

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

DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (505) 334-1283 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

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 30-043-21211	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 238H
⁷ OGRID No. 371838	⁸ Operator Name DJR OPERATING, LLC	⁹ Elevation 7028'

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	30	23N	7W		393'	SOUTH	1341'	EAST	SANDOVAL

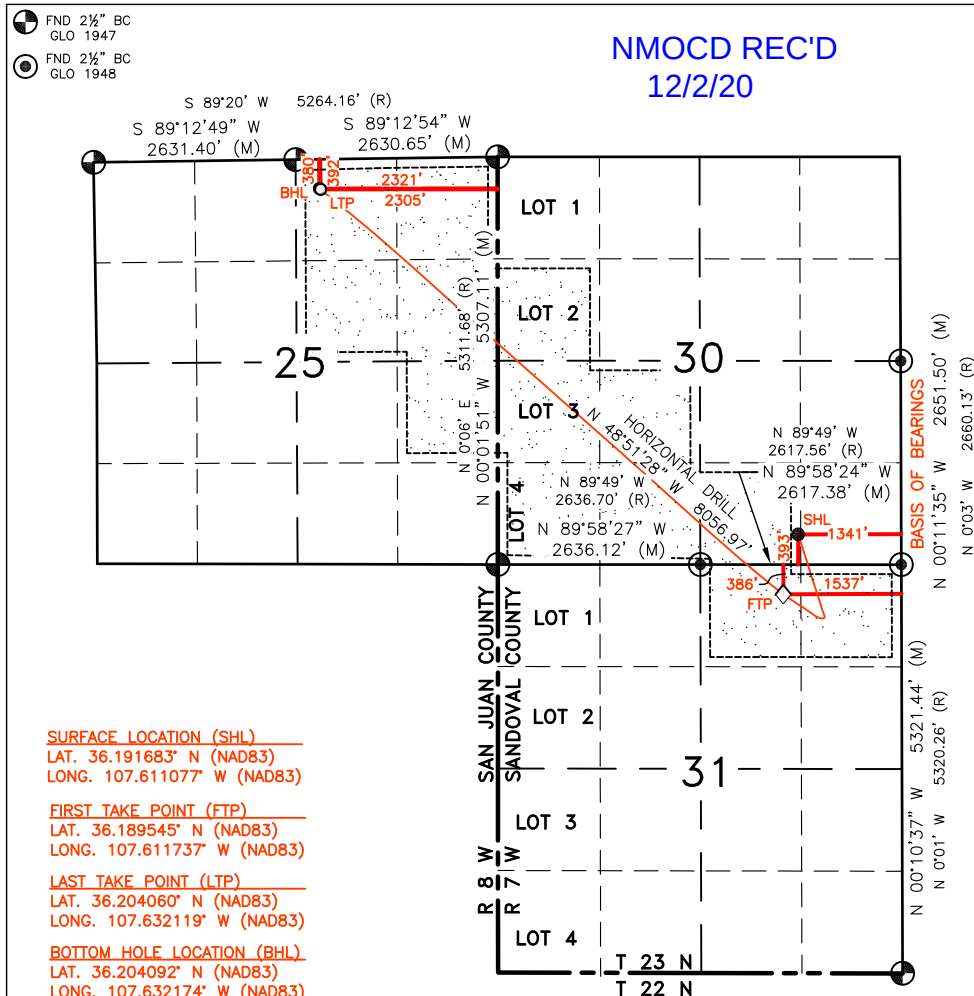
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	25	23N	8W		380'	NORTH	2321'	EAST	SAN JUAN

¹² Dedicated Acres PENETRATED SPACING UNIT; SEC 31: NE/NE & NW/NE (80 AC.); SEC 30: SW/SE, SW/4, SW/NW (241.94 AC.); SEC 25: NE/SE, NE/4 (200 AC.) = 521.94 ACRES	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R14081 R14081A
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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

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 12/02/20
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.

NOVEMBER 30, 2020

Date of Survey
Signature and Seal of Professional Surveyor:



Certificate Number 11393

AV

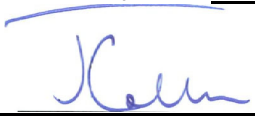


Directional Survey Certification

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

Operator	DJR Operating
Well Name & No.	North Alamito O30 2307 238H
County & State	San Juan, NM
SDI Job No.	OP.023096
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 380 feet to a measured depth of 13,802 feet is true and correct as determined from all available records.



Signature

14-Jan-20

Date

Janie Collins
Colorado District Well Planner
Scientific Drilling International

Company:	DJR Operating	Local Co-ordinate Reference:	Well NAU 238H
Project:	North Alamito Unit	TVD Reference:	GL 7028' & RKB 14' @ 7042.00usft (Aztec 920)
Site:	O30 2307	MD Reference:	GL 7028' & RKB 14' @ 7042.00usft (Aztec 920)
Well:	NAU 238H	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		O30 2307			
Site Position:		Northing:	1,889,181.15 usft	Latitude:	36.1917820
From:	Lat/Long	Easting:	2,788,720.89 usft	Longitude:	-107.6109140
Position Uncertainty:	0.00 usft	Slot Radius:	72.00 in	Grid Convergence:	0.13 °

Well		NAU 238H				
Well Position	+N/-S	0.00 usft	Northing:	1,889,145.01 usft	Latitude:	36.1916830
	+E/-W	0.00 usft	Easting:	2,788,672.88 usft	Longitude:	-107.6110770
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	7,028.00 usft

Wellbore	Original drilling				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	12/27/2019	8.70	62.75	49,323.00000000

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	306.042	

Survey Program	Date	1/14/2020			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
380.00	4,552.00	Survey #1 - Surface MWD Survey (Original)	MWD+HDGM	OWSG MWD + HDGM	
4,615.00	5,612.00	Survey #2 - Curve MWD Survey (Original)	MWD+HDGM	OWSG MWD + HDGM	
5,688.00	13,802.00	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	
380.00	0.47	178.190	380.00	-1.56	0.05	-0.96	0.12	0.12	0.00	
441.00	0.36	148.560	440.99	-1.97	0.16	-1.29	0.39	-0.18	-48.57	
502.00	0.80	157.390	501.99	-2.53	0.42	-1.83	0.73	0.72	14.48	
563.00	2.03	159.260	562.97	-3.93	0.97	-3.10	2.02	2.02	3.07	
624.00	3.66	159.990	623.89	-6.77	2.02	-5.61	2.67	2.67	1.20	
685.00	5.26	154.160	684.71	-11.12	3.90	-9.70	2.72	2.62	-9.56	
746.00	6.39	156.430	745.39	-16.75	6.48	-15.09	1.89	1.85	3.72	
806.00	7.38	162.140	804.96	-23.47	8.99	-21.08	2.00	1.65	9.52	

Company:	DJR Operating	Local Co-ordinate Reference:	Well NAU 238H
Project:	North Alamito Unit	TVD Reference:	GL 7028' & RKB 14' @ 7042.00usft (Aztec 920)
Site:	O30 2307	MD Reference:	GL 7028' & RKB 14' @ 7042.00usft (Aztec 920)
Well:	NAU 238H	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)
868.00	7.97	163.950	866.40	-31.40	11.40	-27.69	1.03	0.95	2.92
928.00	8.48	164.050	925.79	-39.65	13.77	-34.46	0.85	0.85	0.17
990.00	9.58	165.050	987.02	-49.03	16.36	-42.07	1.79	1.77	1.61
1,051.00	10.64	161.340	1,047.07	-59.27	19.47	-50.61	2.04	1.74	-6.08
1,112.00	12.28	159.310	1,106.85	-70.67	23.56	-60.63	2.77	2.69	-3.33
1,174.00	13.64	158.800	1,167.27	-83.66	28.54	-72.29	2.20	2.19	-0.82
1,235.00	14.51	160.410	1,226.44	-97.56	33.70	-84.65	1.56	1.43	2.64
1,297.00	15.79	160.280	1,286.28	-112.82	39.15	-98.04	2.07	2.06	-0.21
1,358.00	16.98	160.830	1,344.80	-129.05	44.88	-112.21	1.97	1.95	0.90
1,419.00	17.51	162.920	1,403.06	-146.23	50.50	-126.87	1.34	0.87	3.43
1,480.00	17.56	162.220	1,461.23	-163.77	56.00	-141.64	0.36	0.08	-1.15
1,541.00	17.69	164.990	1,519.37	-181.48	61.21	-156.27	1.39	0.21	4.54
1,602.00	18.47	166.910	1,577.35	-199.84	65.80	-170.79	1.61	1.28	3.15
1,662.00	18.88	167.530	1,634.20	-218.58	70.05	-185.25	0.76	0.68	1.03
1,726.00	19.58	166.800	1,694.62	-239.13	74.73	-201.13	1.16	1.09	-1.14
1,789.00	19.38	165.090	1,754.02	-259.51	79.83	-217.24	0.96	-0.32	-2.71
1,852.00	17.55	162.030	1,813.77	-278.65	85.45	-233.05	3.29	-2.90	-4.86
1,916.00	16.88	162.090	1,874.91	-296.67	91.29	-248.37	1.05	-1.05	0.09
1,978.00	16.95	161.970	1,934.22	-313.83	96.85	-262.96	0.13	0.11	-0.19
2,041.00	17.21	162.550	1,994.45	-331.45	102.49	-277.89	0.49	0.41	0.92
2,104.00	17.15	162.550	2,054.63	-349.20	108.07	-292.85	0.10	-0.10	0.00
2,167.00	17.39	160.970	2,114.79	-366.96	113.93	-308.03	0.84	0.38	-2.51
2,230.00	16.87	160.080	2,175.00	-384.46	120.11	-323.33	0.92	-0.83	-1.41
2,293.00	17.28	160.680	2,235.22	-401.88	126.32	-338.60	0.71	0.65	0.95
2,357.00	17.61	160.890	2,296.28	-420.00	132.64	-354.37	0.52	0.52	0.33
2,420.00	17.56	161.440	2,356.33	-438.02	138.78	-369.93	0.28	-0.08	0.87
2,483.00	17.90	161.570	2,416.34	-456.21	144.87	-385.56	0.54	0.54	0.21
2,546.00	17.63	160.840	2,476.34	-474.41	151.06	-401.27	0.56	-0.43	-1.16
2,610.00	18.73	161.150	2,537.14	-493.29	157.56	-417.64	1.73	1.72	0.48
2,673.00	19.51	161.080	2,596.67	-512.81	164.24	-434.53	1.24	1.24	-0.11
2,736.00	18.98	161.460	2,656.15	-532.48	170.91	-451.49	0.86	-0.84	0.60
2,799.00	18.66	160.590	2,715.78	-551.70	177.51	-468.14	0.68	-0.51	-1.38
2,862.00	18.92	162.200	2,775.42	-570.93	183.99	-484.69	0.92	0.41	2.56
2,925.00	19.18	162.960	2,834.97	-590.55	190.14	-501.21	0.57	0.41	1.21
2,988.00	18.61	162.360	2,894.58	-610.02	196.22	-517.58	0.96	-0.90	-0.95
3,051.00	18.24	162.500	2,954.35	-629.00	202.23	-533.61	0.59	-0.59	0.22
3,114.00	18.25	162.370	3,014.18	-647.81	208.18	-549.49	0.07	0.02	-0.21
3,177.00	19.48	162.740	3,073.79	-667.24	214.29	-565.86	1.96	1.95	0.59
3,240.00	19.34	162.940	3,133.21	-687.25	220.47	-582.63	0.25	-0.22	0.32
3,303.00	19.32	162.510	3,192.66	-707.16	226.66	-599.35	0.23	-0.03	-0.68
3,366.00	19.27	161.960	3,252.12	-726.98	233.01	-616.15	0.30	-0.08	-0.87
3,430.00	19.26	161.630	3,312.54	-747.04	239.61	-633.29	0.17	-0.02	-0.52
3,493.00	19.16	161.870	3,372.03	-766.73	246.10	-650.12	0.20	-0.16	0.38

Company:	DJR Operating	Local Co-ordinate Reference:	Well NAU 238H
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Well:	NAU 238H	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)	
3,556.00	18.97	161.780	3,431.57	-786.28	252.52	-666.81	0.31	-0.30	-0.14	
3,619.00	19.17	161.940	3,491.12	-805.84	258.92	-683.50	0.33	0.32	0.25	
3,682.00	19.06	161.190	3,550.64	-825.41	265.45	-700.29	0.43	-0.17	-1.19	
3,746.00	18.87	160.430	3,611.17	-845.06	272.28	-717.38	0.49	-0.30	-1.19	
3,809.00	18.75	159.570	3,670.81	-864.14	279.23	-734.23	0.48	-0.19	-1.37	
3,872.00	18.05	160.500	3,730.58	-882.83	286.02	-750.71	1.20	-1.11	1.48	
3,935.00	17.77	165.440	3,790.53	-901.34	291.70	-766.19	2.45	-0.44	7.84	
3,998.00	18.39	166.910	3,850.42	-920.32	296.37	-781.14	1.22	0.98	2.33	
4,061.00	17.93	166.440	3,910.29	-939.43	300.89	-796.04	0.77	-0.73	-0.75	
4,124.00	17.35	165.530	3,970.32	-957.95	305.51	-810.67	1.02	-0.92	-1.44	
4,187.00	18.01	163.720	4,030.35	-976.40	310.59	-825.63	1.36	1.05	-2.87	
4,250.00	17.34	161.210	4,090.37	-994.63	316.34	-841.01	1.61	-1.06	-3.98	
4,313.00	15.79	160.750	4,150.76	-1,011.62	322.19	-855.73	2.47	-2.46	-0.73	
4,376.00	15.43	159.650	4,211.43	-1,027.57	327.93	-869.76	0.74	-0.57	-1.75	
4,439.00	14.38	158.510	4,272.31	-1,042.70	333.71	-883.34	1.73	-1.67	-1.81	
4,489.00	13.56	157.780	4,320.83	-1,053.91	338.21	-893.56	1.68	-1.64	-1.46	
4,552.00	12.66	157.630	4,382.19	-1,067.13	343.63	-905.73	1.43	-1.43	-0.24	
4,615.00	13.26	188.080	4,443.66	-1,080.68	345.24	-915.01	10.76	0.95	48.33	
4,678.00	15.23	219.670	4,504.81	-1,094.23	338.93	-917.88	12.56	3.13	50.14	
4,741.00	15.36	252.500	4,565.69	-1,103.12	325.67	-912.38	13.57	0.21	52.11	
4,804.00	15.19	285.610	4,626.58	-1,103.41	309.73	-899.67	13.67	-0.27	52.56	
4,868.00	16.75	299.120	4,688.13	-1,096.66	293.59	-882.65	6.28	2.44	21.11	
4,931.00	20.39	300.130	4,747.84	-1,086.73	276.16	-862.71	5.80	5.78	1.60	
4,994.00	23.18	299.590	4,806.33	-1,075.10	255.89	-839.47	4.44	4.43	-0.86	
5,057.00	26.37	301.010	4,863.53	-1,061.77	233.11	-813.21	5.15	5.06	2.25	
5,120.00	29.75	302.230	4,919.12	-1,046.22	207.88	-783.66	5.44	5.37	1.94	
5,183.00	33.51	303.630	4,972.75	-1,028.24	180.17	-750.68	6.08	5.97	2.22	
5,246.00	38.37	303.050	5,023.74	-1,007.93	149.28	-713.76	7.73	7.71	-0.92	
5,309.00	43.18	304.360	5,071.44	-985.09	115.08	-672.66	7.75	7.63	2.08	
5,372.00	51.27	304.010	5,114.19	-959.14	76.85	-626.48	12.85	12.84	-0.56	
5,435.00	58.56	303.660	5,150.37	-930.46	34.06	-575.00	11.58	11.57	-0.56	
5,499.00	67.18	303.050	5,179.53	-899.18	-13.48	-518.16	13.50	13.47	-0.95	
5,562.00	75.18	302.690	5,199.84	-866.85	-63.53	-458.67	12.71	12.70	-0.57	
5,612.00	81.43	303.220	5,209.97	-840.22	-104.59	-409.80	12.54	12.50	1.06	
5,688.00	85.94	305.670	5,218.33	-797.51	-166.86	-334.31	6.74	5.93	3.22	
5,751.00	88.20	305.330	5,221.55	-760.97	-218.08	-271.40	3.63	3.59	-0.54	
5,812.00	89.73	306.180	5,222.65	-725.34	-267.57	-210.42	2.87	2.51	1.39	
5,875.00	91.27	306.590	5,222.10	-687.97	-318.29	-147.42	2.53	2.44	0.65	
5,938.00	90.91	305.780	5,220.90	-650.78	-369.13	-84.43	1.41	-0.57	-1.29	
6,001.00	90.90	306.630	5,219.90	-613.57	-419.95	-21.44	1.35	-0.02	1.35	
6,064.00	91.11	308.920	5,218.80	-574.99	-469.74	41.51	3.65	0.33	3.63	
6,126.00	91.31	310.500	5,217.49	-535.39	-517.42	103.37	2.57	0.32	2.55	
6,190.00	92.52	311.830	5,215.35	-493.29	-565.57	167.08	2.81	1.89	2.08	

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Well:	NAU 238H	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)	
6,252.00	92.44	311.750	5,212.67	-452.01	-611.76	228.71	0.18	-0.13	-0.13	
6,315.00	92.11	312.180	5,210.17	-409.91	-658.56	291.32	0.86	-0.52	0.68	
6,378.00	90.17	310.700	5,208.91	-368.23	-705.78	354.03	3.87	-3.08	-2.35	
6,441.00	89.20	308.780	5,209.26	-327.96	-754.22	416.89	3.41	-1.54	-3.05	
6,504.00	88.96	309.590	5,210.27	-288.16	-803.05	479.79	1.34	-0.38	1.29	
6,567.00	88.99	309.300	5,211.40	-248.14	-851.69	542.66	0.46	0.05	-0.46	
6,631.00	88.73	310.250	5,212.67	-207.20	-900.87	606.52	1.54	-0.41	1.48	
6,693.00	89.09	309.480	5,213.85	-167.47	-948.45	668.37	1.37	0.58	-1.24	
6,757.00	90.10	310.700	5,214.30	-126.25	-997.41	732.20	2.47	1.58	1.91	
6,819.00	90.57	311.410	5,213.94	-85.53	-1,044.16	793.96	1.37	0.76	1.15	
6,882.00	90.74	312.510	5,213.22	-43.42	-1,091.00	856.62	1.77	0.27	1.75	
6,945.00	90.74	313.550	5,212.41	-0.43	-1,137.05	919.15	1.65	0.00	1.65	
7,007.00	91.11	313.850	5,211.41	42.40	-1,181.87	980.59	0.77	0.60	0.48	
7,070.00	90.30	313.350	5,210.63	85.84	-1,227.49	1,043.04	1.51	-1.29	-0.79	
7,133.00	90.03	312.560	5,210.45	128.77	-1,273.59	1,105.58	1.33	-0.43	-1.25	
7,196.00	88.99	311.540	5,210.99	170.96	-1,320.37	1,168.23	2.31	-1.65	-1.62	
7,259.00	89.63	312.820	5,211.75	213.26	-1,367.05	1,230.86	2.27	1.02	2.03	
7,321.00	90.17	313.240	5,211.86	255.57	-1,412.37	1,292.40	1.10	0.87	0.68	
7,384.00	90.37	315.400	5,211.56	299.58	-1,457.44	1,354.74	3.44	0.32	3.43	
7,447.00	89.83	314.050	5,211.45	343.91	-1,502.20	1,417.01	2.31	-0.86	-2.14	
7,510.00	89.90	313.570	5,211.60	387.53	-1,547.67	1,479.43	0.77	0.11	-0.76	
7,572.00	89.40	312.770	5,211.98	429.94	-1,592.88	1,540.95	1.52	-0.81	-1.29	
7,635.00	88.86	312.020	5,212.93	472.42	-1,639.41	1,603.56	1.47	-0.86	-1.19	
7,697.00	88.46	311.230	5,214.38	513.59	-1,685.74	1,665.25	1.43	-0.65	-1.27	
7,760.00	90.30	312.520	5,215.06	555.64	-1,732.64	1,727.91	3.57	2.92	2.05	
7,822.00	89.90	311.290	5,214.96	597.04	-1,778.78	1,789.59	2.09	-0.65	-1.98	
7,885.00	89.76	310.460	5,215.14	638.27	-1,826.42	1,852.36	1.34	-0.22	-1.32	
7,947.00	90.00	312.440	5,215.27	679.31	-1,872.89	1,914.08	3.22	0.39	3.19	
8,010.00	90.20	311.100	5,215.16	721.28	-1,919.87	1,976.77	2.15	0.32	-2.13	
8,073.00	90.03	313.650	5,215.04	763.73	-1,966.41	2,039.38	4.06	-0.27	4.05	
8,137.00	89.83	312.480	5,215.12	807.43	-2,013.17	2,102.90	1.85	-0.31	-1.83	
8,199.00	90.60	312.280	5,214.88	849.22	-2,058.97	2,164.52	1.28	1.24	-0.32	
8,262.00	89.97	310.770	5,214.57	890.99	-2,106.13	2,227.23	2.60	-1.00	-2.40	
8,325.00	90.07	310.700	5,214.55	932.10	-2,153.87	2,290.01	0.19	0.16	-0.11	
8,388.00	90.07	312.310	5,214.47	973.85	-2,201.05	2,352.73	2.56	0.00	2.56	
8,451.00	89.46	311.490	5,214.73	1,015.92	-2,247.94	2,415.40	1.62	-0.97	-1.30	
8,514.00	89.16	310.740	5,215.49	1,057.34	-2,295.40	2,478.14	1.28	-0.48	-1.19	
8,576.00	89.03	309.780	5,216.47	1,097.41	-2,342.70	2,539.97	1.56	-0.21	-1.55	
8,639.00	90.10	311.620	5,216.94	1,138.49	-2,390.46	2,602.75	3.38	1.70	2.92	
8,701.00	91.17	311.980	5,216.26	1,179.81	-2,436.68	2,664.44	1.82	1.73	0.58	
8,764.00	91.17	311.820	5,214.97	1,221.87	-2,483.56	2,727.09	0.25	0.00	-0.25	
8,827.00	91.34	311.390	5,213.59	1,263.69	-2,530.66	2,789.78	0.73	0.27	-0.68	
8,890.00	91.27	310.670	5,212.16	1,305.04	-2,578.17	2,852.53	1.15	-0.11	-1.14	
8,951.00	90.97	310.150	5,210.96	1,344.57	-2,624.61	2,913.34	0.98	-0.49	-0.85	

Company:	DJR Operating	Local Co-ordinate Reference:	Well NAU 238H
Project:	North Alamito Unit	TVD Reference:	GL 7028' & RKB 14' @ 7042.00usft (Aztec 920)
Site:	O30 2307	MD Reference:	GL 7028' & RKB 14' @ 7042.00usft (Aztec 920)
Well:	NAU 238H	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)	
9,011.00	90.44	311.400	5,210.23	1,383.76	-2,670.04	2,973.13	2.26	-0.88	2.08	
9,072.00	90.54	312.340	5,209.70	1,424.47	-2,715.46	3,033.81	1.55	0.16	1.54	
9,133.00	89.46	312.110	5,209.70	1,465.46	-2,760.63	3,094.45	1.81	-1.77	-0.38	
9,194.00	89.03	311.760	5,210.51	1,506.22	-2,806.01	3,155.13	0.91	-0.70	-0.57	
9,254.00	88.83	311.300	5,211.63	1,546.00	-2,850.91	3,214.84	0.84	-0.33	-0.77	
9,315.00	88.83	310.770	5,212.87	1,586.04	-2,896.92	3,275.60	0.87	0.00	-0.87	
9,375.00	88.89	310.640	5,214.07	1,625.16	-2,942.39	3,335.39	0.24	0.10	-0.22	
9,436.00	88.80	309.890	5,215.30	1,664.58	-2,988.93	3,396.21	1.24	-0.15	-1.23	
9,496.00	89.70	310.260	5,216.08	1,703.20	-3,034.84	3,456.05	1.62	1.50	0.62	
9,557.00	89.77	310.480	5,216.36	1,742.71	-3,081.31	3,516.88	0.38	0.11	0.36	
9,618.00	89.36	309.510	5,216.83	1,781.91	-3,128.04	3,577.73	1.73	-0.67	-1.59	
9,678.00	89.46	310.830	5,217.45	1,820.62	-3,173.89	3,637.57	2.21	0.17	2.20	
9,740.00	89.33	311.190	5,218.10	1,861.30	-3,220.67	3,699.33	0.62	-0.21	0.58	
9,801.00	90.23	311.980	5,218.33	1,901.78	-3,266.29	3,760.05	1.96	1.48	1.30	
9,861.00	90.34	312.080	5,218.04	1,941.95	-3,310.86	3,819.72	0.25	0.18	0.17	
9,923.00	90.44	312.030	5,217.61	1,983.48	-3,356.89	3,881.38	0.18	0.16	-0.08	
9,984.00	89.73	313.040	5,217.52	2,024.72	-3,401.84	3,941.98	2.02	-1.16	1.66	
10,045.00	88.22	312.290	5,218.62	2,066.05	-3,446.69	4,002.56	2.76	-2.48	-1.23	
10,106.00	88.05	311.910	5,220.60	2,106.93	-3,491.92	4,063.19	0.68	-0.28	-0.62	
10,167.00	87.89	311.870	5,222.76	2,147.63	-3,537.31	4,123.84	0.27	-0.26	-0.07	
10,228.00	88.29	312.730	5,224.79	2,188.66	-3,582.40	4,184.44	1.55	0.66	1.41	
10,288.00	88.56	312.620	5,226.44	2,229.32	-3,626.49	4,244.01	0.49	0.45	-0.18	
10,350.00	88.46	312.260	5,228.06	2,271.14	-3,672.23	4,305.61	0.60	-0.16	-0.58	
10,410.00	88.46	311.770	5,229.67	2,311.29	-3,716.80	4,365.26	0.82	0.00	-0.82	
10,471.00	89.80	313.640	5,230.59	2,352.65	-3,761.61	4,425.84	3.77	2.20	3.07	
10,532.00	89.93	313.820	5,230.74	2,394.82	-3,805.69	4,486.29	0.36	0.21	0.30	
10,593.00	89.80	312.960	5,230.88	2,436.72	-3,850.02	4,546.79	1.43	-0.21	-1.41	
10,654.00	90.03	312.600	5,230.97	2,478.15	-3,894.79	4,607.36	0.70	0.38	-0.59	
10,714.00	89.87	312.600	5,231.02	2,518.76	-3,938.96	4,666.97	0.27	-0.27	0.00	
10,775.00	90.00	312.140	5,231.09	2,559.87	-3,984.02	4,727.60	0.78	0.21	-0.75	
10,836.00	89.97	311.860	5,231.11	2,600.69	-4,029.36	4,788.27	0.46	-0.05	-0.46	
10,897.00	90.00	311.660	5,231.13	2,641.32	-4,074.86	4,848.97	0.33	0.05	-0.33	
10,958.00	89.56	310.660	5,231.36	2,681.46	-4,120.78	4,909.72	1.79	-0.72	-1.64	
11,019.00	89.60	310.240	5,231.81	2,721.04	-4,167.20	4,970.54	0.69	0.07	-0.69	
11,079.00	88.96	309.510	5,232.56	2,759.50	-4,213.24	5,030.40	1.62	-1.07	-1.22	
11,141.00	90.40	310.830	5,232.91	2,799.49	-4,260.62	5,092.24	3.15	2.32	2.13	
11,202.00	90.07	311.660	5,232.66	2,839.71	-4,306.48	5,152.98	1.46	-0.54	1.36	
11,263.00	89.30	313.070	5,232.99	2,880.81	-4,351.55	5,213.61	2.63	-1.26	2.31	
11,323.00	88.89	312.850	5,233.94	2,921.70	-4,395.45	5,273.16	0.78	-0.68	-0.37	
11,384.00	88.79	311.610	5,235.18	2,962.68	-4,440.61	5,333.80	2.04	-0.16	-2.03	
11,445.00	88.69	310.960	5,236.52	3,002.92	-4,486.44	5,394.53	1.08	-0.16	-1.07	
11,506.00	89.43	312.100	5,237.52	3,043.36	-4,532.10	5,455.24	2.23	1.21	1.87	
11,567.00	89.60	312.250	5,238.03	3,084.31	-4,577.30	5,515.88	0.37	0.28	0.25	

Company:	DJR Operating	Local Co-ordinate Reference:	Well NAU 238H
Project:	North Alamito Unit	TVD Reference:	GL 7028' & RKB 14' @ 7042.00usft (Aztec 920)
Site:	O30 2307	MD Reference:	GL 7028' & RKB 14' @ 7042.00usft (Aztec 920)
Well:	NAU 238H	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)
11,628.00	89.73	312.030	5,238.39	3,125.24	-4,622.53	5,576.54	0.42	0.21	-0.36
11,688.00	89.67	311.170	5,238.70	3,165.08	-4,667.40	5,636.26	1.44	-0.10	-1.43
11,749.00	89.36	310.090	5,239.22	3,204.79	-4,713.69	5,697.06	1.84	-0.51	-1.77
11,809.00	90.30	310.420	5,239.40	3,243.57	-4,759.48	5,756.89	1.66	1.57	0.55
11,869.00	90.23	311.280	5,239.12	3,282.81	-4,804.87	5,816.68	1.44	-0.12	1.43
11,930.00	90.70	311.640	5,238.63	3,323.20	-4,850.58	5,877.41	0.97	0.77	0.59
11,990.00	90.13	314.400	5,238.19	3,364.13	-4,894.44	5,936.95	4.70	-0.95	4.60
12,050.00	90.17	313.790	5,238.03	3,405.88	-4,937.53	5,996.36	1.02	0.07	-1.02
12,111.00	90.50	314.410	5,237.68	3,448.33	-4,981.34	6,056.76	1.15	0.54	1.02
12,171.00	89.83	314.570	5,237.51	3,490.37	-5,024.14	6,116.11	1.15	-1.12	0.27
12,231.00	89.90	313.440	5,237.65	3,532.06	-5,067.29	6,175.53	1.89	0.12	-1.88
12,292.00	89.80	313.010	5,237.81	3,573.83	-5,111.74	6,236.05	0.72	-0.16	-0.70
12,353.00	89.73	312.410	5,238.06	3,615.21	-5,156.56	6,296.63	0.99	-0.11	-0.98
12,414.00	89.90	311.930	5,238.25	3,656.16	-5,201.77	6,357.29	0.83	0.28	-0.79
12,475.00	89.40	311.730	5,238.63	3,696.84	-5,247.23	6,417.97	0.88	-0.82	-0.33
12,537.00	88.73	311.660	5,239.64	3,738.07	-5,293.52	6,479.66	1.09	-1.08	-0.11
12,597.00	88.86	311.490	5,240.90	3,777.88	-5,338.39	6,539.37	0.36	0.22	-0.28
12,657.00	88.56	310.730	5,242.25	3,817.32	-5,383.59	6,599.12	1.36	-0.50	-1.27
12,718.00	88.96	310.150	5,243.57	3,856.88	-5,430.00	6,659.93	1.15	0.66	-0.95
12,780.00	90.84	310.650	5,243.68	3,897.06	-5,477.21	6,721.74	3.14	3.03	0.81
12,840.00	89.77	308.350	5,243.36	3,935.22	-5,523.51	6,781.63	4.23	-1.78	-3.83
12,900.00	89.06	309.200	5,243.97	3,972.80	-5,570.28	6,841.56	1.85	-1.18	1.42
12,961.00	89.63	308.530	5,244.67	4,011.07	-5,617.77	6,902.48	1.44	0.93	-1.10
13,022.00	89.70	309.320	5,245.03	4,049.39	-5,665.23	6,963.40	1.30	0.11	1.30
13,083.00	88.49	311.090	5,245.99	4,088.76	-5,711.81	7,024.23	3.51	-1.98	2.90
13,144.00	90.97	311.680	5,246.28	4,129.09	-5,757.57	7,084.96	4.18	4.07	0.97
13,205.00	90.27	311.000	5,245.62	4,169.38	-5,803.37	7,145.69	1.60	-1.15	-1.11
13,265.00	88.96	310.090	5,246.02	4,208.38	-5,848.96	7,205.50	2.66	-2.18	-1.52
13,326.00	87.45	309.290	5,247.93	4,247.31	-5,895.87	7,266.35	2.80	-2.48	-1.31
13,386.00	87.39	308.820	5,250.63	4,285.08	-5,942.42	7,326.20	0.79	-0.10	-0.78
13,447.00	88.15	307.400	5,253.00	4,322.70	-5,990.38	7,387.12	2.64	1.25	-2.33
13,507.00	87.99	306.780	5,255.03	4,358.86	-6,038.21	7,447.07	1.07	-0.27	-1.03
13,568.00	88.86	307.770	5,256.70	4,395.79	-6,086.73	7,508.03	2.16	1.43	1.62
13,629.00	87.32	306.490	5,258.74	4,432.59	-6,135.33	7,568.98	3.28	-2.52	-2.10
13,689.00	86.81	305.540	5,261.81	4,467.82	-6,183.80	7,628.90	1.80	-0.85	-1.58
13,751.00	85.65	304.700	5,265.88	4,503.41	-6,234.40	7,690.76	2.31	-1.87	-1.35
13,802.00	85.65	304.700	5,269.75	4,532.36	-6,276.21	7,741.60	0.00	0.00	0.00

Company:	DJR Operating	Local Co-ordinate Reference:	Well NAU 238H
Project:	North Alamito Unit	TVD Reference:	GL 7028' & RKB 14' @ 7042.00usft (Aztec 920)
Site:	O30 2307	MD Reference:	GL 7028' & RKB 14' @ 7042.00usft (Aztec 920)
Well:	NAU 238H	North Reference:	True
Wellbore:	Original drilling	Survey Calculation Method:	Minimum Curvature
Design:	Original drilling	Database:	Grand Junction

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
380.00	380.00	-1.56	0.05	First SDI Surface MWD Survey
4,552.00	4,382.19	-1,067.13	343.63	Last SDI Surface MWD Survey
4,615.00	4,443.66	-1,080.68	345.24	First SDI Curve MWD Survey
5,612.00	5,209.97	-840.22	-104.59	Last SDI Curve MWD Survey
5,688.00	5,218.33	-797.51	-166.86	First SDI Lateral MWD Survey
13,751.00	5,265.88	4,503.41	-6,234.40	Last SDI Lateral MWD Survey
13,802.00	5,269.75	4,532.36	-6,276.21	Projection to TD

Checked By: _____	Approved By: _____	Date: _____
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