

Submit one copy to
Appropriate District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, NM 87505

☐ AMENDED REPORT

As Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-043-21326		*Pool Code 98225	*Pool Name ESCAVADA W; MANCOS
*Property Code 321258	*Property Name W ESCAVADA UNIT		*Well Number 308H
*OGRID No. 372286	*Operator Name ENDURING RESOURCES, LLC		*Elevation 6824'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Ten	Feet from the	North/South line	Feet from the	East/West line	County
C	19	22N	7W		498	NORTH	2151	WEST	SANDOVAL

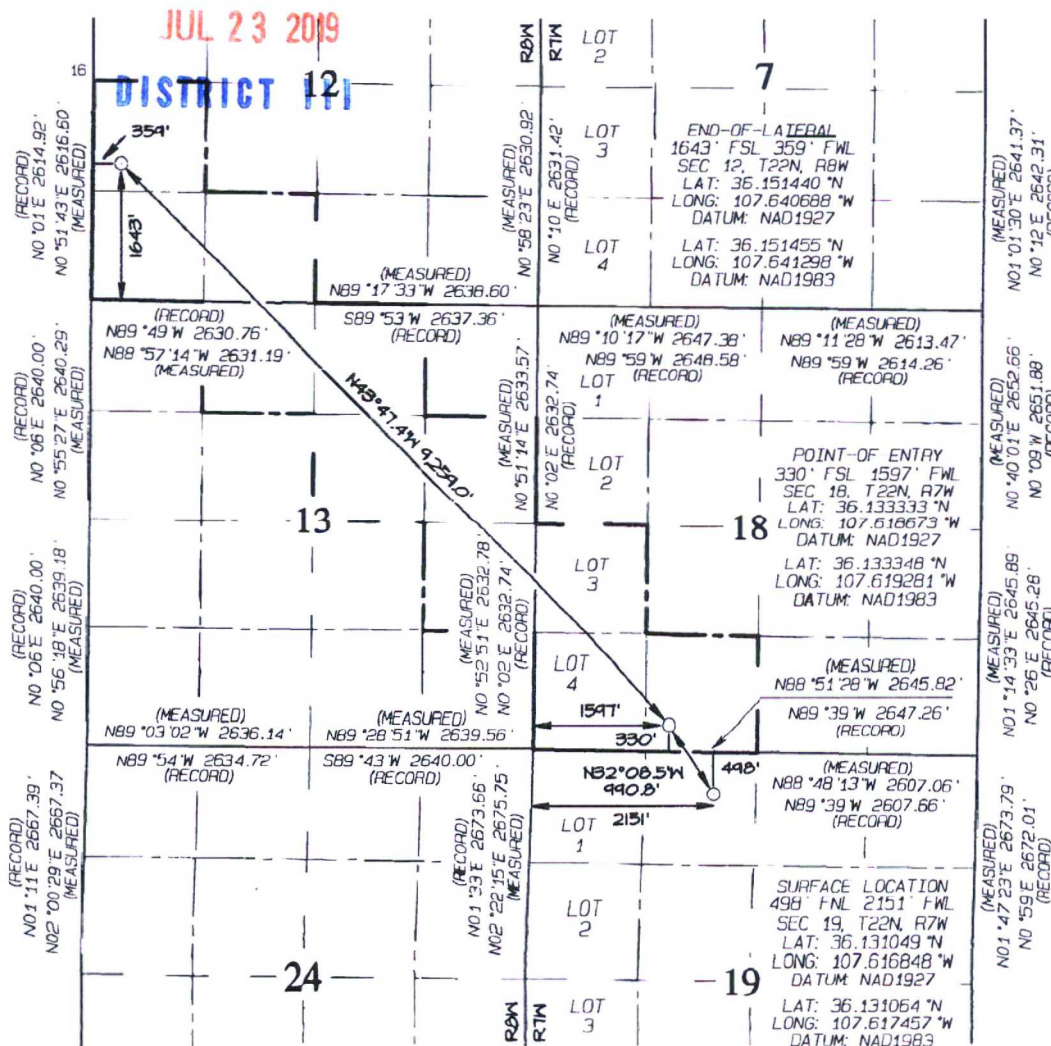
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 10n	Feet from the	North/South line	Feet from the	East/West line	County
L	12	22N	8W		1643	SOUTH	359	WEST	SAN JUAN

12 Dedicated Acres 442.32
W/2 SW/4, SE/4 SW/4 - Section 12
NE/4 NW/4, W/2 NE/4
SE/4 NE/4, NE/4 SE/4 - Section 13
W/2 SW/4, SE/4 SW/4 - Section 18

¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-14100
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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



CONFIDENTIAL

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 another owner of 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: JULY 8, 2019
Survey Date: OCTOBER 27, 2018

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269



Well: W. Escavada Unit Well No. 308H
Site: Section 19-T22N-R07W
Project: San Juan & Sandoval Counties, New Mexico NAD83 NMC
Design: rev2
Rig: Ensign 773

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
W Escavada 308H POE 330 FSL 1598 FWL r2	4673.00	846.67	-705.54	1870652.72	1236079.65	36.13334700	-107.61927700
W Escavada 308H PBHL 1638 FSL 330 FWL r2	4705.00	7526.86	-7143.44	1877332.90	1229641.76	36.15144200	-107.64138700

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Central Zone
System Datum: Mean Sea Level
Depth Reference: RKB=6824+28 @ 5852.00R (Ensign 773)

Northing	Easting	Latitude	Longitude
1969805.06	1236785.19	36.13104900	-107.61684800

Total Corr (M=>G) To convert a Magnetic Direction to a Grid Direction, Add 9.749°



Azimuths to Grid North
True North: 0.81°
Magnetic North: 9.75°
Magnetic Field
Strength: 49508.6nT
Dip Angle: 62.62°
Date: 4/23/2019
Model: IGRF2015



FORMATION TOP DETAILS

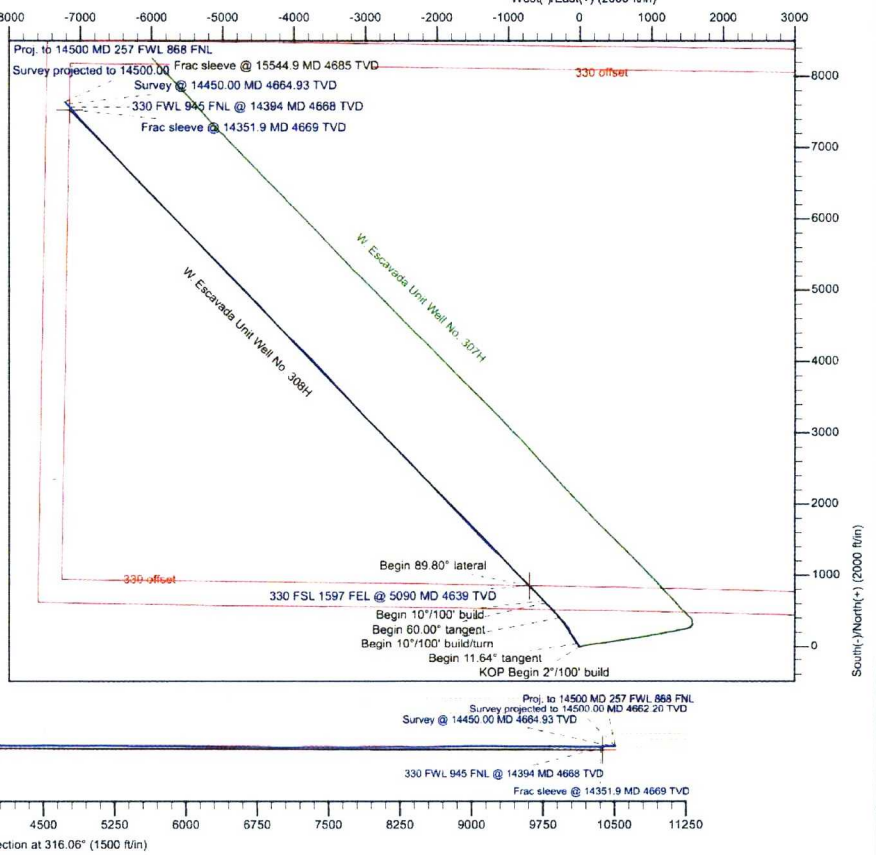
TVDPath	MDPath	Formation
492.00	492.00	Ojo Alamo
572.00	572.00	Kirtland
814.00	814.00	Fruitland
1122.00	1122.00	Pictured Cliffs
1314.00	1314.00	Lewis
1457.00	1457.00	Chacra_A
2494.50	2507.25	Cliff House_Basal
2547.54	2561.40	Menefee
3473.20	3506.51	Point Lookout
3635.31	3672.03	Mancos
3923.52	3966.25	Gallup (MNCS_A)
4028.59	4073.58	MNCS_B
4123.66	4170.64	MNCS_C
4155.66	4203.34	MNCS_Cms
4280.80	4333.40	MNCS_D
4437.13	4516.05	MNCS_E
4489.30	4587.97	MNCS_F
4557.61	4700.82	MNCS_G
4635.13	4868.16	MNCS_H @ OVS
4638.16	4876.79	MNCS_H @ POE
4670.66	5025.78	MNCS_H @ BHL

Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSecl	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 2°/100° build
2	1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	0.00	Begin 11.64° tangent
3	2082.23	11.64	324.44	2078.23	47.97	-34.29	2.00	324.444	56.33	Begin 10°/100° build/turn
4	4232.69	11.64	324.44	4184.43	401.09	-286.69	0.00	0.000	487.74	Begin 60.00° tangent
5	4717.67	60.00	316.06	4586.25	604.41	-472.07	10.00	-9.707	762.79	Begin 10°/100° build
6	4777.67	60.00	316.06	4596.25	641.83	-508.13	0.00	0.000	814.75	Begin 89.80° lateral
7	5075.70	89.80	316.06	4673.01	846.69	-705.55	10.00	-0.004	1099.26	PBHL/TD 14353.20 MD/4705.00 TVD
8	14353.20	89.80	316.06	4705.00	7526.86	-7143.44	0.00	0.000	0376.71	

ANNOTATIONS SURVEYS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSecl	Annotation
310.00	2.09	226.73	309.93	-3.88	-4.12	0.07	MWD surveys
5090.00	85.78	317.06	4639.42	847.14	-708.83	1100.46	330 FSL 1597° FEL @ 5090 MD 4639 TVD
14351.90	91.99	317.53	4669.31	7531.17	-7114.14	10359.48	Frac sleeve @ 14351.9 MD 4669 TVD
14394.00	92.48	317.31	4667.67	7562.15	-7142.60	10401.54	330 FWL 945 FNL @ 14394 MD 4668 TVD
14450.00	93.13	316.98	4664.93	7603.15	-7180.65	10457.46	Survey @ 14450.00 MD 4664.93 TVD
14500.00	93.13	316.98	4662.20	7639.65	-7214.71	10507.38	Survey projected to 14500.00 MD 4662.20 TVD
14500.00	93.13	316.98	4662.20	7639.65	-7214.71	10507.38	Proj. to 14500 MD 257 FWL 868 FNL



CONFIDENTIAL



Survey Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well W. Escavada Unit Well No. 308H
Project:	San Juan & Sandoval Counties, New Mexico NAD83 NMC	TVD Reference:	RKB=6824+28 @ 6852.00ft (Ensign 773)
Site:	Section 19-T22N-R07W	MD Reference:	RKB=6824+28 @ 6852.00ft (Ensign 773)
Well:	W. Escavada Unit Well No. 308H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Jul2216dt_v14

Project	San Juan & Sandoval Counties, New Mexico NAD83 NMC		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Central Zone		

Site	Section 19-T22N-R07W		
Site Position:		Northing:	1,869,806.87 usft
From:	Lat/Long	Easting:	1,236,805.29 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "
		Latitude:	36.13105200
		Longitude:	-107.61678000
		Grid Convergence:	-0.806 °

Well	W. Escavada Unit Well No. 308H, Surf loc: 498 FNL 2151 FWL Section 19-T22N-R07W		
Well Position	+N/-S 0.00 ft	Northing:	1,869,806.06 usft
	+E/-W 0.00 ft	Easting:	1,236,785.19 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	36.13104900
		Longitude:	-107.61684800
		Ground Level:	6,824.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	4/23/2019	8.943	62.822	49,508.57039128

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	316.06	

Survey Program	Date	7/4/2019		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
310.00	14,450.00	MWD (Original Hole)	MWD	OWSG MWD - Standard
14,500.00	14,500.00	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
310.00	2.09	226.73	309.93	-3.88	-4.12	0.07	0.67	0.67	0.00
MWD surveys									
401.00	2.36	223.86	400.86	-6.36	-6.62	0.01	0.32	0.30	-3.15
493.00	0.20	246.66	492.83	-7.79	-8.08	0.00	2.37	-2.35	24.78
584.00	0.41	60.96	583.83	-7.70	-7.94	-0.03	0.67	0.23	191.54
675.00	0.62	32.55	674.83	-7.12	-7.39	0.00	0.36	0.23	-31.22
765.00	0.31	20.16	764.83	-6.49	-7.05	0.22	0.36	-0.34	-13.77
856.00	0.45	57.48	855.83	-6.06	-6.66	0.26	0.30	0.15	41.01



Survey Report

Company: Enduring Resources LLC
Project: San Juan & Sandoval Counties, New Mexico
NAD83 NMC
Site: Section 19-T22N-R07W
Well: W. Escavada Unit Well No. 308H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well W. Escavada Unit Well No. 308H
TVD Reference: RKB=6824+28 @ 6852.00ft (Ensign 773)
MD Reference: RKB=6824+28 @ 6852.00ft (Ensign 773)
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)
948.00	0.34	34.45	947.82	-5.64	-6.20	0.24	0.21	-0.12	-25.03
1,039.00	0.62	58.95	1,038.82	-5.17	-5.63	0.19	0.37	0.31	26.92
1,129.00	0.38	51.37	1,128.82	-4.73	-4.98	0.05	0.28	-0.27	-8.42
1,221.00	0.44	19.44	1,220.81	-4.21	-4.62	0.18	0.25	0.07	-34.71
1,312.00	0.31	12.39	1,311.81	-3.64	-4.45	0.47	0.15	-0.14	-7.75
1,402.00	2.68	332.99	1,401.78	-1.52	-5.36	2.62	2.72	2.63	-43.78
1,494.00	5.01	331.59	1,493.56	3.93	-8.25	8.55	2.53	2.53	-1.52
1,586.00	6.82	328.10	1,585.07	12.10	-13.04	17.76	2.00	1.97	-3.79
1,677.00	8.30	324.51	1,675.28	22.03	-19.71	29.55	1.71	1.63	-3.95
1,769.00	9.54	324.62	1,766.16	33.66	-27.98	43.65	1.35	1.35	0.12
1,859.00	10.27	326.06	1,854.82	46.39	-36.78	58.93	0.86	0.81	1.60
1,952.00	10.06	326.91	1,946.36	60.08	-45.84	75.07	0.28	-0.23	0.91
2,044.00	9.83	326.45	2,036.98	73.36	-54.57	90.69	0.26	-0.25	-0.50
2,137.00	9.54	327.17	2,128.65	86.45	-63.14	106.06	0.34	-0.31	0.77
2,229.00	9.15	327.84	2,219.43	99.05	-71.16	120.70	0.44	-0.42	0.73
2,320.00	8.97	327.62	2,309.30	111.16	-78.81	134.73	0.20	-0.20	-0.24
2,412.00	8.89	328.46	2,400.18	123.28	-86.37	148.70	0.17	-0.09	0.91
2,504.00	8.45	329.30	2,491.13	135.15	-93.54	162.23	0.50	-0.48	0.91
2,595.00	8.09	329.77	2,581.18	146.43	-100.18	174.96	0.40	-0.40	0.52
2,718.00	7.58	333.88	2,703.04	161.19	-108.11	191.09	0.62	-0.41	3.34
2,808.00	8.16	330.90	2,792.19	172.10	-113.83	202.91	0.79	0.64	-3.31
2,900.00	8.26	329.74	2,883.24	183.52	-120.33	215.64	0.21	0.11	-1.26
2,993.00	8.03	332.73	2,975.31	195.06	-126.68	228.36	0.52	-0.25	3.22
3,085.00	7.65	334.68	3,066.45	206.31	-132.24	240.32	0.50	-0.41	2.12
3,177.00	8.40	333.43	3,157.55	217.85	-137.87	252.53	0.84	0.82	-1.36
3,268.00	7.96	334.58	3,247.62	229.49	-143.54	264.85	0.52	-0.48	1.26
3,360.00	8.03	331.05	3,338.73	240.87	-149.39	277.10	0.54	0.08	-3.84
3,452.00	7.24	332.76	3,429.91	251.64	-155.15	288.86	0.89	-0.86	1.86
3,542.00	9.53	320.20	3,518.95	262.41	-162.52	301.73	3.24	2.54	-13.96
3,633.00	8.64	318.83	3,608.81	273.34	-171.84	316.07	1.01	-0.98	-1.51
3,725.00	8.06	318.01	3,699.83	283.34	-180.70	329.41	0.64	-0.63	-0.89
3,815.00	7.01	316.27	3,789.05	292.00	-188.72	341.21	1.19	-1.17	-1.93
3,907.00	7.75	309.77	3,880.29	300.02	-197.37	352.99	1.21	0.80	-7.07
4,000.00	7.81	323.61	3,972.44	309.12	-205.94	365.49	2.01	0.06	14.88
4,046.00	7.62	319.39	4,018.03	313.95	-209.78	371.63	1.30	-0.41	-9.17
4,091.00	8.10	320.60	4,062.60	318.67	-213.73	377.77	1.13	1.07	2.69
4,135.00	13.90	320.83	4,105.78	325.17	-219.04	386.14	13.18	13.18	0.52
4,181.00	19.05	321.29	4,149.87	335.31	-227.23	399.13	11.20	11.20	1.00
4,227.00	23.69	319.84	4,192.70	348.24	-237.89	415.83	10.15	10.09	-3.15
4,273.00	27.17	319.32	4,234.24	363.27	-250.70	435.55	7.58	7.57	-1.13
4,320.00	31.18	319.41	4,275.27	380.66	-265.62	458.41	8.53	8.53	0.19
4,364.00	34.90	319.27	4,312.14	398.85	-281.25	482.36	8.46	8.45	-0.32



Survey Report

Company: Enduring Resources LLC
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NAD83 NMC
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Wellbore: Original Hole
Design: Surveys Original Hole

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MD Reference: RKB=6824+28 @ 6852.00ft (Ensign 773)
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)
4,410.00	39.20	317.94	4,348.85	419.63	-299.58	510.04	9.51	9.35	-2.89
4,456.00	43.00	317.16	4,383.51	441.93	-320.00	540.27	8.34	8.26	-1.70
4,502.00	46.82	316.86	4,416.08	465.68	-342.14	572.73	8.32	8.30	-0.65
4,548.00	50.23	317.74	4,446.54	491.01	-365.50	607.18	7.55	7.41	1.91
4,594.00	52.87	318.07	4,475.14	517.74	-389.65	643.19	5.77	5.74	0.72
4,640.00	55.19	317.53	4,502.16	545.31	-414.66	680.39	5.13	5.04	-1.17
4,686.00	57.05	317.00	4,527.80	573.36	-440.57	718.57	4.16	4.04	-1.15
4,732.00	57.25	316.60	4,552.75	601.53	-467.02	757.21	0.85	0.43	-0.87
4,778.00	63.24	315.51	4,575.57	630.26	-494.73	797.13	13.18	13.02	-2.37
4,823.00	68.97	315.14	4,593.79	659.51	-523.65	838.25	12.76	12.73	-0.82
4,869.00	75.35	314.50	4,607.88	690.35	-554.70	882.01	13.93	13.87	-1.39
4,915.00	79.51	315.14	4,617.89	722.00	-586.54	926.88	9.14	9.04	1.39
4,961.00	81.70	315.71	4,625.40	754.32	-618.38	972.26	4.92	4.76	1.24
5,007.00	83.19	316.18	4,631.44	787.09	-650.09	1,017.86	3.39	3.24	1.02
5,090.00	85.78	317.06	4,639.42	847.14	-706.83	1,100.46	3.29	3.12	1.07
330 FSL 1597 FEL @ 5090 MD 4639 TVD									
5,099.00	86.06	317.16	4,640.06	853.71	-712.94	1,109.44	3.29	3.12	1.06
5,191.00	86.84	315.83	4,645.76	920.31	-776.15	1,201.26	1.67	0.85	-1.45
5,284.00	87.68	315.86	4,650.20	986.96	-840.86	1,294.15	0.90	0.90	0.03
5,374.00	88.96	316.01	4,652.84	1,051.60	-903.42	1,384.11	1.43	1.42	0.17
5,466.00	89.76	315.92	4,653.87	1,117.73	-967.37	1,476.10	0.88	0.87	-0.10
5,556.00	89.63	315.41	4,654.35	1,182.11	-1,030.26	1,566.10	0.58	-0.14	-0.57
5,647.00	89.50	313.87	4,655.04	1,246.05	-1,095.01	1,657.07	1.70	-0.14	-1.69
5,739.00	92.22	315.24	4,653.66	1,310.58	-1,160.55	1,749.01	3.31	2.96	1.49
5,831.00	93.03	314.54	4,649.45	1,375.44	-1,225.66	1,840.90	1.16	0.88	-0.76
5,922.00	90.71	315.31	4,646.48	1,439.66	-1,290.05	1,931.82	2.69	-2.55	0.85
6,012.00	91.08	314.91	4,645.07	1,503.41	-1,353.56	2,021.80	0.61	0.41	-0.44
6,104.00	89.26	316.63	4,644.80	1,569.33	-1,417.73	2,113.79	2.72	-1.98	1.87
6,196.00	89.06	315.57	4,646.15	1,635.61	-1,481.51	2,205.78	1.17	-0.22	-1.15
6,289.00	89.03	316.69	4,647.70	1,702.65	-1,545.95	2,298.76	1.20	-0.03	1.20
6,381.00	89.02	316.15	4,649.26	1,769.28	-1,609.37	2,390.75	0.59	-0.01	-0.59
6,471.00	89.50	315.91	4,650.42	1,834.05	-1,671.85	2,480.74	0.60	0.53	-0.27
6,562.00	90.10	315.94	4,650.74	1,899.43	-1,735.14	2,571.74	0.66	0.66	0.03
6,652.00	90.13	315.28	4,650.56	1,963.74	-1,798.10	2,661.74	0.73	0.03	-0.73
6,742.00	89.70	317.31	4,650.69	2,028.80	-1,860.28	2,751.73	2.31	-0.48	2.26
6,834.00	90.13	315.75	4,650.83	2,095.56	-1,923.58	2,843.72	1.76	0.47	-1.70
6,927.00	90.20	317.49	4,650.56	2,163.15	-1,987.45	2,936.72	1.87	0.08	1.87
7,019.00	90.71	316.85	4,649.83	2,230.62	-2,049.99	3,028.70	0.89	0.55	-0.70
7,111.00	91.48	316.28	4,648.07	2,297.42	-2,113.23	3,120.67	1.04	0.84	-0.62
7,203.00	90.37	317.59	4,646.59	2,364.62	-2,176.04	3,212.65	1.87	-1.21	1.42
7,292.00	88.02	318.44	4,647.84	2,430.76	-2,235.57	3,301.58	2.81	-2.64	0.96
7,384.00	88.89	317.94	4,650.32	2,499.31	-2,296.88	3,393.48	1.09	0.95	-0.54
7,477.00	89.56	317.97	4,651.58	2,568.37	-2,359.15	3,486.42	0.72	0.72	0.03



Survey Report

Company: Enduring Resources LLC
Project: San Juan & Sandoval Counties, New Mexico
NAD83 NMC
Site: Section 19-T22N-R07W
Well: W. Escavada Unit Well No. 308H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well W. Escavada Unit Well No. 308H
TVD Reference: RKB=6824+28 @ 6852.00ft (Ensign 773)
MD Reference: RKB=6824+28 @ 6852.00ft (Ensign 773)
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)
7,567.00	89.97	316.72	4,651.95	2,634.55	-2,420.13	3,576.40	1.46	0.46	-1.39
7,657.00	89.80	315.44	4,652.13	2,699.38	-2,482.56	3,666.39	1.43	-0.19	-1.42
7,748.00	90.17	314.88	4,652.15	2,763.91	-2,546.73	3,757.38	0.74	0.41	-0.62
7,840.00	87.51	316.32	4,654.01	2,829.62	-2,611.08	3,849.35	3.29	-2.89	1.57
7,932.00	88.25	316.32	4,657.42	2,896.11	-2,674.57	3,941.29	0.80	0.80	0.00
8,023.00	89.06	315.47	4,659.55	2,961.43	-2,737.88	4,032.26	1.29	0.89	-0.93
8,115.00	90.27	315.10	4,660.09	3,026.80	-2,802.61	4,124.25	1.38	1.32	-0.40
8,207.00	91.04	315.14	4,659.04	3,091.99	-2,867.52	4,216.23	0.84	0.84	0.04
8,299.00	91.85	314.84	4,656.72	3,157.01	-2,932.57	4,308.18	0.94	0.88	-0.33
8,391.00	90.00	316.39	4,655.23	3,222.75	-2,996.91	4,400.16	2.62	-2.01	1.68
8,481.00	91.08	316.46	4,654.39	3,287.94	-3,058.94	4,490.15	1.20	1.20	0.08
8,574.00	88.42	318.29	4,654.79	3,356.36	-3,121.91	4,583.12	3.47	-2.86	1.97
8,666.00	88.99	318.29	4,656.87	3,425.03	-3,183.11	4,675.02	0.62	0.62	0.00
8,758.00	89.53	317.76	4,658.06	3,493.42	-3,244.63	4,766.96	0.82	0.59	-0.58
8,851.00	90.40	316.74	4,658.12	3,561.71	-3,307.76	4,859.94	1.44	0.94	-1.10
8,942.00	89.87	316.04	4,657.90	3,627.59	-3,370.53	4,950.93	0.96	-0.58	-0.77
9,034.00	90.03	314.23	4,657.98	3,692.80	-3,435.42	5,042.92	1.98	0.17	-1.97
9,124.00	89.03	316.88	4,658.72	3,757.04	-3,498.44	5,132.90	3.15	-1.11	2.94
9,217.00	90.03	316.93	4,659.48	3,824.95	-3,561.97	5,225.89	1.08	1.08	0.05
9,309.00	87.95	317.20	4,661.11	3,892.29	-3,624.63	5,317.85	2.28	-2.26	0.29
9,402.00	88.86	317.01	4,663.69	3,960.40	-3,687.90	5,410.80	1.00	0.98	-0.20
9,494.00	89.66	316.89	4,664.88	4,027.62	-3,750.70	5,502.78	0.88	0.87	-0.13
9,586.00	90.37	315.74	4,664.86	4,094.15	-3,814.24	5,594.78	1.47	0.77	-1.25
9,676.00	91.14	315.38	4,663.67	4,158.40	-3,877.25	5,684.77	0.94	0.86	-0.40
9,769.00	88.72	314.81	4,663.79	4,224.27	-3,942.90	5,777.75	2.67	-2.60	-0.61
9,859.00	89.33	314.59	4,665.32	4,287.56	-4,006.86	5,867.71	0.72	0.68	-0.24
9,951.00	90.10	314.07	4,665.77	4,351.85	-4,072.67	5,959.66	1.01	0.84	-0.57
10,042.00	88.15	315.60	4,667.16	4,416.00	-4,137.19	6,050.63	2.72	-2.14	1.68
10,134.00	88.92	315.09	4,669.52	4,481.42	-4,201.82	6,142.59	1.00	0.84	-0.55
10,226.00	90.00	314.35	4,670.38	4,546.15	-4,267.19	6,234.56	1.42	1.17	-0.80
10,318.00	89.83	317.22	4,670.52	4,612.08	-4,331.34	6,326.55	3.13	-0.18	3.12
10,410.00	90.81	316.58	4,670.01	4,679.25	-4,394.20	6,418.53	1.27	1.07	-0.70
10,501.00	91.88	316.84	4,667.87	4,745.47	-4,456.58	6,509.50	1.21	1.18	0.29
10,593.00	88.72	316.78	4,667.39	4,812.54	-4,519.54	6,601.48	3.44	-3.43	-0.07
10,685.00	89.16	316.94	4,669.09	4,879.66	-4,582.44	6,693.45	0.51	0.48	0.17
10,776.00	90.60	315.82	4,669.28	4,945.53	-4,645.21	6,784.45	2.00	1.58	-1.23
10,868.00	88.12	317.69	4,670.31	5,012.54	-4,708.23	6,876.43	3.38	-2.70	2.03
10,958.00	88.69	316.37	4,672.81	5,078.36	-4,769.55	6,966.38	1.60	0.63	-1.47
11,049.00	89.80	315.84	4,674.01	5,143.93	-4,832.64	7,057.37	1.35	1.22	-0.58
11,139.00	90.87	315.32	4,673.49	5,208.21	-4,895.63	7,147.36	1.32	1.19	-0.58
11,231.00	92.25	315.92	4,670.98	5,273.94	-4,959.95	7,239.32	1.64	1.50	0.65
11,323.00	88.99	315.48	4,669.99	5,339.77	-5,024.19	7,331.30	3.58	-3.54	-0.48
11,415.00	89.80	315.08	4,670.96	5,405.14	-5,088.92	7,423.29	0.98	0.88	-0.43



Survey Report

Company: Enduring Resources LLC
Project: San Juan & Sandoval Counties, New Mexico
NAD83 NMC
Site: Section 19-T22N-R07W
Well: W. Escavada Unit Well No. 308H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well W. Escavada Unit Well No. 308H
TVD Reference: RKB=6824+28 @ 6852.00ft (Ensign 773)
MD Reference: RKB=6824+28 @ 6852.00ft (Ensign 773)
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)
11,508.00	90.87	314.51	4,670.41	5,470.66	-5,154.91	7,516.26	1.30	1.15	-0.61
11,600.00	89.26	316.66	4,670.31	5,536.37	-5,219.29	7,608.25	2.92	-1.75	2.34
11,690.00	90.10	316.26	4,670.81	5,601.61	-5,281.29	7,698.24	1.03	0.93	-0.44
11,783.00	91.21	316.02	4,669.75	5,668.66	-5,345.72	7,791.24	1.22	1.19	-0.26
11,875.00	91.85	315.17	4,667.29	5,734.36	-5,410.08	7,883.20	1.16	0.70	-0.92
11,967.00	89.13	316.81	4,666.51	5,800.52	-5,473.98	7,975.18	3.45	-2.96	1.78
12,059.00	89.56	315.94	4,667.56	5,867.11	-5,537.45	8,067.17	1.05	0.47	-0.95
12,152.00	90.24	315.48	4,667.72	5,933.68	-5,602.39	8,160.17	0.88	0.73	-0.49
12,244.00	90.87	315.11	4,666.83	5,999.06	-5,667.11	8,252.16	0.79	0.68	-0.40
12,336.00	87.95	316.60	4,667.78	6,065.07	-5,731.17	8,344.14	3.56	-3.17	1.62
12,428.00	88.45	315.79	4,670.67	6,131.43	-5,794.82	8,436.09	1.03	0.54	-0.88
12,520.00	89.83	315.80	4,672.05	6,197.37	-5,858.96	8,528.08	1.50	1.50	0.01
12,613.00	90.87	315.04	4,671.48	6,263.61	-5,924.23	8,621.07	1.39	1.12	-0.82
12,705.00	91.88	314.99	4,669.27	6,328.66	-5,989.25	8,713.03	1.10	1.10	-0.05
12,797.00	90.57	316.19	4,667.30	6,394.36	-6,053.61	8,805.00	1.93	-1.42	1.30
12,889.00	91.35	316.38	4,665.76	6,460.85	-6,117.18	8,896.99	0.87	0.85	0.21
12,981.00	88.99	317.31	4,665.49	6,527.96	-6,180.10	8,988.97	2.76	-2.57	1.01
13,073.00	90.00	317.07	4,666.30	6,595.45	-6,242.62	9,080.95	1.13	1.10	-0.26
13,164.00	90.91	317.07	4,665.58	6,662.07	-6,304.60	9,171.93	1.00	1.00	0.00
13,257.00	88.25	317.59	4,666.26	6,730.44	-6,367.62	9,264.89	2.91	-2.86	0.56
13,349.00	88.89	316.92	4,668.56	6,797.99	-6,430.05	9,356.84	1.01	0.70	-0.73
13,438.00	90.03	316.76	4,669.40	6,862.90	-6,490.92	9,445.83	1.29	1.28	-0.18
13,530.00	91.24	316.45	4,668.38	6,929.75	-6,554.12	9,537.82	1.36	1.32	-0.34
13,622.00	88.99	317.80	4,668.19	6,997.16	-6,616.72	9,629.80	2.85	-2.45	1.47
13,715.00	89.83	316.98	4,669.15	7,065.60	-6,679.67	9,722.76	1.26	0.90	-0.88
13,807.00	91.11	316.95	4,668.39	7,132.85	-6,742.45	9,814.75	1.39	1.39	-0.03
13,899.00	88.19	317.84	4,668.96	7,200.55	-6,804.72	9,906.71	3.32	-3.17	0.97
13,989.00	88.99	316.66	4,671.17	7,266.62	-6,865.80	9,996.66	1.58	0.89	-1.31
14,082.00	89.60	316.92	4,672.31	7,334.40	-6,929.47	10,089.65	0.71	0.66	0.28
14,174.00	90.24	316.22	4,672.44	7,401.21	-6,992.71	10,181.64	1.03	0.70	-0.76
14,264.00	90.91	317.02	4,671.54	7,466.62	-7,054.52	10,271.63	1.16	0.74	0.89
14,351.90	91.99	317.53	4,669.31	7,531.17	-7,114.14	10,359.48	1.36	1.23	0.58
Frac sleeve @ 14351.9 MD 4669 TVD									
14,354.00	92.02	317.54	4,669.24	7,532.72	-7,115.56	10,361.58	1.36	1.23	0.58
14,394.00	92.48	317.31	4,667.67	7,562.15	-7,142.60	10,401.54	1.29	1.16	-0.58
330 FWL 945 FNL @ 14394 MD 4668 TVD									
14,450.00	93.13	316.98	4,664.93	7,603.15	-7,180.65	10,457.46	1.29	1.16	-0.58
Survey @ 14450.00 MD 4664.93 TVD									
14,500.00	93.13	316.98	4,662.20	7,639.65	-7,214.71	10,507.38	0.00	0.00	0.00
Survey projected to 14500.00 MD 4662.20 TVD - Proj. to 14500 MD 257 FWL 868 FNL									



Survey Report

Company: Enduring Resources LLC
Project: San Juan & Sandoval Counties, New Mexico
NAD83 NMC
Site: Section 19-T22N-R07W
Well: W. Escavada Unit Well No. 308H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well W. Escavada Unit Well No. 308H
TVD Reference: RKB=6824+28 @ 6852.00ft (Ensign 773)
MD Reference: RKB=6824+28 @ 6852.00ft (Ensign 773)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: DB_Jul2216dt_v14

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
310.00	309.93	-3.88	-4.12	MWD surveys
5,090.00	4,639.42	847.14	-706.83	330 FSL 1597 FEL @ 5090 MD 4639 TVD
14,351.90	4,669.31	7,531.17	-7,114.14	Frac sleeve @ 14351.9 MD 4669 TVD
14,394.00	4,667.67	7,562.15	-7,142.60	330 FWL 945 FNL @ 14394 MD 4668 TVD
14,450.00	4,664.93	7,603.15	-7,180.65	Survey @ 14450.00 MD 4664.93 TVD
14,500.00	4,662.20	7,639.65	-7,214.71	Survey projected to 14500.00 MD 4662.20 TVD
14,500.00	4,662.20	7,639.65	-7,214.71	Proj. to 14500 MD 257 FWL 868 FNL