Received by OCD: 5/20/2022 3:29:38 PM

District I

1625 N. French Dr., Hobbs, NM 88240

Ul or lot no. Section

<u>District II</u> 811 S. First St., Artesia, NM 88210

<u>District III</u> 1000 Rio Brazos Rd., Aztec, NM 87410

<u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505

Township

7/18/2022

State of New Mexico Energy, Minerals & Natural Resources

**Page 1 of 28** Form C-104 Revised August 1, 2011

County

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

Submit one copy to appropriate District Office	ге
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East/West line

☐ AMENDED REPORT

ſ.	REQUEST FOR	ALLOWABLE ANI	<b>DAUTHORIZATION T</b>	O TRANSPORT
Le	MEQUEST FOR		JACTIONIZATION I	O TIME TOTAL

	Operator name and Address Enduring Resources IV LLC. 200 Energy Court Farmington NM 87401	<sup>2</sup> OGRID Number 372286 <sup>3</sup> Reason for Filing Code/ Effective Date RT		
<sup>4</sup> API Number 30-045-38200	<sup>5</sup> Pool Name LYBROOK MANCOS W		<sup>6</sup> Pool Code 98157	
<sup>7</sup> Property Code 321259	<sup>8</sup> Property Name W LYBROOK UNIT		<sup>9</sup> Well Number #763H	

# II. 10 Surface Location

Range Lot Idn Feet from the North/South Line Feet from the

	21	2311	9 77		1101	Norui		2440	V	vest	San Juan
	11 Bottom Hole Location										
UL or lot no. C	Section 21	Township 23N	Range 9W	Lot Idn	Feet from the 139'	North/South North		Feet from the 1699'		West line Vest	County San Juan
12 Lse Code		cing Method Code		onnection ate	<sup>15</sup> C-129 Pern	nit Number	16 (	C-129 Effective	Date	<sup>17</sup> C-12	9 Expiration Date

III. Oil and Gas Transporters

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

**IV. Well Completion Data** 

<sup>21</sup> Spud Date 2/10/2022		eady Date 18/2022	<sup>23</sup> TD 13737' MD 4591' TVD	<sup>24</sup> PBTD 13618' MD 4590' TVD	<sup>25</sup> Perforations ~ 4806' - 13613' MD ~ 4489'-4590' TVD	<sup>26</sup> DHC, MC R-14051
<sup>27</sup> Hole Size	e	<sup>28</sup> Casing	& Tubing Size	<sup>29</sup> Depth Set		<sup>30</sup> Sacks Cement
17-1/2"		13-3/8"	2,54.5#, J-55	360.71' MD		350 sx - surface
12-1/4"		9-5/8*	',36#, J-55	2525' MD		610 sx- surface
8-1/2"		5-1/2",17#, P-110		13737' MD		2046 sx- surface

## V. Well Test Data

31 Date New Oil	32 Gas Delivery Date	33 Test Date	34 Test Length	35 Tbg. Pressure	<sup>36</sup> Csg. Pressure		
<sup>37</sup> Choke Size	<sup>38</sup> Oil	<sup>39</sup> Water		<sup>41</sup> Test Method			
	at the rules of the Oil Conse		OIL CONSERVATION DIVISION				
	of my knowledge and belief						
Signature:	Raylor Write		Approved by:				
Printed name:			Title: Petroleum Engineer				
Kayla White							
Title: Environmental Engir	neer		Approval Date: 07/08/22				
E-mail Address:			GO 1 DT : 10/00/00				
kwhite@cdhconsult.	com		COA: RT expires on 10/08/22				
Date: Phone: 720-768-3575							



## ENDURING RESOURCES IV LLC

May 19, 2022

Re: W LYBROOK UNIT 763H-30-045-38200

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,

Heather Huntington
Permitting Technician

Enduring Resources, LLC.

hhuntington@enduringresources.com

#### District Received by OGD: 5/20/202038829\3882M

640.00

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

1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334–6178 Fax: (505) 334–6170

E/2 NW/4, W/2 NE/4,

SW/4, SE/4 SW/4

N/2 SE/4, SE/4 SE/4

District IV 1220 S. St. Francis Drive, Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

W/2 NE/4 - Section 27

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State of New Mexico Energy, Minerals & Natural Resources Department

Form C-102 Revised August 1, Page 3 of 28 Submit one copy to Appropriate District Office

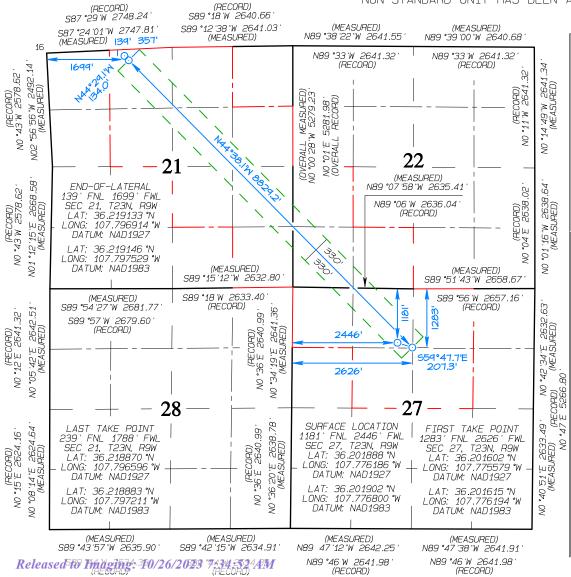
## OIL CONSERVATION DIVISION 1220 South St. Francis Drive Santa Fe, NM 87505

AMENDED REPORT

### AS-DRILLED WELL LOCATION AND ACREAGE DEDICATION PLAT

1/2	PI Numbe	r		²Pool Coc	le	³Pool Name					
30-045-3	38200			98157	'	LYBROOK MANCOS W					
⁴Property	Code				<sup>5</sup> Property	/ Name			<sup>6</sup> Well Number		
32125	9				W LYBROC	OK UNIT				763H	
OGRID N	Vo .				*Operator	Name			°E	levation	
37228	16			EN	DURING RES	SOURCES, LLC			6641'		
					<sup>10</sup> Surface	Location					
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/We	est line	County	
С	27	23N	9W		1181	NORTH	2446	WE	ST	SAN JUAN	
		1	<sup>1</sup> Botto	m Hole	Location I	f Different f	- -rom Surfac	9			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/We	est line	County	
С	21	23N	9W		139 NORTH 1699 WEST SAN JU				SAN JUAN		
12 Dedicated Acres N/2 NW/4, SE/4 NW/4				<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.					
	0 00 1 N/2 NW/4, 3L/4 NW/4						1 4-1/05/	_ 12	1807 D/	1 Arres	

SE/4 NE/4 Section 21 NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A Section 22 NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



(RECORD)

OPERATOR CERTIFICATION "UPERAIUR 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.

R-14051 - 12,807.24 Acres

5-11-22

## Heather Huntington

Printed Name

hhuntington@enduringresource.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: MAY 9, 2022 Date of Survey: MARCH 10, 2016

Signature and Seal of Professional Surveyor



**DWARDS** 

Certificate Number

15269

#### District Received by OGD: 5/20/202038829\3882M

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

SW/4, SE/4 SW/4

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

Submit one copy to Appropriate District Office

Form C-102 Revised August 1, Page 4 of 28

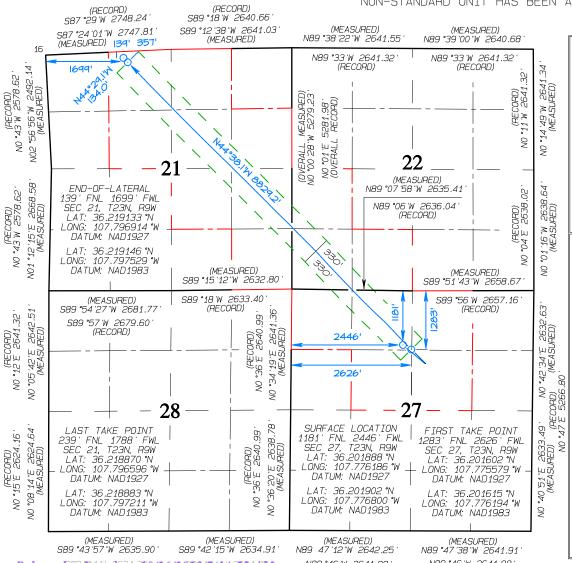
## OIL CONSERVATION DIVISION 1220 South St. Francis Drive Santa Fe, NM 87505

AMENDED REPORT

AS-DRILLED	WELL	LOCATION	AND	ACREAGE	DEDICATION	PLAT

1/4	PI Numbe	r		²Pool Coc						
30-045-3	38200			98157	LYBROOK MANCOS W					
<sup>4</sup> Property	Code				<sup>5</sup> Property	y Name			6 Me	ell Number
32125	9				W LYBROO	OK UNIT				763H
OGRID N	Vo .				*Operator	Name			9 E	Elevation
37228	16			EN	DURING RES	SOURCES, LLC				6641'
<sup>10</sup> Surface Location										
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/We	est line	County
С	27	23N	9W		1181	NORTH	2446	WE	ST	SAN JUAN
	I	1	.1 Botto	m Hole	Location I	f Different F	- From Surfac	e		
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/We	est line	County
С	21	23N	9W		139	NORTH	1699	WE	:ST	SAN JUAN
<sup>12</sup> Dedicated Acres	N	1/0 NW/	1 CE / 1	NIM / A	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.			1
640.00 N/2 NW/4, SE/4 NW/4 W/2 NE/4 - Section 27							R-14051	l – 12	,807.2	4 Acres
E/2 NW/4, W/2 NE/4, SE/4 NE/4 N/2 SE/4, SE/4 SE/4 - Section 21					NO A	ALLOWABLE WILL	BE ASSIGNE	ED TO	THIS C	OMPLETION

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



- Section 22

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 dail this work. proposed bottom-noise 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.

5-11-22

Signature Heather Huntington

hhuntington@enduringresources.com

E-mail Address

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Date Revised: MAY 9, 2022 Date of Survey: MARCH 10, 2016

Signature and Seal of Professional Surveyor



**DWARDS** Certificate Number 15269

N89 °46 W 2641.98

Released to Imaging: 310/26/2019 7434 2524AM

(RECORD)

N89 °46 W 2641.98 (RECORD)

#### District Received by OGD: 5/20/202203s29m382M

Phone: (575) 393-6161 Fax: (575) 393-0720 District II 811 S. First Street, Artesia, NM 88210

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## State of New Mexico Energy, Minerals & Natural Resources Department

Form C-102 Revised August 1, Page 5 of 28

OIL CONSERVATION DIVISION 1220 South St. Francis Drive Santa Fe, NM 87505

Submit one copy to Appropriate District Office

AMENDED REPORT

## AS-DRILLED WELL LOCATION AND ACREAGE DEDICATION PLAT

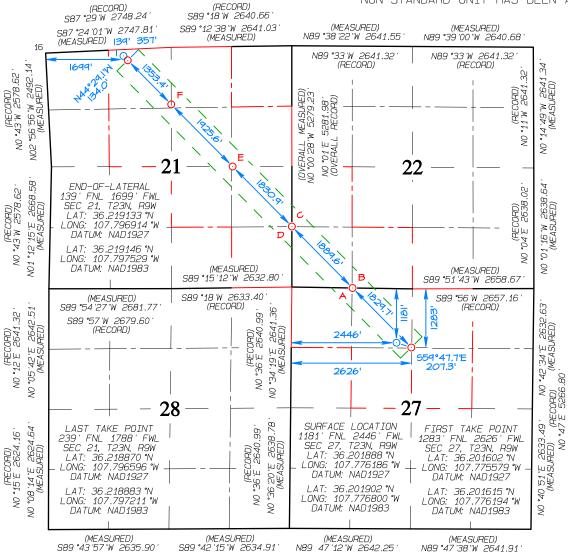
¹API Number		²Pool Code	³Pool Name			
30-045-38200		98157				
⁴Property Code		*Pr	operty Name	<sup>6</sup> Well Number		
321259		WLY	BROOK UNIT	763H		
'OGRID No.		<sup>8</sup> Op	erator Name	°Elevation		
372286		ENDURING	RESOURCES, LLC	6641'		
<sup>10</sup> Surface Location						

UL or lot no. Section Feet from the North/South line County Township Lot Idr Feet from the East/West line  $\mathbb{C}$ 27 23N 9W 1181 NORTH 2446 WEST SAN JUAN

Bottom Hole Location If Different From Surface UL or lot no. Lot Idn North/South line County Township Range Feet from the East/West line C 23N 9W NORTH WEST 21 139 1699 SAN JUAN <sup>12</sup> Dedicated Acres <sup>13</sup>Joint or Infill <sup>14</sup> Consolidation Code <sup>15</sup> Order No. N/2 NW/4SE/4 NW/4 R-14051 -12,807.24 Acres 640.00 M/2NE/4 Section 27

NW/4, W/2 NE/4, SE/4 NE/4 N/2 SE/4, SE/4 SE/4 \_ Section 21 SW/4 SW/4, SE/4 \_ Section 22

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17 OPERATOR CERTIFICATION

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5-11-22

Heather Huntington

Printed Name

hhuntington@enduringresources.com

E-mail Address

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Signature and Seal of Professional Surveyor



DWARDS Certificate Number 15269

Released to Hyughig: 310/26/2019 7434 3524AM

N89 °46 W 2641.98 (RECORD)

N89 °46 W 2641.98 (RECORD)

(A) 0' FNL 1328' FWL SEC 27, T23N, R9W LAT: 36.205181°N LONG: 107.779934°W DATUM: NAD1927

LAT: 36.205194 °N LONG: 107.780548 °W DATUM: NAD1983

(C) 1325' FSL 0' FWL SEC 22, T23N, R9W LAT: 36.208877 N LONG: 107.784432 W DATUM: NAD1927

LAT: 36.208890 °N LONG: 107.785046 °W DATUM: NAD1983

(E) 2644' FSL 1286' FEL SEC 21, T23N, R9W LAT: 36.212457 °N LONG: 107.788790 °W DATUM: NAD 1927

LAT: 36.212471 °N LONG: 107.789405 °W DATUM: NAD1983 (B) 0' FSL 1328' FWL SEC 22, T23N, R9W LAT: 36.205181°N LONG: 107.779934°W DATUM: NAD1927

LAT: 36.205194 °N LONG: 107.780548 °W DATUM: NAD1983

(D) 1325' FSL 0' FEL SEC 21, T23N, R9W LAT: 36.208877°N LONG: 107.784432°W DATUM: NAD1927

LAT: 36.208890 °N LONG: 107.785046 °W DATUM: NAD1983

(F) 1245' FNL 2639' FEL SEC 21, T23N, R9W LAT: 36.216223°N LONG: 107.793374°W DATUM: NAD 1927

LAT: 36.216236 °N LONG: 107.793989 °W DATUM: NAD1983



**TVD Reference:** 

MD Reference:



Company: **Enduring Resources LLC** 

Project: San Juan County, New Mexico NAD83 NM W Site: W Lybrook 730 Pad (730, 763, 830, 861 & 863)

Well: W Lybrook Unit No. 763H

Wellbore: Original Hole Surveys Original Hole Design:

Local Co-ordinate Reference:

Well W Lybrook Unit No. 763H

RKB=6641+28 @ 6669.00ft (Ensign 773) RKB=6641+28 @ 6669.00ft (Ensign 773)

North Reference:

**Survey Calculation Method:** Minimum Curvature DB Feb2822 Database:

San Juan County, New Mexico NAD83 NM W **Project** 

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

Mean Sea Level System Datum:

W Lybrook 730 Pad (730, 763, 830, 861 & 863) Site

Northing: 1,888,164.052 usft Site Position: Latitude: 36.189179000 From: Lat/Long Easting: 2,741,098.391 usft Longitude: -107.772310000

0.00 ft Slot Radius: **Position Uncertainty:** 13-3/16 "

Well W Lybrook Unit No. 763H, Surf loc: 1181 FNL 2446 FWL Section 27-T23N-R09W **Well Position** +N/-S 0.00 ft Northing: 1,892,794.671 usft Latitude: 36.201902000 +E/-W 0.00 ft Easting: 2,739,770.786 usft Longitude: -107.776800000 0.00 ft Wellhead Elevation: ft Ground Level: 6,641.00 ft **Position Uncertainty** 0.03° **Grid Convergence:** 

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	3/8/2022	8.74	62.71	49,216.04446918

Design Surveys Original Hole **Audit Notes:** Version: 1.0 Phase: ACTUAL Tie On Depth: 0.00 Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 315.220

Survey Program	Date 4/19/2022			
From (ft)	To (ft) Survey (Wellbore)	Tool Name	Description	
431.00	2,453.00 MWD surf (Original Hole)	MWD	OWSG MWD - Standard	
2,584.00 13,747.00	13,648.00 MWD (Original Hole) 13,747.00 Projection (Original Hole)	MWD MWD	OWSG MWD - Standard OWSG MWD - Standard	

rvey									
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
431.00	0.88	220.030	430.98	-2.53	-2.13	-0.30	0.20	0.20	0.00
MWD surve	eys								
493.00	0.79	247.010	492.98	-3.07	-2.83	-0.18	0.64	-0.15	43.52
584.00	0.62	223.370	583.97	-3.67	-3.74	0.03	0.37	-0.19	-25.98
675.00	0.75	247.010	674.96	-4.26	-4.63	0.24	0.34	0.14	25.98
766.00	0.48	240.330	765.96	-4.68	-5.51	0.56	0.31	-0.30	-7.34
857.00	0.57	234.000	856.95	-5.14	-6.21	0.73	0.12	0.10	-6.96







Company: Enduring Resources LLC

 Project:
 San Juan County, New Mexico NAD83 NM W

 Site:
 W Lybrook 730 Pad (730, 763, 830, 861 & 863)

Well: W Lybrook Unit No. 763H

Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference:

 TVD Reference:
 RKB=6641+28 @ 6669.00ft (Ensign 773)

 MD Reference:
 RKB=6641+28 @ 6669.00ft (Ensign 773)

Well W Lybrook Unit No. 763H

North Reference: Gi

Survey Calculation Method: Minimum Curvature

Database: DB\_Feb2822

rvey										
	Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
	948.00	0.13	180.390	947.95	-5.50	-6.57	0.72	0.55	-0.48	-58.91
	1,039.00	0.35	272.940	1,038.95	-5.59	-6.85	0.86	0.42	0.24	101.70
	1,132.00	0.35	250.790	1,131.95	-5.67	-7.40	1.19	0.14	0.00	-23.82
	1,226.00	0.53	229.430	1,225.95	-6.05	-8.01	1.35	0.26	0.19	-22.72
	1,320.00	0.35	50.750	1,319.95	-6.15	-8.11	1.35	0.94	-0.19	-190.09
	1,414.00	0.75	34.140	1,413.94	-5.46	-7.55	1.44	0.45	0.43	-17.67
	1,508.00	0.62	69.740	1,507.94	-4.77	-6.72	1.35	0.46	-0.14	37.87
	1,603.00	0.57	48.820	1,602.93	-4.29	-5.89	1.10	0.23	-0.05	-22.02
	1,697.00	2.33	126.070	1,696.90	-5.10	-3.99	-0.81	2.42	1.87	82.18
	1,791.00	6.11	133.720	1,790.63	-9.69	1.17	-7.70	4.06	4.02	8.14
	1,886.00	9.32	133.110	1,884.76	-18.44	10.44	-20.45	3.38	3.38	-0.64
	1,981.00	12.13	136.710	1,978.09	-30.97	22.91	-38.12	3.04	2.96	3.79
	2,075.00	15.78	134.160	2,069.30	-47.06	38.85	-60.78	3.94	3.88	-2.71
	2,170.00	19.60	132.750	2,159.79	-66.89	59.83	-89.62	4.05	4.02	-1.48
	2,264.00	22.68	128.360	2,247.46	-88.84	85.63	-123.38	3.68	3.28	-4.67
	2,358.00	23.95	127.660	2,333.78	-111.75	114.94	-160.28	1.38	1.35	-0.74
	2,453.00	23.55	126.780	2,420.74	-134.89	145.41	-198.17	0.56	-0.42	-0.93
	2,515.00	23.31	128.199	2,477.63	-149.89	164.97	-222.60	0.99	-0.39	2.29
	*	23.31 g <b>@ 2515 MD 24</b>		2,477.03	-149.09	104.97	-222.00	0.99	-0.39	2.29
	9 5/6 Casing	g @ 2515 MD 24	77.03 140							
	2,584.00	23.05	129.810	2,541.06	-166.98	186.07	-249.59	0.99	-0.37	2.34
	2,678.00	22.44	130.580	2,627.75	-190.43	213.83	-285.79	0.72	-0.65	0.82
	2,772.00	21.59	130.380	2,714.90	-213.31	240.63	-320.91	0.91	-0.90	-0.21
	2,867.00	20.39	130.220	2,803.59	-235.32	266.58	-354.81	1.26	-1.26	-0.17
	2,983.00	23.43	130.480	2,911.20	-263.35	299.56	-397.94	2.62	2.62	0.22
	3,076.00	22.04	130.230	2,996.97	-286.62	326.95	-433.75	1.50	-1.49	-0.27
	3,171.00	20.23	128.920	3,085.58	-308.45	353.34	-467.83	1.97	-1.91	-1.38
	3,266.00	17.51	128.430	3,175.46	-327.66	377.32	-498.36	2.87	-2.86	-0.52
	3,359.00	18.89	129.680	3,263.81	-345.97	399.87	-527.23	1.54	1.48	1.34
	3,453.00	18.09	129.350	3,352.96	-364.94	422.86	-556.90	0.86	-0.85	-0.35
	3,548.00	16.81	128.680	3,443.58	-382.88	444.99	-585.22	1.36	-1.35	-0.71
	3,642.00	11.97	127.150	3,534.61	-397.27	463.38	-608.39	5.16	-5.15	-1.63
	3,736.00	7.76	125.000	3,627.20	-406.80	476.36	-624.29	4.50	-4.48	-2.29
	3,831.00	3.91	117.170	3,721.69	-411.96	484.50	-633.69	4.13	-4.05	-8.24
	3,925.00	1.54	118.750	3,815.57	-414.03	488.46	-637.95	2.52	-2.52	1.68
	3,988.00	0.47	336.900	3,878.57	-414.20	489.10	-638.52	3.07	-1.70	-225.16
	4,019.00	3.18	321.090	3,909.55	-413.41	488.51	-637.54	8.81	8.74	-51.00
	4,050.00	6.85	317.300	3,940.42	-411.38	486.71	-634.84	11.88	11.84	-12.23
	4,082.00	10.01	317.660	3,972.08	-407.92	483.54	-630.15	9.88	9.88	1.13
	4,113.00	12.66	317.540	4,002.47	-403.42	479.44	-624.07	8.55	8.55	-0.39
	4,145.00	15.94	317.870	4,033.47	-397.58	474.12	-616.17	10.25	10.25	1.03
	4,177.00	19.04	318.360	4,063.99	-390.42	467.70	-606.57	9.70	9.69	1.53
	4,208.00	21.56	317.600	4,093.06	-382.43	460.50	-595.83	8.17	8.13	-2.45
	4,240.00	24.00	315.400	4,122.56	-373.45	451.97	-583.44	8.08	7.63	-6.88
	4,271.00	26.43	313.920	4,150.61	-364.18	442.57	-570.24	8.10	7.84	-4.77





Company: Enduring Resources LLC

 Project:
 San Juan County, New Mexico NAD83 NM W

 Site:
 W Lybrook 730 Pad (730, 763, 830, 861 & 863)

Well: W Lybrook Unit No. 763H

Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Database:

Well W Lybrook Unit No. 763H

RKB=6641+28 @ 6669.00ft (Ensign 773) RKB=6641+28 @ 6669.00ft (Ensign 773)

Grid

Minimum Curvature
DB\_Feb2822

Survey										
				Moderal			W. C. I	B. de	B 111	
	Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
	(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
	4,302.00	29.20	314.030	4,178.02	-354.13	432.16	-555.78	8.94	8.94	0.35
	4,334.00	32.03	314.730	4,205.56	-342.73	420.52	-539.48	8.91	8.84	2.19
	4,365.00	34.97	315.640	4,231.41	-330.59	408.46	-522.38	9.62	9.48	2.94
	4,397.00	37.60	315.880	4,257.20	-317.03	395.25	-503.44	8.23	8.22	0.75
	4,428.00	40.50	316.300	4,281.27	-302.96	381.71	-483.92	9.39	9.35	1.35
	4,460.00	44.23	315.360	4,304.91	-287.50	366.68	-462.36	11.82	11.66	-2.94
	4,491.00	47.71	314.980	4,326.46	-271.70	350.97	-440.07	11.26	11.23	-1.23
	4,522.00	50.15	314.750	4,346.82	-255.21	334.41	-416.70	7.89	7.87	-0.74
	4,554.00	52.21	314.410	4,366.88	-237.71	316.65	-391.78	6.49	6.44	-1.06
	4,585.00	53.89	314.380	4,385.51	-220.38	298.95	-367.00	5.42	5.42	-0.10
	4 617 00	EG E1	314.440	4,403.77	-201.99	200.10	-340.73	8.19	8.19	0.19
	4,617.00	56.51				280.18			7.38	
	4,649.00	58.87 50.08	314.130	4,420.88	-183.11 164.64	260.82	-313.69 -287.13	7.42		-0.97
	4,680.00	59.08	313.980	4,436.85	-164.64	241.73		0.79	0.68	-0.48
	4,712.00	61.51	313.750	4,452.71	-145.38	221.69	-259.35	7.62	7.59	-0.72
	4,743.00	64.98	313.810	4,466.66	-126.23	201.71	-231.68	11.19	11.19	0.19
	4,774.00	68.79	313.980	4,478.83	-106.47	181.16	-203.18	12.30	12.29	0.55
	4,777.26	69.18	314.055	4,480.00	-104.35	178.98	-200.14	12.16	11.96	2.30
	FTP G top @	4777.26 MD 448	80.00 TVD							
	4,806.00	72.62	314.700	4,489.40	-85.36	159.57	-172.99	12.16	11.97	2.24
	4,838.00	76.19	315.150	4,498.01	-63.60	137.75	-142.17	11.24	11.16	1.41
	4,869.00	79.11	315.690	4,504.63	-42.03	116.50	-111.89	9.57	9.42	1.74
	4,900.00	82.35	315.880	4,509.63	-20.10	95.17	-81.30	10.47	10.45	0.61
	4,963.00	86.58	315.970	4,515.70	24.94	51.56	-18.62	6.72	6.71	0.14
	5,058.00	86.65	316.030	4,521.31	93.15	-14.32	76.21	0.10	0.07	0.06
	5,152.00	89.15	316.140	4,524.76	160.82	-79.47	170.13	2.66	2.66	0.12
	5,247.00	88.82	316.160	4,526.44	229.32	-145.27	265.10	0.35	-0.35	0.02
	5,341.00	88.83	316.470	4,528.37	297.28	-210.18	359.06	0.33	0.01	0.33
	5,435.00	89.00	317.040	4,530.15	365.74	-274.57	453.01	0.63	0.18	0.61
	5,529.00	89.37	317.590	4,531.48	434.83	-338.29	546.94	0.71	0.39	0.59
	5,624.00	89.53	312.780	4,532.40	502.20	-405.23	641.91	5.07	0.17	-5.06
	5,718.00	89.13	312.520	4,533.50	565.88	-474.36	735.81	0.51	-0.43	-0.28
	E 040 00	00.70	040.000	4 505 00	000.00	F 4 4 4 F	000.00	0.00	0.00	0.45
	5,813.00	88.79	312.380	4,535.22	629.99	-544.45	830.68	0.39	-0.36	-0.15
	5,907.00	89.54	314.770	4,536.59	694.77	-612.54	924.62	2.66	0.80	2.54
	6,002.00	89.31	314.710	4,537.54	761.64	-680.01	1,019.61	0.25	-0.24	-0.06
	6,098.00	88.94	314.770	4,539.01	829.20	-748.19	1,115.60	0.39	-0.39	0.06
	6,192.00	88.89	314.650	4,540.79	895.32	-814.98	1,209.58	0.14	-0.05	-0.13
	6,286.00	88.98	315.290	4,542.54	961.74	-881.48	1,303.56	0.69	0.10	0.68
	6,381.00	89.29	315.710	4,543.97	1,029.49	-948.05	1,398.55	0.55	0.33	0.44
	6,475.00	89.64	316.040	4,544.85	1,096.97	-1,013.50	1,492.54	0.51	0.37	0.35
	6,569.00	89.47	315.890	4,545.58	1,164.54	-1,078.83	1,586.53	0.24	-0.18	-0.16
	6,664.00	89.13	315.600	4,546.74	1,232.58	-1,145.12	1,681.52	0.47	-0.36	-0.31
	6 750 00	00.44	215 700	1 540 40	1 200 00	1 240 04	1 775 50	0.42	0.00	0.42
	6,758.00	89.11	315.720	4,548.18	1,299.80	-1,210.81	1,775.50	0.13	-0.02	0.13
	6,853.00	89.35	316.280	4,549.46	1,368.13	-1,276.80	1,870.48	0.64	0.25	0.59





Company: Enduring Resources LLC

 Project:
 San Juan County, New Mexico NAD83 NM W

 Site:
 W Lybrook 730 Pad (730, 763, 830, 861 & 863)

Well: W Lybrook Unit No. 763H

Wellbore: Original Hole

Design: Surveys Original Hole

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

North Reference:
Survey Calculation Method:

Database:

Well W Lybrook Unit No. 763H

RKB=6641+28 @ 6669.00ft (Ensign 773) RKB=6641+28 @ 6669.00ft (Ensign 773)

Grid

Minimum Curvature
DB\_Feb2822

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)
	6,947.00	89.76	316.930	4,550.19	1,436.43	-1,341.38	1,964.45	0.82	0.44	0.69
	7,042.00	89.58	316.950	4,550.74	1,505.84	-1,406.24	2,059.41	0.19	-0.19	0.02
	7,136.00	89.08	316.360	4,551.84	1,574.20	-1,470.76	2,153.37	0.82	-0.53	-0.63
	7,230.00	88.69	316.400	4,553.66	1,642.23	-1,535.59	2,247.34	0.42	-0.41	0.04
	7,324.00	88.81	316.430	4,555.72	1,710.31	-1,600.38	2,341.29	0.13	0.13	0.03
	7,418.00	89.24	317.160	4,557.32	1,778.81	-1,664.73	2,435.24	0.90	0.46	0.78
	7,513.00	89.77	317.620	4,558.14	1,848.73	-1,729.04	2,530.17	0.74	0.56	0.48
	7,607.00	89.45	317.760	4,558.78	1,918.24	-1,792.31	2,624.08	0.37	-0.34	0.15
	7,701.00	89.47	318.110	4,559.66	1,988.02	-1,855.29	2,717.97	0.37	0.02	0.37
	7,796.00	89.83	314.980	4,560.24	2,056.98	-1,920.62	2,812.93	3.32	0.38	-3.29
	7,890.00	89.69	315.470	4,560.64	2,123.70	-1,986.82	2,906.93	0.54	-0.15	0.52
	7,984.00	89.41	315.100	4,561.37	2,190.50	-2,052.96	3,000.93	0.49	-0.30	-0.39
	8,078.00	88.88	314.490	4,562.78	2,256.72	-2,119.65	3,094.91	0.86	-0.56	-0.65
	8,173.00	88.50	315.200	4,564.95	2,323.70	-2,186.99	3,189.89	0.85	-0.40	0.75
	8,267.00	88.29	315.030	4,567.58	2,390.27	-2,253.30	3,283.85	0.29	-0.22	-0.18
	8,362.00	88.47	315.550	4,570.27	2,457.76	-2,320.11	3,378.81	0.58	0.19	0.55
	8,457.00	88.66	315.800	4,572.65	2,525.70	-2,386.47	3,473.78	0.33	0.20	0.26
	8,551.00	89.09	316.430	4,574.49	2,593.43	-2,451.62	3,567.75	0.81	0.46	0.67
	8,647.00	90.71	313.820	4,574.66	2,661.46	-2,519.34	3,663.74	3.20	1.69	-2.72
	8,740.00	90.97	314.180	4,573.30	2,726.05	-2,586.23	3,756.70	0.48	0.28	0.39
	8,835.00	90.70	314.440	4,571.91	2,792.41	-2,654.20	3,851.68	0.39	-0.28	0.27
	8,929.00	90.30	314.580	4,571.09	2,858.30	-2,721.24	3,945.67	0.45	-0.43	0.15
	9,023.00	90.27	314.620	4,570.62	2,924.30	-2,788.17	4,039.66	0.05	-0.03	0.04
	9,117.00	90.54	315.130	4,569.96	2,990.62	-2,854.78	4,133.66	0.61	0.29	0.54
	9,212.00	90.53	315.580	4,569.07	3,058.21	-2,921.53	4,228.66	0.47	-0.01	0.47
	9,306.00	90.96	315.870	4,567.85	3,125.51	-2,987.15	4,322.64	0.55	0.46	0.31
	9,401.00	89.82	314.070	4,567.20	3,192.64	-3,054.35	4,417.63	2.24	-1.20	-1.89
	9,495.00	89.94	314.630	4,567.40	3,258.35	-3,121.57	4,511.62	0.61	0.13	0.60
	9,589.00	90.04	314.840	4,567.42	3,324.51	-3,188.34	4,605.62	0.25	0.11	0.22
	9,684.00	90.09	315.340	4,567.31	3,391.79	-3,255.41	4,700.62	0.53	0.05	0.53
	9,778.00	90.52	315.980	4,566.81	3,459.02	-3,321.11	4,794.61	0.82	0.46	0.68
	9,872.00	88.92	314.280	4,567.27	3,525.63	-3,387.42	4,888.61	2.48	-1.70	-1.81
	9,966.00	89.09	314.510	4,568.90	3,591.38	-3,454.58	4,982.58	0.30	0.18	0.24
	10,060.00	89.12	314.480	4,570.37	3,657.26	-3,521.62	5,076.56	0.05	0.03	-0.03
	10,155.00	88.88	314.510	4,572.03	3,723.83	-3,589.38	5,171.54	0.25	-0.25	0.03
	10,249.00	89.17	315.130	4,573.63	3,790.08	-3,656.04	5,265.53	0.73	0.31	0.66
	10,344.00	89.41	315.710	4,574.80	3,857.74	-3,722.72	5,360.52	0.66	0.25	0.61
	10,439.00	89.40	316.070	4,575.79	3,925.94	-3,788.84	5,455.51	0.38	-0.01	0.38
	10,533.00	90.74	313.380	4,575.67	3,992.08	-3,855.62	5,549.49	3.20	1.43	-2.86
	10,628.00	90.87	313.660	4,574.34	4,057.49	-3,924.50	5,644.44	0.32	0.14	0.29
	10,722.00	90.76	313.740	4,573.00	4,122.43	-3,992.45	5,738.40	0.14	-0.12	0.09
	10,816.00	90.94	314.380	4,571.61	4,187.79	-4,059.99	5,832.37	0.71	0.19	0.68
	10,911.00	91.33	314.870	4,569.73	4,254.51	-4,127.59	5,927.34	0.66	0.41	0.52





Company: Enduring Resources LLC

 Project:
 San Juan County, New Mexico NAD83 NM W

 Site:
 W Lybrook 730 Pad (730, 763, 830, 861 & 863)

Well: W Lybrook Unit No. 763H

Wellbore: Original Hole

Design: Surveys Original Hole

Local Co-ordinate Reference:

TVD Reference:
MD Reference:

Survey Calculation Method:

Database:

North Reference:

Well W Lybrook Unit No. 763H

RKB=6641+28 @ 6669.00ft (Ensign 773) RKB=6641+28 @ 6669.00ft (Ensign 773)

Grid

Minimum Curvature

DB\_Feb2822

•									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
11,005.00	89.48	314.420	4,569.06	4,320.56	-4,194.46	6,021.33	2.03	-1.97	-0.48
11,099.00	89.40	314.220	4,569.98	4,386.23	-4,261.71	6,115.31	0.23	-0.09	-0.21
11,193.00	89.78	314.640	4,570.65	4,452.04	-4,328.84	6,209.30	0.60	0.40	0.45
11,288.00	89.70	314.670	4,571.08	4,518.80	-4,396.41	6,304.30	0.09	-0.08	0.03
11,383.00	89.71	314.870	4,571.57	4,585.71	-4,463.86	6,399.29	0.21	0.01	0.21
11,478.00	89.44	314.920	4,572.28	4,652.76	-4,531.15	6,494.29	0.29	-0.28	0.05
11,572.00	89.44	314.950	4,573.20	4,719.15	-4,597.69	6,588.28	0.03	0.00	0.03
11,667.00	89.61	315.170	4,573.98	4,786.39	-4,664.80	6,683.28	0.29	0.18	0.23
11,761.00	89.66	315.150	4,574.58	4,853.04	-4,731.08	6,777.28	0.06	0.05	-0.02
11,855.00	89.34	315.190	4,575.40	4,919.71	-4,797.35	6,871.27	0.34	-0.34	0.04
11,949.00	89.30	315.270	4,576.52	4,986.43	-4,863.54	6,965.27	0.10	-0.04	0.09
12,044.00	89.53	315.520	4,577.49	5,054.07	-4,930.25	7,060.26	0.36	0.24	0.26
12,138.00	89.84	315.890	4,578.01	5,121.35	-4,995.89	7,154.26	0.51	0.33	0.39
12,232.00	90.03	317.010	4,578.11	5,189.48	-5,060.66	7,248.23	1.21	0.20	1.19
12,326.00	89.52	314.710	4,578.48	5,256.93	-5,126.11	7,342.22	2.51	-0.54	-2.45
12,421.00	89.71	315.420	4,579.12	5,324.18	-5,193.21	7,437.22	0.77	0.20	0.75
12,515.00	89.90	315.400	4,579.44	5,391.12	-5,259.20	7,531.22	0.20	0.20	-0.02
12,609.00	89.71	315.310	4,579.76	5,458.00	-5,325.26	7,625.22	0.22	-0.20	-0.10
12,704.00	89.87	315.830	4,580.11	5,525.84	-5,391.76	7,720.21	0.57	0.17	0.55
12,799.00	89.47	315.200	4,580.66	5,593.61	-5,458.33	7,815.21	0.79	-0.42	-0.66
12,893.00	89.19	315.560	4,581.75	5,660.51	-5,524.35	7,909.20	0.49	-0.30	0.38
12,988.00	89.39	315.820	4,582.93	5,728.49	-5,590.70	8,004.19	0.35	0.21	0.27
13,082.00	88.89	315.890	4,584.34	5,795.93	-5,656.16	8,098.17	0.54	-0.53	0.07
13,176.00	89.09	316.440	4,586.00	5,863.73	-5,721.26	8,192.15	0.62	0.21	0.59
13,270.00	89.22	317.500	4,587.39	5,932.43	-5,785.39	8,286.09	1.14	0.14	1.13
13,365.00	89.72	315.740	4,588.27	6,001.47	-5,850.64	8,381.05	1.93	0.53	-1.85
13,459.00	89.44	315.440	4,588.95	6,068.62	-5,916.41	8,475.05	0.44	-0.30	-0.32
13,553.00	89.60	315.610	4,589.74	6,135.69	-5,982.27	8,569.05	0.25	0.17	0.18
13,613.00	89.49	315.547	4,590.22	6,178.54	-6,024.26	8,629.04	0.21	-0.18	-0.11
LTP 13613.0	0 MD 4590.22 TV	'D							
13,633.00	89.46	315.526	4,590.40	6,192.82	-6,038.27	8,649.04	0.21	-0.18	-0.11
330 perp @	13633.00 MD 459	0.40 TVD							
13,648.00	89.43	315.510	4,590.55	6,203.52	-6,048.78	8,664.04	0.21	-0.18	-0.11
	3648.00 MD 4590								
13,747.00	89.43	315.510	4,591.53	6,274.14	-6,118.16	8,763.03	0.00	0.00	0.00

Casing Points				
	Measured Depth	Vertical Depth		Casing Hole Diameter Diameter
	(ft)	(ft)	Name	(")
	2,555.67	2,515.00 9 5/8"		9-5/8 12-1/4





Company: Enduring Resources LLC

 Project:
 San Juan County, New Mexico NAD83 NM W

 Site:
 W Lybrook 730 Pad (730, 763, 830, 861 & 863)

Well: W Lybrook Unit No. 763H

Wellbore: Original Hole

Design: Surveys Original Hole

Local Co-ordinate Reference: Well W Lybrook Unit No. 763H

 TVD Reference:
 RKB=6641+28 @ 6669.00ft (Ensign 773)

 MD Reference:
 RKB=6641+28 @ 6669.00ft (Ensign 773)

North Reference: Grid

Survey Calculation Method: Minimum Curvature

Database: DB\_Feb2822

Annotations				
Measured	Vertical	Local Coo	rdinates	
Depth (ft)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
431.00	430.98	-2.53	-2.13	MWD surveys
2,515.00	2,477.63	-149.89	164.97	9 5/8" Casing @ 2515 MD 2477.63 TVD
4,777.26	4,480.00	-104.35	178.98	FTP G top @ 4777.26 MD 4480.00 TVD
13,613.00	4,590.22	6,178.54	-6,024.26	LTP 13613.00 MD 4590.22 TVD
13,633.00	4,590.40	6,192.82	-6,038.27	330 perp @ 13633.00 MD 4590.40 TVD
13,648.00	4,590.55	6,203.52	-6,048.78	Survey @ 13648.00 MD 4590.55 TVD
13,747.00	4,591.53	6,274.14	-6,118.16	Survey Proj. to 13747 MD 4591.53 TVD 134 FNL 1723 FWL



**TVD Reference:** 

MD Reference:



Company: **Enduring Resources LLC** 

Project: San Juan County, New Mexico NAD83 NM W W Lybrook 730 Pad (730, 763, 830, 861 & 863) Site:

Well: W Lybrook Unit No. 763H

Original Hole Wellbore: Design: Surveys Original Hole **Local Co-ordinate Reference:** 

Well W Lybrook Unit No. 763H RKB=6641+28 @ 6669.00ft (Ensign 773)

RKB=6641+28 @ 6669.00ft (Ensign 773)

North Reference:

Minimum Curvature **Survey Calculation Method:** DB\_Feb2822 Database:

San Juan County, New Mexico NAD83 NM W **Project** 

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

System Datum: Mean Sea Level

W Lybrook 730 Pad (730, 763, 830, 861 & 863) Site

1,888,164.052 usft Site Position: Northing: Latitude: 36.189179000 From: Lat/Long Easting: 2,741,098.391 usft Longitude: -107.772310000 Slot Radius: 0.04 ° **Position Uncertainty:** 0.00 ft 13-3/16 " **Grid Convergence:** 

Well W Lybrook Unit No. 763H, Surf loc: 1181 FNL 2446 FWL Section 27-T23N-R09W **Well Position** +N/-S 0.00 ft Northing: 1,892,794.671 usft Latitude: 36.201902000 +E/-W 0.00 ft Easting: 2,739,770.786 usft Longitude: -107.776800000 0.00 ft ft Ground Level: 6,641.00 ft **Position Uncertainty** Wellhead Elevation:

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	3/8/2022	8.74	62.71	49,216.04446918

Surveys Original Hole Design Audit Notes: ACTUAL Version: 1.0 Phase: Tie On Depth: 0.00 Depth From (TVD) +N/-S **Vertical Section:** +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 315.220

Survey Program	Date 4/19/2022			
From (ft)	To (ft) Survey (Wellbore)	Tool Name	Description	
431.00	2,453.00 MWD surf (Original Hole)	MWD	OWSG MWD - Standard	
2,584.00	13,648.00 MWD (Original Hole)	MWD	OWSG MWD - Standard	
13,747.00	13,747.00 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
0.00 431.00	0.00 0.88	0.000 220.030	0.00 430.98	0.00 -2.53	0.00 -2.13	1,892,794.671 1,892,792.137	2,739,770.786 2,739,768.657	36.201902000 36.201895041	-107.776800000 -107.776807221
MWD su	rveys								
493.00	0.79	247.010	492.98	-3.07	-2.83	1,892,791.605	2,739,767.958	36.201893582	-107.776809593
584.00	0.62	223.370	583.97	-3.67	-3.74	1,892,791.002	2,739,767.042	36.201891927	-107.776812698
675.00	0.75	247.010	674.96	-4.26	-4.63	1,892,790.412	2,739,766.156	36.201890307	-107.776815703
766.00	0.48	240.330	765.96	-4.68	-5.51	1,892,789.991	2,739,765.276	36.201889151	-107.776818685
857.00	0.57	234.000	856.95	-5.14	-6.21	1,892,789.536	2,739,764.579	36.201887903	-107.776821050
948.00	0.13	180.390	947.95	-5.50	-6.57	1,892,789.167	2,739,764.212	36.201886889	-107.776822294
1,039.00	0.35	272.940	1,038.95	-5.59	-6.85	1,892,789.078	2,739,763.934	36.201886645	-107.776823238





Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W Site: W Lybrook 730 Pad (730, 763, 830, 861 & 863)

Well: W Lybrook Unit No. 763H

Original Hole Wellbore: Design: Surveys Original Hole Local Co-ordinate Reference:

Well W Lybrook Unit No. 763H RKB=6641+28 @ 6669.00ft (Ensign 773) TVD Reference:

MD Reference: RKB=6641+28 @ 6669.00ft (Ensign 773)

North Reference:

**Survey Calculation Method:** Minimum Curvature DB\_Feb2822 Database:

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,132.00	0.35	250.790	1,131.95	-5.67	-7.40	1,892,788.999	2,739,763.382	36.201886429	-107.776825108
1,226.00	0.53	229.430	1,225.95	-6.05	-8.01	1,892,788.621	2,739,762.780	36.201885394	-107.776827147
1,320.00	0.35	50.750	1,319.95	-6.15	-8.11	1,892,788.520	2,739,762.673	36.201885116	-107.776827513
1,414.00	0.75	34.140	1,413.94	-5.46	-7.55	1,892,789.211	2,739,763.240	36.201887013	-107.776825588
1,508.00	0.62	69.740	1,507.94	-4.77	-6.72	1,892,789.896	2,739,764.062	36.201888894	-107.776822799
1,603.00	0.57	48.820	1,602.93	-4.29	-5.89	1,892,790.386	2,739,764.900	36.201890237	-107.776819959
1,697.00	2.33	126.070	1,696.90	-5.10	-3.99	1,892,789.568	2,739,766.797	36.201887988	-107.776813532
1,791.00	6.11	133.720	1,790.63	-9.69	1.17	1,892,784.984	2,739,771.959	36.201875387	-107.776796045
1,886.00	9.32	133.110	1,884.76	-18.44	10.44	1,892,776.231	2,739,781.231	36.201851325	-107.776764634
1,981.00	12.13	136.710	1,978.09	-30.97	22.91	1,892,763.706	2,739,793.694	36.201816898	-107.776722418
2,075.00	15.78	134.160	2,069.30	-47.06	38.85	1,892,747.607	2,739,809.640	36.201772648	-107.776668398
2,170.00	19.60	132.750	2,159.79	-66.89	59.83	1,892,727.785	2,739,830.616	36.201718160	-107.776597342
2,264.00	22.68	128.360	2,247.46	-88.84	85.63	1,892,705.829	2,739,856.411	36.201657804	-107.776509953
2,358.00	23.95	127.660	2,333.78	-111.75	114.94	1,892,682.924	2,739,885.727	36.201594836	-107.776410635
2,453.00	23.55	126.780	2,420.74	-134.89	145.41	1,892,659.780	2,739,916.192	36.201531207	-107.776307419
2,515.00	23.31	128.199	2,477.63	-149.89	164.97	1,892,644.779	2,739,935.752	36.201489967	-107.776241154
9 5/8" Ca	asing @ 2515	MD 2477.63	ΓVD						
2,584.00	23.05	129.810	2,541.06	-166.98	186.07	1,892,627.690	2,739,956.855	36.201442986	-107.776169659
2,678.00	22.44	130.580	2,627.75	-190.43	213.83	1,892,604.237	2,739,984.617	36.201378515	-107.776075608
2,772.00	21.59	130.380	2,714.90	-213.31	240.63	1,892,581.362	2,740,011.418	36.201315631	-107.775984815
2,867.00	20.39	130.220	2,803.59	-235.32	266.58	1,892,559.352	2,740,037.370	36.201255124	-107.775896897
2,983.00	23.43	130.480	2,911.20	-263.35	299.56	1,892,531.325	2,740,070.349	36.201178078	-107.775785171
3,076.00	22.04	130.230	2,996.97	-286.62	326.95	1,892,508.051	2,740,097.736	36.201114097	-107.775692391
3,171.00	20.23	128.920	3,085.58	-308.45	353.34	1,892,486.218	2,740,124.126	36.201054077	-107.775602989
3,266.00	17.51	128.430	3,175.46	-327.66	377.32	1,892,467.013	2,740,148.105	36.201001279	-107.775521753
3,359.00	18.89	129.680	3,263.81	-345.97	399.87	1,892,448.704	2,740,170.652	36.200950945	-107.775445368
3,453.00	18.09	129.350	3,352.96	-364.94	422.86	1,892,429.734	2,740,193.649	36.200898796	-107.775367461
3,548.00	16.81	128.680	3,443.58	-382.88	444.99	1,892,411.797	2,740,215.779	36.200849483	-107.775292490
3,642.00	11.97	127.150	3,534.61	-397.27	463.38	1,892,397.407	2,740,234.170	36.200809922	-107.775230183
3,736.00	7.76	125.000	3,627.20	-406.80	476.36	1,892,387.876	2,740,247.144	36.200783718	-107.775186229
3,831.00	3.91	117.170	3,721.69	-411.96	484.50	1,892,382.716	2,740,255.282	36.200769530	-107.775158654
3,925.00	1.54	118.750	3,815.57	-414.03	488.46	1,892,380.644	2,740,259.242	36.200763833	-107.775145239
3,988.00	0.47	336.900	3,878.57	-414.20	489.10	1,892,380.475	2,740,259.882	36.200763367	-107.775143067
4,019.00	3.18	321.090	3,909.55	-413.41	488.51	1,892,381.261	2,740,259.292	36.200765527	-107.775145066
4,050.00	6.85	317.300	3,940.42	-411.38	486.71	1,892,383.290	2,740,257.498	36.200771102	-107.775151143
4,082.00	10.01	317.660	3,972.08	-407.92	483.54	1,892,386.749	2,740,254.330	36.200780610	-107.775161874
4,113.00	12.66	317.540	4,002.47	-403.42	479.44	1,892,391.247	2,740,250.221	36.200792974	-107.775175791
4,145.00	15.94	317.870	4,033.47	-397.58	474.12	1,892,397.094	2,740,244.905	36.200809046	-107.775193798
4,177.00	19.04	318.360	4,063.99	-390.42	467.70	1,892,404.256	2,740,238.488	36.200828730	-107.775215535
4,208.00	21.56	317.600	4,093.06	-382.43	460.50	1,892,412.242	2,740,231.286	36.200850681	-107.775239928
4,240.00	24.00	315.400	4,122.56	-373.45	451.97	1,892,421.219	2,740,222.750	36.200875356	-107.775268841
4,271.00	26.43	313.920	4,150.61	-364.18	442.57	1,892,430.495	2,740,213.353	36.200900853	-107.775300674
4,302.00	29.20	314.030	4,178.02	-354.13	432.16	1,892,440.538	2,740,202.944	36.200928460	-107.775335932
4,334.00	32.03	314.730	4,205.56	-342.73	420.52	1,892,451.938	2,740,191.301	36.200959795	-107.775375372
4,365.00	34.97	315.640	4,231.41	-330.59	408.46	1,892,464.078	2,740,179.247	36.200993164	-107.775416204
4,397.00	37.60	315.880	4,257.20	-317.03	395.25	1,892,477.645	2,740,166.037	36.201030456	-107.775460951
4,428.00	40.50	316.300	4,281.27	-302.96	381.71	1,892,491.715	2,740,152.496	36.201069129	-107.775506821
4,460.00	44.23	315.360	4,304.91	-287.50	366.68	1,892,507.174	2,740,137.469	36.201111622	-107.775557721
4,491.00	47.71	314.980	4,326.46	-271.70	350.97	1,892,522.977	2,740,121.757	36.201155060	-107.775610945
4,522.00	50.15	314.750	4,346.82	-255.21	334.41	1,892,539.462	2,740,105.193	36.201200373	-107.775667055
4,554.00	52.21	314.410	4,366.88	-237.71	316.65	1,892,556.960	2,740,087.435	36.201248470	-107.775727209
4,585.00	53.89	314.380	4,385.51	-220.38	298.95	1,892,574.291	2,740,069.734	36.201296110	-107.775787171
4,617.00	56.51	314.440	4,403.77	-201.99	280.18	1,892,592.677	2,740,050.965	36.201346650	-107.775850751
4,649.00	58.87	314.130	4,420.88	-183.11	260.82	1,892,611.559	2,740,031.604	36.201398552	-107.775916334
4,680.00	59.08	313.980	4,436.85	-164.64	241.73	1,892,630.031	2,740,012.513	36.201449328	-107.775981007
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Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W Site: W Lybrook 730 Pad (730, 763, 830, 861 & 863)

Well: W Lybrook Unit No. 763H

Wellbore: Original Hole Design: Surveys Original Hole Local Co-ordinate Reference:

Well W Lybrook Unit No. 763H

RKB=6641+28 @ 6669.00ft (Ensign 773) TVD Reference: MD Reference: RKB=6641+28 @ 6669.00ft (Ensign 773)

North Reference:

**Survey Calculation Method:** Minimum Curvature DB\_Feb2822 Database:

Survey									
Measured			Vertical			Мар	Мар		
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Northing	Easting		
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)	Latitude	Longitude
4,712.00	61.51	313.750	4,452.71	-145.38	221.69	1,892,649.290	2,739,992.474	36.201502266	-107.776048887
4,743.00	64.98	313.810	4,466.66	-126.23	201.71	1,892,668.439	2,739,972.492	36.201554904	-107.776116578
4,774.00	68.79	313.980	4,478.83	-106.47	181.16	1,892,688.204	2,739,951.950	36.201609233	-107.776186163
4,777.26	69.18	314.055	4,480.00	-104.35	178.98	1,892,690.318	2,739,949.763	36.201615042	-107.776193572
	p @ 4777.26 l					.,,	_, ,		
4,806.00	72.62	314.700	4,489.40	-85.36	159.57	1,892,709.311	2,739,930.355	36.201667249	-107.776259317
4,838.00	76.19	315.150	4,498.01	-63.60	137.75	1,892,731.074	2,739,908.537	36.201727070	-107.776333226
4,869.00	79.11	315.690	4,504.63	-42.03	116.50	1,892,752.641	2,739,887.284	36.201786352	-107.776405218
4,900.00	82.35	315.880	4,509.63	-20.10	95.17	1,892,774.567	2,739,865.952	36.201846618	-107.776477480
4,963.00	86.58	315.970	4,515.70	24.94	51.56	1,892,819.607	2,739,822.343	36.201970417	-107.776625200
5,058.00	86.65	316.030	4,521.31	93.15	-14.32	1,892,887.825	2,739,756.466	36.202157925	-107.776848354
5,152.00	89.15	316.140	4,524.76	160.82	-79.47	1,892,955.488	2,739,691.318	36.202343908	-107.777069040
5,247.00	88.82	316.160	4,526.44	229.32	-145.27	1,893,023.987	2,739,625.515	36.202532186	-107.777291944
5,341.00	88.83	316.470	4,528.37	297.28	-210.18	1,893,091.949	2,739,560.604	36.202718985	-107.777511827
5,435.00	89.00	317.040	4,530.15	365.74	-274.57	1,893,160.408	2,739,496.214	36.202907153	-107.777729942
5,529.00	89.37	317.590	4,531.48	434.83	-338.29	1,893,229.499	2,739,432.492	36.203097053	-107.777945794
5,624.00	89.53	312.780	4,532.40	502.20	-405.23	1,893,296.868	2,739,365.557	36.203282226	-107.778172542
5,718.00	89.13	312.520	4,533.50	565.88	-474.36	1,893,360.550	2,739,296.425	36.203457275	-107.778406746
5,813.00	88.79	312.380	4,535.22	629.99	-544.45	1,893,424.659	2,739,226.339	36.203633498	-107.778644181
5,907.00	89.54	314.770	4,536.59	694.77	-612.54	1,893,489.442	2,739,158.252	36.203811567	-107.778874843
6,002.00	89.31	314.710	4,537.54	761.64	-680.01	1,893,556.308	2,739,090.776	36.203995359	-107.779103428
6,098.00	88.94	314.770	4,539.01	829.20	-748.19	1,893,623.873	2,739,022.595	36.204181072	-107.779334406
6,192.00	88.89	314.650	4,540.79	895.32	-814.98	1,893,689.992	2,738,955.803	36.204362809	-107.779560675
6,286.00	88.98	315.290	4,542.54	961.74	-881.48	1,893,756.413	2,738,889.312	36.204545376	-107.779785927
6,381.00	89.29	315.710	4,543.97	1,029.49	-948.05	1,893,824.164	2,738,822.734	36.204731595	-107.780011473
6,475.00	89.64	316.040	4,544.85	1,096.97	-1,013.50	1,893,891.636	2,738,757.292	36.204917046	-107.780233170
6,569.00	89.47	315.890	4,545.58	1,164.54	-1,078.83	1,893,959.212	2,738,691.955	36.205102781	-107.780454511
6,664.00	89.13	315.600	4,546.74	1,232.58	-1,145.12	1,894,027.249	2,738,625.664	36.205289786	-107.780679085
6,758.00	89.11	315.720	4,548.18	1,299.80	-1,210.81	1,894,094.470	2,738,559.974	36.205474547	-107.780901626
6,853.00	89.35	316.280	4,549.46	1,368.13	-1,276.80	1,894,162.801	2,738,493.988	36.205662356	-107.781125169
6,947.00	89.76	316.930	4,550.19	1,436.43	-1,341.38	1,894,231.102	2,738,429.410	36.205850081	-107.781343940
7,042.00	89.58	316.950	4,550.74	1,505.84	-1,406.24	1,894,300.511	2,738,364.549	36.206040851	-107.781563671
7,136.00	89.08	316.360	4,551.84	1,574.20	-1,470.76	1,894,368.866	2,738,300.033	36.206228722	-107.781782232
7,230.00	88.69	316.400	4,553.66	1,642.23	-1,535.59	1,894,436.903	2,738,235.198	36.206415719	-107.782001880
7,324.00	88.81	316.430	4,555.72	1,710.31	-1,600.38	1,894,504.975	2,738,170.407	36.206602816	-107.782221377
7,418.00	89.24	317.160	4,557.32	1,778.81	-1,664.73	1,894,573.482	2,738,106.064	36.206791104	-107.782439358
7,513.00	89.77	317.620	4,558.14	1,848.73	-1,729.04	1,894,643.397	2,738,041.751	36.206983259	-107.782657233
7,607.00	89.45	317.760	4,558.78	1,918.24	-1,792.31	1,894,712.909	2,737,978.478	36.207174307	-107.782871588
7,701.00	89.47	318.110	4,559.66	1,988.02	-1,855.29	1,894,782.690	2,737,915.503	36.207366092	-107.783084930
7,796.00	89.83	314.980	4,560.24	2,056.98	-1,920.62	1,894,851.642	2,737,850.173	36.207555602	-107.783306258
7,890.00	89.69	315.470	4,560.64	2,123.70	-1,986.82	1,894,918.370	2,737,783.967	36.207739003	-107.783530560
7,984.00	89.41	315.100	4,561.37	2,190.50	-2,052.96	1,894,985.165	2,737,717.833	36.207922590	-107.783754621
8,078.00	88.88	314.490	4,562.78	2,256.72	-2,119.65	1,895,051.387	2,737,651.136	36.208104601	-107.783980592
8,173.00	88.50	315.200	4,564.95	2,323.70	-2,186.99	1,895,118.362	2,737,583.798	36.208288682	-107.784208736
8,267.00	88.29	315.030	4,567.58	2,390.27	-2,253.30	1,895,184.937	2,737,517.489	36.208471662	-107.784433390
8,362.00	88.47	315.550	4,570.27	2,457.76	-2,320.11	1,895,252.424	2,737,450.682	36.208657147	-107.784659735
8,457.00	88.66	315.800	4,572.65	2,525.70	-2,386.47	1,895,320.364	2,737,384.324	36.208843877	-107.784884558
8,551.00	89.09	316.430	4,574.49	2,593.43	-2,451.62	1,895,388.099	2,737,319.175	36.209030042	-107.785105283
8,647.00	90.71	313.820	4,574.66	2,661.46	-2,519.34	1,895,456.121	2,737,251.450	36.209216997	-107.785334743
8,740.00	90.97	314.180	4,573.30	2,726.05	-2,586.23	1,895,520.717	2,737,184.558	36.209394539	-107.785561382
8,835.00	90.70	314.440	4,571.91	2,792.41	-2,654.20	1,895,587.071	2,737,116.587	36.209576911	-107.785791682
8,929.00	90.30	314.580	4,571.09	2,858.30	-2,721.24	1,895,652.965	2,737,049.556	36.209758020	-107.786018795
9,023.00	90.27	314.620	4,570.62	2,924.30	-2,788.17	1,895,718.967	2,736,982.626	36.209939422	-107.786245564
9,117.00	90.54	315.130	4,569.96	2,990.62	-2,854.78	1,895,785.287	2,736,916.015	36.210121700	-107.786471254
9,212.00	90.53	315.580	4,569.07	3,058.21	-2,921.53	1,895,852.874	2,736,849.261	36.210307456	-107.786697429





Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W Site: W Lybrook 730 Pad (730, 763, 830, 861 & 863)

Well: W Lybrook Unit No. 763H

Wellbore: Original Hole Design: Surveys Original Hole Local Co-ordinate Reference:

Well W Lybrook Unit No. 763H RKB=6641+28 @ 6669.00ft (Ensign 773) TVD Reference:

MD Reference: RKB=6641+28 @ 6669.00ft (Ensign 773)

North Reference:

**Survey Calculation Method:** Minimum Curvature DB\_Feb2822 Database:

	_								
Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,306.00	90.96	315.870	4,567.85	3,125.51	-2,987.15	1,895,920.172	2,736,783.645	36.210492416	-107.786919746
9,401.00	89.82	314.070	4,567.20	3,192.64	-3,054.35	1,895,987.306	2,736,716.440	36.210676928	-107.787147451
9,495.00	89.94	314.630	4,567.40	3,258.35	-3,121.57	1,896,053.015	2,736,649.223	36.210857526	-107.787375202
9,589.00	90.04	314.840	4,567.42	3,324.51	-3,188.34	1,896,119.175	2,736,582.448	36.211039360	-107.787601452
9,684.00	90.09	315.340	4,567.31	3,391.79	-3,255.41	1,896,186.455	2,736,515.379	36.211224271	-107.787828700
9,778.00	90.52	315.980	4,566.81	3,459.02	-3,321.11	1,896,253.683	2,736,449.683	36.211409037	-107.788051296
9,872.00	88.92	314.280	4,567.27	3,525.63	-3,387.42	1,896,320.296	2,736,383.371	36.211592115	-107.788275979
9,966.00	89.09	314.510	4,568.90	3,591.38	-3,454.58	1,896,386.049	2,736,316.216	36.211772828	-107.788503526
10,060.00	89.12	314.480	4,570.37	3,657.26	-3,521.62	1,896,451.920	2,736,249.173	36.211953868	-107.788730692
10,155.00	88.88	314.510	4,572.03	3,723.83	-3,589.38	1,896,518.490	2,736,181.418	36.212136828	-107.788960268
10,249.00	89.17	315.130	4,573.63	3,790.08	-3,656.04	1,896,584.739	2,736,114.752	36.212318904	-107.789186159
10,344.00	89.41	315.710	4,574.80	3,857.74	-3,722.72	1,896,652.399	2,736,048.077	36.212504856	-107.789412079
10,439.00	89.40	316.070	4,575.79	3,925.94	-3,788.84	1,896,720.606	2,735,981.957	36.212692308	-107.789636116
10,533.00	90.74	313.380	4,575.67	3,992.08	-3,855.62	1,896,786.746	2,735,915.179	36.212874085	-107.789862389
10,628.00	90.87	313.660	4,574.34	4,057.49	-3,924.50	1,896,852.157	2,735,846.298	36.213053860	-107.790095791
10,722.00	90.76	313.740	4,573.00	4,122.43	-3,992.45	1,896,917.093	2,735,778.346	36.213232329	-107.790326047
10,816.00	90.94	314.380	4,571.61	4,187.79	-4,059.99	1,896,982.454	2,735,710.804	36.213411964	-107.790554912
10,911.00	91.33	314.870	4,569.73	4,254.51	-4,127.59	1,897,049.175	2,735,643.205	36.213595333	-107.790783973
11,005.00	89.48	314.420	4,569.06	4,320.56	-4,194.46	1,897,115.225	2,735,576.331	36.213776859	-107.791010575
11,099.00	89.40	314.220	4,569.98	4,386.23	-4,261.71	1,897,180.896	2,735,509.082	36.213957345	-107.791238451
11,193.00	89.78	314.640	4,570.65	4,452.04	-4,328.84	1,897,246.698	2,735,441.958	36.214138188	-107.791465904
11,288.00	89.70	314.670	4,571.08 4,571.57	4,518.80	-4,396.41	1,897,313.466	2,735,374.381	36.214321687	-107.791694894
11,383.00 11,478.00	89.71 89.44	314.870 314.920	4,571.57	4,585.71 4,652.76	-4,463.86 -4,531.15	1,897,380.370 1,897,447.420	2,735,306.938 2,735,239.642	36.214505558 36.214689829	-107.791923430 -107.792151468
11,572.00	89.44	314.950	4,573.20	4,719.15	-4,597.69	1,897,513.809	2,735,173.101	36.214872284	-107.792376945
11,667.00	89.61	315.170	4,573.98	4,786.39	-4,664.80	1,897,581.052	2,735,175.101	36.215057085	-107.792604327
11,761.00	89.66	315.150	4,574.58	4,853.04	-4,731.08	1,897,647.704	2,735,039.719	36.215240260	-107.792828927
11,855.00	89.34	315.190	4,575.40	4,919.71	-4,797.35	1,897,714.366	2,734,973.451	36.215423463	-107.793053484
11,949.00	89.30	315.270	4,576.52	4,986.43	-4,863.54	1,897,781.096	2,734,907.255	36.215606851	-107.793277797
12,044.00	89.53	315.520	4,577.49	5,054.07	-4,930.25	1,897,848.729	2,734,840.548	36.215792720	-107.793503843
12,138.00	89.84	315.890	4,578.01	5,121.35	-4,995.89	1,897,916.008	2,734,774.904	36.215977617	-107.793726287
12,232.00	90.03	317.010	4,578.11	5,189.48	-5,060.66	1,897,984.135	2,734,710.141	36.216164842	-107.793945746
12,326.00	89.52	314.710	4,578.48	5,256.93	-5,126.11	1,898,051.588	2,734,644.683	36.216350214	-107.794167561
12,421.00	89.71	315.420	4,579.12	5,324.18	-5,193.21	1,898,118.837	2,734,577.586	36.216535029	-107.794394933
12,515.00	89.90	315.400	4,579.44	5,391.12	-5,259.20	1,898,185.779	2,734,511.596	36.216718996	-107.794618556
12,609.00	89.71	315.310	4,579.76	5,458.00	-5,325.26	1,898,252.657	2,734,445.542	36.216902788	-107.794842397
12,704.00	89.87	315.830	4,580.11	5,525.84	-5,391.76	1,898,320.496	2,734,379.039	36.217089221	-107.795067758
12,799.00	89.47	315.200	4,580.66	5,593.61	-5,458.33	1,898,388.271	2,734,312.472	36.217275476	-107.795293338
12,893.00	89.19	315.560	4,581.75	5,660.51	-5,524.35	1,898,455.173	2,734,246.451	36.217459335	-107.795517069
12,988.00	89.39	315.820	4,582.93	5,728.49	-5,590.70	1,898,523.147	2,734,180.095	36.217646136	-107.795741936
13,082.00	88.89	315.890	4,584.34	5,795.93	-5,656.16	1,898,590.591	2,734,114.634	36.217831482	-107.795963770
13,176.00	89.09	316.440	4,586.00	5,863.73	-5,721.26	1,898,658.386	2,734,049.542	36.218017789	-107.796184355
13,270.00	89.22	317.500	4,587.39	5,932.43	-5,785.39	1,898,727.091	2,733,985.406	36.218206596	-107.796401697
13,365.00	89.72	315.740	4,588.27	6,001.47	-5,850.64	1,898,796.133	2,733,920.162	36.218396327	-107.796622795
13,459.00	89.44	315.440	4,588.95	6,068.62	-5,916.41	1,898,863.279	2,733,854.384	36.218580854	-107.796845709
13,553.00	89.60	315.610	4,589.74	6,135.69	-5,982.27	1,898,930.351	2,733,788.531	36.218765174	-107.797068880
13,613.00	89.49	315.547	4,590.22	6,178.54	-6,024.26	1,898,973.202	2,733,746.536	36.218882933	-107.797211196
13,633.00	<b>3.00 MD 4590</b> 89.46	315.526	4,590.40	6,192.82	-6,038.27	1,898,987.476	2,733,732.528	36.218922157	-107.797258670
<b>330 perp</b> 13,648.00	<b>@ 13633.00 l</b> 89.43	MD 4590.40 T 315.510	<b>VD</b> 4,590.55	6,203.52	-6,048.78	1,898,998.177	2,733,722.018	36.218951566	-107.797294286
Survey @	) 13648.00 MI	D 4590.55 TVI	D						
13,747.00	89.43	315.510	4,591.53	6,274.14	-6,118.16	1,899,068.797	2,733,652.644	36.219145637	-107.797529390
Survey P	roj. to 13747	MD 4591.53 T	VD 134 FNL 17	723 FWL					



TVD Reference:

MD Reference:

Database:

North Reference:



Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W Site: W Lybrook 730 Pad (730, 763, 830, 861 & 863)

Well: W Lybrook Unit No. 763H

Wellbore: Original Hole Design: Surveys Original Hole Local Co-ordinate Reference:

Well W Lybrook Unit No. 763H RKB=6641+28 @ 6669.00ft (Ensign 773)

RKB=6641+28 @ 6669.00ft (Ensign 773)

**Survey Calculation Method:** Minimum Curvature DB\_Feb2822

Measured Depth	Vertical Depth (ft)	M	Casing Diameter	Hole Diameter (")
(ft)	(11)	Name	()	( )
2,555.67	2,515.00 9	5/8"	9-5/8	12-1/4

Design Annotations					
De	sured epth (ft)	Vertical Depth (ft)	Local Coor +N/-S (ft)	rdinates +E/-W (ft)	Comment
	431.00	430.98	-2.53	-2.13	MWD surveys
2	,515.00	2,477.63	-149.89	164.97	9 5/8" Casing @ 2515 MD 2477.63 TVD
4	,777.26	4,480.00	-104.35	178.98	FTP G top @ 4777.26 MD 4480.00 TVD
13	,613.00	4,590.22	6,178.54	-6,024.26	LTP 13613.00 MD 4590.22 TVD
13	,633.00	4,590.40	6,192.82	-6,038.27	330 perp @ 13633.00 MD 4590.40 TVD
13	,648.00	4,590.55	6,203.52	-6,048.78	Survey @ 13648.00 MD 4590.55 TVD
13	,747.00	4,591.53	6,274.14	-6,118.16	Survey Proj. to 13747 MD 4591.53 TVD 134 FNL 1723 FWL



## ENDURING RESOURCES IV, LLC 6300 S SYRACUSE WAY, SUITE 525 CENTENNIAL, COLORADO 80111

DRILLING PLAN: Drill, complete, and equip single lateral in the Mancos-I formation

WELL INFORMATION:

Name: W LYBROOK UNIT 763H

API Number: 30-045-38200
AFE Number: DV03068
ER Well Number: NM08265.01
State: New Mexico
County: San Juan

Surface Elevation: 6,641 ft ASL (GL) 6,669 ft ASL (KB)

Surface Location: 27-23N-09W Sec-Twn-Rng 1,181 ft FNL 2,446 ft FWL

 36.201902 ° N latitude
 107.7768 ° W longitude
 (NAD 83)

 BH Location:
 21-23N-09W Sec-Twn-Rng
 222 ft FNL
 1,740 ft FWL

 36.218924 ° N latitude
 107.793777 ° W longitude
 (NAD 83)

Driving Directions: FROM THE INTERSECTION OF US HWY 550 & US HWY 64 IN BLOOMFIELD, NM:

South on US Hwy 550 for 38.3 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 0.5 miles to fork, Right (West) exiting CR #7890 onto access road for W Lybrook Unit 720H pad for 0.6 miles to fork, Left (West) onto access road for W Lybrook Unit 726H pad for 0.7 miles to fork, Left (West) for 0.6 miles to W Lybrook Unit 730H Pad (wells: 730H, 763H,

830H, 861H, 863H).

#### **GEOLOGIC AND RESERVOIR INFORMATION:**

#### Prognosis:

Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O/G/W	Pressure
Ojo Alamo	6,475	194	194	W	normal
Kirtland	6,370	299	299	W	normal
Fruitland	6,160	509	509	G, W	sub
Pictured Cliffs	5,763	906	906	G, W	sub
Lewis	5,650	1,019	1,019	G, W	normal
Chacra	5,405	1,264	1,264	G, W	normal
Cliff House	4,380	2,289	2,305	G, W	sub
Menefee	4,360	2,309	2,326	G, W	normal
Point Lookout	3,380	3,289	3,389	G, W	normal
Mancos	3,220	3,449	3,554	O,G	sub (~0.38)
Gallup (MNCS_A)	2,895	3,774	3,881	O,G	sub (~0.38)
MNCS_B	2,790	3,879	3,986	O,G	sub (~0.38)
MNCS_C	2,700	3,969	4,076	O,G	sub (~0.38)
MNCS_Cms	2,660	4,009	4,116	O,G	sub (~0.38)
MNCS_D	2,522	4,147	4,260	O,G	sub (~0.38)
MNCS_E	2,382	4,287	4,424	O,G	sub (~0.38)
MNCS_F	2,325	4,344	4,502	O,G	sub (~0.38)
MNCS_G	2,253	4,416	4,621	O,G	sub (~0.38)
MNCS_H	2,210	4,459	4,707	O,G	sub (~0.38)
MNCS_I	2,165	4,504	4,824	O,G	sub (~0.38)
FTP (LP) TARGET	2,140	4,529	4,988	O,G	sub (~0.38)
LTP (TD) TARGET	2,070	4,599	13,663	O,G	sub (~0.38)

Surface: Nacimiento

Oil & Gas Zones: Several gas bearing zones will be encountered; target formation is the Gallup

**Pressure:** Normal (0.43 psi/ft) or sub-normal pressure gradients anticipated in all formations

Max. pressure gradient:0.43psi/ftEvacuated hole gradient:0.22psi/ftMaximum anticipated BH pressure, assuming maximum pressure gradient:1,980psiMaximum anticipated surface pressure, assuming partially evacuated hole:970psi

Temperature: Maximum anticipated BHT is  $125^{\circ}$  F or less

### H<sub>2</sub>S INFORMATION:

H<sub>2</sub>S Zones: Encountering hydrogen-sulfide bearing zones is NOT anticipated.

Safety: Sensors and alarms will be placed in the substructure, on the rig floor, above the pits, and at the shakers.

## LOGGING, CORING, AND TESTING:

Mud Logs: None planned; remote geo-steering from drill out of 9-5/8" casing to TD; gas detection from drillout of 13-3/8" casing

to TD.

MWD/LWD: Gamma Ray from drillout of 13-3/8" casing to TD

Open Hole Logs: None planned Testing: None planned Coring: None planned

Cased Hole Logs: CBL on 5-1/2" casing from deepest free-fall depth to surface

#### **DRILLING RIG INFORMATION:**

Contractor: Ensign Ria No.: 773

Draw Works: Pacific Rim 1500AC

Mast: ADR 1500S Cantilever Triple (142 ft, 800,000 lbs, 12 lines)

Top Drive: Tesco 500-ESI-1350 (500 ton, 1,350 hp)

**Prime Movers:** 3 - CAT 3512 (1,475 hp)

Pumps: 3 - Gardner-Denver PZ11 (7,500 psi)

BOPE 1: Cameron single gate ram (pipe) & double gate ram (pipe & blind) (13-5/8", 10,000 psi)

BOPE 2: Cameron annular (13-5/8", 5,000 psi)

**Choke** 3", 10,000 psi

KB-GL (ft): 28

NOTE: A different rig may be used to drill the well depending on rig availability

#### **BOPE REQUIREMENTS:**

See attached diagram for details regarding BOPE specifications and configuration.

- 1) Rig will be equipped with upper and lower kelly cocks with handles available.
- 2) Inside BOP and TIW valves will be available to use on all sizes and threads of drill pipe used while drilling the well.
- 3) BOP accumulator will have enough capacity to open the HCR valve, close all rams and annular preventer, and retain minimum of 200 psi above precharge on the closing manifold without the use of closing pumps. The fluid reservoir capacity shall be at least double the usable fluid volume of the accumulator system capacity, and the fluid level shall be maintained at manufacturer's recommendation. There will be two additional sources of power for the closing pumps (electric and air). Sufficient nitrogen bottles will be available and will be recharged when pressure falls below manufacturer's recommended minimum.
- 4) BOP testing shall be conducted (a) when initially installed, (b) whenever any seal is broken or repaired, (c) if the time since the previous test exceeds 30 days. Tests will be conducted using a test plug. BOP ram preventers will be tested to 3,000 psig for 10 minutes, and the annular preventer will be tested to 1,500 psi for 10 minutes. Ram and annular preventers will be tested to 250 psi for 5 minutes. Additionally, BOP and casing strings will be tested to .22 psi/ft or 1,500 psi, whichever is greater but not exceeding 70% of yield strength of the casing, for 30 minutes, prior to drilling out 13-3/8" and 9-5/8" casing. Rams and hydraulically operated remote choke line valve will be function tested daily
- 5) Remote valve for BOP rams, HCR, and choke shall be placed in a location that is readily available to the driller. The remote BOP valve shall be capable of closing and opening the rams.
- 6) Manual locking devices (hand wheels) shall be intalled on rams. A valve will be installed on the annular preventer's closing line as close as possible to the preventer to act as a locking device. The valve will be maintained in the open position and shall only be closed when the there is no power to the accumulator.

#### FLUIDS AND SOLIDS CONTROL PROGRAM:

Fluid Measurement: Pumps shall be equipped with stroke counters with displays in the dog-house. Slow pump speed shall be recorded daily and after mudding up, at a minimum, on the drilling report. A Pit Volume Totalizer will be installed and the readout will be displayed in the dog-house. Gas-detecting equipment will be installed at the shakers, and readouts will be available in the dog-house and the in the geologist's work-station (if geologist or mud-logger is on-site).

Closed-Loop System: A fully, closed-loop system will be utilized. The system will consist of above-ground piping and above-ground storage tanks and bins. The system will not entail any earthen pits, below-grade storage, or drying pads. All equipment will be disassembled and removed from the site when drilling operations cease. The system will be capable of storing all fluids and generated cuttings and of preventing uncontrolled releases of the same. The system will be operated in an efficient manner to allow the recycling and reuse of as much fluid as possible and to minimimize the amount of fluids and solids that require disposal.

Fluid Disposal: Fluids that cannot be reused, recycled, or returned to the supplier will be hauled to and disposed of at an approved disposal site (Industrial Ecosystem, Inc. or Envirotech, Inc.).

Solids Disposal: Drilling solids will be stored (until haul-off) on-site in separate containers with no other waste, debris, or garbage products. Waste solids will be hauled to and disposed of at an approved disposal site (Industrial Ecosystem, Inc. or Envirotech, Inc.).

**Fluid Program:** See "Detailed Drilling Plan" section for specifics and fluid program from Newpark. Sufficient weighting agent will be on location to weight up mud system to balance the maximum expected pressure gradient.

#### **DETAILED DRILLING PLAN:**

SURFACE: Drill vertically to casing setting depth (plus necessary rathole), run casing, cement casing to surface.

0 ft (MD)	to	350 ft (MD)	Hole Section Length:	350 ft
0 ft (TVD)	to	350 ft (TVD)	Casing Required:	350 ft

Note: Surface hole may be drilled, cased, and cemented with a smaller rig in advance of the drilling rig.

			FL		YP		
Fluid:	Туре	MW (ppg)	(mL/30 min)	PV (cp)	(lb/100 sqft)	рН	Comments
	Fresh Water	8.4	N/C	2 - 8	2 - 12	9.0	Spud mud

Hole Size: 17-1/2"

**Bit / Motor:** Mill Tooth or PDC, no motor **MWD / Survey:** No MWD, deviation survey

Logging: None

Procedure: Drill to TD. Use 12-/4" bit and open to 17-1/2" if unable to drill with 17-1/2" bit. Run inclination survey in 100'

stations from TD to surface. Condition hole and fluid for casing running as required. TOOH. Run casing. Pump cement as detailed below. Monitor returns during cement job and note cement volume to surface. Install cellar and wellhead.

Casina Sanaa		\A/4 /Ib /f4\	Cuada	Comm	Callanas (nai)	Durat (mai)	Tens. Body	Tens. Conn
Casing Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	(lbs)	(lbs)
Specs	13.375	54.5	J-55	BTC	1,130	2,730	853,000	909,000
Loading					153	536	116,634	116,634
Min. S.F.					7.39	5.09	7.31	7.79

Assumptions: Collapse: fully evacuated casing with 8.4 ppg equivalent external pressure gradient

Burst: maximum anticipated surface pressure with 9.5 ppg fluid inside casing while drilling

intermediate hole and 8.4 ppg equivalent external pressure gradient Tension: buoyed weight in 8.4 ppg fluid with 100,000 lbs over-pull

MU Torque (ft lbs): Minumum: N/A Optimum: N/A Maximum: N/A

Make-up as per API Buttress Connection running procedure.

Casing Summary: Float shoe, 1 jt casing, float collar, casing to surface

Centralizers: 2 centralizers per jt stop-banded 10' from each collar on bottom 3 jts, 1 centralizer per 2 jts to surface

			Yield	Water	Hole Cap.		Planned TOC	Total Cmt
Cement:	Type	Weight (ppg)	(cuft/sk)	(gal/sk)	(cuft/ft)	% Excess	(ft MD)	(sx)
	Type III	14.6	1.39	6.686	0.6946	100%	0	350

Calculated cement volumes assume gauge hole and the excess noted in table

Drake Energy Services surface cementing blend

Notify NMOCD & BLM if cement is not circulated to surface. Cement must achieve 500 psi compressive strength

before drilling out.

INTERMEDIATE: Drill as per directional plan to casing setting depth, run casing, cement casing to surface.

	350 ft (MD)	to	2,490 ft (MD)	Hole Section Length:	2,140 ft		
	350 ft (TVD)	to	2,459 ft (TVD)*	Casing Required:	2,490 ft		

\*TARGET CSG SHOE DEPTH IS 150' TVD BELOW MENEFEE TOP

			FL		YP		
Fluid:	Туре	MW (ppg)	(mL/30 min)	PV (cp)	(lb/100 sqft)	рН	Comments
	LSND (KCI)	8.8 - 9.5	20	8 - 14	8 - 14	9.0 - 9.5	

Hole Size: 12-1/4"

Bit / Motor: PDC w/mud motor

Bit / Motor (Detail): MOTOR: NOV 087840 - 7/8, 4.0, stage, 0.16 rev/gal, 1.83 DEG, 900 GPM, 950 DIFF PSIG

BIT: 5- or 6-BLADE PDC w/16 mm or 19 mm cutters, target TFA 0.65 - 1.0 max); 6 - 14s = 0.902 sq-in TFA

MWD / Survey: MWD Survey with inclination and azimuth survey (every 100' at a minimum), GR optional

Logging: None

Pressure Test: NU BOPE and test (as noted above); pressure test 13-3/8" casing to 1,500 psi for 30 minutes.

Procedure: Drill to TD following directional plan (20' rat-hole (MAX) past casing setting depth). Steer as needed to keep well on plan. Keep DLS < 3 deg/100' and keep slide length < 10', when possible. Take surveys every stand, at a minimum. Target flow-rates of 750 GPM (higher if able to control return rates). Minimum desired flow-rate is 650 GPM. At TD, condition hole and fluid for casing running. TOOH. Run casing using a CRT and washing / circulating as required. Land

casing. ND BOPE. Walk rig to next well. Perform off-line cement job, if possible. Pump cement as detailed below. Monitor returns during cement job and note cement volume to surface.

wionitor returns during ternent job and note ternent volume to surface

Casina Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs Specs	9.625	36.0	J-55	LTC	2,020	3,520	564,000	453,000
Loading					1,074	1,111	178,170	178,170
Min. S.F.					1.88	3.17	3.17	2.54

Assumptions: Collapse: fully evacuated casing with 8.4 ppg equivalent external pressure gradient

Burst: maximum anticipated surface pressure with 9.5 ppg fluid inside casing while drilling production

hole and 8.4 ppg equivalent external pressure gradient

Tension: buoyed weight in 8.4 ppg fluid with 100,000 lbs over-pull

MU Torque (ft lbs):

Optimum: 4,530 Maximum: Casing Summary: Float shoe, 1 jt casing, float collar, casing to surface (FLOAT EQUIPMENT FROM WEATHERFORD)

Centralizers: 1 centralizers jt stop-banded 10' from float shoe on bottom 1 jt & 1 centralizer floating on bottom joint, 1 centralizer

per jt (floating) to KOP; 1 centralizer per 2 jts (floating) to surface (CENTRALIZERS FROM ARSENAL - SLIP'N'SLIDE 9-

5/8" x 12" SOLID BODY POLYMER)

Minumum:

Cement: Lead Tail

			Yield	Water		Planned TOC	Total Cmt
٠	Type	Weight (ppg)	(cuft/sk)	(gal/sk)	% Excess	(ft MD)	(sx)
1	III:POZ Blend	12.5	2.140	12.05	70%	0	467
1	Type III	14.6	1.38	6.64	20%	1,990	136

**Annular Capacity** 

cuft/ft 9-5/8" casina x 13-3/8" casina annulus 0.3627 0.3132 cuft/ft 9-5/8" casing x 12-1/4" hole annulus

Calculated cement volumes assume gauge hole and the excess noted in table

Drake Energy Services Intermediate Cementing Program

Notify NMOCD & BLM if cement is not circulated to surface. Cement must achieve 500 psi compressive strength before drilling out.

PRODUCTION: Drill to TD following directional plan, run casing, cement casing to surface.

2,490	ft (MD)	to	13,663 ft (MD)	Hole Section Length:	11,173 ft
2,459	ft (TVD)	to	4,599 ft (TVD)	Casing Required:	13,663 ft

Estimated KOP:	4,033	ft (MD)	3,926	ft (TVD)
Estimated Landing Point (FTP):	4,988	ft (MD)	4,529	ft (TVD)
Estimated Lateral Length:	8,675	ft (MD)		

					ΥP		
Fluid:	Type	MW (ppg)	FL (mL/30')	PV (cp)	(lb/100 sqft)	ES	OWR
	OBM	8.7 - 9.0	10 - 15	10 - 20	6 - 10	500+	80:20

Fluids / Solids Notes: OptiDrill OBM system will be built from previous well. Ensure that drying shakers are rigged up after the rig (2nd set) of shakers. Solids control will burn retorts on cuttings samples one per tour to check % ROC. Add diesel and products as required to maintain mud in program specs. Reference Newpark's mud program for additional details.

Hole Size: 8-1/2"

Bit / Motor: PDC w/mud motor

Bit / Motor (Detail): MOTOR: NOV 077857 - 7/8, 5.7, stage, 0.23 rev/gal, 1.83 - 2.12 DEG, 750 GPM, 1,580 DIFF PSIG (or similar); on

demand friction breaking device(s) as required, bottom tool spaced ~3,000' behind the bit.

BIT: 5-BLADE PDC w/16 mm - 19 mm cutters, matrix body, target TFA = 1.0 - 1.5 sq-in

MWD / Survey: MWD with GR, inclination, and azimuth (survey every joint from KOP to Landing Point and survey every 100'

minimum before KOP and after Landing Point)

Logging: GR MWD for entire section, no mud-log or cuttings sampling, no OH WL logs

**Pressure Test:** NU BOPE and test (as noted above); pressure test 9-5/8" casing to 1,500 psi for 30 minutes.

Procedure: Drill to KOP following directional plan. Target flow-rate is 650 - 700 GPM. Target differential is pressure is 700 - 1,000 psig. Target ROP 500 - 600 ft/hr. Steer as needed to keep well on plan. Keep DLS < 3 deg/100' and keep slide length < 10' until KOP, when feasible. Take surveys every stand, at a minimum. Confirm landing target, planned BUR for curve, and KOP with Geology and Engineering. Drill curve following directional plan and updated landing target. Take survey every joint during curve. Land curve. Continue drilling in lateral section, steering as needed to keep well on plan and in the target window. Keep DLS < 2 deg/100' and keep slide length < 20', when feasible. Take surveys every stand, at a minimum. Target rotating parameters / performance: flow-rate is 650 - 700 GPM, differential is pressure is 700 -1,000 psig, ROP 500 - 600 ft/hr, torque 38K ft-lbs (MAX drill pipe MUT). After reaching TD, perform clean-up cycle to condition hole for casing running. Spot lube as required and TOOH (ROOH, if required; should NOT be required with OBM system). Run casing as described below. Use CRT for casing running only if necessary (should NOT be required with OBM). Verify make up torque when running casing. Space out casing getting the toe sleeve as close to LTP as possible. Land casing and test pack-off. Open floatation sub, fill casing, and circulate as required. Nipple down BOPE, walk rig to next well, and perform off-line cement job. Pump cement as detailed below. Note cement volume

circulated to surface.

Casing Specs:	Size (in)	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	5.500	17.0	P-110	LTC	7,460	10,640	546,000	445,000
Loading					2,272	8,930	350,429	350,429
Min. S.F.					3.28	1.19	1.56	1.27

Assumptions: Collapse: fully evacuated casing with 9.5 ppg fluid in the annulus (floating casing during running)

Burst: 8,500 psi maximum surface treating pressure with 10.2 ppg equivalent mud weight sand laden

fluid with 8.4 ppg equivalent external pressure gradient

Tension: buoyed weight in 9.0 ppg fluid with 150,000 lbs over-pull

MU Torque (ft lbs):

Minumum:

Optimum:

4.620

Maximum:

Casing Summary: Float shoe, 1 jt casing, float collar w/debris catcher, 1 jt casing, float collar (WFT float equipment), 20' marker joint,

**Total Cmt** 

(sx)

454

1,633

toe-intitiation sleeve (WFT RD 8,500 psi), casing to KOP with 20' marker joints spaced evenly in lateral every ~2,000', floatation sub (NCS Air-Lock 4,500 psi from WFT), casing to surface. The toe-initiation sleeve shall be placed no closer to the unit boundary than 100' measured along the azimuth of the well or 330' measured perpendicular to the the azimuth of the well. Note: the LTP is the maximum depth of the toe sleeve and is noted on the Well Plan. Drill past the LTP as required for necessary rat-hole and shoe-track length to place the toe sleeve as close to (but not past)

the planned LTP as possible.

Centralizers: Centralizer count and placement may be adjusted based on well conditions and as-drilled surveys (ARSENAL

Lateral: 1 centralizer per joint

POE to 9-5/8" shoe: 1 centralizer per joint 9-5/8" shoe to surface: 1 centralizer per 2 joints

Cement:	
Lead	
Tail	(

Yield Water Planned TOC (ft MD) Type Weight (ppg) (cuft/sk) (gal/sk) % Excess 13.40 Type III 2.360 65% 0 12.4 G:POZ blend 1.560 7.70 10% 3,554 13.3

Annular Capacity

0.2691 cuft/ft 5-1/2" casing x 9-5/8" casing annulus

0.2291 cuft/ft

5-1/2" casing x 8-1/2" hole annulus Calculated cement volumes assume gauge hole and the excess noted in table

American Cementing Liner & Production Blend with LCM in spacer and cement (offset producing well WLU 735H is one well slot to the west )

Notify NMOCD & BLM if cement is not circulated to surface.

Note: This well will not be considered an unorthodox well location as definted by NMAC19.15.16.15.C.5. As defined in NMAC 19.15.16.15.C.1.a and 19.15.16.15.C.1.b, no point in the completed interval shall be closer to the unit boundary than 100' measured along the azimuth of the well or 330' measured perpendicular to the azimuth well. The boundaries of the completed interval, as defined by NMAC 19.15.16.7.B, are the last take point and first take point, as defined by NMAC 19.15.16.7.E and NMAC 19.15.16.7.J, respectively. In the case of this well, the last take point will be the bottom toe-initiation sleeve, and the first take point will be the top perforation. Neither the bottom toeinitiation sleeve nor the top perforation shall be closer to the unit boundary than 100' measured along the azimuth of the well or 330' measured perpendicular to the azimuth of the well.

FINISH WELL: ND BOP, cap well, RDMO.

Procedure: ND BOP. Walk rig to next well. Cement off-line. Cap well.

#### COMPLETION AND PRODUCTION PLAN:

Frac: 40 plug-and-perf stages with 280,000 bbls slickwater fluid and 17,000,000 lbs of proppant (estimated) Flowback: Flow back through production tubing as pressures allow (ESP may be used for load recovery assitance) Production: Produce through production tubing via gas-lift into permanent production and storage facilities

## **ESTIMATED START DATES:**

Drillina: 3/11/2022 Completion: 4/30/2022 6/19/2022 Production:

Prepared by: Alec Bridge 1/21/2020

Updated by: Alec Bridge 11/12/2021 - updated BHL and directional plan for combination unit (LL increase 1,889') Updated by:

Alec Bridge 1/20/2022 - updated drilling prog & AFE information for 2022 drilling program

Alec Bridge **3/11/2022** - updated tops & directional plan to final geo-prog; updated 9-5/8" casing point;

updated mud system; updated cement volumes

MD (ft KB)

194

299

509

906

1,019

1,264

2,305

2,326

3,389

3.554

3,881

3,986

4,076

4,116

4,260

4.424

4,502

4 621

4.707

4,824

4,988

13,663

194

299

509

906

1,019

1,264

2,289

2.309

3,289

3.449

3,774

3 879

3,969

4,009

4,147

4.287

4,344

4.416

4.459

4,504

4,529

4,599

**WELL NAME: W LYBROOK UNIT 763H** 

OBJECTIVE: Drill, complete, and equip single lateral in the Mancos-I formation

API Number: 30-045-38200 AFE Number: DV03068 ER Well Number: NM08265.01 State: New Mexico

County: San Juan

Surface Elev.: 6,641 ft ASL (GL) 6,669 ft ASL (KB)

Surface Location: 27-23N-09W Sec-Twn- Rng ft FNL 2,446 ft FWL 1,181 BH Location: 21-23N-09W Sec-Twn- Rng 222 ft FNL 1740 ft FWL

Driving Directions: FROM THE INTERSECTION OF US HWY 550 & US HWY 64 IN BLOOMFIELD, NM:

Ju. 12 ()	000	
Int TD (MD)	2,490	ft
KOP (MD)	4,033	ft
KOP (TVD)	3,926	ft
Target (TVD)		-
Curve BUR	10	°/100 ft
POE (MD)	4,988	ft
TD (MD)	13,663	ft
Lat Len (ft)	8,675	ft

QUICK REFERENCE

350 ft

Sur TD (MD)

South on US Hwy 550 for 38.3 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 0.5 miles to fork, Right (West) exiting CR #7890 onto access road for W Lybrook Unit 720H pad for 0.6 miles to fork, Left (West) onto access road for W Lybrook Unit 726H pad for 0.7 miles to fork, Left (West) for 1.4 miles to fork. Left (Southest) for 0.6 miles to W Lybrook Unit 730H Pad (wells: 730H, 763H, 830H, 861H, 863H).

#### 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	350	13.375	54.5	J-55	BTC	0	350
Intermediate	12.250	2,490	9.625	36.0	J-55	LTC	0	2,490
Production	8.500	13,663	5.500	17.0	P-110	LTC	0	13,663

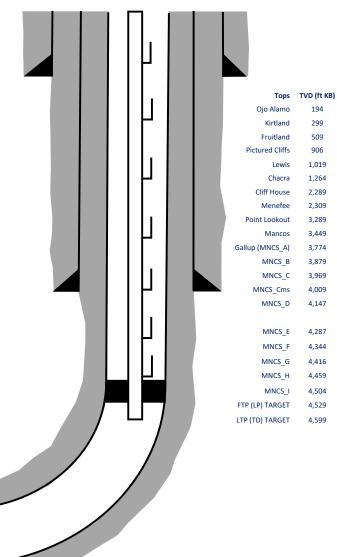
#### **CEMENT PROPERTIES SUMMARY:**

					Hole Cap.		TOC	
	Туре	Wt (ppg)	Yd (cuft/sk)	Wtr (gal/sk)	(cuft/ft)	% Excess	(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	467
Inter. (Tail,	Type III	14.6	1.38	6.64	0.3132	20%	1,990	136
Prod. (Lead,	Type III	12.4	2.360	13.4	0.2691	65%	0	454
Prod. (Tail,	G:POZ blend	13.3	1.560	7.7	0.2291	10%	3,554	1,633

#### **COMPLETION / PRODUCTION SUMMARY:**

Frac: 40 plug-and-perf stages with 280,000 bbls slickwater fluid and 17,000,000 lbs of proppant (estimated) Flowback: Flow back through production tubing as pressures allow (ESP may be used for load recovery assitance)

Production: Produce through production tubing via gas-lift into permanent production and storage facilities



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

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 109116

### **ACKNOWLEDGMENTS**

Operator:	OGRID:
ENDURING RESOURCES, LLC	372286
6300 S Syracuse Way, Suite 525	Action Number:
Centennial, CO 80111	109116
	Action Type:
	[C-104] Tight Hole Completion Packet (C-104CT)

#### **ACKNOWLEDGMENTS**

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

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

COMMENTS

Action 109116

## **COMMENTS**

Operator:	OGRID:
ENDURING RESOURCES, LLC	372286
6300 S Syracuse Way, Suite 525	Action Number:
Centennial, CO 80111	109116
	Action Type:
	[C-104] Tight Hole Completion Packet (C-104CT)

#### COMMENTS

Create By	d Comment	Comment Date
llowe	COA: RT expires on 10/08/22	7/8/2022

District III

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

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

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

CONDITIONS

Action 109116

## **CONDITIONS**

Operator:	OGRID:
ENDURING RESOURCES, LLC	372286
6300 S Syracuse Way, Suite 525	Action Number:
Centennial, CO 80111	109116
	Action Type:
	[C-104] Tight Hole Completion Packet (C-104CT)

#### CONDITIONS

Created By	Condition	Condition Date
plmartinez	RT EXPIRES 10/8/2022.	10/3/2023