

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

Oil Conservation Division

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-104

Revised August 1, 2011

Submit one copy to appropriate District Office

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address DJR Operating, LLC 1 Road 3263 Aztec, NM 87410		² OGRID Number 371838	
		³ Reason for Filing Code/ Effective Date RT	
⁴ API Number 30-043-21334	⁵ Pool Name Alamito N; Mancos (Oil)		⁶ Pool Code 98174
⁷ Property Code 325267	⁸ Property Name North Alamito Unit		⁹ Well Number 528H

II. ¹⁰ Surface Location

UL or lot no. J	Section 31	Township 23N	Range 7W	Lot Idn	Feet from the 2244	North/South Line South	Feet from the 2504	East/West line East	County Sandoval
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¹¹ Bottom Hole Location

UL or lot no. C	Section 25	Township 23N	Range 8W	Lot Idn	Feet from the 587	North/South line North	Feet from the 1313	East/West line West	County San Juan
¹² Lse Code F	¹³ Producing Method Code F		¹⁴ Gas Connection Date ~12/31/2020		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
248440	Western Refining Company, LP	O
	6500 Townbridge Drive, El Paso, TX 79905	
151618	Enterprise Field Services, LLC	G
	Post Office Box 4503, Houston, TX 77001	

IV. Well Completion Data

²¹ Spud Date 02/03/2020	²² Ready Date 12/21/2020	²³ TD 15,330' MD 5,164' TVD	²⁴ PBTD 15,312' MD 5,164' TVD	²⁵ Perforations 6,059'-15,258' MD 5,130'-5,178' TVD Frac Sleeve @ 15,291'	²⁶ DHC, MC
²⁷ Hole Size		²⁸ Casing & Tubing Size		²⁹ Depth Set	³⁰ Sacks Cement
12.25		9.625" 36# J55		383'	109
8.75		7" 26# J55		5,703'	Lead: 406 Tail: 235
6.125		4.5" 11.6# P110		TOL: 5,359' BOL: 15,326'	843

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>Shaw-Marie Ford</i> Printed name: Shaw-Marie Ford Title: Regulatory Specialist E-mail Address: sford@djrlc.com Date: 12/04/2020		OIL CONSERVATION DIVISION	
		Approved by: <i>Amy Ferminsch</i>	
		Title: Data Compliance Manager	
		Approval Date: 12/17/20	
		Phone: 505-716-3297	

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: (575) 748-1283 Fax: (575) 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

Form C-102
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
As Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-043-21334	² Pool Code 98174	³ Pool Name NORTH ALAMITO UNIT MANCOS OIL POOL
⁴ Property Code 325267	⁵ Property Name NORTH ALAMITO UNIT	⁶ Well Number 528H
⁷ OGRID No. 371838	⁸ Operator Name DJR OPERATING, LLC	⁹ Elevation 6981'

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
J	31	23N	7W		2244'	SOUTH	2504'	EAST	SANDOVAL

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
C	25	23N	8W		587'	NORTH	1313'	WEST	SAN JUAN

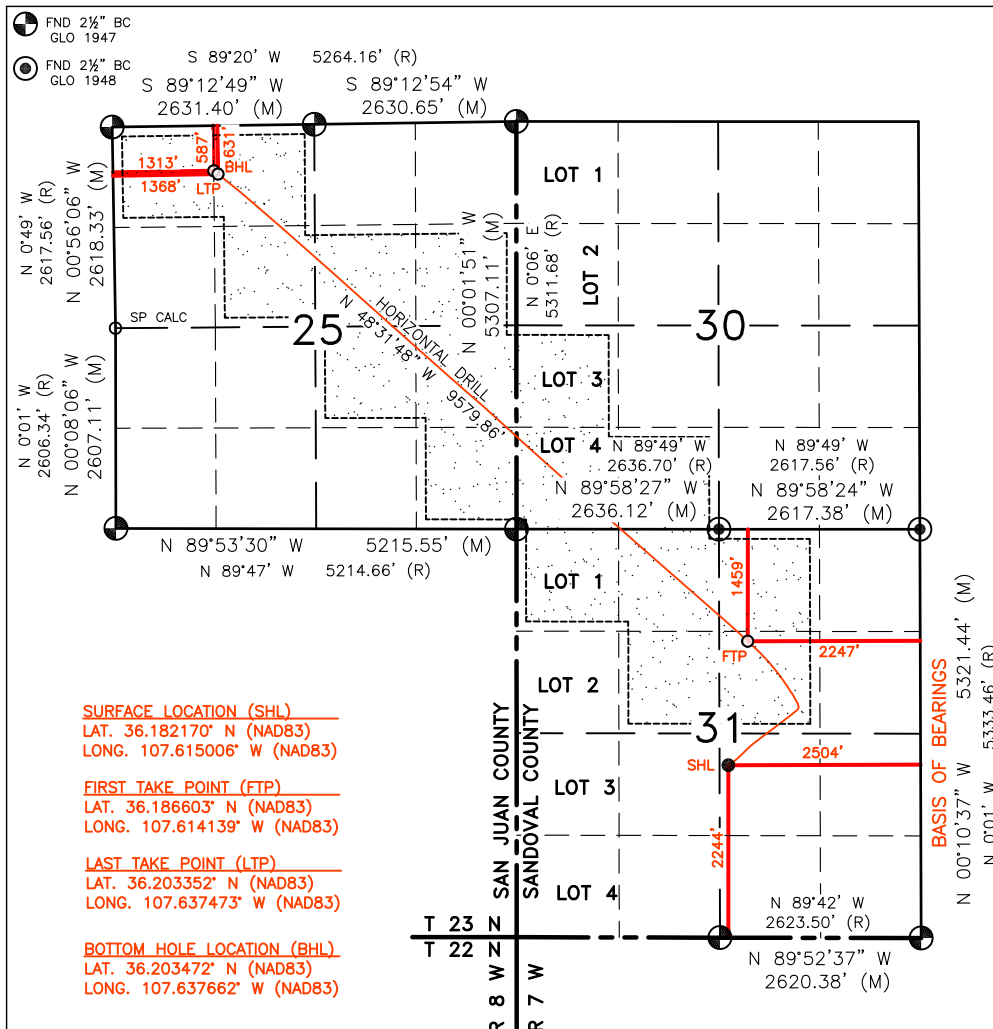
¹² Dedicated Acres PENETRATED SPACING UNIT;
SEC 31: NW/NE, SW/NE, NW/NW, NE/NW, SE/NW (200.61 AC.); SEC 30: NW/SW, SW/SW, SE/SW (121.26 AC.); SEC 25: NW/SE, NE/SE, SE/SE, SE/NE, NW/NW, NE/NW, SE/NW (320.00 AC.) = 641.87 ACRES TOTAL

¹³ Joint or Infill¹⁴ Consolidation Code¹⁵ Order No.

R-14081, R-14081A

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

16



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.

Shaw-Marie Ford 12/04/20
Signature Date

Shaw-Marie Ford

Printed Name

sford@djrlc.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.

DECEMBER 3, 2020

Date of Survey

Signature and Seal of Professional Surveyor:



Certificate Number

11393

**Directional Survey Certification**

2948 I-70 Business Loop
Grand Junction, CO 81504
(970)-245-9447 Fax (970)-245-9454

Operator	DJR Operating
Well Name & No.	North Alamito J31 2307 528H
County & State	San Juan, NM
SDI Job No.	OP.023900
Rig	Aztec 920

I, Janie Collins, having personal knowledge of all the facts, hereby certify that the attached directional survey run from a measured depth of 501 feet to a measured depth of 15,330 feet is true and correct as determined from all available records.

A handwritten signature in blue ink, appearing to read 'Janie Collins', written over a horizontal line.

Signature

9-Mar-20

Date

Janie Collins

Colorado District Well Planner
Scientific Drilling International



Scientific Drilling, Intl Survey Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well NAU 528H - Slot 3
Project:	North Alamito Unit	TVD Reference:	GL 6979' & RKB 14' @ 6993.00usft (Aztec 920)
Site:	J31 2307	MD Reference:	GL 6979' & RKB 14' @ 6993.00usft (Aztec 920)
Well:	NAU 528H	North Reference:	True
Wellbore:	Original drilling	Survey Calculation Method:	Minimum Curvature
Design:	Original drilling	Database:	Grand Junction

Project	North Alamito Unit		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site		J31 2307			
Site Position:		Northing:	1,885,649.91 usft	Latitude:	36.1820890
From:	Lat/Long	Easting:	2,787,494.55 usft	Longitude:	-107.6150970
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	0.13 °

Well		NAU 528H - Slot 3				
Well Position	+N/-S	0.00 usft	Northing:	1,885,679.45 usft	Latitude:	36.1821700
	+E/-W	0.00 usft	Easting:	2,787,521.34 usft	Longitude:	-107.6150060
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	6,979.00 usft

Wellbore	Original drilling				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	1/20/2019	8.82	62.78	49,415.20000000

Design	Original drilling				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	319.234	

Survey Program	Date	3/9/2020			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
501.00	4,599.00	Survey #1 - Surface MWD Survey (Original)	MWD+HDGM	OWSG MWD + HDGM	
4,662.00	5,659.00	Survey #2 - Curve MWD Survey (Original)	MWD+HDGM	OWSG MWD + HDGM	
5,746.00	15,330.00	Survey #3 - Lateral MWD Survey (Original)	MWD+HDGM	OWSG MWD + HDGM	

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	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
501.00	1.40	25.290	500.95	5.53	2.61	2.48	0.28	0.28	0.00	
623.00	4.61	45.930	622.77	10.29	6.78	3.37	2.73	2.63	16.92	
684.00	6.01	48.190	683.51	14.13	10.92	3.57	2.32	2.30	3.70	
744.00	7.85	52.330	743.07	18.73	16.50	3.41	3.18	3.07	6.90	
805.00	8.80	54.190	803.42	24.00	23.58	2.78	1.62	1.56	3.05	
866.00	9.79	57.440	863.62	29.52	31.74	1.64	1.84	1.62	5.33	
926.00	10.66	59.700	922.67	35.07	40.83	-0.10	1.60	1.45	3.77	
987.00	11.53	61.010	982.53	40.87	51.03	-2.37	1.48	1.43	2.15	



Scientific Drilling, Intl Survey Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well NAU 528H - Slot 3
Project:	North Alamito Unit	TVD Reference:	GL 6979' & RKB 14' @ 6993.00usft (Aztec 920)
Site:	J31 2307	MD Reference:	GL 6979' & RKB 14' @ 6993.00usft (Aztec 920)
Well:	NAU 528H	North Reference:	True
Wellbore:	Original drilling	Survey Calculation Method:	Minimum Curvature
Design:	Original drilling	Database:	Grand Junction

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)	
1,047.00	12.70	62.230	1,041.19	46.85	62.11	-5.08	2.00	1.95	2.03	
1,107.00	13.59	59.220	1,099.62	53.53	74.01	-7.78	1.87	1.48	-5.02	
1,168.00	14.26	56.480	1,158.83	61.35	86.43	-9.97	1.54	1.10	-4.49	
1,228.00	15.29	53.930	1,216.84	70.08	98.98	-11.55	2.03	1.72	-4.25	
1,289.00	16.00	50.380	1,275.58	80.18	111.96	-12.38	1.95	1.16	-5.82	
1,350.00	16.81	45.940	1,334.10	91.68	124.78	-12.04	2.45	1.33	-7.28	
1,411.00	16.79	44.520	1,392.50	104.09	137.29	-10.81	0.67	-0.03	-2.33	
1,472.00	16.02	43.750	1,451.01	116.46	149.29	-9.28	1.31	-1.26	-1.26	
1,533.00	17.30	42.620	1,509.45	129.21	161.25	-7.43	2.16	2.10	-1.85	
1,593.00	18.61	43.150	1,566.53	142.76	173.84	-5.39	2.20	2.18	0.88	
1,654.00	18.60	42.030	1,624.34	157.09	187.01	-3.14	0.59	-0.02	-1.84	
1,716.00	18.55	42.410	1,683.11	171.71	200.28	-0.73	0.21	-0.08	0.61	
1,776.00	18.45	45.820	1,740.01	185.38	213.53	0.97	1.81	-0.17	5.68	
1,837.00	17.33	48.170	1,798.06	198.16	227.22	1.72	2.18	-1.84	3.85	
1,898.00	17.45	47.640	1,856.27	210.39	240.75	2.14	0.33	0.20	-0.87	
1,961.00	18.50	51.170	1,916.20	223.02	255.52	2.06	2.40	1.67	5.60	
2,025.00	18.59	51.190	1,976.88	235.78	271.38	1.37	0.14	0.14	0.03	
2,088.00	18.62	52.350	2,036.59	248.22	287.16	0.48	0.59	0.05	1.84	
2,151.00	18.24	51.600	2,096.35	260.48	302.85	-0.47	0.71	-0.60	-1.19	
2,214.00	17.47	50.380	2,156.32	272.64	317.87	-1.07	1.36	-1.22	-1.94	
2,277.00	17.35	49.540	2,216.43	284.76	332.30	-1.31	0.44	-0.19	-1.33	
2,340.00	19.07	51.840	2,276.28	297.22	347.54	-1.82	2.96	2.73	3.65	
2,404.00	19.50	53.110	2,336.69	310.09	364.30	-3.02	0.94	0.67	1.98	
2,467.00	19.37	53.700	2,396.10	322.59	381.13	-4.54	0.37	-0.21	0.94	
2,530.00	20.42	52.610	2,455.34	335.45	398.28	-6.01	1.77	1.67	-1.73	
2,593.00	20.67	51.720	2,514.33	349.01	415.75	-7.14	0.64	0.40	-1.41	
2,657.00	20.80	50.960	2,574.18	363.17	433.44	-7.97	0.47	0.20	-1.19	
2,720.00	21.28	50.630	2,632.98	377.46	450.96	-8.58	0.78	0.76	-0.52	
2,783.00	21.83	52.810	2,691.58	391.80	469.13	-9.59	1.54	0.87	3.46	
2,846.00	21.45	54.980	2,750.14	405.49	487.90	-11.48	1.41	-0.60	3.44	
2,909.00	20.41	55.390	2,808.98	418.34	506.37	-13.81	1.67	-1.65	0.65	
2,972.00	18.99	54.700	2,868.29	430.50	523.78	-15.96	2.28	-2.25	-1.10	
3,036.00	18.09	55.210	2,928.97	442.19	540.44	-17.99	1.43	-1.41	0.80	
3,099.00	17.59	55.270	2,988.94	453.19	556.30	-20.01	0.79	-0.79	0.10	
3,162.00	16.34	54.500	3,049.20	463.76	571.34	-21.82	2.02	-1.98	-1.22	
3,225.00	16.62	53.720	3,109.61	474.24	585.81	-23.34	0.57	0.44	-1.24	
3,288.00	16.53	50.830	3,169.99	485.23	600.03	-24.29	1.32	-0.14	-4.59	
3,351.00	17.34	52.170	3,230.26	496.65	614.39	-25.02	1.43	1.29	2.13	
3,414.00	17.80	52.340	3,290.32	508.29	629.43	-26.03	0.73	0.73	0.27	
3,478.00	17.15	52.110	3,351.37	520.06	644.62	-27.03	1.02	-1.02	-0.36	
3,541.00	18.48	51.990	3,411.34	531.92	659.82	-27.98	2.11	2.11	-0.19	
3,604.00	19.33	52.910	3,470.95	544.35	676.00	-29.13	1.43	1.35	1.46	
3,667.00	18.18	50.500	3,530.60	556.89	691.90	-30.01	2.20	-1.83	-3.83	



Scientific Drilling, Intl Survey Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well NAU 528H - Slot 3
Project:	North Alamito Unit	TVD Reference:	GL 6979' & RKB 14' @ 6993.00usft (Aztec 920)
Site:	J31 2307	MD Reference:	GL 6979' & RKB 14' @ 6993.00usft (Aztec 920)
Well:	NAU 528H	North Reference:	True
Wellbore:	Original drilling	Survey Calculation Method:	Minimum Curvature
Design:	Original drilling	Database:	Grand Junction

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)
3,731.00	17.82	48.600	3,591.47	569.72	706.95	-30.12	1.08	-0.56	-2.97
3,794.00	16.09	47.730	3,651.73	581.97	720.65	-29.79	2.78	-2.75	-1.38
3,857.00	15.10	48.190	3,712.41	593.31	733.22	-29.41	1.58	-1.57	0.73
3,920.00	15.51	45.880	3,773.17	604.65	745.39	-28.77	1.17	0.65	-3.67
3,983.00	15.39	48.920	3,833.90	616.00	757.73	-28.23	1.30	-0.19	4.83
4,046.00	17.69	52.830	3,894.29	627.28	771.67	-28.78	4.05	3.65	6.21
4,109.00	19.07	53.960	3,954.07	639.12	787.62	-30.23	2.26	2.19	1.79
4,172.00	18.12	53.190	4,013.79	651.05	803.78	-31.76	1.56	-1.51	-1.22
4,235.00	16.41	52.660	4,073.94	662.31	818.70	-32.96	2.73	-2.71	-0.84
4,298.00	17.09	52.860	4,134.27	673.30	833.16	-34.08	1.08	1.08	0.32
4,361.00	17.39	52.460	4,194.44	684.63	848.00	-35.20	0.51	0.48	-0.63
4,424.00	16.40	51.780	4,254.72	695.87	862.45	-36.12	1.60	-1.57	-1.08
4,487.00	16.49	55.180	4,315.14	706.47	876.78	-37.44	1.53	0.14	5.40
4,543.00	16.16	53.970	4,368.89	715.60	889.61	-38.91	0.85	-0.59	-2.16
4,599.00	15.69	46.460	4,422.74	725.40	901.40	-39.19	3.77	-0.84	-13.41
4,662.00	18.80	20.070	4,483.00	740.83	911.08	-33.82	13.23	4.94	-41.89
4,725.00	22.69	356.180	4,542.00	762.53	913.76	-19.13	14.65	6.17	-37.92
4,788.00	27.42	338.230	4,599.14	788.18	907.55	4.35	14.13	7.51	-28.49
4,851.00	34.21	334.930	4,653.22	817.73	894.65	35.15	11.10	10.78	-5.24
4,915.00	35.80	333.110	4,705.64	850.72	878.56	70.65	2.97	2.48	-2.84
4,978.00	36.41	329.930	4,756.55	883.34	860.86	106.91	3.13	0.97	-5.05
5,041.00	37.44	327.790	4,806.91	915.73	841.28	144.22	2.61	1.63	-3.40
5,104.00	42.34	327.120	4,855.24	949.77	819.54	184.20	7.81	7.78	-1.06
5,167.00	46.46	325.770	4,900.24	986.48	795.17	227.92	6.71	6.54	-2.14
5,230.00	51.11	325.910	4,941.74	1,025.69	768.57	274.98	7.38	7.38	0.22
5,293.00	54.97	325.790	4,979.61	1,067.34	740.31	324.98	6.13	6.13	-0.19
5,357.00	59.49	325.120	5,014.24	1,111.65	709.80	378.46	7.12	7.06	-1.05
5,420.00	63.54	323.840	5,044.28	1,156.70	677.63	433.59	6.67	6.43	-2.03
5,483.00	68.12	323.430	5,070.07	1,202.97	643.55	490.89	7.29	7.27	-0.65
5,546.00	71.49	321.380	5,091.82	1,249.80	607.48	549.91	6.16	5.35	-3.25
5,609.00	77.74	318.970	5,108.53	1,296.41	568.59	610.61	10.58	9.92	-3.83
5,659.00	81.30	317.280	5,117.62	1,333.01	535.77	659.76	7.86	7.12	-3.38
5,746.00	86.47	316.320	5,126.89	1,396.05	476.57	746.15	6.04	5.94	-1.10
5,809.00	88.86	314.960	5,129.45	1,441.05	432.56	808.97	4.36	3.79	-2.16
5,871.00	89.13	313.820	5,130.54	1,484.41	388.27	870.74	1.89	0.44	-1.84
5,934.00	88.82	313.710	5,131.67	1,527.98	342.78	933.44	0.52	-0.49	-0.17
5,997.00	90.27	313.530	5,132.17	1,571.44	297.17	996.14	2.32	2.30	-0.29
6,059.00	90.64	313.150	5,131.68	1,613.99	252.08	1,057.81	0.86	0.60	-0.61
6,122.00	90.37	312.770	5,131.12	1,656.92	205.98	1,120.43	0.74	-0.43	-0.60
6,185.00	89.87	312.350	5,130.99	1,699.53	159.57	1,183.00	1.04	-0.79	-0.67
6,248.00	89.60	312.600	5,131.28	1,742.07	113.11	1,245.56	0.58	-0.43	0.40
6,311.00	89.46	312.460	5,131.80	1,784.66	66.68	1,308.13	0.31	-0.22	-0.22
6,374.00	89.80	312.810	5,132.20	1,827.33	20.34	1,370.71	0.77	0.54	0.56



Scientific Drilling, Intl Survey Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well NAU 528H - Slot 3
Project:	North Alamito Unit	TVD Reference:	GL 6979' & RKB 14' @ 6993.00usft (Aztec 920)
Site:	J31 2307	MD Reference:	GL 6979' & RKB 14' @ 6993.00usft (Aztec 920)
Well:	NAU 528H	North Reference:	True
Wellbore:	Original drilling	Survey Calculation Method:	Minimum Curvature
Design:	Original drilling	Database:	Grand Junction

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)
6,437.00	89.03	312.770	5,132.85	1,870.12	-25.89	1,433.31	1.22	-1.22	-0.06
6,499.00	89.80	311.490	5,133.48	1,911.71	-71.87	1,494.83	2.41	1.24	-2.06
6,562.00	90.03	311.060	5,133.57	1,953.27	-119.22	1,557.22	0.77	0.37	-0.68
6,625.00	89.80	310.720	5,133.67	1,994.51	-166.84	1,619.55	0.65	-0.37	-0.54
6,688.00	89.87	310.600	5,133.85	2,035.56	-214.63	1,681.85	0.22	0.11	-0.19
6,750.00	89.87	310.200	5,133.99	2,075.74	-261.85	1,743.11	0.65	0.00	-0.65
6,813.00	89.76	310.190	5,134.19	2,116.40	-309.97	1,805.33	0.18	-0.17	-0.02
6,877.00	89.87	310.370	5,134.40	2,157.78	-358.80	1,868.55	0.33	0.17	0.28
6,940.00	89.87	310.060	5,134.54	2,198.46	-406.91	1,930.77	0.49	0.00	-0.49
7,003.00	89.87	309.840	5,134.69	2,238.91	-455.20	1,992.94	0.35	0.00	-0.35
7,066.00	89.90	309.740	5,134.81	2,279.23	-503.61	2,055.09	0.17	0.05	-0.16
7,129.00	89.83	309.630	5,134.96	2,319.46	-552.09	2,117.22	0.21	-0.11	-0.17
7,191.00	89.73	311.860	5,135.20	2,359.92	-599.06	2,178.53	3.60	-0.16	3.60
7,254.00	90.03	312.390	5,135.33	2,402.18	-645.79	2,241.05	0.97	0.48	0.84
7,317.00	90.34	312.270	5,135.13	2,444.60	-692.36	2,303.59	0.53	0.49	-0.19
7,380.00	89.83	311.930	5,135.03	2,486.84	-739.11	2,366.10	0.97	-0.81	-0.54
7,443.00	89.53	311.450	5,135.38	2,528.74	-786.15	2,428.56	0.90	-0.48	-0.76
7,505.00	89.76	311.230	5,135.77	2,569.69	-832.70	2,489.97	0.51	0.37	-0.35
7,568.00	90.07	311.300	5,135.86	2,611.24	-880.05	2,552.36	0.50	0.49	0.11
7,631.00	90.57	311.210	5,135.51	2,652.78	-927.42	2,614.75	0.81	0.79	-0.14
7,694.00	89.63	312.180	5,135.40	2,694.69	-974.46	2,677.20	2.14	-1.49	1.54
7,757.00	89.53	311.850	5,135.86	2,736.85	-1,021.26	2,739.70	0.55	-0.16	-0.52
7,820.00	89.40	311.480	5,136.45	2,778.73	-1,068.32	2,802.15	0.62	-0.21	-0.59
7,882.00	89.63	311.320	5,136.98	2,819.73	-1,114.83	2,863.57	0.45	0.37	-0.26
7,945.00	89.40	311.070	5,137.51	2,861.23	-1,162.23	2,925.95	0.54	-0.37	-0.40
8,008.00	89.63	310.670	5,138.04	2,902.45	-1,209.87	2,988.27	0.73	0.37	-0.63
8,071.00	89.76	310.710	5,138.38	2,943.52	-1,257.64	3,050.57	0.22	0.21	0.06
8,133.00	89.63	312.100	5,138.71	2,984.52	-1,304.14	3,111.99	2.25	-0.21	2.24
8,197.00	89.93	312.660	5,138.95	3,027.66	-1,351.42	3,175.54	0.99	0.47	0.88
8,260.00	89.97	312.170	5,139.01	3,070.16	-1,397.93	3,238.09	0.78	0.06	-0.78
8,323.00	90.34	312.100	5,138.84	3,112.42	-1,444.65	3,300.61	0.60	0.59	-0.11
8,386.00	90.50	312.050	5,138.38	3,154.64	-1,491.41	3,363.11	0.27	0.25	-0.08
8,448.00	90.47	311.880	5,137.85	3,196.09	-1,537.51	3,424.61	0.28	-0.05	-0.27
8,511.00	88.86	311.750	5,138.22	3,238.09	-1,584.46	3,487.08	2.56	-2.56	-0.21
8,574.00	89.13	311.740	5,139.32	3,280.03	-1,631.46	3,549.54	0.43	0.43	-0.02
8,637.00	89.19	311.470	5,140.25	3,321.86	-1,678.56	3,611.97	0.44	0.10	-0.43
8,700.00	89.26	311.020	5,141.10	3,363.39	-1,725.93	3,674.35	0.72	0.11	-0.71
8,762.00	89.60	311.020	5,141.72	3,404.08	-1,772.70	3,735.72	0.55	0.55	0.00
8,826.00	89.77	310.720	5,142.07	3,445.96	-1,821.10	3,799.03	0.54	0.27	-0.47
8,888.00	89.97	310.870	5,142.21	3,486.47	-1,868.03	3,860.36	0.40	0.32	0.24
8,952.00	90.00	310.720	5,142.23	3,528.28	-1,916.48	3,923.67	0.24	0.05	-0.23
9,015.00	90.57	312.140	5,141.91	3,569.97	-1,963.72	3,986.08	2.43	0.90	2.25
9,078.00	90.60	312.320	5,141.27	3,612.31	-2,010.36	4,048.61	0.29	0.05	0.29
9,141.00	90.71	312.030	5,140.55	3,654.60	-2,057.05	4,111.13	0.49	0.17	-0.46



Scientific Drilling, Intl Survey Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well NAU 528H - Slot 3
Project:	North Alamito Unit	TVD Reference:	GL 6979' & RKB 14' @ 6993.00usft (Aztec 920)
Site:	J31 2307	MD Reference:	GL 6979' & RKB 14' @ 6993.00usft (Aztec 920)
Well:	NAU 528H	North Reference:	True
Wellbore:	Original drilling	Survey Calculation Method:	Minimum Curvature
Design:	Original drilling	Database:	Grand Junction

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)	
9,204.00	90.20	311.680	5,140.05	3,696.64	-2,103.97	4,173.60	0.98	-0.81	-0.56	
9,267.00	90.50	311.160	5,139.66	3,738.32	-2,151.21	4,236.02	0.95	0.48	-0.83	
9,330.00	89.53	310.240	5,139.65	3,779.40	-2,198.98	4,298.32	2.12	-1.54	-1.46	
9,393.00	88.69	308.750	5,140.63	3,819.46	-2,247.58	4,360.40	2.71	-1.33	-2.37	
9,456.00	89.19	310.460	5,141.79	3,859.61	-2,296.11	4,422.50	2.83	0.79	2.71	
9,518.00	87.98	310.070	5,143.32	3,899.67	-2,343.41	4,483.72	2.05	-1.95	-0.63	
9,581.00	88.79	311.270	5,145.10	3,940.71	-2,391.17	4,545.99	2.30	1.29	1.90	
9,644.00	88.19	311.680	5,146.76	3,982.42	-2,438.36	4,608.39	1.15	-0.95	0.65	
9,707.00	89.76	312.620	5,147.89	4,024.69	-2,485.05	4,670.90	2.90	2.49	1.49	
9,769.00	90.03	312.830	5,148.00	4,066.76	-2,530.60	4,732.50	0.55	0.44	0.34	
9,831.00	90.84	313.840	5,147.53	4,109.30	-2,575.69	4,794.17	2.09	1.31	1.63	
9,894.00	90.03	314.320	5,147.05	4,153.13	-2,620.95	4,856.91	1.49	-1.29	0.76	
9,957.00	89.60	314.100	5,147.25	4,197.06	-2,666.11	4,919.67	0.77	-0.68	-0.35	
10,020.00	89.66	313.820	5,147.66	4,240.79	-2,711.45	4,982.40	0.45	0.10	-0.44	
10,081.00	88.49	312.340	5,148.65	4,282.45	-2,756.00	5,043.04	3.09	-1.92	-2.43	
10,144.00	89.76	312.740	5,149.61	4,325.03	-2,802.41	5,105.60	2.11	2.02	0.63	
10,206.00	90.40	312.700	5,149.52	4,367.10	-2,847.96	5,167.20	1.03	1.03	-0.06	
10,269.00	89.13	311.450	5,149.78	4,409.31	-2,894.72	5,229.71	2.83	-2.02	-1.98	
10,332.00	88.89	311.290	5,150.87	4,450.94	-2,942.00	5,292.10	0.46	-0.38	-0.25	
10,396.00	88.76	310.630	5,152.18	4,492.89	-2,990.32	5,355.42	1.05	-0.20	-1.03	
10,456.00	89.97	311.560	5,152.85	4,532.32	-3,035.53	5,414.82	2.54	2.02	1.55	
10,517.00	90.60	311.750	5,152.54	4,572.86	-3,081.11	5,475.28	1.08	1.03	0.31	
10,578.00	89.90	311.770	5,152.28	4,613.49	-3,126.61	5,535.76	1.15	-1.15	0.03	
10,639.00	91.14	311.950	5,151.72	4,654.19	-3,172.04	5,596.25	2.05	2.03	0.30	
10,700.00	90.91	311.860	5,150.63	4,694.93	-3,217.43	5,656.75	0.40	-0.38	-0.15	
10,761.00	90.00	310.550	5,150.15	4,735.11	-3,263.32	5,717.14	2.61	-1.49	-2.15	
10,822.00	89.80	310.110	5,150.25	4,774.59	-3,309.82	5,777.41	0.79	-0.33	-0.72	
10,883.00	89.53	309.580	5,150.61	4,813.67	-3,356.65	5,837.59	0.98	-0.44	-0.87	
10,942.00	89.23	309.310	5,151.25	4,851.15	-3,402.21	5,895.73	0.68	-0.51	-0.46	
11,003.00	89.40	310.750	5,151.98	4,890.38	-3,448.92	5,955.94	2.38	0.28	2.36	
11,063.00	88.66	309.500	5,152.99	4,929.05	-3,494.79	6,015.17	2.42	-1.23	-2.08	
11,124.00	89.50	310.810	5,153.97	4,968.38	-3,541.40	6,075.40	2.55	1.38	2.15	
11,185.00	91.61	313.080	5,153.38	5,009.14	-3,586.77	6,135.89	5.08	3.46	3.72	
11,245.00	92.62	313.280	5,151.17	5,050.17	-3,630.49	6,195.52	1.72	1.68	0.33	
11,306.00	92.35	313.510	5,148.52	5,092.04	-3,674.77	6,256.14	0.58	-0.44	0.38	
11,367.00	91.07	315.100	5,146.70	5,134.63	-3,718.40	6,316.89	3.35	-2.10	2.61	
11,428.00	90.20	315.350	5,146.03	5,177.93	-3,761.36	6,377.73	1.48	-1.43	0.41	
11,488.00	88.83	314.410	5,146.53	5,220.26	-3,803.88	6,437.56	2.77	-2.28	-1.57	
11,550.00	87.92	313.430	5,148.29	5,263.25	-3,848.52	6,499.26	2.16	-1.47	-1.58	
11,609.00	87.45	312.880	5,150.68	5,303.57	-3,891.52	6,557.88	1.23	-0.80	-0.93	
11,671.00	87.52	312.730	5,153.40	5,345.66	-3,936.96	6,619.43	0.27	0.11	-0.24	
11,731.00	87.28	312.150	5,156.12	5,386.11	-3,981.20	6,678.95	1.05	-0.40	-0.97	
11,790.00	87.55	311.850	5,158.78	5,425.54	-4,025.00	6,737.42	0.68	0.46	-0.51	



Scientific Drilling, Intl Survey Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well NAU 528H - Slot 3
Project:	North Alamito Unit	TVD Reference:	GL 6979' & RKB 14' @ 6993.00usft (Aztec 920)
Site:	J31 2307	MD Reference:	GL 6979' & RKB 14' @ 6993.00usft (Aztec 920)
Well:	NAU 528H	North Reference:	True
Wellbore:	Original drilling	Survey Calculation Method:	Minimum Curvature
Design:	Original drilling	Database:	Grand Junction

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)
11,850.00	87.35	310.710	5,161.45	5,465.09	-4,070.04	6,796.78	1.93	-0.33	-1.90
11,909.00	88.52	310.610	5,163.57	5,503.51	-4,114.77	6,855.09	1.99	1.98	-0.17
11,970.00	88.66	310.480	5,165.08	5,543.15	-4,161.11	6,915.37	0.31	0.23	-0.21
12,031.00	88.49	308.930	5,166.59	5,582.10	-4,208.02	6,975.51	2.56	-0.28	-2.54
12,091.00	89.77	308.350	5,167.50	5,619.56	-4,254.88	7,034.47	2.34	2.13	-0.97
12,152.00	90.24	307.630	5,167.50	5,657.11	-4,302.96	7,094.30	1.41	0.77	-1.18
12,212.00	90.60	308.990	5,167.06	5,694.30	-4,350.03	7,153.21	2.34	0.60	2.27
12,273.00	90.34	311.900	5,166.56	5,733.87	-4,396.45	7,213.49	4.79	-0.43	4.77
12,334.00	88.76	312.150	5,167.04	5,774.70	-4,441.76	7,274.00	2.62	-2.59	0.41
12,396.00	88.79	311.800	5,168.36	5,816.16	-4,487.84	7,335.49	0.57	0.05	-0.56
12,457.00	88.93	311.600	5,169.58	5,856.73	-4,533.38	7,395.95	0.40	0.23	-0.33
12,518.00	89.19	311.250	5,170.58	5,897.08	-4,579.11	7,456.38	0.71	0.43	-0.57
12,579.00	89.43	310.940	5,171.31	5,937.18	-4,625.08	7,516.76	0.64	0.39	-0.51
12,639.00	89.40	310.550	5,171.92	5,976.34	-4,670.54	7,576.10	0.65	-0.05	-0.65
12,701.00	89.06	310.320	5,172.76	6,016.55	-4,717.72	7,637.36	0.66	-0.55	-0.37
12,762.00	90.23	310.900	5,173.13	6,056.25	-4,764.03	7,697.67	2.14	1.92	0.95
12,823.00	90.37	311.390	5,172.82	6,096.38	-4,809.96	7,758.06	0.84	0.23	0.80
12,884.00	90.64	311.620	5,172.28	6,136.81	-4,855.64	7,818.51	0.58	0.44	0.38
12,944.00	90.64	312.050	5,171.61	6,176.82	-4,900.35	7,878.00	0.72	0.00	0.72
13,005.00	89.77	312.900	5,171.39	6,218.01	-4,945.34	7,938.58	1.99	-1.43	1.39
13,066.00	89.50	313.340	5,171.78	6,259.71	-4,989.86	7,999.23	0.85	-0.44	0.72
13,127.00	89.87	312.920	5,172.11	6,301.41	-5,034.38	8,059.88	0.92	0.61	-0.69
13,188.00	89.40	312.540	5,172.50	6,342.80	-5,079.18	8,120.49	0.99	-0.77	-0.62
13,249.00	89.50	312.290	5,173.09	6,383.94	-5,124.22	8,181.05	0.44	0.16	-0.41
13,310.00	89.63	311.900	5,173.55	6,424.83	-5,169.48	8,241.58	0.67	0.21	-0.64
13,370.00	89.80	311.740	5,173.85	6,464.84	-5,214.19	8,301.08	0.39	0.28	-0.27
13,431.00	90.20	311.490	5,173.85	6,505.35	-5,259.80	8,361.54	0.77	0.66	-0.41
13,491.00	89.03	311.200	5,174.25	6,544.99	-5,304.84	8,420.97	2.01	-1.95	-0.48
13,553.00	88.93	311.190	5,175.36	6,585.81	-5,351.49	8,482.35	0.16	-0.16	-0.02
13,614.00	89.60	311.590	5,176.14	6,626.14	-5,397.25	8,542.77	1.28	1.10	0.66
13,674.00	89.33	310.990	5,176.70	6,665.73	-5,442.33	8,602.19	1.10	-0.45	-1.00
13,734.00	89.60	310.930	5,177.26	6,705.06	-5,487.64	8,661.57	0.46	0.45	-0.10
13,795.00	88.89	311.170	5,178.06	6,745.12	-5,533.63	8,721.94	1.23	-1.16	0.39
13,856.00	90.64	312.600	5,178.31	6,785.84	-5,579.04	8,782.43	3.70	2.87	2.34
13,917.00	91.88	312.670	5,176.97	6,827.15	-5,623.91	8,843.01	2.04	2.03	0.11
13,978.00	90.44	312.150	5,175.74	6,868.28	-5,668.94	8,903.57	2.51	-2.36	-0.85
14,039.00	90.30	311.900	5,175.34	6,909.11	-5,714.25	8,964.08	0.47	-0.23	-0.41
14,101.00	90.74	311.420	5,174.78	6,950.32	-5,760.57	9,025.54	1.05	0.71	-0.77
14,162.00	90.94	310.900	5,173.89	6,990.47	-5,806.49	9,085.93	0.91	0.33	-0.85
14,222.00	91.51	310.180	5,172.60	7,029.46	-5,852.08	9,145.23	1.53	0.95	-1.20
14,283.00	91.11	309.910	5,171.21	7,068.69	-5,898.76	9,205.43	0.79	-0.66	-0.44
14,344.00	91.14	309.560	5,170.01	7,107.68	-5,945.66	9,265.58	0.58	0.05	-0.57
14,405.00	91.95	310.020	5,168.37	7,146.70	-5,992.52	9,325.73	1.53	1.33	0.75



Scientific Drilling, Intl Survey Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well NAU 528H - Slot 3
Project:	North Alamito Unit	TVD Reference:	GL 6979' & RKB 14' @ 6993.00usft (Aztec 920)
Site:	J31 2307	MD Reference:	GL 6979' & RKB 14' @ 6993.00usft (Aztec 920)
Well:	NAU 528H	North Reference:	True
Wellbore:	Original drilling	Survey Calculation Method:	Minimum Curvature
Design:	Original drilling	Database:	Grand Junction

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)	
14,466.00	91.11	312.050	5,166.74	7,186.73	-6,038.51	9,386.08	3.60	-1.38	3.33	
14,528.00	90.07	312.320	5,166.10	7,228.37	-6,084.45	9,447.61	1.73	-1.68	0.44	
14,588.00	88.76	311.120	5,166.71	7,268.29	-6,129.23	9,507.09	2.96	-2.18	-2.00	
14,648.00	89.26	311.130	5,167.75	7,307.75	-6,174.42	9,566.48	0.83	0.83	0.02	
14,709.00	89.63	310.680	5,168.34	7,347.69	-6,220.52	9,626.83	0.96	0.61	-0.74	
14,770.00	90.00	310.250	5,168.54	7,387.28	-6,266.93	9,687.12	0.93	0.61	-0.70	
14,831.00	90.67	309.900	5,168.18	7,426.55	-6,313.60	9,747.34	1.24	1.10	-0.57	
14,892.00	91.21	310.010	5,167.18	7,465.72	-6,360.36	9,807.53	0.90	0.89	0.18	
14,953.00	91.48	309.580	5,165.75	7,504.75	-6,407.21	9,867.69	0.83	0.44	-0.70	
15,014.00	91.61	309.810	5,164.10	7,543.69	-6,454.13	9,927.82	0.43	0.21	0.38	
15,076.00	89.66	308.820	5,163.42	7,582.97	-6,502.09	9,988.89	3.53	-3.15	-1.60	
15,137.00	89.43	308.410	5,163.90	7,621.04	-6,549.75	10,048.84	0.77	-0.38	-0.67	
15,199.00	89.80	308.360	5,164.32	7,659.54	-6,598.35	10,109.73	0.60	0.60	-0.08	
15,259.00	90.03	307.790	5,164.41	7,696.54	-6,645.58	10,168.60	1.02	0.38	-0.95	
15,275.00	90.17	307.870	5,164.38	7,706.35	-6,658.22	10,184.28	1.01	0.88	0.50	
15,330.00	90.17	307.870	5,164.21	7,740.11	-6,701.64	10,238.21	0.00	0.00	0.00	

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
501.00	500.95	5.53	2.61	First SDI Surface MWD Survey	
4,599.00	4,422.74	725.40	901.40	Last SDI Surface MWD Survey	
4,662.00	4,483.00	740.83	911.08	First SDI Curve MWD Survey	
5,659.00	5,117.62	1,333.01	535.77	Last SDI Curve MWD Survey	
5,746.00	5,126.89	1,396.05	476.57	First SDI Lateral MWD Survey	
15,275.00	5,164.38	7,706.35	-6,658.22	Last SDI Lateral MWD Survey	
15,330.00	5,164.21	7,740.11	-6,701.64	Projection to TD	

Checked By: _____	Approved By: _____	Date: _____
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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

COMMENTS

Action 12334

COMMENTS

Operator:				OGRID:		Action Number:		Action Type:	
	DJR OPERATING, LLC	1 Road 3263	Aztec, NM87410		371838	12334		C-104C	

Created By	Comment	Comment Date
kpickford	KP GEO Review 12/17/2020	12/17/2020
ahvermersch	12-16-20 Operator submitted email to request a ready date change to 12-16-20. OK by AV verbal approval given 12-16-20	12/16/2020

Action 12334

Operator:	DJR OPERATING, LLC	1 Road 3263	Aztec, NM87410	OGRID:	371838	Action Number:	12334	Action Type:	C-104C
OCD Reviewer				Condition					
ahvermersch				None					