

Well Name: RODEO UNIT	Well Location: T23N / R8W / SEC 31 / NWNW / 36.19001 / -107.728343	County or Parish/State: SAN JUAN / NM
Well Number: 494H	Type of Well: OIL WELL	Allottee or Tribe Name: EASTERN NAVAJO
Lease Number: NMNM120377	Unit or CA Name:	Unit or CA Number: NMNM136328A
US Well Number: 3004535923	Well Status: Approved Application for Permit to Drill	Operator: ENDURING RESOURCES LLC

Notice of Intent

Sundry ID: 2663311

Type of Submission: Notice of Intent	Type of Action: Drilling Operations
Date Sundry Submitted: 03/22/2022	Time Sundry Submitted: 01:17
Date proposed operation will begin: 06/01/2022	

Procedure Description: Enduring Resources requests to change the BHL of the RODEO UNIT 494H well per the attached updated C-102 Plat, Directional Plan, Wellbore Diagram, and Drill Prog.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

- Rodeo_Unit_494H_C_102_Plat___Signed_03222022_20220322131700.pdf
- Rodeu_Unit_494H_Directional_Plan_03102022_20220322131702.pdf
- Rodeo_Unit_494H_Drill_Prog_03222022_20220322131700.pdf
- Rodeo_Unit_494H_WBD_03222022_20220322131700.pdf

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Well Number: 494H	Type of Well: OIL WELL	Allottee or Tribe Name: EASTERN NAVAJO
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Operator Certification

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: KHEM SUTHIWAN	Signed on: MAR 22, 2022 01:17 PM
Name: ENDURING RESOURCES LLC	
Title: Regulatory Manager	
Street Address: 6300 S WAY SUITE 525	
City: DENVER	State: CO
Phone: (303) 350-5721	
Email address: KSUTHIWAN@ENDURINGRESOURCES.COM	

Field Representative

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

BLM Point of Contact

BLM POC Name: KENNETH G RENNICK	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5055647742	BLM POC Email Address: krennick@blm.gov
Disposition: Approved	Disposition Date: 03/24/2022
Signature: Kenneth Rennick	

District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462Submit one copy to
Appropriate District OfficeOIL CONSERVATION DIVISION
1220 South St. Francis Drive
Santa Fe, NM 87505☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code 97232	³ Pool Name BASIN MANCOS
⁴ Property Code 321253	⁵ Property Name RODEO UNIT	⁶ Well Number 494H
⁷ OGRID No. 372286	⁸ Operator Name ENDURING RESOURCES, LLC	⁹ Elevation 6680'

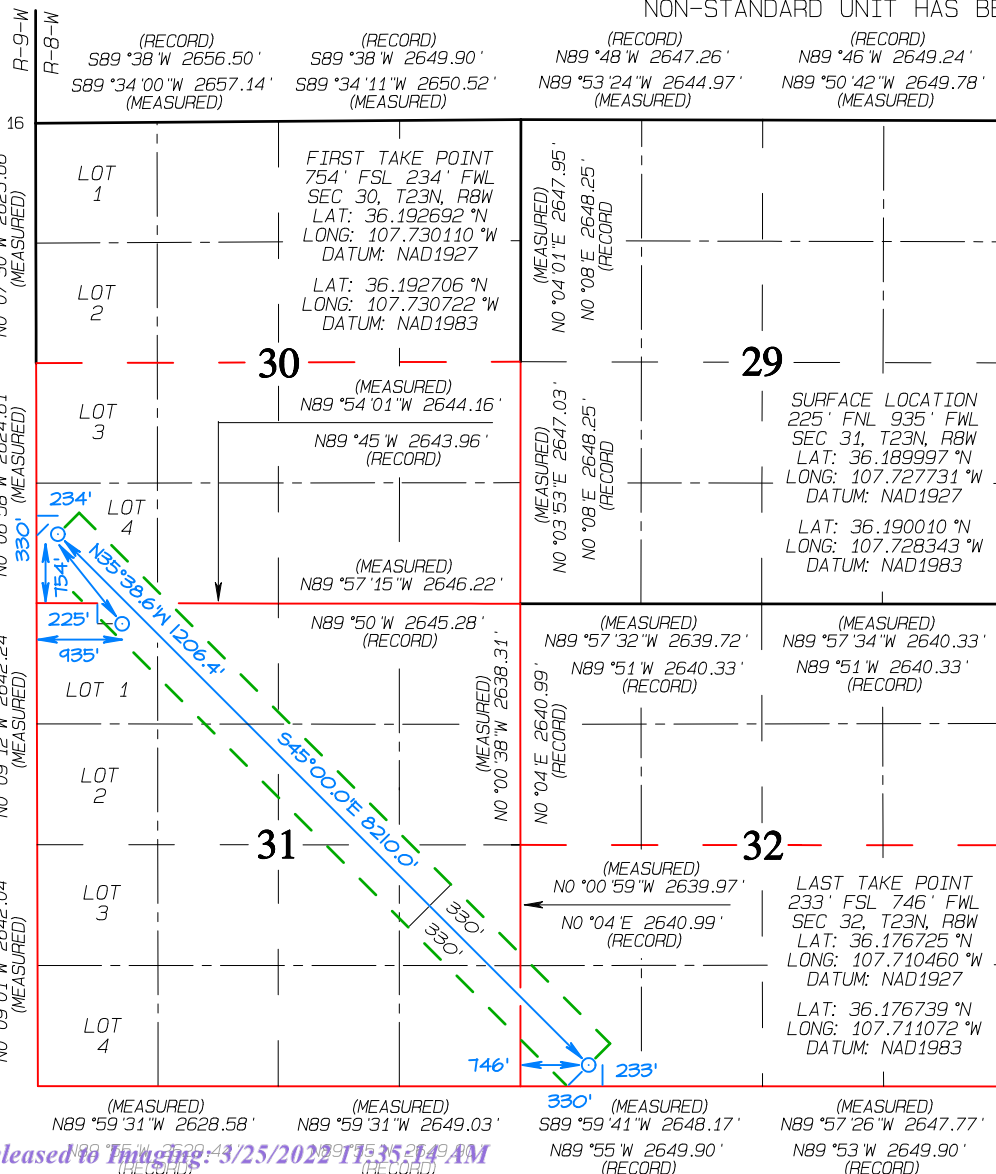
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	31	23N	8W	1	225	NORTH	935	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
M	32	23N	8W		233	SOUTH	746	WEST	SAN JUAN

¹² Dedicated Acres 1283.63	S/2 - Section 30 Entire Section 31 S/2 - Section 32	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-14313
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION
UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A
NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature Khem Suthiwan Date 3/22/2022Printed Name
Khem Suthiwan
E-mail Address
ksuthiwan@enduringresources.com¹⁸ 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: FEBRUARY 28, 2022
Date of Survey: APRIL 12, 2016

Signature and Seal of Professional Surveyor

Jason C. Edwards
Certificate Number 15269



ENDURING RESOURCES IV, LLC
6300 S SYRACUSE WAY, SUITE 525
CENTENNIAL, COLORADO 80211

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

WELL INFORMATION:

Name: RODEO UNIT 494H

API Number: 30-045-35923

AFE Number: DV03053

ER Well Number: NM08063.01

State: New Mexico

County: San Juan

Surface Elevation: 6,680 ft ASL (GL) 6,708 ft ASL (KB)

Surface Location: 31-23N-08W Sec-Twn-Rng 225 ft FNL 935 ft FWL

36.19001 ° N latitude 107.728343 ° W longitude (NAD 83)

BH Location: 32-23N-08W Sec-Twn-Rng 233 ft FSL 746 ft FWL

36.176739 ° N latitude 107.711072 ° 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 38.7 miles to MM 112.7; Right (South) on CR 7900 for 2.3 miles to fork; Right (West) on 7940 for 2.6 miles, Right (North-West) on new acces road for approximately 0.2 miles to Rodeo Unit 492H Pad (two wells planned to be drilled: 494H, 495H).

GEOLOGIC AND RESERVOIR INFORMATION:

Prognosis:	Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O / G / W	Pressure
	Ojo Alamo	6,425	283	283	W	normal
	Kirtland	6,332	376	376	W	normal
	Fruitland	6,105	603	603	G, W	sub
	Pictured Cliffs	5,770	938	640	G, W	sub
	Lewis	5,655	1,053	1,057	G, W	normal
	Chacra	5,390	1,318	1,336	G, W	normal
	Cliff House	4,360	2,348	2,560	G, W	sub
	Menefee	4,330	2,378	2,596	G, W	normal
	Point Lookout	3,325	3,383	3,818	G, W	normal
	Mancos	3,195	3,513	3,976	O,G	sub (~0.38)
	Gallup (MNCS_A)	2,840	3,868	4,388	O,G	sub (~0.38)
	MNCS_B	2,745	3,963	4,484	O,G	sub (~0.38)
	MNCS_C	2,652	4,056	4,577	O,G	sub (~0.38)
	MNCS_Cms	2,610	4,098	4,620	O,G	sub (~0.38)
	MNCS_D	2,485	4,223	4,750	O,G	sub (~0.38)
	MNCS_E	2,340	4,368	4,919	O,G	sub (~0.38)
	MNCS_F	2,280	4,428	5,001	O,G	sub (~0.38)
	MNCS_G	2,218	4,490	5,102	O,G	sub (~0.38)
	MNCS_H	2,170	4,538	5,197	O,G	sub (~0.38)
	MNCS_I	2,112	4,596	5,355	O,G	sub (~0.38)
	FTP (LP) TARGET	2,096	4,612	5,496	O,G	sub (~0.38)
	LTP (TD) TARGET	2,162	4,546	13,702	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: 0.43 psi/ft Evacuated hole gradient: 0.22 psi/ft

Maximum anticipated BH pressure, assuming maximum pressure gradient: 1,990 psi

Maximum anticipated surface pressure, assuming partially evacuated hole: 980 psi

Temperature: Maximum anticipated BHT is 125° F or less

H₂S INFORMATION:

H₂S 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; gas detection from drill out of 13-3/8" casing to TD; remote geo-steering from drill out of 9-5/8" casing to TD.

MWD / LWD: MWD surveys with inclination and azimuth in 100' stations (minimum) from drill out of 13-3/8" casing to TD; Gamma Ray from drill out of 9-5/8" casing to TD; Gamma Ray optional in 12-1/4" intermediate hole

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

Rig 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 & double gate ram (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: Actual drilling rig may vary depending on availability at time the well is scheduled to be drilled.

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 at a minimum.
- 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 installed 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 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 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 minimize 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.

Fluid:	Type	MW (ppg)	FL (mL/30 min)	PV (cp)	YP (lb/100 sqft)	pH	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

Casing Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	13.375	54.5	J-55	BTC	1,130	2,730	853,000	909,000
Loading					153	551	116,634	116,634
Min. S.F.					7.39	4.96	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): Minimum: N/A Optimum: N/A Maximum: N/A

Make-up as per API Buttress Connection running procedure.

Casing Details: 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

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	Hole Cap. (cuft/ft)	% Excess	Planned TOC (ft MD)	Total Cmt (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 Endergy Services Surface 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	2,779 ft (MD)	Hole Section Length:	2,429 ft
350 ft (TVD)	to	2,528 ft (TVD)	Casing Required:	2,779 ft

***TARGET CSG SHOE DEPTH IS 150' TVD BELOW MENEFFEE TOP**

Fluid:	Type	MW (ppg)	FL (mL/30 min)	PV (cp)	YP (lb/100 sqft)	pH	Comments

LSND (KCI)	8.8 - 9.5	20	8 - 14	8 - 14	9.0 - 9.5	No OBM
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Hole Size: 12-1/4"

Bit / Motor: PDC w/mud motor

MWD / Survey: MWD surveys with inclination and azimuth in 100' stations (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.

Casing Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	9.625	36.0	J-55	LTC	2,020	3,520	564,000	453,000
Loading					1,104	1,125	187,243	187,243
Min. S.F.					1.83	3.13	3.01	2.42

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): Minimum: 3,900 Optimum: 5,200 Maximum: 6,500

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

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

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
Lead	III:POZ Blend	12.5	2.140	12.05	70%	0	567
Tail	Type III	14.6	1.380	6.64	20%	2,279	136

Annular Capacity 0.3627 cuft/ft 9-5/8" casing x 13-3/8" casing annulus

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 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.

2,779 ft (MD)	to	13,702 ft (MD)	Hole Section Length:	10,923 ft
2,528 ft (TVD)	to	4,546 ft (TVD)	Casing Required:	13,702 ft

Estimated KOP:	4,188 ft (MD)	3,686 ft (TVD)
Estimated Landing Point (FTP):	5,496 ft (MD)	4,612 ft (TVD)
Estimated Lateral Length:	8,206 ft (MD)	

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

Hole Size: 8-1/2"

Bit / Motor: PDC w/mud motor

MWD / Survey: MWD surveys with inclination and azimuth in 100' stations (minimum) before KOP, every joint from KOP to POE, every 100' (minimum) from POE to TD; Gamma Ray from drill out of 9-5/8" shoe to TD

Logging: MWD Gamma Ray 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.

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					2,246	8,926	401,001	401,001
Min. S.F.					3.32	1.19	1.36	1.11

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 200,000 lbs over-pull

MU Torque (ft lbs): Minimum: 3,400 Optimum: 4,530 Maximum: 5,660

Casing Summary: Float shoe, 1 jt casing, float collar, 1 jt casing, float collar, 20' marker joint, toe-initiation sleeve, casing to KOP with 20' marker joints spaced evenly in lateral every ~2,000', floatation sub at KOP (+/-), 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 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:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
Lead	Type I / II	12.4	2.360	13.40	65%	0	637
Tail	G:POZ blend	13.3	1.560	7.70	10%	3,976	1,571

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

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

Note: This well will not be considered an unorthodox well location as defined by NMAC 19.15.16.15.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 toe-initiation 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. RDMO Drilling Rig.

COMPLETION AND PRODUCTION PLAN:

Frac: 35 plug-and-perf stages with 315,000 bbls slickwater fluid and 13,000,000 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

ESTIMATED START DATES:

Drilling: TBD

Completion: TBD

Production: TBD

Prepared by: Alec Bridge 4/17/2019

Updated by: Alec Bridge 5/10/2019 - updated rig information, updated AFE information

Alec Bridge 5/13/2019 - corrected AFE information (cement & solids control)

Alec Bridge 3/22/2022 - updated drilling prog & directional plans for new development plan & current program

WELL NAME: **RODEO UNIT 494H**
OBJECTIVE: **Drill, complete, and equip single lateral in the Mancos-I formation**

API Number: 30-045-35923

State: New Mexico

County: San Juan

Surface Elev.: 6,680 ft ASL (GL) 6,708 ft ASL (KB)

Surface Location: 31-23N-08W Sec-Twn- Rng 225 ft FNL 935 ft FWL

BH Location: 32-23N-08W Sec-Twn- Rng 233 ft FSL 746 ft FWL

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

South on US Hwy 550 for 38.7 miles to MM 112.7; Right (South) on CR 7900 for 2.3 miles to fork; Right (West) on 7940 for 2.6 miles, Right (North-West) on new acces road for approximately 0.2 miles to Rodeo Unit 492H Pad (two wells planned to be drilled: 494H, 495H).

QUICK REFERENCE	
Sur TD (MD)	350 ft
Int TD (MD)	2,779 ft
KOP (MD)	4,188 ft
KOP (TVD)	3,686 ft
Target (TVD)	4,612 ft
Curve BUR	10 °/100 ft
POE (MD)	5,496 ft
TD (MD)	13,702 ft
Lat Len (ft)	8,206 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	350	13.375	54.5	J-55	BTC	0	350
Intermediate	12.250	2,779	9.625	36.0	J-55	LTC	0	2,779
Production	8.500	13,702	5.500	17.0	P-110	LTC	0	13,702

CEMENT PROPERTIES SUMMARY:

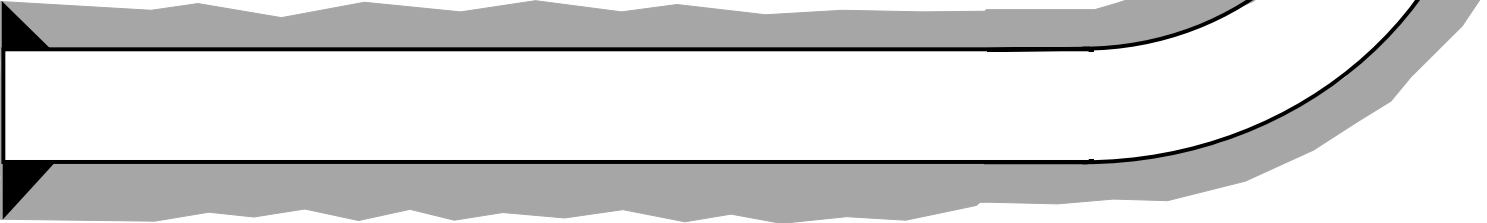
	Type	Wt (ppg)	Yd (cuft/sk)	Wtr (gal/sk)	Hole Cap. (cuft/ft)	% Excess	TOC (ft MD)	Total (sx)
Surface	TYPE III	14.6	1.39	6.686	0.6946	100%	0	350
Inter. (Lead)	III:POZ Blend	12.5	2.14	12.05	0.3627	70%	0	567
Inter. (Tail)	Type III	14.6	1.38	6.64	0.3132	20%	2,279	136
Prod. (Lead)	Type I / II	12.4	2.360	13.40	0.2691	65%	0	637
Prod. (Tail)	G:POZ blend	13.3	1.560	7.70	0.2291	10%	3,976	1,571

COMPLETION / PRODUCTION SUMMARY:

Frac: 35 plug-and-perf stages with 315,000 bbls slickwater fluid and 13,000,000 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	283	283
	Kirtland	376	376
	Fruitland	603	603
	Pictured Cliffs	938	640
	Lewis	1,053	1,057
	Chacra	1,318	1,336
	Cliff House	2,348	2,560
	Menefee	2,378	2,596
	Point Lookout	3,383	3,818
	Mancos	3,513	3,976
	Gallup (MNCS_A)	3,868	4,388
	MNCS_B	3,963	4,484
	MNCS_C	4,056	4,577
	MNCS_Cms	4,098	4,620
	MNCS_D	4,223	4,750
	MNCS_E	4,368	4,919
	MNCS_F	4,428	5,001
	MNCS_G	4,490	5,102
	MNCS_H	4,538	5,197
	MNCS_I	4,596	5,355
	FTP (LP) TARGET	4,612	5,496
	LTP (TD) TARGET	4,546	13,702



Well: Rodeo Unit #494H
Site: Rodeo Unit 492 pad (494 & 495)
Project: San Juan County, New Mexico NAD83 NM W
Design: rev0
Rig: Ensign 773

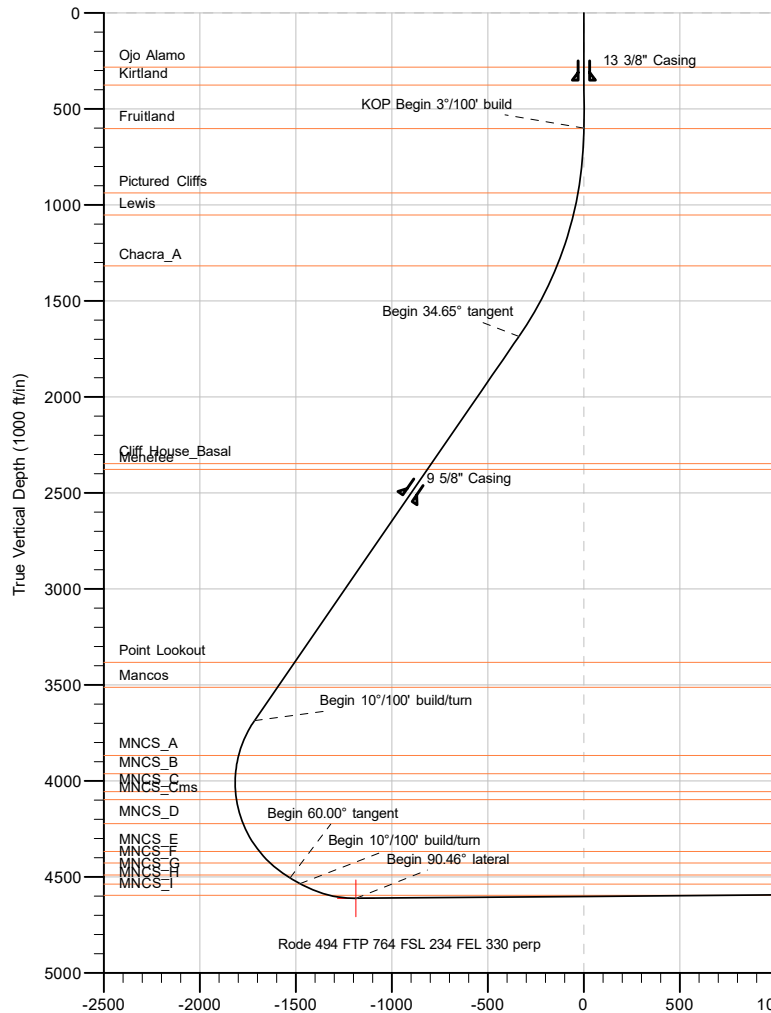
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Rode 494 LTP 233 FSL 746 FWL 330 perp	4546.00	-4824.94	5102.36	1883652.721	2759174.171	36.176739000	-107.711072000
Rode 494 FTP 764 FSL 234 FEL 330 perp	4612.00	980.65	-696.53	1889458.303	2753375.288	36.192706000	-107.730700000

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=6680+28 @ 6708.00ft (Ensign 773)
Surface location:
Northing: 1888477.650 Easting: 2754071.821 Latitude: 36.190010000 Longitude: -107.728343000



Total Corr (M=>G): To convert a Magnetic Direction to a Grid Direction, Add 8.65°



Section Details

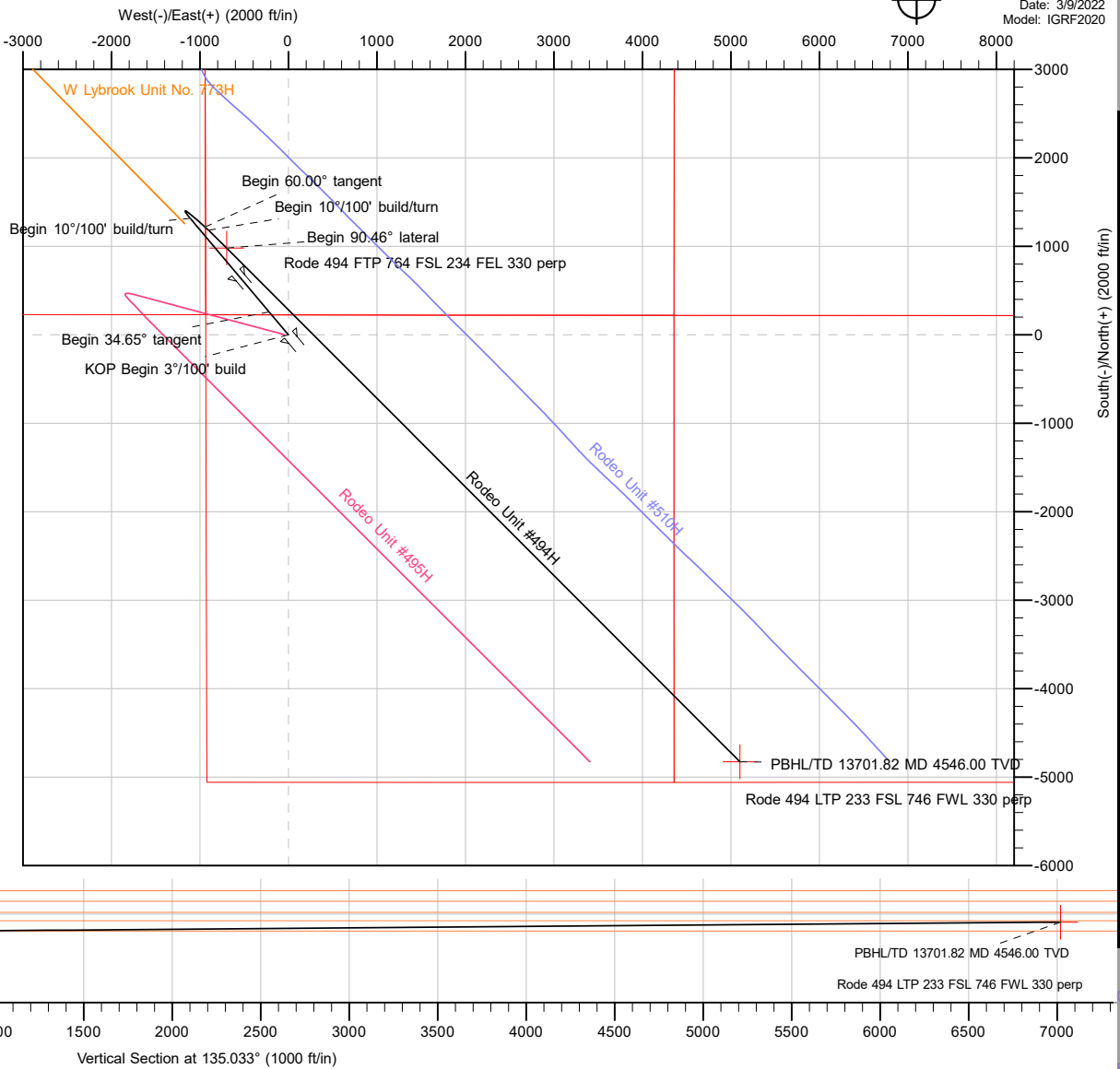
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	
2	600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 3°/100° build
3	1754.87	34.65	319.889	1685.76	259.00	-218.19	3.00	319.89	-337.44	Begin 34.65° tangent
4	4186.30	34.65	319.889	3686.06	1316.16	-1108.76	0.00	0.00	-1714.76	Begin 10°/100° build/turn
5	5130.76	60.00	133.071	4505.11	1219.17	-943.82	10.00	174.08	-1529.58	Begin 60.00° tangent
6	5190.76	60.00	133.071	4535.11	1183.69	-905.86	0.00	0.00	-1477.65	Begin 10°/100° build/turn
7	5495.95	90.46	135.033	4612.00	980.67	-696.52	10.00	3.87	-1186.06	Begin 90.46° lateral
8	13701.82	90.46	135.033	4546.00	-4824.94	5102.36	0.00	0.00	7019.55	PBHL/TD

CASING DETAILS

TVD	MD	Name
350.00	350.00	13 3/8" Casing
2528.00	2778.64	9 5/8" Casing



Azimuths to Grid North
True North: -0.06°
Magnetic North: 8.65°
Magnetic Field
Strength: 49214.9nT
Dip Angle: 62.71°
Date: 3/9/2022
Model: IGRF2020



Vertical Section at 135.033° (1000 ft/in)



Planning Report

Database:	DB_Feb2822	Local Co-ordinate Reference:	Well Rodeo Unit #494H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Site:	Rodeo Unit 492 pad (494 & 495)	North Reference:	Grid
Well:	Rodeo Unit #494H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

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 492 pad (494 & 495)		
Site Position:		Northing:	1,888,477.650 usft
From:	Lat/Long	Easting:	2,754,071.821 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "
		Latitude:	36.190010000
		Longitude:	-107.728343000

Well	Rodeo Unit #494H, Surf loc: 225 FNL 935 FWL Section 31-T23N-R08W		
Well Position	+N/-S	0.00 ft	Northing: 1,888,477.650 usft
	+E/-W	0.00 ft	Easting: 2,754,071.821 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
Grid Convergence:	0.06 °	Ground Level:	6,680.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	3/9/2022	8.72	62.71	49,214.91027360

Design	rev0			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	135.033

Plan Survey Tool Program	Date	3/10/2022		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	13,701.82	rev0 (Original Hole)	MWD
				OWSG MWD - Standard

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,754.87	34.65	319.889	1,685.76	259.00	-218.19	3.00	3.00	0.00	319.89	
4,186.30	34.65	319.889	3,686.06	1,316.16	-1,108.76	0.00	0.00	0.00	0.00	
5,130.76	60.00	133.071	4,505.11	1,219.17	-943.82	10.00	2.68	18.34	174.08	
5,190.76	60.00	133.071	4,535.11	1,183.69	-905.86	0.00	0.00	0.00	0.00	
5,495.95	90.46	135.033	4,612.00	980.67	-696.52	10.00	9.98	0.64	3.87	
13,701.82	90.46	135.033	4,546.00	-4,824.94	5,102.36	0.00	0.00	0.00	0.00	Rode 494 LTP 233 F5



Planning Report

Database:	DB_Feb2822	Local Co-ordinate Reference:	Well Rodeo Unit #494H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Site:	Rodeo Unit 492 pad (494 & 495)	North Reference:	Grid
Well:	Rodeo Unit #494H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned 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
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00
283.00	0.00	0.000	283.00	0.00	0.00	0.00	0.00	0.00	0.00
Ojo Alamo									
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
376.00	0.00	0.000	376.00	0.00	0.00	0.00	0.00	0.00	0.00
Kirtland									
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Begin 3°/100' build									
603.00	0.09	319.889	603.00	0.00	0.00	0.00	3.00	3.00	0.00
Fruitland									
700.00	3.00	319.889	699.95	2.00	-1.69	-2.61	3.00	3.00	0.00
800.00	6.00	319.889	799.63	8.00	-6.74	-10.42	3.00	3.00	0.00
900.00	9.00	319.889	898.77	17.98	-15.15	-23.43	3.00	3.00	0.00
939.79	10.19	319.889	938.00	23.06	-19.42	-30.04	3.00	3.00	0.00
Pictured Cliffs									
1,000.00	12.00	319.889	997.08	31.92	-26.89	-41.59	3.00	3.00	0.00
1,057.36	13.72	319.889	1,053.00	41.68	-35.11	-54.31	3.00	3.00	0.00
Lewis									
1,100.00	15.00	319.889	1,094.31	49.77	-41.93	-64.84	3.00	3.00	0.00
1,200.00	18.00	319.889	1,190.18	71.49	-60.22	-93.14	3.00	3.00	0.00
1,300.00	21.00	319.889	1,284.43	97.02	-81.73	-126.40	3.00	3.00	0.00
1,336.09	22.08	319.889	1,318.00	107.15	-90.26	-139.60	3.00	3.00	0.00
Chacra_A									
1,400.00	24.00	319.889	1,376.81	126.28	-106.38	-164.52	3.00	3.00	0.00
1,500.00	27.00	319.889	1,467.06	159.20	-134.11	-207.42	3.00	3.00	0.00
1,600.00	30.00	319.889	1,554.93	195.69	-164.85	-254.95	3.00	3.00	0.00
1,700.00	33.00	319.889	1,640.18	235.65	-198.51	-307.01	3.00	3.00	0.00
1,754.87	34.65	319.889	1,685.76	259.00	-218.19	-337.44	3.00	3.00	0.00
Begin 34.65° tangent									
1,800.00	34.65	319.889	1,722.89	278.62	-234.72	-363.01	0.00	0.00	0.00
1,900.00	34.65	319.889	1,805.16	322.10	-271.35	-419.65	0.00	0.00	0.00
2,000.00	34.65	319.889	1,887.43	365.58	-307.97	-476.30	0.00	0.00	0.00
2,100.00	34.65	319.889	1,969.70	409.06	-344.60	-532.95	0.00	0.00	0.00
2,200.00	34.65	319.889	2,051.97	452.54	-381.23	-589.59	0.00	0.00	0.00
2,300.00	34.65	319.889	2,134.23	496.02	-417.86	-646.24	0.00	0.00	0.00
2,400.00	34.65	319.889	2,216.50	539.50	-454.48	-702.89	0.00	0.00	0.00
2,500.00	34.65	319.889	2,298.77	582.98	-491.11	-759.53	0.00	0.00	0.00
2,559.84	34.65	319.889	2,348.00	608.99	-513.03	-793.43	0.00	0.00	0.00
Cliff House_Basal									
2,596.31	34.65	319.889	2,378.00	624.85	-526.39	-814.09	0.00	0.00	0.00
Menefee									
2,600.00	34.65	319.889	2,381.04	626.46	-527.74	-816.18	0.00	0.00	0.00
2,700.00	34.65	319.889	2,463.31	669.93	-564.37	-872.82	0.00	0.00	0.00
2,800.00	34.65	319.889	2,545.57	713.41	-600.99	-929.47	0.00	0.00	0.00
2,900.00	34.65	319.889	2,627.84	756.89	-637.62	-986.12	0.00	0.00	0.00
3,000.00	34.65	319.889	2,710.11	800.37	-674.25	-1,042.76	0.00	0.00	0.00
3,100.00	34.65	319.889	2,792.38	843.85	-710.88	-1,099.41	0.00	0.00	0.00
3,200.00	34.65	319.889	2,874.65	887.33	-747.50	-1,156.06	0.00	0.00	0.00
3,300.00	34.65	319.889	2,956.91	930.81	-784.13	-1,212.70	0.00	0.00	0.00



Planning Report

Database:	DB_Feb2822	Local Co-ordinate Reference:	Well Rodeo Unit #494H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Site:	Rodeo Unit 492 pad (494 & 495)	North Reference:	Grid
Well:	Rodeo Unit #494H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,400.00	34.65	319.889	3,039.18	974.29	-820.76	-1,269.35	0.00	0.00	0.00
3,500.00	34.65	319.889	3,121.45	1,017.76	-857.39	-1,326.00	0.00	0.00	0.00
3,600.00	34.65	319.889	3,203.72	1,061.24	-894.01	-1,382.64	0.00	0.00	0.00
3,700.00	34.65	319.889	3,285.99	1,104.72	-930.64	-1,439.29	0.00	0.00	0.00
3,800.00	34.65	319.889	3,368.25	1,148.20	-967.27	-1,495.94	0.00	0.00	0.00
3,817.92	34.65	319.889	3,383.00	1,155.99	-973.83	-1,506.09	0.00	0.00	0.00
Point Lookout									
3,900.00	34.65	319.889	3,450.52	1,191.68	-1,003.89	-1,552.58	0.00	0.00	0.00
3,975.94	34.65	319.889	3,513.00	1,224.70	-1,031.71	-1,595.60	0.00	0.00	0.00
Mancos									
4,000.00	34.65	319.889	3,532.79	1,235.16	-1,040.52	-1,609.23	0.00	0.00	0.00
4,100.00	34.65	319.889	3,615.06	1,278.64	-1,077.15	-1,665.87	0.00	0.00	0.00
4,186.30	34.65	319.889	3,686.06	1,316.16	-1,108.76	-1,714.76	0.00	0.00	0.00
Begin 10°/100' build/turn									
4,200.00	33.28	320.146	3,697.42	1,322.02	-1,113.68	-1,722.39	10.00	-9.94	1.88
4,250.00	28.32	321.270	3,740.35	1,341.82	-1,129.90	-1,747.86	10.00	-9.93	2.25
4,300.00	23.36	322.827	3,785.34	1,358.98	-1,143.32	-1,769.48	10.00	-9.91	3.11
4,350.00	18.43	325.162	3,832.04	1,373.38	-1,153.83	-1,787.09	10.00	-9.86	4.67
4,387.53	14.76	327.893	3,868.00	1,382.30	-1,159.76	-1,797.60	10.00	-9.78	7.28
MNCS_A									
4,400.00	13.55	329.117	3,880.09	1,384.90	-1,161.36	-1,800.57	10.00	-9.71	9.82
4,450.00	8.80	337.316	3,929.13	1,393.46	-1,165.84	-1,809.79	10.00	-9.51	16.40
4,484.15	5.79	350.396	3,963.00	1,397.57	-1,167.13	-1,813.61	10.00	-8.80	38.30
MNCS_B									
4,500.00	4.59	1.973	3,978.79	1,398.99	-1,167.25	-1,814.70	10.00	-7.55	73.03
4,550.00	3.84	74.085	4,028.68	1,401.45	-1,165.56	-1,815.25	10.00	-1.50	144.22
4,577.41	5.70	98.983	4,056.00	1,401.49	-1,163.34	-1,813.70	10.00	6.78	90.83
MNCS_C									
4,600.00	7.64	109.057	4,078.44	1,400.83	-1,160.81	-1,811.45	10.00	8.59	44.60
4,619.78	9.46	114.372	4,098.00	1,399.73	-1,158.08	-1,808.74	10.00	9.18	26.86
MNCS_Cms									
4,650.00	12.33	119.426	4,127.67	1,397.12	-1,153.01	-1,803.31	10.00	9.50	16.73
4,700.00	17.19	124.071	4,176.01	1,390.35	-1,142.24	-1,790.91	10.00	9.72	9.29
4,749.91	22.10	126.700	4,223.00	1,380.60	-1,128.59	-1,774.37	10.00	9.84	5.27
MNCS_D									
4,750.00	22.11	126.703	4,223.08	1,380.58	-1,128.56	-1,774.34	10.00	9.88	4.14
4,800.00	27.06	128.413	4,268.53	1,367.88	-1,112.10	-1,753.72	10.00	9.90	3.42
4,850.00	32.02	129.627	4,312.02	1,352.35	-1,092.96	-1,729.20	10.00	9.93	2.43
4,900.00	37.00	130.544	4,353.21	1,334.11	-1,071.31	-1,700.99	10.00	9.95	1.83
4,918.75	38.86	130.835	4,368.00	1,326.59	-1,062.57	-1,689.50	10.00	9.95	1.55
MNCS_E									
4,950.00	41.98	131.271	4,391.79	1,313.28	-1,047.29	-1,669.29	10.00	9.96	1.40
5,000.00	46.96	131.870	4,427.46	1,290.04	-1,021.10	-1,634.34	10.00	9.96	1.20
5,000.80	47.04	131.879	4,428.00	1,289.66	-1,020.67	-1,633.75	10.00	9.97	1.10
MNCS_F									
5,050.00	51.94	132.379	4,459.95	1,264.56	-992.94	-1,596.40	10.00	9.97	1.02
5,100.00	56.93	132.823	4,489.02	1,237.04	-963.01	-1,555.78	10.00	9.97	0.89
5,101.80	57.11	132.838	4,490.00	1,236.01	-961.90	-1,554.27	10.00	9.98	0.83
MNCS_G									
5,130.76	60.00	133.071	4,505.11	1,219.17	-943.82	-1,529.58	10.00	9.98	0.81
Begin 60.00° tangent									
5,190.76	60.00	133.071	4,535.11	1,183.69	-905.86	-1,477.65	0.00	0.00	0.00



Planning Report

Database:	DB_Feb2822	Local Co-ordinate Reference:	Well Rodeo Unit #494H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Site:	Rodeo Unit 492 pad (494 & 495)	North Reference:	Grid
Well:	Rodeo Unit #494H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned 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)
Begin 10°/100' build/turn									
5,196.60	60.58	133.116	4,538.00	1,180.23	-902.16	-1,472.59	10.00	9.98	0.77
MNCS_H									
5,200.00	60.92	133.142	4,539.66	1,178.20	-899.99	-1,469.62	10.00	9.98	0.77
5,250.00	65.91	133.508	4,562.03	1,147.53	-867.48	-1,424.94	10.00	9.98	0.73
5,300.00	70.90	133.846	4,580.43	1,115.43	-833.87	-1,378.47	10.00	9.98	0.68
5,350.00	75.89	134.164	4,594.71	1,082.15	-799.41	-1,330.58	10.00	9.98	0.64
5,355.39	76.43	134.197	4,596.00	1,078.50	-795.66	-1,325.35	10.00	9.98	0.62
MNCS_I									
5,400.00	80.88	134.468	4,604.77	1,047.95	-764.38	-1,281.62	10.00	9.98	0.61
5,450.00	85.87	134.764	4,610.54	1,013.07	-729.04	-1,231.98	10.00	9.98	0.59
5,495.95	90.46	135.033	4,612.00	980.67	-696.52	-1,186.06	10.00	9.98	0.58
Begin 90.46° lateral									
5,500.00	90.46	135.033	4,611.97	977.80	-693.66	-1,182.01	0.00	0.00	0.00
5,600.00	90.46	135.033	4,611.17	907.05	-622.99	-1,082.01	0.00	0.00	0.00
5,700.00	90.46	135.033	4,610.36	836.30	-552.32	-982.02	0.00	0.00	0.00
5,800.00	90.46	135.033	4,609.56	765.55	-481.65	-882.02	0.00	0.00	0.00
5,900.00	90.46	135.033	4,608.75	694.80	-410.99	-782.02	0.00	0.00	0.00
6,000.00	90.46	135.033	4,607.95	624.05	-340.32	-682.03	0.00	0.00	0.00
6,100.00	90.46	135.033	4,607.15	553.30	-269.65	-582.03	0.00	0.00	0.00
6,200.00	90.46	135.033	4,606.34	482.55	-198.98	-482.03	0.00	0.00	0.00
6,300.00	90.46	135.033	4,605.54	411.80	-128.32	-382.04	0.00	0.00	0.00
6,400.00	90.46	135.033	4,604.73	341.05	-57.65	-282.04	0.00	0.00	0.00
6,500.00	90.46	135.033	4,603.93	270.30	13.02	-182.04	0.00	0.00	0.00
6,600.00	90.46	135.033	4,603.12	199.55	83.69	-82.05	0.00	0.00	0.00
6,700.00	90.46	135.033	4,602.32	128.81	154.35	17.95	0.00	0.00	0.00
6,800.00	90.46	135.033	4,601.52	58.06	225.02	117.95	0.00	0.00	0.00
6,900.00	90.46	135.033	4,600.71	-12.69	295.69	217.94	0.00	0.00	0.00
7,000.00	90.46	135.033	4,599.91	-83.44	366.36	317.94	0.00	0.00	0.00
7,100.00	90.46	135.033	4,599.10	-154.19	437.02	417.94	0.00	0.00	0.00
7,200.00	90.46	135.033	4,598.30	-224.94	507.69	517.93	0.00	0.00	0.00
7,300.00	90.46	135.033	4,597.49	-295.69	578.36	617.93	0.00	0.00	0.00
7,400.00	90.46	135.033	4,596.69	-366.44	649.03	717.93	0.00	0.00	0.00
7,500.00	90.46	135.033	4,595.89	-437.19	719.69	817.92	0.00	0.00	0.00
7,600.00	90.46	135.033	4,595.08	-507.94	790.36	917.92	0.00	0.00	0.00
7,700.00	90.46	135.033	4,594.28	-578.69	861.03	1,017.92	0.00	0.00	0.00
7,800.00	90.46	135.033	4,593.47	-649.44	931.70	1,117.91	0.00	0.00	0.00
7,900.00	90.46	135.033	4,592.67	-720.19	1,002.36	1,217.91	0.00	0.00	0.00
8,000.00	90.46	135.033	4,591.86	-790.94	1,073.03	1,317.91	0.00	0.00	0.00
8,100.00	90.46	135.033	4,591.06	-861.69	1,143.70	1,417.90	0.00	0.00	0.00
8,200.00	90.46	135.033	4,590.25	-932.43	1,214.36	1,517.90	0.00	0.00	0.00
8,300.00	90.46	135.033	4,589.45	-1,003.18	1,285.03	1,617.90	0.00	0.00	0.00
8,400.00	90.46	135.033	4,588.65	-1,073.93	1,355.70	1,717.89	0.00	0.00	0.00
8,500.00	90.46	135.033	4,587.84	-1,144.68	1,426.37	1,817.89	0.00	0.00	0.00
8,600.00	90.46	135.033	4,587.04	-1,215.43	1,497.03	1,917.89	0.00	0.00	0.00
8,700.00	90.46	135.033	4,586.23	-1,286.18	1,567.70	2,017.89	0.00	0.00	0.00
8,800.00	90.46	135.033	4,585.43	-1,356.93	1,638.37	2,117.88	0.00	0.00	0.00
8,900.00	90.46	135.033	4,584.62	-1,427.68	1,709.04	2,217.88	0.00	0.00	0.00
9,000.00	90.46	135.033	4,583.82	-1,498.43	1,779.70	2,317.88	0.00	0.00	0.00
9,100.00	90.46	135.033	4,583.02	-1,569.18	1,850.37	2,417.87	0.00	0.00	0.00
9,200.00	90.46	135.033	4,582.21	-1,639.93	1,921.04	2,517.87	0.00	0.00	0.00
9,300.00	90.46	135.033	4,581.41	-1,710.68	1,991.71	2,617.87	0.00	0.00	0.00
9,400.00	90.46	135.033	4,580.60	-1,781.43	2,062.37	2,717.86	0.00	0.00	0.00



Planning Report

Database:	DB_Feb2822	Local Co-ordinate Reference:	Well Rodeo Unit #494H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Site:	Rodeo Unit 492 pad (494 & 495)	North Reference:	Grid
Well:	Rodeo Unit #494H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned 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)
9,500.00	90.46	135.033	4,579.80	-1,852.18	2,133.04	2,817.86	0.00	0.00	0.00
9,600.00	90.46	135.033	4,578.99	-1,922.93	2,203.71	2,917.86	0.00	0.00	0.00
9,700.00	90.46	135.033	4,578.19	-1,993.68	2,274.38	3,017.85	0.00	0.00	0.00
9,800.00	90.46	135.033	4,577.38	-2,064.42	2,345.04	3,117.85	0.00	0.00	0.00
9,900.00	90.46	135.033	4,576.58	-2,135.17	2,415.71	3,217.85	0.00	0.00	0.00
10,000.00	90.46	135.033	4,575.78	-2,205.92	2,486.38	3,317.84	0.00	0.00	0.00
10,100.00	90.46	135.033	4,574.97	-2,276.67	2,557.05	3,417.84	0.00	0.00	0.00
10,200.00	90.46	135.033	4,574.17	-2,347.42	2,627.71	3,517.84	0.00	0.00	0.00
10,300.00	90.46	135.033	4,573.36	-2,418.17	2,698.38	3,617.83	0.00	0.00	0.00
10,400.00	90.46	135.033	4,572.56	-2,488.92	2,769.05	3,717.83	0.00	0.00	0.00
10,500.00	90.46	135.033	4,571.75	-2,559.67	2,839.72	3,817.83	0.00	0.00	0.00
10,600.00	90.46	135.033	4,570.95	-2,630.42	2,910.38	3,917.82	0.00	0.00	0.00
10,700.00	90.46	135.033	4,570.15	-2,701.17	2,981.05	4,017.82	0.00	0.00	0.00
10,800.00	90.46	135.033	4,569.34	-2,771.92	3,051.72	4,117.82	0.00	0.00	0.00
10,900.00	90.46	135.033	4,568.54	-2,842.67	3,122.38	4,217.81	0.00	0.00	0.00
11,000.00	90.46	135.033	4,567.73	-2,913.42	3,193.05	4,317.81	0.00	0.00	0.00
11,100.00	90.46	135.033	4,566.93	-2,984.17	3,263.72	4,417.81	0.00	0.00	0.00
11,200.00	90.46	135.033	4,566.12	-3,054.92	3,334.39	4,517.80	0.00	0.00	0.00
11,300.00	90.46	135.033	4,565.32	-3,125.66	3,405.05	4,617.80	0.00	0.00	0.00
11,400.00	90.46	135.033	4,564.52	-3,196.41	3,475.72	4,717.80	0.00	0.00	0.00
11,500.00	90.46	135.033	4,563.71	-3,267.16	3,546.39	4,817.79	0.00	0.00	0.00
11,600.00	90.46	135.033	4,562.91	-3,337.91	3,617.06	4,917.79	0.00	0.00	0.00
11,700.00	90.46	135.033	4,562.10	-3,408.66	3,687.72	5,017.79	0.00	0.00	0.00
11,800.00	90.46	135.033	4,561.30	-3,479.41	3,758.39	5,117.79	0.00	0.00	0.00
11,900.00	90.46	135.033	4,560.49	-3,550.16	3,829.06	5,217.78	0.00	0.00	0.00
12,000.00	90.46	135.033	4,559.69	-3,620.91	3,899.73	5,317.78	0.00	0.00	0.00
12,100.00	90.46	135.033	4,558.88	-3,691.66	3,970.39	5,417.78	0.00	0.00	0.00
12,200.00	90.46	135.033	4,558.08	-3,762.41	4,041.06	5,517.77	0.00	0.00	0.00
12,300.00	90.46	135.033	4,557.28	-3,833.16	4,111.73	5,617.77	0.00	0.00	0.00
12,400.00	90.46	135.033	4,556.47	-3,903.91	4,182.40	5,717.77	0.00	0.00	0.00
12,500.00	90.46	135.033	4,555.67	-3,974.66	4,253.06	5,817.76	0.00	0.00	0.00
12,600.00	90.46	135.033	4,554.86	-4,045.41	4,323.73	5,917.76	0.00	0.00	0.00
12,700.00	90.46	135.033	4,554.06	-4,116.16	4,394.40	6,017.76	0.00	0.00	0.00
12,800.00	90.46	135.033	4,553.25	-4,186.91	4,465.07	6,117.75	0.00	0.00	0.00
12,900.00	90.46	135.033	4,552.45	-4,257.65	4,535.73	6,217.75	0.00	0.00	0.00
13,000.00	90.46	135.033	4,551.65	-4,328.40	4,606.40	6,317.75	0.00	0.00	0.00
13,100.00	90.46	135.033	4,550.84	-4,399.15	4,677.07	6,417.74	0.00	0.00	0.00
13,200.00	90.46	135.033	4,550.04	-4,469.90	4,747.73	6,517.74	0.00	0.00	0.00
13,300.00	90.46	135.033	4,549.23	-4,540.65	4,818.40	6,617.74	0.00	0.00	0.00
13,400.00	90.46	135.033	4,548.43	-4,611.40	4,889.07	6,717.73	0.00	0.00	0.00
13,500.00	90.46	135.033	4,547.62	-4,682.15	4,959.74	6,817.73	0.00	0.00	0.00
13,600.00	90.46	135.033	4,546.82	-4,752.90	5,030.40	6,917.73	0.00	0.00	0.00
13,701.82	90.46	135.033	4,546.00	-4,824.94	5,102.36	7,019.55	0.00	0.00	0.00
PBHL/TD 13701.82 MD 4546.00 TVD									



Planning Report

Database:	DB_Feb2822	Local Co-ordinate Reference:	Well Rodeo Unit #494H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Site:	Rodeo Unit 492 pad (494 & 495)	North Reference:	Grid
Well:	Rodeo Unit #494H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Rode 494 LTP 233 FSL	0.00	0.000	4,546.00	-4,824.94	5,102.36	1,883,652.720	2,759,174.171	36.176739000	-107.711072000
- plan hits target center									
- Point									
Rode 494 FTP 764 FSL	0.00	0.000	4,612.00	980.65	-696.53	1,889,458.303	2,753,375.288	36.192706000	-107.730700000
- plan misses target center by 0.02ft at 5495.94ft MD (4612.00 TVD, 980.67 N, -696.52 E)									
- Point									

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
350.00	350.00	13 3/8" Casing	13-5/8	17-1/2
2,778.64	2,528.00	9 5/8" Casing	9-5/8	12-1/4

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
283.00	283.00	Ojo Alamo				
376.00	376.00	Kirtland				
603.00	603.00	Fruitland				
939.79	938.00	Pictured Cliffs				
1,057.36	1,053.00	Lewis				
1,336.09	1,318.00	Chacra_A				
2,559.84	2,348.00	Cliff House_Basal				
2,596.31	2,378.00	Menefee				
3,817.92	3,383.00	Point Lookout				
3,975.94	3,513.00	Mancos				
4,387.53	3,868.00	MNCS_A				
4,484.15	3,963.00	MNCS_B				
4,577.41	4,056.00	MNCS_C				
4,619.78	4,098.00	MNCS_Cms				
4,749.91	4,223.00	MNCS_D				
4,918.75	4,368.00	MNCS_E				
5,000.80	4,428.00	MNCS_F				
5,101.80	4,490.00	MNCS_G				
5,196.60	4,538.00	MNCS_H				
5,355.39	4,596.00	MNCS_I				



Planning Report

Database:	DB_Feb2822	Local Co-ordinate Reference:	Well Rodeo Unit #494H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Site:	Rodeo Unit 492 pad (494 & 495)	North Reference:	Grid
Well:	Rodeo Unit #494H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
600.00	600.00	0.00	0.00	KOP Begin 3°/100' build	
1,754.87	1,685.76	259.00	-218.19	Begin 34.65° tangent	
4,186.30	3,686.06	1,316.16	-1,108.76	Begin 10°/100' build/turn	
5,130.76	4,505.11	1,219.17	-943.82	Begin 60.00° tangent	
5,190.76	4,535.11	1,183.69	-905.86	Begin 10°/100' build/turn	
5,495.95	4,612.00	980.67	-696.52	Begin 90.46° lateral	
13,701.82	4,546.00	-4,824.94	5,102.36	PBHL/TD 13701.82 MD 4546.00 TVD	



Planning Report - Geographic

Database:	DB_Feb2822	Local Co-ordinate Reference:	Well Rodeo Unit #494H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Site:	Rodeo Unit 492 pad (494 & 495)	North Reference:	Grid
Well:	Rodeo Unit #494H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

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 492 pad (494 & 495)			
Site Position:		Northing:	1,888,477.650 usft	Latitude:	36.190010000
From:	Lat/Long	Easting:	2,754,071.821 usft	Longitude:	-107.728343000
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "		

Well	Rodeo Unit #494H, Surf loc: 225 FNL 935 FWL Section 31-T23N-R08W					
Well Position	+N/-S	0.00 ft	Northing:	1,888,477.650 usft	Latitude:	36.190010000
	+E/-W	0.00 ft	Easting:	2,754,071.821 usft	Longitude:	-107.728343000
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,680.00 ft
Grid Convergence:		0.06 °				

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	3/9/2022	8.72	62.71	49,214.91027360

Design	rev0			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	135.033

Plan Survey Tool Program	Date	3/10/2022		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	13,701.82 rev0 (Original Hole)	MWD	
			OWSG MWD - Standard	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,754.87	34.65	319.889	1,685.76	259.00	-218.19	3.00	3.00	0.00	319.89	
4,186.30	34.65	319.889	3,686.06	1,316.16	-1,108.76	0.00	0.00	0.00	0.00	
5,130.76	60.00	133.071	4,505.11	1,219.17	-943.82	10.00	2.68	18.34	174.08	
5,190.76	60.00	133.071	4,535.11	1,183.69	-905.86	0.00	0.00	0.00	0.00	
5,495.95	90.46	135.033	4,612.00	980.67	-696.52	10.00	9.98	0.64	3.87	
13,701.82	90.46	135.033	4,546.00	-4,824.94	5,102.36	0.00	0.00	0.00	0.00	Rode 494 LTP 233 F5



Planning Report - Geographic

Database:	DB_Feb2822	Local Co-ordinate Reference:	Well Rodeo Unit #494H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Site:	Rodeo Unit 492 pad (494 & 495)	North Reference:	Grid
Well:	Rodeo Unit #494H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned 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	1,888,477.650	2,754,071.821	36.190010000	-107.728343000
100.00	0.00	0.000	100.00	0.00	0.00	1,888,477.650	2,754,071.821	36.190010000	-107.728343000
200.00	0.00	0.000	200.00	0.00	0.00	1,888,477.650	2,754,071.821	36.190010000	-107.728343000
283.00	0.00	0.000	283.00	0.00	0.00	1,888,477.650	2,754,071.821	36.190010000	-107.728343000
Ojo Alamo									
300.00	0.00	0.000	300.00	0.00	0.00	1,888,477.650	2,754,071.821	36.190010000	-107.728343000
376.00	0.00	0.000	376.00	0.00	0.00	1,888,477.650	2,754,071.821	36.190010000	-107.728343000
Kirtland									
400.00	0.00	0.000	400.00	0.00	0.00	1,888,477.650	2,754,071.821	36.190010000	-107.728343000
500.00	0.00	0.000	500.00	0.00	0.00	1,888,477.650	2,754,071.821	36.190010000	-107.728343000
600.00	0.00	0.000	600.00	0.00	0.00	1,888,477.650	2,754,071.821	36.190010000	-107.728343000
KOP Begin 3°/100' build									
603.00	0.09	319.889	603.00	0.00	0.00	1,888,477.652	2,754,071.819	36.190010004	-107.728343005
Fruitland									
700.00	3.00	319.889	699.95	2.00	-1.69	1,888,479.652	2,754,070.135	36.190015504	-107.728348707
800.00	6.00	319.889	799.63	8.00	-6.74	1,888,485.652	2,754,065.080	36.190032001	-107.728365814
900.00	9.00	319.889	898.77	17.98	-15.15	1,888,495.633	2,754,056.672	36.190059446	-107.728394274
939.79	10.19	319.889	938.00	23.06	-19.42	1,888,500.707	2,754,052.398	36.190073395	-107.728408739
Pictured Cliffs									
1,000.00	12.00	319.889	997.08	31.92	-26.89	1,888,509.569	2,754,044.932	36.190097763	-107.728434008
1,057.36	13.72	319.889	1,053.00	41.68	-35.11	1,888,519.332	2,754,036.707	36.190124609	-107.728461846
Lewis									
1,100.00	15.00	319.889	1,094.31	49.77	-41.93	1,888,527.421	2,754,029.894	36.190146848	-107.728484907
1,200.00	18.00	319.889	1,190.18	71.49	-60.22	1,888,549.139	2,754,011.597	36.190206566	-107.728546833
1,300.00	21.00	319.889	1,284.43	97.02	-81.73	1,888,574.666	2,753,990.093	36.190276753	-107.728619616
1,336.09	22.08	319.889	1,318.00	107.15	-90.26	1,888,584.800	2,753,981.556	36.190304618	-107.728648510
Chacra_A									
1,400.00	24.00	319.889	1,376.81	126.28	-106.38	1,888,603.930	2,753,965.441	36.190357217	-107.728703055
1,500.00	27.00	319.889	1,467.06	159.20	-134.11	1,888,636.851	2,753,937.707	36.190447738	-107.728796923
1,600.00	30.00	319.889	1,554.93	195.69	-164.85	1,888,673.340	2,753,906.969	36.190548066	-107.728900962
1,700.00	33.00	319.889	1,640.18	235.65	-198.51	1,888,713.295	2,753,873.309	36.190657928	-107.729014888
1,754.87	34.65	319.889	1,685.76	259.00	-218.19	1,888,736.652	2,753,853.633	36.190722149	-107.729081484
Begin 34.65° tangent									
1,800.00	34.65	319.889	1,722.89	278.62	-234.72	1,888,756.275	2,753,837.102	36.190776105	-107.729137436
1,900.00	34.65	319.889	1,805.16	322.10	-271.35	1,888,799.754	2,753,800.475	36.190895653	-107.729261407
2,000.00	34.65	319.889	1,887.43	365.58	-307.97	1,888,843.232	2,753,763.848	36.191015201	-107.729385379
2,100.00	34.65	319.889	1,969.70	409.06	-344.60	1,888,886.711	2,753,727.220	36.191134750	-107.729509351
2,200.00	34.65	319.889	2,051.97	452.54	-381.23	1,888,930.190	2,753,690.593	36.191254298	-107.729633323
2,300.00	34.65	319.889	2,134.23	496.02	-417.86	1,888,973.668	2,753,653.966	36.191373846	-107.729757296
2,400.00	34.65	319.889	2,216.50	539.50	-454.48	1,889,017.147	2,753,617.338	36.191493394	-107.729881269
2,500.00	34.65	319.889	2,298.77	582.98	-491.11	1,889,060.626	2,753,580.711	36.191612941	-107.730005243
2,559.84	34.65	319.889	2,348.00	608.99	-513.03	1,889,086.644	2,753,558.793	36.191684480	-107.730079430
Cliff House_Basal									
2,596.31	34.65	319.889	2,378.00	624.85	-526.39	1,889,102.499	2,753,545.436	36.191728075	-107.730124639
Menefee									
2,600.00	34.65	319.889	2,381.04	626.46	-527.74	1,889,104.105	2,753,544.084	36.191732489	-107.730129217
2,700.00	34.65	319.889	2,463.31	669.93	-564.37	1,889,147.583	2,753,507.456	36.191852037	-107.730253191
2,800.00	34.65	319.889	2,545.57	713.41	-600.99	1,889,191.062	2,753,470.829	36.191971584	-107.730377166
2,900.00	34.65	319.889	2,627.84	756.89	-637.62	1,889,234.541	2,753,434.202	36.192091131	-107.730501141
3,000.00	34.65	319.889	2,710.11	800.37	-674.25	1,889,278.020	2,753,397.574	36.192210678	-107.730625117
3,100.00	34.65	319.889	2,792.38	843.85	-710.88	1,889,321.498	2,753,360.947	36.192330225	-107.730749093
3,200.00	34.65	319.889	2,874.65	887.33	-747.50	1,889,364.977	2,753,324.320	36.192449772	-107.730873069
3,300.00	34.65	319.889	2,956.91	930.81	-784.13	1,889,408.456	2,753,287.692	36.192569319	-107.730997045



Planning Report - Geographic

Database:	DB_Feb2822	Local Co-ordinate Reference:	Well Rodeo Unit #494H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Site:	Rodeo Unit 492 pad (494 & 495)	North Reference:	Grid
Well:	Rodeo Unit #494H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
3,400.00	34.65	319.889	3,039.18	974.29	-820.76	1,889,451.934	2,753,251.065	36.192688865	-107.731121022
3,500.00	34.65	319.889	3,121.45	1,017.76	-857.39	1,889,495.413	2,753,214.438	36.192808412	-107.731245000
3,600.00	34.65	319.889	3,203.72	1,061.24	-894.01	1,889,538.892	2,753,177.810	36.192927958	-107.731368978
3,700.00	34.65	319.889	3,285.99	1,104.72	-930.64	1,889,582.371	2,753,141.183	36.193047504	-107.731492956
3,800.00	34.65	319.889	3,368.25	1,148.20	-967.27	1,889,625.849	2,753,104.556	36.193167050	-107.731616934
3,817.92	34.65	319.889	3,383.00	1,155.99	-973.83	1,889,633.643	2,753,097.990	36.193188478	-107.731639157
Point Lookout									
3,900.00	34.65	319.889	3,450.52	1,191.68	-1,003.89	1,889,669.328	2,753,067.928	36.193286596	-107.731740913
3,975.94	34.65	319.889	3,513.00	1,224.70	-1,031.71	1,889,702.348	2,753,040.112	36.193377384	-107.731835068
Mancos									
4,000.00	34.65	319.889	3,532.79	1,235.16	-1,040.52	1,889,712.807	2,753,031.301	36.193406142	-107.731864892
4,100.00	34.65	319.889	3,615.06	1,278.64	-1,077.15	1,889,756.286	2,752,994.674	36.193525688	-107.731988872
4,186.30	34.65	319.889	3,686.06	1,316.16	-1,108.76	1,889,793.810	2,752,963.063	36.193628861	-107.732095873
Begin 10°/100' build/turn									
4,200.00	33.28	320.146	3,697.42	1,322.02	-1,113.68	1,889,799.672	2,752,958.146	36.193644980	-107.732112514
4,250.00	28.32	321.270	3,740.35	1,341.82	-1,129.90	1,889,819.468	2,752,941.924	36.193699408	-107.732167422
4,300.00	23.36	322.827	3,785.34	1,358.98	-1,143.32	1,889,836.630	2,752,928.506	36.193746591	-107.732212837
4,350.00	18.43	325.162	3,832.04	1,373.38	-1,153.83	1,889,851.026	2,752,917.994	36.193786169	-107.732248413
4,387.53	14.76	327.893	3,868.00	1,382.30	-1,159.76	1,889,859.949	2,752,912.061	36.193810698	-107.732268488
MNCS_A									
4,400.00	13.55	329.117	3,880.09	1,384.90	-1,161.36	1,889,862.548	2,752,910.467	36.193817842	-107.732273881
4,450.00	8.80	337.316	3,929.13	1,393.46	-1,165.84	1,889,871.107	2,752,905.984	36.193841368	-107.732289045
4,484.15	5.79	350.396	3,963.00	1,397.57	-1,167.13	1,889,875.216	2,752,904.689	36.193852658	-107.732293419
MNCS_B									
4,500.00	4.59	1.973	3,978.79	1,398.99	-1,167.25	1,889,876.639	2,752,904.578	36.193856568	-107.732293792
4,550.00	3.84	74.085	4,028.68	1,401.45	-1,165.56	1,889,879.101	2,752,906.259	36.193863327	-107.732288084
4,577.41	5.70	98.983	4,056.00	1,401.49	-1,163.34	1,889,879.140	2,752,908.488	36.193863428	-107.732280530
MNCS_C									
4,600.00	7.64	109.057	4,078.44	1,400.83	-1,160.81	1,889,878.474	2,752,911.016	36.193861593	-107.732271965
4,619.78	9.46	114.372	4,098.00	1,399.73	-1,158.08	1,889,877.374	2,752,913.740	36.193858562	-107.732262736
MNCS_Cms									
4,650.00	12.33	119.426	4,127.67	1,397.12	-1,153.01	1,889,874.765	2,752,918.812	36.193851379	-107.732245557
4,700.00	17.19	124.071	4,176.01	1,390.35	-1,142.24	1,889,867.999	2,752,929.587	36.193832763	-107.732209063
4,749.91	22.10	126.700	4,223.00	1,380.60	-1,128.59	1,889,858.250	2,752,943.233	36.193805942	-107.732162848
MNCS_D									
4,750.00	22.11	126.703	4,223.08	1,380.58	-1,128.56	1,889,858.230	2,752,943.260	36.193805887	-107.732162759
4,800.00	27.06	128.413	4,268.53	1,367.88	-1,112.10	1,889,845.531	2,752,959.726	36.193770956	-107.732106997
4,850.00	32.02	129.627	4,312.02	1,352.35	-1,092.96	1,889,830.000	2,752,978.861	36.193728234	-107.732042204
4,900.00	37.00	130.544	4,353.21	1,334.11	-1,071.31	1,889,811.754	2,753,000.518	36.193678048	-107.731968870
4,918.75	38.86	130.835	4,368.00	1,326.59	-1,062.57	1,889,804.238	2,753,009.258	36.193657376	-107.731939275
MNCS_E									
4,950.00	41.98	131.271	4,391.79	1,313.28	-1,047.29	1,889,790.932	2,753,024.532	36.193620778	-107.731887555
5,000.00	46.96	131.870	4,427.46	1,290.04	-1,021.10	1,889,767.692	2,753,050.722	36.193556862	-107.731798878
5,000.80	47.04	131.879	4,428.00	1,289.66	-1,020.67	1,889,767.304	2,753,051.156	36.193555793	-107.731797410
MNCS_F									
5,050.00	51.94	132.379	4,459.95	1,264.56	-992.94	1,889,742.212	2,753,078.887	36.193486785	-107.731703513
5,100.00	56.93	132.823	4,489.02	1,237.04	-963.01	1,889,714.686	2,753,108.814	36.193411081	-107.731602186
5,101.80	57.11	132.838	4,490.00	1,236.01	-961.90	1,889,713.661	2,753,109.920	36.193408263	-107.731598444
MNCS_G									
5,130.76	60.00	133.071	4,505.11	1,219.17	-943.82	1,889,696.823	2,753,128.005	36.193361954	-107.731537212
Begin 60.00° tangent									
5,190.76	60.00	133.071	4,535.11	1,183.69	-905.86	1,889,661.338	2,753,165.963	36.193264364	-107.731408694
Begin 10°/100' build/turn									



Planning Report - Geographic

Database:	DB_Feb2822	Local Co-ordinate Reference:	Well Rodeo Unit #494H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Site:	Rodeo Unit 492 pad (494 & 495)	North Reference:	Grid
Well:	Rodeo Unit #494H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
5,196.60	60.58	133.116	4,538.00	1,180.23	-902.16	1,889,657.878	2,753,169.661	36.193254848	-107.731396172	
MNCS_H										
5,200.00	60.92	133.142	4,539.66	1,178.20	-899.99	1,889,655.847	2,753,171.829	36.193249263	-107.731388831	
5,250.00	65.91	133.508	4,562.03	1,147.53	-867.48	1,889,625.175	2,753,204.345	36.193164909	-107.731278742	
5,300.00	70.90	133.846	4,580.43	1,115.43	-833.87	1,889,593.077	2,753,237.957	36.193076637	-107.731164943	
5,350.00	75.89	134.164	4,594.71	1,082.15	-799.41	1,889,559.799	2,753,272.409	36.192985118	-107.731048300	
5,355.39	76.43	134.197	4,596.00	1,078.50	-795.66	1,889,556.151	2,753,276.163	36.192975086	-107.731035591	
MNCS_I										
5,400.00	80.88	134.468	4,604.77	1,047.95	-764.38	1,889,525.593	2,753,307.440	36.192891050	-107.730929701	
5,450.00	85.87	134.764	4,610.54	1,013.07	-729.04	1,889,490.720	2,753,342.782	36.192795148	-107.730810050	
5,495.95	90.46	135.033	4,612.00	980.67	-696.52	1,889,458.314	2,753,375.302	36.192706031	-107.730699951	
Begin 90.46° lateral										
5,500.00	90.46	135.033	4,611.97	977.80	-693.66	1,889,455.446	2,753,378.167	36.192698144	-107.730690253	
5,600.00	90.46	135.033	4,611.17	907.05	-622.99	1,889,384.697	2,753,448.834	36.192503583	-107.730451011	
5,700.00	90.46	135.033	4,610.36	836.30	-552.32	1,889,313.948	2,753,519.502	36.192309021	-107.730211770	
5,800.00	90.46	135.033	4,609.56	765.55	-481.65	1,889,243.198	2,753,590.169	36.192114459	-107.729972531	
5,900.00	90.46	135.033	4,608.75	694.80	-410.99	1,889,172.449	2,753,660.836	36.191919897	-107.729733293	
6,000.00	90.46	135.033	4,607.95	624.05	-340.32	1,889,101.700	2,753,731.503	36.191725334	-107.729494056	
6,100.00	90.46	135.033	4,607.15	553.30	-269.65	1,889,030.951	2,753,802.171	36.191530771	-107.729254820	
6,200.00	90.46	135.033	4,606.34	482.55	-198.98	1,888,960.202	2,753,872.838	36.191336207	-107.729015585	
6,300.00	90.46	135.033	4,605.54	411.80	-128.32	1,888,889.452	2,753,943.505	36.191141643	-107.728776352	
6,400.00	90.46	135.033	4,604.73	341.05	-57.65	1,888,818.703	2,754,014.172	36.190947078	-107.728537119	
6,500.00	90.46	135.033	4,603.93	270.30	13.02	1,888,747.954	2,754,084.840	36.190752513	-107.728297888	
6,600.00	90.46	135.033	4,603.12	199.55	83.69	1,888,677.205	2,754,155.507	36.190557947	-107.728058658	
6,700.00	90.46	135.033	4,602.32	128.81	154.35	1,888,606.456	2,754,226.174	36.190363381	-107.727819430	
6,800.00	90.46	135.033	4,601.52	58.06	225.02	1,888,535.706	2,754,296.841	36.190168814	-107.727580202	
6,900.00	90.46	135.033	4,600.71	-12.69	295.69	1,888,464.957	2,754,367.509	36.189974247	-107.727340976	
7,000.00	90.46	135.033	4,599.91	-83.44	366.36	1,888,394.208	2,754,438.176	36.189779679	-107.727101751	
7,100.00	90.46	135.033	4,599.10	-154.19	437.02	1,888,323.459	2,754,508.843	36.189585111	-107.726862527	
7,200.00	90.46	135.033	4,598.30	-224.94	507.69	1,888,252.710	2,754,579.511	36.189390542	-107.726623304	
7,300.00	90.46	135.033	4,597.49	-295.69	578.36	1,888,181.960	2,754,650.178	36.189195973	-107.726384082	
7,400.00	90.46	135.033	4,596.69	-366.44	649.03	1,888,111.211	2,754,720.845	36.189001405	-107.726144862	
7,500.00	90.46	135.033	4,595.89	-437.19	719.69	1,888,040.462	2,754,791.512	36.188806835	-107.725905642	
7,600.00	90.46	135.033	4,595.08	-507.94	790.36	1,887,969.713	2,754,862.180	36.188612264	-107.725666424	
7,700.00	90.46	135.033	4,594.28	-578.69	861.03	1,887,898.964	2,754,932.847	36.188417693	-107.725427207	
7,800.00	90.46	135.033	4,593.47	-649.44	931.70	1,887,828.214	2,755,003.514	36.188223121	-107.725187992	
7,900.00	90.46	135.033	4,592.67	-720.19	1,002.36	1,887,757.465	2,755,074.181	36.188028549	-107.724948777	
8,000.00	90.46	135.033	4,591.86	-790.94	1,073.03	1,887,686.716	2,755,144.849	36.187833977	-107.724709564	
8,100.00	90.46	135.033	4,591.06	-861.69	1,143.70	1,887,615.967	2,755,215.516	36.187639404	-107.724470352	
8,200.00	90.46	135.033	4,590.25	-932.43	1,214.36	1,887,545.217	2,755,286.183	36.187444830	-107.724231141	
8,300.00	90.46	135.033	4,589.45	-1,003.18	1,285.03	1,887,474.468	2,755,356.850	36.187250257	-107.723991931	
8,400.00	90.46	135.033	4,588.65	-1,073.93	1,355.70	1,887,403.719	2,755,427.518	36.187055682	-107.723752722	
8,500.00	90.46	135.033	4,587.84	-1,144.68	1,426.37	1,887,332.970	2,755,498.185	36.186861107	-107.723513515	
8,600.00	90.46	135.033	4,587.04	-1,215.43	1,497.03	1,887,262.221	2,755,568.852	36.186666532	-107.723274309	
8,700.00	90.46	135.033	4,586.23	-1,286.18	1,567.70	1,887,191.471	2,755,639.519	36.186471956	-107.723035104	
8,800.00	90.46	135.033	4,585.43	-1,356.93	1,638.37	1,887,120.722	2,755,710.187	36.186277380	-107.722795900	
8,900.00	90.46	135.033	4,584.62	-1,427.68	1,709.04	1,887,049.973	2,755,780.854	36.186082803	-107.722556697	
9,000.00	90.46	135.033	4,583.82	-1,498.43	1,779.70	1,886,979.224	2,755,851.521	36.185888225	-107.722317496	
9,100.00	90.46	135.033	4,583.02	-1,569.18	1,850.37	1,886,908.475	2,755,922.188	36.185693648	-107.722078295	
9,200.00	90.46	135.033	4,582.21	-1,639.93	1,921.04	1,886,837.725	2,755,992.856	36.185499069	-107.721839096	
9,300.00	90.46	135.033	4,581.41	-1,710.68	1,991.71	1,886,766.976	2,756,063.523	36.185304491	-107.721599898	
9,400.00	90.46	135.033	4,580.60	-1,781.43	2,062.37	1,886,696.227	2,756,134.190	36.185109911	-107.721360701	
9,500.00	90.46	135.033	4,579.80	-1,852.18	2,133.04	1,886,625.478	2,756,204.857	36.184915332	-107.721121506	
9,600.00	90.46	135.033	4,578.99	-1,922.93	2,203.71	1,886,554.729	2,756,275.525	36.184720751	-107.720882311	



Planning Report - Geographic

Database:	DB_Feb2822	Local Co-ordinate Reference:	Well Rodeo Unit #494H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Site:	Rodeo Unit 492 pad (494 & 495)	North Reference:	Grid
Well:	Rodeo Unit #494H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,700.00	90.46	135.033	4,578.19	-1,993.68	2,274.38	1,886,483.979	2,756,346.192	36.184526171	-107.720643118
9,800.00	90.46	135.033	4,577.38	-2,064.42	2,345.04	1,886,413.230	2,756,416.859	36.184331590	-107.720403926
9,900.00	90.46	135.033	4,576.58	-2,135.17	2,415.71	1,886,342.481	2,756,487.527	36.184137008	-107.720164735
10,000.00	90.46	135.033	4,575.78	-2,205.92	2,486.38	1,886,271.732	2,756,558.194	36.183942426	-107.719925545
10,100.00	90.46	135.033	4,574.97	-2,276.67	2,557.05	1,886,200.983	2,756,628.861	36.183747843	-107.719686357
10,200.00	90.46	135.033	4,574.17	-2,347.42	2,627.71	1,886,130.233	2,756,699.528	36.183553260	-107.719447170
10,300.00	90.46	135.033	4,573.36	-2,418.17	2,698.38	1,886,059.484	2,756,770.196	36.183358676	-107.719207984
10,400.00	90.46	135.033	4,572.56	-2,488.92	2,769.05	1,885,988.735	2,756,840.863	36.183164092	-107.718968799
10,500.00	90.46	135.033	4,571.75	-2,559.67	2,839.72	1,885,917.986	2,756,911.530	36.182969508	-107.718729616
10,600.00	90.46	135.033	4,570.95	-2,630.42	2,910.38	1,885,847.236	2,756,982.197	36.182774923	-107.718490433
10,700.00	90.46	135.033	4,570.15	-2,701.17	2,981.05	1,885,776.487	2,757,052.865	36.182580337	-107.718251252
10,800.00	90.46	135.033	4,569.34	-2,771.92	3,051.72	1,885,705.738	2,757,123.532	36.182385751	-107.718012072
10,900.00	90.46	135.033	4,568.54	-2,842.67	3,122.38	1,885,634.989	2,757,194.199	36.182191165	-107.717772893
11,000.00	90.46	135.033	4,567.73	-2,913.42	3,193.05	1,885,564.240	2,757,264.866	36.181996578	-107.717533715
11,100.00	90.46	135.033	4,566.93	-2,984.17	3,263.72	1,885,493.490	2,757,335.534	36.181801990	-107.717294538
11,200.00	90.46	135.033	4,566.12	-3,054.92	3,334.39	1,885,422.741	2,757,406.201	36.181607403	-107.717055363
11,300.00	90.46	135.033	4,565.32	-3,125.66	3,405.05	1,885,351.992	2,757,476.868	36.181412814	-107.716816188
11,400.00	90.46	135.033	4,564.52	-3,196.41	3,475.72	1,885,281.243	2,757,547.535	36.181218225	-107.716577015
11,500.00	90.46	135.033	4,563.71	-3,267.16	3,546.39	1,885,210.494	2,757,618.203	36.181023636	-107.716337843
11,600.00	90.46	135.033	4,562.91	-3,337.91	3,617.06	1,885,139.744	2,757,688.870	36.180829046	-107.716098673
11,700.00	90.46	135.033	4,562.10	-3,408.66	3,687.72	1,885,068.995	2,757,759.537	36.180634456	-107.715859503
11,800.00	90.46	135.033	4,561.30	-3,479.41	3,758.39	1,884,998.246	2,757,830.204	36.180439865	-107.715620335
11,900.00	90.46	135.033	4,560.49	-3,550.16	3,829.06	1,884,927.497	2,757,900.872	36.180245274	-107.715381167
12,000.00	90.46	135.033	4,559.69	-3,620.91	3,899.73	1,884,856.748	2,757,971.539	36.180050682	-107.715142001
12,100.00	90.46	135.033	4,558.88	-3,691.66	3,970.39	1,884,785.998	2,758,042.206	36.179856090	-107.714902837
12,200.00	90.46	135.033	4,558.08	-3,762.41	4,041.06	1,884,715.249	2,758,112.874	36.179661497	-107.714663673
12,300.00	90.46	135.033	4,557.28	-3,833.16	4,111.73	1,884,644.500	2,758,183.541	36.179466904	-107.714424510
12,400.00	90.46	135.033	4,556.47	-3,903.91	4,182.40	1,884,573.751	2,758,254.208	36.179272310	-107.714185349
12,500.00	90.46	135.033	4,555.67	-3,974.66	4,253.06	1,884,503.002	2,758,324.875	36.179077716	-107.713946189
12,600.00	90.46	135.033	4,554.86	-4,045.41	4,323.73	1,884,432.252	2,758,395.543	36.178883121	-107.713707030
12,700.00	90.46	135.033	4,554.06	-4,116.16	4,394.40	1,884,361.503	2,758,466.210	36.178688526	-107.713467872
12,800.00	90.46	135.033	4,553.25	-4,186.91	4,465.07	1,884,290.753	2,758,536.877	36.178493930	-107.713228716
12,900.00	90.46	135.033	4,552.45	-4,257.65	4,535.73	1,884,220.004	2,758,607.544	36.178299334	-107.712989560
13,000.00	90.46	135.033	4,551.65	-4,328.40	4,606.40	1,884,149.254	2,758,678.212	36.178104737	-107.712750406
13,100.00	90.46	135.033	4,550.84	-4,399.15	4,677.07	1,884,078.505	2,758,748.879	36.177910140	-107.712511253
13,200.00	90.46	135.033	4,550.04	-4,469.90	4,747.73	1,884,007.756	2,758,819.546	36.177715543	-107.712272101
13,300.00	90.46	135.033	4,549.23	-4,540.65	4,818.40	1,883,937.007	2,758,890.213	36.177520945	-107.712032951
13,400.00	90.46	135.033	4,548.43	-4,611.40	4,889.07	1,883,866.258	2,758,960.881	36.177326346	-107.711793801
13,500.00	90.46	135.033	4,547.62	-4,682.15	4,959.74	1,883,795.508	2,759,031.548	36.177131747	-107.711554653
13,600.00	90.46	135.033	4,546.82	-4,752.90	5,030.40	1,883,724.759	2,759,102.215	36.176937148	-107.711315506
13,701.82	90.46	135.033	4,546.00	-4,824.94	5,102.36	1,883,652.720	2,759,174.171	36.176739000	-107.711072000
PBHL/TD 13701.82 MD 4546.00 TVD									



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Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6680+28 @ 6708.00ft (Ensign 773)
Site:	Rodeo Unit 492 pad (494 & 495)	North Reference:	Grid
Well:	Rodeo Unit #494H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
Rode 494 LTP 233 FSL	0.00	0.000	4,546.00	-4,824.94	5,102.36	1,883,652.720	2,759,174.171	36.176739000	-107.711072000
- plan hits target center									
- Point									
Rode 494 FTP 764 FSL	0.00	0.000	4,612.00	980.65	-696.53	1,889,458.303	2,753,375.288	36.192706000	-107.730700000
- plan misses target center by 0.02ft at 5495.94ft MD (4612.00 TVD, 980.67 N, -696.52 E)									
- Point									

Casing Points				
Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter
(ft)	(ft)		(")	(")
350.00	350.00	13 3/8" Casing	13-5/8	17-1/2
2,778.64	2,528.00	9 5/8" Casing	9-5/8	12-1/4

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
283.00	283.00	Ojo Alamo				
376.00	376.00	Kirtland				
603.00	603.00	Fruitland				
939.79	938.00	Pictured Cliffs				
1,057.36	1,053.00	Lewis				
1,336.09	1,318.00	Chacra_A				
2,559.84	2,348.00	Cliff House_Basal				
2,596.31	2,378.00	Menefee				
3,817.92	3,383.00	Point Lookout				
3,975.94	3,513.00	Mancos				
4,387.53	3,868.00	MNCS_A				
4,484.15	3,963.00	MNCS_B				
4,577.41	4,056.00	MNCS_C				
4,619.78	4,098.00	MNCS_Cms				
4,749.91	4,223.00	MNCS_D				
4,918.75	4,368.00	MNCS_E				
5,000.80	4,428.00	MNCS_F				
5,101.80	4,490.00	MNCS_G				
5,196.60	4,538.00	MNCS_H				
5,355.39	4,596.00	MNCS_I				



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Site:	Rodeo Unit 492 pad (494 & 495)	North Reference:	Grid
Well:	Rodeo Unit #494H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
600.00	600.00	0.00	0.00	KOP Begin 3°/100' build	
1,754.87	1,685.76	259.00	-218.19	Begin 34.65° tangent	
4,186.30	3,686.06	1,316.16	-1,108.76	Begin 10°/100' build/turn	
5,130.76	4,505.11	1,219.17	-943.82	Begin 60.00° tangent	
5,190.76	4,535.11	1,183.69	-905.86	Begin 10°/100' build/turn	
5,495.95	4,612.00	980.67	-696.52	Begin 90.46° lateral	
13,701.82	4,546.00	-4,824.94	5,102.36	PBHL/TD 13701.82 MD 4546.00 TVD	

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

CONDITIONS

Action 92826

CONDITIONS

Operator: ENDURING RESOURCES, LLC 6300 S Syracuse Way, Suite 525 Centennial, CO 80111	OGRID: 372286
	Action Number: 92826
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Adhere to previous NMOCD Conditions of Approval	3/25/2022