

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-104
Revised August 1, 2011

Submit one copy to appropriate District Office

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address Enduring Resources IV LLC. 200 Energy Court Farmington NM 87401		² OGRID Number 372286	
		³ Reason for Filing Code/ Effective Date RT	
⁴ API Number 30-045-35874	⁵ Pool Name BASIN MANCOS		⁶ Pool Code 97232
⁷ Property Code 321253	⁸ Property Name RODEO UNIT		⁹ Well Number #512H

II. ¹⁰ Surface Location

UL or lot no. N	Section 25	Township 23N	Range 9W	Lot Idn	Feet from the 191'	North/South Line SOUTH	Feet from the 1345'	East/West line WEST	County SAN JUAN
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¹¹ Bottom Hole Location

UL or lot no. C	Section 6	Township 22N	Range 8W	Lot Idn 3	Feet from the 1263'	North/South line NORTH	Feet from the 2477'	East/West line WEST	County SAN JUAN
¹² Lse Code F	¹³ Producing Method Code		¹⁴ Gas Connection Date 1/25/2023		¹⁵ C-129 Permit Number		¹⁶ C-129 Effective Date		¹⁷ C-129 Expiration Date

III. Oil and Gas Transporters

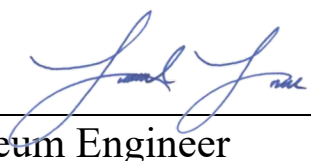
¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address		²⁰ O/G/W
248440	WESTERN REFINING COMPANY, LLC		O
373888	HARVEST FOUR CORNERS. LLC		G

IV. Well Completion Data

²¹ Spud Date 8/11/2022	²² Ready Date 1/25/2023	²³ TD 13793' MD 4625' TVD	²⁴ PBDT 13704' MD 4627' TVD	²⁵ Perforations ~ 4969' - 13704' MD ~ 4637'-4626' TVD	²⁶ DHC, MC R-14051	
²⁷ Hole Size		²⁸ Casing & Tubing Size		²⁹ Depth Set		³⁰ Sacks Cement
17-1/2"		13-3/8",54.5#, J-55		360' MD		350 sx - surface
12-1/4"		9-5/8",36#, J-55		2693' MD		639 sx- surface
8-1/2"		5-1/2",20#, P-110		13793' MD		2047 sx- surface

V. Well Test Data

³¹ Date New Oil	³² Gas Delivery Date	³³ Test Date	³⁴ Test Length	³⁵ Tbg. Pressure	³⁶ Csg. Pressure
³⁷ Choke Size	³⁸ Oil	³⁹ Water	⁴⁰ Gas		⁴¹ Test Method

⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature: 		OIL CONSERVATION DIVISION Approved by: 	
Printed name: Kayla White		Title: Petroleum Engineer	
Title: Environmental Engineer		Approval Date: 01/27/23	
E-mail Address: kwhite@cdhconsult.com		COA: RT expires on 04/25/23	
Date: 1/6/2023	Phone: 720-768-3575		



ENDURING RESOURCES IV LLC

January 6, 2023

Re: *RODEO UNIT 512H-30-045-35874*

Pursuant to NMOCD rule 19.15.7.16(C) request is herein made to keep all data and accompanying attachments contained in form C-105 confidential.

Sincerely,

A handwritten signature in blue ink, appearing to read "Heather Huntington", on a light blue background.

Heather Huntington
Permitting Technician
Enduring Resources, LLC.
hhuntington@enduringresources.com

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

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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 30-045-35874		*Pool Code 97232		*Pool Name BASIN MANCOS	
*Property Code 321253		*Property Name RODEO UNIT			*Well Number 512H
*GRID No. 372286		*Operator Name ENDURING RESOURCES, LLC			*Elevation 6798'

10 Surface Location

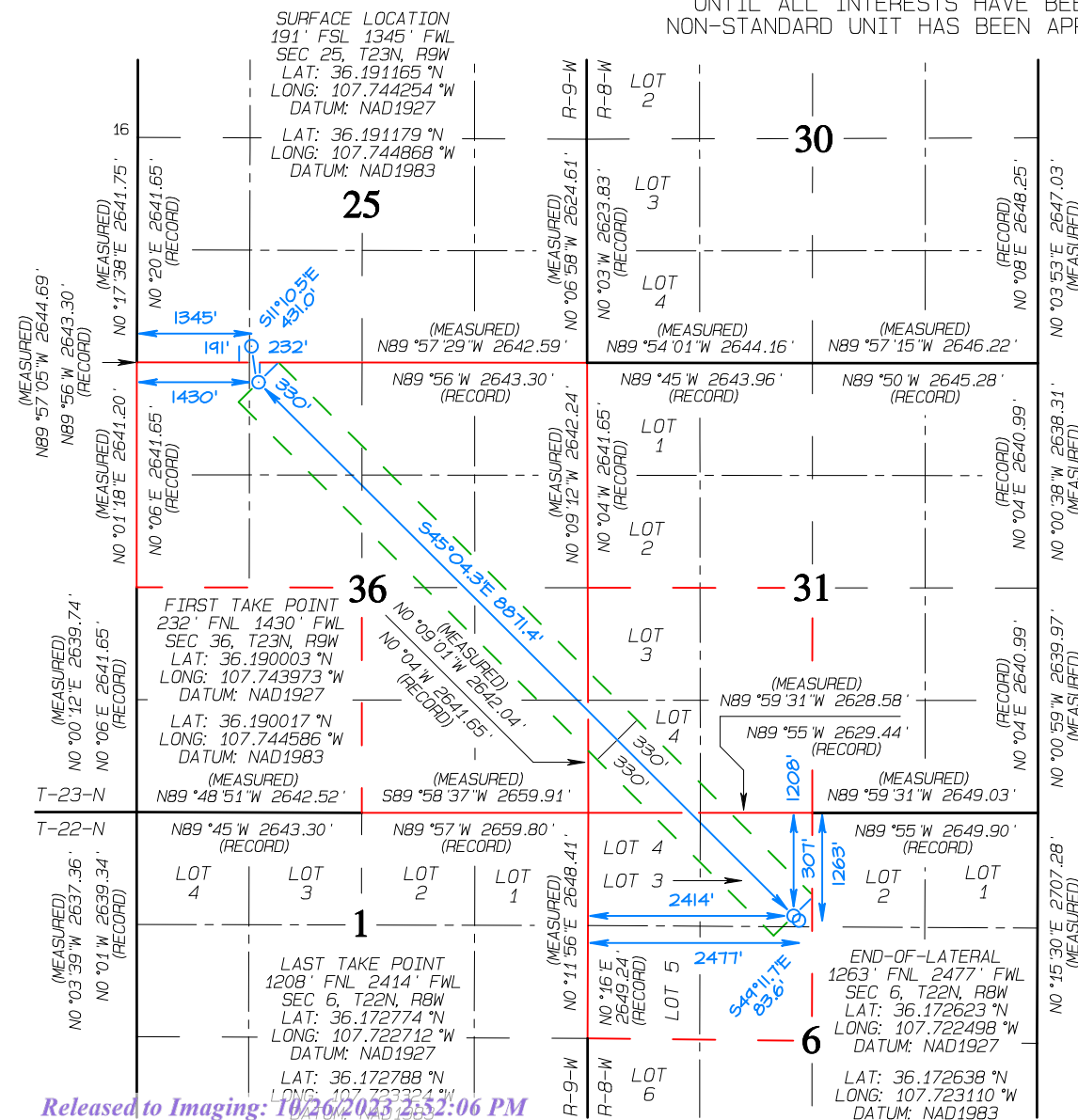
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	25	23N	9W		191	SOUTH	1345	WEST	SAN JUAN

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
C	6	22N	8W	3	1263	NORTH	2477	WEST	SAN JUAN

12 Dedicated Acres 799.96		13 Joint or Infill		14 Consolidation Code		15 Order No. R-14313	
NW/4 - Sec 6, T22NR8W							
SW/4 - Sec 31, T23NR8W							
NW/4, E/2 - Sec 36, T23NR9W							

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



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.

Khem Suthiwan 1/26/2023

Signature Date

Khem Suthiwan

Printed Name
ksuthiwan@enduringresources.com

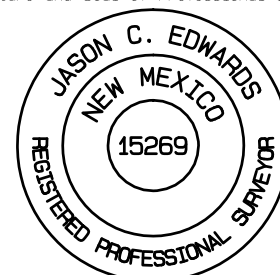
E-mail Address

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: JANUARY 26, 2023
Survey Date: JANUARY 24, 2017

Signature and Seal of Professional Surveyor



JASON C. EDWARDS

Certificate Number 15269

District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

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1000 Rio Brazos Road, Aztec, NM 87410
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Phone: (505) 476-3460 Fax: (505) 476-3462

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OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, NM 87505

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AS-DRILLED WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35874	² Pool Code 97232	³ Pool Name BASIN MANCOS
⁴ Property Code 321253	⁵ Property Name RODEO UNIT	⁶ Well Number 512H
⁷ GRID No. 372286	⁸ Operator Name ENDURING RESOURCES, LLC	⁹ Elevation 6798'

¹⁰ Surface Location

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¹¹ Bottom Hole Location If Different From Surface

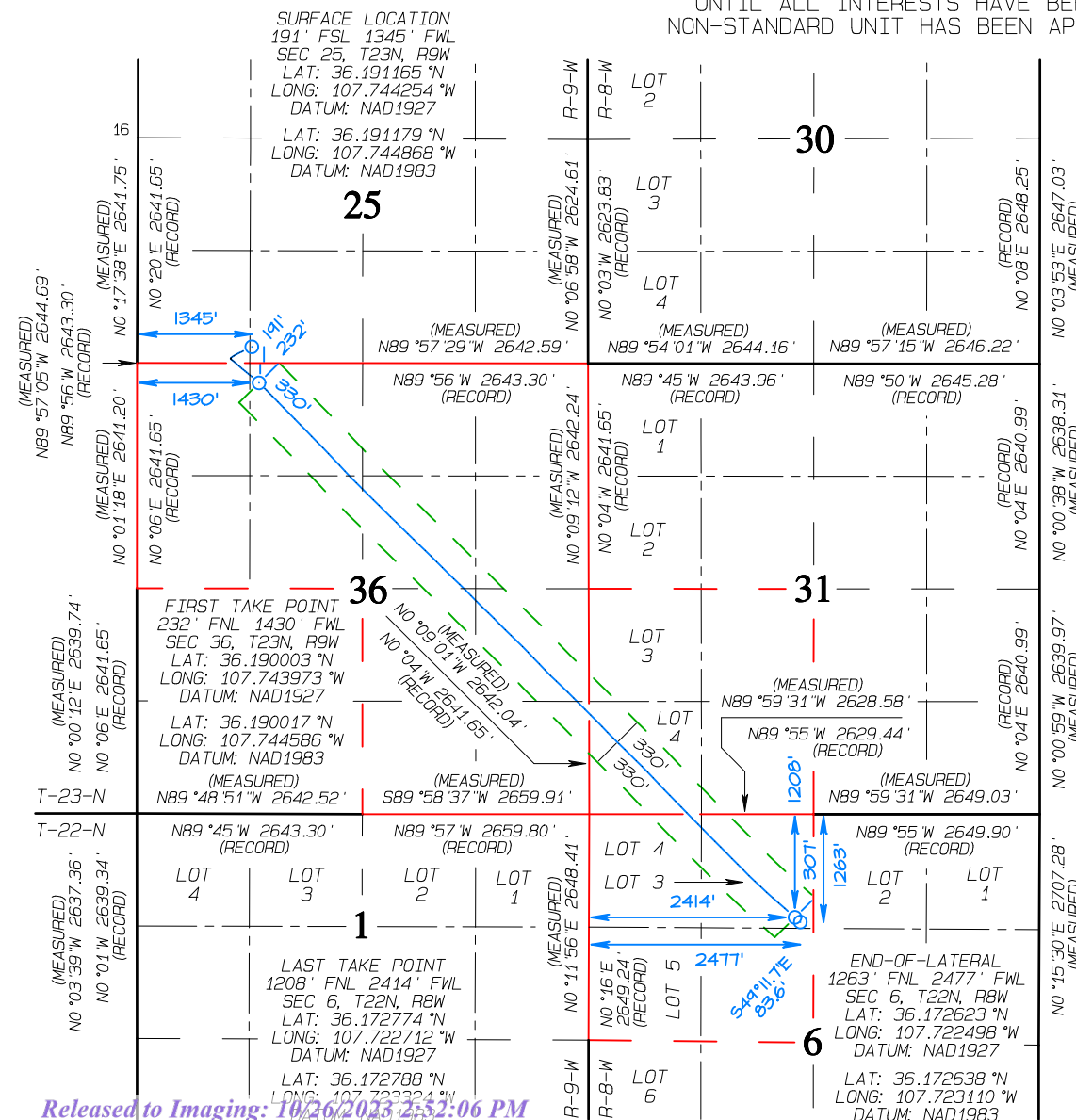
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C	6	22N	8W	3	1263	NORTH	2477	WEST	SAN JUAN

¹² Dedicated Acres
799.96

NW/4 - Sec 6, T22NR8W
SW/4 - Sec 31, T23NR8W
NW/4, E/2 - Sec 36, T23NR9W

¹³ Joint or Infill
¹⁴ Consolidation Code
¹⁵ Order No.
R-14313

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Khem Suthiwan 1/26/2023

Signature Date

Khem Suthiwan

Printed Name
ksuthiwan@enduringresources.com

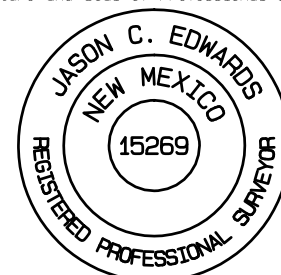
E-mail Address

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Date Revised: JANUARY 26, 2023
Survey Date: JANUARY 24, 2017

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⁷ GRID No. 372286	⁸ Operator Name ENDURING RESOURCES, LLC	⁹ Elevation 6798'

¹⁰ Surface Location

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¹¹ Bottom Hole Location If Different From Surface

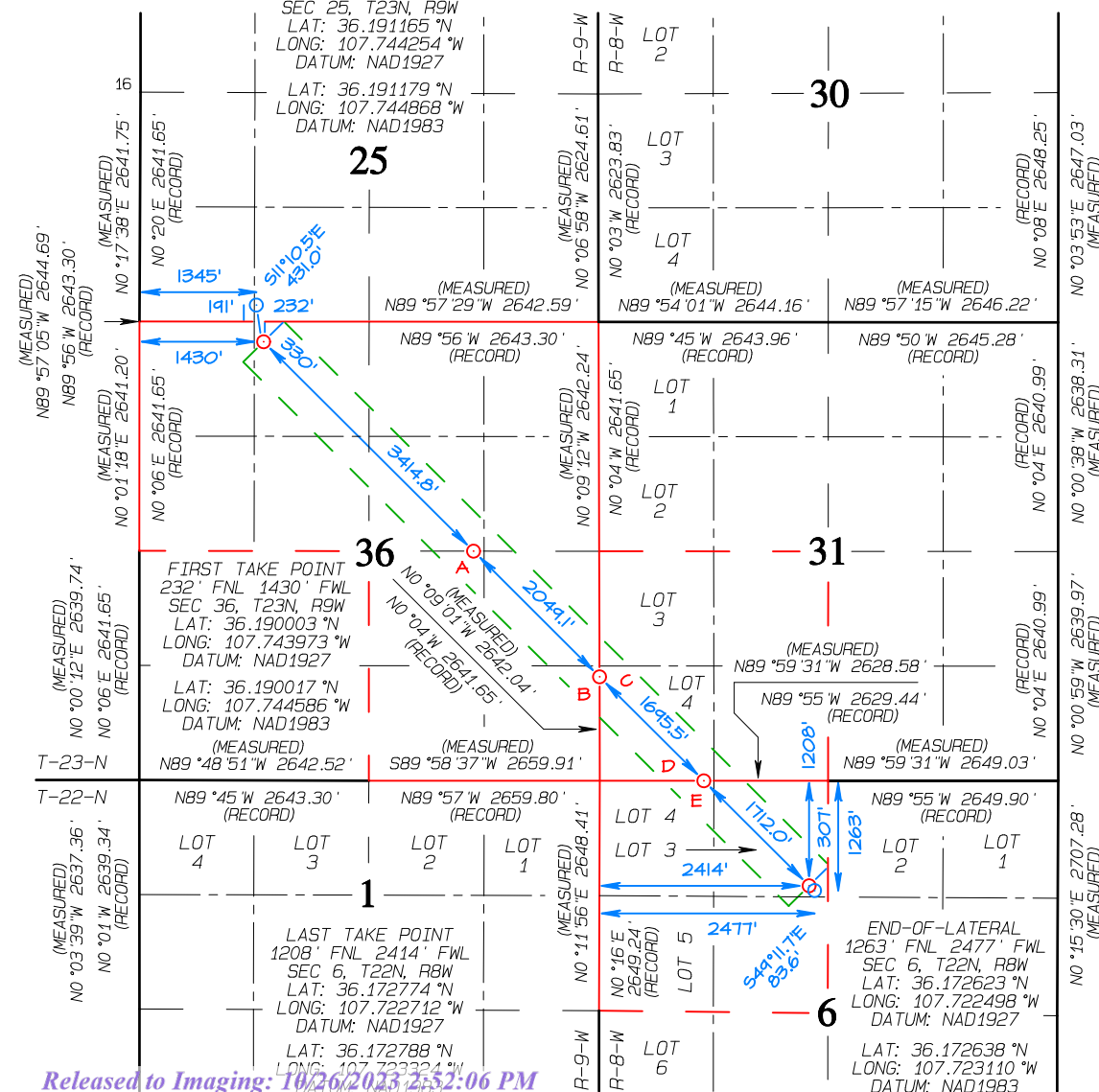
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	6	22N	8W	3	1263	NORTH	2477	WEST	SAN JUAN

¹² Dedicated Acres 799.96	NW/4 - Sec 6, T22NR8W SW/4 - Sec 31, T23NR8W NW/4, E/2 - Sec 36, T23NR9W	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-14313
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SURFACE LOCATION
191' FSL 1345' FWL
SEC 25, T23N, R9W
LAT: 36.191165°N
LONG: 107.744254°W
DATUM: NAD1927

LAT: 36.191179°N
LONG: 107.744868°W
DATUM: NAD1983



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Khem Suthiwan 1/26/2023

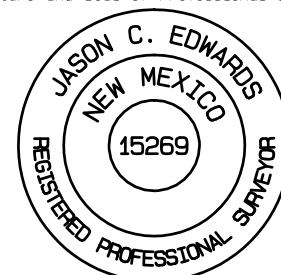
Signature _____ Date _____
Khem Suthiwan
Printed Name
ksuthiwan@enduringresources.com
E-mail Address

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: JANUARY 26, 2023
Survey Date: JANUARY 24, 2017

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

(A) 2642' FNL 1447' FEL
SEC 36, T23N, R9W
LAT: 36.183372 °N
LONG: 107.735788 °W
DATUM: NAD1927

LAT: 36.183385 °N
LONG: 107.736401 °W
DATUM: NAD1983

(B) 1196' FSL 0' FEL
SEC 36, T23N, R9W
LAT: 36.179392 °N
LONG: 107.730877 °W
DATUM: NAD1927

LAT: 36.179406 °N
LONG: 107.731490 °W
DATUM: NAD1983

(C) 1196' FSL 0' FWL
SEC 31, T23N, R8W
LAT: 36.179392 °N
LONG: 107.730877 °W
DATUM: NAD1927

LAT: 36.179406 °N
LONG: 107.731490 °W
DATUM: NAD1983

(D) 0' FSL 1197' FWL
SEC 31, T23N, R8W
LAT: 36.176099 °N
LONG: 107.726814 °W
DATUM: NAD1927

LAT: 36.176113 °N
LONG: 107.727427 °W
DATUM: NAD1983

(E) 0' FNL 1197' FWL
SEC 6, T22N, R8W
LAT: 36.176099 °N
LONG: 107.726814 °W
DATUM: NAD1927

LAT: 36.176113 °N
LONG: 107.727427 °W
DATUM: NAD1983



Well: Rodeo Unit #512H
Site: Rodeo Unit 511 pad (511, 512 & 513)
Project: San Juan County, New Mexico NAD83 NM W
Design: Surveys Original Hole
Rig: Ensign 145

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

System Datum: Mean Sea Level
 Depth Reference: RKB=6798+13 @ 6811.00ft (Ensign 145)

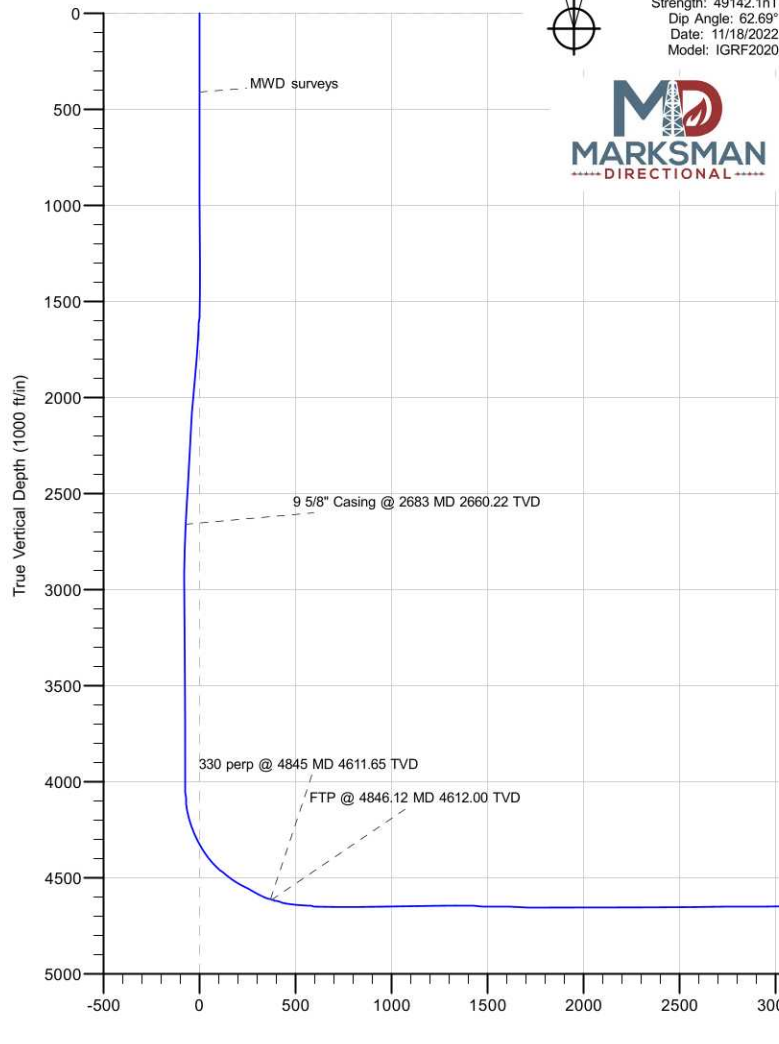
Surface location:
 Northing: 1888898.328 Easting: 2749195.296 Latitude: 36.191179000 Longitude: -107.744868000

Total Corr (M=>G): To convert a Magnetic Direction to a Grid Direction, Add 8.59°



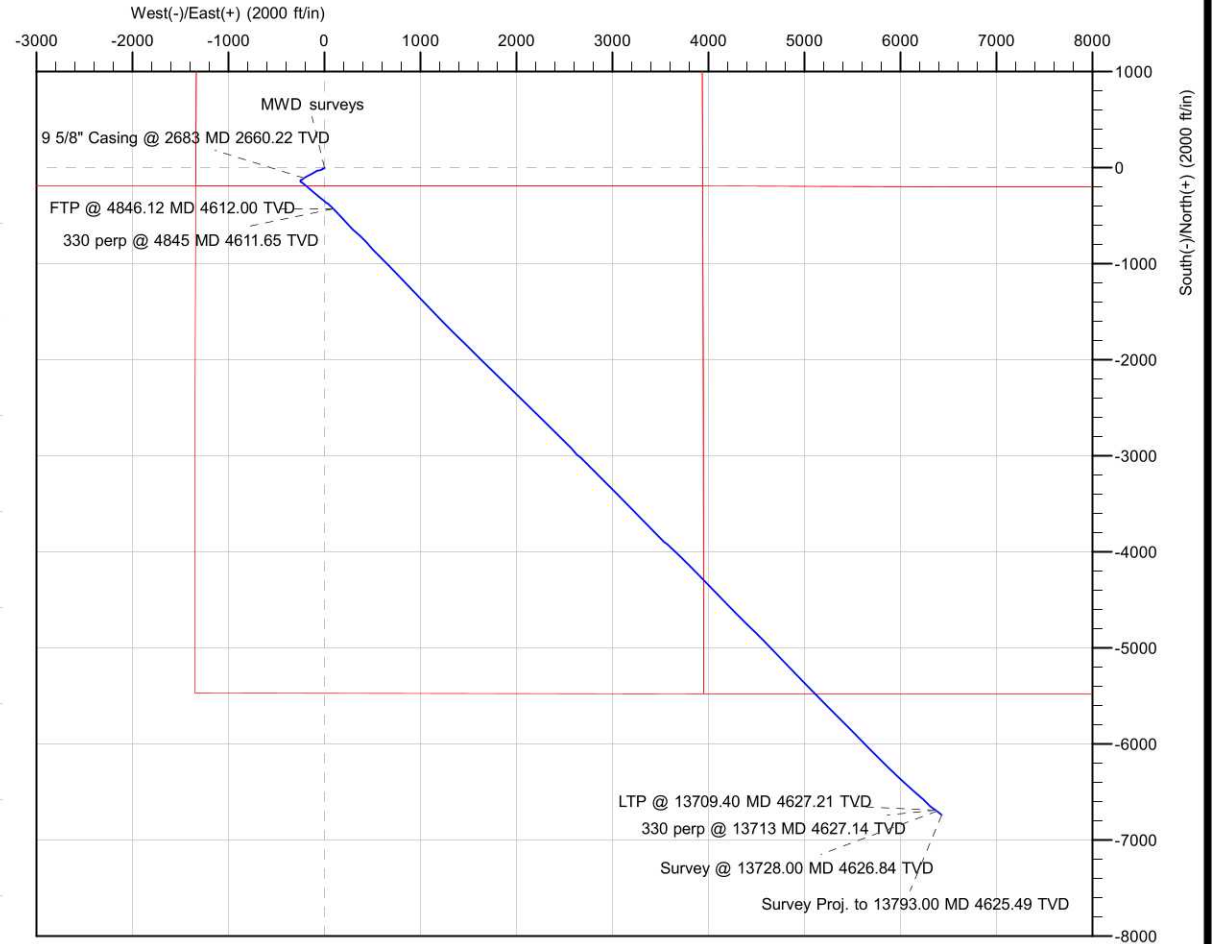
Azimuths to Grid North
 True North: -0.05°
 Magnetic North: 8.59°

Magnetic Field
 Strength: 49142.1nT
 Dip Angle: 62.69°
 Date: 11/18/2022
 Model: IGRF2020



ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
412.00	0.42	208.180	412.00	-1.33	-0.71	0.44	1.51	MWD surveys
2683.00	11.21	239.588	2660.22	-106.46	-211.85	-74.53	238.18	9 5/8" Casing @ 2683 MD 2660.22 TVD
4845.00	71.90	133.221	4611.65	-432.33	93.64	371.92	744.53	330 perp @ 4845 MD 4611.65 TVD
4846.12	72.01	133.240	4612.00	-433.06	94.42	372.99	745.60	FTP @ 4846.12 MD 4612.00 TVD
13709.40	91.07	131.012	4627.21	-6688.28	6364.51	9229.72	9604.05	LTP @ 13709.40 MD 4627.21 TVD
13713.00	91.09	130.967	4627.14	-6690.64	6367.23	9233.31	9607.65	330 perp @ 13713 MD 4627.14 TVD
13728.00	91.19	130.780	4626.84	-6700.45	6378.57	9248.27	9622.65	Survey @ 13728.00 MD 4626.84 TVD
13793.00	91.19	130.780	4625.49	-6742.90	6427.78	9313.08	9687.63	Survey Proj. to 13793.00 MD 4625.49 TVD



330 perp @ 13713 MD 4627.14 TVD
 LTP @ 13709.40 MD 4627.21 TVD
 Survey @ 13728.00 MD 4626.84 TVD
 Survey Proj. to 13793.00 MD 4625.49 TVD



Survey Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Rodeo Unit #512H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6798+13 @ 6811.00ft (Ensign 145)
Site:	Rodeo Unit 511 pad (511, 512 & 513)	MD Reference:	RKB=6798+13 @ 6811.00ft (Ensign 145)
Well:	Rodeo Unit #512H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Decv0422v16

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

Site	Rodeo Unit 511 pad (511, 512 & 513)				
Site Position:		Northing:	1,888,898.347 usft	Latitude:	36.191179000
From:	Lat/Long	Easting:	2,749,215.362 usft	Longitude:	-107.744800000
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "		

Well	Rodeo Unit #512H, Surf loc: 191 FSL 1345 FWL Section 25-T23N-R09W					
Well Position	+N-S	0.00 ft	Northing:	1,888,898.328 usft	Latitude:	36.191179000
	+E-W	0.00 ft	Easting:	2,749,195.297 usft	Longitude:	-107.744868000
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,798.00 ft
Grid Convergence:		0.05 °				

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	11/18/2022	8.65	62.69	49,142.14064790

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	135.000	

Survey Program	Date	12/20/2022			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
412.00	2,632.00	MWD surf (Original Hole)	MWD	OWSG MWD - Standard	
2,697.00	13,728.00	MWD (Original Hole)	MWD	OWSG MWD - Standard	
13,793.00	13,793.00	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	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
412.00	0.42	208.180	412.00	-1.33	-0.71	0.44	0.10	0.10	0.00
MWD surveys									
503.00	0.46	209.440	502.99	-1.94	-1.05	0.63	0.05	0.04	1.38
594.00	0.56	209.460	593.99	-2.65	-1.45	0.85	0.11	0.11	0.02
685.00	0.55	223.010	684.99	-3.36	-1.97	0.98	0.14	-0.01	14.89
776.00	0.52	221.260	775.98	-3.98	-2.54	1.02	0.04	-0.03	-1.92
866.00	0.58	229.750	865.98	-4.59	-3.15	1.01	0.11	0.07	9.43



Survey Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Rodeo Unit #512H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6798+13 @ 6811.00ft (Ensign 145)
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Well:	Rodeo Unit #512H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Decv0422v16

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)	
957.00	0.61	226.260	956.97	-5.22	-3.85	0.97	0.05	0.03	-3.84	
1,051.00	0.64	231.020	1,050.97	-5.89	-4.62	0.90	0.06	0.03	5.06	
1,146.00	0.77	239.210	1,145.96	-6.56	-5.58	0.69	0.17	0.14	8.62	
1,240.00	0.82	240.770	1,239.95	-7.21	-6.71	0.35	0.06	0.05	1.66	
1,334.00	0.89	235.980	1,333.94	-7.94	-7.91	0.03	0.11	0.07	-5.10	
1,429.00	0.87	232.420	1,428.93	-8.80	-9.09	-0.21	0.06	-0.02	-3.75	
1,523.00	2.77	245.820	1,522.88	-10.16	-11.73	-1.11	2.06	2.02	14.26	
1,617.00	5.73	247.590	1,616.61	-12.88	-18.14	-3.72	3.15	3.15	1.88	
1,712.00	9.24	245.520	1,710.78	-17.85	-29.47	-8.21	3.71	3.69	-2.18	
1,806.00	12.68	246.380	1,803.06	-25.12	-45.79	-14.62	3.66	3.66	0.91	
1,900.00	13.66	246.830	1,894.58	-33.62	-65.45	-22.51	1.05	1.04	0.48	
1,994.00	13.46	246.130	1,985.96	-42.41	-85.66	-30.58	0.28	-0.21	-0.74	
2,089.00	12.36	245.000	2,078.56	-51.18	-104.99	-38.04	1.19	-1.16	-1.19	
2,183.00	12.35	245.500	2,170.38	-59.60	-123.25	-45.01	0.11	-0.01	0.53	
2,277.00	11.72	242.890	2,262.32	-68.12	-140.90	-51.46	0.89	-0.67	-2.78	
2,371.00	11.72	242.220	2,354.36	-76.92	-157.84	-57.22	0.14	0.00	-0.71	
2,466.00	11.46	242.490	2,447.42	-85.78	-174.75	-62.91	0.28	-0.27	0.28	
2,560.00	11.32	240.630	2,539.57	-94.62	-191.07	-68.20	0.42	-0.15	-1.98	
2,632.00	11.15	240.460	2,610.19	-101.51	-203.29	-71.96	0.24	-0.24	-0.24	
2,683.00	11.21	239.588	2,660.22	-106.46	-211.85	-74.53	0.35	0.12	-1.71	
9 5/8" Casing @ 2683 MD 2660.22 TVD										
2,697.00	11.23	239.350	2,673.95	-107.84	-214.20	-75.21	0.35	0.13	-1.70	
2,791.00	10.02	234.740	2,766.34	-117.23	-228.75	-78.86	1.57	-1.29	-4.90	
2,886.00	6.61	232.470	2,860.33	-125.33	-239.84	-80.97	3.61	-3.59	-2.39	
2,981.00	3.43	234.620	2,954.95	-130.31	-246.49	-82.16	3.35	-3.35	2.26	
3,075.00	0.46	154.720	3,048.90	-132.28	-248.63	-82.27	3.60	-3.16	-85.00	
3,169.00	0.90	121.140	3,142.89	-133.00	-247.83	-81.20	0.61	0.47	-35.72	
3,263.00	0.57	111.650	3,236.88	-133.56	-246.77	-80.05	0.37	-0.35	-10.10	
3,357.00	0.65	160.050	3,330.88	-134.23	-246.15	-79.14	0.54	0.09	51.49	
3,451.00	0.58	169.810	3,424.87	-135.20	-245.88	-78.27	0.13	-0.07	10.38	
3,546.00	0.57	201.200	3,519.87	-136.11	-245.97	-77.68	0.33	-0.01	33.04	
3,640.00	0.56	214.990	3,613.86	-136.93	-246.40	-77.41	0.14	-0.01	14.67	
3,735.00	0.64	198.530	3,708.86	-137.81	-246.84	-77.09	0.20	0.08	-17.33	
3,829.00	0.68	210.290	3,802.85	-138.79	-247.29	-76.72	0.15	0.04	12.51	
3,924.00	0.58	222.580	3,897.84	-139.63	-247.89	-76.56	0.18	-0.11	12.94	
4,018.00	0.85	210.320	3,991.84	-140.58	-248.57	-76.36	0.33	0.29	-13.04	
4,049.00	0.74	210.820	4,022.83	-140.95	-248.79	-76.25	0.36	-0.35	1.61	
4,080.00	1.79	152.490	4,053.83	-141.55	-248.67	-75.74	4.96	3.39	-188.16	
4,111.00	4.81	139.150	4,084.77	-142.97	-247.59	-73.98	9.99	9.74	-43.03	
4,143.00	8.25	134.470	4,116.56	-145.59	-245.08	-70.35	10.87	10.75	-14.63	
4,174.00	11.19	129.470	4,147.11	-149.06	-241.17	-65.13	9.86	9.48	-16.13	
4,205.00	14.05	126.790	4,177.36	-153.23	-235.83	-58.41	9.41	9.23	-8.65	
4,236.00	17.38	126.780	4,207.20	-158.25	-229.11	-50.10	10.74	10.74	-0.03	
4,268.00	20.24	127.610	4,237.49	-164.50	-220.89	-39.88	8.98	8.94	2.59	



Survey Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Rodeo Unit #512H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6798+13 @ 6811.00ft (Ensign 145)
Site:	Rodeo Unit 511 pad (511, 512 & 513)	MD Reference:	RKB=6798+13 @ 6811.00ft (Ensign 145)
Well:	Rodeo Unit #512H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Decv0422v16

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)
4,299.00	22.96	128.460	4,266.31	-171.53	-211.91	-28.55	8.83	8.77	2.74
4,331.00	26.15	129.760	4,295.41	-179.92	-201.60	-15.32	10.11	9.97	4.06
4,362.00	29.23	130.840	4,322.86	-189.25	-190.62	-0.97	10.07	9.94	3.48
4,393.00	32.13	131.960	4,349.51	-199.71	-178.76	14.82	9.53	9.35	3.61
4,425.00	35.69	132.300	4,376.07	-211.68	-165.52	32.64	11.14	11.13	1.06
4,456.00	39.10	131.630	4,400.69	-224.27	-151.52	51.44	11.08	11.00	-2.16
4,488.00	42.34	130.870	4,424.94	-238.03	-135.83	72.27	10.24	10.13	-2.38
4,519.00	46.19	130.220	4,447.14	-252.09	-119.38	93.83	12.51	12.42	-2.10
4,551.00	49.80	129.610	4,468.55	-267.34	-101.15	117.52	11.37	11.28	-1.91
4,582.00	53.49	129.370	4,487.78	-282.79	-82.39	141.71	11.92	11.90	-0.77
4,614.00	56.45	129.200	4,506.15	-299.38	-62.11	167.78	9.26	9.25	-0.53
4,645.00	59.21	129.200	4,522.65	-315.97	-41.78	193.88	8.90	8.90	0.00
4,677.00	60.19	129.230	4,538.80	-333.43	-20.37	221.37	3.06	3.06	0.09
4,708.00	60.20	129.030	4,554.20	-350.41	0.50	248.13	0.56	0.03	-0.65
4,739.00	61.70	129.600	4,569.26	-367.58	21.46	275.09	5.10	4.84	1.84
4,771.00	64.07	131.130	4,583.84	-386.03	43.16	303.48	8.54	7.41	4.78
4,802.00	67.10	132.720	4,596.65	-404.89	64.15	331.66	10.83	9.77	5.13
4,833.00	70.72	133.020	4,607.81	-424.56	85.35	360.56	11.71	11.68	0.97
4,845.00	71.90	133.221	4,611.65	-432.33	93.64	371.92	9.94	9.81	1.67
330 perp @ 4845 MD 4611.65 TVD									
4,846.12	72.01	133.240	4,612.00	-433.06	94.42	372.99	9.94	9.81	1.66
FTP @ 4846.12 MD 4612.00 TVD									
4,865.00	73.86	133.550	4,617.54	-445.46	107.53	391.03	9.94	9.81	1.64
4,897.00	76.62	134.100	4,625.69	-466.89	129.86	421.96	8.78	8.63	1.72
4,928.00	79.62	134.710	4,632.07	-488.11	151.53	452.29	9.87	9.68	1.97
4,959.00	81.55	135.570	4,637.14	-509.79	173.10	482.87	6.80	6.23	2.77
4,991.00	83.36	135.960	4,641.35	-532.52	195.23	514.59	5.78	5.66	1.22
5,022.00	85.21	135.880	4,644.43	-554.68	216.68	545.43	5.97	5.97	-0.26
5,054.00	86.78	135.590	4,646.67	-577.54	238.96	577.35	4.99	4.91	-0.91
5,085.00	87.87	135.400	4,648.11	-599.62	260.67	608.32	3.57	3.52	-0.61
5,148.00	88.96	135.530	4,649.86	-644.51	304.84	671.29	1.74	1.73	0.21
5,243.00	91.08	136.280	4,649.82	-712.73	370.94	766.27	2.37	2.23	0.79
5,337.00	89.67	135.410	4,649.21	-780.17	436.41	860.26	1.76	-1.50	-0.93
5,431.00	90.92	135.390	4,648.72	-847.10	502.41	954.25	1.33	1.33	-0.02
5,525.00	89.75	135.610	4,648.18	-914.14	568.30	1,048.24	1.27	-1.24	0.23
5,619.00	90.99	135.300	4,647.57	-981.13	634.23	1,142.24	1.36	1.32	-0.33
5,714.00	89.34	135.780	4,647.29	-1,048.94	700.77	1,237.23	1.81	-1.74	0.51
5,808.00	91.03	135.660	4,646.99	-1,116.23	766.39	1,331.22	1.80	1.80	-0.13
5,903.00	89.42	135.890	4,646.62	-1,184.31	832.65	1,426.20	1.71	-1.69	0.24
5,997.00	88.08	136.440	4,648.67	-1,252.09	897.74	1,520.16	1.54	-1.43	0.59
6,091.00	88.88	136.500	4,651.16	-1,320.22	962.46	1,614.10	0.85	0.85	0.06
6,186.00	89.81	136.880	4,652.25	-1,389.34	1,027.62	1,709.05	1.06	0.98	0.40
6,280.00	90.58	137.230	4,651.93	-1,458.15	1,091.66	1,802.98	0.90	0.82	0.37



Survey Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Rodeo Unit #512H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6798+13 @ 6811.00ft (Ensign 145)
Site:	Rodeo Unit 511 pad (511, 512 & 513)	MD Reference:	RKB=6798+13 @ 6811.00ft (Ensign 145)
Well:	Rodeo Unit #512H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Decv0422v16

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)	
6,374.00	89.38	135.160	4,651.96	-1,525.98	1,156.72	1,896.96	2.55	-1.28	-2.20	
6,469.00	89.56	135.280	4,652.84	-1,593.41	1,223.63	1,991.95	0.23	0.19	0.13	
6,563.00	90.00	135.350	4,653.20	-1,660.25	1,289.73	2,085.95	0.47	0.47	0.07	
6,657.00	90.09	134.900	4,653.13	-1,726.86	1,356.06	2,179.95	0.49	0.10	-0.48	
6,752.00	90.03	134.290	4,653.03	-1,793.56	1,423.70	2,274.95	0.65	-0.06	-0.64	
6,846.00	91.19	134.550	4,652.03	-1,859.34	1,490.84	2,368.94	1.26	1.23	0.28	
6,940.00	89.38	134.810	4,651.56	-1,925.44	1,557.67	2,462.93	1.95	-1.93	0.28	
7,035.00	89.49	134.620	4,652.50	-1,992.27	1,625.18	2,557.92	0.23	0.12	-0.20	
7,130.00	90.59	134.340	4,652.43	-2,058.83	1,692.96	2,652.92	1.19	1.16	-0.29	
7,224.00	92.44	134.670	4,649.94	-2,124.70	1,759.97	2,746.88	2.00	1.97	0.35	
7,318.00	90.00	134.340	4,647.94	-2,190.57	1,826.99	2,840.84	2.62	-2.60	-0.35	
7,413.00	90.50	134.320	4,647.53	-2,256.96	1,894.95	2,935.84	0.53	0.53	-0.02	
7,507.00	90.50	133.480	4,646.71	-2,322.13	1,962.67	3,029.82	0.89	0.00	-0.89	
7,602.00	91.52	133.720	4,645.03	-2,387.63	2,031.46	3,124.77	1.10	1.07	0.25	
7,696.00	90.02	134.880	4,643.77	-2,453.28	2,098.72	3,218.75	2.02	-1.60	1.23	
7,790.00	90.83	135.210	4,643.07	-2,519.79	2,165.14	3,312.75	0.93	0.86	0.35	
7,884.00	91.49	135.110	4,641.17	-2,586.43	2,231.41	3,406.73	0.71	0.70	-0.11	
7,979.00	88.90	134.510	4,640.85	-2,653.38	2,298.80	3,501.72	2.80	-2.73	-0.63	
8,073.00	89.03	133.790	4,642.55	-2,718.84	2,366.23	3,595.69	0.78	0.14	-0.77	
8,168.00	89.69	133.610	4,643.61	-2,784.47	2,434.91	3,690.66	0.72	0.69	-0.19	
8,262.00	90.68	135.740	4,643.30	-2,850.56	2,501.75	3,784.65	2.50	1.05	2.27	
8,356.00	89.37	135.800	4,643.26	-2,917.91	2,567.32	3,878.64	1.40	-1.39	0.06	
8,450.00	89.29	135.040	4,644.36	-2,984.86	2,633.29	3,972.63	0.81	-0.09	-0.81	
8,545.00	90.22	133.780	4,644.77	-3,051.34	2,701.15	4,067.62	1.65	0.98	-1.33	
8,639.00	91.43	133.700	4,643.41	-3,116.32	2,769.06	4,161.59	1.29	1.29	-0.09	
8,733.00	88.74	134.840	4,643.27	-3,181.93	2,836.36	4,255.57	3.11	-2.86	1.21	
8,827.00	90.42	135.640	4,643.96	-3,248.67	2,902.54	4,349.56	1.98	1.79	0.85	
8,922.00	88.86	135.270	4,644.56	-3,316.37	2,969.18	4,444.56	1.69	-1.64	-0.39	
9,016.00	88.16	134.000	4,647.00	-3,382.39	3,036.04	4,538.52	1.54	-0.74	-1.35	
9,110.00	89.13	133.680	4,649.23	-3,447.48	3,103.82	4,632.47	1.09	1.03	-0.34	
9,205.00	88.87	135.860	4,650.89	-3,514.37	3,171.25	4,727.45	2.31	-0.27	2.29	
9,299.00	89.48	135.790	4,652.24	-3,581.78	3,236.75	4,821.43	0.65	0.65	-0.07	
9,393.00	91.09	136.150	4,651.77	-3,649.36	3,302.08	4,915.41	1.76	1.71	0.38	
9,488.00	92.17	136.590	4,649.07	-3,718.10	3,367.60	5,010.35	1.23	1.14	0.46	
9,583.00	93.40	135.450	4,644.45	-3,786.37	3,433.49	5,105.22	1.76	1.29	-1.20	
9,677.00	91.21	135.080	4,640.67	-3,853.09	3,499.59	5,199.13	2.36	-2.33	-0.39	
9,772.00	89.23	133.050	4,640.31	-3,919.15	3,567.85	5,294.11	2.98	-2.08	-2.14	
9,866.00	88.83	133.450	4,641.90	-3,983.55	3,636.31	5,388.05	0.60	-0.43	0.43	
9,961.00	91.19	135.360	4,641.88	-4,050.02	3,704.17	5,483.04	3.20	2.48	2.01	
10,055.00	92.44	134.800	4,638.91	-4,116.54	3,770.51	5,576.99	1.46	1.33	-0.60	
10,150.00	93.62	134.260	4,633.88	-4,183.07	3,838.13	5,671.85	1.37	1.24	-0.57	
10,243.00	91.46	134.960	4,629.76	-4,248.31	3,904.27	5,764.75	2.44	-2.32	0.75	
10,338.00	89.78	135.350	4,628.73	-4,315.66	3,971.26	5,859.74	1.82	-1.77	0.41	
10,433.00	90.50	135.820	4,628.50	-4,383.52	4,037.74	5,954.73	0.91	0.76	0.49	



Survey Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Rodeo Unit #512H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6798+13 @ 6811.00ft (Ensign 145)
Site:	Rodeo Unit 511 pad (511, 512 & 513)	MD Reference:	RKB=6798+13 @ 6811.00ft (Ensign 145)
Well:	Rodeo Unit #512H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Decv0422v16

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)
10,527.00	90.01	136.050	4,628.08	-4,451.06	4,103.12	6,048.72	0.58	-0.52	0.24
10,622.00	90.58	135.900	4,627.60	-4,519.37	4,169.14	6,143.70	0.62	0.60	-0.16
10,716.00	89.64	134.950	4,627.41	-4,586.33	4,235.11	6,237.70	1.42	-1.00	-1.01
10,810.00	90.12	134.880	4,627.61	-4,652.70	4,301.68	6,331.70	0.52	0.51	-0.07
10,905.00	90.51	134.390	4,627.09	-4,719.44	4,369.28	6,426.69	0.66	0.41	-0.52
10,999.00	88.44	134.220	4,627.95	-4,785.09	4,436.54	6,520.68	2.21	-2.20	-0.18
11,094.00	89.03	134.210	4,630.05	-4,851.32	4,504.61	6,615.65	0.62	0.62	-0.01
11,188.00	91.66	135.660	4,629.48	-4,917.71	4,571.15	6,709.63	3.19	2.80	1.54
11,283.00	89.91	135.530	4,628.18	-4,985.57	4,637.61	6,804.62	1.85	-1.84	-0.14
11,377.00	90.72	136.730	4,627.66	-5,053.33	4,702.75	6,898.59	1.54	0.86	1.28
11,471.00	90.03	136.110	4,627.05	-5,121.42	4,767.55	6,992.56	0.99	-0.73	-0.66
11,566.00	90.94	136.410	4,626.24	-5,190.06	4,833.23	7,087.53	1.01	0.96	0.32
11,660.00	90.84	135.970	4,624.78	-5,257.88	4,898.30	7,181.50	0.48	-0.11	-0.47
11,755.00	89.32	135.790	4,624.65	-5,326.08	4,964.43	7,276.49	1.61	-1.60	-0.19
11,849.00	89.55	135.610	4,625.58	-5,393.35	5,030.08	7,370.48	0.31	0.24	-0.19
11,944.00	90.62	135.610	4,625.44	-5,461.24	5,096.53	7,465.47	1.13	1.13	0.00
12,037.00	89.58	135.680	4,625.28	-5,527.73	5,161.55	7,558.46	1.12	-1.12	0.08
12,132.00	90.57	136.140	4,625.15	-5,595.96	5,227.65	7,653.45	1.15	1.04	0.48
12,226.00	89.41	135.290	4,625.17	-5,663.26	5,293.28	7,747.44	1.53	-1.23	-0.90
12,321.00	89.96	134.960	4,625.69	-5,730.58	5,360.31	7,842.44	0.68	0.58	-0.35
12,415.00	88.37	134.620	4,627.06	-5,796.79	5,427.01	7,936.42	1.73	-1.69	-0.36
12,509.00	91.16	135.820	4,627.44	-5,863.50	5,493.21	8,030.41	3.23	2.97	1.28
12,604.00	89.19	135.150	4,627.15	-5,931.24	5,559.81	8,125.40	2.19	-2.07	-0.71
12,698.00	91.08	134.670	4,626.93	-5,997.60	5,626.38	8,219.40	2.07	2.01	-0.51
12,793.00	89.68	135.290	4,626.30	-6,064.75	5,693.58	8,314.39	1.61	-1.47	0.65
12,888.00	91.30	136.280	4,625.49	-6,132.83	5,759.82	8,409.37	2.00	1.71	1.04
12,982.00	89.00	134.210	4,625.24	-6,199.58	5,825.99	8,503.36	3.29	-2.45	-2.20
13,077.00	87.45	133.120	4,628.19	-6,265.13	5,894.68	8,598.29	1.99	-1.63	-1.15
13,171.00	89.62	133.070	4,630.59	-6,329.33	5,963.29	8,692.20	2.31	2.31	-0.05
13,265.00	90.12	132.450	4,630.80	-6,393.15	6,032.31	8,786.13	0.85	0.53	-0.66
13,360.00	90.54	131.880	4,630.26	-6,456.92	6,102.72	8,881.01	0.75	0.44	-0.60
13,454.00	90.60	130.540	4,629.32	-6,518.84	6,173.43	8,974.79	1.43	0.06	-1.43
13,548.00	90.06	132.030	4,628.78	-6,580.86	6,244.06	9,068.59	1.69	-0.57	1.59
13,643.00	90.64	131.840	4,628.20	-6,644.35	6,314.73	9,163.45	0.64	0.61	-0.20
13,709.40	91.07	131.012	4,627.21	-6,688.28	6,364.51	9,229.72	1.40	0.65	-1.25
LTP @ 13709.40 MD 4627.21 TVD									
13,713.00	91.09	130.967	4,627.14	-6,690.64	6,367.23	9,233.31	1.40	0.65	-1.25
330 perp @ 13713 MD 4627.14 TVD									
13,728.00	91.19	130.780	4,626.84	-6,700.45	6,378.57	9,248.27	1.40	0.65	-1.25
Survey @ 13728.00 MD 4626.84 TVD									
13,793.00	91.19	130.780	4,625.49	-6,742.90	6,427.78	9,313.08	0.00	0.00	0.00
Survey Proj. to 13793.00 MD 4625.49 TVD									



Survey Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Rodeo Unit #512H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6798+13 @ 6811.00ft (Ensign 145)
Site:	Rodeo Unit 511 pad (511, 512 & 513)	MD Reference:	RKB=6798+13 @ 6811.00ft (Ensign 145)
Well:	Rodeo Unit #512H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Decv0422v16

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
412.00	412.00	-1.33	-0.71	MWD surveys
2,683.00	2,660.22	-106.46	-211.85	9 5/8" Casing @ 2683 MD 2660.22 TVD
4,845.00	4,611.65	-432.33	93.64	330 perp @ 4845 MD 4611.65 TVD
4,846.12	4,612.00	-433.06	94.42	FTP @ 4846.12 MD 4612.00 TVD
13,709.40	4,627.21	-6,688.28	6,364.51	LTP @ 13709.40 MD 4627.21 TVD
13,713.00	4,627.14	-6,690.64	6,367.23	330 perp @ 13713 MD 4627.14 TVD
13,728.00	4,626.84	-6,700.45	6,378.57	Survey @ 13728.00 MD 4626.84 TVD
13,793.00	4,625.49	-6,742.90	6,427.78	Survey Proj. to 13793.00 MD 4625.49 TVD



Survey Report - Geographic



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Rodeo Unit #512H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6798+13 @ 6811.00ft (Ensign 145)
Site:	Rodeo Unit 511 pad (511, 512 & 513)	MD Reference:	RKB=6798+13 @ 6811.00ft (Ensign 145)
Well:	Rodeo Unit #512H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Decv0422v16

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

Site	Rodeo Unit 511 pad (511, 512 & 513)				
Site Position:		Northing:	1,888,898.347 usft	Latitude:	36.191179000
From:	Lat/Long	Easting:	2,749,215.362 usft	Longitude:	-107.744800000
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.05 °

Well	Rodeo Unit #512H, Surf loc: 191 FSL 1345 FWL Section 25-T23N-R09W					
Well Position	+N/-S	0.00 ft	Northing:	1,888,898.328 usft	Latitude:	36.191179000
	+E/-W	0.00 ft	Easting:	2,749,195.297 usft	Longitude:	-107.744868000
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,798.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	11/18/2022	8.65	62.69	49,142.14064790

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		135.000

Survey Program	Date	12/20/2022			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
412.00	2,632.00	MWD surf (Original Hole)	MWD	OWSG MWD - Standard	
2,697.00	13,728.00	MWD (Original Hole)	MWD	OWSG MWD - Standard	
13,793.00	13,793.00	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	0.000	0.00	0.00	0.00	1,888,898.328	2,749,195.297	36.191179000	-107.744868000
412.00	0.42	208.180	412.00	-1.33	-0.71	1,888,896.997	2,749,194.584	36.191175345	-107.744870421
MWD surveys									
503.00	0.46	209.440	502.99	-1.94	-1.05	1,888,896.385	2,749,194.247	36.191173664	-107.744871565
594.00	0.56	209.460	593.99	-2.65	-1.45	1,888,895.680	2,749,193.848	36.191171727	-107.744872917
685.00	0.55	223.010	684.99	-3.36	-1.97	1,888,894.973	2,749,193.332	36.191169788	-107.744874670
776.00	0.52	221.260	775.98	-3.98	-2.54	1,888,894.343	2,749,192.762	36.191168059	-107.744876605
866.00	0.58	229.750	865.98	-4.59	-3.15	1,888,893.742	2,749,192.145	36.191166409	-107.744878698
957.00	0.61	226.260	956.97	-5.22	-3.85	1,888,893.110	2,749,191.443	36.191164673	-107.744881077
1,051.00	0.64	231.020	1,050.97	-5.89	-4.62	1,888,892.433	2,749,190.673	36.191162817	-107.744883687



Survey Report - Geographic



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Rodeo Unit #512H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6798+13 @ 6811.00ft (Ensign 145)
Site:	Rodeo Unit 511 pad (511, 512 & 513)	MD Reference:	RKB=6798+13 @ 6811.00ft (Ensign 145)
Well:	Rodeo Unit #512H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Decv0422v16

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,146.00	0.77	239.210	1,145.96	-6.56	-5.58	1,888,891.773	2,749,189.713	36.191161005	-107.744886945
1,240.00	0.82	240.770	1,239.95	-7.21	-6.71	1,888,891.121	2,749,188.583	36.191159217	-107.744890776
1,334.00	0.89	235.980	1,333.94	-7.94	-7.91	1,888,890.384	2,749,187.391	36.191157196	-107.744894818
1,429.00	0.87	232.420	1,428.93	-8.80	-9.09	1,888,889.532	2,749,186.208	36.191154857	-107.744898830
1,523.00	2.77	245.820	1,522.88	-10.16	-11.73	1,888,888.166	2,749,183.570	36.191151112	-107.744907774
1,617.00	5.73	247.590	1,616.61	-12.88	-18.14	1,888,885.446	2,749,177.158	36.191143656	-107.744929511
1,712.00	9.24	245.520	1,710.78	-17.85	-29.47	1,888,880.476	2,749,165.829	36.191130031	-107.744967922
1,806.00	12.68	246.380	1,803.06	-25.12	-45.79	1,888,873.213	2,749,149.503	36.191110120	-107.745023272
1,900.00	13.66	246.830	1,894.58	-33.62	-65.45	1,888,864.712	2,749,129.846	36.191086816	-107.745089916
1,994.00	13.46	246.130	1,985.96	-42.41	-85.66	1,888,855.918	2,749,109.638	36.191062707	-107.745158430
2,089.00	12.36	245.000	2,078.56	-51.18	-104.99	1,888,847.146	2,749,090.311	36.191038660	-107.745223953
2,183.00	12.35	245.500	2,170.38	-59.60	-123.25	1,888,838.726	2,749,072.046	36.191015574	-107.745285880
2,277.00	11.72	242.890	2,262.32	-68.12	-140.90	1,888,830.207	2,749,054.400	36.190992214	-107.745345708
2,371.00	11.72	242.220	2,354.36	-76.92	-157.84	1,888,821.406	2,749,037.456	36.190968081	-107.745403161
2,466.00	11.46	242.490	2,447.42	-85.78	-174.75	1,888,812.550	2,749,020.549	36.190943794	-107.745460486
2,560.00	11.32	240.630	2,539.57	-94.62	-191.07	1,888,803.712	2,749,004.227	36.190919556	-107.745515828
2,632.00	11.15	240.460	2,610.19	-101.51	-203.29	1,888,796.814	2,748,992.012	36.190900636	-107.745557245
2,683.00	11.21	239.588	2,660.22	-106.46	-211.85	1,888,791.873	2,748,983.445	36.190887084	-107.745586291
9 5/8" Casing @ 2683 MD 2660.22 TVD									
2,697.00	11.23	239.350	2,673.95	-107.84	-214.20	1,888,790.489	2,748,981.099	36.190883287	-107.745594248
2,791.00	10.02	234.740	2,766.34	-117.23	-228.75	1,888,781.101	2,748,966.546	36.190857535	-107.745643596
2,886.00	6.61	232.470	2,860.33	-125.33	-239.84	1,888,772.997	2,748,955.458	36.190835299	-107.745681197
2,981.00	3.43	234.620	2,954.95	-130.31	-246.49	1,888,768.019	2,748,948.804	36.190821642	-107.745703765
3,075.00	0.46	154.720	3,048.90	-132.28	-248.63	1,888,766.050	2,748,946.671	36.190816236	-107.745710997
3,169.00	0.90	121.140	3,142.89	-133.00	-247.83	1,888,765.327	2,748,947.464	36.190814248	-107.745708312
3,263.00	0.57	111.650	3,236.88	-133.56	-246.77	1,888,764.772	2,748,948.531	36.190812722	-107.745704700
3,357.00	0.65	160.050	3,330.88	-134.23	-246.15	1,888,764.099	2,748,949.147	36.190810870	-107.745702612
3,451.00	0.58	169.810	3,424.87	-135.20	-245.88	1,888,763.129	2,748,949.413	36.190808206	-107.745701713
3,546.00	0.57	201.200	3,519.87	-136.11	-245.97	1,888,762.215	2,748,949.328	36.190805696	-107.745702007
3,640.00	0.56	214.990	3,613.86	-136.93	-246.40	1,888,761.403	2,748,948.895	36.190803466	-107.745703475
3,735.00	0.64	198.530	3,708.86	-137.81	-246.84	1,888,760.520	2,748,948.460	36.190801040	-107.745704952
3,829.00	0.68	210.290	3,802.85	-138.79	-247.29	1,888,759.540	2,748,948.012	36.190798351	-107.745706473
3,924.00	0.58	222.580	3,897.84	-139.63	-247.89	1,888,758.700	2,748,947.402	36.190796043	-107.745708542
4,018.00	0.85	210.320	3,991.84	-140.58	-248.57	1,888,757.747	2,748,946.729	36.190793428	-107.745710829
4,049.00	0.74	210.820	4,022.83	-140.95	-248.79	1,888,757.377	2,748,946.510	36.190792411	-107.745711571
4,080.00	1.79	152.490	4,053.83	-141.55	-248.67	1,888,756.776	2,748,946.631	36.190790759	-107.745711163
4,111.00	4.81	139.150	4,084.77	-142.97	-247.59	1,888,755.363	2,748,947.705	36.190786875	-107.745707527
4,143.00	8.25	134.470	4,116.56	-145.59	-245.08	1,888,752.739	2,748,950.222	36.190779660	-107.745699006
4,174.00	11.19	129.470	4,147.11	-149.06	-241.17	1,888,749.268	2,748,954.132	36.190770116	-107.745685765
4,205.00	14.05	126.790	4,177.36	-153.23	-235.83	1,888,745.101	2,748,959.468	36.190758656	-107.745667692
4,236.00	17.38	126.780	4,207.20	-158.25	-229.11	1,888,740.074	2,748,966.192	36.190744830	-107.745644921
4,268.00	20.24	127.610	4,237.49	-164.50	-220.89	1,888,733.833	2,748,974.407	36.190727665	-107.745617101
4,299.00	22.96	128.460	4,266.31	-171.53	-211.91	1,888,726.799	2,748,983.391	36.190708318	-107.745586676
4,331.00	26.15	129.760	4,295.41	-179.92	-201.60	1,888,718.404	2,748,993.702	36.190685233	-107.745551758
4,362.00	29.23	130.840	4,322.86	-189.25	-190.62	1,888,709.083	2,749,004.682	36.190659600	-107.745514575
4,393.00	32.13	131.960	4,349.51	-199.71	-178.76	1,888,698.620	2,749,016.541	36.190630825	-107.745474418
4,425.00	35.69	132.300	4,376.07	-211.68	-165.52	1,888,686.644	2,749,029.777	36.190597894	-107.745429598
4,456.00	39.10	131.630	4,400.69	-224.27	-151.52	1,888,674.061	2,749,043.776	36.190563291	-107.745382195
4,488.00	42.34	130.870	4,424.94	-238.03	-135.83	1,888,660.302	2,749,059.471	36.190525455	-107.745329044
4,519.00	46.19	130.220	4,447.14	-252.09	-119.38	1,888,646.243	2,749,075.913	36.190486792	-107.745273368
4,551.00	49.80	129.610	4,468.55	-267.34	-101.15	1,888,630.990	2,749,094.150	36.190444847	-107.745211609
4,582.00	53.49	129.370	4,487.78	-282.79	-82.39	1,888,615.535	2,749,112.908	36.190402342	-107.745148086
4,614.00	56.45	129.200	4,506.15	-299.38	-62.11	1,888,598.946	2,749,133.188	36.190356720	-107.745079410
4,645.00	59.21	129.200	4,522.65	-315.97	-41.78	1,888,582.362	2,749,153.521	36.190311113	-107.745010553
4,677.00	60.19	129.230	4,538.80	-333.43	-20.37	1,888,564.895	2,749,174.927	36.190263074	-107.744938064



Survey Report - Geographic



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Rodeo Unit #512H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6798+13 @ 6811.00ft (Ensign 145)
Site:	Rodeo Unit 511 pad (511, 512 & 513)	MD Reference:	RKB=6798+13 @ 6811.00ft (Ensign 145)
Well:	Rodeo Unit #512H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Decv0422v16

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,708.00	60.20	129.030	4,554.20	-350.41	0.50	1,888,547.919	2,749,195.793	36.190216388	-107.744867401
4,739.00	61.70	129.600	4,569.26	-367.58	21.46	1,888,530.749	2,749,216.758	36.190169167	-107.744796404
4,771.00	64.07	131.130	4,583.84	-386.03	43.16	1,888,512.301	2,749,238.455	36.190118434	-107.744722931
4,802.00	67.10	132.720	4,596.65	-404.89	64.15	1,888,493.440	2,749,259.451	36.190066568	-107.744651836
4,833.00	70.72	133.020	4,607.81	-424.56	85.35	1,888,473.765	2,749,280.645	36.190012465	-107.744580072
4,845.00	71.90	133.221	4,611.65	-432.33	93.64	1,888,465.995	2,749,288.942	36.189991100	-107.744551979
330 perp @ 4845 MD 4611.65 TVD									
4,846.12	72.01	133.240	4,612.00	-433.06	94.42	1,888,465.265	2,749,289.718	36.189989094	-107.744549350
FTP @ 4846.12 MD 4612.00 TVD									
4,865.00	73.86	133.550	4,617.54	-445.46	107.53	1,888,452.866	2,749,302.831	36.189954999	-107.744504947
4,897.00	76.62	134.100	4,625.69	-466.89	129.86	1,888,431.440	2,749,325.153	36.189896084	-107.744429366
4,928.00	79.62	134.710	4,632.07	-488.11	151.53	1,888,410.215	2,749,346.823	36.189837722	-107.744355996
4,959.00	81.55	135.570	4,637.14	-509.79	173.10	1,888,388.538	2,749,368.393	36.189778119	-107.744282963
4,991.00	83.36	135.960	4,641.35	-532.52	195.23	1,888,365.810	2,749,390.522	36.189715626	-107.744208040
5,022.00	85.21	135.880	4,644.43	-554.68	216.68	1,888,343.653	2,749,411.979	36.189654702	-107.744135392
5,054.00	86.78	135.590	4,646.67	-577.54	238.96	1,888,320.794	2,749,434.259	36.189591850	-107.744059957
5,085.00	87.87	135.400	4,648.11	-599.62	260.67	1,888,298.709	2,749,455.965	36.189531127	-107.743986466
5,148.00	88.96	135.530	4,649.86	-644.51	304.84	1,888,253.819	2,749,500.132	36.189407698	-107.743836927
5,243.00	91.08	136.280	4,649.82	-712.73	370.94	1,888,185.596	2,749,566.234	36.189220114	-107.743613128
5,337.00	89.67	135.410	4,649.21	-780.17	436.41	1,888,118.159	2,749,631.710	36.189034692	-107.743391445
5,431.00	90.92	135.390	4,648.72	-847.10	502.41	1,888,051.231	2,749,697.711	36.188850665	-107.743167987
5,525.00	89.75	135.610	4,648.18	-914.14	568.30	1,887,984.188	2,749,763.594	36.188666322	-107.742944928
5,619.00	90.99	135.300	4,647.57	-981.13	634.23	1,887,917.197	2,749,829.529	36.188482123	-107.742721692
5,714.00	89.34	135.780	4,647.29	-1,048.94	700.77	1,887,849.395	2,749,896.065	36.188295692	-107.742496424
5,808.00	91.03	135.660	4,646.99	-1,116.23	766.39	1,887,782.100	2,749,961.690	36.188110656	-107.742274244
5,903.00	89.42	135.890	4,646.62	-1,184.31	832.65	1,887,714.025	2,750,027.947	36.187923477	-107.742049923
5,997.00	88.08	136.440	4,648.67	-1,252.09	897.74	1,887,646.237	2,750,093.033	36.187737089	-107.741829573
6,091.00	88.88	136.500	4,651.16	-1,320.22	962.46	1,887,578.111	2,750,157.750	36.187549770	-107.741610473
6,186.00	89.81	136.880	4,652.25	-1,389.34	1,027.62	1,887,508.989	2,750,222.910	36.187359716	-107.741389880
6,280.00	90.58	137.230	4,651.93	-1,458.15	1,091.66	1,887,440.182	2,750,286.951	36.187170528	-107.741173077
6,374.00	89.38	135.160	4,651.96	-1,525.98	1,156.72	1,887,372.347	2,750,352.013	36.186984009	-107.740952811
6,469.00	89.56	135.280	4,652.84	-1,593.41	1,223.63	1,887,304.917	2,750,418.927	36.186798597	-107.740726270
6,563.00	90.00	135.350	4,653.20	-1,660.25	1,289.73	1,887,238.086	2,750,485.028	36.186614830	-107.740502484
6,657.00	90.09	134.900	4,653.13	-1,726.86	1,356.06	1,887,171.473	2,750,551.350	36.186431664	-107.740277946
6,752.00	90.03	134.290	4,653.03	-1,793.56	1,423.70	1,887,104.775	2,750,618.998	36.186248259	-107.740048919
6,846.00	91.19	134.550	4,652.03	-1,859.34	1,490.84	1,887,038.988	2,750,686.130	36.186067358	-107.739821636
6,940.00	89.38	134.810	4,651.56	-1,925.44	1,557.67	1,886,972.896	2,750,752.965	36.185885619	-107.739595365
7,035.00	89.49	134.620	4,652.50	-1,992.27	1,625.18	1,886,906.060	2,750,820.470	36.185701832	-107.739366825
7,130.00	90.59	134.340	4,652.43	-2,058.83	1,692.96	1,886,839.498	2,750,888.250	36.185518800	-107.739137351
7,224.00	92.44	134.670	4,649.94	-2,124.70	1,759.97	1,886,773.633	2,750,955.264	36.185337683	-107.738910477
7,318.00	90.00	134.340	4,647.94	-2,190.57	1,826.99	1,886,707.762	2,751,022.283	36.185156549	-107.738683582
7,413.00	90.50	134.320	4,647.53	-2,256.96	1,894.95	1,886,641.378	2,751,090.238	36.184974002	-107.738453520
7,507.00	90.50	133.480	4,646.71	-2,322.13	1,962.67	1,886,576.201	2,751,157.967	36.184794773	-107.738224223
7,602.00	91.52	133.720	4,645.03	-2,387.63	2,031.46	1,886,510.699	2,751,226.751	36.184614645	-107.737991349
7,696.00	90.02	134.880	4,643.77	-2,453.28	2,098.72	1,886,445.057	2,751,294.017	36.184434137	-107.737763623
7,790.00	90.83	135.210	4,643.07	-2,519.79	2,165.14	1,886,378.539	2,751,360.430	36.184251227	-107.737538791
7,884.00	91.49	135.110	4,641.17	-2,586.43	2,231.41	1,886,311.900	2,751,426.698	36.184067982	-107.737314451
7,979.00	88.90	134.510	4,640.85	-2,653.38	2,298.80	1,886,244.954	2,751,494.089	36.183883892	-107.737086309
8,073.00	89.03	133.790	4,642.55	-2,718.84	2,366.23	1,886,179.491	2,751,561.524	36.183703873	-107.736858013
8,168.00	89.69	133.610	4,643.61	-2,784.47	2,434.91	1,886,113.862	2,751,630.201	36.183523395	-107.736625510
8,262.00	90.68	135.740	4,643.30	-2,850.56	2,501.75	1,886,047.777	2,751,697.040	36.183341670	-107.736399239
8,356.00	89.37	135.800	4,643.26	-2,917.91	2,567.32	1,885,980.423	2,751,762.608	36.183156462	-107.736177282
8,450.00	89.29	135.040	4,644.36	-2,984.86	2,633.29	1,885,913.475	2,751,828.581	36.182972366	-107.735953947
8,545.00	90.22	133.780	4,644.77	-3,051.34	2,701.15	1,885,846.998	2,751,896.442	36.182789559	-107.735724218
8,639.00	91.43	133.700	4,643.41	-3,116.32	2,769.06	1,885,782.016	2,751,964.347	36.182610858	-107.735494334



Survey Report - Geographic



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Rodeo Unit #512H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6798+13 @ 6811.00ft (Ensign 145)
Site:	Rodeo Unit 511 pad (511, 512 & 513)	MD Reference:	RKB=6798+13 @ 6811.00ft (Ensign 145)
Well:	Rodeo Unit #512H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Decv0422v16

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
8,733.00	88.74	134.840	4,643.27	-3,181.93	2,836.36	1,885,716.407	2,752,031.649	36.182430438	-107.735266497
8,827.00	90.42	135.640	4,643.96	-3,248.67	2,902.54	1,885,649.666	2,752,097.833	36.182246909	-107.735042453
8,922.00	88.86	135.270	4,644.56	-3,316.37	2,969.18	1,885,581.963	2,752,164.469	36.182060737	-107.734816883
9,016.00	88.16	134.000	4,647.00	-3,382.39	3,036.04	1,885,515.944	2,752,231.334	36.181879188	-107.734590529
9,110.00	89.13	133.680	4,649.23	-3,447.48	3,103.82	1,885,450.855	2,752,299.115	36.181700191	-107.734361075
9,205.00	88.87	135.860	4,650.89	-3,514.37	3,171.25	1,885,383.964	2,752,366.544	36.181516246	-107.734132814
9,299.00	89.48	135.790	4,652.24	-3,581.78	3,236.75	1,885,316.553	2,752,432.041	36.181330877	-107.733911107
9,393.00	91.09	136.150	4,651.77	-3,649.36	3,302.08	1,885,248.973	2,752,497.371	36.181145043	-107.733689966
9,488.00	92.17	136.590	4,649.07	-3,718.10	3,367.60	1,885,180.240	2,752,562.893	36.180956041	-107.733468179
9,583.00	93.40	135.450	4,644.45	-3,786.37	3,433.49	1,885,111.963	2,752,628.781	36.180768290	-107.733245153
9,677.00	91.21	135.080	4,640.67	-3,853.09	3,499.59	1,885,045.247	2,752,694.884	36.180584825	-107.733021395
9,772.00	89.23	133.050	4,640.31	-3,919.15	3,567.85	1,884,979.184	2,752,763.138	36.180403150	-107.732790343
9,866.00	88.83	133.450	4,641.90	-3,983.55	3,636.31	1,884,914.786	2,752,831.595	36.180226048	-107.732558601
9,961.00	91.19	135.360	4,641.88	-4,050.02	3,704.17	1,884,848.320	2,752,899.456	36.180043265	-107.732328887
10,055.00	92.44	134.800	4,638.91	-4,116.54	3,770.51	1,884,781.795	2,752,965.796	36.179860322	-107.732104327
10,150.00	93.62	134.260	4,633.88	-4,183.07	3,838.13	1,884,715.267	2,753,033.424	36.179677370	-107.731875406
10,243.00	91.46	134.960	4,629.76	-4,248.31	3,904.27	1,884,650.024	2,753,099.561	36.179497949	-107.731651532
10,338.00	89.78	135.350	4,628.73	-4,315.66	3,971.26	1,884,582.674	2,753,166.547	36.179312738	-107.731424788
10,433.00	90.50	135.820	4,628.50	-4,383.52	4,037.74	1,884,514.817	2,753,233.032	36.179126137	-107.731199746
10,527.00	90.01	136.050	4,628.08	-4,451.06	4,103.12	1,884,447.274	2,753,298.406	36.178940400	-107.730978471
10,622.00	90.58	135.900	4,627.60	-4,519.37	4,169.14	1,884,378.967	2,753,364.427	36.178752562	-107.730755005
10,716.00	89.64	134.950	4,627.41	-4,586.33	4,235.11	1,884,312.010	2,753,430.398	36.178568430	-107.730531703
10,810.00	90.12	134.880	4,627.61	-4,652.70	4,301.68	1,884,245.640	2,753,496.964	36.178385914	-107.730306386
10,905.00	90.51	134.390	4,627.09	-4,719.44	4,369.28	1,884,178.896	2,753,564.565	36.178202363	-107.730077566
10,999.00	88.44	134.220	4,627.95	-4,785.09	4,436.54	1,884,113.245	2,753,631.827	36.178021817	-107.729849888
11,094.00	89.03	134.210	4,630.05	-4,851.32	4,504.61	1,884,047.013	2,753,699.899	36.177839671	-107.729619470
11,188.00	91.66	135.660	4,629.48	-4,917.71	4,571.15	1,883,980.630	2,753,766.434	36.177657113	-107.729394263
11,283.00	89.91	135.530	4,628.18	-4,985.57	4,637.61	1,883,912.770	2,753,832.899	36.177470498	-107.729169299
11,377.00	90.72	136.730	4,627.66	-5,053.33	4,702.75	1,883,845.007	2,753,898.040	36.177284154	-107.728948820
11,471.00	90.03	136.110	4,627.05	-5,121.42	4,767.55	1,883,776.914	2,753,962.839	36.177096905	-107.728729506
11,566.00	90.94	136.410	4,626.24	-5,190.06	4,833.23	1,883,708.282	2,754,028.517	36.176908169	-107.728507212
11,660.00	90.84	135.970	4,624.78	-5,257.88	4,898.30	1,883,640.456	2,754,093.582	36.176721651	-107.728286995
11,755.00	89.32	135.790	4,624.65	-5,326.08	4,964.43	1,883,572.259	2,754,159.716	36.176534111	-107.728063161
11,849.00	89.55	135.610	4,625.58	-5,393.35	5,030.08	1,883,504.988	2,754,225.363	36.176349113	-107.727840970
11,944.00	90.62	135.610	4,625.44	-5,461.24	5,096.53	1,883,437.102	2,754,291.818	36.176162426	-107.727616047
12,037.00	89.58	135.680	4,625.28	-5,527.73	5,161.55	1,883,370.607	2,754,356.834	36.175979559	-107.727395998
12,132.00	90.57	136.140	4,625.15	-5,595.96	5,227.65	1,883,302.374	2,754,422.932	36.175791919	-107.727172286
12,226.00	89.41	135.290	4,625.17	-5,663.26	5,293.28	1,883,235.084	2,754,488.564	36.175606868	-107.726950154
12,321.00	89.96	134.960	4,625.69	-5,730.58	5,360.31	1,883,167.764	2,754,555.591	36.175421730	-107.726723295
12,415.00	88.37	134.620	4,627.06	-5,796.79	5,427.01	1,883,101.549	2,754,622.293	36.175239630	-107.726497535
12,509.00	91.16	135.820	4,627.44	-5,863.50	5,493.21	1,883,034.835	2,754,688.496	36.175056158	-107.726273465
12,604.00	89.19	135.150	4,627.15	-5,931.24	5,559.81	1,882,967.098	2,754,755.096	36.174869875	-107.726048058
12,698.00	91.08	134.670	4,626.93	-5,997.60	5,626.38	1,882,900.738	2,754,821.665	36.174687374	-107.725822752
12,793.00	89.68	135.290	4,626.30	-6,064.75	5,693.58	1,882,833.590	2,754,888.860	36.174502706	-107.725595329
12,888.00	91.30	136.280	4,625.49	-6,132.83	5,759.82	1,882,765.506	2,754,955.103	36.174315471	-107.725371135
12,982.00	89.00	134.210	4,625.24	-6,199.58	5,825.99	1,882,698.763	2,755,021.278	36.174131918	-107.725147169
13,077.00	87.45	133.120	4,628.19	-6,265.13	5,894.68	1,882,633.206	2,755,089.963	36.173951614	-107.724914692
13,171.00	89.62	133.070	4,630.59	-6,329.33	5,963.29	1,882,569.009	2,755,158.578	36.173775048	-107.724682453
13,265.00	90.12	132.450	4,630.80	-6,393.15	6,032.31	1,882,505.190	2,755,227.592	36.173599519	-107.724448858
13,360.00	90.54	131.880	4,630.26	-6,456.92	6,102.72	1,882,441.421	2,755,298.006	36.173424121	-107.724210522
13,454.00	90.60	130.540	4,629.32	-6,518.84	6,173.43	1,882,379.497	2,755,368.717	36.173253789	-107.723971174
13,548.00	90.06	132.030	4,628.78	-6,580.86	6,244.06	1,882,317.478	2,755,439.348	36.173083199	-107.723732095
13,643.00	90.64	131.840	4,628.20	-6,644.35	6,314.73	1,882,253.993	2,755,510.017	36.172908577	-107.723492896
13,709.40	91.07	131.012	4,627.21	-6,688.28	6,364.51	1,882,210.064	2,755,559.798	36.172787746	-107.723324396
LTP @ 13709.40 MD 4627.21 TVD									



Survey Report - Geographic



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Rodeo Unit #512H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6798+13 @ 6811.00ft (Ensign 145)
Site:	Rodeo Unit 511 pad (511, 512 & 513)	MD Reference:	RKB=6798+13 @ 6811.00ft (Ensign 145)
Well:	Rodeo Unit #512H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Decv0422v16

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
13,713.00	91.09	130.967	4,627.14	-6,690.64	6,367.23	1,882,207.704	2,755,562.515	36.172781252	-107.723315199
330 perp @ 13713 MD 4627.14 TVD									
13,728.00	91.19	130.780	4,626.84	-6,700.45	6,378.57	1,882,197.890	2,755,573.855	36.172754257	-107.723276815
Survey @ 13728.00 MD 4626.84 TVD									
13,793.00	91.19	130.780	4,625.49	-6,742.90	6,427.78	1,882,155.444	2,755,623.064	36.172637500	-107.723110248
Survey Proj. to 13793.00 MD 4625.49 TVD									

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
412.00	412.00	-1.33	-0.71	MWD surveys	
2,683.00	2,660.22	-106.46	-211.85	9 5/8" Casing @ 2683 MD 2660.22 TVD	
4,845.00	4,611.65	-432.33	93.64	330 perp @ 4845 MD 4611.65 TVD	
4,846.12	4,612.00	-433.06	94.42	FTP @ 4846.12 MD 4612.00 TVD	
13,709.40	4,627.21	-6,688.28	6,364.51	LTP @ 13709.40 MD 4627.21 TVD	
13,713.00	4,627.14	-6,690.64	6,367.23	330 perp @ 13713 MD 4627.14 TVD	
13,728.00	4,626.84	-6,700.45	6,378.57	Survey @ 13728.00 MD 4626.84 TVD	
13,793.00	4,625.49	-6,742.90	6,427.78	Survey Proj. to 13793.00 MD 4625.49 TVD	

Checked By: _____ Approved By: _____ Date: _____

WELL NAME: **RODEO UNIT 512H**
OBJECTIVE: **Drill, complete, and equip single lateral in the Mancos-I formation**
API Number: 30-045-35874
State: New Mexico
County: San Juan
Surface Elev.: 6,798 ft ASL (GL) 6,811 ft ASL (KB)
Surface Location: 25-23N-09W Sec-Twn- Rng 191 ft FSL 1,345 ft FWL
BH Location: 6-22N-08W Sec-Twn- Rng 1226 ft FNL 2398 ft FWL
Driving Directions: **FROM THE INTERSECTION OF US HWY 550 & US HWY 64 IN BLOOMFIELD, NM:**
South on US Hwy 550 for 37.8 miles to MM 113.4; Right (Southwest) on CR #7890 for 0.8 miles to fork; Left (South) remaining on CR #7890 for 1.3 miles to 4-way intersection; Left (Southeast) remaining on CR #7890 for 0.6 miles to fork; Right (Southwest) on CR #7890 for 1.5 miles to access road; Left on access road for 0.5 mile to Rodeo Unit 511H Pad (three wells planned to be drilled: 511H, 512H, 513H).

QUICK REFERENCE	
Sur TD (MD)	360 ft
Int TD (MD)	2,693 ft
KOP (MD)	4,092 ft
KOP (TVD)	4,084 ft
Target (TVD)	4,626 ft
Curve BUR	10 °/100 ft
POE (MD)	4,823 ft
TD (MD)	13,793 ft
Lat Len (ft)	8,761 ft

WELL CONSTRUCTION SUMMARY:

	Hole (in)	TD MD (ft)	Csg (in)	Csg (lb/ft)	Csg (grade)	Csg (conn)	Csg Top (ft)	Csg Bot (ft)
Surface	17.500	360	13.375	54.5	J-55	BTC	0	360
Intermediate	12.250	2,693	9.625	36.0	J-55	LTC	0	2,693
Production	8.500	13,793	5.500	17.0	P-110	LTC	0	13,793

CEMENT PROPERTIES SUMMARY:

	Type	Wt (ppg)	Yd (cuft/sk)	Wtr (gal/sk)	Hole Cap. (cuft/ft)	% Excess	TOC (ft MD)	Total (sx)
Surface	TYPE III	14.6	1.39	6.686	0.6946	100%	0	350
Inter. (Lead)	III:POZ Blend	12.5	2.14	12.05	0.3627	70%	0	502
Inter. (Tail)	Type III	14.6	1.37	6.63	0.3132	20%	2,130	137
Prod. (Lead)	Type I / II	12.4	2.360	13.40	0.2691	65%	0	575
Prod. (Tail)	G:POZ blend	13.3	1.560	7.70	0.2291	10%	3,587	1,615

COMPLETION / PRODUCTION SUMMARY:

Frac: 40 plug-and-perf stages with 360,000 bbls slickwater fluid and 15,000,000 lbs of proppant (estimated)
Flowback: Flow back through production tubing as pressures allow (ESP may be used for load recovery assistance)
Production: Produce through production tubing via gas-lift into permanent production and storage facilities

Tops	TVD (ft KB)	MD (ft KB)
Ojo Alamo	356	356
Kirtland	441	441
Fruitland	671	671
Pictured Cliffs	1,021	1,021
Lewis	1,146	1,146
Chacra	1,406	1,406
Cliff House	2,431	2,434
Menefee	2,466	2,470
Point Lookout	3,431	3,437
Mancos	3,581	3,587
Gallup (MNCS_A)	3,916	3,921
MNCS_B	4,021	4,027
MNCS_C	4,106	4,112
MNCS_Cms	4,146	4,152
MNCS_D	4,271	4,282
MNCS_E	4,421	4,457
MNCS_F	4,476	4,532
MNCS_G	4,546	4,648
MNCS_H	4,593	4,742
MNCS_I	4,649	4,909
FTP (LP) TARGET	4,626	4,823
LTP (TD) TARGET	4,586	13,584

This document will be submitted with the completion package after the well has been completed.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

ACKNOWLEDGMENTS

Action 180360

ACKNOWLEDGMENTS

Operator: ENDURING RESOURCES, LLC 6300 S Syracuse Way, Suite 525 Centennial, CO 80111	OGRID: 372286
	Action Number: 180360
	Action Type: [C-104] Tight Hole Completion Packet (C-104CT)

ACKNOWLEDGMENTS

☒	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
☒	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.

District I
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Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

COMMENTS

Action 180360

COMMENTS

Operator: ENDURING RESOURCES, LLC 6300 S Syracuse Way, Suite 525 Centennial, CO 80111	OGRID: 372286
	Action Number: 180360
	Action Type: [C-104] Tight Hole Completion Packet (C-104CT)

COMMENTS

Created By	Comment	Comment Date
llowe	COA: RT expires on 04/25/23	1/27/2023

District I
1625 N. French Dr., Hobbs, NM 88240
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CONDITIONS

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CONDITIONS

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