

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
AS DRILLED

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35913	*Pool Code 47540	*Pool Name NAGEEZI GALLUP
*Property Code 322997	*Property Name STATE 2408-32A COM	*Well Number 3H
*OGRIID No. 289408	*Operator Name LOGOS OPERATING, LLC	*Elevation 7002'

CONFIDENTIAL

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	32	24N	8W		1232	NORTH	374	EAST	SAN JUAN

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	32	24N	8W		2322	NORTH	30	WEST	SAN JUAN

12 Dedicated Acres 320.0 Acres N/2 - Section 32	13 Joint or Infill INFILL	14 Consolidation Code	15 Order No.
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END-OF-LATERAL (A)
2322' FNL 30' FWL
SECTION 32, T24N, R8W
LAT: 36.271708°N
LONG: 107.713432°W
DATUM: NAD1927

FIRST PERFORATION (B)
2321' FNL 100' FWL
SECTION 32, T24N, R8W
LAT: 36.271709°N
LONG: 107.713195°W
DATUM: NAD1927

LAST PERFORATION (C)
2354' FNL 100' FWL
SECTION 32, T24N, R8W
LAT: 36.271608°N
LONG: 107.695930°W
DATUM: NAD1927

POINT-OF-ENTRY (D)
2343' FNL 20' FWL
SECTION 33, T24N, R8W
LAT: 36.271638°N
LONG: 107.695521°W
DATUM: NAD1927

SURFACE LOCATION (E)
1232' FNL 374' FWL
SECTION 32, T24N, R8W
LAT: 36.274689°N
LONG: 107.695852°W
DATUM: NAD1927

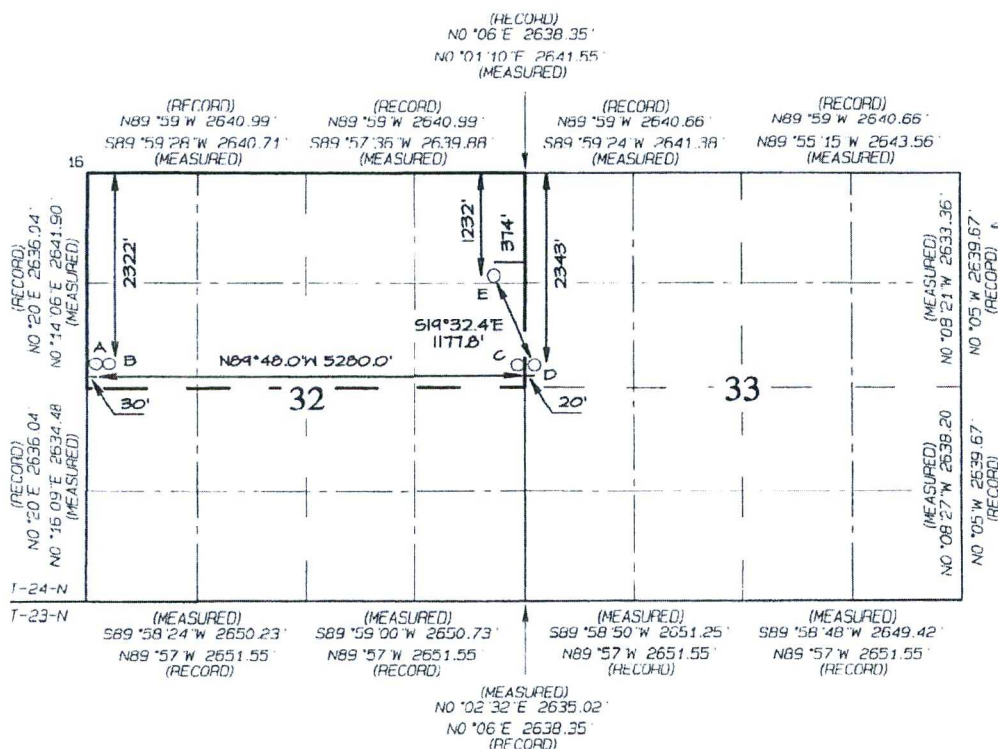
17 OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to 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.

Signature: *Tamra Sessions* Date: 7-5-19
Printed Name: Tamra Sessions
tsessions@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: JULY 2, 2019
Date of Survey: MARCH 8, 2019
Signature and Seal of Professional Surveyor:



JASON C. EDWARDS
Certificate Number 15269

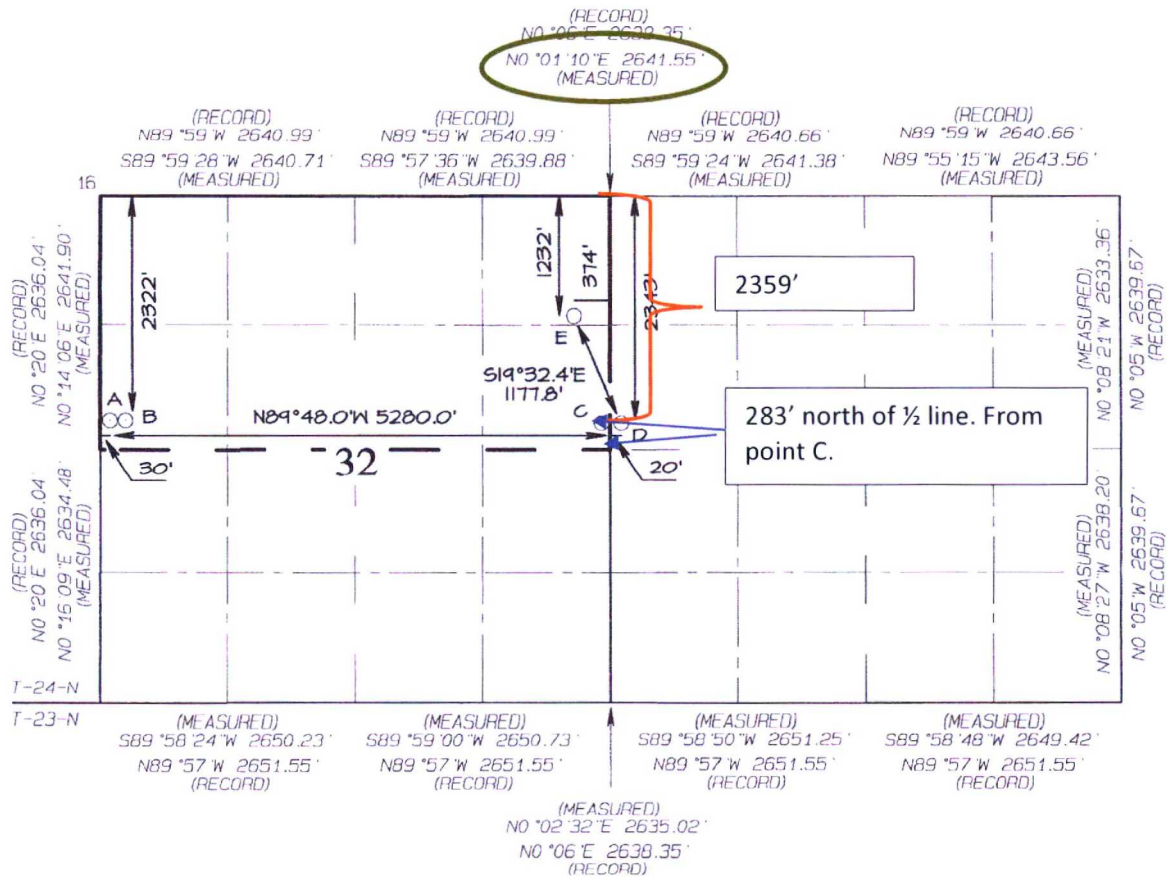


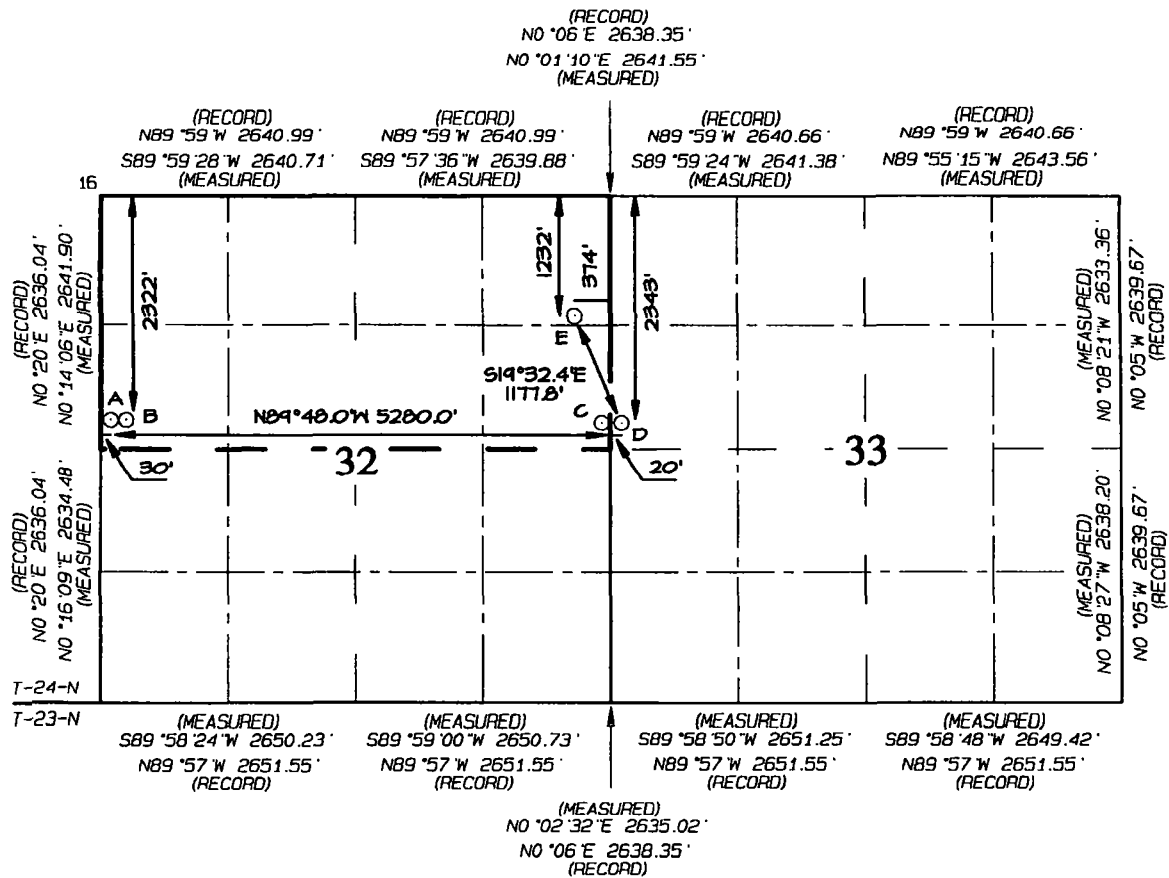
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION
UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A
NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION.

WMOCD
JUL 19 2019
DISTRICT III

Lowest point to Section 32 half line is 283' (6517' MD, 5551' VD)
 North/South ½ section is 2641.55'

*API Number	*Pool Code 47540	*Pool Name NAGEEZI CALLUP
*Property Code	*Property Name STATE 2408-32A COM	*Well Number 3H
*OGRIID No. 289408	*Operator Name LOGOS OPERATING, LLC	*Elevation 7002'







Logos Operating LLC

San Juan, NM NAD83

State 2408-32A

State 2408-32A 3H

OH

Design: OH

Survey Report - Geographic

18 June, 2019



www.scientificdrilling.com



Scientific Drilling, Intl
Survey Report - Geographic



Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well State 2408-32A 3H
Project:	San Juan, NM NAD83	TVD Reference:	GL 7002' & RKB 25' @ 7027.00usft (Aztec 1000)
Site:	State 2408-32A	MD Reference:	GL 7002' & RKB 25' @ 7027.00usft (Aztec 1000)
Well:	State 2408-32A 3H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Project	San Juan, 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	State 2408-32A		
Site Position:		Northing:	1,919,371.54 usft
From:	Lat/Long	Easting:	2,763,167.91 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in
		Latitude:	36.2748470
		Longitude:	-107.6973700
		Grid Convergence:	0.08 °

Well	State 2408-32A 3H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	36.2747010
		Longitude:	-107.6974640
		Ground Level:	7,002.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	11/28/2018	8.83	62.85	49,534

Design	OH			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth:
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	257.625

Survey Program	Date 6/18/2019			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
435.00	5,146.00	Survey #1 - Surface MWD Survey (OH)	MWD+HDGM	OWSG MWD + HDGM
5,240.00	6,187.00	Survey #2 - Curve MWD Survey (OH)	MWD+HDGM	OWSG MWD + HDGM
6,330.00	11,514.00	Survey #3 - Lateral MWD Survey (OH)	MWD+HDGM	OWSG MWD + HDGM

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.000	0.00	0.00	0.00	1,919,318.38	2,763,140.28	36.2747010	-107.6974640
435.00	0.70	308.400	434.99	1.65	-2.08	1,919,320.01	2,763,138.19	36.2747055	-107.6974711
First SDI Surface MWD Survey									
528.00	0.97	332.220	527.98	2.70	-2.89	1,919,321.05	2,763,137.38	36.2747084	-107.6974739
621.00	1.04	116.160	620.97	3.02	-2.50	1,919,321.38	2,763,137.77	36.2747093	-107.6974725
715.00	1.68	123.380	714.95	1.89	-0.59	1,919,320.25	2,763,139.69	36.2747062	-107.6974660
808.00	1.35	191.180	807.92	0.07	0.34	1,919,318.42	2,763,140.61	36.2747012	-107.6974629
901.00	1.85	190.180	900.88	-2.49	-0.14	1,919,315.87	2,763,140.14	36.2746941	-107.6974645
995.00	1.76	196.850	994.84	-5.36	-0.83	1,919,312.99	2,763,139.46	36.2746862	-107.6974668
1,088.00	1.62	187.210	1,087.80	-8.03	-1.40	1,919,310.32	2,763,138.88	36.2746789	-107.6974688



Scientific Drilling, Intl
Survey Report - Geographic



Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well State 2408-32A 3H
Project:	San Juan, NM NAD83	TVD Reference:	GL 7002' & RKB 25' @ 7027.00usft (Aztec 1000)
Site:	State 2408-32A	MD Reference:	GL 7002' & RKB 25' @ 7027.00usft (Aztec 1000)
Well:	State 2408-32A 3H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,182.00	1.47	176.640	1,181.76	-10.56	-1.50	1,919,307.80	2,763,138.79	36.2746720	-107.6974691
1,275.00	3.00	143.270	1,274.69	-13.70	0.02	1,919,304.66	2,763,140.32	36.2746634	-107.6974640
1,368.00	5.35	123.860	1,367.44	-18.06	5.08	1,919,300.30	2,763,145.38	36.2746514	-107.6974468
1,462.00	5.60	120.890	1,461.02	-22.86	12.66	1,919,295.52	2,763,152.96	36.2746382	-107.6974211
1,555.00	5.34	120.340	1,553.59	-27.38	20.28	1,919,291.01	2,763,160.60	36.2746258	-107.6973952
1,648.00	6.86	121.720	1,646.06	-32.48	28.74	1,919,285.92	2,763,169.07	36.2746117	-107.6973665
1,742.00	6.94	124.520	1,739.38	-38.65	38.20	1,919,279.76	2,763,178.53	36.2745948	-107.6973344
1,835.00	9.38	127.620	1,831.43	-46.46	48.83	1,919,271.96	2,763,189.17	36.2745733	-107.6972984
1,928.00	11.91	124.070	1,922.83	-56.47	62.79	1,919,261.98	2,763,203.14	36.2745459	-107.6972510
2,022.00	13.35	122.870	2,014.55	-67.79	79.94	1,919,250.68	2,763,220.31	36.2745147	-107.6971928
2,116.00	13.72	122.510	2,105.94	-79.67	98.45	1,919,238.82	2,763,238.84	36.2744821	-107.6971300
2,211.00	15.08	124.070	2,197.95	-92.65	118.19	1,919,225.87	2,763,258.60	36.2744465	-107.6970631
2,305.00	18.28	125.850	2,287.99	-108.14	140.28	1,919,210.42	2,763,280.70	36.2744039	-107.6969881
2,400.00	22.16	128.570	2,377.12	-128.04	166.37	1,919,190.55	2,763,306.83	36.2743492	-107.6968996
2,495.00	24.57	128.830	2,464.32	-151.60	195.77	1,919,167.03	2,763,336.26	36.2742845	-107.6967999
2,589.00	25.41	127.340	2,549.52	-176.09	227.03	1,919,142.59	2,763,367.55	36.2742172	-107.6966938
2,684.00	26.03	126.030	2,635.11	-200.71	260.09	1,919,118.01	2,763,400.65	36.2741496	-107.6965817
2,779.00	26.30	125.350	2,720.37	-225.15	294.11	1,919,093.62	2,763,434.71	36.2740825	-107.6964662
2,874.00	27.28	128.510	2,805.18	-250.88	328.32	1,919,067.93	2,763,468.95	36.2740118	-107.6963502
2,969.00	27.80	128.390	2,889.42	-278.20	362.72	1,919,040.67	2,763,503.38	36.2739367	-107.6962335
3,063.00	26.11	131.460	2,973.20	-305.51	395.41	1,919,013.40	2,763,536.11	36.2738617	-107.6961226
3,158.00	25.15	130.860	3,058.86	-332.56	426.34	1,918,988.40	2,763,567.08	36.2737874	-107.6960177
3,252.00	23.56	130.090	3,144.49	-357.72	455.82	1,918,961.27	2,763,598.60	36.2737183	-107.6959176
3,347.00	23.74	130.510	3,231.51	-382.37	484.89	1,918,936.67	2,763,625.70	36.2736506	-107.6958190
3,441.00	23.04	130.510	3,317.78	-406.61	513.26	1,918,912.47	2,763,654.10	36.2735840	-107.6957228
3,535.00	25.29	130.530	3,403.54	-431.61	542.51	1,918,887.51	2,763,683.39	36.2735153	-107.6956236
3,630.00	24.56	130.580	3,489.69	-457.64	572.93	1,918,861.52	2,763,713.84	36.2734438	-107.6955204
3,724.00	24.41	129.080	3,575.24	-482.60	602.84	1,918,836.61	2,763,743.79	36.2733752	-107.6954189
3,819.00	25.50	128.520	3,661.37	-507.71	634.08	1,918,811.54	2,763,775.07	36.2733063	-107.6953129
3,913.00	25.43	128.910	3,746.24	-532.99	665.61	1,918,786.31	2,763,806.64	36.2732368	-107.6952059
4,008.00	24.89	128.490	3,832.22	-558.24	697.13	1,918,761.10	2,763,838.19	36.2731674	-107.6950990
4,103.00	25.32	128.400	3,918.25	-583.30	728.70	1,918,736.08	2,763,869.80	36.2730986	-107.6949919
4,198.00	25.37	128.170	4,004.11	-608.50	760.62	1,918,710.93	2,763,901.75	36.2730294	-107.6948836
4,293.00	26.81	128.570	4,089.42	-634.43	793.37	1,918,685.04	2,763,934.54	36.2729581	-107.6947725
4,387.00	26.46	128.730	4,173.45	-660.75	826.29	1,918,658.77	2,763,967.49	36.2728858	-107.6946608
4,482.00	25.74	127.960	4,258.76	-686.68	859.06	1,918,632.88	2,764,000.30	36.2728146	-107.6945497
4,577.00	26.76	127.440	4,343.96	-712.37	892.31	1,918,607.24	2,764,033.58	36.2727440	-107.6944369
4,672.00	26.55	127.440	4,428.87	-738.28	926.15	1,918,581.38	2,764,067.46	36.2726728	-107.6943221
4,767.00	25.32	127.340	4,514.30	-763.51	959.16	1,918,556.19	2,764,100.50	36.2726035	-107.6942101
4,861.00	23.46	126.900	4,599.90	-788.94	990.10	1,918,532.81	2,764,131.48	36.2725392	-107.6941051
4,956.00	21.28	139.790	4,687.80	-811.48	1,016.37	1,918,508.31	2,764,157.79	36.2724717	-107.6940160
5,051.00	20.25	160.120	4,776.75	-840.14	1,033.12	1,918,479.67	2,764,174.57	36.2723930	-107.6939592
5,146.00	19.10	179.850	4,866.30	-871.18	1,038.75	1,918,448.64	2,764,180.25	36.2723077	-107.6939401
Last SDI Surface MWD Survey									
5,240.00	21.36	196.490	4,954.57	-903.01	1,033.93	1,918,416.80	2,764,175.47	36.2722203	-107.6939564
First SDI Curve MWD Survey									
5,335.00	22.64	215.050	5,042.76	-934.80	1,018.50	1,918,385.18	2,764,160.09	36.2721335	-107.6940088
5,430.00	25.71	231.850	5,129.52	-962.34	991.76	1,918,357.41	2,764,133.38	36.2720573	-107.6940995
5,525.00	29.92	244.490	5,213.60	-985.30	954.12	1,918,334.39	2,764,095.78	36.2719942	-107.6942272
5,619.00	35.40	250.070	5,292.72	-1,004.70	907.32	1,918,314.93	2,764,049.00	36.2719410	-107.6943860
5,667.00	39.35	251.490	5,330.86	-1,014.27	879.81	1,918,305.32	2,764,021.51	36.2719147	-107.6944793
5,714.00	43.52	252.740	5,366.09	-1,023.81	850.21	1,918,295.74	2,763,991.92	36.2718885	-107.6945797
5,809.00	52.86	254.860	5,429.36	-1,043.45	782.27	1,918,276.01	2,763,924.01	36.2718345	-107.6948102
5,903.00	62.94	257.030	5,479.25	-1,062.68	705.11	1,918,256.67	2,763,846.88	36.2717817	-107.6950720
5,998.00	73.72	259.680	5,514.28	-1,080.40	618.76	1,918,238.83	2,763,760.55	36.2717330	-107.6953649



Scientific Drilling, Intl
Survey Report - Geographic



Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well State 2408-32A 3H
Project:	San Juan, NM NAD83	TVD Reference:	GL 7002' & RKB 25' @ 7027.00usft (Aztec 1000)
Site:	State 2408-32A	MD Reference:	GL 7002' & RKB 25' @ 7027.00usft (Aztec 1000)
Well:	State 2408-32A 3H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
6,045.00	79.23	260.500	5,525.27	-1,088.25	573.77	1,918,230.91	2,763,715.57	36.2717115	-107.6955176	
6,092.00	81.13	261.620	5,533.28	-1,095.45	528.02	1,918,223.65	2,763,669.83	36.2716917	-107.6956727	
6,187.00	87.55	264.670	5,542.65	-1,106.71	434.22	1,918,212.26	2,763,576.05	36.2716608	-107.6959910	
Last SDI Curve MWD Survey										
6,330.00	88.45	264.900	5,547.64	-1,119.70	291.90	1,918,199.07	2,763,433.74	36.2716251	-107.6964738	
First SDI Lateral MWD Survey										
6,350.00	88.51	265.496	5,548.17	-1,121.38	271.97	1,918,197.37	2,763,413.82	36.2716205	-107.6965414	
Last Perf @ 6350' MD - 36.2716205, -107.6965413										
6,423.00	88.72	267.670	5,549.94	-1,125.73	199.13	1,918,192.91	2,763,340.99	36.2716085	-107.6967885	
6,517.00	90.40	270.440	5,550.66	-1,127.28	105.16	1,918,191.23	2,763,247.02	36.2716043	-107.6971073	
6,610.00	91.58	272.290	5,549.05	-1,125.06	12.20	1,918,193.32	2,763,154.06	36.2716104	-107.6974226	
6,703.00	91.78	272.040	5,546.33	-1,121.55	-80.69	1,918,196.70	2,763,061.16	36.2716200	-107.6977378	
6,797.00	89.77	275.140	5,545.05	-1,115.66	-174.48	1,918,202.45	2,762,967.36	36.2716362	-107.6980560	
6,890.00	89.97	274.940	5,545.27	-1,107.49	-267.12	1,918,210.49	2,762,874.71	36.2716586	-107.6983702	
6,983.00	90.37	274.520	5,544.99	-1,099.82	-359.80	1,918,218.03	2,762,782.02	36.2716797	-107.6986847	
7,077.00	90.77	274.700	5,544.05	-1,092.27	-453.49	1,918,225.45	2,762,688.32	36.2717004	-107.6990025	
7,170.00	91.68	275.030	5,542.07	-1,084.38	-546.14	1,918,233.21	2,762,595.66	36.2717221	-107.6993168	
7,264.00	91.44	273.390	5,539.51	-1,077.49	-639.84	1,918,239.97	2,762,501.94	36.2717410	-107.6996347	
7,357.00	90.70	271.470	5,537.77	-1,073.55	-732.74	1,918,243.79	2,762,409.04	36.2717519	-107.6999498	
7,450.00	91.04	271.730	5,536.36	-1,070.95	-825.69	1,918,246.25	2,762,316.09	36.2717590	-107.7002652	
7,543.00	91.31	272.000	5,534.45	-1,067.92	-918.62	1,918,249.15	2,762,223.15	36.2717673	-107.7005805	
7,637.00	90.30	269.730	5,533.13	-1,066.50	-1,012.60	1,918,250.43	2,762,129.18	36.2717712	-107.7008993	
7,730.00	90.71	270.380	5,532.31	-1,066.41	-1,105.59	1,918,250.39	2,762,036.18	36.2717714	-107.7012147	
7,825.00	90.10	269.940	5,531.64	-1,068.15	-1,200.59	1,918,250.53	2,761,941.18	36.2717721	-107.7015370	
7,920.00	90.71	269.250	5,530.97	-1,066.82	-1,295.58	1,918,249.72	2,761,846.19	36.2717703	-107.7018593	
8,015.00	90.13	268.400	5,530.27	-1,068.77	-1,390.56	1,918,247.64	2,761,751.22	36.2717649	-107.7021815	
8,109.00	93.36	269.100	5,527.41	-1,070.82	-1,484.48	1,918,245.46	2,761,657.30	36.2717593	-107.7025001	
8,204.00	94.74	269.010	5,520.70	-1,072.38	-1,579.23	1,918,243.76	2,761,562.55	36.2717550	-107.7028215	
8,299.00	92.52	268.400	5,514.69	-1,074.52	-1,674.01	1,918,241.49	2,761,467.78	36.2717491	-107.7031431	
8,394.00	91.78	269.470	5,511.12	-1,076.29	-1,768.92	1,918,239.59	2,761,372.87	36.2717442	-107.7034651	
8,488.00	89.26	270.200	5,510.27	-1,076.56	-1,862.91	1,918,239.19	2,761,278.88	36.2717434	-107.7037839	
8,583.00	89.66	270.820	5,511.16	-1,075.71	-1,957.90	1,918,239.90	2,761,183.89	36.2717457	-107.7041062	
8,678.00	89.90	272.160	5,511.53	-1,073.24	-2,052.86	1,918,242.23	2,761,088.92	36.2717525	-107.7044283	
8,772.00	91.44	272.650	5,510.43	-1,069.30	-2,146.77	1,918,246.05	2,760,995.01	36.2717633	-107.7047469	
8,867.00	88.02	272.540	5,510.88	-1,065.00	-2,241.66	1,918,250.21	2,760,900.11	36.2717751	-107.7050688	
8,962.00	88.49	270.640	5,513.77	-1,062.36	-2,336.57	1,918,252.72	2,760,805.19	36.2717823	-107.7053908	
9,057.00	87.72	270.500	5,516.91	-1,061.42	-2,431.52	1,918,253.53	2,760,710.25	36.2717849	-107.7057129	
9,151.00	88.66	268.880	5,519.88	-1,061.93	-2,525.46	1,918,252.89	2,760,616.30	36.2717835	-107.7060316	
9,246.00	90.07	268.220	5,520.93	-1,064.33	-2,620.43	1,918,250.35	2,760,521.35	36.2717769	-107.7063538	
9,340.00	91.11	268.750	5,519.97	-1,066.82	-2,714.39	1,918,247.73	2,760,427.39	36.2717700	-107.7066725	
9,435.00	91.01	267.910	5,518.21	-1,069.59	-2,809.33	1,918,244.83	2,760,332.45	36.2717624	-107.7069946	
9,529.00	90.87	267.540	5,516.87	-1,073.32	-2,903.24	1,918,240.97	2,760,238.54	36.2717521	-107.7073132	
9,623.00	90.44	267.030	5,515.59	-1,077.77	-2,997.13	1,918,236.38	2,760,144.66	36.2717398	-107.7076317	
9,718.00	91.11	268.200	5,514.31	-1,081.72	-3,092.04	1,918,232.30	2,760,049.76	36.2717290	-107.7079537	
9,812.00	91.04	270.780	5,512.54	-1,082.56	-3,186.01	1,918,231.33	2,759,955.79	36.2717266	-107.7082725	
9,907.00	90.44	270.100	5,511.32	-1,081.83	-3,281.00	1,918,231.93	2,759,860.80	36.2717286	-107.7085947	
10,001.00	89.83	269.990	5,511.09	-1,081.76	-3,375.00	1,918,231.87	2,759,766.80	36.2717288	-107.7089136	
10,094.00	90.94	269.460	5,510.47	-1,082.20	-3,467.99	1,918,231.29	2,759,673.81	36.2717275	-107.7092291	
10,191.00	89.73	268.840	5,509.90	-1,083.64	-3,564.98	1,918,229.72	2,759,578.82	36.2717235	-107.7095581	
10,286.00	89.03	269.720	5,510.93	-1,084.83	-3,659.96	1,918,228.39	2,759,481.84	36.2717202	-107.7098804	
10,381.00	89.56	271.220	5,512.10	-1,084.05	-3,754.95	1,918,229.04	2,759,386.85	36.2717223	-107.7102026	
10,475.00	92.72	272.650	5,510.23	-1,080.88	-3,848.86	1,918,232.08	2,759,292.93	36.2717310	-107.7105212	
10,570.00	91.58	271.520	5,508.66	-1,077.43	-3,943.73	1,918,235.40	2,759,198.06	36.2717405	-107.7108431	
10,665.00	90.44	270.980	5,504.99	-1,075.36	-4,038.69	1,918,237.34	2,759,103.10	36.2717461	-107.7111652	
10,759.00	89.56	270.160	5,504.99	-1,074.42	-4,132.68	1,918,238.14	2,759,009.10	36.2717486	-107.7114841	



Scientific Drilling, Intl
Survey Report - Geographic



Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well State 2408-32A 3H
Project:	San Juan, NM NAD83	TVD Reference:	GL 7002' & RKB 25' @ 7027.00usft (Aztec 1000)
Site:	State 2408-32A	MD Reference:	GL 7002' & RKB 25' @ 7027.00usft (Aztec 1000)
Well:	State 2408-32A 3H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,854.00	88.46	269.430	5,506.83	-1,074.76	-4,227.67	1,918,237.67	2,758,914.12	36.2717477	-107.7118063
10,949.00	90.57	269.250	5,507.44	-1,075.86	-4,322.65	1,918,236.44	2,758,819.14	36.2717446	-107.7121285
11,044.00	90.54	268.970	5,506.52	-1,077.33	-4,417.64	1,918,234.83	2,758,724.16	36.2717405	-107.7124508
11,138.00	90.07	268.280	5,508.02	-1,079.59	-4,511.81	1,918,232.44	2,758,630.19	36.2717343	-107.7127696
11,233.00	89.83	267.900	5,506.10	-1,082.75	-4,606.55	1,918,229.14	2,758,535.25	36.2717256	-107.7130917
11,327.00	90.77	270.260	5,505.61	-1,084.26	-4,700.53	1,918,227.50	2,758,441.27	36.2717214	-107.7134105
11,422.00	91.24	269.840	5,503.94	-1,084.18	-4,795.52	1,918,227.45	2,758,346.28	36.2717216	-107.7137327
11,444.00	91.39	269.691	5,503.43	-1,084.27	-4,817.51	1,918,227.33	2,758,324.29	36.2717213	-107.7138073
First Perf @ 11,444' MD - 36.2717213, -107.7138073									
11,453.00	91.45	269.630	5,503.21	-1,084.32	-4,826.51	1,918,227.26	2,758,315.29	36.2717211	-107.7138379
Last SDI Lateral MWD Survey									
11,514.00	91.45	269.630	5,501.67	-1,084.72	-4,887.49	1,918,226.78	2,758,254.32	36.2717200	-107.7140447
Projection to TD									

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
435.00	434.99	1.65	-2.08	First SDI Surface MWD Survey
5,146.00	4,866.30	-871.18	1,038.75	Last SDI Surface MWD Survey
5,240.00	4,954.57	-903.01	1,033.93	First SDI Curve MWD Survey
6,187.00	5,542.65	-1,106.71	434.22	Last SDI Curve MWD Survey
6,330.00	5,547.64	-1,119.70	291.90	First SDI Lateral MWD Survey
6,350.00	5,548.17	-1,121.38	271.97	Last Perf @ 6350' MD
6,350.00	5,548.17	-1,121.38	271.97	36.2716205, -107.6965413
11,444.00	5,503.43	-1,084.27	-4,817.51	First Perf @ 11,444' MD
11,444.00	5,503.43	-1,084.27	-4,817.51	36.2717213, -107.7138073
11,453.00	5,503.21	-1,084.32	-4,826.51	Last SDI Lateral MWD Survey
11,514.00	5,501.67	-1,084.72	-4,887.49	Projection to TD

Checked By: _____ Approved By: _____ Date: _____