

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address MORNINGSTAR OPERATING LLC 400 W 7TH ST, FORT WORTH, TX 76102		² OGRID Number 330132	
		³ Reason for Filing Code/ Effective Date RT / 10/29/2022	
⁴ API Number 30 - 0 39-30167	⁵ Pool Name BASIN FRUITLAND COAL		⁶ Pool Code 71629
⁷ Property Code 329019	⁸ Property Name CARRACAS 21A		⁹ Well Number 1-4ST

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
o	21	32N	5W		698'	S	2020'	E	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
G	21	32N	5W		1643'	N	1768'	E	RIO ARRIBA
¹² Lse Code	¹³ Producing Method Code		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
37388	HARVEST FOUR CORNERS, LLC 1111 TRAVIS ST, HOUSTON, TX 77002	G

IV. Well Completion Data

²¹ Spud Date	²² Ready Date 11/14/2022	²³ TD UPPER:6303' MD, 3675' TVD LOWER: 7080' MD, 3657' TVD	²⁴ PBTD	²⁵ Perforations UPPER: 4288' - 6206' LOWER: 4349' - 7031'	²⁶ DHC, MC
²⁷ Hole Size		²⁸ Casing & Tubing Size	²⁹ Depth Set		³⁰ Sacks Cement
12 1/4		9 5/8	223'		125
8 3/4		7	4355'		550
6 1/8		4 1/2	6252' MD		0
6 1/4		4 1/2	7080' MD		0

V. Well Test Data

³¹ Date New Oil	³² Gas Delivery Date	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>Connie Blaylock</i>			OIL CONSERVATION DIVISION		
Printed name: CONNIE BLAYLOCK			Approved by: John		
Title: REGULATORY ANALYST			Title: Engineer		
E-mail Address: CBLAYLOCK@MSPARTNERS.COM			Approval Date: 11/17/22		
Date: 11/11/2022		Phone: 817-334-7882	RT is approved for 90 days		

DISTRICT I

1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-6161 Fax: (575) 748-0720

DISTRICT II

811 S. First St., Artesia, N.M. 88210
Phone: (505) 748-1283 Fax: (505) 748-9720

DISTRICT III

1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV

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

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-102
Revised August 1, 2011

Submit one copy to appropriate
District Office

☐ AMENDED REPORT
☒ AS-DRILLED

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-30167	² Pool Code 71629	³ Pool Name BASIN FRIUTLAND COAL
⁴ Property Code 329019	⁵ Property Name CARRACAS 21A	⁶ Well Number 1-4ST
⁷ OGRID No. 330132	⁸ Operator Name MORNINGSTAR OPERATING LLC	⁹ Elevation 7064'

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
O	21	32N	5W		698'	SOUTH	2020'	EAST	RIO ARRIBA

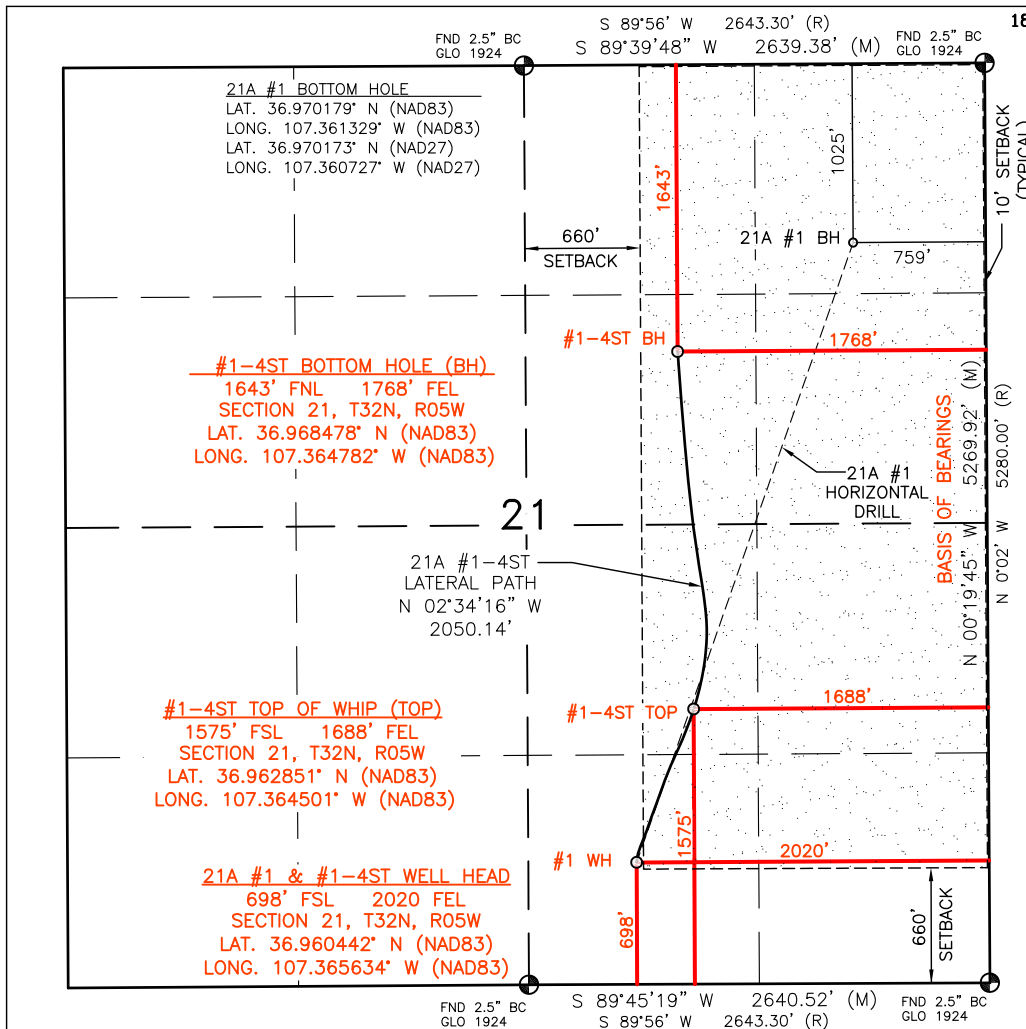
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	21	32N	5W		1643'	NORTH	1768'	EAST	RIO ARRIBA

¹² Dedicated Acres E/2 SEC. 21 320.00 ACRES	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

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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 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.

Connie Blaylock 11/07/2022
Signature Date

Connie Blaylock
Printed Name

cblaylock@mspartners.com
E-mail Address

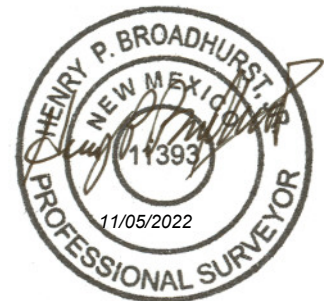
SURVEYOR CERTIFICATION

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.

NOVEMBER 3, 2022

Date of Survey

Signature and Seal of Professional Surveyor:



Certificate Number

11393



MorningStar Partners

Rio Arriba County, NM (NAD 27 - True North)

Carracas 21A 1

Carracas 21A 1

ST04

Design: ST04

Standard Survey Report

02 November, 2022

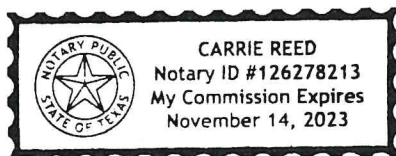
This survey is correct to the best of my knowledge and is supported by actual field data.

Cameron Stevens

Notarized this date 2nd of November, 2022.

Carrie Reed

Notary Signature
County of Midland
State of Texas





Survey Report

Company:	MorningStar Partners	Local Co-ordinate Reference:	Well Carracas 21A 1
Project:	Rio Arriba County, NM (NAD 27 - True North)	TVD Reference:	GL 7064 + KB 16 @ 7080.00usft
Site:	Carracas 21A 1	MD Reference:	GL 7064 + KB 16 @ 7080.00usft
Well:	Carracas 21A 1	North Reference:	True
Wellbore:	ST04	Survey Calculation Method:	Minimum Curvature
Design:	ST04	Database:	EDM5000

Project	Rio Arriba County, NM (NAD 27 - True North)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		

Site	Carracas 21A 1		
Site Position:		Northing:	2,169,202.24 usft
From:	Lat/Long	Easting:	636,822.37 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	36.960436
		Longitude:	-107.365032

Well	Carracas 21A 1		
Well Position	+N/-S	0.00 usft	Northing: 2,169,202.24 usft
	+E/-W	0.00 usft	Easting: 636,822.37 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
Grid Convergence:	0.28 °	Ground Level:	7,064.00 usft

Wellbore	ST04		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2020	10/24/2022	8.59
			Dip Angle (°)
			63.40
			Field Strength (nT)
			49,628.74557487

Design	ST04		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	4,210.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			Direction (°)
			357.72

Survey Program	Date	11/2/2022		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
101.00	4,210.00	Original Hole Surveys (OH)	MWD+IGRF	OWSG MWD + IGRF or WMM
4,318.00	6,303.00	Survey #1 (ST04)	MWD+IGRF	OWSG MWD + IGRF or WMM

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
101.00	0.11	356.15	101.00	0.10	-0.01	0.10	0.11	0.11	0.00	
201.00	0.22	356.15	201.00	0.38	-0.03	0.38	0.11	0.11	0.00	
301.00	0.32	356.15	301.00	0.85	-0.06	0.86	0.10	0.10	0.00	
401.00	0.43	356.15	401.00	1.51	-0.10	1.51	0.11	0.11	0.00	
493.00	0.53	356.15	492.99	2.28	-0.15	2.28	0.11	0.11	0.00	
501.00	0.52	356.91	500.99	2.35	-0.16	2.35	0.15	-0.13	9.50	
601.00	0.44	8.48	600.99	3.18	-0.13	3.18	0.13	-0.08	11.57	
701.00	0.38	24.38	700.99	3.86	0.07	3.86	0.13	-0.06	15.90	



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Well:	Carracas 21A 1	North Reference:	True
Wellbore:	ST04	Survey Calculation Method:	Minimum Curvature
Design:	ST04	Database:	EDM5000

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
801.00	0.36	43.80	800.98	4.39	0.42	4.37	0.13	-0.02	19.42	
901.00	0.39	63.03	900.98	4.77	0.94	4.73	0.13	0.03	19.23	
993.00	0.44	77.50	992.98	4.99	1.57	4.93	0.13	0.05	15.73	
1,001.00	0.44	78.02	1,000.98	5.01	1.63	4.94	0.05	0.00	6.50	
1,101.00	0.49	83.83	1,100.98	5.13	2.43	5.03	0.07	0.05	5.81	
1,201.00	0.54	88.60	1,200.97	5.19	3.32	5.05	0.07	0.05	4.77	
1,301.00	0.59	92.54	1,300.97	5.18	4.31	5.00	0.06	0.05	3.94	
1,401.00	0.65	95.82	1,400.96	5.10	5.39	4.88	0.07	0.06	3.28	
1,491.00	0.70	98.32	1,490.96	4.97	6.44	4.71	0.06	0.06	2.78	
1,501.00	0.69	96.84	1,500.95	4.95	6.56	4.68	0.21	-0.10	-14.80	
1,601.00	0.57	78.25	1,600.95	4.98	7.65	4.67	0.24	-0.12	-18.59	
1,701.00	0.53	54.07	1,700.94	5.35	8.51	5.01	0.23	-0.04	-24.18	
1,801.00	0.60	31.07	1,800.94	6.07	9.15	5.70	0.24	0.07	-23.00	
1,901.00	0.73	14.51	1,900.93	7.14	9.58	6.75	0.23	0.13	-16.56	
1,987.00	0.88	4.96	1,986.92	8.33	9.78	7.93	0.23	0.17	-11.10	
2,001.00	0.94	3.97	2,000.92	8.55	9.79	8.15	0.44	0.43	-7.07	
2,101.00	1.36	359.38	2,100.90	10.55	9.84	10.15	0.43	0.42	-4.59	
2,201.00	1.79	356.99	2,200.86	13.30	9.74	12.90	0.43	0.43	-2.39	
2,301.00	2.23	355.52	2,300.80	16.80	9.51	16.41	0.44	0.44	-1.47	
2,401.00	2.66	354.53	2,400.71	21.05	9.13	20.67	0.43	0.43	-0.99	
2,477.00	2.99	353.97	2,476.62	24.77	8.76	24.41	0.44	0.43	-0.74	
2,501.00	3.13	352.04	2,500.58	26.05	8.60	25.68	0.72	0.58	-8.04	
2,601.00	3.74	345.59	2,600.40	31.91	7.41	31.59	0.72	0.61	-6.45	
2,661.00	4.13	342.66	2,660.26	35.87	6.28	35.59	0.73	0.65	-4.88	
2,691.00	3.93	343.80	2,690.19	37.88	5.67	37.63	0.72	-0.67	3.80	
2,701.00	4.02	344.08	2,700.17	38.55	5.48	38.30	0.92	0.90	2.80	
2,722.00	4.22	344.64	2,721.11	40.00	5.07	39.77	0.97	0.95	2.67	
2,752.00	3.96	353.34	2,751.03	42.10	4.66	41.88	2.24	-0.87	29.00	
2,783.00	3.52	8.11	2,781.97	44.10	4.67	43.88	3.40	-1.42	47.65	
2,801.00	3.74	17.33	2,799.93	45.21	4.92	44.98	3.46	1.22	51.22	
2,814.00	3.96	23.24	2,812.90	46.03	5.23	45.78	3.49	1.69	45.46	
2,845.00	4.13	26.00	2,843.83	48.01	6.14	47.73	0.83	0.55	8.90	
2,875.00	5.19	28.60	2,873.73	50.18	7.26	49.85	3.60	3.53	8.67	
2,906.00	6.95	27.67	2,904.55	53.07	8.81	52.68	5.69	5.68	-3.00	
2,938.00	8.71	26.44	2,936.25	56.95	10.78	56.48	5.52	5.50	-3.84	
2,970.00	9.94	19.91	2,967.83	61.72	12.80	61.16	5.06	3.84	-20.41	
3,001.00	11.34	19.82	2,998.30	67.10	14.75	66.46	4.52	4.52	-0.29	
3,033.00	13.28	18.89	3,029.56	73.54	17.00	72.81	6.09	6.06	-2.91	
3,064.00	15.04	18.84	3,059.62	80.72	19.46	79.88	5.68	5.68	-0.16	
3,096.00	16.80	20.54	3,090.39	88.98	22.42	88.01	5.69	5.50	5.31	
3,101.00	17.16	20.57	3,095.17	90.34	22.93	89.36	7.20	7.20	0.60	
3,128.00	19.08	20.72	3,120.83	98.20	25.89	97.09	7.11	7.11	0.56	
3,151.00	20.65	20.20	3,142.46	105.52	28.62	104.30	6.87	6.83	-2.26	



Survey Report

Company:	MorningStar Partners	Local Co-ordinate Reference:	Well Carracas 21A 1
Project:	Rio Arriba County, NM (NAD 27 - True North)	TVD Reference:	GL 7064 + KB 16 @ 7080.00usft
Site:	Carracas 21A 1	MD Reference:	GL 7064 + KB 16 @ 7080.00usft
Well:	Carracas 21A 1	North Reference:	True
Wellbore:	ST04	Survey Calculation Method:	Minimum Curvature
Design:	ST04	Database:	EDM5000

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,159.00	21.19	20.04	3,149.93	108.21	29.61	106.94	6.79	6.75	-2.00
3,191.00	23.21	20.14	3,179.56	119.56	33.76	118.12	6.31	6.31	0.31
3,201.00	23.95	20.10	3,188.72	123.32	35.14	121.82	7.40	7.40	-0.40
3,223.00	25.59	20.01	3,208.70	131.98	38.30	130.35	7.46	7.45	-0.41
3,255.00	28.14	20.89	3,237.24	145.52	43.35	143.68	8.06	7.97	2.75
3,287.00	29.99	20.06	3,265.21	160.08	48.79	158.02	5.92	5.78	-2.59
3,301.00	30.79	20.19	3,277.29	166.73	51.22	164.56	5.73	5.71	0.93
3,319.00	31.83	20.34	3,292.67	175.51	54.46	173.20	5.79	5.78	0.83
3,350.00	33.41	20.55	3,318.78	191.17	60.30	188.62	5.11	5.10	0.68
3,382.00	35.00	20.32	3,345.24	208.02	66.58	205.21	4.99	4.97	-0.72
3,401.00	35.36	20.76	3,360.77	218.27	70.42	215.30	2.32	1.89	2.32
3,414.00	35.61	21.06	3,371.36	225.32	73.12	222.24	2.34	1.92	2.31
3,446.00	36.76	21.08	3,397.18	242.95	79.91	239.58	3.59	3.59	0.06
3,451.00	37.06	21.02	3,401.18	245.76	80.99	242.34	6.04	6.00	-1.20
3,478.00	38.69	20.70	3,422.49	261.24	86.89	257.58	6.08	6.04	-1.19
3,509.00	40.10	19.64	3,446.45	279.71	93.67	275.76	5.04	4.55	-3.42
3,541.00	41.94	19.19	3,470.59	299.52	100.65	295.28	5.82	5.75	-1.41
3,551.00	42.60	19.17	3,477.99	305.87	102.86	301.54	6.60	6.60	-0.20
3,573.00	44.05	19.14	3,494.00	320.13	107.81	315.59	6.59	6.59	-0.14
3,605.00	46.69	19.04	3,516.47	341.65	115.26	336.80	8.25	8.25	-0.31
3,637.00	50.21	19.65	3,537.70	364.24	123.19	359.05	11.09	11.00	1.91
3,651.00	52.06	19.95	3,546.48	374.50	126.89	369.15	13.32	13.21	2.14
3,669.00	54.43	20.31	3,557.25	388.04	131.85	382.48	13.26	13.17	2.00
3,701.00	57.77	21.29	3,575.10	412.86	141.28	406.91	10.74	10.44	3.06
3,732.00	58.92	21.77	3,591.36	437.41	150.97	431.05	3.94	3.71	1.55
3,764.00	59.62	21.85	3,607.72	462.94	161.19	456.17	2.20	2.19	0.25
3,796.00	61.11	21.89	3,623.54	488.76	171.55	481.54	4.66	4.66	0.13
3,801.00	61.58	21.90	3,625.94	492.83	173.18	485.55	9.40	9.40	0.20
3,828.00	64.10	21.98	3,638.26	515.11	182.16	507.45	9.34	9.33	0.30
3,851.00	66.38	21.99	3,647.89	534.47	189.98	526.49	9.91	9.91	0.04
3,860.00	67.27	21.99	3,651.43	542.15	193.08	534.04	9.89	9.89	0.00
3,892.00	69.12	22.28	3,663.32	569.67	204.27	561.09	5.84	5.78	0.91
3,901.00	69.51	22.32	3,666.50	577.46	207.47	568.74	4.35	4.33	0.44
3,924.00	70.52	22.43	3,674.36	597.44	215.69	588.39	4.41	4.39	0.48
3,956.00	71.67	22.43	3,684.73	625.43	227.24	615.89	3.59	3.59	0.00
3,989.00	73.25	22.65	3,694.67	654.49	239.31	644.45	4.83	4.79	0.67
4,001.00	73.88	22.63	3,698.07	665.11	243.74	654.89	5.25	5.25	-0.17
4,021.00	74.92	22.59	3,703.45	682.89	251.14	672.36	5.20	5.20	-0.20
4,053.00	75.89	22.08	3,711.51	711.54	262.91	700.51	3.40	3.03	-1.59
4,084.00	77.29	22.14	3,718.70	739.47	274.26	727.98	4.52	4.52	0.19
4,101.00	78.97	22.32	3,722.20	754.87	280.55	743.11	9.94	9.88	1.06
4,116.00	80.46	22.47	3,724.87	768.52	286.18	756.52	9.98	9.93	1.00
4,126.00	81.67	22.53	3,726.43	777.64	289.96	765.49	12.11	12.10	0.60



Survey Report

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Well:	Carracas 21A 1	North Reference:	True
Wellbore:	ST04	Survey Calculation Method:	Minimum Curvature
Design:	ST04	Database:	EDM5000

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,148.00	84.33	22.66	3,729.11	797.80	298.35	785.30	12.11	12.09	0.59
4,151.00	84.73	22.69	3,729.39	800.56	299.50	788.01	13.37	13.33	1.00
4,178.00	88.37	22.95	3,731.02	825.39	309.95	812.41	13.52	13.48	0.96
4,201.00	90.52	23.08	3,731.24	846.56	318.94	833.20	9.36	9.35	0.57
4,210.00	91.36	23.13	3,731.09	854.84	322.47	841.33	9.35	9.33	0.56
4,318.00	95.67	17.91	3,724.47	955.73	360.25	940.64	6.26	3.99	-4.83
4,382.00	93.30	12.98	3,719.46	1,017.21	377.23	1,001.40	8.53	-3.70	-7.70
4,445.00	92.07	10.08	3,716.51	1,078.86	389.80	1,062.50	5.00	-1.95	-4.60
4,509.00	92.86	7.27	3,713.76	1,142.07	399.45	1,125.27	4.56	1.23	-4.39
4,573.00	93.56	3.05	3,710.17	1,205.69	405.19	1,188.62	6.67	1.09	-6.59
4,636.00	94.26	359.80	3,705.87	1,268.52	406.76	1,251.33	5.27	1.11	-5.16
4,700.00	92.37	356.90	3,702.17	1,332.37	404.92	1,315.21	5.40	-2.95	-4.53
4,764.00	91.36	355.41	3,700.09	1,396.19	400.63	1,379.15	2.81	-1.58	-2.33
4,824.00	89.17	355.41	3,699.81	1,456.00	395.83	1,439.10	3.65	-3.65	0.00
4,885.00	88.20	355.67	3,701.21	1,516.79	391.08	1,500.04	1.65	-1.59	0.43
4,946.00	87.76	354.18	3,703.36	1,577.52	385.69	1,560.92	2.55	-0.72	-2.44
5,008.00	90.79	352.07	3,704.15	1,639.05	378.27	1,622.71	5.95	4.89	-3.40
5,069.00	91.76	351.36	3,702.79	1,699.40	369.48	1,683.36	1.97	1.59	-1.16
5,131.00	92.07	351.80	3,700.72	1,760.70	360.41	1,744.97	0.87	0.50	0.71
5,192.00	92.59	354.18	3,698.24	1,821.19	352.97	1,805.70	3.99	0.85	3.90
5,252.00	91.27	352.15	3,696.22	1,880.72	345.83	1,865.48	4.03	-2.20	-3.38
5,314.00	90.57	352.51	3,695.22	1,942.16	337.56	1,927.19	1.27	-1.13	0.58
5,375.00	90.40	351.28	3,694.71	2,002.55	328.96	1,987.88	2.04	-0.28	-2.02
5,437.00	90.66	351.80	3,694.13	2,063.87	319.84	2,049.51	0.94	0.42	0.84
5,467.00	85.87	351.10	3,695.04	2,093.51	315.38	2,079.31	16.14	-15.97	-2.33
5,498.00	85.78	350.92	3,697.30	2,124.05	310.55	2,110.02	0.65	-0.29	-0.58
5,558.00	88.59	352.77	3,700.24	2,183.37	302.05	2,169.62	5.60	4.68	3.08
5,619.00	89.87	355.06	3,701.06	2,244.01	295.59	2,230.48	4.30	2.10	3.75
5,680.00	90.57	357.43	3,700.83	2,304.88	291.59	2,291.45	4.05	1.15	3.89
5,740.00	90.88	357.16	3,700.07	2,364.80	288.76	2,351.44	0.69	0.52	-0.45
5,802.00	91.19	356.11	3,698.95	2,426.69	285.12	2,413.42	1.77	0.50	-1.69
5,862.00	91.98	355.76	3,697.29	2,486.51	280.87	2,473.37	1.44	1.32	-0.58
5,923.00	91.89	354.18	3,695.23	2,547.24	275.53	2,534.26	2.59	-0.15	-2.59
5,983.00	92.07	354.18	3,693.16	2,606.89	269.45	2,594.11	0.30	0.30	0.00
6,045.00	93.30	356.55	3,690.25	2,668.62	264.44	2,655.99	4.30	1.98	3.82
6,303.00	93.30	356.55	3,675.40	2,925.72	248.94	2,913.50	0.00	0.00	0.00
PTB 6303.00' MD/3675.40' TVD									



Survey Report

Company:	MorningStar Partners	Local Co-ordinate Reference:	Well Carracas 21A 1
Project:	Rio Arriba County, NM (NAD 27 - True North)	TVD Reference:	GL 7064 + KB 16 @ 7080.00usft
Site:	Carracas 21A 1	MD Reference:	GL 7064 + KB 16 @ 7080.00usft
Well:	Carracas 21A 1	North Reference:	True
Wellbore:	ST04	Survey Calculation Method:	Minimum Curvature
Design:	ST04	Database:	EDM5000

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,303.00	3,675.40	2,925.72	248.94	PTB 6303.00' MD/3675.40' TVD

Checked By: _____

Approved By: _____

Date: _____

MorningStar Operating, LLC

Post Sidetrack Current WBD 10/31/2022

Carracas 21 A 1
Rio Arriba County, NM
32N-5W Section 21

Sidetrack TD – 7,848' MD; 3,657' TVD
Lower TD – 7,080' MD; 3,685' TVD

12 1/4" hole to 230'
Csg: 5 jts – 9 5/8" 32.3# H-40 ST&C
Setting Depth: 223'

Cement
125 sx Class G (148 ft³)
Circ. 10 bbls cmt to surface

8 3/4" hole to 4,380'
Csg: 99 jts – 7" 23# J-55 LT&C
Setting Depth: 4,355'

Cement
Lead: 550 sx Halliburton Light
Tail: 125 sx Class G (1422 ft³)
Circ. 20 bbls cmt to surface

6 1/8" Upper lateral hole to 6,303' md; 3,675' tvd
Liner: Est. 47 jts – 4 1/2" 11.6# J-55 LT&C
TOL: 4,250' MD (8' drop off outside window)
Setting Depth: 6,252' MD; 3,xxx' TVD
Perforations: 4,288'-6,206'
every other jt perf'd 24blank 23perf'd
4' blank on each end. 4spf; 90° ph
~ 3,404 total perforations

6 1/4" Lower lateral hole to 7,080' md; 3,657' tvd
Liner: 66 jts- 4 1/2" 11.6# J-55 LT&C
Setting Depth: 7,080'
16,092 – 1/2" holes @ 6 spf from 4,349'-7,031'
TOL: 4,298'
No cement

Csg issue @ 3,783.2'
with IB showing csg issue

Milled smooth 6" on 9/25/2022

Whipstock @ 4234-52' ~ 92°

RBP top @ 4,252 ~ 93°

4.5" Liner Top
4,298' md

7" Set @ 4,355' MD

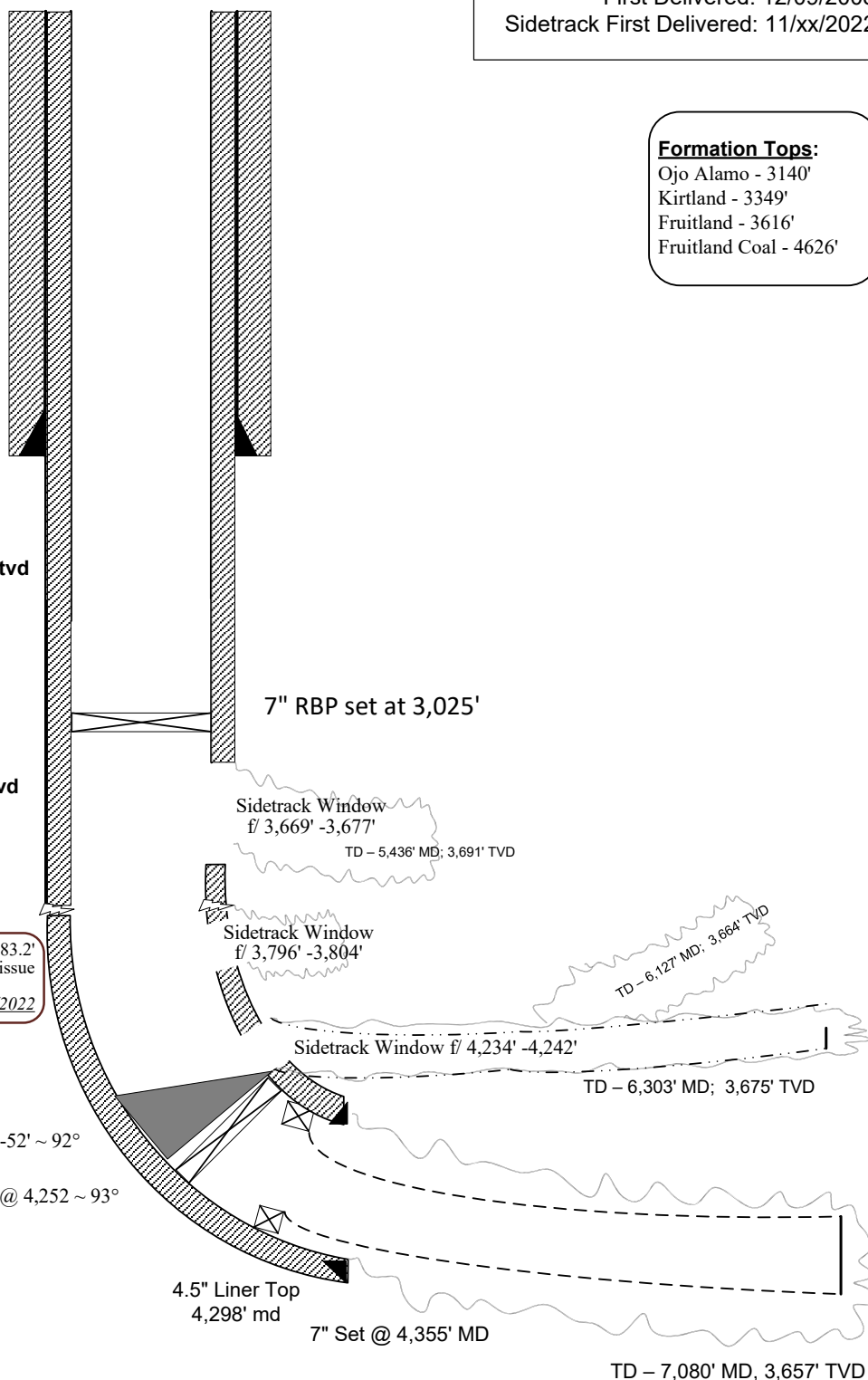
TD – 7,080' MD, 3,657' TVD

Prepared by: CArnold
Date: 02/18/2019
Updated: B.Savage 06/14/2021
Updated: J Marschall 11/09/2021
Updated: B.Savage 10/31/2022
KB = 18'
GL = 7,064'
API# 30-039-30167

Spud Date: 09/30/2008
First Delivered: 12/09/2008
Sidetrack First Delivered: 11/xx/2022

Formation Tops:

Ojo Alamo - 3140'
Kirtland - 3349'
Fruitland - 3616'
Fruitland Coal - 4626'



MorningStar Operating, LLC

Post Sidetrack Proposed Corod RTP

Carracas 21 A 1
Rio Arriba County, NM
32N-5W Section 21

Sidetrack TD – 7,848' MD; 3,657' TVD
Lower TD – 7,080' MD; 3,685' TVD

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No cement

Csg issue @ 3,783.2'
with IB showing csg issue

Milled smooth 6" on 9/25/2022

Prepared by: CArnold

Date: 02/18/2019

Updated: B.Savage 06/14/2021

Updated: J Marshall 11/09/2021

Updated: B.Savage 10/31/2022

KB = 18'

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Spud Date: 09/30/2008

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Ojo Alamo - 3140'

Kirtland - 3349'

Fruitland - 3616'

Fruitland Coal - 4626'

PROPOSED

2-3/8" 4.7# J-55 Prod Tbg:

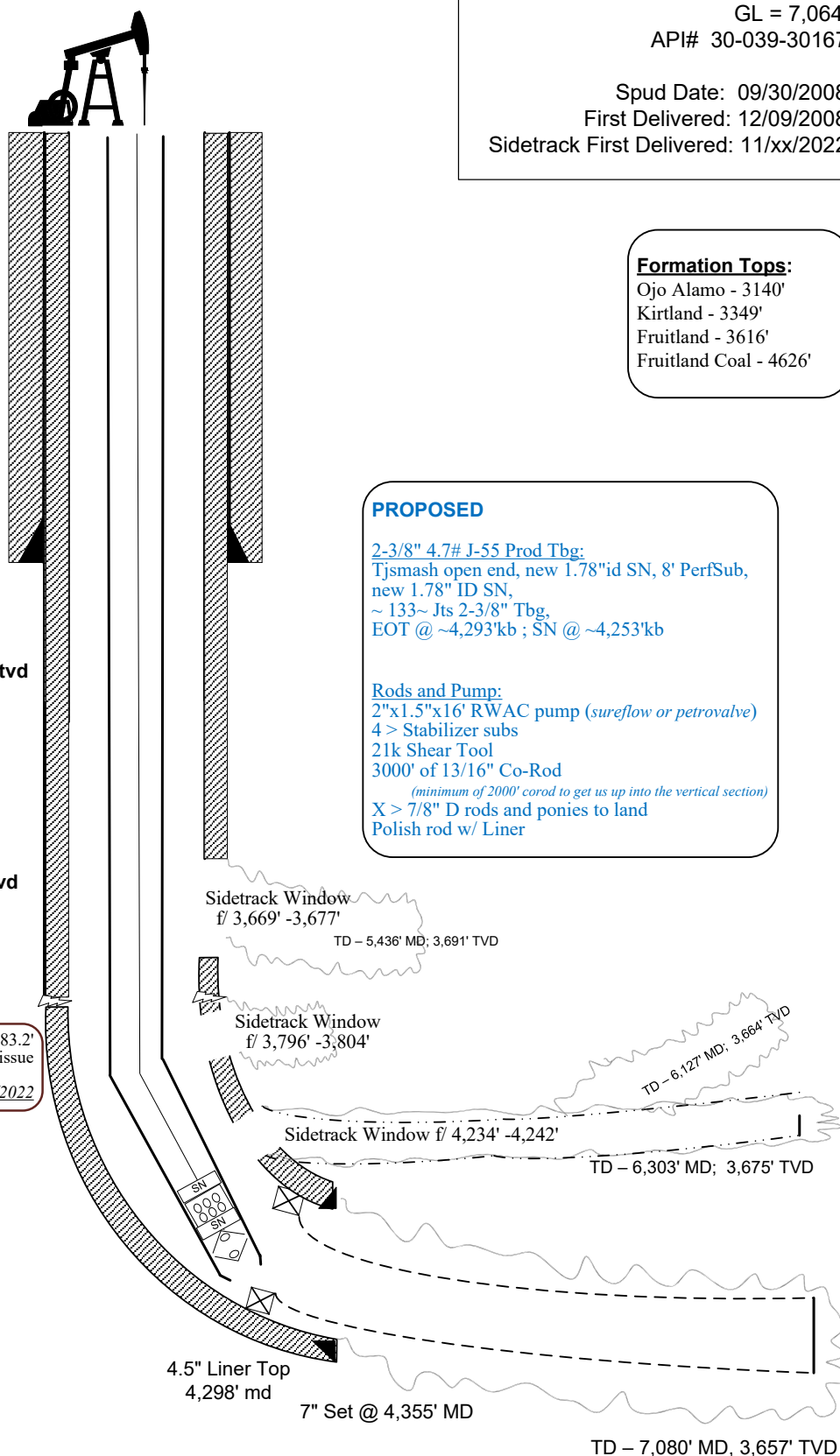
Tj smash open end, new 1.78" id SN, 8' PerfSub,
new 1.78" ID SN,
~ 133~ Jts 2-3/8" Tbg,
EOT @ ~4,293' kb; SN @ ~4,253' kb

Rods and Pump:

2"x1.5"x16' RWAC pump (sureflow or petrovalve)
4 > Stabilizer subs
21k Shear Tool
3000' of 13/16" Co-Rod

(minimum of 2000' corod to get us up into the vertical section)

X > 7/8" D rods and ponies to land
Polish rod w/ Liner



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 158046

ACKNOWLEDGMENTS

Operator: MorningStar Operating LLC 400 W 7th St Fort Worth, TX 76102	OGRID: 330132
	Action Number: 158046
	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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Energy, Minerals and Natural Resources
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1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 158046

CONDITIONS

Operator: MorningStar Operating LLC 400 W 7th St Fort Worth, TX 76102	OGRID: 330132
	Action Number: 158046
	Action Type: [C-104] Completion Packet (C-104C)

CONDITIONS

Created By	Condition	Condition Date
jagarcia	RT is approved for 90 days	11/17/2022