

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

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 Gas Allowable Green Completion	
⁴ API Number 30 - 0 39-31383	⁵ Pool Name Basin Mancos		⁶ Pool Code 97232
⁷ Property Code 320608	⁸ Property Name Rosa Unit		⁹ Well Number 656H

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
A	25	31N	6W	1	1068	FNL	289	FEL	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
E	28	31N	5W		1380	FNL	1199	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 G
373888	Harvest Four Corners, LLC 1755 Arroyo Dr. Bloomfield NM 87413	

IV. Well Completion Data

²¹ Spud Date 4/26/2019	²² Ready Date ~5/28/2021	²³ TD ~18031' MD / ~7020' TVD	²⁴ PBTD ~18000' MD / ~7020' TVD	²⁵ Perforations ~7620' MD / ~17994' MD ~7002' TVD / ~7020' TVD	²⁶ DHC, MC
²⁷ Hole Size		²⁸ Casing & Tubing Size	²⁹ Depth Set		³⁰ Sacks Cement
17-1/2"		13-3/8", 54.5#, J-55	331'		340sx (71bbls - 401cf)
12-1/4"		~9-5/8", 43.5#, N-80	Not yet ~6400		~1270sx (468bbls - 2625cf)
8 3/4"		~5 1/2", 20#, P-110	Not yet ~surface - ~18031'		~2962sx (609bbls-3420cf)
		~2 7/8", 6.5#, J-55	Not yet		

V. Well Test Data

³¹ Date New Oil	³² Gas Delivery Date ~5/28/2021	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: <i>Marie E Florez</i>		OIL CONSERVATION DIVISION	
Printed name: Marie E. Florez		Approved by: <i>Amy Fennusch</i>	
Title: Regulatory Specialist		Title: Data Compliance Manager	
E-mail Address: mflorez@logosresourcesllc.om		Approval Date: 5/27/21	
Date: 5/26/2021	Phone: 505-419-8420		

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

District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 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

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-31383		*Pool Code 97232	*Pool Name BASIN MANCOS
*Property Code 320608	*Property Name ROSA UNIT		*Well Number 656H
*OGRID No. 289406	*Operator Name LOGOS OPERATING, LLC		*Elevation 6372'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot 1st	Feet from the	North/South line	Feet from the	East/West line	County
A	25	31N	6W	1	1068	NORTH	289	EAST	RIO ARriba

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 1st	Feet from the	North/South line	Feet from the	East/West line	County
E	28	31N	5W		1380	NORTH	1199	WEST	RIO ARriba

¹² Dedicated Acres 1144.85	N/2 - Section 25, T31N, R6W N/2 - Sections 30, 29, 28 T31N, R5W	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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 unless 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 *Marie E. Florez* Date **04/08/2019**

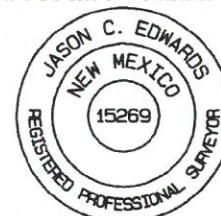
Printed Name
Marie E. Florez
E-mail Address
mflorez@logosresourcesllc.com

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.

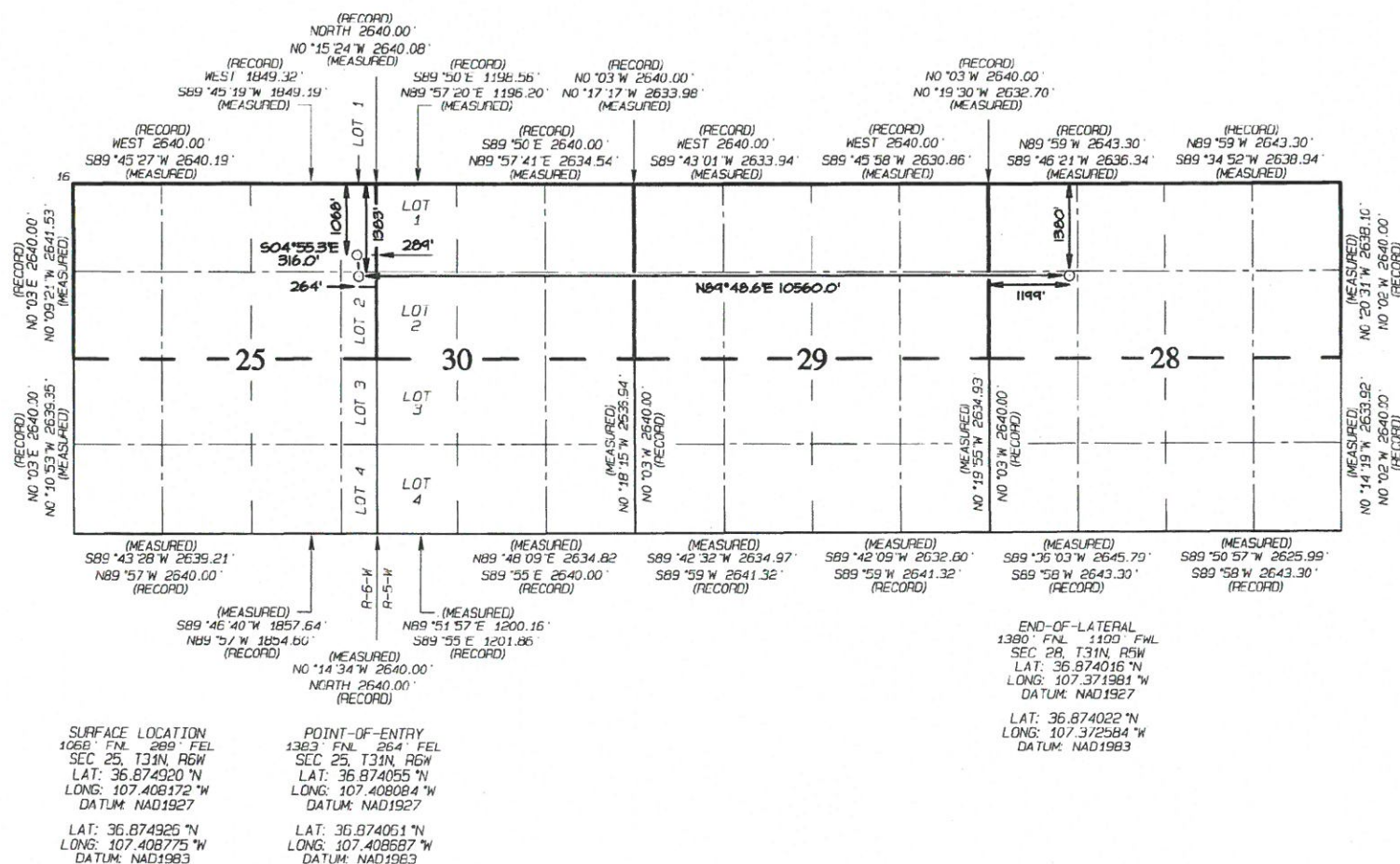
Date Revised: MARCH 23, 2019
Date of Survey: MARCH 15, 2019

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

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





Company: Logos Operating LLC
 Project: Rio Arriba, NM NAD83
 Site: Rosa Unit 29
 Well: Rosa Unit #656H
 Wellbore: OH
 Design: Plan #2

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



WELL DETAILS: Rosa Unit #656H

GL 6372' & RKB 25' @ 6397.00ft
 +N/-S +E/-W Northing Easting Latitude Longitude
 0.00 0.00 2138073.89 2847269.23 36.8749260 -107.4087750 B3 (656H)

Plan: Plan #2 (Rosa Unit #656H/OH)

Created By: Janie Collins Date: 12:33, January 13 2021



Azimuths to True N
 Magnetic North: 8

Magnetic F
 Strength: 49854
 Dip Angle: 63
 Date: 3/6/2
 Model: HC

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Rosa 656H POE Rev 1	7002.00	-415.03	175.78	2137659.65	2847446.86	36.8737860	-107.4081740
Rosa 656H BHL	7020.00	-326.96	10585.83	2137794.01	2857856.39	36.8740224	-107.3725836

SECTION DETAILS

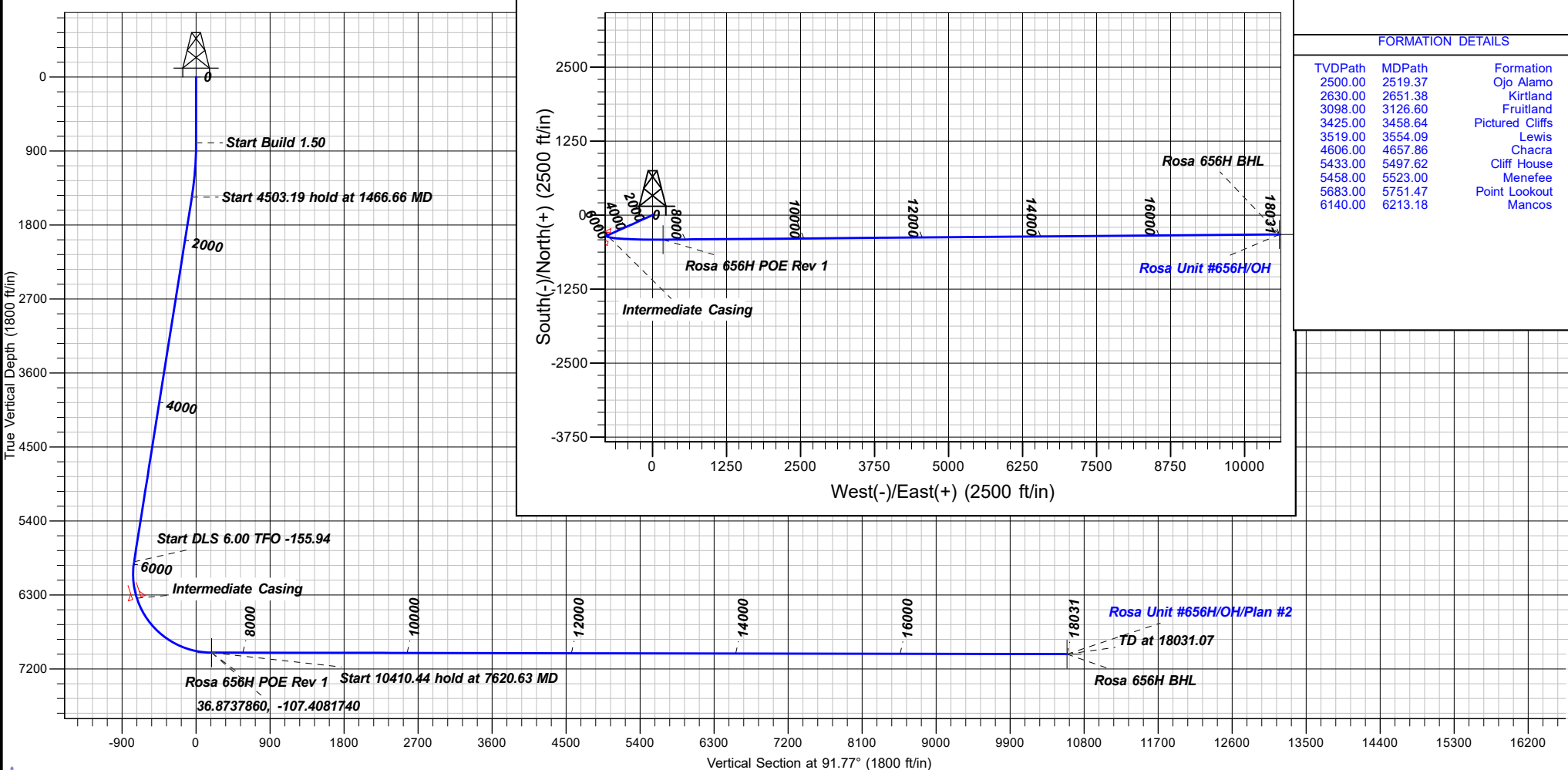
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	
1466.66	10.00	245.77	1463.28	-23.82	-52.92	1.50	245.77	-52.16	
5969.85	10.00	245.77	5898.06	-344.75	-765.99	0.00	0.00	-754.98	
7620.63	89.90	89.52	7002.00	-415.03	175.78	6.00	-155.94	188.8	Rosa 656H POE Rev 1
18031.07	89.90	89.52	7020.00	-326.96	10585.83	0.00	0.00	10590.87	Rosa 656H BHL

CASING DETAILS

TVD	MD	Name
6340.00	6418.27	Intermediate Casing

FORMATION DETAILS

TVDPath	MDPath	Formation
2500.00	2519.37	Ojo Alamo
2630.00	2651.38	Kirtland
3098.00	3126.60	Fruitland
3425.00	3458.64	Pictured Cliffs
3519.00	3554.09	Lewis
4606.00	4657.86	Chacra
5433.00	5497.62	Cliff House
5458.00	5523.00	Menefee
5683.00	5751.47	Point Lookout
6140.00	6213.18	Mancos





Logos Operating LLC

Rio Arriba, NM NAD83

Rosa Unit 29

Rosa Unit #656H - Slot B3 (656H)

OH

Plan: Plan #2

Standard Planning Report

13 January, 2021





Lonestar Consulting

Planning Report



Database:	EDM _16.0	Local Co-ordinate Reference:	Well Rosa Unit #656H - Slot B3 (656H)
Company:	Logos Operating LLC	TVD Reference:	GL 6372' & RKB 25' @ 6397.00ft
Project:	Rio Arriba, NM NAD83	MD Reference:	GL 6372' & RKB 25' @ 6397.00ft
Site:	Rosa Unit 29	North Reference:	True
Well:	Rosa Unit #656H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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 29					
Site Position:		Northing:	2,138,126.53	usft	Latitude:	36.8750715
From:	Map	Easting:	2,847,195.58	usft	Longitude:	-107.4090261
Position Uncertainty:	0.00	ft	Slot Radius:	13.200	in	

Well	Rosa Unit #656H - Slot B3 (656H)					
Well Position	+N/-S	0.00 ft	Northing:	2,138,073.89 usft	Latitude:	36.8749260
	+E/-W	0.00 ft	Easting:	2,847,269.24 usft	Longitude:	-107.4087750
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	6,372.00 ft
Grid Convergence:		0.25 °				

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	3/6/2019	8.88	63.43	49,854.20000000

Design	Plan #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	91.77

Plan Survey Tool Program	Date	1/13/2021		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	18,031.07 Plan #2 (OH)	MWD+HDGM	
			OWSG MWD + HDGM	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,466.66	10.00	245.77	1,463.28	-23.82	-52.92	1.50	1.50	0.00	245.77	
5,969.85	10.00	245.77	5,898.06	-344.75	-765.99	0.00	0.00	0.00	0.00	
7,620.63	89.90	89.52	7,002.00	-415.03	175.78	6.00	4.84	-9.47	-155.94	Rosa 656H POE Rev
18,031.07	89.90	89.52	7,020.00	-326.96	10,585.83	0.00	0.00	0.00	0.00	Rosa 656H BHL



Lonestar Consulting Planning Report



Database:	EDM _16.0	Local Co-ordinate Reference:	Well Rosa Unit #656H - Slot B3 (656H)
Company:	Logos Operating LLC	TVD Reference:	GL 6372' & RKB 25' @ 6397.00ft
Project:	Rio Arriba, NM NAD83	MD Reference:	GL 6372' & RKB 25' @ 6397.00ft
Site:	Rosa Unit 29	North Reference:	True
Well:	Rosa Unit #656H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned 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
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	1.50	245.77	899.99	-0.54	-1.19	-1.18	1.50	1.50	0.00
1,000.00	3.00	245.77	999.91	-2.15	-4.77	-4.70	1.50	1.50	0.00
1,100.00	4.50	245.77	1,099.69	-4.83	-10.74	-10.58	1.50	1.50	0.00
1,200.00	6.00	245.77	1,199.27	-8.59	-19.08	-18.81	1.50	1.50	0.00
1,300.00	7.50	245.77	1,298.57	-13.41	-29.80	-29.37	1.50	1.50	0.00
1,400.00	9.00	245.77	1,397.54	-19.30	-42.88	-42.27	1.50	1.50	0.00
1,466.66	10.00	245.77	1,463.28	-23.82	-52.92	-52.16	1.50	1.50	0.00
1,500.00	10.00	245.77	1,496.11	-26.19	-58.20	-57.36	0.00	0.00	0.00
1,600.00	10.00	245.77	1,594.59	-33.32	-74.03	-72.97	0.00	0.00	0.00
1,700.00	10.00	245.77	1,693.08	-40.45	-89.87	-88.57	0.00	0.00	0.00
1,800.00	10.00	245.77	1,791.56	-47.57	-105.70	-104.18	0.00	0.00	0.00
1,900.00	10.00	245.77	1,890.04	-54.70	-121.54	-119.79	0.00	0.00	0.00
2,000.00	10.00	245.77	1,988.52	-61.83	-137.37	-135.40	0.00	0.00	0.00
2,100.00	10.00	245.77	2,087.00	-68.95	-153.21	-151.00	0.00	0.00	0.00
2,200.00	10.00	245.77	2,185.48	-76.08	-169.04	-166.61	0.00	0.00	0.00
2,300.00	10.00	245.77	2,283.96	-83.21	-184.87	-182.22	0.00	0.00	0.00
2,400.00	10.00	245.77	2,382.44	-90.33	-200.71	-197.83	0.00	0.00	0.00
2,500.00	10.00	245.77	2,480.92	-97.46	-216.54	-213.43	0.00	0.00	0.00
2,600.00	10.00	245.77	2,579.40	-104.59	-232.38	-229.04	0.00	0.00	0.00
2,700.00	10.00	245.77	2,677.88	-111.71	-248.21	-244.65	0.00	0.00	0.00
2,800.00	10.00	245.77	2,776.36	-118.84	-264.05	-260.25	0.00	0.00	0.00
2,900.00	10.00	245.77	2,874.85	-125.97	-279.88	-275.86	0.00	0.00	0.00
3,000.00	10.00	245.77	2,973.33	-133.09	-295.72	-291.47	0.00	0.00	0.00
3,100.00	10.00	245.77	3,071.81	-140.22	-311.55	-307.08	0.00	0.00	0.00
3,200.00	10.00	245.77	3,170.29	-147.35	-327.39	-322.68	0.00	0.00	0.00
3,300.00	10.00	245.77	3,268.77	-154.47	-343.22	-338.29	0.00	0.00	0.00
3,400.00	10.00	245.77	3,367.25	-161.60	-359.06	-353.90	0.00	0.00	0.00
3,500.00	10.00	245.77	3,465.73	-168.73	-374.89	-369.51	0.00	0.00	0.00
3,600.00	10.00	245.77	3,564.21	-175.85	-390.73	-385.11	0.00	0.00	0.00
3,700.00	10.00	245.77	3,662.69	-182.98	-406.56	-400.72	0.00	0.00	0.00
3,800.00	10.00	245.77	3,761.17	-190.11	-422.40	-416.33	0.00	0.00	0.00
3,900.00	10.00	245.77	3,859.65	-197.23	-438.23	-431.94	0.00	0.00	0.00
4,000.00	10.00	245.77	3,958.13	-204.36	-454.07	-447.54	0.00	0.00	0.00
4,100.00	10.00	245.77	4,056.61	-211.49	-469.90	-463.15	0.00	0.00	0.00
4,200.00	10.00	245.77	4,155.10	-218.61	-485.74	-478.76	0.00	0.00	0.00
4,300.00	10.00	245.77	4,253.58	-225.74	-501.57	-494.36	0.00	0.00	0.00
4,400.00	10.00	245.77	4,352.06	-232.87	-517.41	-509.97	0.00	0.00	0.00
4,500.00	10.00	245.77	4,450.54	-240.00	-533.24	-525.58	0.00	0.00	0.00
4,600.00	10.00	245.77	4,549.02	-247.12	-549.08	-541.19	0.00	0.00	0.00
4,700.00	10.00	245.77	4,647.50	-254.25	-564.91	-556.79	0.00	0.00	0.00
4,800.00	10.00	245.77	4,745.98	-261.38	-580.75	-572.40	0.00	0.00	0.00
4,900.00	10.00	245.77	4,844.46	-268.50	-596.58	-588.01	0.00	0.00	0.00
5,000.00	10.00	245.77	4,942.94	-275.63	-612.42	-603.62	0.00	0.00	0.00
5,100.00	10.00	245.77	5,041.42	-282.76	-628.25	-619.22	0.00	0.00	0.00
5,200.00	10.00	245.77	5,139.90	-289.88	-644.09	-634.83	0.00	0.00	0.00



Lonestar Consulting

Planning Report



Database:	EDM _16.0	Local Co-ordinate Reference:	Well Rosa Unit #656H - Slot B3 (656H)
Company:	Logos Operating LLC	TVD Reference:	GL 6372' & RKB 25' @ 6397.00ft
Project:	Rio Arriba, NM NAD83	MD Reference:	GL 6372' & RKB 25' @ 6397.00ft
Site:	Rosa Unit 29	North Reference:	True
Well:	Rosa Unit #656H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned 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)
5,300.00	10.00	245.77	5,238.38	-297.01	-659.92	-650.44	0.00	0.00	0.00
5,400.00	10.00	245.77	5,336.87	-304.14	-675.76	-666.04	0.00	0.00	0.00
5,500.00	10.00	245.77	5,435.35	-311.26	-691.59	-681.65	0.00	0.00	0.00
5,600.00	10.00	245.77	5,533.83	-318.39	-707.43	-697.26	0.00	0.00	0.00
5,700.00	10.00	245.77	5,632.31	-325.52	-723.26	-712.87	0.00	0.00	0.00
5,800.00	10.00	245.77	5,730.79	-332.64	-739.10	-728.47	0.00	0.00	0.00
5,900.00	10.00	245.77	5,829.27	-339.77	-754.93	-744.08	0.00	0.00	0.00
5,969.85	10.00	245.77	5,898.06	-344.75	-765.99	-754.98	0.00	0.00	0.00
6,000.00	8.38	240.70	5,927.82	-346.90	-770.29	-759.22	6.00	-5.37	-16.81
6,100.00	4.27	197.76	6,027.24	-354.02	-777.79	-766.49	6.00	-4.11	-42.95
6,200.00	6.18	130.47	6,126.90	-361.07	-774.83	-763.32	6.00	1.91	-67.28
6,300.00	11.40	110.12	6,225.71	-367.97	-761.44	-749.72	6.00	5.22	-20.35
6,400.00	17.14	102.82	6,322.59	-374.64	-737.78	-725.86	6.00	5.74	-7.30
6,500.00	23.00	99.13	6,416.48	-381.02	-704.09	-691.99	6.00	5.87	-3.69
6,600.00	28.92	96.89	6,506.35	-387.03	-660.75	-648.48	6.00	5.92	-2.24
6,700.00	34.87	95.35	6,591.22	-392.60	-608.23	-595.82	6.00	5.95	-1.53
6,800.00	40.83	94.22	6,670.14	-397.68	-547.11	-534.57	6.00	5.96	-1.13
6,900.00	46.80	93.33	6,742.27	-402.20	-478.06	-465.42	6.00	5.97	-0.89
7,000.00	52.77	92.60	6,806.81	-406.13	-401.83	-389.10	6.00	5.97	-0.73
7,100.00	58.75	91.98	6,863.05	-409.42	-319.27	-306.48	6.00	5.98	-0.62
7,200.00	64.73	91.43	6,910.37	-412.02	-231.26	-218.43	6.00	5.98	-0.55
7,300.00	70.71	90.93	6,948.26	-413.92	-138.79	-125.95	6.00	5.98	-0.50
7,400.00	76.70	90.47	6,976.31	-415.08	-42.86	-30.02	6.00	5.98	-0.46
7,500.00	82.68	90.03	6,994.20	-415.51	55.48	68.28	6.00	5.98	-0.44
7,600.00	88.67	89.60	7,001.74	-415.19	155.15	167.89	6.00	5.98	-0.43
7,620.63	89.90	89.52	7,002.00	-415.03	175.78	188.51	6.00	5.98	-0.42
7,700.00	89.90	89.52	7,002.14	-414.36	255.14	267.81	0.00	0.00	0.00
7,800.00	89.90	89.52	7,002.31	-413.51	355.14	367.74	0.00	0.00	0.00
7,900.00	89.90	89.52	7,002.48	-412.67	455.14	467.66	0.00	0.00	0.00
8,000.00	89.90	89.52	7,002.66	-411.82	555.13	567.58	0.00	0.00	0.00
8,100.00	89.90	89.52	7,002.83	-410.97	655.13	667.50	0.00	0.00	0.00
8,200.00	89.90	89.52	7,003.00	-410.13	755.13	767.43	0.00	0.00	0.00
8,300.00	89.90	89.52	7,003.17	-409.28	855.12	867.35	0.00	0.00	0.00
8,400.00	89.90	89.52	7,003.35	-408.44	955.12	967.27	0.00	0.00	0.00
8,500.00	89.90	89.52	7,003.52	-407.59	1,055.11	1,067.19	0.00	0.00	0.00
8,600.00	89.90	89.52	7,003.69	-406.74	1,155.11	1,167.12	0.00	0.00	0.00
8,700.00	89.90	89.52	7,003.87	-405.90	1,255.11	1,267.04	0.00	0.00	0.00
8,800.00	89.90	89.52	7,004.04	-405.05	1,355.10	1,366.96	0.00	0.00	0.00
8,900.00	89.90	89.52	7,004.21	-404.21	1,455.10	1,466.88	0.00	0.00	0.00
9,000.00	89.90	89.52	7,004.39	-403.36	1,555.10	1,566.81	0.00	0.00	0.00
9,100.00	89.90	89.52	7,004.56	-402.51	1,655.09	1,666.73	0.00	0.00	0.00
9,200.00	89.90	89.52	7,004.73	-401.67	1,755.09	1,766.65	0.00	0.00	0.00
9,300.00	89.90	89.52	7,004.90	-400.82	1,855.08	1,866.57	0.00	0.00	0.00
9,400.00	89.90	89.52	7,005.08	-399.98	1,955.08	1,966.50	0.00	0.00	0.00
9,500.00	89.90	89.52	7,005.25	-399.13	2,055.08	2,066.42	0.00	0.00	0.00
9,600.00	89.90	89.52	7,005.42	-398.28	2,155.07	2,166.34	0.00	0.00	0.00
9,700.00	89.90	89.52	7,005.60	-397.44	2,255.07	2,266.26	0.00	0.00	0.00
9,800.00	89.90	89.52	7,005.77	-396.59	2,355.07	2,366.19	0.00	0.00	0.00
9,900.00	89.90	89.52	7,005.94	-395.75	2,455.06	2,466.11	0.00	0.00	0.00
10,000.00	89.90	89.52	7,006.11	-394.90	2,555.06	2,566.03	0.00	0.00	0.00
10,100.00	89.90	89.52	7,006.29	-394.05	2,655.05	2,665.95	0.00	0.00	0.00
10,200.00	89.90	89.52	7,006.46	-393.21	2,755.05	2,765.88	0.00	0.00	0.00
10,300.00	89.90	89.52	7,006.63	-392.36	2,855.05	2,865.80	0.00	0.00	0.00
10,400.00	89.90	89.52	7,006.81	-391.52	2,955.04	2,965.72	0.00	0.00	0.00



Lonestar Consulting

Planning Report



Database:	EDM _16.0	Local Co-ordinate Reference:	Well Rosa Unit #656H - Slot B3 (656H)
Company:	Logos Operating LLC	TVD Reference:	GL 6372' & RKB 25' @ 6397.00ft
Project:	Rio Arriba, NM NAD83	MD Reference:	GL 6372' & RKB 25' @ 6397.00ft
Site:	Rosa Unit 29	North Reference:	True
Well:	Rosa Unit #656H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned 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)
10,500.00	89.90	89.52	7,006.98	-390.67	3,055.04	3,065.64	0.00	0.00	0.00
10,600.00	89.90	89.52	7,007.15	-389.82	3,155.04	3,165.57	0.00	0.00	0.00
10,700.00	89.90	89.52	7,007.32	-388.98	3,255.03	3,265.49	0.00	0.00	0.00
10,800.00	89.90	89.52	7,007.50	-388.13	3,355.03	3,365.41	0.00	0.00	0.00
10,900.00	89.90	89.52	7,007.67	-387.29	3,455.02	3,465.33	0.00	0.00	0.00
11,000.00	89.90	89.52	7,007.84	-386.44	3,555.02	3,565.26	0.00	0.00	0.00
11,100.00	89.90	89.52	7,008.02	-385.59	3,655.02	3,665.18	0.00	0.00	0.00
11,200.00	89.90	89.52	7,008.19	-384.75	3,755.01	3,765.10	0.00	0.00	0.00
11,300.00	89.90	89.52	7,008.36	-383.90	3,855.01	3,865.02	0.00	0.00	0.00
11,400.00	89.90	89.52	7,008.53	-383.06	3,955.01	3,964.95	0.00	0.00	0.00
11,500.00	89.90	89.52	7,008.71	-382.21	4,055.00	4,064.87	0.00	0.00	0.00
11,600.00	89.90	89.52	7,008.88	-381.36	4,155.00	4,164.79	0.00	0.00	0.00
11,700.00	89.90	89.52	7,009.05	-380.52	4,254.99	4,264.71	0.00	0.00	0.00
11,800.00	89.90	89.52	7,009.23	-379.67	4,354.99	4,364.64	0.00	0.00	0.00
11,900.00	89.90	89.52	7,009.40	-378.83	4,454.99	4,464.56	0.00	0.00	0.00
12,000.00	89.90	89.52	7,009.57	-377.98	4,554.98	4,564.48	0.00	0.00	0.00
12,100.00	89.90	89.52	7,009.75	-377.13	4,654.98	4,664.40	0.00	0.00	0.00
12,200.00	89.90	89.52	7,009.92	-376.29	4,754.98	4,764.33	0.00	0.00	0.00
12,300.00	89.90	89.52	7,010.09	-375.44	4,854.97	4,864.25	0.00	0.00	0.00
12,400.00	89.90	89.52	7,010.26	-374.60	4,954.97	4,964.17	0.00	0.00	0.00
12,500.00	89.90	89.52	7,010.44	-373.75	5,054.96	5,064.09	0.00	0.00	0.00
12,600.00	89.90	89.52	7,010.61	-372.90	5,154.96	5,164.02	0.00	0.00	0.00
12,700.00	89.90	89.52	7,010.78	-372.06	5,254.96	5,263.94	0.00	0.00	0.00
12,800.00	89.90	89.52	7,010.96	-371.21	5,354.95	5,363.86	0.00	0.00	0.00
12,900.00	89.90	89.52	7,011.13	-370.37	5,454.95	5,463.78	0.00	0.00	0.00
13,000.00	89.90	89.52	7,011.30	-369.52	5,554.95	5,563.71	0.00	0.00	0.00
13,100.00	89.90	89.52	7,011.47	-368.67	5,654.94	5,663.63	0.00	0.00	0.00
13,200.00	89.90	89.52	7,011.65	-367.83	5,754.94	5,763.55	0.00	0.00	0.00
13,300.00	89.90	89.52	7,011.82	-366.98	5,854.94	5,863.47	0.00	0.00	0.00
13,400.00	89.90	89.52	7,011.99	-366.14	5,954.93	5,963.40	0.00	0.00	0.00
13,500.00	89.90	89.52	7,012.17	-365.29	6,054.93	6,063.32	0.00	0.00	0.00
13,600.00	89.90	89.52	7,012.34	-364.44	6,154.92	6,163.24	0.00	0.00	0.00
13,700.00	89.90	89.52	7,012.51	-363.60	6,254.92	6,263.16	0.00	0.00	0.00
13,800.00	89.90	89.52	7,012.68	-362.75	6,354.92	6,363.09	0.00	0.00	0.00
13,900.00	89.90	89.52	7,012.86	-361.91	6,454.91	6,463.01	0.00	0.00	0.00
14,000.00	89.90	89.52	7,013.03	-361.06	6,554.91	6,562.93	0.00	0.00	0.00
14,100.00	89.90	89.52	7,013.20	-360.21	6,654.91	6,662.85	0.00	0.00	0.00
14,200.00	89.90	89.52	7,013.38	-359.37	6,754.90	6,762.78	0.00	0.00	0.00
14,300.00	89.90	89.52	7,013.55	-358.52	6,854.90	6,862.70	0.00	0.00	0.00
14,400.00	89.90	89.52	7,013.72	-357.68	6,954.89	6,962.62	0.00	0.00	0.00
14,500.00	89.90	89.52	7,013.89	-356.83	7,054.89	7,062.54	0.00	0.00	0.00
14,600.00	89.90	89.52	7,014.07	-355.98	7,154.89	7,162.47	0.00	0.00	0.00
14,700.00	89.90	89.52	7,014.24	-355.14	7,254.88	7,262.39	0.00	0.00	0.00
14,800.00	89.90	89.52	7,014.41	-354.29	7,354.88	7,362.31	0.00	0.00	0.00
14,900.00	89.90	89.52	7,014.59	-353.45	7,454.88	7,462.23	0.00	0.00	0.00
15,000.00	89.90	89.52	7,014.76	-352.60	7,554.87	7,562.16	0.00	0.00	0.00
15,100.00	89.90	89.52	7,014.93	-351.75	7,654.87	7,662.08	0.00	0.00	0.00
15,200.00	89.90	89.52	7,015.11	-350.91	7,754.86	7,762.00	0.00	0.00	0.00
15,300.00	89.90	89.52	7,015.28	-350.06	7,854.86	7,861.92	0.00	0.00	0.00
15,400.00	89.90	89.52	7,015.45	-349.22	7,954.86	7,961.85	0.00	0.00	0.00
15,500.00	89.90	89.52	7,015.62	-348.37	8,054.85	8,061.77	0.00	0.00	0.00
15,600.00	89.90	89.52	7,015.80	-347.52	8,154.85	8,161.69	0.00	0.00	0.00
15,700.00	89.90	89.52	7,015.97	-346.68	8,254.85	8,261.61	0.00	0.00	0.00
15,800.00	89.90	89.52	7,016.14	-345.83	8,354.84	8,361.54	0.00	0.00	0.00



Lonestar Consulting

Planning Report



Database:	EDM _16.0	Local Co-ordinate Reference:	Well Rosa Unit #656H - Slot B3 (656H)
Company:	Logos Operating LLC	TVD Reference:	GL 6372' & RKB 25' @ 6397.00ft
Project:	Rio Arriba, NM NAD83	MD Reference:	GL 6372' & RKB 25' @ 6397.00ft
Site:	Rosa Unit 29	North Reference:	True
Well:	Rosa Unit #656H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned 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)	
15,900.00	89.90	89.52	7,016.32	-344.99	8,454.84	8,461.46	0.00	0.00	0.00	
16,000.00	89.90	89.52	7,016.49	-344.14	8,554.83	8,561.38	0.00	0.00	0.00	
16,100.00	89.90	89.52	7,016.66	-343.29	8,654.83	8,661.30	0.00	0.00	0.00	
16,200.00	89.90	89.52	7,016.83	-342.45	8,754.83	8,761.23	0.00	0.00	0.00	
16,300.00	89.90	89.52	7,017.01	-341.60	8,854.82	8,861.15	0.00	0.00	0.00	
16,400.00	89.90	89.52	7,017.18	-340.76	8,954.82	8,961.07	0.00	0.00	0.00	
16,500.00	89.90	89.52	7,017.35	-339.91	9,054.82	9,060.99	0.00	0.00	0.00	
16,600.00	89.90	89.52	7,017.53	-339.06	9,154.81	9,160.92	0.00	0.00	0.00	
16,700.00	89.90	89.52	7,017.70	-338.22	9,254.81	9,260.84	0.00	0.00	0.00	
16,800.00	89.90	89.52	7,017.87	-337.37	9,354.80	9,360.76	0.00	0.00	0.00	
16,900.00	89.90	89.52	7,018.04	-336.53	9,454.80	9,460.68	0.00	0.00	0.00	
17,000.00	89.90	89.52	7,018.22	-335.68	9,554.80	9,560.61	0.00	0.00	0.00	
17,100.00	89.90	89.52	7,018.39	-334.83	9,654.79	9,660.53	0.00	0.00	0.00	
17,200.00	89.90	89.52	7,018.56	-333.99	9,754.79	9,760.45	0.00	0.00	0.00	
17,300.00	89.90	89.52	7,018.74	-333.14	9,854.79	9,860.37	0.00	0.00	0.00	
17,400.00	89.90	89.52	7,018.91	-332.29	9,954.78	9,960.30	0.00	0.00	0.00	
17,500.00	89.90	89.52	7,019.08	-331.45	10,054.78	10,060.22	0.00	0.00	0.00	
17,600.00	89.90	89.52	7,019.25	-330.60	10,154.77	10,160.14	0.00	0.00	0.00	
17,700.00	89.90	89.52	7,019.43	-329.76	10,254.77	10,260.06	0.00	0.00	0.00	
17,800.00	89.90	89.52	7,019.60	-328.91	10,354.77	10,359.99	0.00	0.00	0.00	
17,900.00	89.90	89.52	7,019.77	-328.06	10,454.76	10,459.91	0.00	0.00	0.00	
18,000.00	89.90	89.52	7,019.95	-327.22	10,554.76	10,559.83	0.00	0.00	0.00	
18,031.07	89.90	89.52	7,020.00	-326.96	10,585.83	10,590.88	0.00	0.00	0.00	

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	
Rosa 656H POE Rev 1 - plan hits target center - Point	0.00	0.00	7,002.00	-415.03	175.78	2,137,659.64	2,847,446.86	36.8737860	-107.4081741	
Rosa 656H BHL - plan hits target center - Point	0.00	0.00	7,020.00	-326.96	10,585.83	2,137,794.01	2,857,856.39	36.8740224	-107.3725836	

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
6,418.27	6,340.00	Intermediate Casing	7.000	8.750	



Lonestar Consulting
Planning Report



Database:	EDM _16.0	Local Co-ordinate Reference:	Well Rosa Unit #656H - Slot B3 (656H)
Company:	Logos Operating LLC	TVD Reference:	GL 6372' & RKB 25' @ 6397.00ft
Project:	Rio Arriba, NM NAD83	MD Reference:	GL 6372' & RKB 25' @ 6397.00ft
Site:	Rosa Unit 29	North Reference:	True
Well:	Rosa Unit #656H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,519.37	2,500.00	Ojo Alamo		0.00	0.00	
2,651.38	2,630.00	Kirtland		0.00	0.00	
3,126.60	3,098.00	Fruitland		0.00	0.00	
3,458.64	3,425.00	Pictured Cliffs		0.00	0.00	
3,554.09	3,519.00	Lewis		0.00	0.00	
4,657.86	4,606.00	Chacra		0.00	0.00	
5,497.62	5,433.00	Cliff House		0.00	0.00	
5,523.00	5,458.00	Menefee		0.00	0.00	
5,751.47	5,683.00	Point Lookout		0.00	0.00	
6,213.19	6,140.00	Mancos		0.00	0.00	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
800.00	800.00	0.00	0.00	Start Build 1.50	
1,466.66	1,463.28	-23.82	-52.92	Start 4503.19 hold at 1466.66 MD	
5,969.85	5,898.06	-344.75	-765.99	Start DLS 6.00 TFO -155.94	
7,620.63	7,002.00	-415.03	175.78	POE @ 7620' MD / 7002' TVD	
7,620.63	7,002.00	-415.03	175.78	36.8737860, -107.4081740	
7,620.63	7,002.00	-415.03	175.78	Start 10410.44 hold at 7620.63 MD	
18,031.07	7,020.00	-326.96	10,585.83	TD at 18031.07	

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 29667

ACKNOWLEDGMENTS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 29667
	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.

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

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District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 29667

CONDITIONS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 29667
	Action Type: [C-104] Completion Packet (C-104C)

CONDITIONS

Created By	Condition	Condition Date
ahvermersch	File drilling sundry's as soon as available; File As drilled C-102 and updated directional survey with NW completion packet.	5/27/2021