

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) 748-1283 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

As Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-043-21305		² Pool Code 98225		³ Pool Name ESCAVADA W; MANCOS	
⁴ Property Code 321258		⁵ Property Name W ESCAVADA UNIT			⁶ Well Number 302H
⁷ GRID No. 372286		⁸ Operator Name ENDURING RESOURCES, LLC			⁹ Elevation 6878'

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
P	17	22N	7W		235	SOUTH	208	EAST	SANDOVAL

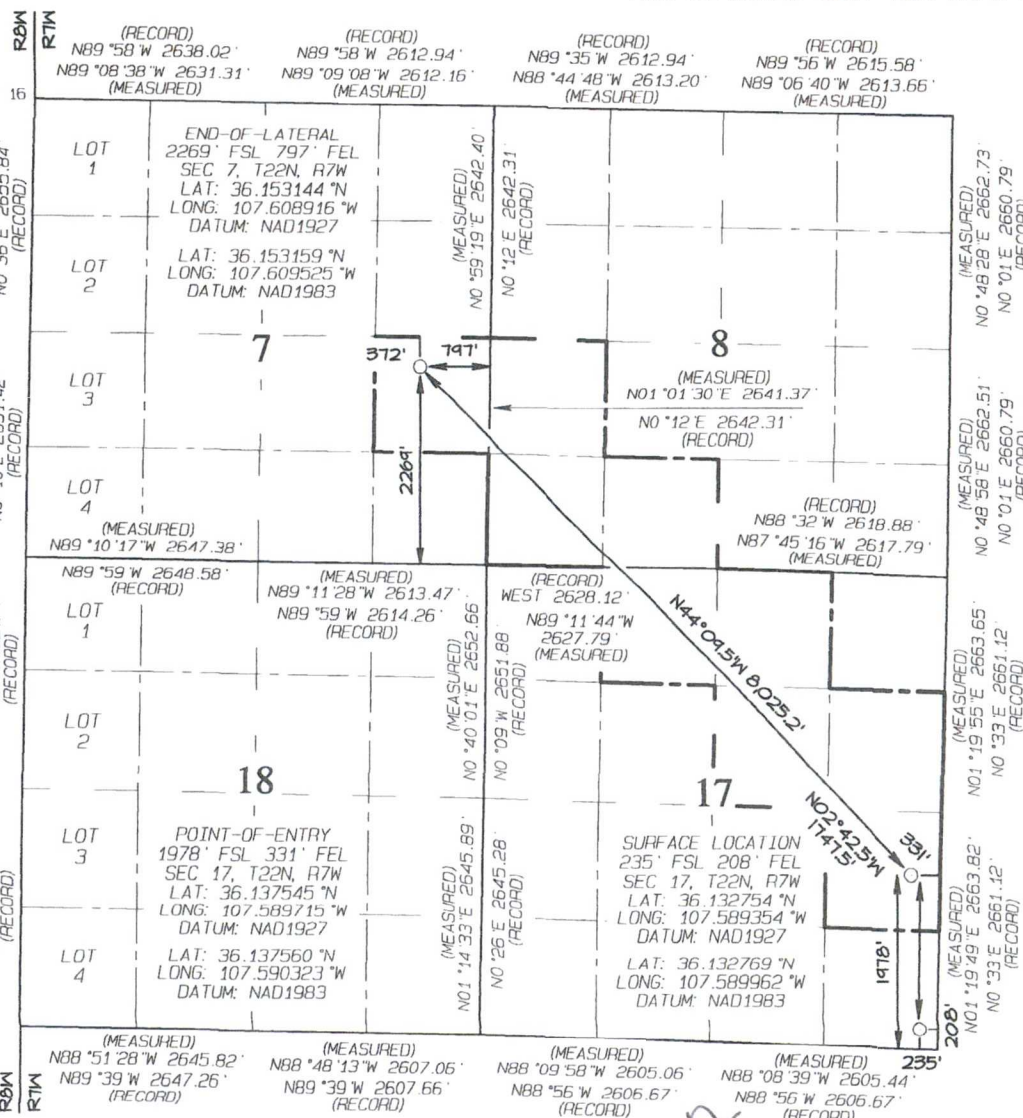
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	7	22N	7W		2269	SOUTH	797	EAST	SANDOVAL

¹² Dedicated Acres 360.00 NE/4 SE/4 - Section 7 NE/4 NW/4, W/2 NE/4 SE/4 NE/4, NE/4 SE/4 - Section 17 W/2 SW/4, SE/4 SW/4 - Section 8		¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-14100
---	--	-------------------------------	----------------------------------	------------------------------------

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 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
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: AUGUST 30, 2018
Date of Survey: MARCH 3, 2016

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269



Well: W Escavada Unit Well No. 302H
Site: W Escavada Unit
Project: Sandoval County, New Mexico NAD83 NM C
Design: rev1
Rig: Aztec 1000

Section Details

ec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Annotation
1	2858.00	16.37	15.37	2759.40	619.86	175.90	0.00	0.00	324.38	Survey @ 2858.00 MD 2759.40 TVD
2	2958.00	16.37	15.37	2855.34	647.03	183.37	0.00	0.00	338.77	KOP Begin 2°/100' build/turn
3	3209.47	21.39	16.53	3093.21	725.20	205.82	2.00	4.85	379.49	Begin 21.39° tangent section
4	4491.17	21.39	16.53	4286.66	1173.24	338.83	0.00	0.00	609.88	Begin 10°/100' bio;d/turn
5	5007.10	60.00	316.07	4683.00	1442.77	201.18	10.00	-74.06	899.49	Begin 60.00° tangent section
6	5067.10	60.00	316.07	4713.00	1480.19	165.13	0.00	0.00	951.45	Begin 8°/100' build
7	5438.36	89.70	316.07	4808.94	1735.39	-80.72	8.00	0.00	1305.81	Begin 89.70° lateral section
8	13503.03	89.70	316.07	4851.06	7543.18	-5675.97	0.00	0.00	9370.38	PBHL/TD 13503.03 MD 4851.06 TVD

ANNOTATIONS SURVEYS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VFace	Annotation
328.00	0.64	42.44	327.99	1.35	1.24	0.12	MWD surveys
5467.00	89.30	313.16	4807.15	1745.54	-82.44	1314.31	330 FWL @ 5467 MD 4807 TVD
13565.00	91.49	312.49	4858.97	7548.97	-5723.23	9407.34	Survey @ 13565.00 MD 4858.97 TVD
13638.00	91.49	312.49	4857.07	7598.26	-5777.04	9480.17	Survey Projected to 13638.00 MD 4857.07 TVD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
302H Frac Sleeve @ 13497 MD	0.00	7502.93	-5673.20	1877824.51	1239080.55	36.15315856	-107.60952472
302H 330 FWL Intercept	4807.15	1745.54	-82.44	1872067.13	1244651.30	36.13755986	-107.59032265

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Central Zone

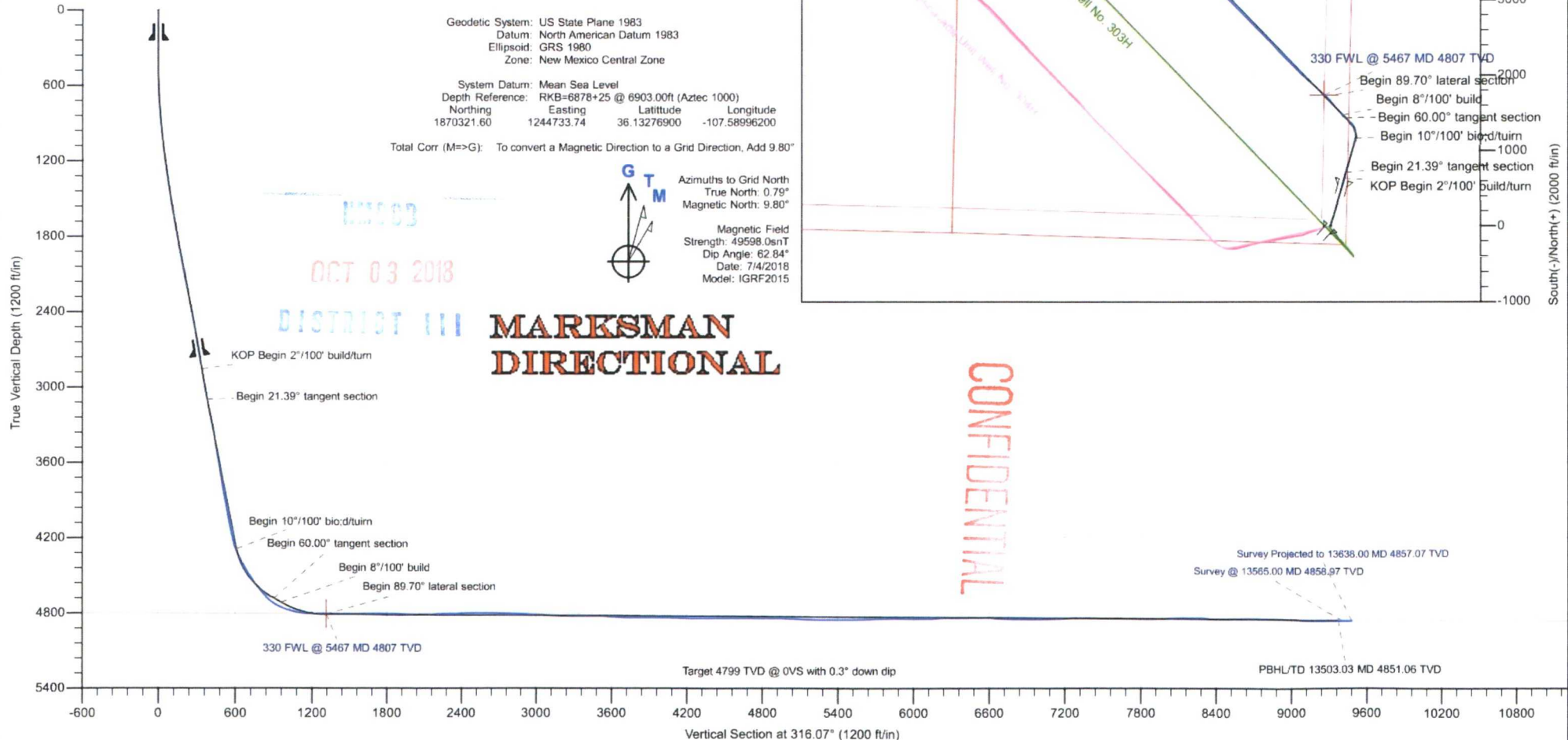
System Datum: Mean Sea Level
Depth Reference: RKB=6878+25 @ 6903.00ft (Aztec 1000)
Northing: 1870321.60 Easting: 1244733.74 Latitude: 36.13276900 Longitude: -107.58996200

Total Corr (M=>G): To convert a Magnetic Direction to a Grid Direction, Add 9.80°



Azimuths to Grid North
True North: 0.79°
Magnetic North: 9.80°

Magnetic Field
Strength: 49598.0nT
Dip Angle: 62.84°
Date: 7/4/2018
Model: IGRF2015



CONFIDENTIAL



Survey Report

Company: Enduring Resources LLC
Project: Sandoval County, New Mexico NAD83 NM C
Site: W Escavada Unit
Well: W Escavada Unit Well No. 302H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well W Escavada Unit Well No. 302H
TVD Reference: RKB=6878+25 @ 6903.00ft (Aztec 1000)
MD Reference: RKB=6878+25 @ 6903.00ft (Aztec 1000)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: DB_Jul2216dt_v14

OCT 03 2018

Project Sandoval County, New Mexico NAD83 NM C

Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: New Mexico Central Zone

System Datum: Mean Sea Level

DISTRICT III
CONFIDENTIAL

Site W Escavada Unit

Site Position:
From: Lat/Long
Position Uncertainty: 0.00 ft
Northing: 1,870,321.60 usft
Easting: 1,244,733.73 usft
Slot Radius: 13-3/16 "
Latitude: 36.13276900
Longitude: -107.58996200
Grid Convergence: -0.79 °

Well W Escavada Unit Well No. 302H, Surf loc: 235 FSL 208 FEL Section 17-T22N-R07W

Well Position +N/-S 0.00 ft **Northing:** 1,870,321.60 usft **Latitude:** 36.13276900
+E/-W 0.00 ft **Easting:** 1,244,733.73 usft **Longitude:** -107.58996200
Position Uncertainty 0.00 ft **Wellhead Elevation:** ft **Ground Level:** 6,878.00 ft

Wellbore Original Hole

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	7/4/2018	9.01	62.84	49,597.96138697

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	316.07

Survey Program Date 8/29/2018

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
328.00	2,858.00	MWD surf (Original Hole)	MWD	OWSG MWD - Standard
3,006.00	13,565.00	MWD (Original Hole)	MWD	OWSG MWD - Standard
13,638.00	13,638.00	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
328.00	0.64	42.44	327.99	1.35	1.24	0.12	0.20	0.20	0.00
MWD surveys									
419.00	0.72	35.95	418.99	2.19	1.91	0.25	0.12	0.09	-7.13
510.00	2.19	24.89	509.96	4.23	2.98	0.98	1.64	1.62	-12.15
601.00	4.26	17.05	600.81	9.04	4.71	3.25	2.32	2.27	-8.62
692.00	6.12	14.14	691.43	16.97	6.88	7.45	2.06	2.04	-3.20
782.00	7.88	15.41	780.76	27.58	9.69	13.13	1.96	1.96	1.41
874.00	9.52	15.74	871.69	40.98	13.43	20.19	1.78	1.78	0.36



Survey Report

Company: Enduring Resources LLC
Project: Sandoval County, New Mexico NAD83 NM C
Site: W Escavada Unit
Well: W Escavada Unit Well No. 302H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well W Escavada Unit Well No. 302H
TVD Reference: RKB=6878+25 @ 6903.00ft (Aztec 1000)
MD Reference: RKB=6878+25 @ 6903.00ft (Aztec 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)
965.00	11.11	15.23	961.22	56.68	17.78	28.49	1.75	1.75	-0.56
1,060.00	12.43	15.65	1,054.22	75.36	22.94	38.36	1.39	1.39	0.44
1,155.00	13.73	16.76	1,146.75	96.00	28.95	49.05	1.39	1.37	1.17
1,249.00	14.83	16.96	1,237.85	118.19	35.68	60.37	1.17	1.17	0.21
1,344.00	16.02	16.05	1,329.42	142.42	42.85	72.84	1.28	1.25	-0.96
1,439.00	16.41	13.16	1,420.65	168.08	49.53	86.69	0.94	0.41	-3.04
1,534.00	16.71	14.08	1,511.71	194.40	55.90	101.22	0.42	0.32	0.97
1,628.00	17.36	15.52	1,601.58	221.02	62.94	115.50	0.82	0.69	1.53
1,723.00	19.69	17.98	1,691.66	249.90	71.68	130.25	2.59	2.45	2.59
1,818.00	20.19	16.00	1,780.96	280.88	81.14	146.00	0.88	0.53	-2.08
1,912.00	21.27	16.28	1,868.87	312.84	90.39	162.60	1.15	1.15	0.30
2,007.00	20.34	16.43	1,957.68	345.22	99.89	179.32	0.98	-0.98	0.16
2,102.00	20.29	16.02	2,046.77	376.89	109.10	195.74	0.16	-0.05	-0.43
2,196.00	20.13	15.81	2,134.98	408.12	118.01	212.05	0.19	-0.17	-0.22
2,291.00	20.27	15.51	2,224.14	439.70	126.86	228.65	0.18	0.15	-0.32
2,386.00	19.93	15.74	2,313.35	471.14	135.66	245.20	0.37	-0.36	0.24
2,480.00	19.97	15.73	2,401.71	502.01	144.35	261.39	0.04	0.04	-0.01
2,574.00	19.84	15.14	2,490.10	532.86	152.87	277.70	0.25	-0.14	-0.63
2,669.00	19.62	14.62	2,579.52	563.86	161.11	294.31	0.30	-0.23	-0.55
2,763.00	17.71	14.62	2,668.57	592.97	168.70	310.01	2.03	-2.03	0.00
2,858.00	16.37	15.37	2,759.40	619.86	175.90	324.38	1.43	-1.41	0.79
3,006.00	18.19	17.80	2,900.71	661.97	188.49	345.97	1.32	1.23	1.64
3,101.00	19.95	16.39	2,990.50	691.64	197.60	361.02	1.91	1.85	-1.48
3,196.00	21.35	16.31	3,079.39	723.78	207.03	377.63	1.47	1.47	-0.08
3,290.00	21.52	16.49	3,166.89	756.74	216.72	394.63	0.19	0.18	0.19
3,384.00	21.10	15.23	3,254.46	789.59	226.06	411.82	0.66	-0.45	-1.34
3,478.00	20.74	14.18	3,342.27	822.06	234.58	429.29	0.55	-0.38	-1.12
3,573.00	20.50	18.86	3,431.19	854.11	244.08	445.78	1.75	-0.25	4.93
3,668.00	19.08	18.85	3,520.57	884.55	254.48	460.49	1.49	-1.49	-0.01
3,763.00	19.36	17.57	3,610.28	914.25	264.25	475.10	0.53	0.29	-1.35
3,857.00	19.63	17.32	3,698.89	944.18	273.65	490.13	0.30	0.29	-0.27
3,952.00	19.61	16.31	3,788.37	974.72	282.88	505.72	0.36	-0.02	-1.06
4,046.00	19.40	16.95	3,876.98	1,004.79	291.86	521.15	0.32	-0.22	0.68
4,141.00	20.25	18.38	3,966.35	1,035.48	301.65	536.47	1.03	0.89	1.51
4,235.00	19.88	17.99	4,054.64	1,066.12	311.71	551.55	0.42	-0.39	-0.41
4,329.00	21.21	15.57	4,142.67	1,097.70	321.21	567.70	1.68	1.41	-2.57
4,361.00	23.64	15.00	4,172.24	1,109.48	324.43	573.95	7.62	7.59	-1.78
4,393.00	25.67	14.97	4,201.32	1,122.37	327.88	580.85	6.34	6.34	-0.09
4,424.00	26.95	15.54	4,229.11	1,135.63	331.49	587.88	4.21	4.13	1.84
4,456.00	27.92	9.82	4,257.52	1,150.00	334.72	596.00	8.77	3.03	-17.88
4,488.00	28.77	4.84	4,285.69	1,165.06	336.64	605.50	7.85	2.66	-15.56
4,519.00	29.68	1.01	4,312.74	1,180.17	337.41	615.86	6.71	2.94	-12.35
4,551.00	31.79	358.92	4,340.25	1,196.52	337.39	627.64	7.39	6.59	-6.53



Survey Report

Company: Enduring Resources LLC
Project: Sandoval County, New Mexico NAD83 NM C
Site: W Escavada Unit
Well: W Escavada Unit Well No. 302H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well W Escavada Unit Well No. 302H
TVD Reference: RKB=6878+25 @ 6903.00ft (Aztec 1000)
MD Reference: RKB=6878+25 @ 6903.00ft (Aztec 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)
4,582.00	32.35	358.37	4,366.52	1,212.97	337.00	639.77	2.04	1.81	-1.77
4,614.00	33.96	356.75	4,393.31	1,230.46	336.25	652.88	5.74	5.03	-5.06
4,645.00	34.62	353.15	4,418.92	1,247.85	334.71	666.47	6.88	2.13	-11.61
4,677.00	34.73	349.68	4,445.24	1,265.84	331.99	681.32	6.18	0.34	-10.84
4,709.00	34.19	345.69	4,471.63	1,283.52	328.13	696.72	7.25	-1.69	-12.47
4,740.00	34.13	341.75	4,497.28	1,300.22	323.26	712.14	7.14	-0.19	-12.71
4,771.00	34.35	337.41	4,522.91	1,316.56	317.17	728.12	7.91	0.71	-14.00
4,802.00	35.23	333.40	4,548.38	1,332.63	309.81	744.81	7.91	2.84	-12.94
4,834.00	34.88	324.56	4,574.59	1,348.35	300.36	762.68	15.89	-1.09	-27.63
4,865.00	36.37	316.93	4,599.80	1,362.29	288.94	780.65	15.11	4.81	-24.61
4,897.00	39.11	311.76	4,625.11	1,375.95	274.93	800.21	13.07	8.56	-16.16
4,928.00	42.08	310.69	4,648.64	1,389.24	259.75	820.30	9.84	9.58	-3.45
4,960.00	45.79	308.70	4,671.69	1,403.41	242.67	842.36	12.37	11.59	-6.22
4,991.00	49.14	308.28	4,692.64	1,417.62	224.79	865.00	10.85	10.81	-1.35
5,023.00	53.47	309.79	4,712.64	1,433.35	205.40	889.78	14.02	13.53	4.72
5,054.00	58.00	311.80	4,730.09	1,450.10	186.02	915.29	15.56	14.61	6.48
5,086.00	62.20	314.07	4,746.04	1,468.99	165.72	942.98	14.49	13.13	7.09
5,117.00	67.35	316.52	4,759.25	1,488.93	146.01	971.01	18.08	16.61	7.90
5,149.00	71.71	318.21	4,770.44	1,510.98	125.72	1,000.97	14.49	13.63	5.28
5,180.00	75.46	319.85	4,779.20	1,533.43	106.23	1,030.66	13.12	12.10	5.29
5,211.00	76.07	322.00	4,786.82	1,556.76	87.29	1,060.60	7.00	1.97	6.94
5,243.00	78.40	322.62	4,793.89	1,581.45	68.21	1,091.62	7.52	7.28	1.94
5,274.00	80.79	322.60	4,799.49	1,605.67	49.70	1,121.91	7.71	7.71	-0.06
5,306.00	84.73	320.60	4,803.52	1,630.54	29.98	1,153.50	13.78	12.31	-6.25
5,337.00	88.26	317.49	4,805.42	1,653.91	9.71	1,184.39	15.16	11.39	-10.03
5,369.00	89.24	316.16	4,806.12	1,677.24	-12.18	1,216.38	5.16	3.06	-4.16
5,401.00	89.52	314.27	4,806.46	1,699.95	-34.72	1,248.37	5.97	0.88	-5.91
5,464.00	89.30	313.17	4,807.11	1,743.48	-80.25	1,311.31	1.78	-0.35	-1.75
5,467.00	89.30	313.16	4,807.15	1,745.54	-82.44	1,314.31	0.21	0.01	-0.21
330 FWL @ 5467 MD 4807 TVD									
5,559.00	89.31	312.97	4,808.26	1,808.35	-149.65	1,406.18	0.21	0.01	-0.21
5,654.00	90.45	311.65	4,808.46	1,872.30	-219.90	1,500.97	1.84	1.20	-1.39
5,748.00	90.36	313.27	4,807.80	1,935.75	-289.24	1,594.78	1.73	-0.10	1.72
5,842.00	90.12	314.95	4,807.40	2,001.18	-356.73	1,688.72	1.81	-0.26	1.79
5,937.00	90.18	313.74	4,807.16	2,067.58	-424.67	1,783.67	1.28	0.06	-1.27
6,031.00	87.38	313.26	4,809.16	2,132.26	-492.83	1,877.55	3.02	-2.98	-0.51
6,126.00	89.27	315.22	4,811.93	2,198.51	-560.86	1,972.45	2.87	1.99	2.06
6,220.00	91.05	315.63	4,811.67	2,265.46	-626.83	2,066.44	1.94	1.89	0.44
6,315.00	90.54	315.96	4,810.35	2,333.56	-693.06	2,161.43	0.64	-0.54	0.35
6,409.00	92.84	316.62	4,807.58	2,401.47	-757.98	2,255.38	2.55	2.45	0.70
6,504.00	92.27	315.92	4,803.35	2,470.05	-823.58	2,350.28	0.95	-0.60	-0.74
6,598.00	90.85	315.72	4,800.79	2,537.43	-889.07	2,444.24	1.53	-1.51	-0.21
6,692.00	90.69	315.73	4,799.52	2,604.73	-954.68	2,538.23	0.17	-0.17	0.01
6,787.00	88.99	314.88	4,799.79	2,672.26	-1,021.49	2,633.22	2.00	-1.79	-0.89



Survey Report

Company: Enduring Resources LLC
Project: Sandoval County, New Mexico NAD83 NM C
Site: W Escavada Unit
Well: W Escavada Unit Well No. 302H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well W Escavada Unit Well No. 302H
TVD Reference: RKB=6878+25 @ 6903.00ft (Aztec 1000)
MD Reference: RKB=6878+25 @ 6903.00ft (Aztec 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)
6,882.00	87.74	315.54	4,802.50	2,739.65	-1,088.39	2,728.17	1.49	-1.32	0.69
6,977.00	89.35	315.48	4,804.91	2,807.40	-1,154.94	2,823.13	1.70	1.69	-0.06
7,072.00	88.24	315.67	4,806.91	2,875.23	-1,221.43	2,918.10	1.19	-1.17	0.20
7,166.00	86.76	315.98	4,811.01	2,942.58	-1,286.87	3,012.01	1.61	-1.57	0.33
7,261.00	87.70	315.80	4,815.60	3,010.71	-1,352.91	3,106.90	1.01	0.99	-0.19
7,356.00	88.91	315.01	4,818.41	3,078.33	-1,419.58	3,201.85	1.52	1.27	-0.83
7,451.00	88.63	316.43	4,820.45	3,146.32	-1,485.89	3,296.82	1.52	-0.29	1.49
7,545.00	90.08	316.46	4,821.51	3,214.44	-1,550.65	3,390.81	1.54	1.54	0.03
7,640.00	89.40	316.04	4,821.94	3,283.06	-1,616.35	3,485.81	0.84	-0.72	-0.44
7,734.00	86.92	316.69	4,824.96	3,351.05	-1,681.17	3,579.75	2.73	-2.64	0.69
7,829.00	86.33	317.78	4,830.55	3,420.68	-1,745.56	3,674.57	1.30	-0.62	1.15
7,924.00	87.50	317.21	4,835.66	3,490.61	-1,809.66	3,769.40	1.37	1.23	-0.60
8,018.00	89.42	317.36	4,838.19	3,559.65	-1,873.40	3,863.34	2.05	2.04	0.16
8,113.00	91.14	317.12	4,837.72	3,629.39	-1,937.89	3,958.31	1.83	1.81	-0.25
8,207.00	89.07	316.50	4,837.55	3,697.92	-2,002.22	4,052.30	2.30	-2.20	-0.66
8,302.00	88.27	315.50	4,839.76	3,766.24	-2,068.20	4,147.27	1.35	-0.84	-1.05
8,396.00	88.98	314.69	4,842.01	3,832.80	-2,134.53	4,241.23	1.15	0.76	-0.86
8,491.00	89.60	316.14	4,843.19	3,900.45	-2,201.21	4,336.21	1.66	0.65	1.53
8,585.00	90.68	316.58	4,842.96	3,968.48	-2,266.08	4,430.21	1.24	1.15	0.47
8,680.00	91.45	316.02	4,841.19	4,037.14	-2,331.71	4,525.19	1.00	0.81	-0.59
8,775.00	89.77	316.05	4,840.18	4,105.52	-2,397.65	4,620.18	1.77	-1.77	0.03
8,869.00	90.06	315.85	4,840.32	4,173.08	-2,463.01	4,714.18	0.37	0.31	-0.21
8,963.00	90.97	316.16	4,839.48	4,240.70	-2,528.30	4,808.18	1.02	0.97	0.33
9,058.00	89.46	317.10	4,839.12	4,309.75	-2,593.53	4,903.17	1.87	-1.59	0.99
9,152.00	87.13	316.41	4,841.92	4,378.19	-2,657.90	4,997.11	2.59	-2.48	-0.73
9,246.00	87.86	315.27	4,846.03	4,445.56	-2,723.32	5,091.02	1.44	0.78	-1.21
9,341.00	88.58	314.67	4,848.98	4,512.67	-2,790.50	5,185.96	0.99	0.76	-0.63
9,436.00	89.51	315.24	4,850.56	4,579.78	-2,857.71	5,280.92	1.15	0.98	0.60
9,530.00	89.43	314.60	4,851.43	4,646.15	-2,924.27	5,374.90	0.69	-0.09	-0.68
9,624.00	90.63	315.44	4,851.38	4,712.64	-2,990.72	5,468.88	1.56	1.28	0.89
9,719.00	90.98	315.22	4,850.05	4,780.19	-3,057.50	5,563.86	0.44	0.37	-0.23
9,813.00	91.36	316.01	4,848.13	4,847.36	-3,123.23	5,657.84	0.93	0.40	0.84
9,907.00	91.14	314.42	4,846.08	4,914.06	-3,189.43	5,751.80	1.71	-0.23	-1.69
10,002.00	89.25	317.85	4,845.75	4,982.53	-3,255.25	5,846.79	4.12	-1.99	3.61
10,096.00	89.34	317.15	4,846.91	5,051.83	-3,318.75	5,940.75	0.75	0.10	-0.74
10,191.00	90.39	316.80	4,847.13	5,121.28	-3,383.57	6,035.73	1.17	1.11	-0.37
10,285.00	90.87	316.97	4,846.10	5,189.90	-3,447.81	6,129.72	0.54	0.51	0.18
10,380.00	91.58	316.97	4,844.07	5,259.32	-3,512.62	6,224.69	0.75	0.75	0.00
10,474.00	89.47	317.59	4,843.21	5,328.38	-3,576.39	6,318.65	2.34	-2.24	0.66
10,569.00	90.17	317.41	4,843.51	5,398.42	-3,640.57	6,413.62	0.76	0.74	-0.19
10,664.00	91.23	317.85	4,842.35	5,468.60	-3,704.58	6,508.58	1.21	1.12	0.46
10,758.00	88.06	318.91	4,842.93	5,538.86	-3,767.01	6,602.49	3.56	-3.37	1.13
10,852.00	88.37	318.38	4,845.86	5,609.38	-3,829.08	6,696.35	0.65	0.33	-0.56



Survey Report

Company: Enduring Resources LLC
Project: Sandoval County, New Mexico NAD83 NM C
Site: W Escavada Unit
Well: W Escavada Unit Well No. 302H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well W Escavada Unit Well No. 302H
TVD Reference: RKB=6878+25 @ 6903.00ft (Aztec 1000)
MD Reference: RKB=6878+25 @ 6903.00ft (Aztec 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)	
10,947.00	88.90	318.29	4,848.12	5,680.33	-3,892.22	6,791.25	0.57	0.56	-0.09	
11,041.00	89.12	317.76	4,849.74	5,750.20	-3,955.08	6,885.18	0.61	0.23	-0.56	
11,135.00	90.08	318.20	4,850.40	5,820.03	-4,018.00	6,979.12	1.12	1.02	0.47	
11,230.00	90.79	318.64	4,849.68	5,891.09	-4,081.04	7,074.04	0.88	0.75	0.46	
11,324.00	91.53	316.18	4,847.77	5,960.28	-4,144.64	7,167.98	2.73	0.79	-2.62	
11,419.00	92.90	315.57	4,844.10	6,028.42	-4,210.73	7,262.91	1.58	1.44	-0.64	
11,513.00	91.18	317.24	4,840.76	6,096.45	-4,275.50	7,356.84	2.55	-1.83	1.78	
11,608.00	87.27	315.83	4,842.04	6,165.38	-4,340.83	7,451.81	4.38	-4.12	-1.48	
11,702.00	88.19	315.39	4,845.76	6,232.50	-4,406.54	7,545.73	1.08	0.98	-0.47	
11,797.00	90.30	314.95	4,847.02	6,299.86	-4,473.50	7,640.71	2.27	2.22	-0.46	
11,892.00	88.90	316.18	4,847.68	6,367.69	-4,540.01	7,735.70	1.96	-1.47	1.29	
11,983.00	89.56	316.27	4,848.90	6,433.39	-4,602.96	7,826.69	0.73	0.73	0.10	
12,078.00	91.49	316.18	4,848.03	6,501.98	-4,668.68	7,921.68	2.03	2.03	-0.09	
12,172.00	92.85	316.18	4,844.47	6,569.75	-4,733.71	8,015.61	1.45	1.45	0.00	
12,268.00	90.65	316.97	4,841.54	6,639.44	-4,799.67	8,111.55	2.43	-2.29	0.82	
12,362.00	89.16	315.65	4,841.70	6,707.41	-4,864.60	8,205.55	2.12	-1.59	-1.40	
12,457.00	87.67	316.01	4,844.32	6,775.52	-4,930.76	8,300.51	1.61	-1.57	0.38	
12,552.00	88.76	315.39	4,847.28	6,843.48	-4,997.08	8,395.46	1.32	1.15	-0.65	
12,646.00	90.65	316.01	4,847.77	6,910.75	-5,062.73	8,489.45	2.12	2.01	0.66	
12,741.00	92.06	315.48	4,845.52	6,978.77	-5,129.00	8,584.42	1.59	1.48	-0.56	
12,836.00	90.17	314.95	4,843.67	7,046.18	-5,195.91	8,679.39	2.07	-1.99	-0.56	
12,930.00	88.19	314.95	4,845.02	7,112.58	-5,262.42	8,773.35	2.11	-2.11	0.00	
13,025.00	90.08	314.95	4,846.45	7,179.68	-5,329.65	8,868.32	1.99	1.99	0.00	
13,120.00	87.49	313.81	4,848.47	7,246.11	-5,397.52	8,963.25	2.98	-2.73	-1.20	
13,214.00	88.06	312.58	4,852.12	7,310.40	-5,466.00	9,057.06	1.44	0.61	-1.31	
13,308.00	87.18	313.28	4,856.02	7,374.37	-5,534.76	9,150.83	1.20	-0.94	0.74	
13,403.00	88.76	312.75	4,859.38	7,439.13	-5,604.18	9,245.64	1.75	1.66	-0.56	
13,497.00	90.39	312.75	4,860.08	7,502.93	-5,673.20	9,339.47	1.73	1.73	0.00	
13,565.00	91.49	312.49	4,858.97	7,548.97	-5,723.23	9,407.34	1.66	1.62	-0.38	
Survey @ 13565.00 MD 4858.97 TVD										
13,638.00	91.49	312.49	4,857.07	7,598.26	-5,777.04	9,480.17	0.00	0.00	0.00	
Survey Projected to 13638.00 MD 4857.07 TVD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
302H Frac Sleeve @ 13	0.00	360.00	0.00	7,502.93	-5,673.20	1,877,824.51	1,239,060.55	36.15315856	-107.60952473	
- hit/miss target										
- Shape										
- actual wellpath misses target center by 4859.09ft at 13623.37ft MD (4857.45 TVD, 7588.39 N, -5766.26 E)										
- Point										



Survey Report

Company: Enduring Resources LLC
Project: Sandoval County, New Mexico NAD83 NM C
Site: W Escavada Unit
Well: W Escavada Unit Well No. 302H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well W Escavada Unit Well No. 302H
TVD Reference: RKB=6878+25 @ 6903.00ft (Aztec 1000)
MD Reference: RKB=6878+25 @ 6903.00ft (Aztec 1000)
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)	
328.00	327.99	1.35	1.24	MWD surveys
5,467.00	4,807.15	1,745.54	-82.44	330 FWL @ 5467 MD 4807 TVD
13,565.00	4,858.97	7,548.97	-5,723.23	Survey @ 13565.00 MD 4858.97 TVD
13,638.00	4,857.07	7,598.26	-5,777.04	Survey Projected to 13638.00 MD 4857.07 TVD



Survey Report - Geographic

Company: Enduring Resources LLC
Project: Sandoval County, New Mexico NAD83 NM C
Site: W Escavada Unit
Well: W Escavada Unit Well No. 302H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well W Escavada Unit Well No. 302H
TVD Reference: RKB=6878+25 @ 6903.00ft (Aztec 1000)
MD Reference: RKB=6878+25 @ 6903.00ft (Aztec 1000)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: DB_Jul2216dt_v14

Project Sandoval County, New Mexico NAD83 NM C

Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: New Mexico Central Zone
System Datum: Mean Sea Level

Site W Escavada Unit

Site Position:
From: Lat/Long
Position Uncertainty: 0.00 ft
Northing: 1,870,321.60 usft
Easting: 1,244,733.73 usft
Slot Radius: 13-3/16 "
Latitude: 36.13276900
Longitude: -107.58996200
Grid Convergence: -0.79 °

Well W Escavada Unit Well No. 302H, Surf loc: 235 FSL 208 FEL Section 17-T22N-R07W

Well Position +N/-S 0.00 ft Northing: 1,870,321.60 usft Latitude: 36.13276900
+E/-W 0.00 ft Easting: 1,244,733.73 usft Longitude: -107.58996200
Position Uncertainty 0.00 ft **Wellhead Elevation:** ft **Ground Level:** 6,878.00 ft

Wellbore Original Hole

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	7/4/2018	9.01	62.84	49,597.96138697

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	316.07

Survey Program Date 8/29/2018

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
328.00	2,858.00	MWD surf (Original Hole)	MWD	OWSG MWD - Standard
3,006.00	13,565.00	MWD (Original Hole)	MWD	OWSG MWD - Standard
13,638.00	13,638.00	Projection (Original Hole)	MWD	OWSG MWD - Standard

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	1,870,321.60	1,244,733.73	36.13276900	-107.58996200
328.00	0.64	42.44	327.99	1.35	1.24	1,870,322.95	1,244,734.97	36.13277276	-107.58995788
MWD surveys									
419.00	0.72	35.95	418.99	2.19	1.91	1,870,323.79	1,244,735.65	36.13277509	-107.58995562
510.00	2.19	24.89	509.96	4.23	2.98	1,870,325.83	1,244,736.72	36.13278073	-107.58995210
601.00	4.26	17.05	600.81	9.04	4.71	1,870,330.64	1,244,738.44	36.13279400	-107.58994650
692.00	6.12	14.14	691.43	16.97	6.88	1,870,338.57	1,244,740.62	36.13281588	-107.58993950
782.00	7.88	15.41	780.76	27.58	9.69	1,870,349.17	1,244,743.43	36.13284510	-107.58993047
874.00	9.52	15.74	871.69	40.98	13.43	1,870,362.58	1,244,747.17	36.13288205	-107.58991844
965.00	11.11	15.23	961.22	56.68	17.78	1,870,378.28	1,244,751.51	36.13292535	-107.58990446



Survey Report - Geographic

Company: Enduring Resources LLC
Project: Sandoval County, New Mexico NAD83 NM C
Site: W Escavada Unit
Well: W Escavada Unit Well No. 302H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well W Escavada Unit Well No. 302H
TVD Reference: RKB=6878+25 @ 6903.00ft (Aztec 1000)
MD Reference: RKB=6878+25 @ 6903.00ft (Aztec 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)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,060.00	12.43	15.65	1,054.22	75.36	22.94	1,870,396.96	1,244,756.68	36.13297684	-107.58988785
1,155.00	13.73	16.76	1,146.75	96.00	28.95	1,870,417.60	1,244,762.68	36.13303376	-107.58986847
1,249.00	14.83	16.96	1,237.85	118.19	35.68	1,870,439.79	1,244,769.41	36.13309495	-107.58984674
1,344.00	16.02	16.05	1,329.42	142.42	42.85	1,870,464.02	1,244,776.58	36.13316176	-107.58982359
1,439.00	16.41	13.16	1,420.65	168.08	49.53	1,870,489.68	1,244,783.26	36.13323250	-107.58980217
1,534.00	16.71	14.08	1,511.71	194.40	55.90	1,870,516.00	1,244,789.64	36.13330501	-107.58978181
1,628.00	17.36	15.52	1,601.58	221.02	62.94	1,870,542.62	1,244,796.68	36.13337839	-107.58975922
1,723.00	19.69	17.98	1,691.66	249.90	71.68	1,870,571.50	1,244,805.41	36.13345805	-107.58973100
1,818.00	20.19	16.00	1,780.96	280.88	81.14	1,870,602.48	1,244,814.87	36.13354349	-107.58970042
1,912.00	21.27	16.28	1,868.87	312.84	90.39	1,870,634.44	1,244,824.12	36.13363162	-107.58967059
2,007.00	20.34	16.43	1,957.68	345.22	99.89	1,870,666.82	1,244,833.62	36.13372090	-107.58963993
2,102.00	20.29	16.02	2,046.77	376.89	109.10	1,870,698.49	1,244,842.84	36.13380823	-107.58961021
2,196.00	20.13	15.81	2,134.98	408.12	118.01	1,870,729.71	1,244,851.74	36.13389433	-107.58958152
2,291.00	20.27	15.51	2,224.14	439.70	126.86	1,870,761.30	1,244,860.60	36.13398141	-107.58955302
2,386.00	19.93	15.74	2,313.35	471.14	135.66	1,870,792.74	1,244,869.39	36.13406810	-107.58952472
2,480.00	19.97	15.73	2,401.71	502.01	144.35	1,870,823.61	1,244,878.09	36.13415321	-107.58949671
2,574.00	19.84	15.14	2,490.10	532.86	152.87	1,870,854.46	1,244,886.61	36.13423826	-107.58946931
2,669.00	19.62	14.62	2,579.52	563.86	161.11	1,870,885.46	1,244,894.84	36.13432369	-107.58944287
2,763.00	17.71	14.62	2,668.57	592.97	168.70	1,870,914.56	1,244,902.44	36.13440392	-107.58941852
2,858.00	16.37	15.37	2,759.40	619.86	175.90	1,870,941.45	1,244,909.63	36.13447805	-107.58939542
3,006.00	18.19	17.80	2,900.71	661.97	188.49	1,870,983.56	1,244,922.22	36.13459418	-107.58935475
3,101.00	19.95	16.39	2,990.50	691.64	197.60	1,871,013.23	1,244,931.33	36.13467601	-107.58932531
3,196.00	21.35	16.31	3,079.39	723.78	207.03	1,871,045.38	1,244,940.76	36.13476465	-107.58929488
3,290.00	21.52	16.49	3,166.89	756.74	216.72	1,871,078.33	1,244,950.46	36.13485552	-107.58926358
3,384.00	21.10	15.23	3,254.46	789.59	226.06	1,871,111.19	1,244,959.80	36.13494612	-107.58923349
3,478.00	20.74	14.18	3,342.27	822.06	234.58	1,871,143.65	1,244,968.32	36.13503560	-107.58920616
3,573.00	20.50	18.86	3,431.19	854.11	244.08	1,871,175.71	1,244,977.82	36.13512399	-107.58917549
3,668.00	19.08	18.85	3,520.57	884.55	254.48	1,871,206.14	1,244,988.21	36.13520798	-107.58914172
3,763.00	19.36	17.57	3,610.28	914.25	264.25	1,871,235.85	1,244,997.98	36.13528993	-107.58911003
3,857.00	19.63	17.32	3,698.89	944.18	273.65	1,871,265.78	1,245,007.39	36.13537248	-107.58907959
3,952.00	19.61	16.31	3,788.37	974.72	282.88	1,871,296.31	1,245,016.61	36.13545669	-107.58904977
4,046.00	19.40	16.95	3,876.98	1,004.79	291.86	1,871,326.38	1,245,025.60	36.13553962	-107.58902076
4,141.00	20.25	18.38	3,966.35	1,035.48	301.65	1,871,357.08	1,245,035.38	36.13562429	-107.58898907
4,235.00	19.88	17.99	4,054.64	1,066.12	311.71	1,871,387.72	1,245,045.44	36.13570882	-107.58895642
4,329.00	21.21	15.57	4,142.67	1,097.70	321.21	1,871,419.30	1,245,054.95	36.13579592	-107.58892573
4,361.00	23.64	15.00	4,172.24	1,109.48	324.43	1,871,431.08	1,245,058.16	36.13582838	-107.58891539
4,393.00	25.67	14.97	4,201.32	1,122.37	327.88	1,871,443.97	1,245,061.61	36.13586393	-107.58890431
4,424.00	26.95	15.54	4,229.11	1,135.63	331.49	1,871,457.23	1,245,065.23	36.13590047	-107.58889268
4,456.00	27.92	9.82	4,257.52	1,150.00	334.72	1,871,471.60	1,245,068.45	36.13594006	-107.58888245
4,488.00	28.77	4.84	4,285.69	1,165.06	336.64	1,871,486.65	1,245,070.38	36.13598149	-107.58887662
4,519.00	29.68	1.01	4,312.74	1,180.17	337.41	1,871,501.76	1,245,071.14	36.13602301	-107.58887474
4,551.00	31.79	358.92	4,340.25	1,196.52	337.39	1,871,518.11	1,245,071.12	36.13606792	-107.58887557
4,582.00	32.35	358.37	4,366.52	1,212.97	337.00	1,871,534.57	1,245,070.73	36.13611309	-107.58887765
4,614.00	33.96	356.75	4,393.31	1,230.46	336.25	1,871,552.05	1,245,069.98	36.13616108	-107.58888101
4,645.00	34.62	353.15	4,418.92	1,247.85	334.71	1,871,569.44	1,245,068.44	36.13620878	-107.58888704
4,677.00	34.73	349.68	4,445.24	1,265.84	331.99	1,871,587.44	1,245,065.72	36.13625810	-107.58889708
4,709.00	34.19	345.69	4,471.63	1,283.52	328.13	1,871,605.12	1,245,061.87	36.13630652	-107.58891096
4,740.00	34.13	341.75	4,497.28	1,300.22	323.26	1,871,621.82	1,245,056.99	36.13635220	-107.58892825
4,771.00	34.35	337.41	4,522.91	1,316.56	317.17	1,871,638.16	1,245,050.91	36.13639684	-107.58894961
4,802.00	35.23	333.40	4,548.38	1,332.63	309.81	1,871,654.23	1,245,043.54	36.13644070	-107.58897530
4,834.00	34.88	324.56	4,574.59	1,348.35	300.36	1,871,669.95	1,245,034.10	36.13648351	-107.58900801
4,865.00	36.37	316.93	4,599.80	1,362.29	288.94	1,871,683.89	1,245,022.68	36.13652137	-107.58904733
4,897.00	39.11	311.76	4,625.11	1,375.95	274.93	1,871,697.55	1,245,008.66	36.13655836	-107.58909542
4,928.00	42.08	310.69	4,648.64	1,389.24	259.75	1,871,710.84	1,244,993.49	36.13659428	-107.58914741
4,960.00	45.79	308.70	4,671.69	1,403.41	242.67	1,871,725.00	1,244,976.40	36.13663254	-107.58920593



Survey Report - Geographic

Company: Enduring Resources LLC
Project: Sandoval County, New Mexico NAD83 NM C
Site: W Escavada Unit
Well: W Escavada Unit Well No. 302H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well W Escavada Unit Well No. 302H
TVD Reference: RKB=6878+25 @ 6903.00ft (Aztec 1000)
MD Reference: RKB=6878+25 @ 6903.00ft (Aztec 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)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,991.00	49.14	308.28	4,692.64	1,417.62	224.79	1,871,739.22	1,244,958.52	36.13667090	-107.58926712
5,023.00	53.47	309.79	4,712.64	1,433.35	205.40	1,871,754.95	1,244,939.13	36.13671337	-107.58933350
5,054.00	58.00	311.80	4,730.09	1,450.10	186.02	1,871,771.69	1,244,919.75	36.13675862	-107.58939990
5,086.00	62.20	314.07	4,746.04	1,468.99	165.72	1,871,790.59	1,244,899.46	36.13680975	-107.58946950
5,117.00	67.35	316.52	4,759.25	1,488.93	146.01	1,871,810.52	1,244,879.75	36.13686375	-107.58953717
5,149.00	71.71	318.21	4,770.44	1,510.98	125.72	1,871,832.58	1,244,859.45	36.13692355	-107.58960691
5,180.00	75.46	319.85	4,779.20	1,533.43	106.23	1,871,855.03	1,244,839.96	36.13698447	-107.58967395
5,211.00	76.07	322.00	4,786.82	1,556.76	87.29	1,871,878.35	1,244,821.02	36.13704781	-107.58973916
5,243.00	78.40	322.62	4,793.89	1,581.45	68.21	1,871,903.05	1,244,801.95	36.13711491	-107.58980491
5,274.00	80.79	322.60	4,799.49	1,605.67	49.70	1,871,927.27	1,244,783.43	36.13718074	-107.58986872
5,306.00	84.73	320.60	4,803.52	1,630.54	29.98	1,871,952.14	1,244,763.72	36.13724830	-107.58993664
5,337.00	88.26	317.49	4,805.42	1,653.91	9.71	1,871,975.50	1,244,743.44	36.13731169	-107.59000638
5,369.00	89.24	316.16	4,806.12	1,677.24	-12.18	1,871,998.83	1,244,721.55	36.13737493	-107.59008159
5,401.00	89.52	314.27	4,806.46	1,699.95	-34.72	1,872,021.54	1,244,699.01	36.13743645	-107.59015896
5,464.00	89.30	313.17	4,807.11	1,743.48	-80.25	1,872,065.08	1,244,653.48	36.13755430	-107.59031515
5,467.00	89.30	313.16	4,807.15	1,745.54	-82.44	1,872,067.13	1,244,651.29	36.13755985	-107.59032265
330 FWL @ 5467 MD 4807 TVD									
5,559.00	89.31	312.97	4,808.26	1,808.35	-149.65	1,872,129.95	1,244,584.09	36.13772983	-107.59055314
5,654.00	90.45	311.65	4,808.46	1,872.30	-219.90	1,872,193.89	1,244,513.84	36.13790279	-107.59079398
5,748.00	90.36	313.27	4,807.80	1,935.75	-289.24	1,872,257.35	1,244,444.49	36.13807443	-107.59103174
5,842.00	90.12	314.95	4,807.40	2,001.18	-356.73	1,872,322.77	1,244,377.00	36.13825155	-107.59126330
5,937.00	90.18	313.74	4,807.16	2,067.58	-424.67	1,872,389.17	1,244,309.07	36.13843134	-107.59149643
6,031.00	87.38	313.26	4,809.16	2,132.26	-492.83	1,872,453.86	1,244,240.90	36.13860640	-107.59173025
6,126.00	89.27	315.22	4,811.93	2,198.51	-560.86	1,872,520.10	1,244,172.88	36.13878576	-107.59196367
6,220.00	91.05	315.63	4,811.67	2,265.46	-626.83	1,872,587.06	1,244,106.91	36.13896714	-107.59219016
6,315.00	90.54	315.96	4,810.35	2,333.56	-693.06	1,872,655.15	1,244,040.68	36.13915164	-107.59241760
6,409.00	92.84	316.62	4,807.58	2,401.47	-757.98	1,872,723.06	1,243,975.76	36.13933570	-107.59264059
6,504.00	92.27	315.92	4,803.35	2,470.05	-823.58	1,872,791.64	1,243,910.16	36.13952155	-107.59286593
6,598.00	90.85	315.72	4,800.79	2,537.43	-889.07	1,872,859.03	1,243,844.67	36.13970413	-107.59309081
6,692.00	90.69	315.73	4,799.52	2,604.73	-954.68	1,872,926.33	1,243,779.06	36.13988647	-107.59331613
6,787.00	88.99	314.88	4,799.79	2,672.26	-1,021.49	1,872,993.85	1,243,712.24	36.14006939	-107.59354552
6,882.00	87.74	315.54	4,802.50	2,739.65	-1,088.39	1,873,061.25	1,243,645.34	36.14025193	-107.59377519
6,977.00	89.35	315.48	4,804.91	2,807.40	-1,154.94	1,873,128.99	1,243,578.79	36.14043547	-107.59400370
7,072.00	88.24	315.67	4,806.91	2,875.23	-1,221.43	1,873,196.82	1,243,512.31	36.14061923	-107.59423198
7,166.00	86.76	315.98	4,811.01	2,942.58	-1,286.87	1,873,264.17	1,243,446.87	36.14080172	-107.59445671
7,261.00	87.70	315.80	4,815.60	3,010.71	-1,352.91	1,873,332.30	1,243,380.83	36.14098632	-107.59468354
7,356.00	88.91	315.01	4,818.41	3,078.33	-1,419.58	1,873,399.92	1,243,314.16	36.14116949	-107.59491244
7,451.00	88.63	316.43	4,820.45	3,146.32	-1,485.89	1,873,467.92	1,243,247.85	36.14135371	-107.59514015
7,545.00	90.08	316.46	4,821.51	3,214.44	-1,550.65	1,873,536.03	1,243,183.08	36.14153832	-107.59536263
7,640.00	89.40	316.04	4,821.94	3,283.06	-1,616.35	1,873,604.66	1,243,117.39	36.14172429	-107.59558829
7,734.00	86.92	316.69	4,824.96	3,351.05	-1,681.17	1,873,672.65	1,243,052.56	36.14190856	-107.59581098
7,829.00	86.33	317.78	4,830.55	3,420.68	-1,745.56	1,873,742.27	1,242,988.17	36.14209732	-107.59603228
7,924.00	87.50	317.21	4,835.66	3,490.61	-1,809.66	1,873,812.20	1,242,924.08	36.14228694	-107.59625258
8,018.00	89.42	317.36	4,838.19	3,559.65	-1,873.40	1,873,881.24	1,242,860.34	36.14247412	-107.59647164
8,113.00	91.14	317.12	4,837.72	3,629.39	-1,937.89	1,873,950.98	1,242,795.85	36.14266321	-107.59669330
8,207.00	89.07	316.50	4,837.55	3,697.92	-2,002.22	1,874,019.51	1,242,731.52	36.14284898	-107.59691434
8,302.00	88.27	315.50	4,839.76	3,766.24	-2,068.20	1,874,087.83	1,242,665.54	36.14303409	-107.59714094
8,396.00	88.98	314.69	4,842.01	3,832.80	-2,134.53	1,874,154.39	1,242,599.20	36.14321436	-107.59736869
8,491.00	89.60	316.14	4,843.19	3,900.45	-2,201.21	1,874,222.04	1,242,532.53	36.14339762	-107.59759765
8,585.00	90.68	316.58	4,842.96	3,968.48	-2,266.08	1,874,290.07	1,242,467.65	36.14358197	-107.59782050
8,680.00	91.45	316.02	4,841.19	4,037.14	-2,331.71	1,874,358.74	1,242,402.03	36.14376807	-107.59804593
8,775.00	89.77	316.05	4,840.18	4,105.52	-2,397.65	1,874,427.11	1,242,336.09	36.14395333	-107.59827243
8,869.00	90.06	315.85	4,840.32	4,173.08	-2,463.01	1,874,494.67	1,242,270.73	36.14413638	-107.59849691
8,963.00	90.97	316.16	4,839.48	4,240.70	-2,528.30	1,874,562.29	1,242,205.44	36.14431961	-107.59872116
9,058.00	89.46	317.10	4,839.12	4,309.75	-2,593.53	1,874,631.34	1,242,140.21	36.14450677	-107.59894530



Survey Report - Geographic

Company: Enduring Resources LLC
Project: Sandoval County, New Mexico NAD83 NM C
Site: W Escavada Unit
Well: W Escavada Unit Well No. 302H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well W Escavada Unit Well No. 302H
TVD Reference: RKB=6878+25 @ 6903.00ft (Aztec 1000)
MD Reference: RKB=6878+25 @ 6903.00ft (Aztec 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)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,152.00	87.13	316.41	4,841.92	4,378.19	-2,657.90	1,874,699.78	1,242,075.84	36.14469227	-107.59916648
9,246.00	87.86	315.27	4,846.03	4,445.56	-2,723.32	1,874,767.15	1,242,010.42	36.14487480	-107.59939117
9,341.00	88.58	314.67	4,848.98	4,512.67	-2,790.50	1,874,834.26	1,241,943.24	36.14505654	-107.59962180
9,436.00	89.51	315.24	4,850.56	4,579.78	-2,857.71	1,874,901.37	1,241,876.03	36.14523829	-107.59985257
9,530.00	89.43	314.60	4,851.43	4,646.15	-2,924.27	1,874,967.74	1,241,809.47	36.14541803	-107.60008106
9,624.00	90.63	315.44	4,851.38	4,712.64	-2,990.72	1,875,034.23	1,241,743.03	36.14559810	-107.60030918
9,719.00	90.98	315.22	4,850.05	4,780.19	-3,057.50	1,875,101.78	1,241,676.24	36.14578108	-107.60053849
9,813.00	91.36	316.01	4,848.13	4,847.36	-3,123.23	1,875,168.95	1,241,610.51	36.14596303	-107.60076425
9,907.00	91.14	314.42	4,846.08	4,914.06	-3,189.43	1,875,235.64	1,241,544.31	36.14614368	-107.60099155
10,002.00	89.25	317.85	4,845.75	4,982.53	-3,255.25	1,875,304.12	1,241,478.49	36.14632924	-107.60121765
10,096.00	89.34	317.15	4,846.91	5,051.83	-3,318.75	1,875,373.42	1,241,414.99	36.14651713	-107.60143594
10,191.00	90.39	316.80	4,847.13	5,121.28	-3,383.57	1,875,442.87	1,241,350.17	36.14670539	-107.60165870
10,285.00	90.87	316.97	4,846.10	5,189.90	-3,447.81	1,875,511.48	1,241,285.93	36.14689138	-107.60187947
10,380.00	91.58	316.97	4,844.07	5,259.32	-3,512.62	1,875,580.91	1,241,221.12	36.14707958	-107.60210221
10,474.00	89.47	317.59	4,843.21	5,328.38	-3,576.39	1,875,649.96	1,241,157.35	36.14726679	-107.60232138
10,569.00	90.17	317.41	4,843.51	5,398.42	-3,640.57	1,875,720.01	1,241,093.17	36.14745669	-107.60254201
10,664.00	91.23	317.85	4,842.35	5,468.60	-3,704.58	1,875,790.19	1,241,029.16	36.14764698	-107.60276210
10,758.00	88.06	318.91	4,842.93	5,538.86	-3,767.01	1,875,860.44	1,240,966.74	36.14783756	-107.60297679
10,852.00	88.37	318.38	4,845.86	5,609.38	-3,829.08	1,875,930.97	1,240,904.66	36.14802887	-107.60319033
10,947.00	88.90	318.29	4,848.12	5,680.33	-3,892.22	1,876,001.92	1,240,841.52	36.14822131	-107.60340747
11,041.00	89.12	317.76	4,849.74	5,750.20	-3,955.08	1,876,071.79	1,240,778.66	36.14841080	-107.60362362
11,135.00	90.08	318.20	4,850.40	5,820.03	-4,018.00	1,876,141.62	1,240,715.74	36.14860017	-107.60383998
11,230.00	90.79	318.64	4,849.68	5,891.09	-4,081.04	1,876,212.68	1,240,652.70	36.14879292	-107.60405683
11,324.00	91.53	316.18	4,847.77	5,960.28	-4,144.64	1,876,281.87	1,240,589.10	36.14898049	-107.60427545
11,419.00	92.90	315.57	4,844.10	6,028.42	-4,210.73	1,876,350.01	1,240,523.01	36.14916510	-107.60450247
11,513.00	91.18	317.24	4,840.76	6,096.45	-4,275.50	1,876,418.04	1,240,458.24	36.14934946	-107.60472502
11,608.00	87.27	315.83	4,842.04	6,165.38	-4,340.83	1,876,486.97	1,240,392.91	36.14953626	-107.60494951
11,702.00	88.19	315.39	4,845.76	6,232.50	-4,406.54	1,876,554.08	1,240,327.21	36.14971808	-107.60517517
11,797.00	90.30	314.95	4,847.02	6,299.86	-4,473.50	1,876,621.45	1,240,260.24	36.14990052	-107.60540512
11,892.00	88.90	316.18	4,847.68	6,367.69	-4,540.01	1,876,689.28	1,240,193.74	36.15008426	-107.60563354
11,983.00	89.56	316.27	4,848.90	6,433.39	-4,602.96	1,876,754.98	1,240,130.79	36.15026229	-107.60584982
12,078.00	91.49	316.18	4,848.03	6,501.98	-4,668.68	1,876,823.57	1,240,065.07	36.15044814	-107.60607560
12,172.00	92.85	316.18	4,844.47	6,569.75	-4,733.71	1,876,891.34	1,240,000.03	36.15063178	-107.60629905
12,268.00	90.65	316.97	4,841.54	6,639.44	-4,799.67	1,876,961.03	1,239,934.08	36.15082063	-107.60652569
12,362.00	89.16	315.65	4,841.70	6,707.41	-4,864.60	1,877,028.99	1,239,869.15	36.15100480	-107.60674877
12,457.00	87.67	316.01	4,844.32	6,775.52	-4,930.76	1,877,097.10	1,239,802.98	36.15118933	-107.60697607
12,552.00	88.76	315.39	4,847.28	6,843.48	-4,997.08	1,877,165.06	1,239,736.66	36.15137342	-107.60720385
12,646.00	90.65	316.01	4,847.77	6,910.75	-5,062.73	1,877,232.33	1,239,671.02	36.15155565	-107.60742934
12,741.00	92.06	315.48	4,845.52	6,978.77	-5,129.00	1,877,300.35	1,239,604.74	36.15173992	-107.60765700
12,836.00	90.17	314.95	4,843.67	7,046.18	-5,195.91	1,877,367.76	1,239,537.84	36.15192249	-107.60788677
12,930.00	88.19	314.95	4,845.02	7,112.58	-5,262.42	1,877,434.16	1,239,471.32	36.15210229	-107.60811516
13,025.00	90.08	314.95	4,846.45	7,179.68	-5,329.65	1,877,501.27	1,239,404.10	36.15228401	-107.60834598
13,120.00	87.49	313.81	4,848.47	7,246.11	-5,397.52	1,877,567.69	1,239,336.22	36.15246382	-107.60857899
13,214.00	88.06	312.58	4,852.12	7,310.40	-5,466.00	1,877,631.98	1,239,267.75	36.15263776	-107.60881392
13,308.00	87.18	313.28	4,856.02	7,374.37	-5,534.76	1,877,695.95	1,239,198.98	36.15281080	-107.60904982
13,403.00	88.76	312.75	4,859.38	7,439.13	-5,604.18	1,877,760.72	1,239,129.57	36.15298600	-107.60928797
13,497.00	90.39	312.75	4,860.08	7,502.93	-5,673.20	1,877,824.52	1,239,060.54	36.15315857	-107.60952473
13,565.00	91.49	312.49	4,858.97	7,548.97	-5,723.23	1,877,870.56	1,239,010.51	36.15328309	-107.60969634
Survey @ 13565.00 MD 4858.97 TVD									
13,638.00	91.49	312.49	4,857.07	7,598.26	-5,777.04	1,877,919.85	1,238,956.70	36.15341639	-107.60988091
Survey Projected to 13638.00 MD 4857.07 TVD									



Survey Report - Geographic

Company: Enduring Resources LLC
Project: Sandoval County, New Mexico NAD83 NM C
Site: W Escavada Unit
Well: W Escavada Unit Well No. 302H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well W Escavada Unit Well No. 302H
TVD Reference: RKB=6878+25 @ 6903.00ft (Aztec 1000)
MD Reference: RKB=6878+25 @ 6903.00ft (Aztec 1000)
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)	
328.00	327.99	1.35	1.24	MWD surveys
5,467.00	4,807.15	1,745.54	-82.44	330 FWL @ 5467 MD 4807 TVD
13,565.00	4,858.97	7,548.97	-5,723.23	Survey @ 13565.00 MD 4858.97 TVD
13,638.00	4,857.07	7,598.26	-5,777.04	Survey Projected to 13638.00 MD 4857.07 TVD