

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 Dilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35755	*Pool Code 97232	*Pool Name BASIN MANCOS
*Property Code 321239	*Property Name KIMBETO WASH UNIT	*Well Number 770H
*GRID No. 372286	*Operator Name ENDURING RESOURCES, LLC	*Elevation 6561'

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	23N	9W		409	SOUTH	1115	EAST	SAN JUAN

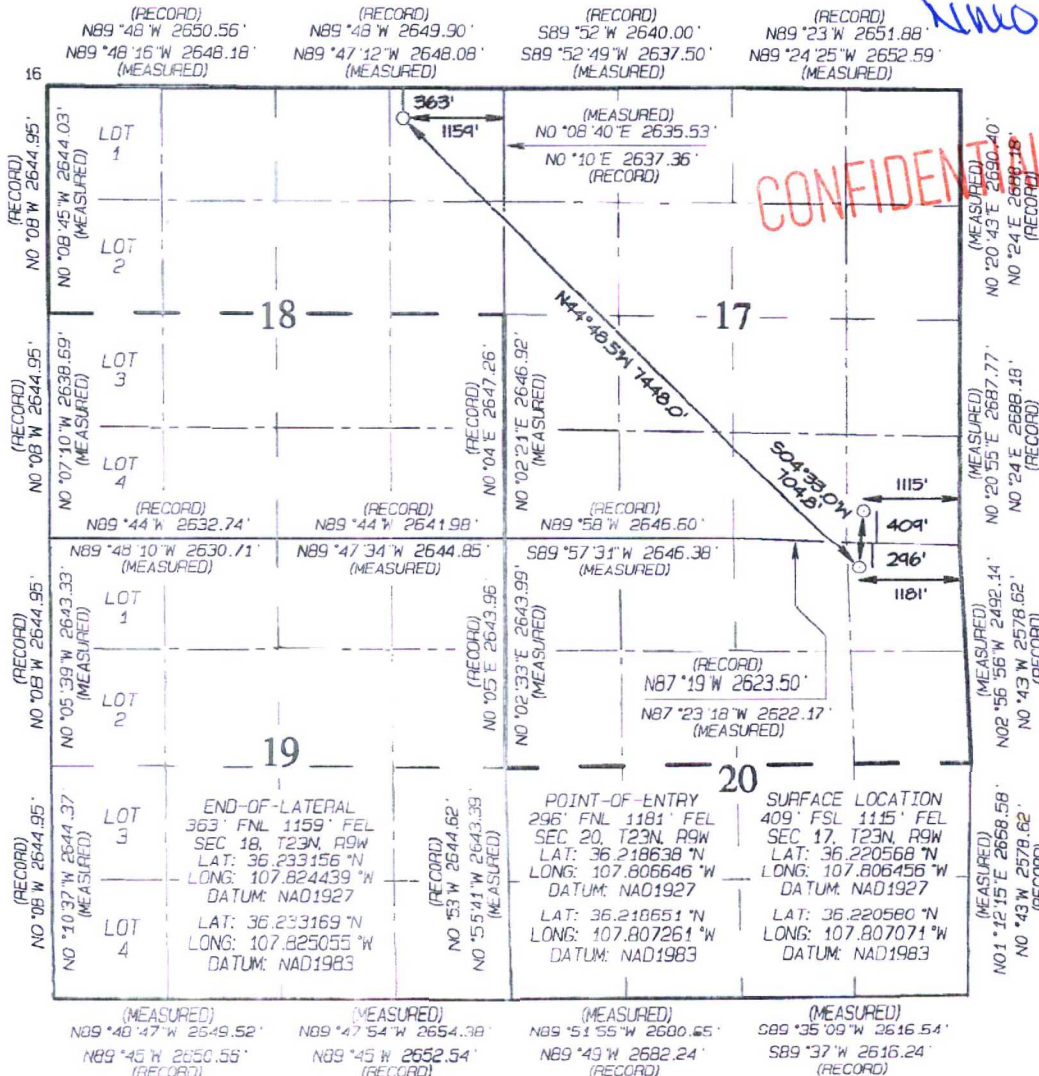
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	18	23N	9W		363	NORTH	1159	EAST	SAN JUAN

¹² Dedicated Acres 1279.88	Entire Section 17 N/2 - Section 18 N/2 - Section 20	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-14084
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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

UNMODIFIED on 8/7/19



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 G-anilwo
Date: 8/7/19

Printed Name: Lacey G-anilwo
E-mail Address: Lg-anilwo@enduringresources.com

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
Survey Date: DECEMBER 3, 2015

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

CONFIDENTIAL



Well: KWU Well No. 770H
 Site: Kimbeto Wash Unit
 Project: San Juan County, New Mexico NAD83 NM W
 Design: Surveys Original Hole
 Rig: Aztec 1000

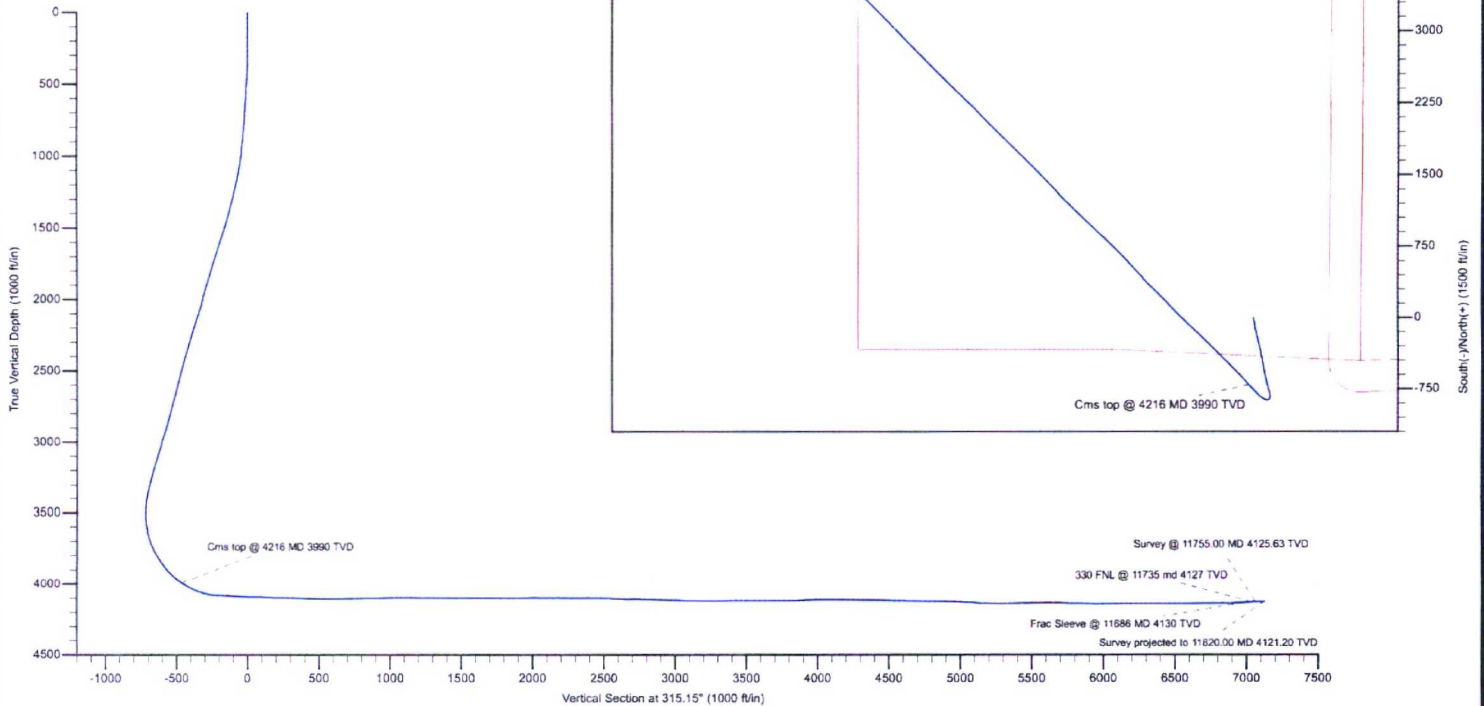
Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Western Zone
 System Datum: Mean Sea Level
 Depth Reference: RKS-8561+28 @ 6566.00ft (Aztec 1000)
 Northing: 1890590.04 Easting: 2730638.04 Latitude: 36.22058000 Longitude: -107.80707100
 Total Corr (M>G): To convert a Magnetic Direction to a Grid Direction, Add 9.08°



Azimuths to Grid North
 True North: -0.02°
 Magnetic North: 9.08°
 Magnetic Field
 Strength: 49600.5nT
 Dip Angle: 62.87°
 Date: 9/15/2018
 Model: IGRF2015

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Annotation
324.00	1.07	225.60	323.98	-2.12	-2.16	0.02	MWD surveys
4215.82	54.66	319.28	3990.00	-702.38	-55.99	-458.47	Cms top @ 4216 MD 3990 TVD
11686.00	92.58	313.63	4129.53	4581.69	-5304.95	6989.55	Frac Sleeve @ 11686 MD 4130 TVD
11735.00	93.52	313.39	4126.93	4815.38	-5340.44	7038.46	330 FNL @ 11735 md 4127 TVD
11755.00	93.91	313.29	4125.63	4829.07	-5354.96	7058.41	Survey @ 11755.00 MD 4125.63 TVD
11820.00	93.91	313.29	4121.20	4673.54	-5402.16	7123.22	Survey projected to 11820.00 MD 4121.20 TVD



23/05, December 03, 2018



Survey Report



Company: Enduring Resources LLC
Project: San Juan County, New Mexico NAD83 NM W
Site: Kimbeto Wash Unit
Well: KWU Well No. 770H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well KWU Well No. 770H
TVD Reference: RKB=6561+25 @ 6586.00ft (Aztec 1000)
MD Reference: RKB=6561+25 @ 6586.00ft (Aztec 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	Kimbeto Wash Unit				
Site Position:		Northing:	1,899,650.12 usft	Latitude:	36.22074500
From:	Lat/Long	Easting:	2,730,890.83 usft	Longitude:	-107.80689200
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.02 °

Well	KWU Well No. 770H, Surf loc: 409 FSL 1115 FEL Section 17-T23N-R09W					
Well Position	+N/-S	0.00 ft	Northing:	1,899,590.04 usft	Latitude:	36.22058000
	+E/-W	0.00 ft	Easting:	2,730,838.04 usft	Longitude:	-107.80707100
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,561.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/15/2018	9.10	62.87	49,600.54623125

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	315.15	

Survey Program	Date	12/3/2018			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
324.00	2,475.00	MWD (Original Hole)	MWD	OWSG MWD - Standard	
2,529.00	11,755.00	MWD lat (Original Hole)	MWD	OWSG MWD - Standard	
11,820.00	11,820.00	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	1.07	225.60	323.98	-2.12	-2.16	0.02	0.33	0.33	0.00	
MWD surveys										
416.00	2.74	190.09	415.93	-4.88	-3.16	-1.23	2.14	1.82	-38.60	
508.00	4.24	169.88	507.76	-10.40	-2.95	-5.29	2.08	1.63	-21.97	
598.00	4.70	169.26	597.49	-17.29	-1.68	-11.08	0.51	0.51	-0.69	
689.00	4.62	168.83	688.18	-24.55	-0.27	-17.22	0.10	-0.09	-0.47	
781.00	5.79	174.03	779.80	-32.80	0.93	-23.91	1.37	1.27	5.65	
872.00	7.45	177.75	870.19	-43.26	1.64	-31.83	1.88	1.82	4.09	



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Survey Calculation Method: Minimum Curvature
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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	9.24	171.45	961.22	-56.53	2.97	-42.17	2.18	1.95	-6.85
1,058.00	11.41	170.60	1,053.69	-73.17	5.61	-55.83	2.31	2.31	-0.90
1,153.00	13.20	167.20	1,146.51	-93.02	9.55	-72.68	2.03	1.88	-3.58
1,248.00	14.57	167.36	1,238.73	-115.26	14.57	-91.98	1.44	1.44	0.17
1,342.00	16.55	169.52	1,329.28	-139.96	19.59	-113.04	2.19	2.11	2.30
1,437.00	18.54	168.22	1,419.86	-168.05	25.14	-136.87	2.13	2.09	-1.37
1,531.00	20.42	166.42	1,508.47	-198.63	32.04	-163.41	2.10	2.00	-1.91
1,626.00	20.87	165.76	1,597.37	-231.14	40.09	-192.14	0.53	0.47	-0.69
1,720.00	20.21	165.26	1,685.40	-263.07	48.34	-220.60	0.73	-0.70	-0.53
1,815.00	19.89	164.60	1,774.64	-294.52	56.81	-248.86	0.41	-0.34	-0.69
1,909.00	19.19	168.92	1,863.23	-325.10	64.02	-275.63	1.71	-0.74	4.60
2,003.00	18.14	169.19	1,952.28	-354.63	69.74	-300.60	1.12	-1.12	0.29
2,098.00	20.48	168.21	2,041.93	-385.43	75.91	-326.79	2.49	2.46	-1.03
2,192.00	21.27	168.59	2,129.76	-418.24	82.64	-354.80	0.85	0.84	0.40
2,287.00	21.04	169.45	2,218.36	-451.90	89.17	-383.26	0.41	-0.24	0.91
2,381.00	19.64	170.39	2,306.50	-484.06	94.90	-410.11	1.53	-1.49	1.00
2,475.00	19.03	170.35	2,395.19	-514.75	100.10	-435.53	0.65	-0.65	-0.04
2,529.00	19.18	171.00	2,446.22	-532.19	102.97	-449.92	0.48	0.28	1.20
2,624.00	18.63	171.26	2,536.10	-562.60	107.72	-474.83	0.59	-0.58	0.27
2,718.00	18.12	169.54	2,625.30	-591.82	112.65	-499.02	0.79	-0.54	-1.83
2,813.00	17.84	169.19	2,715.66	-620.64	118.06	-523.27	0.32	-0.29	-0.37
2,907.00	17.45	168.44	2,805.24	-648.59	123.59	-546.98	0.48	-0.41	-0.80
3,002.00	18.50	166.82	2,895.60	-677.22	129.88	-571.72	1.22	1.11	-1.71
3,096.00	17.92	163.61	2,984.90	-705.61	137.36	-597.12	1.23	-0.62	-3.41
3,190.00	19.56	165.60	3,073.91	-734.73	145.35	-623.40	1.87	1.74	2.12
3,284.00	18.95	163.76	3,162.65	-764.63	153.54	-650.37	0.92	-0.65	-1.96
3,379.00	18.11	161.09	3,252.73	-793.41	162.63	-677.19	1.26	-0.88	-2.81
3,473.00	16.48	175.75	3,342.52	-820.54	168.36	-700.46	4.93	-1.73	15.60
3,505.00	16.69	187.49	3,373.20	-829.62	168.10	-706.72	10.48	0.66	36.69
3,537.00	17.25	199.24	3,403.81	-838.66	165.94	-711.60	10.84	1.75	36.72
3,568.00	16.71	207.20	3,433.47	-846.97	162.38	-714.98	7.69	-1.74	25.68
3,600.00	12.76	210.14	3,464.41	-854.12	158.50	-717.32	12.56	-12.34	9.19
3,631.00	9.94	220.20	3,494.80	-859.12	155.06	-718.43	11.08	-9.10	32.45
3,663.00	8.92	240.93	3,526.38	-862.44	151.10	-718.00	11.01	-3.19	64.78
3,694.00	9.73	262.89	3,556.98	-863.93	146.40	-715.74	11.69	2.61	70.84
3,726.00	12.07	274.00	3,588.40	-864.03	140.38	-711.56	9.80	7.31	34.72
3,757.00	14.88	278.20	3,618.55	-863.24	133.21	-705.94	9.59	9.06	13.55
3,789.00	17.32	284.70	3,649.29	-861.44	124.53	-698.55	9.47	7.63	20.31
3,820.00	20.09	289.76	3,678.65	-858.47	115.05	-689.76	10.35	8.94	16.32
3,852.00	22.23	294.72	3,708.50	-854.08	104.38	-679.12	8.71	6.69	15.50
3,883.00	24.65	299.11	3,736.94	-848.48	93.40	-667.41	9.62	7.81	14.16
3,915.00	27.34	303.18	3,765.70	-841.21	81.42	-653.80	10.08	8.41	12.72
3,946.00	29.94	307.12	3,792.91	-832.65	69.29	-639.18	10.36	8.39	12.71



Survey Report



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Wellbore: Original Hole
Design: Surveys Original Hole

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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)
3,978.00	32.71	310.88	3,820.24	-822.16	56.38	-622.64	10.59	8.66	11.75
4,009.00	35.57	313.05	3,845.90	-810.53	43.46	-605.27	10.03	9.23	7.00
4,041.00	38.55	314.46	3,871.43	-797.18	29.54	-586.00	9.68	9.31	4.41
4,072.00	41.90	316.42	3,895.10	-782.92	15.50	-565.98	11.55	10.81	6.32
4,104.00	45.43	317.28	3,918.24	-766.80	0.40	-543.90	11.19	11.03	2.69
4,135.00	48.38	318.10	3,939.42	-750.06	-14.84	-521.29	9.71	9.52	2.65
4,167.00	50.46	319.21	3,960.24	-731.81	-30.89	-497.04	7.01	6.50	3.47
4,198.00	52.85	319.82	3,979.47	-713.32	-46.67	-472.80	7.86	7.71	1.97
4,215.82	54.66	319.28	3,990.00	-702.38	-55.99	-458.47	10.44	10.16	-3.02
Cms top @ 4216 MD 3990 TVD									
4,229.00	56.00	318.90	3,997.50	-694.19	-63.09	-447.65	10.44	10.17	-2.90
4,261.00	59.68	317.76	4,014.53	-673.96	-81.10	-420.61	11.89	11.50	-3.56
4,292.00	63.35	316.85	4,029.31	-653.94	-99.58	-393.39	12.12	11.84	-2.94
4,323.00	67.18	315.84	4,042.28	-633.58	-119.01	-365.24	12.70	12.35	-3.26
4,355.00	71.18	315.48	4,053.65	-612.19	-139.92	-335.34	12.54	12.50	-1.13
4,386.00	75.19	315.31	4,062.62	-591.07	-160.75	-305.67	12.95	12.94	-0.55
4,418.00	78.98	315.66	4,069.77	-568.83	-182.61	-274.49	11.89	11.84	1.09
4,449.00	83.23	316.43	4,074.56	-546.79	-203.86	-243.87	13.93	13.71	2.48
4,481.00	86.47	316.86	4,077.44	-523.62	-225.74	-212.02	10.21	10.13	1.34
4,512.00	87.14	316.81	4,079.16	-501.04	-246.92	-181.08	2.17	2.16	-0.16
4,607.00	87.48	315.40	4,083.62	-432.66	-312.71	-86.20	1.53	0.36	-1.48
4,701.00	87.75	315.15	4,087.53	-365.93	-378.80	7.72	0.39	0.29	-0.27
4,796.00	88.18	315.07	4,090.91	-298.67	-445.80	102.66	0.46	0.45	-0.08
4,890.00	88.62	314.60	4,093.53	-232.42	-512.44	196.62	0.68	0.47	-0.50
4,985.00	88.42	313.30	4,095.99	-166.51	-580.81	291.57	1.38	-0.21	-1.37
5,079.00	88.99	313.08	4,098.11	-102.19	-649.32	385.49	0.65	0.61	-0.23
5,174.00	89.43	312.07	4,099.42	-37.93	-719.27	480.38	1.16	0.46	-1.06
5,269.00	89.70	314.93	4,100.14	27.46	-788.17	575.33	3.02	0.28	3.01
5,363.00	90.44	316.97	4,100.03	95.02	-853.53	669.31	2.31	0.79	2.17
5,458.00	90.74	316.01	4,099.05	163.91	-918.93	764.28	1.06	0.32	-1.01
5,552.00	91.21	314.92	4,097.45	230.91	-984.84	858.27	1.26	0.50	-1.16
5,647.00	92.19	314.32	4,094.63	297.60	-1,052.43	953.22	1.21	1.03	-0.63
5,741.00	90.07	315.06	4,092.78	363.69	-1,119.24	1,047.19	2.39	-2.26	0.79
5,836.00	88.32	317.55	4,094.11	432.37	-1,184.85	1,142.15	3.20	-1.84	2.62
5,930.00	88.39	316.60	4,096.81	501.17	-1,248.85	1,236.06	1.01	0.07	-1.01
6,024.00	89.73	318.09	4,098.35	570.29	-1,312.53	1,329.97	2.13	1.43	1.59
6,118.00	90.47	317.80	4,098.19	640.08	-1,375.49	1,423.86	0.85	0.79	-0.31
6,212.00	89.43	314.41	4,098.27	707.81	-1,440.65	1,517.83	3.77	-1.11	-3.61
6,307.00	89.80	314.16	4,098.91	774.14	-1,508.66	1,612.82	0.47	0.39	-0.26
6,401.00	89.90	313.31	4,099.15	839.12	-1,576.58	1,706.79	0.91	0.11	-0.90
6,495.00	90.27	313.05	4,099.01	903.45	-1,645.12	1,800.73	0.48	0.39	-0.28
6,589.00	90.94	313.14	4,098.02	967.66	-1,713.76	1,894.67	0.72	0.71	0.10
6,683.00	91.01	312.10	4,096.42	1,031.30	-1,782.92	1,988.56	1.11	0.07	-1.11
6,778.00	89.97	314.55	4,095.61	1,096.48	-1,852.02	2,083.50	2.80	-1.09	2.58



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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)
6,873.00	90.40	314.83	4,095.30	1,163.29	-1,919.56	2,178.50	0.54	0.45	0.29
6,967.00	88.45	315.81	4,096.25	1,230.12	-1,985.65	2,272.48	2.32	-2.07	1.04
7,061.00	88.96	316.03	4,098.37	1,297.63	-2,051.02	2,366.45	0.59	0.54	0.23
7,155.00	91.08	317.35	4,098.34	1,366.02	-2,115.50	2,460.41	2.66	2.26	1.40
7,250.00	87.95	315.93	4,099.14	1,435.08	-2,180.71	2,555.36	3.62	-3.29	-1.49
7,344.00	87.98	315.31	4,102.48	1,502.22	-2,246.41	2,649.30	0.66	0.03	-0.66
7,438.00	87.98	314.44	4,105.79	1,568.50	-2,312.98	2,743.24	0.92	0.00	-0.93
7,532.00	88.15	314.59	4,108.97	1,634.37	-2,379.97	2,837.18	0.24	0.18	0.16
7,627.00	88.18	314.25	4,112.01	1,700.82	-2,447.79	2,932.12	0.36	0.03	-0.36
7,721.00	88.28	312.81	4,114.91	1,765.53	-2,515.91	3,026.04	1.53	0.11	-1.53
7,816.00	89.29	315.43	4,116.93	1,831.65	-2,584.08	3,120.99	2.96	1.06	2.76
7,910.00	90.00	315.19	4,117.51	1,898.47	-2,650.19	3,214.99	0.80	0.76	-0.26
8,005.00	90.81	315.19	4,116.84	1,965.87	-2,717.14	3,309.98	0.85	0.85	0.00
8,099.00	91.48	314.06	4,114.96	2,031.88	-2,784.03	3,403.96	1.40	0.71	-1.20
8,193.00	91.28	316.46	4,112.70	2,098.63	-2,850.17	3,497.92	2.56	-0.21	2.55
8,287.00	89.23	316.59	4,112.28	2,166.84	-2,914.84	3,591.89	2.19	-2.18	0.14
8,382.00	89.39	314.65	4,113.42	2,234.73	-2,981.28	3,686.88	2.05	0.17	-2.04
8,476.00	89.90	313.90	4,114.00	2,300.35	-3,048.58	3,780.86	0.96	0.54	-0.80
8,571.00	90.84	313.98	4,113.39	2,366.27	-3,116.98	3,875.84	0.99	0.99	0.08
8,665.00	91.48	312.73	4,111.49	2,430.78	-3,185.31	3,969.77	1.49	0.68	-1.33
8,759.00	89.66	316.02	4,110.55	2,496.51	-3,252.49	4,063.74	4.00	-1.94	3.50
8,853.00	89.56	315.40	4,111.19	2,563.79	-3,318.13	4,157.73	0.67	-0.11	-0.66
8,948.00	90.54	314.49	4,111.11	2,630.90	-3,385.36	4,252.73	1.41	1.03	-0.96
9,043.00	88.39	316.09	4,112.00	2,698.41	-3,452.19	4,347.72	2.82	-2.26	1.68
9,137.00	88.86	315.86	4,114.25	2,765.98	-3,517.50	4,441.68	0.56	0.50	-0.24
9,232.00	90.00	315.74	4,115.20	2,834.08	-3,583.72	4,536.67	1.21	1.20	-0.13
9,326.00	88.12	316.46	4,116.74	2,901.80	-3,648.89	4,630.64	2.14	-2.00	0.77
9,420.00	88.45	316.52	4,119.55	2,969.94	-3,713.58	4,724.57	0.36	0.35	0.06
9,515.00	86.96	315.58	4,121.70	3,038.32	-3,779.49	4,819.53	1.13	0.54	-0.99
9,610.00	90.17	316.12	4,122.42	3,106.48	-3,845.66	4,914.52	1.39	1.27	0.57
9,704.00	87.11	315.18	4,124.65	3,173.67	-3,911.34	5,008.48	3.41	-3.26	-1.00
9,798.00	86.64	314.70	4,129.78	3,239.97	-3,977.78	5,102.34	0.71	-0.50	-0.51
9,893.00	88.82	314.57	4,133.54	3,306.66	-4,045.33	5,197.25	2.30	2.29	-0.14
9,987.00	90.10	313.06	4,134.42	3,371.73	-4,113.15	5,291.22	2.11	1.36	-1.61
10,082.00	90.57	314.01	4,133.87	3,437.16	-4,182.02	5,386.18	1.12	0.49	1.00
10,176.00	91.48	313.14	4,132.19	3,501.95	-4,250.11	5,480.13	1.34	0.97	-0.93
10,271.00	90.03	314.89	4,130.94	3,567.95	-4,318.42	5,575.09	2.39	-1.53	1.84
10,365.00	88.06	315.51	4,132.50	3,634.64	-4,384.64	5,669.08	2.20	-2.10	0.66
10,459.00	88.59	315.60	4,135.25	3,701.71	-4,450.43	5,763.03	0.57	0.56	0.10
10,554.00	89.36	315.80	4,136.95	3,769.69	-4,516.77	5,858.01	0.84	0.81	0.21
10,648.00	90.17	314.60	4,137.33	3,836.39	-4,583.00	5,952.01	1.54	0.86	-1.28
10,743.00	91.41	315.24	4,136.03	3,903.46	-4,650.26	6,047.00	1.47	1.31	0.67
10,837.00	90.03	315.42	4,134.84	3,970.31	-4,716.34	6,140.99	1.48	-1.47	0.19



Survey Report



Company: Enduring Resources LLC
Project: San Juan County, New Mexico NAD83 NM W
Site: Kimbeto Wash Unit
Well: KWU Well No. 770H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well KWU Well No. 770H
TVD Reference: RKB=6561+25 @ 6586.00ft (Aztec 1000)
MD Reference: RKB=6561+25 @ 6586.00ft (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)
10,932.00	88.49	316.20	4,136.07	4,038.42	-4,782.55	6,235.97	1.82	-1.62	0.82
11,026.00	90.67	317.69	4,136.76	4,107.10	-4,846.72	6,329.91	2.81	2.32	1.59
11,120.00	89.16	317.61	4,136.90	4,176.56	-4,910.04	6,423.82	1.61	-1.61	-0.09
11,215.00	88.89	316.70	4,138.52	4,246.21	-4,974.63	6,518.75	1.00	-0.28	-0.96
11,309.00	90.71	316.27	4,138.84	4,314.37	-5,039.35	6,612.72	1.99	1.94	-0.46
11,404.00	91.88	315.64	4,136.70	4,382.64	-5,105.38	6,707.68	1.40	1.23	-0.66
11,498.00	90.91	315.87	4,134.41	4,449.95	-5,170.95	6,801.65	1.06	-1.03	0.24
11,593.00	91.24	314.26	4,132.63	4,517.19	-5,238.03	6,896.63	1.73	0.35	-1.69
11,686.00	92.58	313.63	4,129.53	4,581.69	-5,304.95	6,989.55	1.59	1.44	-0.68
Frac Sleeve @ 11686 MD 4130 TVD									
11,687.00	92.59	313.62	4,129.49	4,582.38	-5,305.68	6,990.55	1.59	1.44	-0.68
11,735.00	93.52	313.39	4,126.93	4,615.38	-5,340.44	7,038.46	2.00	1.94	-0.49
330 FNL @ 11735 md 4127 TVD									
11,755.00	93.91	313.29	4,125.63	4,629.07	-5,354.96	7,058.41	2.00	1.94	-0.49
Survey @ 11755.00 MD 4125.63 TVD									
11,820.00	93.91	313.29	4,121.20	4,673.54	-5,402.16	7,123.22	0.00	0.00	0.00
Survey projected to 11820.00 MD 4121.20 TVD									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
324.00	323.98	-2.12	-2.16	MWD surveys
4,215.82	3,990.00	-702.38	-55.99	Cms top @ 4216 MD 3990 TVD
11,686.00	4,129.53	4,581.69	-5,304.95	Frac Sleeve @ 11686 MD 4130 TVD
11,735.00	4,126.93	4,615.38	-5,340.44	330 FNL @ 11735 md 4127 TVD
11,755.00	4,125.63	4,629.07	-5,354.96	Survey @ 11755.00 MD 4125.63 TVD
11,820.00	4,121.20	4,673.54	-5,402.16	Survey projected to 11820.00 MD 4121.20 TVD



Survey Report - Geographic



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well KWU Well No. 770H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6561+25 @ 6586.00ft (Aztec 1000)
Site:	Kimbeto Wash Unit	MD Reference:	RKB=6561+25 @ 6586.00ft (Aztec 1000)
Well:	KWU Well No. 770H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	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		Kimbeto Wash Unit			
Site Position:		Northing:	1,899,650.12 usft	Latitude:	36.22074500
From:	Lat/Long	Easting:	2,730,890.83 usft	Longitude:	-107.80689200
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.02 °

Well	KWU Well No. 770H, Surf loc: 409 FSL 1115 FEL Section 17-T23N-R09W					
Well Position	+N/-S	0.00 ft	Northing:	1,899,590.04 usft	Latitude:	36.22058000
	+E/-W	0.00 ft	Easting:	2,730,838.04 usft	Longitude:	-107.80707100
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,561.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/15/2018	9.10	62.87	49,600.54623125

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	315.15	

Survey Program	Date	12/3/2018			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
324.00	2,475.00	MWD (Original Hole)	MWD	OWSG MWD - Standard	
2,529.00	11,755.00	MWD lat (Original Hole)	MWD	OWSG MWD - Standard	
11,820.00	11,820.00	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	1,899,590.04	2,730,838.04	36.22058000	-107.80707100
324.00	1.07	225.60	323.98	-2.12	-2.16	1,899,587.92	2,730,835.88	36.22057419	-107.80707833
MWD surveys									
416.00	2.74	190.09	415.93	-4.88	-3.16	1,899,585.15	2,730,834.88	36.22056659	-107.80708171
508.00	4.24	169.88	507.76	-10.40	-2.95	1,899,579.64	2,730,835.10	36.22055144	-107.80708100
598.00	4.70	169.26	597.49	-17.29	-1.68	1,899,572.74	2,730,836.37	36.22053249	-107.80707669
689.00	4.62	168.83	688.18	-24.55	-0.27	1,899,565.48	2,730,837.77	36.22051255	-107.80707194
781.00	5.79	174.03	779.80	-32.80	0.93	1,899,557.23	2,730,838.97	36.22048989	-107.80706788
872.00	7.45	177.75	870.19	-43.26	1.64	1,899,546.77	2,730,839.68	36.22046115	-107.80706548
964.00	9.24	171.45	961.22	-56.53	2.97	1,899,533.51	2,730,841.01	36.22042471	-107.80706098



Survey Report - Geographic



Company: Enduring Resources LLC
Project: San Juan County, New Mexico NAD83 NM W
Site: Kimbeto Wash Unit
Well: KWU Well No. 770H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well KWU Well No. 770H
TVD Reference: RKB=6561+25 @ 6586.00ft (Aztec 1000)
MD Reference: RKB=6561+25 @ 6586.00ft (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
1,058.00	11.41	170.60	1,053.69	-73.17	5.61	1,899,516.87	2,730,843.66	36.22037900	-107.80705204
1,153.00	13.20	167.20	1,146.51	-93.02	9.55	1,899,497.02	2,730,847.59	36.22032447	-107.80703871
1,248.00	14.57	167.36	1,238.73	-115.26	14.57	1,899,474.78	2,730,852.61	36.22026337	-107.80702171
1,342.00	16.55	169.52	1,329.28	-139.96	19.59	1,899,450.08	2,730,857.63	36.22019550	-107.80700471
1,437.00	18.54	168.22	1,419.86	-168.05	25.14	1,899,421.99	2,730,863.18	36.22011833	-107.80698593
1,531.00	20.42	166.42	1,508.47	-198.63	32.04	1,899,391.41	2,730,870.08	36.22003434	-107.80696256
1,626.00	20.87	165.76	1,597.37	-231.14	40.09	1,899,358.90	2,730,878.14	36.21994502	-107.80693529
1,720.00	20.21	165.26	1,685.40	-263.07	48.34	1,899,326.97	2,730,886.39	36.21985729	-107.80690735
1,815.00	19.89	164.60	1,774.64	-294.52	56.81	1,899,295.52	2,730,894.85	36.21977089	-107.80687867
1,909.00	19.19	168.92	1,863.23	-325.10	64.02	1,899,264.94	2,730,902.07	36.21968688	-107.80685424
2,003.00	18.14	169.19	1,952.28	-354.63	69.74	1,899,235.41	2,730,907.78	36.21960574	-107.80683490
2,098.00	20.48	168.21	2,041.93	-385.43	75.91	1,899,204.61	2,730,913.95	36.21952113	-107.80681401
2,192.00	21.27	168.59	2,129.76	-418.24	82.64	1,899,171.80	2,730,920.68	36.21943099	-107.80679121
2,287.00	21.04	169.45	2,218.36	-451.90	89.17	1,899,138.14	2,730,927.22	36.21933853	-107.80676910
2,381.00	19.64	170.39	2,306.50	-484.06	94.90	1,899,105.97	2,730,932.94	36.21925016	-107.80674971
2,475.00	19.03	170.35	2,395.19	-514.75	100.10	1,899,075.29	2,730,938.15	36.21916587	-107.80673209
2,529.00	19.18	171.00	2,446.22	-532.19	102.97	1,899,057.85	2,730,941.01	36.21911795	-107.80672240
2,624.00	18.63	171.26	2,536.10	-562.60	107.72	1,899,027.44	2,730,945.76	36.21903441	-107.80670634
2,718.00	18.12	169.54	2,625.30	-591.82	112.65	1,898,998.22	2,730,950.69	36.21895415	-107.80668963
2,813.00	17.84	169.19	2,715.66	-620.64	118.06	1,898,969.40	2,730,956.11	36.21887497	-107.80667131
2,907.00	17.45	168.44	2,805.24	-648.59	123.59	1,898,941.45	2,730,961.63	36.21879818	-107.80665261
3,002.00	18.50	166.82	2,895.60	-677.22	129.88	1,898,912.82	2,730,967.92	36.21871952	-107.80663131
3,096.00	17.92	163.61	2,984.90	-705.61	137.36	1,898,884.42	2,730,975.40	36.21864151	-107.80660597
3,190.00	19.56	165.60	3,073.91	-734.73	145.35	1,898,855.31	2,730,983.40	36.21856152	-107.80657889
3,284.00	18.95	163.76	3,162.65	-764.63	153.54	1,898,825.41	2,730,991.58	36.21847939	-107.80655118
3,379.00	18.11	161.09	3,252.73	-793.41	162.63	1,898,796.63	2,731,000.68	36.21840032	-107.80652036
3,473.00	16.48	175.75	3,342.52	-820.54	168.36	1,898,769.50	2,731,006.40	36.21832578	-107.80650098
3,505.00	16.69	187.49	3,373.20	-829.62	168.10	1,898,760.42	2,731,006.14	36.21830083	-107.80650188
3,537.00	17.25	199.24	3,403.81	-838.66	165.94	1,898,751.38	2,731,003.98	36.21827600	-107.80650922
3,568.00	16.71	207.20	3,433.47	-846.97	162.38	1,898,743.07	2,731,000.43	36.21825319	-107.80652127
3,600.00	12.76	210.14	3,464.41	-854.12	158.50	1,898,735.92	2,730,996.55	36.21823355	-107.80653443
3,631.00	9.94	220.20	3,494.80	-859.12	155.06	1,898,730.92	2,730,993.10	36.21821980	-107.80654612
3,663.00	8.92	240.93	3,526.38	-862.44	151.10	1,898,727.60	2,730,989.15	36.21821069	-107.80655952
3,694.00	9.73	262.69	3,556.98	-863.93	146.40	1,898,726.11	2,730,984.45	36.21820660	-107.80657546
3,726.00	12.07	274.00	3,588.40	-864.03	140.38	1,898,726.01	2,730,978.42	36.21820632	-107.80659588
3,757.00	14.88	278.20	3,618.55	-863.24	133.21	1,898,726.80	2,730,971.25	36.21820851	-107.80662020
3,789.00	17.32	284.70	3,649.29	-861.44	124.53	1,898,728.60	2,730,962.57	36.21821345	-107.80664961
3,820.00	20.09	289.76	3,678.65	-858.47	115.05	1,898,731.57	2,730,953.10	36.21822162	-107.80668173
3,852.00	22.23	294.72	3,708.50	-854.08	104.38	1,898,735.96	2,730,942.42	36.21823369	-107.80671791
3,883.00	24.65	299.11	3,736.94	-848.48	93.40	1,898,741.56	2,730,931.45	36.21824907	-107.80675512
3,915.00	27.34	303.18	3,765.70	-841.21	81.42	1,898,748.83	2,730,919.46	36.21826905	-107.80679574
3,946.00	29.94	307.12	3,792.91	-832.65	69.29	1,898,757.39	2,730,907.33	36.21829260	-107.80683686
3,978.00	32.71	310.88	3,820.24	-822.16	56.38	1,898,767.87	2,730,894.43	36.21832140	-107.80688061
4,009.00	35.57	313.05	3,845.90	-810.53	43.46	1,898,779.51	2,730,881.50	36.21835338	-107.80692441
4,041.00	38.55	314.46	3,871.43	-797.18	29.54	1,898,792.85	2,730,867.58	36.21839004	-107.80697160
4,072.00	41.90	316.42	3,895.10	-782.92	15.50	1,898,807.12	2,730,853.54	36.21842925	-107.80701917
4,104.00	45.43	317.28	3,918.24	-766.80	0.40	1,898,823.24	2,730,838.44	36.21847354	-107.80707035
4,135.00	48.38	318.10	3,939.42	-750.06	-14.84	1,898,839.98	2,730,823.21	36.21851954	-107.80712198
4,167.00	50.46	319.21	3,960.24	-731.81	-30.89	1,898,858.23	2,730,807.16	36.21856968	-107.80717638
4,198.00	52.85	319.82	3,979.47	-713.32	-46.67	1,898,876.72	2,730,791.37	36.21862049	-107.80722987
4,215.82	54.66	319.28	3,990.00	-702.38	-55.99	1,898,887.66	2,730,782.05	36.21865053	-107.80726146
Cms top @ 4216 MD 3990 TVD									
4,229.00	56.00	318.90	3,997.50	-694.19	-63.09	1,898,895.85	2,730,774.95	36.21867305	-107.80728553
4,261.00	59.68	317.76	4,014.53	-673.96	-81.10	1,898,916.08	2,730,756.94	36.21872863	-107.80734657
4,292.00	63.35	316.85	4,029.31	-653.94	-99.58	1,898,936.10	2,730,738.47	36.21878364	-107.80740919



Survey Report - Geographic



Company: Enduring Resources LLC
Project: San Juan County, New Mexico NAD83 NM W
Site: Kimbeto Wash Unit
Well: KWU Well No. 770H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well KWU Well No. 770H
TVD Reference: RKB=6561+25 @ 6586.00ft (Aztec 1000)
MD Reference: RKB=6561+25 @ 6586.00ft (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
4,323.00	67.18	315.84	4,042.28	-633.58	-119.01	1,898,956.46	2,730,719.03	36.21883960	-107.80747506
4,355.00	71.18	315.48	4,053.65	-612.19	-139.92	1,898,977.85	2,730,698.13	36.21889836	-107.80754590
4,386.00	75.19	315.31	4,062.62	-591.07	-160.75	1,898,998.97	2,730,677.30	36.21895840	-107.80761651
4,418.00	78.98	315.66	4,069.77	-568.83	-182.61	1,899,021.21	2,730,655.43	36.21901751	-107.80769061
4,449.00	83.23	316.43	4,074.56	-546.79	-203.86	1,899,043.25	2,730,634.18	36.21907808	-107.80776264
4,481.00	86.47	316.86	4,077.44	-523.62	-225.74	1,899,066.42	2,730,612.30	36.21914175	-107.80783679
4,512.00	87.14	316.81	4,079.16	-501.04	-246.92	1,899,089.00	2,730,591.13	36.21920378	-107.80790855
4,607.00	87.48	315.40	4,083.62	-432.66	-312.71	1,899,157.38	2,730,525.34	36.21939168	-107.80813154
4,701.00	87.75	315.15	4,087.53	-365.93	-378.80	1,899,224.11	2,730,459.25	36.21957503	-107.80835554
4,796.00	88.18	315.07	4,090.91	-298.67	-445.80	1,899,291.37	2,730,392.24	36.21975985	-107.80858264
4,890.00	88.62	314.60	4,093.53	-232.42	-512.44	1,899,357.62	2,730,325.61	36.21994189	-107.80880849
4,985.00	88.42	313.30	4,095.99	-166.51	-580.81	1,899,423.53	2,730,257.24	36.22012300	-107.80904022
5,079.00	88.59	313.08	4,098.11	-102.19	-649.32	1,899,487.85	2,730,188.72	36.22029974	-107.80927246
5,174.00	89.43	312.07	4,099.42	-37.93	-719.27	1,899,552.11	2,730,118.77	36.22047633	-107.80950955
5,269.00	89.70	314.93	4,100.14	27.46	-788.17	1,899,617.50	2,730,049.87	36.22065599	-107.80974309
5,363.00	90.44	316.97	4,100.03	95.02	-853.53	1,899,685.05	2,729,984.52	36.22084162	-107.80996460
5,458.00	90.74	316.01	4,099.05	163.91	-918.93	1,899,753.95	2,729,919.12	36.22103092	-107.81018627
5,552.00	91.21	314.92	4,097.45	230.91	-984.84	1,899,820.94	2,729,853.20	36.22121500	-107.81040969
5,647.00	92.19	314.32	4,094.63	297.60	-1,052.43	1,899,887.64	2,729,785.61	36.22139827	-107.81063878
5,741.00	90.07	315.06	4,092.78	363.69	-1,119.24	1,899,953.73	2,729,718.81	36.22157987	-107.81086523
5,836.00	88.32	317.55	4,094.11	432.37	-1,184.85	1,900,022.40	2,729,653.19	36.22176856	-107.81108763
5,930.00	88.39	316.60	4,096.81	501.17	-1,248.85	1,900,091.20	2,729,589.20	36.22195761	-107.81130453
6,024.00	89.73	316.09	4,098.35	570.29	-1,312.53	1,900,160.32	2,729,525.52	36.22214752	-107.81152037
6,118.00	90.47	317.80	4,098.19	640.08	-1,375.49	1,900,230.12	2,729,462.56	36.22233929	-107.81173379
6,212.00	89.43	314.41	4,098.27	707.81	-1,440.65	1,900,297.84	2,729,397.39	36.22252538	-107.81195467
6,307.00	89.80	314.16	4,098.91	774.14	-1,503.66	1,900,364.17	2,729,329.39	36.22270764	-107.81218519
6,401.00	89.90	313.31	4,099.15	839.12	-1,576.58	1,900,429.16	2,729,261.47	36.22288620	-107.81241541
6,495.00	90.27	313.05	4,099.01	903.45	-1,645.12	1,900,493.48	2,729,192.92	36.22306294	-107.81264775
6,589.00	90.94	313.14	4,098.02	967.66	-1,713.76	1,900,557.70	2,729,124.29	36.22323939	-107.81288041
6,683.00	91.01	312.10	4,096.42	1,031.30	-1,782.92	1,900,621.34	2,729,055.13	36.22341426	-107.81311484
6,778.00	89.97	314.55	4,095.61	1,096.48	-1,852.02	1,900,686.51	2,728,986.03	36.22359334	-107.81334908
6,873.00	90.40	314.83	4,095.30	1,163.29	-1,919.56	1,900,753.32	2,728,918.49	36.22377691	-107.81357801
6,967.00	88.45	315.81	4,096.25	1,230.12	-1,985.65	1,900,820.15	2,728,852.40	36.22396053	-107.81380203
7,061.00	88.96	316.03	4,098.37	1,297.63	-2,051.02	1,900,887.66	2,728,787.03	36.22414602	-107.81402363
7,155.00	91.08	317.35	4,098.34	1,366.02	-2,115.50	1,900,956.06	2,728,722.55	36.22433394	-107.81424218
7,250.00	87.95	315.93	4,099.14	1,435.08	-2,180.71	1,901,025.11	2,728,657.34	36.22452368	-107.81446323
7,344.00	87.98	315.31	4,102.48	1,502.22	-2,246.41	1,901,092.26	2,728,591.64	36.22470816	-107.81468595
7,438.00	87.98	314.44	4,105.79	1,568.50	-2,312.98	1,901,158.54	2,728,525.07	36.22489027	-107.81491162
7,532.00	88.15	314.59	4,108.97	1,634.37	-2,379.97	1,901,224.40	2,728,458.08	36.22507125	-107.81513870
7,627.00	88.18	314.25	4,112.01	1,700.82	-2,447.79	1,901,290.86	2,728,390.26	36.22525385	-107.81536859
7,721.00	88.28	312.61	4,114.91	1,765.53	-2,515.91	1,901,355.57	2,728,322.14	36.22543164	-107.81559950
7,816.00	89.29	315.43	4,116.93	1,831.65	-2,584.08	1,901,421.68	2,728,253.97	36.22561330	-107.81583061
7,910.00	90.00	315.19	4,117.51	1,898.47	-2,650.19	1,901,488.51	2,728,187.86	36.22579690	-107.81605470
8,005.00	90.81	315.19	4,116.84	1,965.87	-2,717.14	1,901,555.90	2,728,120.91	36.22598208	-107.81628165
8,099.00	91.48	314.06	4,114.96	2,031.88	-2,784.03	1,901,621.92	2,728,054.02	36.22616346	-107.81650839
8,193.00	91.28	316.46	4,112.70	2,098.63	-2,850.17	1,901,688.66	2,727,987.88	36.22634685	-107.81673260
8,287.00	89.23	316.59	4,112.28	2,166.84	-2,914.84	1,901,756.87	2,727,923.21	36.22653425	-107.81695184
8,382.00	89.39	314.65	4,113.42	2,234.73	-2,981.28	1,901,824.76	2,727,856.77	36.22672078	-107.81717705
8,476.00	89.90	313.90	4,114.00	2,300.35	-3,048.58	1,901,890.38	2,727,789.47	36.22690108	-107.81740520
8,571.00	90.64	313.98	4,113.39	2,366.27	-3,116.98	1,901,956.30	2,727,721.07	36.22708219	-107.81763709
8,665.00	91.48	312.73	4,111.49	2,430.78	-3,185.31	1,902,020.82	2,727,652.74	36.22725946	-107.81786874
8,759.00	89.66	316.02	4,110.55	2,496.51	-3,252.49	1,902,086.54	2,727,585.56	36.22744004	-107.81809647
8,853.00	89.56	315.40	4,111.19	2,563.79	-3,318.13	1,902,153.83	2,727,519.93	36.22762490	-107.81831898
8,948.00	90.54	314.49	4,111.11	2,630.90	-3,385.36	1,902,220.94	2,727,452.69	36.22780929	-107.81854692
9,043.00	89.39	316.09	4,112.00	2,698.41	-3,452.19	1,902,288.44	2,727,385.86	36.22799476	-107.81877346



Survey Report - Geographic



Company: Enduring Resources LLC
Project: San Juan County, New Mexico NAD83 NM W
Site: Kimbeto Wash Unit
Well: KWU Well No. 770H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well KWU Well No. 770H
TVD Reference: RKB=6561+25 @ 6586.00ft (Aztec 1000)
MD Reference: RKB=6561+25 @ 6586.00ft (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
9,137.00	88.86	315.86	4,114.25	2,765.98	-3,517.50	1,902,356.01	2,727,320.55	36.22818040	-107.81899486
9,232.00	90.00	315.74	4,115.20	2,834.08	-3,583.72	1,902,424.11	2,727,254.33	36.22836751	-107.81921937
9,326.00	88.12	316.46	4,116.74	2,901.80	-3,648.89	1,902,491.83	2,727,189.16	36.22855357	-107.81944030
9,420.00	88.45	316.52	4,119.55	2,969.94	-3,713.58	1,902,559.97	2,727,124.47	36.22874079	-107.81965960
9,515.00	88.96	315.58	4,121.70	3,038.32	-3,779.49	1,902,628.35	2,727,058.56	36.22892865	-107.81988306
9,610.00	90.17	316.12	4,122.42	3,106.48	-3,845.66	1,902,696.51	2,726,992.39	36.22911592	-107.82010738
9,704.00	87.11	315.18	4,124.65	3,173.67	-3,911.34	1,902,763.70	2,726,926.71	36.22930052	-107.82033005
9,798.00	86.64	314.70	4,129.78	3,239.97	-3,977.78	1,902,830.00	2,726,860.27	36.22948267	-107.82055529
9,893.00	86.82	314.57	4,133.54	3,306.66	-4,045.33	1,902,896.69	2,726,792.72	36.22966590	-107.82078428
9,987.00	90.10	315.06	4,134.42	3,371.73	-4,113.15	1,902,961.76	2,726,724.90	36.22984468	-107.82101422
10,082.00	90.57	314.01	4,133.87	3,437.16	-4,182.02	1,903,027.20	2,726,656.03	36.23002446	-107.82124770
10,176.00	91.48	313.14	4,132.19	3,501.95	-4,250.11	1,903,091.98	2,726,587.95	36.23020245	-107.82147854
10,271.00	90.03	314.89	4,130.94	3,567.95	-4,318.42	1,903,157.98	2,726,519.64	36.23038378	-107.82171012
10,365.00	88.06	316.51	4,132.50	3,634.64	-4,384.64	1,903,224.67	2,726,453.41	36.23056699	-107.82193464
10,459.00	88.59	316.60	4,135.25	3,701.71	-4,450.43	1,903,291.75	2,726,387.62	36.23075129	-107.82215770
10,554.00	88.36	316.60	4,136.95	3,769.69	-4,516.77	1,903,359.72	2,726,321.28	36.23093805	-107.82238260
10,648.00	90.17	314.60	4,137.33	3,836.39	-4,583.00	1,903,426.42	2,726,255.05	36.23112130	-107.82260716
10,743.00	91.41	315.24	4,136.03	3,903.46	-4,650.26	1,903,493.49	2,726,187.79	36.23130557	-107.82283519
10,837.00	90.03	316.42	4,134.84	3,970.31	-4,718.34	1,903,560.34	2,726,121.71	36.23148922	-107.82305922
10,932.00	88.49	316.20	4,136.07	4,038.42	-4,782.55	1,903,628.45	2,726,055.50	36.23167634	-107.82328370
11,026.00	90.87	317.69	4,136.76	4,107.10	-4,846.72	1,903,697.12	2,725,991.34	36.23186502	-107.82350125
11,120.00	88.16	317.61	4,136.90	4,176.56	-4,910.04	1,903,766.59	2,725,928.01	36.23205587	-107.82371593
11,215.00	88.89	316.70	4,138.52	4,246.21	-4,974.63	1,903,836.24	2,725,863.42	36.23224720	-107.82393493
11,309.00	90.71	316.27	4,138.84	4,314.37	-5,039.35	1,903,904.40	2,725,798.70	36.23243447	-107.82415435
11,404.00	91.68	316.64	4,136.70	4,382.64	-5,105.38	1,903,972.67	2,725,732.68	36.23262203	-107.82437822
11,498.00	90.51	316.67	4,134.41	4,449.95	-5,170.95	1,904,039.98	2,725,667.11	36.23280697	-107.82460052
11,593.00	91.24	314.26	4,132.63	4,517.19	-5,238.03	1,904,107.22	2,725,600.02	36.23299169	-107.82482797
11,686.00	92.58	313.63	4,129.53	4,581.69	-5,304.95	1,904,171.72	2,725,533.10	36.23316889	-107.82505487
Frac Sleeve @ 11686 MD 4130 TVD									
11,687.00	92.59	313.62	4,129.49	4,582.38	-5,305.68	1,904,172.41	2,725,532.38	36.23317079	-107.82505733
11,735.00	93.52	313.39	4,126.93	4,615.38	-5,340.44	1,904,205.41	2,725,497.61	36.23326144	-107.82517520
330 FNL @ 11735 md 4127 TVD									
11,755.00	93.91	313.29	4,125.63	4,629.07	-5,354.96	1,904,219.10	2,725,483.10	36.23329907	-107.82522442
Survey @ 11755.00 MD 4125.63 TVD									
11,820.00	93.91	313.29	4,121.20	4,673.54	-5,402.16	1,904,263.57	2,725,435.89	36.23342123	-107.82538446
Survey projected to 11820.00 MD 4121.20 TVD									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
324.00	323.98	-2.12	-2.16	MWD surveys
4,215.82	3,990.00	-702.38	-55.99	Cms top @ 4216 MD 3990 TVD
11,686.00	4,129.53	4,581.69	-5,304.95	Frac Sleeve @ 11686 MD 4130 TVD
11,735.00	4,126.93	4,615.38	-5,340.44	330 FNL @ 11735 md 4127 TVD
11,755.00	4,125.63	4,629.07	-5,354.96	Survey @ 11755.00 MD 4125.63 TVD
11,820.00	4,121.20	4,673.54	-5,402.16	Survey projected to 11820.00 MD 4121.20 TVD