

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

Sundry Print Reports
04/16/2024

Well Name: NAGEEZI UNIT Well Location: T24N / R9W / SEC 26 / County or Parish/State: SAN

NWSW / 36.282791 / -107.765257 JUAN / NM

Well Number: 214H Type of Well: OIL WELL Allottee or Tribe Name:

EASTERN NAVAJO

Lease Number: N0G14021898 Unit or CA Name: Unit or CA Number:

NMNM132981A

US Well Number: 3004538294 Operator: DJR OPERATING LLC

# **Notice of Intent**

**Sundry ID: 2785160** 

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 04/15/2024 Time Sundry Submitted: 02:28

Date proposed operation will begin: 04/15/2024

**Procedure Description:** DJR respectfully requests approval to change the casing and cement design for the subject well. Attached please find a Revised Drilling Plan; reflecting new casing size, set depth, and cement slurry assumptions. Please note, effective December 21, 2023, Enduring Resources, LLC & DJR Operating, LLC are wholly owned subsidiaries of Enduring Resources, LLC. Leases, rights of way, wells, and other property interests will continue to be held in their current entity names.

# **NOI Attachments**

# **Procedure Description**

 $214H\_Revised\_DPR\_04.11.24\_20240416110256.pdf$ 

Page 1 of 2

eceived by OCD: 4/16/2024 1:29:54 PM Well Name: NAGEEZI UNIT

Well Location: T24N / R9W / SEC 26 /

NWSW / 36.282791 / -107.765257

County or Parish/State: SAN 2 of

JUAN / NM

Well Number: 214H

Type of Well: OIL WELL

**Allottee or Tribe Name:** EASTERN NAVAJO

Lease Number: N0G14021898

**Unit or CA Name:** 

Unit or CA Number:

NMNM132981A

**US Well Number:** 

Operator: DJR OPERATING LLC

# **Operator**

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

Operator Electronic Signature: SHAW-MARIE FORD Signed on: APR 16, 2024 11:03 AM

Name: DJR OPERATING LLC

Title: Regulatory Specialist

Street Address: 1 ROAD 3263

City: AZTEC State: NM

Phone: (505) 632-3476

Email address: SFORD@ENDURINGRESOURCES.COM

# **Field**

**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:** 04/16/2024

Signature: Kenneth Rennick

Page 2 of 2

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

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

WELL INFORMATION:

Name: NAGEEZI UNIT 214H API Number: 30-045-38294

State: New Mexico
County: San Juan

Surface Elevation: 6,826 ft ASL (GL) 6,851 ft ASL (KB)

Surface Location: L-26-24N-09W Sec-Twn-Rng 1,779 ft FSL 784 ft FWL

36.282791 °N latitude 107.765257 °W longitude (NAD 83) **BH Location:** J-21-24N-09W Sec-Twn-Rng 2,382 ft FSL 1,938 ft FEL

36.298885 °N latitude 107.792292 °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 32.5 miles to MM 119.5, Right (SouthWest) on D34 Road for 2.9 miles to fork, Left (East) on lease road for 0.75 miles to P&A location, Thru location (Southeast) on new access for 0.3 miles to Nageezi L26 Pad, There are 6 wells on this location from South to North(NU 217H, NU 218H, NU 215H, NU 213H, NU 216H, NU

214H).

# **GEOLOGIC AND RESERVOIR INFORMATION:**

**Prognosis:** 

Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O/G/W	Pressure
Ojo Alamo	6,020	831	831	W	normal
Kirtland	5,895	956	956	W	normal
Fruitland	5,605	1,246	1,247	G, W	sub
Pictured Cliffs	5,260	1,591	1,601	G, W	sub
Lewis	5,149	1,702	1,718	G, W	normal
Chacra	4,849	2,002	2,053	G, W	normal
Cliff House	3,757	3,094	3,288	G, W	sub
Menefee	3,727	3,124	3,322	G, W	normal
Point Lookout	2,790	4,061	4,368	G, W	normal
Mancos	2,592	4,259	4,573	O,G	sub (~0.38)
Gallup (MNCS_A)	2,240	4,611	4,928	O,G	sub (~0.38)
MNCS_B	2,155	4,696	5,013	O,G	sub (~0.38)
MNCS_C	2,050	4,801	5,118	O,G	sub (~0.38)
MNCS_Cms	2,005	4,846	5,164	O,G	sub (~0.38)
MNCS_D	1,884	4,967	5,289	O,G	sub (~0.38)
MNCS_E	1,774	5,077	5,415	O,G	sub (~0.38)
MNCS_F	1,702	5,149	5,510	O,G	sub (~0.38)
MNCS_G	1,623	5,228	5,635	O,G	sub (~0.38)
MNCS_H	1,583	5,268	5,719	O,G	sub (~0.38)
MNCS_I	1,553	5,298	5,808	O,G	sub (~0.38)
FTP TARGET	1,566	5,285	5,763	O,G	sub (~0.38)
PROJECTED TD	1,493	5,358	14,109	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/ftEvacuated hole gradient:0.22 psi/ftMaximum anticipated BH pressure, assuming maximum pressure gradient:2,310 psiMaximum anticipated surface pressure, assuming partially evacuated hole:1,140 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; remote geo-steering from drill out of 7" casing to TD; gas detection from drillout of 9-5/8" casing to

TD.

MWD / LWD: Gamma Ray from drillout of 9-5/8" casing to TD

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

Cased Hole Logs: CBL on 7" casing from deepest free-fall depth to surface

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

Contractor: Ensign Rig No.: 140

Draw Works: Pacific Rim 1500AC (1,500 hp)

Mast: Process MFG Corp Swing Up Triple (136 ft, 750,000 lbs)

**Top Drive:** Tesco 400-EXI-600 (400 ton) **Prime Movers:** 3 - CAT 3512C (1,350 hp)

Pumps: 2 - Gardner Denver PZ-11 (7,500 psi)

**BOPE 1:** T3 Annular & Shaffer double gate ram (11", 5,000 psi)

**BOPE 2:** T3 annular(11", 5,000 psi)

**Choke** 3", 5,000 psi **KB-GL (ft):** 23.5

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.
- 2) 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.
- 3) 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.
- **4)** 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.
- 5) 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 and attached Newpark mud program for additional details.

8.921

## **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-Aug	45,628	9.0	Spud mud

Hole Size: 12-1/4"

**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	9.625	36.0	K-55	STC	2,020	3,520	564,000	423,000
Loading					153	1,135	110,988	110,988
Min. S.F.					13.21	3.10	5.08	3.81

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

			Yield	Water	Hole Cap.		Planned TOC	Total Cmt	Total Cmt
Cement:	Type	Weight (ppg)	(cuft/sk)	(gal/sk)	(cuft/ft)	% Excess	(ft MD)	(sx)	(cu ft)
Redi-Mix	TYPE I-II	14.5	1.61	7.41	0.3132	50%	0	114	184

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

Csg ID

Mesa Ready Mix or first available

Shoe Track I

Mesa Ready Mix or first available Shoe Track L 44

6.276

Casing ID

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

350 ft (MD)	to	5,863 ft (MD)	Hole Section Length:	5,513 ft
350 ft (TVD)	to	5,311 ft (TVD)	Casing Required:	5,863 ft

			FL		YP		
Fluid:	Туре	MW (ppg)	(mL/30 min)	PV (cp)	(lb/100 sqft)	рН	Comments
	LSND (KCI)	8.8 - 9.2	15	14-Aug	12-Jun	10.8 - 11.2	No OBM

Hole Size: 8.75

Bit / Motor: 8-3/4" PDC bit w/mud motor

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

Logging: None

		(1) (5)		_	Collapse		Tens. Body	Tens. Conn
Casing Specs:		Wt (lb/ft)	Grade	Conn.	(psi)	Burst (psi)	(lbs)	(lbs)
Specs	7	26.0	K-55	LTC	4,320	4,980	415,000	367,000
Loading					2,320	1,444	232,933	232,933
Min. S.F.					1.86	3.45	1.78	1.58

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

			Yield	Water		Planned TOC	Total Cmt	Total Cmt
Cement:	Type	Weight (ppg)	(cuft/sk)	(gal/sk)	% Excess	(ft MD)	(sx)	(cu ft)
Lead	III:POZ Blend	12.5	2.140	12.05	70%	0	520	1,112
Tail	Type III	14.6	1.380	6.64	20%	4,473	189	260
r Capacity	0.16681	cuft/ft	7" casing x 9-5	5/8" casing anr		Shoe Track L	44	

**Annular Capacity** 

0.16681 cuft/ft 7" casing x 9-5/8" casing annulus
0.1503 cuft/ft 9-5/8" casing x 12-1/4" hole annulus
0.2148 cuft/ft 7" casing casing volume

Calculated cement volumes assume gauge hole and the excess noted in table Drake Intermediate Cementing Program

FP24 Defoamer

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

_						
	5,863 ft (MD) to	14,109	ft (MD)	Hole Se	ection Length:	8,246 ft
	5,311 ft (TVD) to	5,358	ft (TVD)	Cas	8,396 ft	
	Estimated KOP:	5,063	ft (MD)	4,746	ft (TVD)	
	Estimated Liner Top:	5,713	ft (MD)	5,265	ft (TVD)	
	Estimated Landing Point (FTP):	5,763	ft (MD)	5,285	ft (TVD)	
	Estimated Lateral Length:	8,346	ft (MD)			
	Estimated Lateral Length:	8,340		IT (IVID)	ת (ועוט)	IT (IVID)

ΥP MW (ppg) PV (cp) (lb/100 sqft) Fluid: FL (mL/30') Comments Type pН Comments OBM as contingency **WBM** 8.7 - 9.0NC 20.00 ±2 9-9.5 prod water

**Hole Size:** 6.125

Bit / Motor: 6-1/8" PDC bit w/mud motor

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

							Tens. Body	Tens. Conn
Liner/Casing Specs:	Size (in)	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	(lbs)	(lbs)
Specs	4.500	11.6	P-110	BTC	7,560	10,690	367,000	385,000
Loading					2,647	8,806	241,228	241,228
Min. S.F.					2.86	1.21	1.52	1.60

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 100,000 lbs over-pull. Tension calculations assume

vertical hole to approximate drag in lateral.

Cement:	Type	Weight (ppg)	Yield	Water	% Excess	Planned TOC	Total Cmt	Total Cmt
Spacer	IntegraGuard Star	11		31.6		0	60 bbls	
Tail	G:POZ blend	13.3	1.560	7.70	30%	5,713	690	1,077

Displacement 187 est bbls

Annular Capacities 0.1044 cuft/ft 4-1/2" casing x 7" casing annulus

0.09417 cuft/ft 4-1/2" casing x 6-1/8" hole annulus

0.0873 cuft/ft 4-1/2" casing volume est shoe jt ft 100 0.0102 bbls/ft 4" DP capacity

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

American Cementing Liner & Production Blend

IntegraGuard Star

S-8 Silica Flour Avis 616 viscosifier FP24 Defoamer .5 Plus 3K LCM 15 SS201 Surfactant 1 Spacer 163.7 lbs/bbl 11.6 lb/bbl lb/bbl lb/bbl gal/bbl Bentonite IntegraGuard FP24 Defoamer BA90 Bonding Viscosifier 8% FL24 Fluid Loss GW86 Viscosifier R7C Retarder .2%

Lead/TailASTM Type I/IIBA90 Bonding<br/>Agent 5.0 lb/sxViscosifier 8%<br/>BWOBFL24 Fluid Loss<br/>1.5% BWOBGW86 Viscosifier<br/>1.4% BWOBR7C Retarder .2%<br/>BWOB0.3% BWOB, Anti-<br/>Static .01 lb/sx

.3% BWOB, Bentonite IntegraGuard Pozzolan Fly Ash BA90 Bonding Viscosifier 4% FL24 Fluid Loss R3 Retarder .5% IntegraSeal 0.25 GW86 Viscosifier Type G 50% Extender 50% Agent 3.0 lb/sx **BWOB** .4% BWOB .1% BWOB **BWOB** lb/sx

Released to Imaging: 7/11/2024 8:16:46 AM

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 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, cap well, RDMO.

#### **COMPLETION AND PRODUCTION PLAN:**

Est Lateral Length: 8,246

Est Frac Inform: 34 Frac Stages 132,000 bbls slick water 10,720,000 lbs proppant Frac: 39 plug-and-perf stages with 150,000 bbls slickwater fluid and 12,100,000 lbs of proppant (estimated)

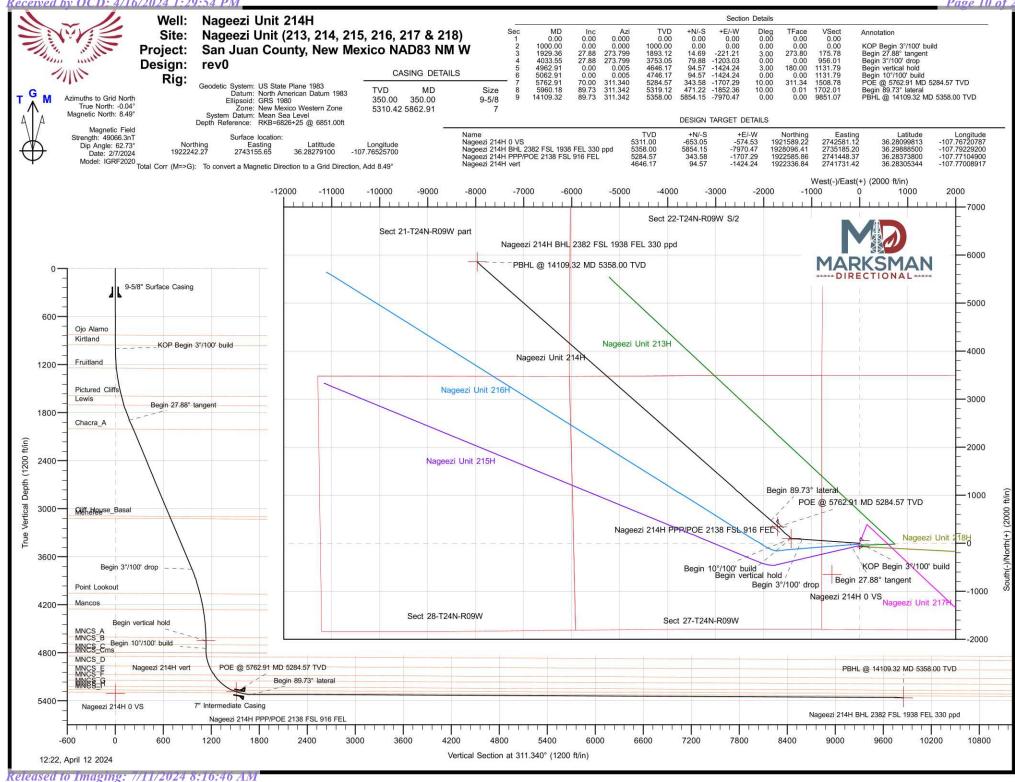
Flowback: Flow back through production tubing as pressures allow

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

#### **ESTIMATED START DATES:**

**Drilling:** 5/16/2024 **Completion:** 7/15/2024 **Production:** 8/29/2024

Prepared by: Greg Olson 1/25/2024 Updated: Greg Olson 4/11/2024 Received by OCD: 4/16/2024 1:29:54 PM Page 10 of 26





Version:

#### Planning Report

Database: DT\_Mar1724\_v17
Company: Enduring Resources LLC

 Project:
 San Juan County, New Mexico NAD83 NM W

 Site:
 Nageezi Unit (213, 214, 215, 216, 217 & 218)

Well: Nageezi Unit 214H
Wellbore: Original Hole
Design: rev0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Nageezi Unit 214H RKB=6826+25 @ 6851.00ft

RKB=6826+25 @ 6851.00ft

0.00

Minimum Curvature

Project San Juan County, New Mexico NAD83 NM W

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

System Datum:

Mean Sea Level

Site Nageezi Unit (213, 214, 215, 216, 217 & 218)

 Site Position:
 Northing:
 1,922,205.14 usft
 Latitude:
 36.28268900

 From:
 Lat/Long
 Easting:
 2,743,140.65 usft
 Longitude:
 -107.76530800

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

Well Nageezi Unit 214H, Surf loc: 1779 FSL 784 FWL Section 26-T24N-R09W

 Well Position
 +N/-S
 0.00 ft
 Northing:
 1,922,242.28 usft
 Latitude:
 36.28279100

 +E/-W
 0.00 ft
 Easting:
 2,743,155.65 usft
 Longitude:
 -107.76525700

Position Uncertainty 0.00 ft Wellhead Elevation: ft Ground Level: 6,826.00 ft

Grid Convergence: 0.04 °

Wellbore Original Hole Declination Field Strength Magnetics **Model Name** Sample Date Dip Angle (°) (°) (nT) IGRF2020 49,066.33119756 2/7/2024 8.53 62.73

Design rev0
Audit Notes:

Tie On Depth:

**PLAN** 

 Vertical Section:
 Depth From (TVD) (ft)
 +N/-S (ft)
 +E/-W (ft)
 Direction (°)

 0.00
 0.00
 0.00
 311.340

Phase:

OWSG MWD - Standard



Database: DT\_Mar1724\_v17
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 Nageezi Unit (213, 214, 215, 216, 217 & 218)

 Well:
 Nageezi Unit 214H

Wellbore: Original Hole

Design: rev0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Nageezi Unit 214H RKB=6826+25 @ 6851.00ft RKB=6826+25 @ 6851.00ft

Grid

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	
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,929.36	27.88	273.799	1,893.12	14.69	-221.21	3.00	3.00	0.00	273.80	
4,033.55	27.88	273.799	3,753.05	79.88	-1,203.03	0.00	0.00	0.00	0.00	
4,962.91	0.00	0.005	4,646.17	94.57	-1,424.24	3.00	-3.00	0.00	180.00	Nageezi 214H vert
5,062.91	0.00	0.005	4,746.17	94.57	-1,424.24	0.00	0.00	0.00	0.01	
5,762.91	70.00	311.340	5,284.57	343.58	-1,707.29	10.00	10.00	0.00	311.34	
5,960.18	89.73	311.342	5,319.12	471.22	-1,852.36	10.00	10.00	0.00	0.01	
14,109.32	89.73	311.342	5,358.00	5,854.15	-7,970.47	0.00	0.00	0.00	0.00	Nageezi 214H BHL



Database: DT\_Mar1724\_v17
Company: Enduring Resources LLC

 Project:
 San Juan County, New Mexico NAD83 NM W

 Site:
 Nageezi Unit (213, 214, 215, 216, 217 & 218)

Well: Nageezi Unit 214H
Wellbore: Original Hole
Design: rev0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Nageezi Unit 214H RKB=6826+25 @ 6851.00ft RKB=6826+25 @ 6851.00ft

Grid

ed Su	urvey									
	easured 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
	300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
	350.00	0.00	0.000	350.00	0.00	0.00	0.00	0.00	0.00	0.00
9	-5/8" Surfac	e Casing								
	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
	700.00	0.00	0.000	700.00	0.00	0.00	0.00	0.00	0.00	0.00
	800.00	0.00	0.000	800.00	0.00	0.00	0.00	0.00	0.00	0.00
	831.00	0.00	0.000	831.00	0.00	0.00	0.00	0.00	0.00	0.00
0	ojo Alamo		0.000				0.00		0.00	
	900.00	0.00	0.000	900.00	0.00	0.00	0.00	0.00	0.00	0.00
	956.00	0.00	0.000	956.00	0.00	0.00	0.00	0.00	0.00	0.00
K	irtland									
	1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
K	OP Begin 3			7					And a second	
	1,100.00	3.00	273.799	1,099.95	0.17	-2.61	2.08	3.00	3.00	0.00
	1,200.00	6.00	273.799	1,199.63	0.69	-10.44	8.30	3.00	3.00	0.00
_	1,246.75	7.40	273.799	1,246.06	1.05	-15.88	12.62	3.00	3.00	0.00
F	ruitland	0.00	070 700	4 000 ==	4 = 0	00.40	40.04	0.00	0.00	
	1,300.00	9.00	273.799	1,298.77	1.56	-23.46	18.64	3.00	3.00	0.00
	1,400.00	12.00	273.799	1,397.08	2.77	-41.64	33.09	3.00	3.00	0.00
	1,500.00	15.00	273.799	1,494.31	4.31	-64.93	51.60	3.00	3.00	0.00
	1,600.00	18.00	273.799	1,590.18	6.19	-93.27	74.12	3.00	3.00	0.00
	1,601.23	18.04	273.799	1,591.35	6.22	-93.65	74.42	3.00	3.00	0.00
P	ictured Clif	fs								
	1,700.00	21.00	273.799	1,684.43	8.40	-126.57	100.58	3.00	3.00	0.00
	1,718.31	21.55	273.799	1,701.50	8.84	-133.20	105.85	3.00	3.00	0.00
L	ewis									
	1,800.00	24.00	273.799	1,776.81	10.94	-164.75	130.92	3.00	3.00	0.00
	1,900.00	27.00	273.799	1.867.06	13.79	-207.70	165.06	3.00	3.00	0.00
	1,929.36	27.88	273.799	1,893.12	14.69	-221.21	175.78	3.00	3.00	0.00
B	Segin 27.88°		1000 P. 100 P. 1	wear and the second	100 F.G.(70)	energia in pro-141	1755 (F. 1757)	0.50.00.00.00.00.00.00.00.00.00.00.00.00	(75.50 E)	(5.35.5)
_	2,000.00	27.88	273.799	1,955.55	16.88	-254.17	201.98	0.00	0.00	0.00
	2,052.59	27.88	273.799	2,002.04	18.51	-278.71	221.48	0.00	0.00	0.00
С	hacra A									
1 13	2,100.00	27.88	273.799	2,043.95	19.97	-300.83	239.06	0.00	0.00	0.00
	2,200.00 2,300.00	27.88 27.88	273.799 273.799	2,132.34 2,220.73	23.07 26.17	-347.49 -394.15	276.14 313.21	0.00	0.00 0.00	0.00
	2,300.00	27.88	273.799	2,220.73	26.17	-394.15 -440.81	313.21	0.00	0.00	0.00
	2,500.00	27.88	273.799	2,309.12	32.37	-440.81 -487.47	387.37	0.00	0.00	0.00
	2,600.00	27.88	273.799	2,397.52	35.47	-407.47 -534.13	424.45	0.00	0.00	0.00
	2,700.00	27.88	273.799	2,574.30	38.56	-580.79	461.53	0.00	0.00	0.00
	2,800.00	27.88	273.799	2,662.69	41.66	-627.45	498.61	0.00	0.00	0.00
	2,900.00	27.88	273.799	2,751.08	44.76	-674.11	535.69	0.00	0.00	0.00
	3,000.00	27.88	273.799	2,839.48	47.86	-720.77	572.77	0.00	0.00	0.00
	3,100.00	27.88	273.799	2,927.87	50.96	-767.43	609.85	0.00	0.00	0.00
	3,200.00	27.88	273.799	3,016.26	54.06	-814.09	646.93	0.00	0.00	0.00
	3,288.18	27.88	273.799	3,094.20	56.79	-855.24	679.63	0.00	0.00	0.00
С	liff House_	Basal								
	3,300.00	27.88	273.799	3,104.65	57.15	-860.75	684.01	0.00	0.00	0.00



Database: DT\_Mar1724\_v17
Company: Enduring Resources LLC

 Project:
 San Juan County, New Mexico NAD83 NM W

 Site:
 Nageezi Unit (213, 214, 215, 216, 217 & 218)

Well: Nageezi Unit 214H
Wellbore: Original Hole
Design: rev0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Nageezi Unit 214H RKB=6826+25 @ 6851.00ft RKB=6826+25 @ 6851.00ft

Grid

d 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)
3,322.18	27.88	273.799	3,124.26	57.84	-871.11	692.24	0.00	0.00	0.00
Menefee 3,400.00	27.88	273.799	3,193.05	60.25	-907.42	721.09	0.00	0.00	0.00
3,500.00	27.88	273.799	3,281.44	63.35	-954.08	758.17	0.00	0.00	0.00
3,600.00 3,700.00 3,800.00	27.88 27.88 27.88	273.799 273.799 273.799	3,369.83 3,458.22 3,546.61	66.45 69.55 72.65	-1,000.74 -1,047.40 -1,094.06	795.25 832.33 869.41	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
3,900.00 4,000.00	27.88 27.88	273.799 273.799	3,635.01 3,723.40	75.74 78.84	-1,140.72 -1,187.38	906.49 943.57	0.00	0.00	0.00
4,033.55	27.88	273.799	3,753.05	79.88	-1,203.03	956.01	0.00	0.00	0.00
4,100.00 4,200.00 4,300.00	25.89 22.89 19.89	273.799 273.799 273.799	3,812.32 3,903.39 3,996.49	81.87 84.61 87.02	-1,233.01 -1,274.21 -1,310.59	979.83 1,012.57 1,041.48	3.00 3.00 3.00	-3.00 -3.00 -3.00	0.00 0.00 0.00
4,368.17	17.84	273.799	4,060.99	88.48	-1,332.58	1,058.95	3.00	-3.00	0.00
Point Looko			1919 <b>#</b> 1911 (1917 (1917 (1917))			i watawa wa 1966 kwa 1961			
4,400.00 4,500.00 4,573.23	16.89 13.89 11.69	273.799 273.799 273.799	4,091.37 4,187.78 4,259.19	89.11 90.87 91.95	-1,342.06 -1,368.54 -1,384.71	1,066.49 1,087.52 1,100.38	3.00 3.00 3.00	-3.00 -3.00 -3.00	0.00 0.00 0.00
Mancos	, 12 ZC=						2 22	2.00	<u>.</u>
4,600.00	10.89	273.799	4,285.44	92.29	-1,389.94	1,104.53	3.00	-3.00	0.00
4,700.00 4,800.00 4,900.00	7.89 4.89 1.89	273.799 273.799 273.799	4,384.09 4,483.46 4,583.27	93.37 94.11 94.50	-1,406.21 -1,417.31 -1,423.21	1,117.46 1,126.28 1,130.97	3.00 3.00 3.00	-3.00 -3.00 -3.00	0.00 0.00 0.00
4,928.07 MNCS_A	1.05	273.799	4,611.33	94.55	-1,423.92	1,131.54	3.00	-3.00	0.00
4,962.91	0.00	0.005	4,646.17	94.57	-1,424.24	1,131.79	3.00	-3.00	0.00
Begin vertic									
5,000.00 5,013.08	0.00 0.00	0.000	4,683.26 4,696.33	94.57 94.57	-1,424.24 -1,424.24	1,131.79 1,131.79	0.00 0.00	0.00 0.00	0.00 0.00
MNCS_B 5,062.91	0.00	0.000	4,746.17	94.57	-1,424.24	1,131.79	0.00	0.00	0.00
Begin 10°/10		211 240	4 702 22	05.26	1 105 11	1 122 00	10.00	10.00	0.00
5,100.00 5,118.17	3.71 5.53	311.340 311.340	4,783.23 4,801.35	95.36 96.33	-1,425.14 -1,426.24	1,132.99 1,134.45	10.00	10.00 10.00	0.00
MNCS_C	0.74	244 240	4 000 00	00.00	4 400 00	4 400 40	40.00	40.00	0.00
5,150.00 5,163.63	8.71 10.07	311.340 311.340	4,832.92 4,846.38	98.93 100.40	-1,429.20 -1,430.87	1,138.40 1,140.62	10.00 10.00	10.00 10.00	0.00 0.00
5,200.00 5,250.00 5,289.11	13.71 18.71 22.62	311.340 311.340 311.340	4,881.95 4,929.95 4,966.54	105.35 114.57 123.68	-1,436.49 -1,446.97 -1,457.33	1,148.11 1,162.06 1,175.86	10.00 10.00 10.00	10.00 10.00 10.00	0.00 0.00 0.00
MNCS_D	22.02	511.040	4,000.04	120.00	1,707.00	1,170.00	10.00	10.00	5.00
5,300.00 5,350.00 5,400.00 5,415.39	23.71 28.71 33.71 35.25	311.340 311.340 311.340 311.340	4,976.55 5,021.40 5,064.15 5,076.83	126.51 141.09 158.20 163.95	-1,460.55 -1,477.12 -1,496.57 -1,503.11	1,180.15 1,202.22 1,228.12 1,236.83	10.00 10.00 10.00 10.00	10.00 10.00 10.00 10.00	0.00 0.00 0.00 0.00
MNCS_E	.20 _ 5	400 400	_10_11_10					52 U 2	12.102
5,450.00 5,500.00	38.71 43.71	311.340 311.340	5,104.48 5,142.08	177.70 199.45	-1,518.74 -1,543.46	1,257.65 1,290.58	10.00 10.00	10.00 10.00	0.00
5,509.81 MNCS F	44.69	311.340	5,149.11	203.97	-1,548.59	1,297.42	10.00	10.00	0.00



Database: DT\_Mar1724\_v17
Company: Enduring Resources LLC

 Project:
 San Juan County, New Mexico NAD83 NM W

 Site:
 Nageezi Unit (213, 214, 215, 216, 217 & 218)

Well: Nageezi Unit 214H
Wellbore: Original Hole
Design: rev0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Nageezi Unit 214H RKB=6826+25 @ 6851.00ft RKB=6826+25 @ 6851.00ft

Grid

yıı.		1010								
nne	d 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)
	5,550.00	48.71	311.340	5,176.67	223.29	-1,570.55	1,326.66	10.00	10.00	0.00
	5,600.00	53.71	311.340	5,207.99	249.02	-1,599.80	1,365.62	10.00	10.00	0.00
	5,634.52 MNCS_G	57.16	311.340	5,227.57	267.80	-1,621.14	1,394.05	10.00	10.00	0.00
	15 NOTE OF THE PARTY.									
	5,650.00	58.71	311.340	5,235.78	276.46	-1,630.99	1,407.16	10.00	10.00	0.00
	5,700.00 5,718.83	63.71 65.59	311.340 311.340	5,259.86 5,267.92	305.39 316.63	-1,663.88 -1,676.65	1,450.97 1,467.98	10.00 10.00	10.00 10.00	0.00
	MNCS_H	00.00	511.540	5,207.52	510.05	-1,070.00	1,407.50	10.00	10.00	0.00
	5,750.00	68.71	311.340	5,280.02	335.60	-1,698.22	1,496.70	10.00	10.00	0.00
	5,762.91	70.00	311.340	5,284.57	343.58	-1,707.29	1,508.78	10.00	10.00	0.00
	POE @ 5762	.91 MD 5284.57	TVD							
	5,800.00	73.71	311.340	5,296.12	366.86	-1,733.75	1,544.02	10.00	10.00	0.00
	5,808.00	74.51	311.341	5,298.31	371.94	-1,739.52	1,551.71	10.00	10.00	0.00
	MNCS_I	122 (c) 122 (c)	Carrier Services				2 22 2 2	000 E00 E0E	50 1 Mar (1/120am)	12/12/21
	5,850.00	78.71 80.00	311.341	5,308.04	398.92	-1,770.19 -1,779.72	1,592.57	10.00	10.00 10.00	0.00
	5,862.91 7" Intermedi		311.341	5,310.42	407.31	-1,779.72	1,605.25	10.00	10.00	0.00
	5,900.00	83.71	311.342	5,315.68	431.55	-1,807.28	1,641.96	10.00	10.00	0.00
	5,950.00	88.71	311.342	5,318.98	464.50	-1,844.72	1,691.84	10.00	10.00	0.00
	5,960.18	89.73	311.342	5,319.12	471.22	-1,852.36	1,702.01	10.00	10.00	0.00
	Begin 89.73			5/5/5/15	2.0 1.000	1877717.7	(31,9-1,9-1)		20200	(7,437.7)
	6,000.00	89.73	311.342	5,319.31	497.53	-1,882.26	1,741.84	0.00	0.00	0.00
	6,100.00	89.73	311.342	5,319.79	563.58	-1,957.34	1,841.83	0.00	0.00	0.00
	6,200.00	89.73	311.342	5,320.27	629.64	-2,032.41	1,941.83	0.00	0.00	0.00
	6,300.00	89.73	311.342	5,320.74	695.69	-2,107.49	2,041.83	0.00	0.00	0.00
	6,400.00	89.73	311.342	5,321.22	761.75	-2,182.57	2,141.83	0.00	0.00	0.00
	6,500.00 6,600.00	89.73 89.73	311.342 311.342	5,321.70 5,322.17	827.80 893.86	-2,257.64 -2,332.72	2,241.83 2,341.83	0.00	0.00	0.00
	6,700.00	89.73	311.342	5,322.65	959.91	-2,407.80	2,441.83	0.00	0.00	0.00
	6,800.00	89.73	311.342	5,323.13	1,025.97	-2,482.87	2,541.83	0.00	0.00	0.00
	6,900.00	89.73	311.342	5,323.61	1,092.02	-2,557.95	2,641.83	0.00	0.00	0.00
	7,000.00	89.73	311.342	5,324.08	1,158.08	-2,633.03	2,741.82	0.00	0.00	0.00
	7,100.00	89.73	311.342	5,324.56	1,224.13	-2,708.10	2,841.82	0.00	0.00	0.00
	7,200.00	89.73	311.342	5,325.04	1,290.19	-2,783.18	2,941.82	0.00	0.00	0.00
	7,300.00	89.73	311.342	5,325.51	1,356.24	-2,858.26	3,041.82	0.00	0.00	0.00
	7,400.00	89.73	311.342	5,325.99	1,422.30	-2,933.33	3,141.82	0.00	0.00	0.00
	7,500.00 7,600.00	89.73 89.73	311.342 311.342	5,326.47 5,326.94	1,488.35 1,554.41	-3,008.41 -3,083.49	3,241.82 3,341.82	0.00	0.00	0.00
	7,700.00	89.73	311.342	5,327.42	1,620.46	-3,158.56	3,441.82	0.00	0.00	0.00
	7,800.00	89.73	311.342	5,327.90	1,686.52	-3,233.64	3,541.82	0.00	0.00	0.00
	7,900.00	89.73	311.342	5,328.38	1,752.57	-3,308.72	3,641.81	0.00	0.00	0.00
	8,000.00	89.73	311.342	5,328.85	1,818.63	-3,383.79	3,741.81	0.00	0.00	0.00
	8,100.00	89.73	311.342	5,329.33	1,884.68	-3,458.87	3,841.81	0.00	0.00	0.00
	8,200.00	89.73	311.342	5,329.81	1,950.74	-3,533.95	3,941.81	0.00	0.00	0.00
	8,300.00	89.73	311.342	5,330.28	2,016.79	-3,609.02	4,041.81	0.00	0.00	0.00
	8,400.00 8,500.00	89.73 89.73	311.342 311.342	5,330.76 5,331.24	2,082.85 2,148.90	-3,684.10 -3,759.18	4,141.81 4,241.81	0.00	0.00	0.00
	8,600.00	89.73	311.342	5,331.72	2,214.96	-3,834.25	4,341.81	0.00	0.00	0.00
	8,700.00	89.73	311.342	5,332.19	2,281.01	-3,909.33	4,441.81	0.00	0.00	0.00
	8,800.00	89.73	311.342	5,332.67	2,347.07	-3,984.41	4,541.80	0.00	0.00	0.00
	8,900.00	89.73	311.342	5,333.15	2,413.12	-4,059.48	4,641.80	0.00	0.00	0.00
	9,000.00	89.73	311.342	5,333.62	2,479.18	-4,134.56	4,741.80	0.00	0.00	0.00
	9,100.00	89.73	311.342	5,334.10	2,545.23	-4,209.64	4,841.80	0.00	0.00	0.00



Database: DT\_Mar1724\_v17
Company: Enduring Resources LLC

 Project:
 San Juan County, New Mexico NAD83 NM W

 Site:
 Nageezi Unit (213, 214, 215, 216, 217 & 218)

Well: Nageezi Unit 214H
Wellbore: Original Hole
Design: rev0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Nageezi Unit 214H RKB=6826+25 @ 6851.00ft RKB=6826+25 @ 6851.00ft

Grid

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)
9,200.00	89.73	311.342	5,334.58	2,611.29	-4,284.71	4,941.80	0.00	0.00	0.00
9,300.00	89.73	311.342	5,335.06	2,677.34	-4,359.79	5,041.80	0.00	0.00	0.00
9,400.00	89.73	311.342	5,335.53	2,743.40	-4,434.87	5,141.80	0.00	0.00	0.00
9,500.00	89.73	311.342	5,336.01	2,809.45	-4,509.94	5,241.80	0.00	0.00	0.00
9,600.00	89.73	311.342	5,336.49	2,875.51	-4,585.02	5,341.79	0.00	0.00	0.00
9,700.00	89.73	311.342	5,336.96	2,941.56	-4,660.10	5,441.79	0.00	0.00	0.00
9,800.00	89.73	311.342	5,337.44	3,007.62	-4,735.17	5,541.79	0.00	0.00	0.00
9,900.00	89.73	311.342	5,337.92	3,073.67	-4,810.25	5,641.79	0.00	0.00	0.00
10,000.00	89.73	311.342	5,338.39	3,139.73	-4,885.32	5,741.79	0.00	0.00	0.00
10,100.00	89.73	311.342	5,338.87	3,205.78	-4,960.40	5,841.79	0.00	0.00	0.00
10,200.00	89.73	311.342	5,339.35	3,271.84	-5,035.48	5,941.79	0.00	0.00	0.00
10,300.00	89.73	311.342	5,339.83	3,337.89	-5,110.55	6.041.79	0.00	0.00	0.00
10,400.00	89.73	311.342	5,340.30	3,403.95	-5,185.63	6,141.79	0.00	0.00	0.00
10,500.00	89.73	311.342	5,340.78	3,470.00	-5,260.71	6,241.78	0.00	0.00	0.00
10,600.00	89.73	311.342	5,341.26	3,536.06	-5,335.78	6,341.78	0.00	0.00	0.00
10,700.00	89.73	311.342	5,341.73	3,602.11	-5,410.86	6,441.78	0.00	0.00	0.00
10,800.00	89.73	311.342	5,342.21	3,668.17	-5,485.94	6,541.78	0.00	0.00	0.00
10,900.00	89.73	311.342	5,342.69	3,734.23	-5,561.01	6,641.78	0.00	0.00	0.00
11,000.00	89.73	311.342	5,343.17	3,800.28	-5,636.09	6,741.78	0.00	0.00	0.00
11,100.00	89.73	311.342	5,343.64	3,866.34	-5,711.17	6,841.78	0.00	0.00	0.00
11,200.00	89.73	311.342	5,344.12	3,932.39	-5,786.24	6,941.78	0.00	0.00	0.00
11,300.00	89.73	311.342	5,344.60	3,998.45	-5,861.32	7,041.78	0.00	0.00	0.00
11,400.00	89.73	311.342	5,345.07	4,064.50	-5,936.40	7,141.77	0.00	0.00	0.00
11,500.00	89.73	311.342	5,345.55	4,130.56	-6,011.47	7,141.77	0.00	0.00	0.00
11,600.00	89.73	311.342	5,346.03	4,196.61	-6,086.55	7,341.77	0.00	0.00	0.00
11,700.00	89.73	311.342	5,346.51	4,262.67	-6,161.63	7,441.77	0.00	0.00	0.00
11,800.00	89.73	311.342	5,346.98	4,328.72	-6,236.70	7,541.77	0.00	0.00	0.00
11,900.00	89.73	311.342	5,347.46	4,394.78	-6,311.78	7,641.77	0.00	0.00	0.00
12,000.00	89.73	311.342	5,347.94	4,460.83	-6,386.86	7,741.77	0.00	0.00	0.00
12,100.00	89.73	311.342	5,348.41	4,526.89	-6,461.93	7,841.77	0.00	0.00	0.00
12,200.00	89.73	311.342	5,348.89	4,592.94	-6,537.01	7,941.77	0.00	0.00	0.00
12,300.00	89.73	311.342	5,349.37	4,659.00	-6,612.09	8,041.76	0.00	0.00	0.00
12,400.00	89.73	311.342	5,349.85	4,725.05	-6,687.16	8,141.76	0.00	0.00	0.00
12,500.00	89.73	311.342	5,350.32	4,791.11	-6,762.24	8,241.76	0.00	0.00	0.00
12,600.00	89.73	311.342	5,350.80	4,857.16	-6,837.32	8,341.76	0.00	0.00	0.00
12,700.00	89.73	311.342	5,351.28	4,923.22	-6,912.39	8,441.76	0.00	0.00	0.00
12,800.00	89.73	311.342	5,351.75	4,989.27	-6,987.47	8,541.76	0.00	0.00	0.00
12,900.00	89.73	311.342	5,352.23	5,055.33	-7,062.55	8,641.76	0.00	0.00	0.00
13,000.00	89.73	311.342	5,352.71	5,121.38	-7,137.62	8,741.76	0.00	0.00	0.00
13,100.00	89.73	311.342	5,353.18	5,187.44	-7,212.70	8,841.76	0.00	0.00	0.00
13,200.00	89.73	311.342	5,353.66	5,253.49	-7,287.78	8,941.75	0.00	0.00	0.00
13,300.00	89.73	311.342	5,354.14	5,319.55	-7,362.85	9,041.75	0.00	0.00	0.00
13,400.00	89.73	311.342	5,354.62	5,385.60	-7,437.93	9,141.75	0.00	0.00	0.00
13,500.00	89.73	311.342	5,355.09	5,451.66	-7,513.01	9,241.75	0.00	0.00	0.00
13,600.00	89.73	311.342	5,355.57	5,517.71	-7,588.08	9,341.75	0.00	0.00	0.00
13,700.00	89.73	311.342	5,356.05	5,583.77	-7,663.16	9,441.75	0.00	0.00	0.00
13,800.00	89.73	311.342	5,356.52	5,649.82	-7,738.24	9,541.75	0.00	0.00	0.00
13,900.00	89.73	311.342	5,357.00	5,715.88	-7,813.31	9,641.75	0.00	0.00	0.00
14,000.00	89.73	311.342	5,357.48	5,781.93	-7,888.39	9,741.74	0.00	0.00	0.00
14,109.32	89.73	311.342	5,358.00	5,854.15	-7,970.47	9,851.07	0.00	0.00	0.00
17,100.02	03.73	011.042	0,000.00	0,004.10	1,010.41	0,001.07	0.00	0.00	0.00



Database: DT\_Mar1724\_v17
Company: Enduring Resources LLC

 Project:
 San Juan County, New Mexico NAD83 NM W

 Site:
 Nageezi Unit (213, 214, 215, 216, 217 & 218)

Well: Nageezi Unit 214H
Wellbore: Original Hole
Design: rev0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Nageezi Unit 214H RKB=6826+25 @ 6851.00ft RKB=6826+25 @ 6851.00ft

Grid

Casing Points					
	Measured	Vertical		Casing Diameter	Hole Diameter
	Depth (ft)	Depth (ft)	Nama	Diameter	Ulameter (")
	(11)	(10)	Name	( )	17
	350.00	350.00	9-5/8" Surface Casing	9-5/8	12-1/4
	5.862.91	5.310.42	7" Intermediate Casing	7	8-1/2

1	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	831.00	831.00	Ojo Alamo		0.27	311.340
	956.00	956.00	Kirtland		0.27	311.340
	1,246.75	1,246.06	Fruitland		0.27	311.340
	1,601.23	1,591.35	Pictured Cliffs		0.27	311.340
	1,718.31	1,701.50	Lewis		0.27	311.340
	2,052.59	2,002.04	Chacra_A		0.27	311.340
	3,288.18	3,094.20	Cliff House_Basal		0.27	311.340
	3,322.18	3,124.26	Menefee		0.27	311.340
	4,368.17	4,060.99	Point Lookout		0.27	311.340
	4,573.23	4,259.19	Mancos		0.27	311.340
	4,928.07	4,611.33	MNCS_A		0.27	311.340
	5,013.08	4,696.33	MNCS_B		0.27	311.340
	5,118.17	4,801.35	MNCS_C		0.27	311.340
	5,163.63	4,846.38	MNCS_Cms		0.27	311.340
	5,289.11	4,966.54	MNCS_D		0.27	311.340
	5,415.39	5,076.83	MNCS_E		0.27	311.340
	5,509.81	5,149.11	MNCS_F		0.27	311.340
	5,634.52	5,227.57	MNCS_G		0.27	311.340
	5,718.83	5,267.92	MNCS_H		0.27	311.340
	5,808.00	5,298.31	MNCS_I		0.27	311.340

n Annotations					
Measured	Vertical	Local Coor	dinates		
Depth (ft)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment	
1,000.00	1,000.00	0.00	0.00	KOP Begin 3°/100' build	
1,929.36	1,893.12	14.69	-221.21	Begin 27.88° tangent	
4,033.55	3,753.05	79.88	-1,203.03	Begin 3°/100' drop	
4,962.91	4,646.17	94.57	-1,424.24	Begin vertical hold	
5,062.91	4,746.17	94.57	-1,424.24	Begin 10°/100' build	
5,762.91	5,284.57	343.58	-1,707.29	POE @ 5762.91 MD 5284.57 TVD	
5,960.18	5,319.12	471.22	-1,852.36	Begin 89.73° lateral	
14,109.32	5,358.00	5,854.15	-7,970.47	PBHL @ 14109.32 MD 5358.00 TVD	



DT Mar1724 v17 Database: Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W Site: Nageezi Unit (213, 214, 215, 216, 217 & 218)

Well: Nageezi Unit 214H Wellbore: Original Hole Design: rev0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Nageezi Unit 214H RKB=6826+25 @ 6851.00ft RKB=6826+25 @ 6851.00ft

Minimum Curvature

Project San Juan County, New Mexico NAD83 NM W

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

System Datum:

Mean Sea Level

Site Nageezi Unit (213, 214, 215, 216, 217 & 218)

1,922,205.14 usft Northing: 36.28268900 Site Position: Latitude: 2,743,140.65 usft Easting: -107.76530800 Lat/Long From: Longitude: 13-3/16 "

0.00 ft **Position Uncertainty:** Slot Radius:

Well Nageezi Unit 214H, Surf loc: 1779 FSL 784 FWL Section 26-T24N-R09W

**Well Position** +N/-S 0.00 ft Northing: 1,922,242.28 usft Latitude: 36.28279100

+E/-W 0.00 ft Easting: 2,743,155.65 usft Longitude: -107.76525700 **Position Uncertainty** 0.00 ft Wellhead Elevation: ft Ground Level: 6,826.00 ft

0.04° **Grid Convergence:** 

Original Hole Wellbore

Declination Dip Angle Magnetics **Model Name** Sample Date Field Strength (nT) (°) (°) IGRF2020 2/7/2024 8.53 62.73 49,066.33119756

Design rev0

**Audit Notes:** 

Version: Phase: **PLAN** Tie On Depth: 0.00

+N/-S **Vertical Section:** Depth From (TVD) +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 311.340

Plan Survey Tool Program Date 4/12/2024

Depth From **Depth To** 

Survey (Wellbore) **Tool Name** (ft) (ft) Remarks

0.00 14,109.32 rev0 (Original Hole) MWD

OWSG MWD - Standard



DT\_Mar1724\_v17 Database: Company:

Enduring Resources LLC

San Juan County, New Mexico NAD83 NM W Project: Site: Nageezi Unit (213, 214, 215, 216, 217 & 218)

Well: Nageezi Unit 214H Original Hole Wellbore: Design: rev0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Nageezi Unit 214H RKB=6826+25 @ 6851.00ft RKB=6826+25 @ 6851.00ft

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	
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,929.36	27.88	273.799	1,893.12	14.69	-221.21	3.00	3.00	0.00	273.80	
4,033.55	27.88	273.799	3,753.05	79.88	-1,203.03	0.00	0.00	0.00	0.00	
4,962.91	0.00	0.005	4,646.17	94.57	-1,424.24	3.00	-3.00	0.00	180.00	Nageezi 214H vert
5,062.91	0.00	0.005	4,746.17	94.57	-1,424.24	0.00	0.00	0.00	0.01	
5,762.91	70.00	311.340	5,284.57	343.58	-1,707.29	10.00	10.00	0.00	311.34	
5,960.18	89.73	311.342	5,319.12	471.22	-1,852.36	10.00	10.00	0.00	0.01	
14,109.32	89.73	311.342	5,358.00	5.854.15	-7,970.47	0.00	0.00	0.00	0.00	Nageezi 214H BHL



Database: DT\_Mar1724\_v17
Company: Enduring Resources LLC

 Project:
 San Juan County, New Mexico NAD83 NM W

 Site:
 Nageezi Unit (213, 214, 215, 216, 217 & 218)

Well: Nageezi Unit 214H
Wellbore: Original Hole
Design: rev0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Nageezi Unit 214H RKB=6826+25 @ 6851.00ft RKB=6826+25 @ 6851.00ft

ind

leasured 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	1,922,242.28	2,743,155.65	36.28279100	-107.76525
100.00	0.00	0.000	100.00	0.00	0.00	1,922,242.28	2,743,155.65	36.28279100	-107.76525
200.00	0.00	0.000	200.00	0.00	0.00	1,922,242.28	2,743,155.65	36.28279100	-107.76525
300.00	0.00	0.000	300.00	0.00	0.00	1,922,242.28	2,743,155.65	36.28279100	-107.76525
350.00	0.00	0.000	350.00	0.00	0.00	1,922,242.28	2,743,155.65	36.28279100	-107.76525
	urface Casing					8 #048 - 112#0#100000000000			
400.00	0.00	0.000	400.00	0.00	0.00	1,922,242.28	2,743,155.65	36.28279100	-107.76525
500.00	0.00	0.000	500.00	0.00	0.00	1,922,242.28	2,743,155.65	36.28279100	-107.76525
600.00	0.00	0.000	600.00	0.00	0.00	1,922,242.28	2,743,155.65	36.28279100	-107.76525
700.00	0.00	0.000	700.00	0.00	0.00	1,922,242.28	2,743,155.65	36.28279100	-107.76525
800.00	0.00	0.000	800.00	0.00	0.00	1,922,242.28	2,743,155.65	36.28279100	-107.76525
831.00	0.00	0.000	831.00	0.00	0.00	1,922,242.28	2,743,155.65	36.28279100	-107.76525
Ojo Alan		0.000	001.00	0.00	0.00	1,022,212.20	2,140,100.00	00.20270100	107.70020
900.00	0.00	0.000	900.00	0.00	0.00	1,922,242.28	2,743,155.65	36.28279100	-107.76525
956.00	0.00	0.000	956.00	0.00	0.00	1,922,242.28	2,743,155.65	36.28279100	-107.76525
Kirtland	0.00	0.000	330.00	0.00	0.00	1,022,242.20	2,740,100.00	30.20273100	-107.70020
1,000.00	0.00	0.000	1,000.00	0.00	0.00	1,922,242.28	2,743,155.65	36.28279100	-107.76525
			1,000.00	0.00	0.00	1,322,242.20	2,743,133.03	30.20279100	-107.70320
	gin 3°/100' bui		1 000 05	0.17	-2.61	1 000 040 45	2 742 452 04	26 20270440	107 76506
1,100.00	3.00	273.799 273.799	1,099.95		-10.44	1,922,242.45 1,922,242.97	2,743,153.04	36.28279148 36.28279292	-107.76526
1,200.00	6.00		1,199.63	0.69	-15.88		2,743,145.21		-107.76529
1,246.75	7.40	273.799	1,246.06	1.05	-10.00	1,922,243.33	2,743,139.77	36.28279393	-107.76531
Fruitland		070 700	4 000 77	4.50	00.40	4 000 040 00	0.740.400.40	00 00070500	407 70500
1,300.00	9.00	273.799	1,298.77	1.56	-23.46	1,922,243.83	2,743,132.19	36.28279533	-107.76533
1,400.00	12.00	273.799	1,397.08	2.77	-41.64	1,922,245.04	2,743,114.01	36.28279868	-107.76539
1,500.00	15.00	273.799	1,494.31	4.31	-64.93	1,922,246.59	2,743,090.72	36.28280297	-107.76547
1,600.00	18.00	273.799	1,590.18	6.19	-93.27	1,922,248.47	2,743,062.38	36.28280819	-107.76557
1,601.23	18.04	273.799	1,591.35	6.22	-93.65	1,922,248.49	2,743,062.00	36.28280826	-107.76557
Pictured		070 700	4 004 40	0.40	400.57	4 000 050 00	0.740.000.00	00 00004 400	407.70500
1,700.00	21.00	273.799	1,684.43	8.40	-126.57	1,922,250.68	2,743,029.08	36.28281433	-107.76568
1,718.31	21.55	273.799	1,701.50	8.84	-133.20	1,922,251.12	2,743,022.45	36.28281555	-107.76570
Lewis	2.122							22 22222.22	2-
1,800.00	24.00	273.799	1,776.81	10.94	-164.75	1,922,253.22	2,742,990.90	36.28282137	-107.76581
1,900.00	27.00	273.799	1,867.06	13.79	-207.70	1,922,256.07	2,742,947.95	36.28282929	-107.76596
1,929.36	27.88	273.799	1,893.12	14.69	-221.21	1,922,256.96	2,742,934.45	36.28283177	-107.76600
	7.88° tangent								
2,000.00	27.88	273.799	1,955.55	16.88	-254.17	1,922,259.15	2,742,901.49	36.28283785	-107.76611
2,052.59	27.88	273.799	2,002.04	18.51	-278.71	1,922,260.78	2,742,876.95	36.28284237	-107.76620
Chacra_									
2,100.00		273.799	2,043.95	19.97	-300.83	1,922,262.25	2,742,854.83	36.28284645	-107.76627
2,200.00	27.88	273.799	2,132.34	23.07	-347.49	1,922,265.35	2,742,808.17	36.28285505	-107.76643
2,300.00	27.88	273.799	2,220.73	26.17	-394.15	1,922,268.45	2,742,761.51	36.28286365	-107.76659
2,400.00	27.88	273.799	2,309.12	29.27	-440.81	1,922,271.55	2,742,714.85	36.28287225	-107.76675
2,500.00	27.88	273.799	2,397.52	32.37	-487.47	1,922,274.64	2,742,668.19	36.28288085	-107.76691
2,600.00	27.88	273.799	2,485.91	35.47	-534.13	1,922,277.74	2,742,621.53	36.28288945	-107.76706
2,700.00	27.88	273.799	2,574.30	38.56	-580.79	1,922,280.84	2,742,574.86	36.28289805	-107.76722
2,800.00	27.88	273.799	2,662.69	41.66	-627.45	1,922,283.94	2,742,528.20	36.28290664	-107.76738
2,900.00	27.88	273.799	2,751.08	44.76	-674.11	1,922,287.04	2,742,481.54	36.28291524	-107.76754
3,000.00	27.88	273.799	2,839.48	47.86	-720.77	1,922,290.14	2,742,434.88	36.28292384	-107.76770
3,100.00	27.88	273.799	2,927.87	50.96	-767.43	1,922,293.23	2,742,388.22	36.28293244	-107.76786
3,200.00	27.88	273.799	3,016.26	54.06	-814.09	1,922,296.33	2,742,341.56	36.28294104	-107.76801
3,288.18	27.88	273.799	3,094.20	56.79	-855.24	1,922,299.06	2,742,300.42	36.28294862	-107.76815
Cliff Hou	ise_Basal								
3,300.00	27.88	273.799	3,104.65	57.15	-860.75	1,922,299.43	2,742,294.90	36.28294963	-107.76817



Database: DT\_Mar1724\_v17
Company: Enduring Resources LLC

 Project:
 San Juan County, New Mexico NAD83 NM W

 Site:
 Nageezi Unit (213, 214, 215, 216, 217 & 218)

Well: Nageezi Unit 214H
Wellbore: Original Hole
Design: rev0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Nageezi Unit 214H RKB=6826+25 @ 6851.00ft RKB=6826+25 @ 6851.00ft

Grid

ed Survey									
easured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
3,322.18	27.88	273.799	3,124.26	57.84	-871.11	1,922,300.12	2,742,284.55	36.28295154	-107.7682124
Menefee						The second second second second	a see Processor processor and a second		
3,400.00	27.88	273.799	3,193.05	60.25	-907.42	1,922,302.53	2,742,248.24	36.28295823	-107.7683356
3,500.00	27.88	273.799	3,281.44	63.35	-954.08	1,922,305.63	2,742,201.58	36.28296683	-107.7684940
3,600.00	27.88	273.799	3,369.83	66.45	-1,000.74	1,922,308.73	2,742,154.92	36.28297543	-107.768652
3,700.00	27.88	273.799	3,458.22	69.55	-1,047.40	1,922,311.82	2,742,108.26	36.28298402	-107.768810
3,800.00	27.88	273.799	3,546.61	72.65	-1,094.06	1,922,314.92	2,742,061.60	36.28299262	-107.768968
3,900.00	27.88	273.799	3,635.01	75.74	-1,140.72	1,922,318.02	2,742,014.94	36.28300121	-107.769127
4,000.00	27.88	273.799	3,723.40	78.84	-1,187.38	1,922,321.12	2,741,968.28	36.28300981	-107.769285
4,033.55	27.88	273.799	3,753.05	79.88	-1,203.03	1,922,322.16	2,741,952.62	36.28301269	-107.769338
Begin 3°	/100' drop								
4,100.00	25.89	273.799	3,812.32	81.87	-1,233.01	1,922,324.15	2,741,922.64	36.28301822	-107.769440
4,200.00	22.89	273.799	3,903.39	84.61	-1,274.21	1,922,326.88	2,741,881.45	36.28302581	-107.769580
4,300.00	19.89	273.799	3,996.49	87.02	-1,310.59	1,922,329.30	2,741,845.06	36.28303251	-107.769703
4,368.17	17.84	273.799	4,060.99	88.48	-1,332.58	1,922,330.76	2,741,823.07	36.28303656	-107.769778
Point Lo	okout								
4,400.00	16.89	273.799	4,091.37	89.11	-1,342.06	1,922,331.39	2,741,813.59	36.28303831	-107.769810
4,500.00	13.89	273.799	4,187.78	90.87	-1,368.54	1,922,333.15	2,741,787.12	36.28304318	-107.769900
4,573.23	11.69	273.799	4,259.19	91.95	-1,384.71	1,922,334.22	2,741,770.95	36.28304616	-107.769955
Mancos									
4,600.00	10.89	273.799	4,285.44	92.29	-1,389.94	1,922,334.57	2,741,765.72	36.28304712	-107.769972
4,700.00	7.89	273.799	4,384.09	93.37	-1,406.21	1,922,335.65	2,741,749.44	36.28305012	-107.770028
4,800.00	4.89	273.799	4,483.46	94.11	-1,417.31	1,922,336.39	2,741,738.35	36.28305217	-107.770065
4,900.00	1.89	273.799	4,583.27	94.50	-1,423.21	1,922,336.78	2,741,732.45	36.28305325	-107.770085
4,928.07	1.05	273.799	4,611.33	94.55	-1,423.92	1,922,336.83	2,741,731.73	36.28305338	-107.770088
MNCS A	<b>.</b>								
4,962.91	0.00	0.005	4,646.17	94.57	-1,424.24	1,922,336.85	2,741,731.42	36.28305344	-107.770089
Begin ve	rtical hold								
5,000.00	0.00	0.000	4,683.26	94.57	-1,424.24	1,922,336.85	2,741,731.42	36.28305344	-107.770089
5,013.08	0.00	0.000	4,696.33	94.57	-1,424.24	1,922,336.85	2,741,731.42	36.28305344	-107.770089
MNCS B									
5,062.91	0.00	0.000	4,746.17	94.57	-1,424.24	1,922,336.85	2,741,731.42	36.28305344	-107.770089
Begin 10	°/100' build								
5,100.00	3.71	311.340	4,783.23	95.36	-1,425.14	1,922,337.64	2,741,730.52	36.28305562	-107.770092
5,118.17	5.53	311.340	4,801.35	96.33	-1,426.24	1,922,338.61	2,741,729.42	36.28305828	-107.770095
MNCS C									
5,150.00	8.71	311.340	4,832.92	98.93	-1,429.20	1,922,341.21	2,741,726.46	36.28306544	-107.770105
5,163.63	10.07	311.340	4,846.38	100.40	-1,430.87	1,922,342.68	2,741,724.79	36.28306948	-107.770111
MNCS_C	ms								
5,200.00	13.71	311.340	4,881.95	105.35	-1,436.49	1,922,347.63	2,741,719.16	36.28308308	-107.770130
5,250.00	18.71	311.340	4,929.95	114.57	-1,446.97	1,922,356.84	2,741,708.69	36.28310842	-107.770166
5,289.11	22.62	311.340	4,966.54	123.68	-1,457.33	1,922,365.96	2,741,698.33	36.28313348	-107.770201
MNCS_D									
5,300.00	23.71	311.340	4,976.55	126.51	-1,460.55	1,922,368.79	2,741,695.11	36.28314125	-107.770212
5,350.00	28.71	311.340	5,021.40	141.09	-1,477.12	1,922,383.37	2,741,678.54	36.28318134	-107.770268
5,400.00	33.71	311.340	5,064.15	158.20	-1,496.57	1,922,400.48	2,741,659.09	36.28322837	-107.770334
5,415.39	35.25	311.340	5,076.83	163.95	-1,503.11	1,922,406.23	2,741,652.55	36.28324418	-107.770356
MNCS E			1085W11 FF 12 72		# 15	etwa at TIT Info	20 20 20		
5,450.00	38.71	311.340	5,104.48	177.70	-1,518.74	1,922,419.98	2,741,636.92	36.28328198	-107.770409
5,500.00	43.71	311.340	5,142.08	199.45	-1,543.46	1,922,441.73	2,741,612.20	36.28334178	-107.770493
5,509.81	44.69	311.340	5,149.11	203.97	-1,548.59	1,922,446.25	2,741,607.06	36.28335420	-107.770510
MNCS F			70		20	220 25	(S) 7/1		
5,550.00	48.71	311.340	5,176.67	223.29	-1,570.55	1,922,465.56	2,741,585.11	36.28340730	-107.770585



Database: DT\_Mar1724\_v17
Company: Enduring Resources LLC

 Project:
 San Juan County, New Mexico NAD83 NM W

 Site:
 Nageezi Unit (213, 214, 215, 216, 217 & 218)

Well: Nageezi Unit 214H
Wellbore: Original Hole
Design: rev0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Nageezi Unit 214H RKB=6826+25 @ 6851.00ft RKB=6826+25 @ 6851.00ft

Grid

ned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
E 600 00			5,207.99		-1,599.80	1,922,491.30	2,741,555.86	36.28347804	-107.770684
5,600.00 5,634.52	53.71 57.16	311.340 311.340	5,207.99	249.02 267.80	-1,621.14	1,922,491.30	2,741,533.60	36.28352966	-107.770756
		311.340	5,221.51	207.00	-1,021.14	1,922,310.07	2,741,334.31	30.20332900	-107.770730
MNCS_G 5,650.00	58.71	311.340	5,235.78	276.46	-1,630.99	1,922,518.74	2,741,524.67	36.28355347	-107.77079
5,700.00	63.71	311.340	5,259.86	305.39	-1,663.88	1,922,547.67	2,741,491.78	36.28363302	-107.77090
5,718.83	65.59	311.340	5,267.92	316.63	-1,676.65	1,922,558.91	2,741,479.01	36.28366391	-107.77094
MNCS_H	00.00	0111010	0,201.02	0.0.00	1,010.00	1,022,000.01	2,,	00.2000001	101.1100
5,750.00	68.71	311.340	5,280.02	335.60	-1,698.22	1.922.577.88	2,741,457.44	36.28371607	-107.77101
5,762.91	70.00	311.340	5,284.57	343.58	-1,707.29	1,922,585.86	2,741,448.37	36.28373801	-107.77104
	762.91 MD 52		0,20		1,1.01.120	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
5,800.00	73.71	311.340	5,296.12	366.86	-1,733.75	1,922,609.14	2,741,421.91	36.28380199	-107.77113
5,808.00	74.51	311.341	5,298.31	371.94	-1,739.52	1,922,614.22	2,741,416.14	36.28381596	-107.77115
MNCS I				(T) (23 V) (T) (1)					(NOTE CO. T. A. C.
5,850.00	78.71	311.341	5,308.04	398.92	-1,770.19	1,922,641.20	2,741,385.47	36.28389014	-107.77126
5,862.91	80.00	311.341	5,310.42	407.31	-1,779.72	1,922,649.58	2,741,375.94	36.28391318	-107.77129
	ediate Casin					(8)			
5.900.00	83.71	311.342	5,315.68	431.55	-1,807.28	1,922,673.83	2,741,348.38	36.28397984	-107.77138
5,950.00	88.71	311.342	5,318.98	464.50	-1,844.72	1,922,706.77	2,741,310.94	36.28407040	-107.7715
5,960.18	89.73	311.342	5,319.12	471.22	-1,852.36	1,922,713.50	2,741,303.29	36.28408888	-107.77154
Begin 89.	.73° lateral								
6,000.00	89.73	311.342	5,319.31	497.53	-1,882.26	1,922,739.80	2,741,273.40	36.28416120	-107.77164
6,100.00	89.73	311.342	5,319.79	563.58	-1,957.34	1,922,805.86	2,741,198.32	36.28434279	-107.77189
6,200.00	89.73	311.342	5,320.27	629.64	-2,032.41	1,922,871.91	2,741,123.24	36.28452437	-107.7721
6,300.00	89.73	311.342	5,320.74	695.69	-2,107.49	1,922,937.97	2,741,048.17	36.28470596	-107.77240
6,400.00	89.73	311.342	5,321.22	761.75	-2,182.57	1,923,004.02	2,740,973.09	36.28488755	-107.7726
6,500.00	89.73	311.342	5,321.70	827.80	-2,257.64	1,923,070.08	2,740,898.02	36.28506913	-107.7729
6,600.00	89.73	311.342	5,322.17	893.86	-2,332.72	1,923,136.13	2,740,822.94	36.28525072	-107.77316
6,700.00	89.73	311.342	5,322.65	959.91	-2,407.80	1,923,202.19	2,740,747.86	36.28543230	-107.77342
6,800.00	89.73	311.342	5,323.13	1,025.97	-2,482.87	1,923,268.24	2,740,672.79	36.28561389	-107.7736
6,900.00	89.73	311.342	5,323.61	1,092.02	-2,557.95	1,923,334.30	2,740,597.71	36.28579547	-107.77393
7,000.00	89.73	311.342	5,324.08	1,158.08	-2,633.03	1,923,400.35	2,740,522.63	36.28597706	-107.77418
7,100.00	89.73	311.342	5,324.56	1,224.13	-2,708.10	1,923,466.41	2,740,447.56	36.28615864	-107.7744
7,200.00	89.73	311.342	5,325.04	1,290.19	-2,783.18	1,923,532.46	2,740,372.48	36.28634022	-107.77469
7,300.00	89.73	311.342	5,325.51	1,356.24	-2,858.26	1,923,598.52	2,740,297.40	36.28652180	-107.7749
7,400.00 7,500.00	89.73	311.342	5,325.99	1,422.30	-2,933.33	1,923,664.57	2,740,222.33	36.28670338 36.28688496	-107.77520
7,600.00	89.73 89.73	311.342 311.342	5,326.47 5,326.94	1,488.35 1,554.41	-3,008.41 -3,083.49	1,923,730.63 1,923,796.68	2,740,147.25 2,740,072.17	36.28706654	-107.77540 -107.7757
7,700.00	89.73	311.342	5,327.42	1,620.46	-3,158.56	1,923,862.74	2,739,997.10	36.28724812	-107.7759
7,800.00	89.73	311.342	5,327.90	1,686.52	-3,233.64	1,923,928.79	2,739,922.02	36.28742970	-107.7762
7,900.00	89.73	311.342	5,328.38	1,752.57	-3,308.72	1,923,994.85	2,739,846.94	36.28761128	-107.7764
8,000.00	89.73	311.342	5,328.85	1,818.63	-3,383.79	1,924,060.90	2,739,771.87	36.28779286	-107.7767
8,100.00	89.73	311.342	5,329.33	1,884.68	-3,458.87	1,924,126.96	2,739,696.79	36.28797444	-107.77698
8,200.00	89.73	311.342	5,329.81	1,950.74	-3,533.95	1,924,193.01	2,739,621.72	36.28815601	-107.77724
8,300.00	89.73	311.342	5,330.28	2,016.79	-3,609.02	1,924,259.06	2,739,546.64	36.28833759	-107.77749
8,400.00	89.73	311.342	5,330.76	2,082.85	-3,684.10	1,924,325.12	2,739,471.56	36.28851916	-107.77775
8,500.00	89.73	311.342	5,331.24	2,148.90	-3,759.18	1,924,391.17	2,739,396.49	36.28870074	-107.77800
8,600.00	89.73	311.342	5,331.72	2,214.96	-3,834.25	1,924,457.23	2,739,321.41	36.28888231	-107.77826
8,700.00	89.73	311.342	5,332.19	2,281.01	-3,909.33	1,924,523.28	2,739,246.33	36.28906389	-107.7785
8,800.00	89.73	311.342	5,332.67	2,347.07	-3,984.41	1,924,589.34	2,739,171.26	36.28924546	-107.77877
8,900.00	89.73	311.342	5,333.15	2,413.12	-4,059.48	1,924,655.39	2,739,096.18	36.28942703	-107.77902
9,000.00	89.73	311.342	5,333.62	2,479.18	-4,134.56	1,924,721.45	2,739,021.10	36.28960861	-107.77928
9,100.00	89.73	311.342	5,334.10	2,545.23	-4,209.64	1,924,787.50	2,738,946.03	36.28979018	-107.77953
9,200.00	89.73	311.342	5,334.58	2,611.29	-4,284.71	1,924,853.56	2,738,870.95	36.28997175	-107.77978
9,300.00	89.73	311.342	5,335.06	2,677.34	-4,359.79	1,924,919.61	2,738,795.87	36.29015332	-107.78004



Database: DT\_Mar1724\_v17
Company: Enduring Resources LLC

 Project:
 San Juan County, New Mexico NAD83 NM W

 Site:
 Nageezi Unit (213, 214, 215, 216, 217 & 218)

Well: Nageezi Unit 214H
Wellbore: Original Hole
Design: rev0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Nageezi Unit 214H RKB=6826+25 @ 6851.00ft RKB=6826+25 @ 6851.00ft

Grid

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,400.00	89.73	311.342	5,335.53	2,743.40	-4,434.87	1,924,985.67	2,738,720.80	36.29033489	-107.78029919
9,500.00	89.73	311.342	5,336.01	2,809.45	-4,509.94	1,925,051.72	2,738,645.72	36.29051646	-107.78055382
9,600.00	89.73	311.342	5,336.49	2,875.51	-4,585.02	1,925,117.78	2,738,570.64	36.29069803	-107.78080845
9,700.00	89.73	311.342	5,336.96	2,941.56	-4,660.10	1,925,183.83	2,738,495.57	36.29087960	-107.78106309
9,800.00	89.73	311.342	5,337.44	3,007.62	-4,735.17	1,925,249.89	2,738,420.49	36.29106117	-107.78131773
9,900.00	89.73	311.342	5,337.92	3,073.67	-4,810.25	1,925,315.94	2,738,345.42	36.29124273	-107.78157237
10,000.00	89.73	311.342	5,338.39	3,139.73	-4,885.32	1,925,382.00	2,738,270.34	36.29142430	-107.78182701
10,100.00	89.73	311.342	5,338.87	3,205.78	-4,960.40	1,925,448.05	2,738,195.26	36.29160587	-107.78208165
10,200.00	89.73	311.342	5,339.35	3,271.84	-5,035.48	1,925,514.11	2,738,120.19	36.29178743	-107.78233629
10,300.00	89.73	311.342	5,339.83	3,337.89	-5,110.55	1,925,580.16	2,738,045.11	36.29196900	-107.78259093
10,400.00	89.73	311.342	5,340.30	3,403.95	-5,185.63	1,925,646.22	2,737,970.03	36.29215056	-107.78284558
10,500.00	89.73	311.342	5,340.78	3,470.00	-5,260.71	1,925,712.27	2,737,894.96	36.29233213	-107.78310022
10,600.00	89.73	311.342	5,341.26	3,536.06	-5,335.78	1,925,778.33	2,737,819.88	36.29251369	-107.78335487
10,700.00	89.73	311.342	5,341.73	3,602.11	-5,410.86	1,925,844.38	2,737,744.80	36.29269525	-107.78360952
10,800.00	89.73	311.342	5,342.21	3,668.17	-5,485.94	1,925,910.44	2,737,669.73	36.29287682	-107.78386417
10,900.00	89.73	311.342	5,342.69	3,734.23	-5,561.01	1,925,976.49	2,737,594.65	36.29305838	-107.78411882
11,000.00	89.73	311.342	5,343.17	3,800.28	-5,636.09	1,926,042.55	2,737,519.57	36.29323994	-107.78437347
11,100.00	89.73	311.342	5,343.64	3,866.34	-5,711.17	1,926,108.60	2,737,444.50	36.29342150	-107.78462812
11,200.00	89.73	311.342	5,344.12	3,932.39	-5,786.24	1,926,174.66	2,737,369.42	36.29360306	-107.78488277
11,300.00	89.73	311.342	5,344.60	3,998.45	-5,861.32	1,926,240.71	2,737,294.35	36.29378462	-107.78513743
11,400.00	89.73	311.342	5,345.07	4,064.50	-5,936.40	1,926,306.77	2,737,219.27	36.29396618	-107.78539209
11,500.00	89.73	311.342	5,345.55	4,130.56	-6,011.47	1,926,372.82	2,737,144.19	36.29414774	-107.78564674
11,600.00	89.73	311.342	5,346.03	4,196.61	-6,086.55	1,926,438.88	2,737,069.12	36.29432930	-107.78590140
11,700.00	89.73	311.342	5,346.51	4,262.67	-6,161.63	1,926,504.93	2,736,994.04	36.29451086	-107.78615606
11,800.00	89.73	311.342	5,346.98	4,328.72	-6,236.70	1,926,570.99	2,736,918.96	36.29469241	-107.78641072
11,900.00	89.73	311.342	5,347.46	4,394.78	-6,311.78	1,926,637.04	2,736,843.89	36.29487397	-107.78666538
12,000.00	89.73	311.342	5,347.94	4,460.83	-6,386.86	1,926,703.10	2,736,768.81	36.29505552	-107.78692005
12,100.00	89.73	311.342	5,348.41	4,526.89	-6,461.93	1,926,769.15	2,736,693.73	36.29523708	-107.78717471
12,200.00	89.73	311.342	5,348.89	4,592.94	-6,537.01	1,926,835.21	2,736,618.66	36.29541864	-107.78742938
12,300.00	89.73	311.342	5,349.37	4,659.00	-6,612.09	1,926,901.26	2,736,543.58	36.29560019	-107.78768404
12,400.00	89.73	311.342	5,349.85	4,725.05	-6,687.16	1,926,967.32	2,736,468.50	36.29578174	-107.78793871
12,500.00	89.73	311.342	5,350.32	4,791.11	-6,762.24	1,927,033.37	2,736,393.43	36.29596330	-107.78819338
12,600.00	89.73	311.342	5,350.80	4,857.16	-6,837.32	1,927,099.43	2,736,318.35	36.29614485	-107.78844805
12,700.00	89.73	311.342	5,351.28	4,923.22	-6,912.39	1,927,165.48	2,736,243.27	36.29632640	-107.78870272
12,800.00	89.73	311.342	5,351.75	4,989.27	-6,987.47	1,927,231.54	2,736,168.20	36.29650795	-107.78895740
12,900.00	89.73	311.342	5,352.23	5,055.33	-7,062.55	1,927,297.59	2,736,093.12	36.29668950	-107.78921207
13,000.00	89.73	311.342	5,352.71	5,121.38	-7,137.62	1,927,363.65	2,736,018.05	36.29687105	-107.78946675
13,100.00	89.73	311.342	5,353.18	5,187.44	-7,212.70	1,927,429.70	2,735,942.97	36.29705260	-107.78972142
13,200.00	89.73	311.342	5,353.66	5,253.49	-7,287.78	1,927,495.76	2,735,867.89	36.29723415	-107.78997610
13,300.00	89.73	311.342	5,354.14	5,319.55	-7,362.85	1,927,561.81	2,735,792.82	36.29741570	-107.79023078
13,400.00	89.73	311.342	5,354.62	5,385.60	-7,437.93	1,927,627.87	2,735,717.74	36.29759725	-107.79048546
13,500.00	89.73	311.342	5,355.09	5,451.66	-7,513.01	1,927,693.92	2,735,642.66	36.29777880	-107.79074014
13,600.00	89.73	311.342	5,355.57	5,517.71	-7,588.08	1,927,759.98	2,735,567.59	36.29796035	-107.79099482
13,700.00	89.73	311.342	5,356.05	5,583.77	-7,663.16	1,927,826.03	2,735,492.51	36.29814189	-107.79124950
13,800.00	89.73	311.342	5,356.52	5,649.82	-7,738.24	1,927,892.09	2,735,417.43	36.29832344	-107.79150419
13,900.00	89.73	311.342	5,357.00	5,715.88	-7,813.31	1,927,958.14	2,735,342.36	36.29850498	-107.79175887
14,000.00	89.73	311.342	5,357.48	5,781.93	-7,888.39	1,928,024.20	2,735,267.28	36.29868653	-107.79201356
14,109.32	89.73	311.342	5,358.00	5,854.15	-7,970.47	1,928,096.41	2,735,185.20	36.29888500	-107.79229200
PBHL @	14109.32 MD			10.20		550 H	o 14		



Database: DT\_Mar1724\_v17
Company: Enduring Resources LLC

 Project:
 San Juan County, New Mexico NAD83 NM W

 Site:
 Nageezi Unit (213, 214, 215, 216, 217 & 218)

Well: Nageezi Unit 214H
Wellbore: Original Hole
Design: rev0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Nageezi Unit 214H RKB=6826+25 @ 6851.00ft RKB=6826+25 @ 6851.00ft

Grid

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Nageezi 214H vert - plan hits target cer - Point	0.00 nter	0.000	4,646.17	94.57	-1,424.24	1,922,336.85	2,741,731.42	36.28305344	-107.77008917
Nageezi 214H PPP/POE - plan hits target cer - Point		0.000	5,284.57	343.58	-1,707.29	1,922,585.86	2,741,448.37	36.28373800	-107.77104900
Nageezi 214H 0 VS - plan misses target - Point	0.00 center by 122	0.000 2.94ft at 525	5,311.00 0.00ft MD (4	-653.05 1929.95 TVD,	-574.53 114.57 N, -144	1,921,589.23 46.97 E)	2,742,581.13	36.28099813	-107.76720787
Nageezi 214H BHL 2382 - plan hits target cer - Point		0.000	5,358.00	5,854.15	-7,970.47	1,928,096.41	2,735,185.20	36.29888500	-107.79229200

Casing Points						
	Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
	350.00 5,862.91		9-5/8" Surface Casing 7" Intermediate Casing	9-5/8 7	12-1/4 8-1/2	

Management	Manthaut				Di-
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
831.00	831.00	Ojo Alamo		0.27	311.340
956.00	956.00	Kirtland		0.27	311.340
1,246.75	1,246.06	Fruitland		0.27	311.340
1,601.23	1,591.35	Pictured Cliffs		0.27	311.340
1,718.31	1,701.50	Lewis		0.27	311.340
2,052.59	2,002.04	Chacra_A		0.27	311.340
3,288.18	3,094.20	Cliff House_Basal		0.27	311.340
3,322.18	3,124.26	Menefee		0.27	311.340
4,368.17	4,060.99	Point Lookout		0.27	311.340
4,573.23	4,259.19	Mancos		0.27	311.340
4,928.07	4,611.33	MNCS_A		0.27	311.340
5,013.08	4,696.33	MNCS_B		0.27	311.340
5,118.17	4,801.35	MNCS_C		0.27	311.340
5,163.63	4,846.38	MNCS_Cms		0.27	311.340
5,289.11	4,966.54	MNCS_D		0.27	311.340
5,415.39	5,076.83	MNCS_E		0.27	311.340
5,509.81	5,149.11	MNCS_F		0.27	311.340
5,634.52	5,227.57	MNCS_G		0.27	311.340
5,718.83	5,267.92	MNCS_H		0.27	311.340
5,808.00	5,298.31	MNCS_I		0.27	311.340



Database: DT\_Mar1724\_v17
Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W Site: Nageezi Unit (213, 214, 215, 216, 217 & 218)

Well: Nageezi Unit 214H
Wellbore: Original Hole
Design: rev0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Nageezi Unit 214H RKB=6826+25 @ 6851.00ft RKB=6826+25 @ 6851.00ft

Grid

Measur	ed	Vertical	Local Coor	dinates		
Depti (ft)	1	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment	
1,00	0.00	1,000.00	0.00	0.00	KOP Begin 3°/100' build	
1,92	9.36	1,893.12	14.69	-221.21	Begin 27.88° tangent	
4,03	3.55	3,753.05	79.88	-1,203.03	Begin 3°/100' drop	
4,96	2.91	4,646.17	94.57	-1,424.24	Begin vertical hold	
5,06	2.91	4,746.17	94.57	-1,424.24	Begin 10°/100' build	
5,76	2.91	5,284.57	343.58	-1,707.29	POE @ 5762.91 MD 5284.57 TVD	
5,96	0.18	5,319.12	471.22	-1,852.36	Begin 89.73° lateral	
14.10	9.32	5.358.00	5.854.15	-7,970,47	PBHL @ 14109.32 MD 5358.00 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

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 334020

## **CONDITIONS**

Operator:	OGRID:
DJR OPERATING, LLC	371838
200 Energy Court	Action Number:
Farmington, NM 87401	334020
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

#### CONDITIONS

Created E	Ву	Condition	Condition Date
ward.ri	kala	All original COA's still apply. Additionally, if cement is not circulated to surface during cementing operations, then a CBL is required.	7/11/2024