89.03	91.47	6,949.97	874.98	6,258.23	6,302.05	0.34	0.15	-0.30	
12,968.00	89.30	91.10	6,951.35	872.85	6,353.19	6,396.68	0.48	0.28	-0.39	
13,062.00	89.46	90.58	6,952.37	871.47	6,447.17	6,490.37	0.58	0.17	-0.55	
13,156.00	89.70	89.91	6,953.06	871.07	6,541.17	6,584.14	0.76	0.26	-0.71	
13,251.00	90.00	89.18	6,953.31	871.82	6,636.17	6,678.98	0.83	0.32	-0.77	
13,346.00	89.87	88.68	6,953.42	873.60	6,731.15	6,773.87	0.54	-0.14	-0.53	
13,441.00	89.77	88.93	6,953.72	875.58	6,826.13	6,868.78	0.28	-0.11	0.26	
13,537.00	90.00	88.17	6,953.91	878.01	6,922.10	6,964.70	0.83	0.24	-0.79	
13,631.00	90.13	89.08	6,953.80	880.26	7,016.07	7,058.62	0.98	0.14	0.97	
13,726.00	90.20	88.78	6,953.53	882.04	7,111.05	7,153.51	0.32	0.07	-0.32	
13,821.00	90.10	88.98	6,953.28	883.89	7,206.03	7,248.41	0.24	-0.11	0.21	
13,915.00	89.73	89.40	6,953.42	885.22	7,300.02	7,342.29	0.60	-0.39	0.45	
14,013.00	89.70	89.16	6,953.91	886.45	7,398.01	7,440.15	0.25	-0.03	-0.24	
14,107.00	90.54	89.92	6,953.71	887.21	7,492.01	7,533.99	1.21	0.89	0.81	
14,202.00	90.94	90.23	6,952.48	887.08	7,587.00	7,628.77	0.53	0.42	0.33	
14,297.00	89.73	90.80	6,951.93	886.23	7,681.99	7,723.51	1.41	-1.27	0.60	
14,415.00	89.73	90.80	6,952.48	884.58	7,799.98	7,841.13	0.00	0.00	0.00	

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
428.00	428.00	-0.82	1.20	First Surface MWD Survey	
6,302.00	6,246.43	765.73	127.58	Last Surface MWD Survey	
6,396.00	6,340.03	774.15	129.08	First Curve MWD Survey	
7,439.00	6,940.11	941.84	826.20	Last Curve MWD Survey	
7,532.00	6,939.67	948.82	918.92	First Lateral MWD Survey	
14,297.00	6,951.93	886.23	7,681.99	Last Lateral MWD Survey	
14,415.00	6,952.48	884.58	7,799.98	Projection to TD	

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 159713

ACKNOWLEDGMENTS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 159713
	Action Type: [C-104] Completion Packet (C-104C)

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.

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CONDITIONS

Action 159713

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	Action Number: 159713
	Action Type: [C-104] Completion Packet (C-104C)

CONDITIONS

Created By	Condition	Condition Date
kpickford	None	11/17/2022