

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) 748-1263 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

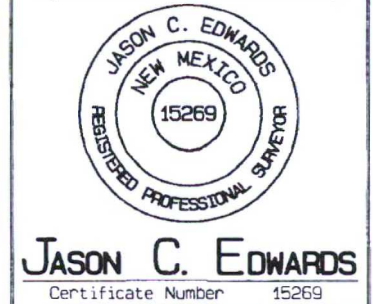
17 OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or an unleased mineral interest in the land including the proposed bottom-hole location or has a right 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 _____ Date _____
Lacey Granillo
Printed Name
lgranillo@enduringresources.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: DECEMBER 17, 2018
Date of Survey: AUGUST 24, 2017

Signature and Seal of Professional Surveyor



WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35871	*Pool Code 97232	*Pool Name BASIN MANCOS
*Property Code 321253	*Property Name RODEO UNIT	*Well Number 510H
*GRID No. 372286	*Operator Name ENDURING RESOURCES, LLC	*Elevation 6883'

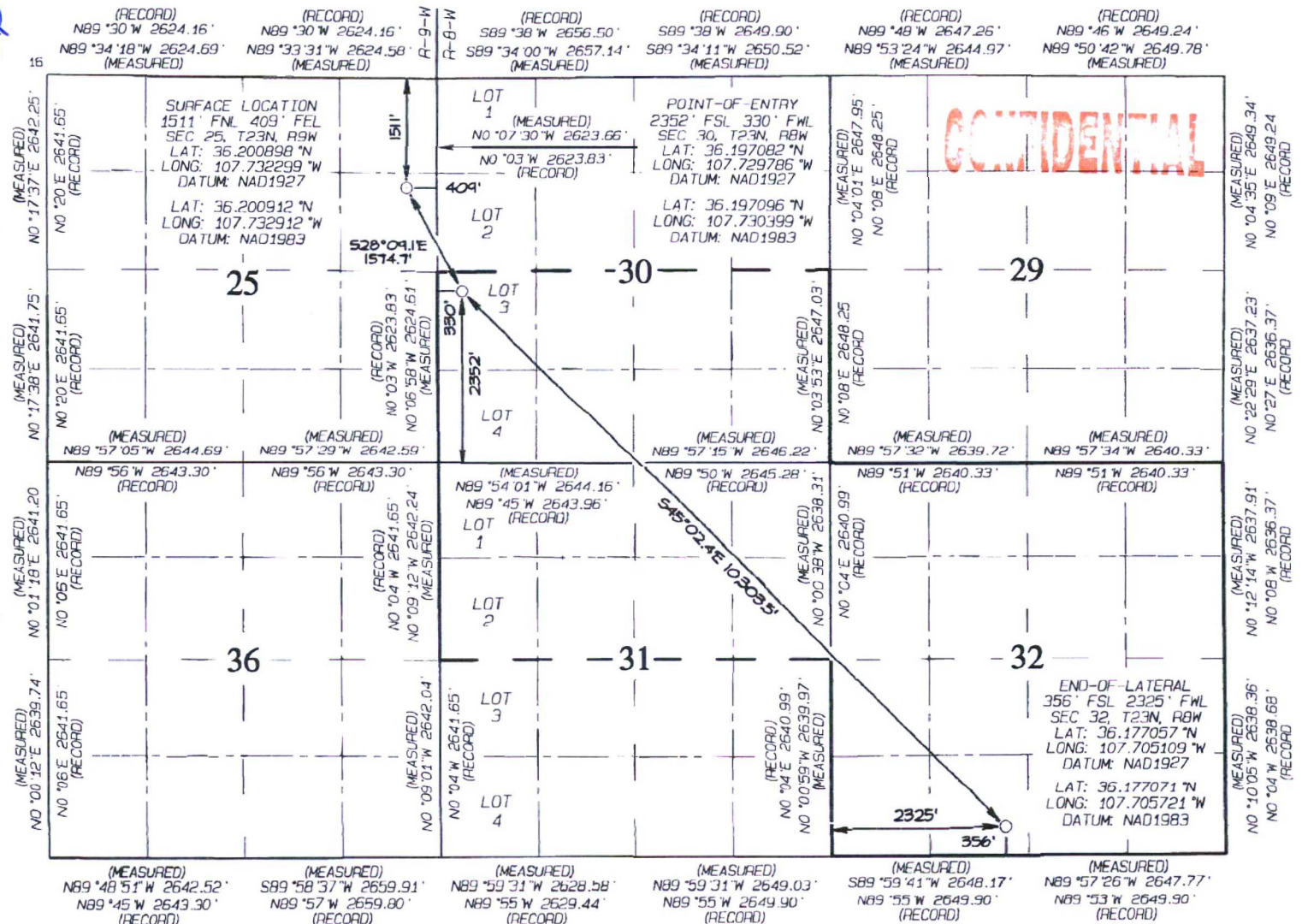
10 Surface Location

UL or lot no.	Section	Township	Range	Lot Id	Feet from the	North/South line	Feet from the	East/West line	County
H	25	23N	9W		1511	NORTH	409	EAST	SAN JUAN

11 Bottom Hole Location If Different From Surface

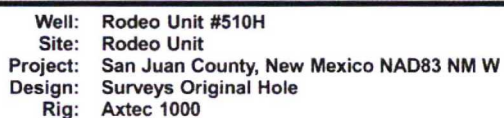
UL or lot no.	Section	Township	Range	Lot Id	Feet from the	North/South line	Feet from the	East/West line	County	
N	32	23N	8W		356	SOUTH	2325	WEST	SAN JUAN	
¹² Dedicated Acres 1283.88					S/2 - Section 30 N/2 - Section 31 Entire Section 32		¹³ Joint or Infill		¹⁴ Consolidation Code	¹⁵ Order No. R-14313

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



2

8



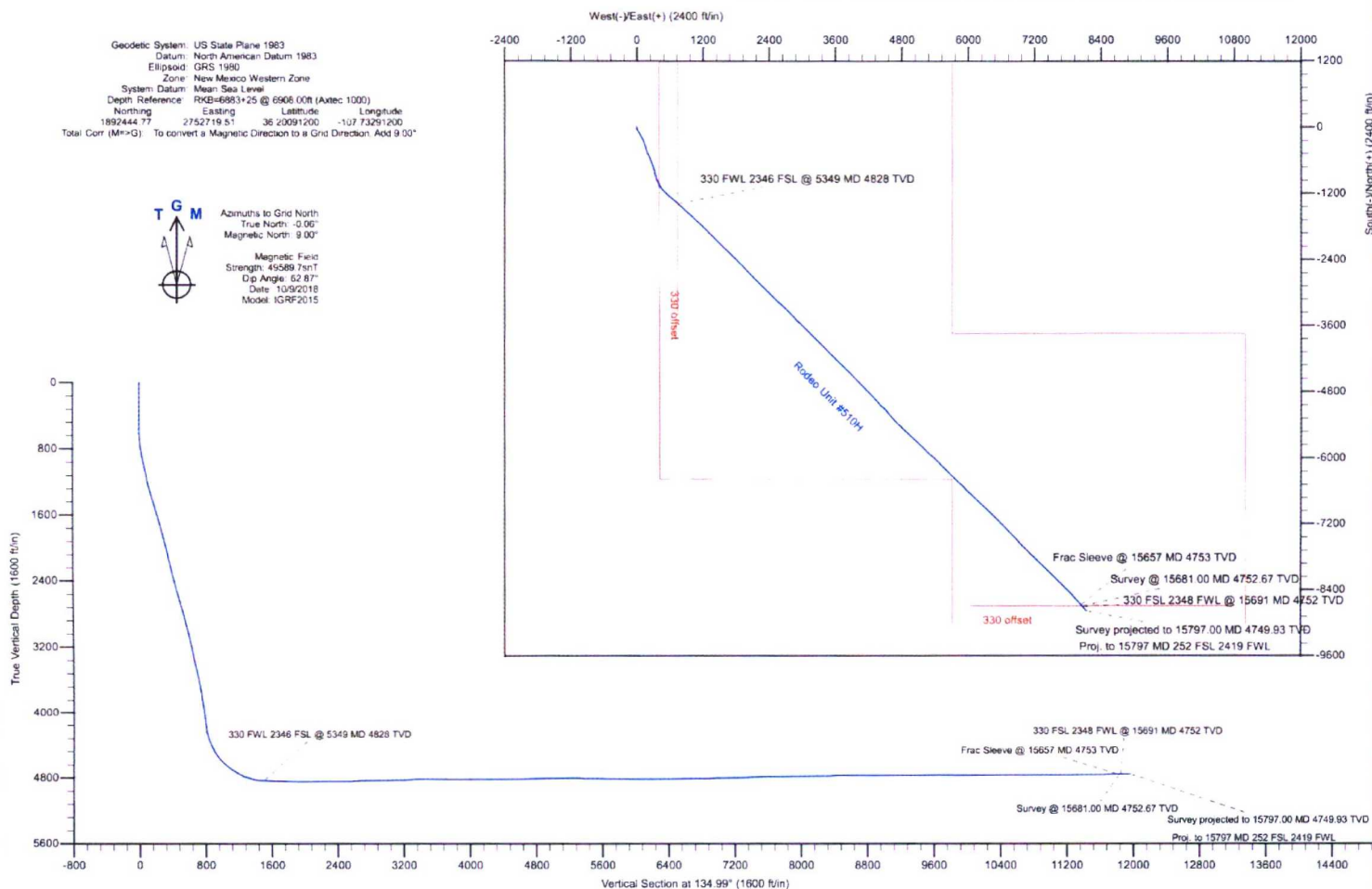
ANNOTATIONS SURVEYS									
MD	Inc	Azi	TVD	+N/S	+E/W	V/Sect	Annotation		
324.00	1.55	285.76	323.96	1.19	-4.22	-3.82	MWD surveys		
66.61	1.27	51.87	482.68	-1389.41	742.89	150.07	MD FWL 2346 FSL @ 5349 MD 4828 TVD		
15657.00	91.27	137.78	475.41	-8669.01	8033.70	18110.52	Frac Sleeve @ 15657 MD 4753 TVD		
15681.00	91.35	138.03	475.62	-8686.81	8049.78	18134.46	Survey @ 15681 MD 4752 FT MD		
15691.00	91.35	138.03	475.43	-8694.24	8056.47	18144.46	Frac Sleeve @ 15691 MD 4752 TVD		
15707.00	91.35	138.03	474.93	-8718.28	8074.34	18161.11	Survey projected to 15707 MD MD 4749.93 TVD		
15797.00	91.35	138.03	474.93	-8713.03	8127.34	18150.28	Proj. to 15797 MD 252 FSL 2419 FWL		

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Western Zone
System Datum: Mean Sea Level
Depth Reference: RKB=6883+25 @ 6908 00ft (Axtex 1000)
Northing Easting Latitude Longitude
1892444 77 2752719 51 36 20091200 -107 73291200
Total Corr (M>=G) To convert a Magnetic Direction to a Grid Direction, Add 9.00°



Azimuths to Grid North
True North: -0.06°
Magnetic North: 9.00°

Magnetic Field
Strength: 49589.7nT
Dip Angle: 62.87°
Date: 10/9/2018
Model: IGRF2015



CONFIDENTIAL



Survey Report



Company: Enduring Resources LLC
Project: San Juan County, New Mexico NAD83 NM W
Site: Rodeo Unit
Well: Rodeo Unit #510H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well Rodeo Unit #510H
TVD Reference: RKB=6883+25 @ 6908.00ft (Axtec 1000)
MD Reference: RKB=6883+25 @ 6908.00ft (Axtec 1000)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: DB_Jul2216dt_v14

Project	San Juan County, New Mexico NAD83 NM W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	Rodeo Unit				
Site Position:		Northing:	1,892,465.48 usft	Latitude:	36.20096900
From:	Lat/Long	Easting:	2,752,685.27 usft	Longitude:	-107.73302800
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.06 °

Well	Rodeo Unit #510H, Surf loc: 1511 FNL 409 FEL Section 25-T23N-R09W				
Well Position	+N/-S	0.00 ft	Northing:	1,892,444.77 usft	Latitude: 36.20091200
	+E/-W	0.00 ft	Easting:	2,752,719.51 usft	Longitude: -107.73291200
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level: 6,883.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	10/9/2018	9.05	62.87	49,589.67469546

Design	Surveys Original Hole				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	134.99	

Survey Program	Date	12/7/2018			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
324.00	2,761.00	MWD surf (Original Hole)	MWD	OWSG MWD - Standard	
2,811.00	15,681.00	MWD (Original Hole)	MWD	OWSG MWD - Standard	
15,797.00	15,797.00	Projection (Original Hole)	MWD	OWSG MWD - Standard	

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
324.00	1.55	285.76	323.96	1.19	-4.22	-3.82	0.48	0.48	0.00
MWD surveys									
415.00	1.48	218.46	414.94	0.60	-6.13	-4.76	1.85	-0.08	-73.96
506.00	2.42	185.77	505.88	-2.23	-7.06	-3.42	1.56	1.03	-35.92
598.00	3.73	172.21	597.75	-7.13	-6.85	0.20	1.62	1.42	-14.74
689.00	5.58	154.64	688.45	-14.06	-4.55	6.72	2.54	2.03	-19.31
779.00	7.36	150.37	777.87	-23.02	0.17	16.40	2.05	1.98	-4.74
872.00	9.37	152.05	869.88	-34.89	6.67	29.38	2.18	2.16	1.81



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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: DB_Jul2216dt_v14

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
964.00	11.82	150.75	960.31	-49.73	14.78	45.61	2.68	2.66	-1.41
1,059.00	12.87	147.65	1,053.11	-67.16	25.20	65.30	1.31	1.11	-3.26
1,154.00	14.58	149.07	1,145.39	-86.35	37.01	87.22	1.83	1.80	1.49
1,248.00	15.70	149.12	1,236.13	-107.42	49.62	111.03	1.19	1.19	0.05
1,343.00	17.30	152.78	1,327.22	-131.01	62.68	136.95	2.01	1.68	3.85
1,438.00	15.96	154.48	1,418.24	-155.36	74.76	162.71	1.50	-1.41	1.79
1,532.00	16.08	157.62	1,508.59	-179.06	85.29	186.91	0.93	0.13	3.34
1,627.00	17.10	158.68	1,599.64	-204.24	95.38	211.85	1.12	1.07	1.12
1,721.00	16.43	151.33	1,689.65	-228.78	106.78	237.26	2.36	-0.71	-7.82
1,815.00	14.83	153.35	1,780.17	-251.20	118.56	261.44	1.80	-1.70	2.15
1,910.00	15.03	157.37	1,871.97	-273.43	128.75	284.37	1.11	0.21	4.23
2,005.00	16.35	157.65	1,963.43	-297.17	138.57	308.10	1.39	1.39	0.29
2,099.00	15.97	160.34	2,053.71	-321.59	147.96	331.99	0.89	-0.40	2.86
2,194.00	14.97	159.85	2,145.27	-345.41	156.58	354.94	1.06	-1.05	-0.52
2,289.00	16.79	160.07	2,236.64	-369.83	165.48	378.50	1.92	1.92	0.23
2,383.00	16.75	162.57	2,326.64	-395.52	174.17	402.80	0.77	-0.04	2.66
2,478.00	15.95	162.83	2,417.80	-421.05	182.12	426.48	0.85	-0.84	0.27
2,572.00	15.47	161.74	2,508.29	-445.30	189.86	449.09	0.60	-0.51	-1.16
2,666.00	16.22	160.44	2,598.72	-469.57	198.19	472.14	0.88	0.80	-1.38
2,761.00	16.53	160.90	2,689.87	-494.85	207.05	496.28	0.35	0.33	0.48
2,811.00	16.64	160.60	2,737.79	-508.32	211.76	509.13	0.28	0.22	-0.60
2,905.00	16.97	159.65	2,827.77	-533.88	221.00	533.74	0.46	0.35	-1.01
3,000.00	16.30	158.66	2,918.79	-559.29	230.67	558.55	0.77	-0.71	-1.04
3,094.00	15.61	155.67	3,009.17	-583.10	240.68	582.46	1.14	-0.73	-3.18
3,188.00	13.53	159.93	3,100.15	-604.96	249.67	604.27	2.49	-2.21	4.53
3,282.00	13.69	160.13	3,191.51	-625.75	257.22	624.31	0.18	0.17	0.21
3,377.00	13.36	160.11	3,283.87	-646.64	264.78	644.42	0.35	-0.35	-0.02
3,472.00	13.45	160.14	3,376.29	-667.36	272.26	664.36	0.10	0.09	0.03
3,566.00	13.20	157.59	3,467.76	-687.56	280.07	684.17	0.68	-0.27	-2.71
3,660.00	12.73	154.78	3,559.36	-706.85	288.57	703.82	0.84	-0.50	-2.99
3,754.00	11.43	158.81	3,651.28	-724.91	296.35	722.09	1.65	-1.38	4.29
3,849.00	11.42	160.10	3,744.40	-742.53	302.96	739.21	0.27	-0.01	1.36
3,943.00	10.04	160.71	3,836.75	-759.01	308.83	755.02	1.47	-1.47	0.65
4,038.00	8.62	159.88	3,930.49	-773.51	314.02	768.94	1.50	-1.49	-0.87
4,132.00	8.09	164.23	4,023.50	-786.49	318.24	781.10	0.88	-0.56	4.63
4,226.00	8.41	165.88	4,116.52	-799.52	321.71	792.78	0.42	0.34	1.76
4,258.00	8.30	166.80	4,148.18	-804.04	322.81	796.75	0.54	-0.34	2.88
4,289.00	8.81	165.79	4,178.84	-808.52	323.90	800.69	1.72	1.65	-3.26
4,320.00	10.78	167.62	4,209.38	-813.66	325.11	805.17	6.43	6.35	5.90
4,352.00	13.54	168.73	4,240.66	-820.25	326.48	810.80	8.66	8.63	3.47
4,383.00	15.92	169.98	4,270.64	-828.00	327.93	817.31	7.75	7.68	4.03
4,415.00	18.10	169.25	4,301.24	-837.21	329.62	825.01	6.84	6.81	-2.28
4,446.00	20.58	168.20	4,330.49	-847.27	331.64	833.55	8.08	8.00	-3.39



Survey Report



Company: Enduring Resources LLC
Project: San Juan County, New Mexico NAD83 NM W
Site: Rodeo Unit
Well: Rodeo Unit #510H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well Rodeo Unit #510H
TVD Reference: RKB=6883+25 @ 6908.00ft (Axtex 1000)
MD Reference: RKB=6883+25 @ 6908.00ft (Axtex 1000)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: DB_Jul2216dt_v14

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,477.00	23.18	167.10	4,359.25	-858.56	334.11	843.28	8.49	8.39	-3.55
4,509.00	26.02	165.15	4,388.35	-871.48	337.32	854.68	9.23	8.88	-6.09
4,540.00	28.67	164.73	4,415.88	-885.23	341.02	867.02	8.57	8.55	-1.35
4,572.00	31.02	162.04	4,443.64	-900.48	345.58	881.03	8.45	7.34	-8.41
4,603.00	33.51	161.12	4,469.85	-916.18	350.82	895.83	8.19	8.03	-2.97
4,635.00	36.02	159.42	4,496.13	-933.35	356.98	912.33	8.41	7.84	-5.31
4,666.00	38.23	159.05	4,520.85	-950.84	363.62	929.39	7.17	7.13	-1.19
4,698.00	40.52	157.59	4,545.58	-969.70	371.12	948.03	7.72	7.16	-4.56
4,729.00	42.70	156.38	4,568.76	-988.65	379.18	967.12	7.49	7.03	-3.90
4,761.00	45.00	155.10	4,591.84	-1,008.85	388.29	987.85	7.70	7.19	-4.00
4,792.00	47.13	153.19	4,613.35	-1,028.94	398.03	1,008.94	8.18	6.87	-6.16
4,824.00	50.06	150.08	4,634.51	-1,050.04	409.44	1,031.93	11.70	9.16	-9.72
4,856.00	52.44	147.30	4,654.54	-1,071.35	422.41	1,056.17	10.06	7.44	-8.69
4,887.00	54.41	143.89	4,673.02	-1,091.88	436.48	1,080.64	10.88	6.35	-11.00
4,918.00	56.66	140.38	4,690.56	-1,112.05	452.18	1,105.99	11.82	7.26	-11.32
4,950.00	57.91	137.31	4,707.86	-1,132.31	469.89	1,132.85	8.97	3.91	-9.59
4,981.00	59.78	135.69	4,723.90	-1,151.55	488.16	1,159.37	7.51	6.03	-5.23
5,013.00	60.14	135.04	4,739.92	-1,171.26	507.62	1,187.07	2.09	1.13	-2.03
5,044.00	61.37	134.80	4,755.06	-1,190.36	526.77	1,214.11	4.02	3.97	-0.77
5,076.00	64.32	133.88	4,769.66	-1,210.26	547.14	1,242.58	9.57	9.22	-2.88
5,107.00	68.03	133.52	4,782.18	-1,229.84	567.64	1,270.93	12.01	11.97	-1.16
5,138.00	71.81	132.70	4,792.83	-1,249.74	588.89	1,300.02	12.44	12.19	-2.65
5,170.00	74.56	132.03	4,802.08	-1,270.37	611.52	1,330.62	8.82	8.59	-2.09
5,201.00	76.88	132.29	4,809.73	-1,290.54	633.79	1,360.62	7.53	7.48	0.84
5,232.00	79.60	132.17	4,816.05	-1,310.93	656.26	1,390.93	8.78	8.77	-0.39
5,264.00	82.18	132.02	4,821.11	-1,332.11	679.70	1,422.49	8.08	8.06	-0.47
5,295.00	84.91	131.93	4,824.60	-1,352.71	702.60	1,453.25	8.81	8.81	-0.29
5,327.00	86.29	131.37	4,827.05	-1,373.92	726.44	1,485.10	4.65	4.31	-1.75
5,349.00	86.61	131.57	4,828.41	-1,388.46	742.89	1,507.01	1.71	1.45	0.90
330 FWL 2346 FSL @ 5349 MD 4828 TVD									
5,358.00	86.74	131.65	4,828.94	-1,394.42	749.61	1,515.98	1.71	1.45	0.90
5,453.00	87.18	130.94	4,833.97	-1,457.03	820.89	1,610.65	0.88	0.46	-0.75
5,547.00	87.48	131.63	4,838.35	-1,518.98	891.44	1,704.35	0.80	0.32	0.73
5,641.00	88.45	132.31	4,841.69	-1,581.80	961.29	1,798.16	1.26	1.03	0.72
5,736.00	90.00	133.84	4,842.98	-1,646.67	1,030.67	1,893.09	2.29	1.63	1.61
5,830.00	90.54	133.43	4,842.53	-1,711.54	1,098.70	1,987.06	0.72	0.57	-0.44
5,925.00	90.00	134.12	4,842.09	-1,777.26	1,167.30	2,082.04	0.92	-0.57	0.73
6,019.00	89.56	133.94	4,842.45	-1,842.59	1,234.88	2,176.03	0.51	-0.47	-0.19
6,113.00	90.81	136.04	4,842.14	-1,909.04	1,301.35	2,270.02	2.60	1.33	2.23
6,208.00	91.48	135.02	4,840.24	-1,976.82	1,367.89	2,364.99	1.28	0.71	-1.07
6,303.00	91.41	134.27	4,837.85	-2,043.56	1,435.46	2,459.96	0.79	-0.07	-0.79
6,397.00	91.45	134.00	4,835.50	-2,109.00	1,502.90	2,553.92	0.29	0.04	-0.29
6,492.00	92.00	132.86	4,832.64	-2,174.27	1,571.86	2,648.84	1.33	0.58	-1.20
6,586.00	91.21	135.09	4,830.01	-2,239.51	1,639.47	2,742.78	2.52	-0.84	2.37



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6,680.00	91.68	134.28	4,827.64	-2,305.59	1,706.28	2,836.75	1.00	0.50	-0.86
6,775.00	90.24	136.04	4,826.05	-2,372.94	1,773.26	2,931.73	2.39	-1.52	1.85
6,869.00	90.61	135.76	4,825.35	-2,440.44	1,838.67	3,025.72	0.49	0.39	-0.30
6,963.00	91.18	135.89	4,823.88	-2,507.85	1,904.17	3,119.69	0.62	0.61	0.14
7,058.00	91.82	135.55	4,821.40	-2,575.84	1,970.47	3,214.65	0.76	0.67	-0.36
7,152.00	93.16	135.60	4,817.31	-2,642.91	2,036.20	3,308.56	1.43	1.43	0.05
7,247.00	90.94	135.07	4,813.91	-2,710.43	2,102.94	3,403.49	2.40	-2.34	-0.56
7,341.00	90.67	134.85	4,812.59	-2,776.84	2,169.44	3,497.48	0.37	-0.29	-0.23
7,435.00	91.21	134.04	4,811.05	-2,842.66	2,236.54	3,591.46	1.04	0.57	-0.86
7,529.00	89.19	135.10	4,810.72	-2,908.62	2,303.50	3,685.45	2.43	-2.15	1.13
7,623.00	89.02	135.09	4,812.19	-2,975.19	2,369.85	3,779.44	0.18	-0.18	-0.01
7,718.00	88.96	134.25	4,813.87	-3,041.96	2,437.40	3,874.42	0.89	-0.06	-0.88
7,812.00	90.71	134.93	4,814.14	-3,107.95	2,504.34	3,968.42	2.00	1.86	0.72
7,907.00	91.14	134.26	4,812.60	-3,174.64	2,571.98	4,063.40	0.84	0.45	-0.71
8,001.00	90.87	133.56	4,810.95	-3,239.82	2,639.69	4,157.37	0.80	-0.29	-0.74
8,096.00	91.11	131.95	4,809.31	-3,304.30	2,709.43	4,252.28	1.71	0.25	-1.69
8,190.00	89.09	135.39	4,809.15	-3,369.20	2,777.41	4,346.24	4.24	-2.15	3.66
8,285.00	89.06	136.01	4,810.68	-3,437.18	2,843.75	4,441.22	0.65	-0.03	0.65
8,380.00	90.27	136.34	4,811.24	-3,505.71	2,909.53	4,536.19	1.32	1.27	0.35
8,474.00	91.78	135.16	4,809.56	-3,573.03	2,975.11	4,630.16	2.04	1.61	-1.26
8,568.00	90.03	135.82	4,808.07	-3,640.06	3,041.00	4,724.14	1.99	-1.86	0.70
8,662.00	90.54	135.81	4,807.60	-3,707.46	3,106.51	4,818.13	0.54	0.54	-0.01
8,757.00	91.08	135.74	4,806.26	-3,775.53	3,172.77	4,913.11	0.57	0.57	-0.07
8,851.00	91.08	134.19	4,804.49	-3,841.95	3,239.26	5,007.09	1.65	0.00	-1.65
8,946.00	91.41	133.84	4,802.42	-3,907.94	3,307.56	5,102.06	0.51	0.35	-0.37
9,041.00	89.83	135.23	4,801.40	-3,974.56	3,375.27	5,197.04	2.22	-1.66	1.46
9,134.00	90.00	135.56	4,801.53	-4,040.77	3,440.58	5,290.04	0.40	0.18	0.35
9,228.00	89.66	133.96	4,801.81	-4,106.96	3,507.32	5,384.04	1.74	-0.36	-1.70
9,323.00	88.05	136.61	4,803.71	-4,174.45	3,574.14	5,479.01	3.26	-1.69	2.79
9,417.00	87.88	135.75	4,807.05	-4,242.23	3,639.19	5,572.92	0.93	-0.18	-0.91
9,511.00	88.35	135.04	4,810.14	-4,309.11	3,705.16	5,666.87	0.91	0.50	-0.76
9,606.00	88.39	134.47	4,812.84	-4,375.97	3,772.59	5,761.83	0.60	0.04	-0.60
9,701.00	90.37	135.15	4,813.87	-4,442.92	3,839.98	5,856.82	2.20	2.08	0.72
9,796.00	91.45	134.62	4,812.36	-4,509.95	3,907.28	5,951.81	1.27	1.14	-0.56
9,890.00	89.76	136.35	4,811.37	-4,576.97	3,973.18	6,045.79	2.57	-1.80	1.84
9,985.00	90.13	136.25	4,811.46	-4,645.65	4,038.81	6,140.77	0.40	0.39	-0.11
10,079.00	90.87	134.93	4,810.64	-4,712.79	4,104.59	6,234.75	1.61	0.79	-1.40
10,173.00	91.31	134.89	4,808.85	-4,779.15	4,171.15	6,328.74	0.47	0.47	-0.04
10,268.00	90.77	136.20	4,807.13	-4,846.94	4,237.67	6,423.71	1.49	-0.57	1.38
10,362.00	91.24	137.15	4,805.48	-4,915.31	4,302.15	6,517.66	1.13	0.50	1.01
10,457.00	92.12	136.35	4,802.70	-4,984.48	4,367.22	6,612.57	1.25	0.93	-0.84
10,552.00	89.70	137.56	4,801.19	-5,053.89	4,432.05	6,707.49	2.85	-2.55	1.27
10,646.00	89.66	137.27	4,801.71	-5,123.10	4,495.65	6,801.41	0.31	-0.04	-0.31



Survey Report



Company: Enduring Resources LLC
Project: San Juan County, New Mexico NAD83 NM W
Site: Rodeo Unit
Well: Rodeo Unit #510H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well Rodeo Unit #510H
TVD Reference: RKB=6883+25 @ 6908.00ft (Axtex 1000)
MD Reference: RKB=6883+25 @ 6908.00ft (Axtex 1000)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: DB_Jul2216dt_v14

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,741.00	90.47	137.81	4,801.60	-5,193.19	4,559.78	6,896.31	1.02	0.85	0.57
10,835.00	91.61	137.85	4,799.90	-5,262.84	4,622.88	6,990.18	1.21	1.21	0.04
10,929.00	91.48	135.78	4,797.36	-5,331.35	4,687.18	7,084.09	2.21	-0.14	-2.20
11,024.00	91.11	134.78	4,795.22	-5,398.84	4,754.01	7,179.07	1.12	-0.39	-1.05
11,118.00	91.78	134.09	4,792.85	-5,464.63	4,821.11	7,273.03	1.02	0.71	-0.73
11,213.00	91.95	133.61	4,789.75	-5,530.40	4,889.58	7,367.96	0.54	0.18	-0.51
11,308.00	92.89	133.11	4,785.74	-5,595.57	4,958.59	7,462.84	1.12	0.99	-0.53
11,402.00	90.20	133.39	4,783.21	-5,659.95	5,027.02	7,556.75	2.88	-2.86	0.30
11,522.00	89.63	132.29	4,783.39	-5,741.54	5,115.01	7,676.66	1.03	-0.48	-0.92
11,616.00	89.33	134.94	4,784.24	-5,806.37	5,183.06	7,770.62	2.84	-0.32	2.82
11,711.00	91.48	135.51	4,783.57	-5,873.81	5,249.96	7,865.62	2.34	2.26	0.60
11,806.00	91.98	135.45	4,780.70	-5,941.51	5,316.54	7,960.57	0.53	0.53	-0.06
11,901.00	91.28	134.35	4,778.00	-6,008.54	5,383.81	8,055.53	1.37	-0.74	-1.16
11,995.00	90.57	133.79	4,776.48	-6,073.91	5,451.33	8,149.50	0.96	-0.76	-0.60
12,090.00	91.31	134.29	4,774.92	-6,139.94	5,519.62	8,244.48	0.94	0.78	0.53
12,185.00	91.28	135.49	4,772.78	-6,206.97	5,586.90	8,339.45	1.26	-0.03	1.26
12,280.00	91.55	134.75	4,770.43	-6,274.26	5,653.91	8,434.42	0.83	0.28	-0.78
12,374.00	91.18	135.44	4,768.19	-6,340.82	5,720.25	8,528.39	0.83	-0.39	0.73
12,468.00	90.27	133.97	4,767.00	-6,406.94	5,787.05	8,622.38	1.84	-0.97	-1.56
12,563.00	89.23	132.01	4,767.41	-6,471.71	5,856.54	8,717.31	2.34	-1.09	-2.06
12,656.00	89.73	133.36	4,768.26	-6,534.76	5,924.90	8,810.23	1.55	0.54	1.45
12,751.00	90.54	133.54	4,768.04	-6,600.09	5,993.87	8,905.20	0.87	0.85	0.19
12,845.00	90.87	134.50	4,766.88	-6,665.41	6,061.45	8,999.18	1.08	0.35	1.02
12,940.00	90.91	134.67	4,765.40	-6,732.09	6,129.11	9,094.16	0.18	0.04	0.18
13,035.00	90.64	134.70	4,764.12	-6,798.89	6,196.64	9,189.15	0.29	-0.28	0.03
13,129.00	89.73	132.72	4,763.81	-6,863.84	6,264.59	9,283.12	2.32	-0.97	-2.11
13,224.00	89.19	134.32	4,764.71	-6,929.25	6,333.47	9,378.08	1.78	-0.57	1.68
13,318.00	89.56	134.72	4,765.74	-6,995.15	6,400.49	9,472.07	0.58	0.39	0.43
13,412.00	90.00	134.56	4,766.10	-7,061.20	6,467.37	9,566.07	0.50	0.47	-0.17
13,507.00	89.93	135.76	4,766.15	-7,128.56	6,534.36	9,661.07	1.27	-0.07	1.26
13,601.00	90.17	136.03	4,766.07	-7,196.06	6,599.78	9,755.06	0.38	0.26	0.29
13,696.00	90.50	136.23	4,765.52	-7,264.55	6,665.61	9,850.04	0.41	0.35	0.21
13,790.00	90.67	136.58	4,764.56	-7,332.62	6,730.43	9,944.00	0.41	0.18	0.37
13,885.00	90.91	136.87	4,763.25	-7,401.78	6,795.55	10,038.95	0.40	0.25	0.31
13,980.00	90.07	135.22	4,762.43	-7,470.16	6,861.48	10,133.93	1.95	-0.88	-1.74
14,074.00	89.93	135.04	4,762.43	-7,536.78	6,927.80	10,227.93	0.24	-0.15	-0.19
14,169.00	90.30	135.11	4,762.24	-7,604.05	6,994.88	10,322.93	0.40	0.39	0.07
14,263.00	90.17	135.60	4,761.86	-7,670.92	7,060.94	10,416.92	0.54	-0.14	0.52
14,358.00	89.93	135.29	4,761.78	-7,738.62	7,127.59	10,511.92	0.41	-0.25	-0.33
14,452.00	90.13	135.12	4,761.73	-7,805.32	7,193.82	10,605.92	0.28	0.21	-0.18
14,547.00	90.13	134.86	4,761.51	-7,872.49	7,261.00	10,700.92	0.27	0.00	-0.27
14,642.00	90.07	135.45	4,761.34	-7,939.84	7,328.00	10,795.92	0.62	-0.06	0.62
14,736.00	90.20	135.03	4,761.12	-8,006.59	7,394.19	10,889.92	0.47	0.14	-0.45



Survey Report



Company: Enduring Resources LLC
Project: San Juan County, New Mexico NAD83 NM W
Site: Rodeo Unit
Well: Rodeo Unit #510H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well Rodeo Unit #510H
TVD Reference: RKB=6883+25 @ 6908.00ft (Axtec 1000)
MD Reference: RKB=6883+25 @ 6908.00ft (Axtec 1000)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: DB_Jul2216dt_v14

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
14,831.00	89.93	135.21	4,761.02	-8,073.90	7,461.22	10,984.92	0.34	-0.28	0.19
14,925.00	89.90	134.71	4,761.16	-8,140.33	7,527.73	11,078.92	0.53	-0.03	-0.53
15,019.00	89.43	134.80	4,761.70	-8,206.51	7,594.48	11,172.91	0.51	-0.50	0.10
15,113.00	89.70	135.29	4,762.42	-8,273.03	7,660.90	11,266.91	0.60	0.29	0.52
15,208.00	90.24	135.56	4,762.47	-8,340.70	7,727.57	11,361.91	0.64	0.57	0.28
15,302.00	91.78	137.26	4,760.81	-8,408.76	7,792.37	11,455.86	2.44	1.64	1.81
15,397.00	91.28	136.91	4,758.27	-8,478.31	7,857.03	11,550.76	0.64	-0.53	-0.37
15,491.00	91.04	137.21	4,756.37	-8,547.11	7,921.06	11,644.68	0.41	-0.26	0.32
15,586.00	91.04	137.06	4,754.65	-8,616.73	7,985.67	11,739.60	0.16	0.00	-0.16
15,657.00	91.27	137.78	4,753.22	-8,669.00	8,033.70	11,810.52	1.07	0.33	1.02

Frac Sleeve @ 15657 MD 4753 TVD

15,681.00	91.35	138.03	4,752.67	-8,686.81	8,049.78	11,834.48	1.07	0.33	1.02
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Survey @ 15681.00 MD 4752.67 TVD

15,691.00	91.35	138.03	4,752.43	-8,694.24	8,056.47	11,844.46	0.00	0.00	0.00
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330 FSL 2348 FWL @ 15691 MD 4752 TVD

15,797.00	91.35	138.03	4,749.93	-8,773.03	8,127.34	11,950.28	0.00	0.00	0.00
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Survey projected to 15797.00 MD 4749.93 TVD - Proj. to 15797 MD 252 FSL 2419 FWL

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
324.00	323.96	1.19	-4.22	MWD surveys
5,349.00	4,828.41	-1,388.46	742.89	330 FWL 2346 FSL @ 5349 MD 4828 TVD
15,657.00	4,753.22	-8,669.00	8,033.70	Frac Sleeve @ 15657 MD 4753 TVD
15,681.00	4,752.67	-8,686.81	8,049.78	Survey @ 15681.00 MD 4752.67 TVD
15,691.00	4,752.43	-8,694.24	8,056.47	330 FSL 2348 FWL @ 15691 MD 4752 TVD
15,797.00	4,749.93	-8,773.03	8,127.34	Survey projected to 15797.00 MD 4749.93 TVD
15,797.00	4,749.93	-8,773.03	8,127.34	Proj. to 15797 MD 252 FSL 2419 FWL