

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 30-039-31406	⁵ Pool Name Basin Mancos	⁶ Pool Code 97232	
⁷ Property Code 320608	⁸ Property Name Rosa Unit	⁹ Well Number 658H	

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
K	30	31N	5W	3	2317	FSL	947	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
L	26	31N	6W		2643	FSL	171	FWL	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 4/06/2022	²² Ready Date ~9/19/2022	²³ TD 17191' MD / 6,940' TVD	²⁴ PBTD 17086' MD / 6941' TVD	²⁵ Perforations ~7318' MD / ~17019' MD ~6975' TVD / ~6942' 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	339'		371sx (75.9bbls - 427cf)	
12-1/4"	9-5/8", 43.5#, N-80	6256'		1714sx (609bbls - 3942cf) DV @ 4666' & DV @ 3109'	
8-1/2"	5 1/2", 20#, P-110	17,177'		2312sx (630bbls - 3537cf)	
	2 7/8", 6.5#, J-55	pending			

V. Well Test Data

³¹ Date New Oil	³² Gas Delivery Date ~9/19/2022	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:

Etta Trujillo

Printed name:

Etta Trujillo

Title:

Regulatory Specialist

E-mail Address:

etrujillo@logosresourcesllc.com

Date:

9/16/2022

Phone:

505-324-4154

OIL CONSERVATION DIVISION	
Approved by:	
Title:	
Approval Date:	

District I
 4625 North Central Avenue, Albuquerque, NM 87107
 Phone: (505) 393-6161 Fax: (505) 393-0720

District II
 811 S. First Street, Artesia, NM 88210
 Phone: (505) 748-1283 Fax: (505) 748-9720

District III
 1000 Rio Brazos Road, Aztec, NM 87410
 Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
 1220 S. St. Francis Drive, Santa Fe, NM 87505
 Phone: (505) 476-3460 Fax: (505) 476-3462

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

Submit one copy to
 Appropriate District Office

AMENDED REPORT
 As-Drilled

17 OPERATOR CERTIFICATION Page 2 of 14
 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 8/8/2022
 Printed Name Etta Trujillo
 E-mail Address etrujillo@logosresourcesllc.com

AS-DRILLED WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-039-31406		2 Pool Code 97232		3 Pool Name BASIN MANCOS	
4 Property Code 320608		5 Property Name ROSA UNIT		6 Well Number 658H	
7 OGRID No. 289408		8 Operator Name LOGOS OPERATING, LLC		9 Elevation 6394'	

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
K	30	31N	5W	3	2317	SOUTH	947	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
L	26	31N	6W		2643	SOUTH	171	WEST	RIO ARRIBA

12 Dedicated Acres 1649.96	13 Joint or Infill	14 Consolidation Code	15 Order No. R-13457
--------------------------------------	--------------------	-----------------------	--------------------------------

T31N R5W, Section 30 : Lots 1 - 4, E/2
 T31N R6W, Section 25 : Lots 1 - 4, W/2 E/2, W/2
 T31N R6W, Section 26 : Entire Section

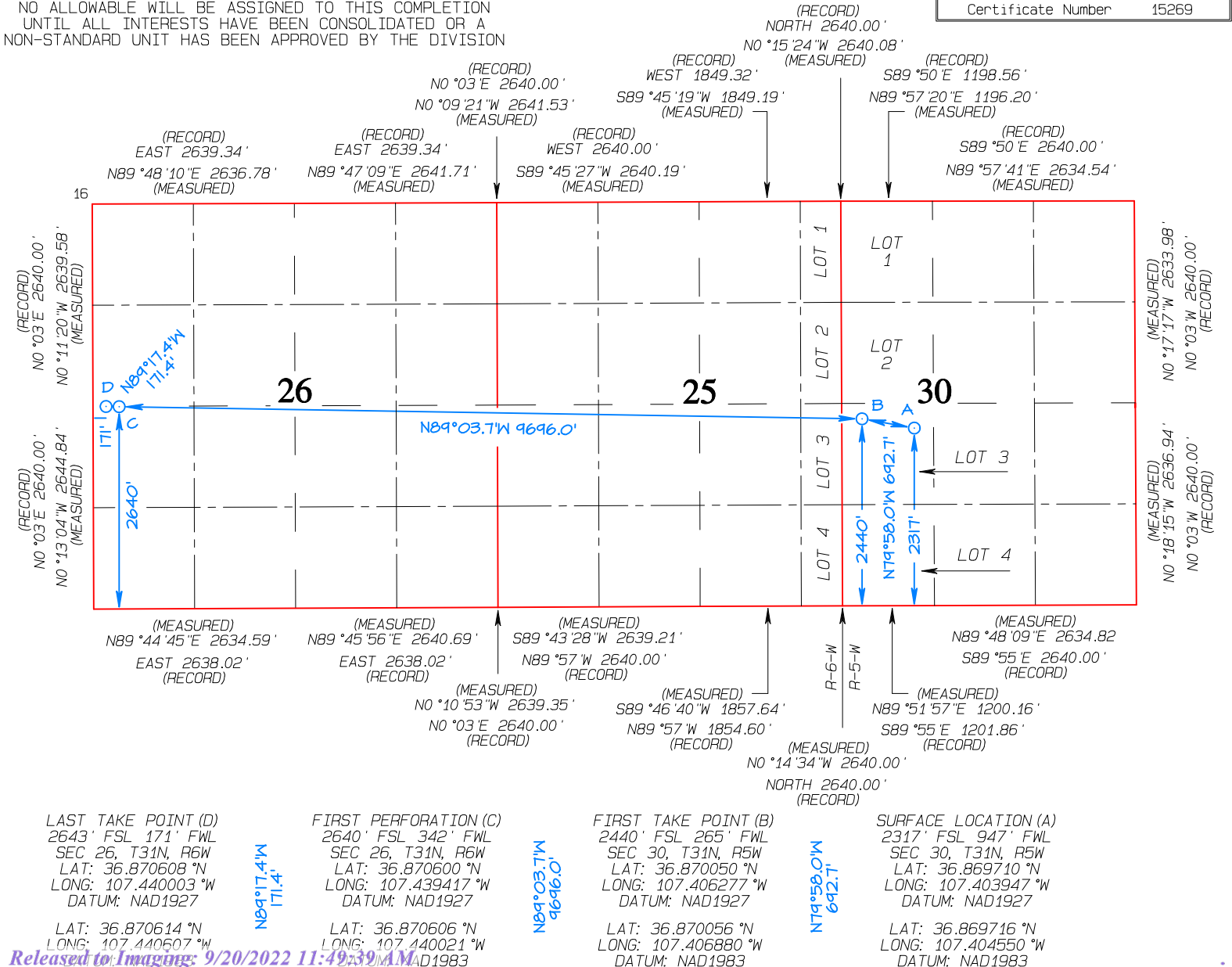
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION
 UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A
 NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

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: AUGUST 8, 2022
 Survey Date: SEPTEMBER 3, 2015

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
 Certificate Number 15269



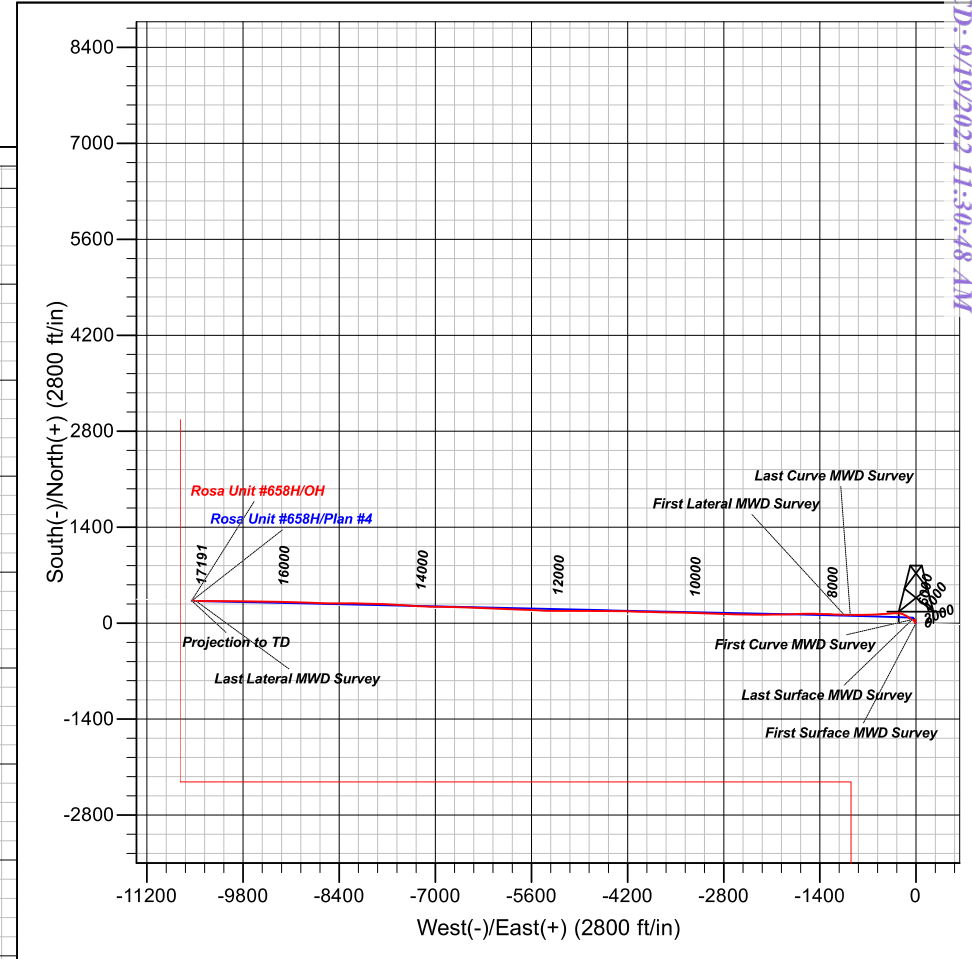
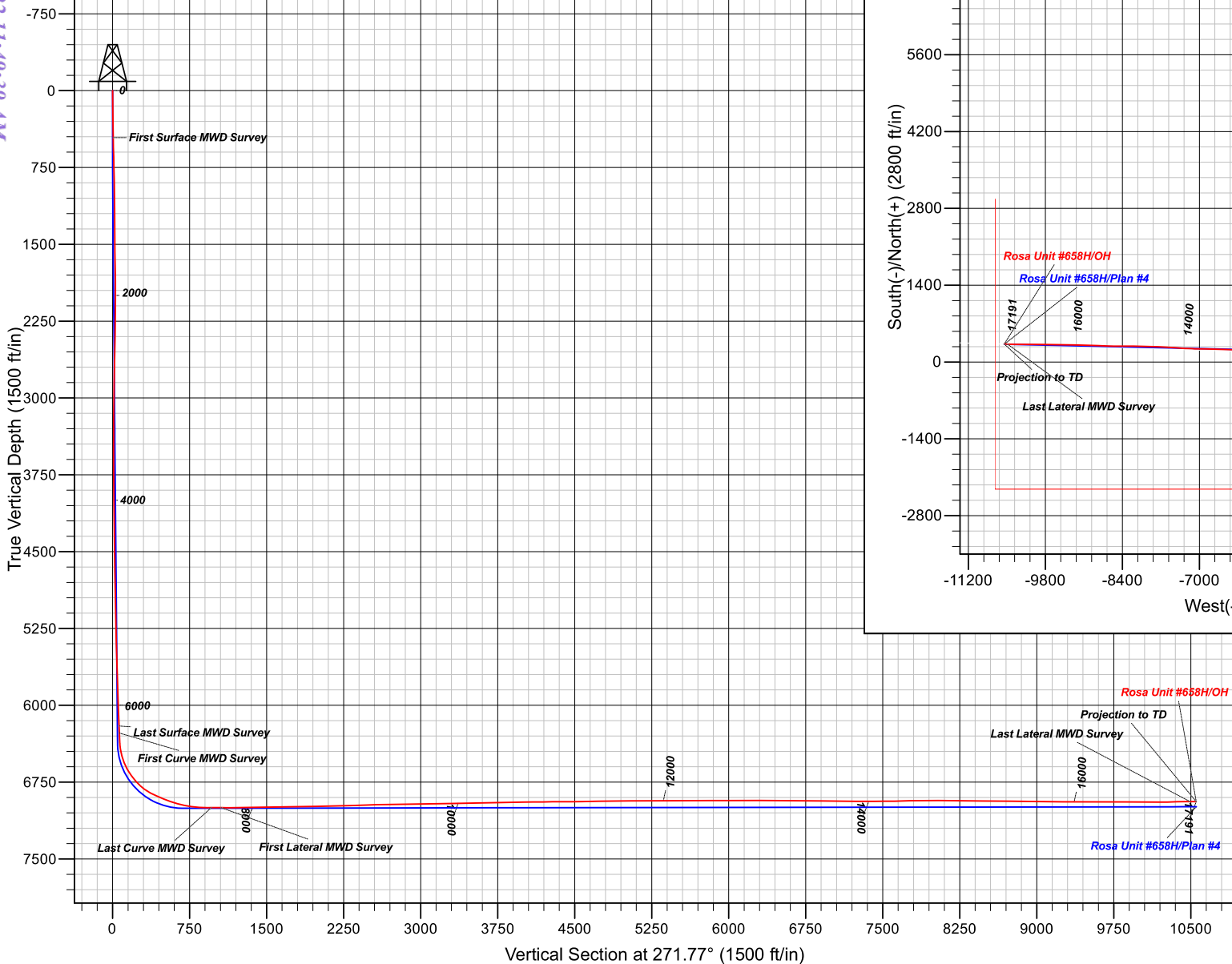


Company Name: Logos Operating LLC
 Project: Rio Arriba, NM NAD83
 Site: Rosa Unit 30
 Well: Rosa Unit #658H
 Wellbore: OH



WELL DETAILS: Rosa Unit #658H

+N/-S	+E/-W	GL 6394' & RKB 24.5' @ 6418.50ft (Ensign T223)	6394.00			
		Northing	Easting	Latitude	Longitude	
0.00	0.00	2136182.63	2848513.55	36.8697160	-107.4045499	A1 (658H)



Design: OH (Rosa Unit #658H/OH)
Created By: Janie Collins Date: 12:05, July 14 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 30

Rosa Unit #658H - Slot A1 (658H)

OH

Design: OH

Standard Survey Report

14 July, 2022





Lonestar Consulting, LLC

Survey Report



Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #658H - Slot A1 (658H)
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6394' & RKB 24.5' @ 6418.50ft (Ensign T223)
Site:	Rosa Unit 30	MD Reference:	GL 6394' & RKB 24.5' @ 6418.50ft (Ensign T223)
Well:	Rosa Unit #658H	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 30				
Site Position:		Northing:	2,136,112.13 usft	Latitude:	36.8695220
From:	Lat/Long	Easting:	2,848,540.75 usft	Longitude:	-107.4044580
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in		

Well	Rosa Unit #658H - Slot A1 (658H)					
Well Position	+N/-S	0.00 ft	Northing:	2,136,182.63 usft	Latitude:	36.8697159
	+E/-W	0.00 ft	Easting:	2,848,513.55 usft	Longitude:	-107.4045499
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,394.00 ft
Grid Convergence:		0.26 °				

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2022	4/18/2022	8.60	63.32	49,587.00000000

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	271.77	

Survey Program	Date	7/14/2022			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
459.00	6,205.00	Survey #1 - Surface MWD Survey (OH)	MWD+HDGM	OWSG MWD + HDGM	
6,274.00	7,595.00	Survey #2 - Curve MWD Survey (OH)	MWD+HDGM	OWSG MWD + HDGM	
7,690.00	17,191.00	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	0.00
459.00	1.16	269.16	458.97	-0.07	-4.65	4.64	0.25	0.25	0.00	
554.00	1.47	254.58	553.94	-0.41	-6.78	6.77	0.48	0.33	-15.35	
649.00	1.56	265.18	648.91	-0.84	-9.25	9.21	0.31	0.09	11.16	
744.00	1.75	274.58	743.87	-0.83	-11.98	11.95	0.35	0.20	9.89	
829.00	1.69	312.12	828.84	0.11	-14.20	14.20	1.30	-0.07	44.16	



Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #658H - Slot A1 (658H)
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6394' & RKB 24.5' @ 6418.50ft (Ensign T223)
Site:	Rosa Unit 30	MD Reference:	GL 6394' & RKB 24.5' @ 6418.50ft (Ensign T223)
Well:	Rosa Unit #658H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	

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)	
918.00	1.83	320.20	917.80	2.08	-16.09	16.14	0.32	0.16	9.08	
1,007.00	1.94	351.29	1,006.75	4.67	-17.22	17.36	1.14	0.12	34.93	
1,098.00	1.78	351.09	1,097.70	7.58	-17.68	17.90	0.18	-0.18	-0.22	
1,189.00	2.73	353.95	1,188.63	11.14	-18.12	18.46	1.05	1.04	3.14	
1,284.00	1.72	349.82	1,283.56	14.79	-18.61	19.06	1.08	-1.06	-4.35	
1,379.00	1.60	350.90	1,378.52	17.50	-19.08	19.61	0.13	-0.13	1.14	
1,475.00	1.98	342.87	1,474.47	20.41	-19.78	20.40	0.47	0.40	-8.36	
1,569.00	1.67	327.27	1,568.42	23.11	-21.00	21.70	0.62	-0.33	-16.60	
1,663.00	0.93	280.35	1,662.40	24.40	-22.49	23.23	1.32	-0.79	-49.91	
1,758.00	1.01	249.63	1,757.39	24.25	-24.03	24.77	0.55	0.08	-32.34	
1,853.00	0.94	240.01	1,852.38	23.57	-25.49	26.21	0.19	-0.07	-10.13	
1,948.00	0.37	180.46	1,947.37	22.87	-26.17	26.86	0.86	-0.60	-62.68	
2,044.00	0.37	140.44	2,043.37	22.32	-25.97	26.65	0.26	0.00	-41.69	
2,139.00	0.51	95.76	2,138.37	22.05	-25.36	26.02	0.38	0.15	-47.03	
2,234.00	0.80	91.96	2,233.36	21.98	-24.27	24.94	0.31	0.31	-4.00	
2,330.00	0.93	56.87	2,329.35	22.38	-22.95	23.63	0.56	0.14	-36.55	
2,425.00	1.25	48.32	2,424.33	23.49	-21.53	22.25	0.38	0.34	-9.00	
2,520.00	1.90	41.42	2,519.29	25.36	-19.71	20.49	0.71	0.68	-7.26	
2,615.00	1.84	34.61	2,614.24	27.80	-17.81	18.66	0.24	-0.06	-7.17	
2,710.00	1.79	46.41	2,709.19	30.08	-15.87	16.79	0.40	-0.05	12.42	
2,806.00	1.80	40.77	2,805.14	32.25	-13.80	14.78	0.18	0.01	-5.87	
2,902.00	1.60	43.88	2,901.10	34.36	-11.88	12.94	0.23	-0.21	3.24	
2,996.00	1.00	22.82	2,995.08	36.06	-10.65	11.76	0.81	-0.64	-22.40	
3,092.00	0.93	14.32	3,091.06	37.59	-10.14	11.29	0.17	-0.07	-8.85	
3,188.00	0.48	34.94	3,187.06	38.68	-9.71	10.90	0.53	-0.47	21.48	
3,283.00	0.83	143.26	3,282.05	38.45	-9.07	10.26	1.14	0.37	114.02	
3,378.00	0.75	128.62	3,377.04	37.51	-8.18	9.33	0.23	-0.08	-15.41	
3,473.00	0.60	62.37	3,472.04	37.35	-7.25	8.40	0.79	-0.16	-69.74	
3,568.00	0.94	2.26	3,567.03	38.36	-6.78	7.96	0.87	0.36	-63.27	
3,664.00	1.52	356.25	3,663.01	40.42	-6.83	8.08	0.62	0.60	-6.26	
3,759.00	1.26	344.87	3,757.98	42.69	-7.19	8.50	0.40	-0.27	-11.98	
3,854.00	1.09	331.59	3,852.96	44.49	-7.89	9.26	0.34	-0.18	-13.98	
3,950.00	0.84	316.15	3,948.95	45.80	-8.81	10.22	0.37	-0.26	-16.08	
4,044.00	0.82	291.07	4,042.94	46.54	-9.92	11.35	0.38	-0.02	-26.68	
4,140.00	0.62	264.05	4,138.93	46.73	-11.07	12.51	0.40	-0.21	-28.15	
4,235.00	1.01	307.55	4,233.92	47.19	-12.25	13.70	0.74	0.41	45.79	
4,330.00	1.40	307.81	4,328.90	48.41	-13.83	15.32	0.41	0.41	0.27	
4,425.00	1.03	292.94	4,423.88	49.45	-15.53	17.05	0.51	-0.39	-15.65	
4,520.00	0.99	269.53	4,518.87	49.78	-17.14	18.67	0.43	-0.04	-24.64	
4,615.00	1.10	276.42	4,613.85	49.88	-18.87	20.40	0.18	0.12	7.25	
4,711.00	1.19	294.25	4,709.83	50.39	-20.69	22.24	0.38	0.09	18.57	
4,806.00	0.99	292.55	4,804.82	51.11	-22.35	23.92	0.21	-0.21	-1.79	



Lonestar Consulting, LLC

Survey Report



Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #658H - Slot A1 (658H)
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6394' & RKB 24.5' @ 6418.50ft (Ensign T223)
Site:	Rosa Unit 30	MD Reference:	GL 6394' & RKB 24.5' @ 6418.50ft (Ensign T223)
Well:	Rosa Unit #658H	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)	
4,901.00	1.02	256.50	4,899.80	51.22	-23.93	25.50	0.66	0.03	-37.95	
4,996.00	0.85	234.51	4,994.79	50.62	-25.32	26.88	0.41	-0.18	-23.15	
5,104.00	1.26	244.08	5,102.77	49.63	-27.04	28.56	0.41	0.38	8.86	
5,199.00	1.75	241.97	5,197.74	48.50	-29.26	30.75	0.52	0.52	-2.22	
5,295.00	1.65	239.99	5,293.70	47.12	-31.75	33.19	0.12	-0.10	-2.06	
5,390.00	1.68	244.71	5,388.66	45.84	-34.20	35.60	0.15	0.03	4.97	
5,453.00	1.55	251.04	5,451.63	45.17	-35.84	37.22	0.35	-0.21	10.05	
5,549.00	1.40	290.30	5,547.60	45.15	-38.17	39.54	1.04	-0.16	40.90	
5,612.00	1.73	288.01	5,610.58	45.71	-39.79	41.19	0.53	0.52	-3.63	
5,675.00	1.73	290.45	5,673.55	46.34	-41.59	43.00	0.12	0.00	3.87	
5,770.00	1.63	262.13	5,768.51	46.65	-44.27	45.69	0.87	-0.11	-29.81	
5,834.00	1.75	271.07	5,832.48	46.55	-46.15	47.57	0.45	0.19	13.97	
5,897.00	2.05	276.35	5,895.45	46.69	-48.23	49.65	0.55	0.48	8.38	
5,961.00	2.19	275.98	5,959.41	46.94	-50.58	52.01	0.22	0.22	-0.58	
6,025.00	2.48	280.66	6,023.35	47.33	-53.16	54.60	0.54	0.45	7.31	
6,088.00	2.55	287.99	6,086.29	48.01	-55.83	57.29	0.52	0.11	11.63	
6,152.00	2.50	294.96	6,150.23	49.04	-58.45	59.94	0.49	-0.08	10.89	
6,205.00	2.29	290.99	6,203.18	49.91	-60.49	62.00	0.50	-0.40	-7.49	
6,274.00	2.65	285.09	6,272.12	50.82	-63.32	64.86	0.64	0.52	-8.55	
6,369.00	2.44	284.61	6,367.03	51.90	-67.39	68.97	0.22	-0.22	-0.51	
6,465.00	15.15	306.58	6,461.72	59.92	-79.50	81.31	13.46	13.24	22.89	
6,559.00	25.22	309.62	6,549.83	80.07	-104.85	107.28	10.77	10.71	3.23	
6,654.00	34.40	302.23	6,632.20	107.35	-143.24	146.49	10.39	9.66	-7.78	
6,749.00	39.13	290.53	6,708.38	132.22	-194.11	198.10	8.88	4.98	-12.32	
6,844.00	45.60	274.59	6,778.74	145.51	-256.25	260.63	13.16	6.81	-16.78	
6,939.00	58.14	265.37	6,837.36	144.96	-330.69	335.01	15.23	13.20	-9.71	
7,034.00	65.96	265.93	6,881.85	138.62	-414.30	418.39	8.25	8.23	0.59	
7,128.00	68.92	266.31	6,917.91	132.75	-500.90	504.76	3.17	3.15	0.40	
7,223.00	71.50	266.48	6,950.07	127.13	-590.11	593.75	2.72	2.72	0.18	
7,317.00	77.54	269.15	6,975.15	123.71	-680.58	684.08	6.98	6.43	2.84	
7,407.00	82.58	268.82	6,990.68	122.13	-769.19	772.59	5.61	5.60	-0.37	
7,501.00	88.46	269.60	6,998.02	120.85	-862.84	866.16	6.31	6.26	0.83	
7,595.00	89.96	271.29	6,999.32	121.58	-956.82	960.12	2.40	1.60	1.80	
7,690.00	89.06	271.77	7,000.13	124.11	-1,051.79	1,055.12	1.07	-0.95	0.51	
7,784.00	90.27	271.74	7,000.68	126.99	-1,145.74	1,149.11	1.29	1.29	-0.03	
7,878.00	91.10	272.89	6,999.56	130.79	-1,239.65	1,243.10	1.51	0.88	1.22	
7,973.00	91.91	271.14	6,997.06	134.13	-1,334.55	1,338.06	2.03	0.85	-1.84	
8,067.00	90.94	270.96	6,994.72	135.85	-1,428.51	1,432.02	1.05	-1.03	-0.19	
8,162.00	89.87	271.49	6,994.05	137.88	-1,523.49	1,527.02	1.26	-1.13	0.56	
8,257.00	90.07	269.14	6,994.10	138.40	-1,618.48	1,621.98	2.48	0.21	-2.47	
8,352.00	90.67	267.29	6,993.49	135.44	-1,713.43	1,716.79	2.05	0.63	-1.95	
8,447.00	90.60	267.57	6,992.44	131.18	-1,808.32	1,811.51	0.30	-0.07	0.29	



Lonestar Consulting, LLC

Survey Report



Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #658H - Slot A1 (658H)
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6394' & RKB 24.5' @ 6418.50ft (Ensign T223)
Site:	Rosa Unit 30	MD Reference:	GL 6394' & RKB 24.5' @ 6418.50ft (Ensign T223)
Well:	Rosa Unit #658H	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)	
8,542.00	91.94	268.97	6,990.33	128.32	-1,903.25	1,906.31	2.04	1.41	1.47	
8,637.00	91.44	269.47	6,987.53	127.02	-1,998.20	2,001.17	0.74	-0.53	0.53	
8,732.00	91.91	269.72	6,984.75	126.35	-2,093.16	2,096.06	0.56	0.49	0.26	
8,828.00	91.54	269.52	6,981.86	125.72	-2,189.11	2,191.95	0.44	-0.39	-0.21	
8,923.00	91.87	269.88	6,979.03	125.22	-2,284.07	2,286.85	0.51	0.35	0.38	
9,017.00	91.28	269.35	6,976.45	124.59	-2,378.03	2,380.75	0.84	-0.63	-0.56	
9,111.00	92.38	271.15	6,973.45	125.00	-2,471.98	2,474.66	2.24	1.17	1.91	
9,207.00	91.17	271.16	6,970.48	126.93	-2,567.91	2,570.61	1.26	-1.26	0.01	
9,302.00	90.40	271.96	6,969.17	129.52	-2,662.86	2,665.59	1.17	-0.81	0.84	
9,397.00	90.50	272.28	6,968.43	133.03	-2,757.80	2,760.59	0.35	0.11	0.34	
9,492.00	91.91	272.89	6,966.43	137.31	-2,852.68	2,855.56	1.62	1.48	0.64	
9,587.00	91.07	271.94	6,963.96	141.32	-2,947.56	2,950.52	1.33	-0.88	-1.00	
9,683.00	89.87	271.50	6,963.17	144.20	-3,043.51	3,046.51	1.33	-1.25	-0.46	
9,778.00	91.37	272.00	6,962.14	147.10	-3,138.46	3,141.50	1.66	1.58	0.53	
9,873.00	90.54	271.06	6,960.56	149.63	-3,233.41	3,236.49	1.32	-0.87	-0.99	
9,969.00	91.84	271.39	6,958.57	151.69	-3,329.36	3,332.46	1.40	1.35	0.34	
10,064.00	91.20	270.91	6,956.05	153.59	-3,424.31	3,427.42	0.84	-0.67	-0.51	
10,159.00	90.27	270.59	6,954.83	154.83	-3,519.29	3,522.40	1.04	-0.98	-0.34	
10,254.00	90.87	271.28	6,953.88	156.38	-3,614.27	3,617.38	0.96	0.63	0.73	
10,350.00	91.34	271.81	6,952.03	158.97	-3,710.22	3,713.36	0.74	0.49	0.55	
10,445.00	90.50	272.04	6,950.51	162.16	-3,805.15	3,808.35	0.92	-0.88	0.24	
10,540.00	91.94	271.77	6,948.48	165.32	-3,900.08	3,903.32	1.54	1.52	-0.28	
10,636.00	91.24	271.29	6,945.82	167.88	-3,996.00	3,999.28	0.88	-0.73	-0.50	
10,731.00	90.30	271.44	6,944.54	170.15	-4,090.97	4,094.27	1.00	-0.99	0.16	
10,826.00	90.57	272.03	6,943.82	173.02	-4,185.92	4,189.27	0.68	0.28	0.62	
10,922.00	90.50	270.84	6,942.93	175.43	-4,281.89	4,285.26	1.24	-0.07	-1.24	
11,017.00	89.80	269.98	6,942.68	176.11	-4,376.88	4,380.23	1.17	-0.74	-0.91	
11,112.00	90.97	270.90	6,942.04	176.84	-4,471.87	4,475.20	1.57	1.23	0.97	
11,208.00	90.10	270.10	6,941.14	177.67	-4,567.86	4,571.17	1.23	-0.91	-0.83	
11,303.00	91.21	271.24	6,940.06	178.78	-4,662.85	4,666.15	1.67	1.17	1.20	
11,398.00	90.67	269.83	6,938.50	179.67	-4,757.83	4,761.11	1.59	-0.57	-1.48	
11,493.00	91.54	270.37	6,936.67	179.84	-4,852.81	4,856.05	1.08	0.92	0.57	
11,588.00	91.34	269.14	6,934.28	179.43	-4,947.78	4,950.96	1.31	-0.21	-1.29	
11,683.00	90.33	269.01	6,932.89	177.90	-5,042.75	5,045.84	1.07	-1.06	-0.14	
11,778.00	90.67	269.89	6,932.07	176.98	-5,137.74	5,140.76	0.99	0.36	0.93	
11,874.00	90.30	270.93	6,931.25	177.67	-5,233.74	5,236.73	1.15	-0.39	1.08	
11,969.00	89.97	272.26	6,931.03	180.32	-5,328.70	5,331.72	1.44	-0.35	1.40	
12,064.00	89.50	272.64	6,931.47	184.38	-5,423.61	5,426.72	0.64	-0.49	0.40	
12,159.00	88.90	271.98	6,932.79	188.21	-5,518.52	5,521.70	0.94	-0.63	-0.69	
12,254.00	90.13	272.70	6,933.60	192.08	-5,613.44	5,616.69	1.50	1.29	0.76	
12,350.00	91.14	272.64	6,932.53	196.56	-5,709.33	5,712.67	1.05	1.05	-0.06	
12,445.00	90.77	272.44	6,930.95	200.77	-5,804.22	5,807.65	0.44	-0.39	-0.21	



Lonestar Consulting, LLC

Survey Report



Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #658H - Slot A1 (658H)
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6394' & RKB 24.5' @ 6418.50ft (Ensign T223)
Site:	Rosa Unit 30	MD Reference:	GL 6394' & RKB 24.5' @ 6418.50ft (Ensign T223)
Well:	Rosa Unit #658H	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)	
12,540.00	89.90	272.33	6,930.40	204.72	-5,899.13	5,902.64	0.92	-0.92	-0.12	
12,635.00	89.53	272.47	6,930.87	208.70	-5,994.05	5,997.63	0.42	-0.39	0.15	
12,730.00	90.44	272.44	6,930.89	212.77	-6,088.96	6,092.63	0.96	0.96	-0.03	
12,825.00	90.37	272.50	6,930.22	216.86	-6,183.87	6,187.62	0.10	-0.07	0.06	
12,921.00	90.13	271.97	6,929.80	220.60	-6,279.80	6,283.61	0.61	-0.25	-0.55	
13,016.00	89.70	271.98	6,929.94	223.88	-6,374.74	6,378.61	0.45	-0.45	0.01	
13,111.00	89.60	271.79	6,930.52	227.00	-6,469.69	6,473.61	0.23	-0.11	-0.20	
13,206.00	89.57	271.77	6,931.21	229.95	-6,564.64	6,568.61	0.04	-0.03	-0.02	
13,300.00	89.77	272.17	6,931.75	233.18	-6,658.58	6,662.61	0.48	0.21	0.43	
13,396.00	89.73	272.11	6,932.17	236.77	-6,754.51	6,758.60	0.08	-0.04	-0.06	
13,491.00	89.33	271.71	6,932.95	239.94	-6,849.46	6,853.60	0.60	-0.42	-0.42	
13,586.00	88.90	270.85	6,934.42	242.06	-6,944.42	6,948.58	1.01	-0.45	-0.91	
13,680.00	88.46	270.32	6,936.58	243.02	-7,038.39	7,042.54	0.73	-0.47	-0.56	
13,776.00	89.90	271.66	6,937.96	244.68	-7,134.36	7,138.51	2.05	1.50	1.40	
13,871.00	89.70	272.07	6,938.29	247.77	-7,229.31	7,233.51	0.48	-0.21	0.43	
13,965.00	90.64	273.91	6,938.01	252.67	-7,323.18	7,327.49	2.20	1.00	1.96	
14,060.00	90.07	274.08	6,937.42	259.29	-7,417.94	7,422.41	0.63	-0.60	0.18	
14,156.00	90.84	273.62	6,936.66	265.73	-7,513.72	7,518.34	0.93	0.80	-0.48	
14,251.00	90.03	273.46	6,935.94	271.60	-7,608.54	7,613.30	0.87	-0.85	-0.17	
14,346.00	90.97	273.47	6,935.11	277.34	-7,703.36	7,708.25	0.99	0.99	0.01	
14,441.00	91.98	272.08	6,932.66	281.94	-7,798.21	7,803.20	1.81	1.06	-1.46	
14,535.00	91.47	271.74	6,929.83	285.07	-7,892.12	7,897.16	0.65	-0.54	-0.36	
14,630.00	89.56	270.03	6,928.98	286.54	-7,987.09	7,992.13	2.70	-2.01	-1.80	
14,726.00	89.26	269.93	6,929.97	286.50	-8,083.09	8,088.08	0.33	-0.31	-0.10	
14,821.00	88.80	269.83	6,931.58	286.31	-8,178.07	8,183.02	0.50	-0.48	-0.11	
15,011.00	89.90	270.76	6,933.73	287.28	-8,368.06	8,372.94	0.76	0.58	0.49	
15,106.00	88.76	270.54	6,934.84	288.36	-8,463.04	8,467.91	1.22	-1.20	-0.23	
15,201.00	89.93	271.58	6,935.93	290.12	-8,558.02	8,562.89	1.65	1.23	1.09	
15,295.00	89.90	272.14	6,936.07	293.17	-8,651.97	8,656.89	0.60	-0.03	0.60	
15,390.00	89.40	272.02	6,936.65	296.62	-8,746.90	8,751.89	0.54	-0.53	-0.13	
15,484.00	89.10	272.18	6,937.88	300.06	-8,840.83	8,845.88	0.36	-0.32	0.17	
15,580.00	89.50	271.69	6,939.05	303.30	-8,936.77	8,941.87	0.66	0.42	-0.51	
15,675.00	89.13	271.22	6,940.19	305.71	-9,031.73	9,036.86	0.63	-0.39	-0.49	
15,769.00	89.70	271.64	6,941.15	308.06	-9,125.69	9,130.86	0.75	0.61	0.45	
15,864.00	89.43	271.39	6,941.87	310.57	-9,220.66	9,225.85	0.39	-0.28	-0.26	
15,959.00	88.83	271.83	6,943.31	313.24	-9,315.61	9,320.84	0.78	-0.63	0.46	
16,054.00	90.13	271.24	6,944.17	315.79	-9,410.57	9,415.83	1.50	1.37	-0.62	
16,150.00	90.40	271.22	6,943.73	317.85	-9,506.55	9,511.83	0.28	0.28	-0.02	
16,244.00	90.23	270.47	6,943.21	319.23	-9,600.53	9,605.81	0.82	-0.18	-0.80	
16,340.00	89.87	270.52	6,943.13	320.06	-9,696.53	9,701.79	0.38	-0.38	0.05	
16,435.00	89.70	270.27	6,943.49	320.72	-9,791.53	9,796.76	0.32	-0.18	-0.26	
16,530.00	89.50	269.78	6,944.15	320.76	-9,886.52	9,891.71	0.56	-0.21	-0.52	



Lonestar Consulting, LLC

Survey Report



Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #658H - Slot A1 (658H)
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6394' & RKB 24.5' @ 6418.50ft (Ensign T223)
Site:	Rosa Unit 30	MD Reference:	GL 6394' & RKB 24.5' @ 6418.50ft (Ensign T223)
Well:	Rosa Unit #658H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	edm

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)
16,625.00	89.23	269.45	6,945.20	320.12	-9,981.52	9,986.64	0.45	-0.28	-0.35
16,720.00	90.00	270.73	6,945.84	320.27	-10,076.51	10,081.59	1.57	0.81	1.35
16,815.00	89.87	270.65	6,945.95	321.41	-10,171.50	10,176.58	0.16	-0.14	-0.08
16,910.00	91.44	271.16	6,944.86	322.91	-10,266.48	10,271.56	1.74	1.65	0.54
17,006.00	91.00	270.94	6,942.82	324.67	-10,362.44	10,367.53	0.51	-0.46	-0.23
17,101.00	90.54	271.26	6,941.54	326.50	-10,457.42	10,462.51	0.59	-0.48	0.34
17,131.00	90.48	271.11	6,941.27	327.12	-10,487.41	10,492.51	0.54	-0.20	-0.50
17,191.00	90.48	271.11	6,940.77	328.28	-10,547.40	10,552.50	0.00	0.00	0.00

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
658H BHL Rev 4 - hit/miss target - Shape - Point	0.00	0.00	6,991.00	326.77	-10,547.57	2,136,462.03	2,837,964.64	36.8706080	-107.4406091
- actual wellpath misses target center by 50.25ft at 17190.72ft MD (6940.77 TVD, 328.27 N, -10547.12 E)									
658H POE Rev 4 - hit/miss target - Shape - Point	0.00	0.00	7,006.00	102.80	-681.85	2,136,282.37	2,847,831.24	36.8699983	-107.4068810
- actual wellpath misses target center by 36.41ft at 7323.95ft MD (6976.63 TVD, 123.60 N, -687.37 E)									

Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
459.00	458.97	-0.07	-4.65	First Surface MWD Survey
6,205.00	6,203.18	49.91	-60.49	Last Surface MWD Survey
6,274.00	6,272.12	50.82	-63.32	First Curve MWD Survey
7,595.00	6,999.32	121.58	-956.82	Last Curve MWD Survey
7,690.00	7,000.13	124.11	-1,051.79	First Lateral MWD Survey
17,131.00	6,941.27	327.12	-10,487.41	Last Lateral MWD Survey
17,191.00	6,940.77	328.28	-10,547.40	Projection to TD

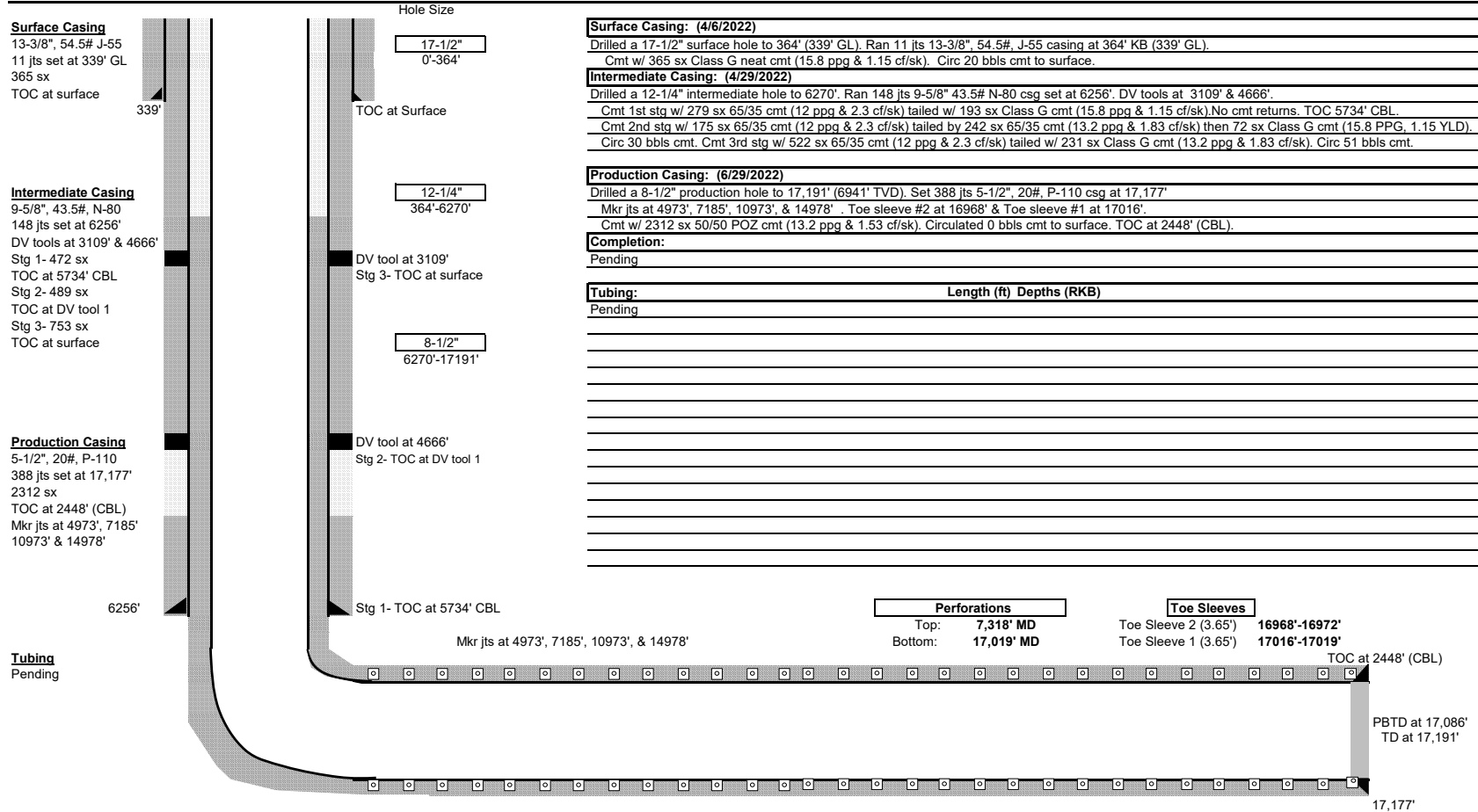
Checked By: _____ Approved By: _____ Date: _____



Well Name: Rosa Unit 658H
 Location: K - Sec 30, T31N, R05W, 2317' FSL, 947' FWL
 County: Rio Arriba
 API #: 30-039-31406
 Co-ordinates: 36.8697159, -107.4045499 NAD83
 Operator: LOGOS Operating, LLC

Wellbore Schematic
 Ground Elevation: 6394'
 KB Elevation: 6419'
 TD (TVD): 6941'
 TD (MD): 17191'
 PBTD: 17086'

Prepared By: 7/15/2022 Gomez
 Reviewed By: 8/1/2022 Moss
 Last Updated: 8/30/2022 Moss
 Spud Date: 4/6/2022
 Completion Date: _____
 Last Workover Date: _____



Formation Tops: (MD)			
Nacimiento	Surface	Chacra	4615'
Ojo Alamo	2524'	Cliff House	5434'
Kirtland	2650'	Menefee	5479'
Fruitland	3074'	Point Lookout	5672'
Pictured Cliffs	3434'	Mancos	6175'
Lewis	3527'		

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 144483

ACKNOWLEDGMENTS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 144483
	Action Type: [C-104] Completion Packet (C-104C)

ACKNOWLEDGMENTS

<input checked="" type="checkbox"/>	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
<input checked="" type="checkbox"/>	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

COMMENTS

Action 144483

COMMENTS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 144483
	Action Type: [C-104] Completion Packet (C-104C)

COMMENTS

Created By	Comment	Comment Date
jagarcia	Approved, John Garcia, Petroleum Engineer	9/20/2022

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

CONDITIONS

Action 144483

CONDITIONS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 144483
	Action Type: [C-104] Completion Packet (C-104C)

CONDITIONS

Created By	Condition	Condition Date
jagarcia	C-104RT expires 12/19/2022	9/20/2022