

Well Name: NAGEEZI UNIT	Well Location: T24N / R9W / SEC 26 / NWSW / 36.282689 / -107.765308	County or Parish/State: SAN JUAN / NM
Well Number: 213H	Type of Well: OIL WELL	Allottee or Tribe Name: EASTERN NAVAJO
Lease Number: NOG14021898	Unit or CA Name:	Unit or CA Number: NMNM132981A
US Well Number: 3004538293	Operator: DJR OPERATING LLC	

Notice of Intent

Sundry ID: 2785158

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 04/15/2024	Time Sundry Submitted: 02:27
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

213H_Revised__DPR_04.11.24_20240415142710.pdf

Received by OCD: 4/16/2024 1:26:07 PM

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Well Number: 213H	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 15, 2024 02:27 PM
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	

**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 213H

API Number: 30-045-38293

State: New Mexico

County: San Juan

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

Surface Location: 46289 Sec-Twn-Rng 1,798 ft FSL 792 ft FWL

36.282689 ° N latitude 107.765308 ° W longitude (NAD 83)

BH Location: 44828 Sec-Twn-Rng 2,060 ft FSL 809 ft FWL

36.298011 ° N latitude 107.782977 ° 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	1,246	G, W	sub
	Pictured Cliffs	5,260	1,591	1,594	G, W	sub
	Lewis	5,150	1,701	1,707	G, W	normal
	Chacra	4,851	2,000	2,016	G, W	normal
	Cliff House	3,762	3,089	3,140	G, W	sub
	Menefee	3,732	3,119	3,171	G, W	normal
	Point Lookout	2,792	4,059	4,140	G, W	normal
	Mancos	2,590	4,261	4,349	O,G	sub (~0.38)
	Gallup (MNCS_A)	2,233	4,618	4,707	O,G	sub (~0.38)
	MNCS_B	2,150	4,701	4,790	O,G	sub (~0.38)
	MNCS_C	2,045	4,806	4,895	O,G	sub (~0.38)
	MNCS_Cms	1,998	4,853	4,943	O,G	sub (~0.38)
	MNCS_D	1,880	4,971	5,065	O,G	sub (~0.38)
	MNCS_E	1,769	5,082	5,190	O,G	sub (~0.38)
	MNCS_F	1,700	5,151	5,279	O,G	sub (~0.38)
	MNCS_G	1,621	5,230	5,398	O,G	sub (~0.38)
	MNCS_H	1,578	5,273	5,481	O,G	sub (~0.38)
	MNCS_I	1,537	5,314	5,596	O,G	sub (~0.38)
	FTP TARGET	1,550	5,301	5,551	O,G	sub (~0.38)
	PROJECTED TD	1,477	5,374	13,327	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: 2,320 psi
Maximum 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 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 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 and attached Newpark mud program for additional details.

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-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	1,138	110,988	110,988
Min. S.F.					13.21	3.09	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

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	Hole Cap. (cuft/ft)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)	Total Cmt (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

8.921

Mesa Ready Mix or first available

Shoe Track L

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

350 ft (MD)	to	5,651 ft (MD)	Hole Section Length:	5,301 ft
350 ft (TVD)	to	5,326 ft (TVD)	Casing Required:	5,651 ft

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

Casing Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	7	26.0	K-55	LTC	4,320	4,980	415,000	367,000
Loading					2,326	1,445	228,127	228,127
Min. S.F.					1.86	3.45	1.82	1.61

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

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)	Total Cmt (cu ft)
Lead	III:POZ Blend	12.5	2.140	12.05	70%	0	493	1,055
Tail	Type III	14.6	1.380	6.64	20%	4,249	190	262

Annular Capacity	0.16681	cuft/ft	7" casing x 9-5/8" casing annulus			Shoe Track L	44
	0.1503	cuft/ft	9-5/8" casing x 12-1/4" hole annulus			Casing ID	6.276
	0.2148	cuft/ft	7" casing casing volume				

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.

5,651 ft (MD)	to	13,327 ft (MD)	Hole Section Length:	7,676 ft
5,326 ft (TVD)	to	5,374 ft (TVD)	Casing Required:	7,826 ft
Estimated KOP:		4,851 ft (MD)	4,762 ft (TVD)	
Estimated Liner Top:		5,501 ft (MD)	5,281 ft (TVD)	
Estimated Landing Point (FTP):		5,551 ft (MD)	5,301 ft (TVD)	
Estimated Lateral Length:		7,776 ft (MD)		

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

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

Liner/Casing Specs:	Size (in)	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	4.500	11.6	P-110	BTC	7,560	10,690	367,000	385,000
Loading					2,655	8,807	233,400	233,400
Min. S.F.					2.85	1.21	1.57	1.65

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 (cu)
Spacer	IntegraGuard Star	11		31.6		0	60 bbls	
Tail	G:POZ blend	13.3	1.560	7.70	30%	5,501	646	1,007

Displacement 176 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

	Spacer	Lead/Tail						
	S-8 Silica Flour 163.7 lbs/bbl	Avis 616 viscosifier 11.6 lb/bbl	FP24 Defoamer .5 lb/bbl	Plus 3K LCM 15 lb/bbl	SS201 Surfactant 1 gal/bbl			
		Bentonite BA90 Bonding Agent 5.0 lb/sx	Viscosifier 8% BWOB	FL24 Fluid Loss .5% BWOB	GW86 Viscosifier .1% BWOB	R7C Retarder .2% BWOB	FP24 Defoamer 0.3% BWOB, Anti- Static .01 lb/sx	
				Bentonite Viscosifier 4% BWOB	FL24 Fluid Loss .4% BWOB	IntegraGuard GW86 Viscosifier .1% BWOB	R3 Retarder .5% BWOB	FP24 Defoamer .3% BWOB, IntegraSeal 0.25 lb/sx
	Type G 50%	Pozzolan Fly Ash Extender 50%	BA90 Bonding Agent 3.0 lb/sx					

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, cap well, RDMO.

COMPLETION AND PRODUCTION PLAN:

Est Lateral Length: 7,676

Est Frac Inform: 32 Frac Stages 123,000 bbls slick water 9,980,000 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



Magnetic Field
Strength: 49066.3nT
Dip Angle: 62.73°
Date: 2/7/2024
Model: IGRF2020

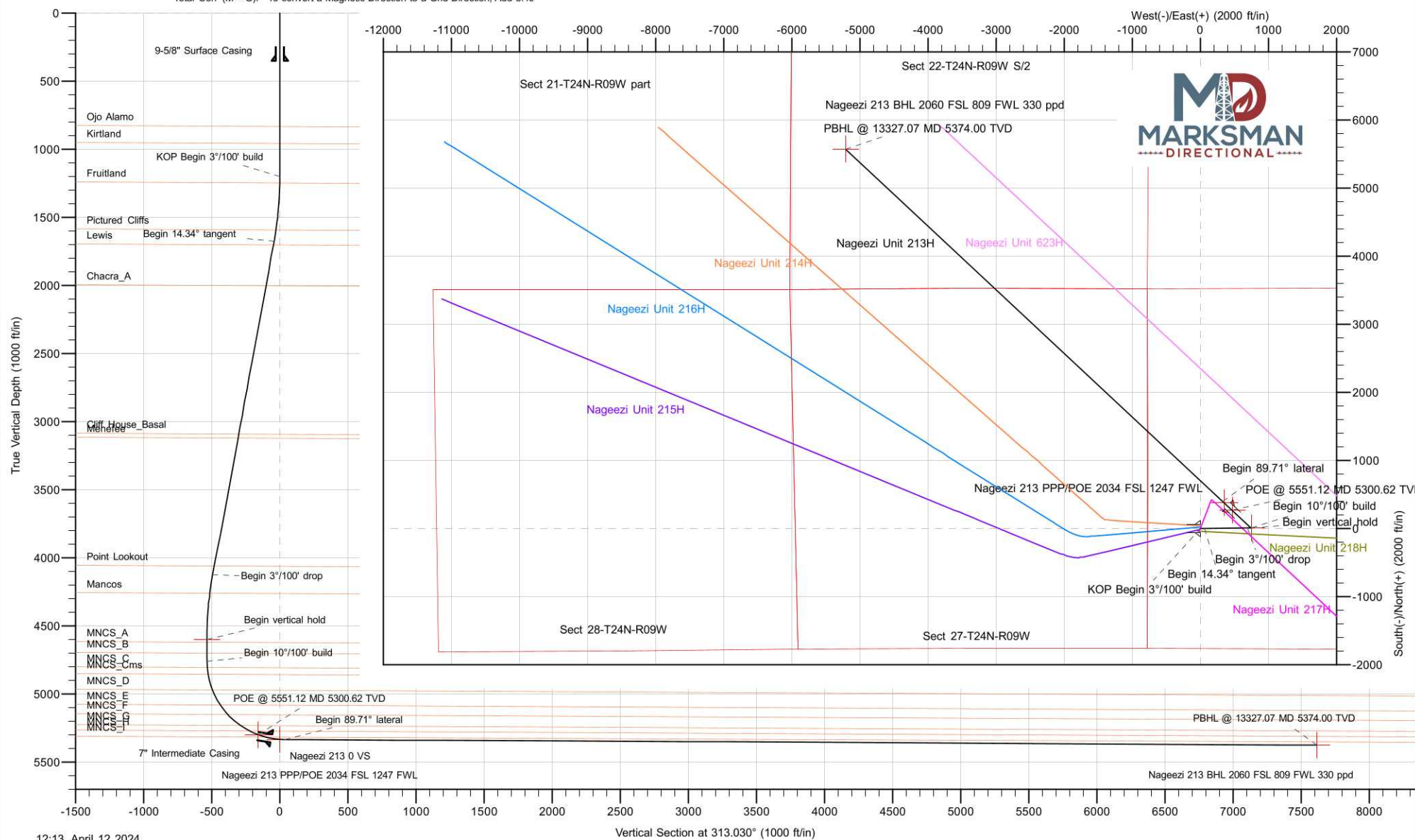
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Western Zone
System Datum: Mean Sea Level
Depth Reference: RKB=6826+25 @ 6851.00ft

⁰ Total Corr (M=>G): To convert a Magnetic Direction to a Grid Direction, Add 8.49°

TVD	MD
350.00	350.00
5326.47	5651.12

	Section Details										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSeat	Annotation	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 3°/100' build	
3	1678.11	14.34	88.932	1673.13	1.11	59.52	3.00	88.93	-42.75	Begin 14.34° tangent	
4	4210.79	14.34	88.932	4126.87	12.81	686.84	3.00		-493.33	Begin 3°/100' drop	
5	4688.90	0.00	0.00	4600.00	13.92	746.36	3.00	180.00	-536.09	Begin vertical hold	
6	4851.12	0.00	0.005	4762.22	13.92	746.36	0.00	0.00	-536.09	Begin 10°/100' build	
7	5551.12	70.00	313.03	5300.62	271.17	470.78	313.03		-159.08	POE @ 5551.12 MD 5300.62 TVD	
8	5748.19	89.71	313.029	5335.7	802.89	323.23	10.00	33.93		Begin 89.71° lateral	
9	13327.07	89.71	313.029	5374.00	5574.42	-5210.46	0.00	0.00	7612.71	PBHL @ 13327.07 MD 5374.00 TVD	

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Nageezi 213 0 VS	5335.00	379.74	354.48	1922584.87	2743495.13	36.28373148	-107.76410435
Nageezi 213 BHL 2060 FSL 809 FWL 330 ppd	5374.00	5574.42	-5210.46	1927779.55	2737930.19	36.29801100	-107.78297700
Nageezi 213 PPP/POE 2034 FSL 1247 FWL	5300.62	271.17	470.78	1922476.30	2736311.43	36.28343300	-107.76371000
Nageezi 213 vert	4600.00	13.92	746.36	1922219.05	2733887.01	36.28272577	-107.76277560



12:13, April 12 2024



Planning Report

Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Well Nageezi Unit 213H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6826+25 @ 6851.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6826+25 @ 6851.00ft
Site:	Nageezi Unit (213, 214, 215, 216, 217 & 218)	North Reference:	Grid
Well:	Nageezi Unit 213H	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	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 213H, Surf loc: 1798 FSL 792 FWL Section 26-T24N-R09W					
Well Position	+N/-S	0.00 ft	Northing:	1,922,205.14 usft	Latitude:	36.28268900
	+E/-W	0.00 ft	Easting:	2,743,140.65 usft	Longitude:	-107.76530800
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,826.00 ft
Grid Convergence:		0.04 °				

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	2/7/2024	8.53	62.73	49,066.26707429

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	313.030	

Plan Survey Tool Program	Date	4/12/2024			
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	13,327.07	rev0 (Original Hole)	MWD	
				OWSG MWD - Standard	



Planning Report

Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Well Nageezi Unit 213H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6826+25 @ 6851.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6826+25 @ 6851.00ft
Site:	Nageezi Unit (213, 214, 215, 216, 217 & 218)	North Reference:	Grid
Well:	Nageezi Unit 213H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

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	
1,200.00	0.00	0.000	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,678.11	14.34	88.932	1,673.13	1.11	59.52	3.00	3.00	0.00	88.93	
4,210.79	14.34	88.932	4,126.87	12.81	686.84	0.00	0.00	0.00	0.00	
4,688.90	0.00	0.005	4,600.00	13.92	746.36	3.00	-3.00	0.00	180.00	Nageezi 213 vert
4,851.12	0.00	0.005	4,762.22	13.92	746.36	0.00	0.00	0.00	0.01	
5,551.12	70.00	313.030	5,300.62	271.17	470.78	10.00	10.00	0.00	313.03	
5,748.19	89.71	313.029	5,335.17	402.89	329.67	10.00	10.00	0.00	0.00	
13,327.07	89.71	313.029	5,374.00	5,574.42	-5,210.46	0.00	0.00	0.00	0.00	Nageezi 213 BHL 206



Planning Report

Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Well Nageezi Unit 213H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6826+25 @ 6851.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6826+25 @ 6851.00ft
Site:	Nageezi Unit (213, 214, 215, 216, 217 & 218)	North Reference:	Grid
Well:	Nageezi Unit 213H	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
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" Surface 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
Ojo Alamo									
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
Kirtland									
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.000	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.000	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Begin 3°/100' build									
1,246.00	1.38	88.932	1,246.00	0.01	0.55	-0.40	3.00	3.00	0.00
Fruitland									
1,300.00	3.00	88.932	1,299.95	0.05	2.62	-1.88	3.00	3.00	0.00
1,400.00	6.00	88.932	1,399.63	0.20	10.46	-7.51	3.00	3.00	0.00
1,500.00	9.00	88.932	1,498.77	0.44	23.51	-16.89	3.00	3.00	0.00
1,593.63	11.81	88.932	1,590.85	0.75	40.41	-29.03	3.00	3.00	0.00
Pictured Cliffs									
1,600.00	12.00	88.932	1,597.08	0.78	41.73	-29.97	3.00	3.00	0.00
1,678.11	14.34	88.932	1,673.13	1.11	59.52	-42.75	3.00	3.00	0.00
Begin 14.34° tangent									
1,700.00	14.34	88.932	1,694.34	1.21	64.94	-46.65	0.00	0.00	0.00
1,706.62	14.34	88.932	1,700.76	1.24	66.59	-47.83	0.00	0.00	0.00
Lewis									
1,800.00	14.34	88.932	1,791.22	1.67	89.71	-64.44	0.00	0.00	0.00
1,900.00	14.34	88.932	1,888.11	2.14	114.48	-82.23	0.00	0.00	0.00
2,000.00	14.34	88.932	1,984.99	2.60	139.25	-100.02	0.00	0.00	0.00
2,015.99	14.34	88.932	2,000.48	2.67	143.21	-102.86	0.00	0.00	0.00
Chacra_A									
2,100.00	14.34	88.932	2,081.87	3.06	164.02	-117.81	0.00	0.00	0.00
2,200.00	14.34	88.932	2,178.75	3.52	188.79	-135.60	0.00	0.00	0.00
2,300.00	14.34	88.932	2,275.64	3.98	213.56	-153.39	0.00	0.00	0.00
2,400.00	14.34	88.932	2,372.52	4.44	238.33	-171.18	0.00	0.00	0.00
2,500.00	14.34	88.932	2,469.40	4.91	263.09	-188.97	0.00	0.00	0.00
2,600.00	14.34	88.932	2,566.29	5.37	287.86	-206.76	0.00	0.00	0.00
2,700.00	14.34	88.932	2,663.17	5.83	312.63	-224.55	0.00	0.00	0.00
2,800.00	14.34	88.932	2,760.05	6.29	337.40	-242.34	0.00	0.00	0.00
2,900.00	14.34	88.932	2,856.93	6.75	362.17	-260.14	0.00	0.00	0.00
3,000.00	14.34	88.932	2,953.82	7.22	386.94	-277.93	0.00	0.00	0.00
3,100.00	14.34	88.932	3,050.70	7.68	411.71	-295.72	0.00	0.00	0.00
3,140.01	14.34	88.932	3,089.47	7.86	421.62	-302.84	0.00	0.00	0.00
Cliff House_Basal									
3,170.95	14.34	88.932	3,119.44	8.01	429.28	-308.34	0.00	0.00	0.00
Menefee									



Planning Report

Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Well Nageezi Unit 213H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6826+25 @ 6851.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6826+25 @ 6851.00ft
Site:	Nageezi Unit (213, 214, 215, 216, 217 & 218)	North Reference:	Grid
Well:	Nageezi Unit 213H	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)	
3,200.00	14.34	88.932	3,147.58	8.14	436.48	-313.51	0.00	0.00	0.00	
3,300.00	14.34	88.932	3,244.47	8.60	461.25	-331.30	0.00	0.00	0.00	
3,400.00	14.34	88.932	3,341.35	9.06	486.01	-349.09	0.00	0.00	0.00	
3,500.00	14.34	88.932	3,438.23	9.53	510.78	-366.88	0.00	0.00	0.00	
3,600.00	14.34	88.932	3,535.11	9.99	535.55	-384.67	0.00	0.00	0.00	
3,700.00	14.34	88.932	3,632.00	10.45	560.32	-402.46	0.00	0.00	0.00	
3,800.00	14.34	88.932	3,728.88	10.91	585.09	-420.25	0.00	0.00	0.00	
3,900.00	14.34	88.932	3,825.76	11.37	609.86	-438.04	0.00	0.00	0.00	
4,000.00	14.34	88.932	3,922.65	11.84	634.63	-455.83	0.00	0.00	0.00	
4,100.00	14.34	88.932	4,019.53	12.30	659.40	-473.62	0.00	0.00	0.00	
4,140.29	14.34	88.932	4,058.57	12.48	669.38	-480.79	0.00	0.00	0.00	
Point Lookout										
4,200.00	14.34	88.932	4,116.41	12.76	684.16	-491.41	0.00	0.00	0.00	
4,210.79	14.34	88.932	4,126.87	12.81	686.84	-493.33	0.00	0.00	0.00	
Begin 3°/100' drop										
4,300.00	11.67	88.932	4,213.78	13.18	706.91	-507.75	3.00	-3.00	0.00	
4,348.50	10.21	88.932	4,261.40	13.36	716.11	-514.36	3.00	-3.00	0.00	
Mancos										
4,400.00	8.67	88.932	4,312.20	13.51	724.55	-520.43	3.00	-3.00	0.00	
4,500.00	5.67	88.932	4,411.40	13.75	737.03	-529.38	3.00	-3.00	0.00	
4,600.00	2.67	88.932	4,511.13	13.88	744.29	-534.60	3.00	-3.00	0.00	
4,688.90	0.00	0.005	4,600.00	13.92	746.36	-536.09	3.00	-3.00	0.00	
Begin vertical hold										
4,700.00	0.00	0.000	4,611.10	13.92	746.36	-536.09	0.00	0.00	0.00	
4,707.19	0.00	0.000	4,618.29	13.92	746.36	-536.09	0.00	0.00	0.00	
MNCS_A										
4,790.19	0.00	0.000	4,701.29	13.92	746.36	-536.09	0.00	0.00	0.00	
MNCS_B										
4,800.00	0.00	0.000	4,711.10	13.92	746.36	-536.09	0.00	0.00	0.00	
4,851.12	0.00	0.000	4,762.22	13.92	746.36	-536.09	0.00	0.00	0.00	
Begin 10°/100' build										
4,895.24	4.41	313.030	4,806.30	15.08	745.12	-534.39	10.00	10.00	0.00	
MNCS_C										
4,900.00	4.89	313.030	4,811.04	15.34	744.84	-534.00	10.00	10.00	0.00	
4,942.62	9.15	313.030	4,853.32	18.89	741.03	-528.80	10.00	10.00	0.00	
MNCS_Cms										
4,950.00	9.89	313.030	4,860.61	19.73	740.14	-527.58	10.00	10.00	0.00	
5,000.00	14.89	313.030	4,909.43	27.04	732.30	-516.85	10.00	10.00	0.00	
5,050.00	19.89	313.030	4,957.13	37.24	721.38	-501.92	10.00	10.00	0.00	
5,065.35	21.42	313.030	4,971.49	40.93	717.42	-496.50	10.00	10.00	0.00	
MNCS_D										
5,100.00	24.89	313.030	5,003.34	50.23	707.47	-482.88	10.00	10.00	0.00	
5,150.00	29.89	313.030	5,047.73	65.92	690.66	-459.89	10.00	10.00	0.00	
5,190.12	33.90	313.030	5,081.78	80.38	675.17	-438.70	10.00	10.00	0.00	
MNCS_E										
5,200.00	34.89	313.030	5,089.93	84.19	671.09	-433.11	10.00	10.00	0.00	
5,250.00	39.89	313.030	5,129.65	104.90	648.90	-402.76	10.00	10.00	0.00	
5,278.50	42.74	313.030	5,151.06	117.74	635.15	-383.95	10.00	10.00	0.00	
MNCS_F										
5,300.00	44.89	313.030	5,166.57	127.89	624.27	-369.07	10.00	10.00	0.00	
5,350.00	49.89	313.030	5,200.41	152.99	597.38	-332.28	10.00	10.00	0.00	
5,397.56	54.64	313.030	5,229.51	178.66	569.89	-294.68	10.00	10.00	0.00	



Planning Report

Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Well Nageezi Unit 213H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6826+25 @ 6851.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6826+25 @ 6851.00ft
Site:	Nageezi Unit (213, 214, 215, 216, 217 & 218)	North Reference:	Grid
Well:	Nageezi Unit 213H	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)
MNCS_G									
5,400.00	54.89	313.030	5,230.91	180.01	568.43	-292.68	10.00	10.00	0.00
5,450.00	59.89	313.030	5,257.85	208.74	537.66	-250.58	10.00	10.00	0.00
5,481.44	63.03	313.030	5,272.87	227.59	517.47	-222.97	10.00	10.00	0.00
MNCS_H									
5,500.00	64.89	313.030	5,281.02	238.97	505.28	-206.29	10.00	10.00	0.00
5,551.12	70.00	313.030	5,300.62	271.17	470.78	-159.09	10.00	10.00	0.00
POE @ 5551.12 MD 5300.62 TVD									
5,596.40	74.53	313.030	5,314.41	300.59	439.26	-115.98	10.00	10.00	0.00
MNCS_I									
5,600.00	74.89	313.030	5,315.36	302.96	436.72	-112.51	10.00	10.00	0.00
5,650.00	79.89	313.030	5,326.28	336.25	401.07	-63.73	10.00	10.00	0.00
5,651.12	80.00	313.030	5,326.47	337.00	400.26	-62.63	10.00	10.00	0.00
7" Intermediate Casing									
5,700.00	84.89	313.029	5,332.90	370.06	364.85	-14.19	10.00	10.00	0.00
5,748.19	89.71	313.029	5,335.17	402.89	329.67	33.93	10.00	10.00	0.00
Begin 89.71° lateral									
5,800.00	89.71	313.029	5,335.44	438.25	291.80	85.75	0.00	0.00	0.00
5,900.00	89.71	313.029	5,335.95	506.48	218.70	185.74	0.00	0.00	0.00
6,000.00	89.71	313.029	5,336.46	574.72	145.60	285.74	0.00	0.00	0.00
6,100.00	89.71	313.029	5,336.97	642.95	72.50	385.74	0.00	0.00	0.00
6,200.00	89.71	313.029	5,337.49	711.19	-0.60	485.74	0.00	0.00	0.00
6,300.00	89.71	313.029	5,338.00	779.43	-73.70	585.74	0.00	0.00	0.00
6,400.00	89.71	313.029	5,338.51	847.66	-146.80	685.74	0.00	0.00	0.00
6,500.00	89.71	313.029	5,339.02	915.90	-219.90	785.74	0.00	0.00	0.00
6,600.00	89.71	313.029	5,339.53	984.14	-293.00	885.74	0.00	0.00	0.00
6,700.00	89.71	313.029	5,340.05	1,052.37	-366.10	985.73	0.00	0.00	0.00
6,800.00	89.71	313.029	5,340.56	1,120.61	-439.20	1,085.73	0.00	0.00	0.00
6,900.00	89.71	313.029	5,341.07	1,188.84	-512.30	1,185.73	0.00	0.00	0.00
7,000.00	89.71	313.029	5,341.58	1,257.08	-585.40	1,285.73	0.00	0.00	0.00
7,100.00	89.71	313.029	5,342.10	1,325.32	-658.50	1,385.73	0.00	0.00	0.00
7,200.00	89.71	313.029	5,342.61	1,393.55	-731.60	1,485.73	0.00	0.00	0.00
7,300.00	89.71	313.029	5,343.12	1,461.79	-804.70	1,585.73	0.00	0.00	0.00
7,400.00	89.71	313.029	5,343.63	1,530.02	-877.80	1,685.73	0.00	0.00	0.00
7,500.00	89.71	313.029	5,344.15	1,598.26	-950.90	1,785.72	0.00	0.00	0.00
7,600.00	89.71	313.029	5,344.66	1,666.50	-1,024.00	1,885.72	0.00	0.00	0.00
7,700.00	89.71	313.029	5,345.17	1,734.73	-1,097.09	1,985.72	0.00	0.00	0.00
7,800.00	89.71	313.029	5,345.68	1,802.97	-1,170.19	2,085.72	0.00	0.00	0.00
7,900.00	89.71	313.029	5,346.20	1,871.20	-1,243.29	2,185.72	0.00	0.00	0.00
8,000.00	89.71	313.029	5,346.71	1,939.44	-1,316.39	2,285.72	0.00	0.00	0.00
8,100.00	89.71	313.029	5,347.22	2,007.68	-1,389.49	2,385.72	0.00	0.00	0.00
8,200.00	89.71	313.029	5,347.73	2,075.91	-1,462.59	2,485.71	0.00	0.00	0.00
8,300.00	89.71	313.029	5,348.24	2,144.15	-1,535.69	2,585.71	0.00	0.00	0.00
8,400.00	89.71	313.029	5,348.76	2,212.39	-1,608.79	2,685.71	0.00	0.00	0.00
8,500.00	89.71	313.029	5,349.27	2,280.62	-1,681.89	2,785.71	0.00	0.00	0.00
8,600.00	89.71	313.029	5,349.78	2,348.86	-1,754.99	2,885.71	0.00	0.00	0.00
8,700.00	89.71	313.029	5,350.29	2,417.09	-1,828.09	2,985.71	0.00	0.00	0.00
8,800.00	89.71	313.029	5,350.81	2,485.33	-1,901.19	3,085.71	0.00	0.00	0.00
8,900.00	89.71	313.029	5,351.32	2,553.57	-1,974.29	3,185.71	0.00	0.00	0.00
9,000.00	89.71	313.029	5,351.83	2,621.80	-2,047.39	3,285.70	0.00	0.00	0.00
9,100.00	89.71	313.029	5,352.34	2,690.04	-2,120.49	3,385.70	0.00	0.00	0.00
9,200.00	89.71	313.029	5,352.86	2,758.27	-2,193.59	3,485.70	0.00	0.00	0.00
9,300.00	89.71	313.029	5,353.37	2,826.51	-2,266.69	3,585.70	0.00	0.00	0.00



Planning Report

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Company:	Enduring Resources LLC	TVD Reference:	RKB=6826+25 @ 6851.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6826+25 @ 6851.00ft
Site:	Nageezi Unit (213, 214, 215, 216, 217 & 218)	North Reference:	Grid
Well:	Nageezi Unit 213H	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)
9,400.00	89.71	313.029	5,353.88	2,894.75	-2,339.79	3,685.70	0.00	0.00	0.00
9,500.00	89.71	313.029	5,354.39	2,962.98	-2,412.89	3,785.70	0.00	0.00	0.00
9,600.00	89.71	313.029	5,354.90	3,031.22	-2,485.99	3,885.70	0.00	0.00	0.00
9,700.00	89.71	313.029	5,355.42	3,099.46	-2,559.09	3,985.70	0.00	0.00	0.00
9,800.00	89.71	313.029	5,355.93	3,167.69	-2,632.19	4,085.69	0.00	0.00	0.00
9,900.00	89.71	313.029	5,356.44	3,235.93	-2,705.29	4,185.69	0.00	0.00	0.00
10,000.00	89.71	313.029	5,356.95	3,304.16	-2,778.39	4,285.69	0.00	0.00	0.00
10,100.00	89.71	313.029	5,357.47	3,372.40	-2,851.49	4,385.69	0.00	0.00	0.00
10,200.00	89.71	313.029	5,357.98	3,440.64	-2,924.59	4,485.69	0.00	0.00	0.00
10,300.00	89.71	313.029	5,358.49	3,508.87	-2,997.69	4,585.69	0.00	0.00	0.00
10,400.00	89.71	313.029	5,359.00	3,577.11	-3,070.79	4,685.69	0.00	0.00	0.00
10,500.00	89.71	313.029	5,359.52	3,645.34	-3,143.89	4,785.68	0.00	0.00	0.00
10,600.00	89.71	313.029	5,360.03	3,713.58	-3,216.99	4,885.68	0.00	0.00	0.00
10,700.00	89.71	313.029	5,360.54	3,781.82	-3,290.09	4,985.68	0.00	0.00	0.00
10,800.00	89.71	313.029	5,361.05	3,850.05	-3,363.19	5,085.68	0.00	0.00	0.00
10,900.00	89.71	313.029	5,361.57	3,918.29	-3,436.29	5,185.68	0.00	0.00	0.00
11,000.00	89.71	313.029	5,362.08	3,986.52	-3,509.39	5,285.68	0.00	0.00	0.00
11,100.00	89.71	313.029	5,362.59	4,054.76	-3,582.49	5,385.68	0.00	0.00	0.00
11,200.00	89.71	313.029	5,363.10	4,123.00	-3,655.58	5,485.68	0.00	0.00	0.00
11,300.00	89.71	313.029	5,363.61	4,191.23	-3,728.68	5,585.67	0.00	0.00	0.00
11,400.00	89.71	313.029	5,364.13	4,259.47	-3,801.78	5,685.67	0.00	0.00	0.00
11,500.00	89.71	313.029	5,364.64	4,327.71	-3,874.88	5,785.67	0.00	0.00	0.00
11,600.00	89.71	313.029	5,365.15	4,395.94	-3,947.98	5,885.67	0.00	0.00	0.00
11,700.00	89.71	313.029	5,365.66	4,464.18	-4,021.08	5,985.67	0.00	0.00	0.00
11,800.00	89.71	313.029	5,366.18	4,532.41	-4,094.18	6,085.67	0.00	0.00	0.00
11,900.00	89.71	313.029	5,366.69	4,600.65	-4,167.28	6,185.67	0.00	0.00	0.00
12,000.00	89.71	313.029	5,367.20	4,668.89	-4,240.38	6,285.67	0.00	0.00	0.00
12,100.00	89.71	313.029	5,367.71	4,737.12	-4,313.48	6,385.66	0.00	0.00	0.00
12,200.00	89.71	313.029	5,368.23	4,805.36	-4,386.58	6,485.66	0.00	0.00	0.00
12,300.00	89.71	313.029	5,368.74	4,873.59	-4,459.68	6,585.66	0.00	0.00	0.00
12,400.00	89.71	313.029	5,369.25	4,941.83	-4,532.78	6,685.66	0.00	0.00	0.00
12,500.00	89.71	313.029	5,369.76	5,010.07	-4,605.88	6,785.66	0.00	0.00	0.00
12,600.00	89.71	313.029	5,370.28	5,078.30	-4,678.98	6,885.66	0.00	0.00	0.00
12,700.00	89.71	313.029	5,370.79	5,146.54	-4,752.08	6,985.66	0.00	0.00	0.00
12,800.00	89.71	313.029	5,371.30	5,214.78	-4,825.18	7,085.65	0.00	0.00	0.00
12,900.00	89.71	313.029	5,371.81	5,283.01	-4,898.28	7,185.65	0.00	0.00	0.00
13,000.00	89.71	313.029	5,372.32	5,351.25	-4,971.38	7,285.65	0.00	0.00	0.00
13,100.00	89.71	313.029	5,372.84	5,419.48	-5,044.48	7,385.65	0.00	0.00	0.00
13,200.00	89.71	313.029	5,373.35	5,487.72	-5,117.58	7,485.65	0.00	0.00	0.00
13,300.00	89.71	313.029	5,373.86	5,555.96	-5,190.68	7,585.65	0.00	0.00	0.00
13,327.07	89.71	313.029	5,374.00	5,574.42	-5,210.46	7,612.71	0.00	0.00	0.00

PBHL @ 13327.07 MD 5374.00 TVD

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
350.00	350.00	9-5/8" Surface Casing	9-5/8	12-1/4
5,651.12	5,326.47	7" Intermediate Casing	7	8-1/2



Planning Report

Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Well Nageezi Unit 213H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6826+25 @ 6851.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6826+25 @ 6851.00ft
Site:	Nageezi Unit (213, 214, 215, 216, 217 & 218)	North Reference:	Grid
Well:	Nageezi Unit 213H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
831.00	831.00	Ojo Alamo		0.29	313.030	
956.00	956.00	Kirtland		0.29	313.030	
1,246.00	1,246.00	Fruitland		0.29	313.030	
1,593.63	1,590.85	Pictured Cliffs		0.29	313.030	
1,706.62	1,700.76	Lewis		0.29	313.030	
2,015.99	2,000.48	Chacra_A		0.29	313.030	
3,140.01	3,089.47	Cliff House_Basal		0.29	313.030	
3,170.95	3,119.44	Menefee		0.29	313.030	
4,140.29	4,058.57	Point Lookout		0.29	313.030	
4,348.50	4,261.40	Mancos		0.29	313.030	
4,707.19	4,618.29	MNCS_A		0.29	313.030	
4,790.19	4,701.29	MNCS_B		0.29	313.030	
4,895.24	4,806.30	MNCS_C		0.29	313.030	
4,942.62	4,853.32	MNCS_Cms		0.29	313.030	
5,065.35	4,971.49	MNCS_D		0.29	313.030	
5,190.12	5,081.78	MNCS_E		0.29	313.030	
5,278.50	5,151.06	MNCS_F		0.29	313.030	
5,397.56	5,229.51	MNCS_G		0.29	313.030	
5,481.44	5,272.87	MNCS_H		0.29	313.030	
5,596.40	5,314.41	MNCS_I		0.29	313.030	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,200.00	1,200.00	0.00	0.00	KOP Begin 3°/100' build	
1,678.11	1,673.13	1.11	59.52	Begin 14.34° tangent	
4,210.79	4,126.87	12.81	686.84	Begin 3°/100' drop	
4,688.90	4,600.00	13.92	746.36	Begin vertical hold	
4,851.12	4,762.22	13.92	746.36	Begin 10°/100' build	
5,551.12	5,300.62	271.17	470.78	POE @ 5551.12 MD 5300.62 TVD	
5,748.19	5,335.17	402.89	329.67	Begin 89.71° lateral	
13,327.07	5,374.00	5,574.42	-5,210.46	PBHL @ 13327.07 MD 5374.00 TVD	



Planning Report - Geographic

Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Well Nageezi Unit 213H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6826+25 @ 6851.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6826+25 @ 6851.00ft
Site:	Nageezi Unit (213, 214, 215, 216, 217 & 218)	North Reference:	Grid
Well:	Nageezi Unit 213H	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	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 213H, Surf loc: 1798 FSL 792 FWL Section 26-T24N-R09W					
Well Position	+N/-S	0.00 ft	Northing:	1,922,205.14 usft	Latitude:	36.28268900
	+E/-W	0.00 ft	Easting:	2,743,140.65 usft	Longitude:	-107.76530800
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,826.00 ft
Grid Convergence:		0.04 °				

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	2/7/2024	8.53	62.73	49,066.26707429

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	313.030

Plan Survey Tool Program	Date	4/12/2024		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	13,327.07 rev0 (Original Hole)	MWD	
			OWSG MWD - Standard	



Planning Report - Geographic

Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Well Nageezi Unit 213H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6826+25 @ 6851.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6826+25 @ 6851.00ft
Site:	Nageezi Unit (213, 214, 215, 216, 217 & 218)	North Reference:	Grid
Well:	Nageezi Unit 213H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

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	
1,200.00	0.00	0.000	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,678.11	14.34	88.932	1,673.13	1.11	59.52	3.00	3.00	0.00	88.93	
4,210.79	14.34	88.932	4,126.87	12.81	686.84	0.00	0.00	0.00	0.00	
4,688.90	0.00	0.005	4,600.00	13.92	746.36	3.00	-3.00	0.00	180.00	Nageezi 213 vert
4,851.12	0.00	0.005	4,762.22	13.92	746.36	0.00	0.00	0.00	0.01	
5,551.12	70.00	313.030	5,300.62	271.17	470.78	10.00	10.00	0.00	313.03	
5,748.19	89.71	313.029	5,335.17	402.89	329.67	10.00	10.00	0.00	0.00	
13,327.07	89.71	313.029	5,374.00	5,574.42	-5,210.46	0.00	0.00	0.00	0.00	Nageezi 213 BHL 206



Planning Report - Geographic

Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Well Nageezi Unit 213H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6826+25 @ 6851.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6826+25 @ 6851.00ft
Site:	Nageezi Unit (213, 214, 215, 216, 217 & 218)	North Reference:	Grid
Well:	Nageezi Unit 213H	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	1,922,205.14	2,743,140.65	36.28268900	-107.76530800
100.00	0.00	0.000	100.00	0.00	0.00	1,922,205.14	2,743,140.65	36.28268900	-107.76530800
200.00	0.00	0.000	200.00	0.00	0.00	1,922,205.14	2,743,140.65	36.28268900	-107.76530800
300.00	0.00	0.000	300.00	0.00	0.00	1,922,205.14	2,743,140.65	36.28268900	-107.76530800
350.00	0.00	0.000	350.00	0.00	0.00	1,922,205.14	2,743,140.65	36.28268900	-107.76530800
9-5/8" Surface Casing									
400.00	0.00	0.000	400.00	0.00	0.00	1,922,205.14	2,743,140.65	36.28268900	-107.76530800
500.00	0.00	0.000	500.00	0.00	0.00	1,922,205.14	2,743,140.65	36.28268900	-107.76530800
600.00	0.00	0.000	600.00	0.00	0.00	1,922,205.14	2,743,140.65	36.28268900	-107.76530800
700.00	0.00	0.000	700.00	0.00	0.00	1,922,205.14	2,743,140.65	36.28268900	-107.76530800
800.00	0.00	0.000	800.00	0.00	0.00	1,922,205.14	2,743,140.65	36.28268900	-107.76530800
831.00	0.00	0.000	831.00	0.00	0.00	1,922,205.14	2,743,140.65	36.28268900	-107.76530800
Ojo Alamo									
900.00	0.00	0.000	900.00	0.00	0.00	1,922,205.14	2,743,140.65	36.28268900	-107.76530800
956.00	0.00	0.000	956.00	0.00	0.00	1,922,205.14	2,743,140.65	36.28268900	-107.76530800
Kirtland									
1,000.00	0.00	0.000	1,000.00	0.00	0.00	1,922,205.14	2,743,140.65	36.28268900	-107.76530800
1,100.00	0.00	0.000	1,100.00	0.00	0.00	1,922,205.14	2,743,140.65	36.28268900	-107.76530800
1,200.00	0.00	0.000	1,200.00	0.00	0.00	1,922,205.14	2,743,140.65	36.28268900	-107.76530800
KOP Begin 3°/100' build									
1,246.00	1.38	88.932	1,246.00	0.01	0.55	1,922,205.15	2,743,141.20	36.28268903	-107.76530613
Fruitland									
1,300.00	3.00	88.932	1,299.95	0.05	2.62	1,922,205.18	2,743,143.27	36.28268913	-107.76529913
1,400.00	6.00	88.932	1,399.63	0.20	10.46	1,922,205.33	2,743,151.11	36.28268952	-107.76527251
1,500.00	9.00	88.932	1,498.77	0.44	23.51	1,922,205.57	2,743,164.16	36.28269016	-107.76522824
1,593.63	11.81	88.932	1,590.85	0.75	40.41	1,922,205.89	2,743,181.06	36.28269099	-107.76517088
Pictured Cliffs									
1,600.00	12.00	88.932	1,597.08	0.78	41.73	1,922,205.91	2,743,182.38	36.28269106	-107.76516642
1,678.11	14.34	88.932	1,673.13	1.11	59.52	1,922,206.25	2,743,200.17	36.28269194	-107.76510605
Begin 14.34° tangent									
1,700.00	14.34	88.932	1,694.34	1.21	64.94	1,922,206.35	2,743,205.59	36.28269220	-107.76508765
1,706.62	14.34	88.932	1,700.76	1.24	66.59	1,922,206.38	2,743,207.23	36.28269228	-107.76508208
Lewis									
1,800.00	14.34	88.932	1,791.22	1.67	89.71	1,922,206.81	2,743,230.36	36.28269342	-107.76500361
1,900.00	14.34	88.932	1,888.11	2.14	114.48	1,922,207.27	2,743,255.13	36.28269464	-107.76491957
2,000.00	14.34	88.932	1,984.99	2.60	139.25	1,922,207.73	2,743,279.90	36.28269587	-107.76483553
2,015.99	14.34	88.932	2,000.48	2.67	143.21	1,922,207.81	2,743,283.86	36.28269606	-107.76482209
Chacra_A									
2,100.00	14.34	88.932	2,081.87	3.06	164.02	1,922,208.19	2,743,304.67	36.28269709	-107.76475149
2,200.00	14.34	88.932	2,178.75	3.52	188.79	1,922,208.66	2,743,329.44	36.28269831	-107.76466745
2,300.00	14.34	88.932	2,275.64	3.98	213.56	1,922,209.12	2,743,354.21	36.28269953	-107.76458341
2,400.00	14.34	88.932	2,372.52	4.44	238.33	1,922,209.58	2,743,378.97	36.28270075	-107.76449937
2,500.00	14.34	88.932	2,469.40	4.91	263.09	1,922,210.04	2,743,403.74	36.28270197	-107.76441533
2,600.00	14.34	88.932	2,566.29	5.37	287.86	1,922,210.50	2,743,428.51	36.28270319	-107.76433129
2,700.00	14.34	88.932	2,663.17	5.83	312.63	1,922,210.97	2,743,453.28	36.28270441	-107.76424725
2,800.00	14.34	88.932	2,760.05	6.29	337.40	1,922,211.43	2,743,478.05	36.28270563	-107.76416321
2,900.00	14.34	88.932	2,856.93	6.75	362.17	1,922,211.89	2,743,502.82	36.28270685	-107.76407916
3,000.00	14.34	88.932	2,953.82	7.22	386.94	1,922,212.35	2,743,527.59	36.28270807	-107.76399512
3,100.00	14.34	88.932	3,050.70	7.68	411.71	1,922,212.81	2,743,552.36	36.28270929	-107.76391108
3,140.01	14.34	88.932	3,089.47	7.86	421.62	1,922,213.00	2,743,562.27	36.28270978	-107.76387746
Cliff House_Basal									
3,170.95	14.34	88.932	3,119.44	8.01	429.28	1,922,213.14	2,743,569.93	36.28271016	-107.76385146
Menefee									



Planning Report - Geographic

Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Well Nageezi Unit 213H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6826+25 @ 6851.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6826+25 @ 6851.00ft
Site:	Nageezi Unit (213, 214, 215, 216, 217 & 218)	North Reference:	Grid
Well:	Nageezi Unit 213H	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	
3,200.00	14.34	88.932	3,147.58	8.14	436.48	1,922,213.28	2,743,577.12	36.28271051	-107.76382704	
3,300.00	14.34	88.932	3,244.47	8.60	461.25	1,922,213.74	2,743,601.89	36.28271173	-107.76374300	
3,400.00	14.34	88.932	3,341.35	9.06	486.01	1,922,214.20	2,743,626.66	36.28271295	-107.76365896	
3,500.00	14.34	88.932	3,438.23	9.53	510.78	1,922,214.66	2,743,651.43	36.28271417	-107.76357492	
3,600.00	14.34	88.932	3,535.11	9.99	535.55	1,922,215.12	2,743,676.20	36.28271539	-107.76349088	
3,700.00	14.34	88.932	3,632.00	10.45	560.32	1,922,215.59	2,743,700.97	36.28271661	-107.76340684	
3,800.00	14.34	88.932	3,728.88	10.91	585.09	1,922,216.05	2,743,725.74	36.28271783	-107.76332280	
3,900.00	14.34	88.932	3,825.76	11.37	609.86	1,922,216.51	2,743,750.51	36.28271905	-107.76323876	
4,000.00	14.34	88.932	3,922.65	11.84	634.63	1,922,216.97	2,743,775.27	36.28272027	-107.76315472	
4,100.00	14.34	88.932	4,019.53	12.30	659.40	1,922,217.43	2,743,800.04	36.28272149	-107.76307068	
4,140.29	14.34	88.932	4,058.57	12.48	669.38	1,922,217.62	2,743,810.02	36.28272198	-107.76303682	
Point Lookout										
4,200.00	14.34	88.932	4,116.41	12.76	684.16	1,922,217.90	2,743,824.81	36.28272271	-107.76298664	
4,210.79	14.34	88.932	4,126.87	12.81	686.84	1,922,217.95	2,743,827.49	36.28272284	-107.76297757	
Begin 3°/100' drop										
4,300.00	11.67	88.932	4,213.78	13.18	706.91	1,922,218.32	2,743,847.56	36.28272383	-107.76290947	
4,348.50	10.21	88.932	4,261.40	13.36	716.11	1,922,218.49	2,743,856.76	36.28272428	-107.76287825	
Mancos										
4,400.00	8.67	88.932	4,312.20	13.51	724.55	1,922,218.65	2,743,865.20	36.28272470	-107.76284960	
4,500.00	5.67	88.932	4,411.40	13.75	737.03	1,922,218.88	2,743,877.67	36.28272531	-107.76280728	
4,600.00	2.67	88.932	4,511.13	13.88	744.29	1,922,219.02	2,743,884.94	36.28272567	-107.76278263	
4,688.90	0.00	0.005	4,600.00	13.92	746.36	1,922,219.06	2,743,887.01	36.28272577	-107.76277561	
Begin vertical hold										
4,700.00	0.00	0.000	4,611.10	13.92	746.36	1,922,219.06	2,743,887.01	36.28272577	-107.76277561	
4,707.19	0.00	0.000	4,618.29	13.92	746.36	1,922,219.06	2,743,887.01	36.28272577	-107.76277561	
MNCS_A										
4,790.19	0.00	0.000	4,701.29	13.92	746.36	1,922,219.06	2,743,887.01	36.28272577	-107.76277561	
MNCS_B										
4,800.00	0.00	0.000	4,711.10	13.92	746.36	1,922,219.06	2,743,887.01	36.28272577	-107.76277561	
4,851.12	0.00	0.000	4,762.22	13.92	746.36	1,922,219.06	2,743,887.01	36.28272577	-107.76277561	
Begin 10°/100' build										
4,895.24	4.41	313.030	4,806.30	15.08	745.12	1,922,220.21	2,743,885.77	36.28272896	-107.76277982	
MNCS_C										
4,900.00	4.89	313.030	4,811.04	15.34	744.84	1,922,220.48	2,743,885.48	36.28272968	-107.76278077	
4,942.62	9.15	313.030	4,853.32	18.89	741.03	1,922,224.03	2,743,881.68	36.28273945	-107.76279368	
MNCS_Cms										
4,950.00	9.89	313.030	4,860.61	19.73	740.14	1,922,224.86	2,743,880.79	36.28274174	-107.76279670	
5,000.00	14.89	313.030	4,909.43	27.04	732.30	1,922,232.18	2,743,872.95	36.28276185	-107.76282328	
5,050.00	19.89	313.030	4,957.13	37.24	721.38	1,922,242.37	2,743,862.03	36.28278988	-107.76286030	
5,065.35	21.42	313.030	4,971.49	40.93	717.42	1,922,246.07	2,743,858.07	36.28280003	-107.76287372	
MNCS_D										
5,100.00	24.89	313.030	5,003.34	50.23	707.47	1,922,255.36	2,743,848.11	36.28282559	-107.76290749	
5,150.00	29.89	313.030	5,047.73	65.92	690.66	1,922,271.05	2,743,831.30	36.28286873	-107.76296448	
5,190.12	33.90	313.030	5,081.78	80.38	675.17	1,922,285.51	2,743,815.81	36.28290848	-107.76301700	
MNCS_E										
5,200.00	34.89	313.030	5,089.93	84.19	671.09	1,922,289.32	2,743,811.73	36.28291895	-107.76303084	
5,250.00	39.89	313.030	5,129.65	104.90	648.90	1,922,310.03	2,743,789.55	36.28297589	-107.76310606	
5,278.50	42.74	313.030	5,151.06	117.74	635.15	1,922,322.87	2,743,775.79	36.28301119	-107.76315270	
MNCS_F										
5,300.00	44.89	313.030	5,166.57	127.89	624.27	1,922,333.03	2,743,764.92	36.28303911	-107.76318958	
5,350.00	49.89	313.030	5,200.41	152.99	597.38	1,922,358.13	2,743,738.03	36.28310812	-107.76328076	
5,397.56	54.64	313.030	5,229.51	178.66	569.89	1,922,383.79	2,743,710.54	36.28317866	-107.76337397	
MNCS_G										



Planning Report - Geographic

Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Well Nageezi Unit 213H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6826+25 @ 6851.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6826+25 @ 6851.00ft
Site:	Nageezi Unit (213, 214, 215, 216, 217 & 218)	North Reference:	Grid
Well:	Nageezi Unit 213H	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
5,400.00	54.89	313.030	5,230.91	180.01	568.43	1,922,385.15	2,743,709.08	36.28318240	-107.76337890
5,450.00	59.89	313.030	5,257.85	208.74	537.66	1,922,413.88	2,743,678.30	36.28326138	-107.76348326
5,481.44	63.03	313.030	5,272.87	227.59	517.47	1,922,432.72	2,743,658.12	36.28331318	-107.76355170
MNCS_H									
5,500.00	64.89	313.030	5,281.02	238.97	505.28	1,922,444.10	2,743,645.93	36.28334447	-107.76359304
5,551.12	70.00	313.030	5,300.62	271.17	470.78	1,922,476.31	2,743,611.43	36.28343301	-107.76371002
POE @ 5551.12 MD 5300.62 TVD									
5,596.40	74.53	313.030	5,314.41	300.59	439.26	1,922,505.73	2,743,579.91	36.28351389	-107.76381687
MNCS_I									
5,600.00	74.89	313.030	5,315.36	302.96	436.72	1,922,508.10	2,743,577.37	36.28352041	-107.76382549
5,650.00	79.89	313.030	5,326.28	336.25	401.07	1,922,541.38	2,743,541.72	36.28361191	-107.76394639
5,651.12	80.00	313.030	5,326.47	337.00	400.26	1,922,542.14	2,743,540.91	36.28361398	-107.76394912
7" Intermediate Casing									
5,700.00	84.89	313.029	5,332.90	370.06	364.85	1,922,575.19	2,743,505.50	36.28370485	-107.76406919
5,748.19	89.71	313.029	5,335.17	402.89	329.67	1,922,608.03	2,743,470.32	36.28379512	-107.76418846
Begin 89.71° lateral									
5,800.00	89.71	313.029	5,335.44	438.25	291.80	1,922,643.38	2,743,432.45	36.28389232	-107.76431688
5,900.00	89.71	313.029	5,335.95	506.48	218.70	1,922,711.62	2,743,359.35	36.28407991	-107.76456475
6,000.00	89.71	313.029	5,336.46	574.72	145.60	1,922,779.85	2,743,286.25	36.28426750	-107.76481261
6,100.00	89.71	313.029	5,336.97	642.95	72.50	1,922,848.09	2,743,213.15	36.28445509	-107.76506048
6,200.00	89.71	313.029	5,337.49	711.19	-0.60	1,922,916.32	2,743,140.05	36.28464268	-107.76530834
6,300.00	89.71	313.029	5,338.00	779.43	-73.70	1,922,984.56	2,743,066.95	36.28483027	-107.76555621
6,400.00	89.71	313.029	5,338.51	847.66	-146.80	1,923,052.80	2,742,993.85	36.28501786	-107.76580408
6,500.00	89.71	313.029	5,339.02	915.90	-219.90	1,923,121.03	2,742,920.75	36.28520545	-107.76605195
6,600.00	89.71	313.029	5,339.53	984.14	-293.00	1,923,189.27	2,742,847.65	36.28539304	-107.76629982
6,700.00	89.71	313.029	5,340.05	1,052.37	-366.10	1,923,257.50	2,742,774.55	36.28558062	-107.76654769
6,800.00	89.71	313.029	5,340.56	1,120.61	-439.20	1,923,325.74	2,742,701.45	36.28576821	-107.76679557
6,900.00	89.71	313.029	5,341.07	1,188.84	-512.30	1,923,393.98	2,742,628.35	36.28595580	-107.76704344
7,000.00	89.71	313.029	5,341.58	1,257.08	-585.40	1,923,462.21	2,742,555.25	36.28614338	-107.76729132
7,100.00	89.71	313.029	5,342.10	1,325.32	-658.50	1,923,530.45	2,742,482.15	36.28633097	-107.76753919
7,200.00	89.71	313.029	5,342.61	1,393.55	-731.60	1,923,598.68	2,742,409.05	36.28651855	-107.76778707
7,300.00	89.71	313.029	5,343.12	1,461.79	-804.70	1,923,666.92	2,742,335.95	36.28670614	-107.76803495
7,400.00	89.71	313.029	5,343.63	1,530.02	-877.80	1,923,735.16	2,742,262.86	36.28689372	-107.76828283
7,500.00	89.71	313.029	5,344.15	1,598.26	-950.90	1,923,803.39	2,742,189.76	36.28708130	-107.76853071
7,600.00	89.71	313.029	5,344.66	1,666.50	-1,024.00	1,923,871.63	2,742,116.66	36.28726889	-107.76877860
7,700.00	89.71	313.029	5,345.17	1,734.73	-1,097.09	1,923,939.86	2,742,043.56	36.28745647	-107.76902648
7,800.00	89.71	313.029	5,345.68	1,802.97	-1,170.19	1,924,008.10	2,741,970.46	36.28764405	-107.76927437
7,900.00	89.71	313.029	5,346.20	1,871.20	-1,243.29	1,924,076.34	2,741,897.36	36.28783163	-107.76952225
8,000.00	89.71	313.029	5,346.71	1,939.44	-1,316.39	1,924,144.57	2,741,824.26	36.28801921	-107.76977014
8,100.00	89.71	313.029	5,347.22	2,007.68	-1,389.49	1,924,212.81	2,741,751.16	36.28820679	-107.77001803
8,200.00	89.71	313.029	5,347.73	2,075.91	-1,462.59	1,924,281.04	2,741,678.06	36.28839437	-107.77026592
8,300.00	89.71	313.029	5,348.24	2,144.15	-1,535.69	1,924,349.28	2,741,604.96	36.28858195	-107.77051381
8,400.00	89.71	313.029	5,348.76	2,212.39	-1,608.79	1,924,417.52	2,741,531.86	36.28876953	-107.77076170
8,500.00	89.71	313.029	5,349.27	2,280.62	-1,681.89	1,924,485.75	2,741,458.76	36.28895711	-107.77100960
8,600.00	89.71	313.029	5,349.78	2,348.86	-1,754.99	1,924,553.99	2,741,385.66	36.28914468	-107.77125749
8,700.00	89.71	313.029	5,350.29	2,417.09	-1,828.09	1,924,622.22	2,741,312.56	36.28933226	-107.77150539
8,800.00	89.71	313.029	5,350.81	2,485.33	-1,901.19	1,924,690.46	2,741,239.46	36.28951984	-107.77175329
8,900.00	89.71	313.029	5,351.32	2,553.57	-1,974.29	1,924,758.70	2,741,166.36	36.28970741	-107.77200118
9,000.00	89.71	313.029	5,351.83	2,621.80	-2,047.39	1,924,826.93	2,741,093.26	36.28989499	-107.77224908
9,100.00	89.71	313.029	5,352.34	2,690.04	-2,120.49	1,924,895.17	2,741,020.16	36.29008256	-107.77249699
9,200.00	89.71	313.029	5,352.86	2,758.27	-2,193.59	1,924,963.40	2,740,947.06	36.29027014	-107.77274489
9,300.00	89.71	313.029	5,353.37	2,826.51	-2,266.69	1,925,031.64	2,740,873.96	36.29045771	-107.77299279
9,400.00	89.71	313.029	5,353.88	2,894.75	-2,339.79	1,925,099.88	2,740,800.86	36.29064528	-107.77324070
9,500.00	89.71	313.029	5,354.39	2,962.98	-2,412.89	1,925,168.11	2,740,727.76	36.29083286	-107.77348860



Planning Report - Geographic

Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Well Nageezi Unit 213H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6826+25 @ 6851.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6826+25 @ 6851.00ft
Site:	Nageezi Unit (213, 214, 215, 216, 217 & 218)	North Reference:	Grid
Well:	Nageezi Unit 213H	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	
9,600.00	89.71	313.029	5,354.90	3,031.22	-2,485.99	1,925,236.35	2,740,654.66	36.29102043	-107.77373651	
9,700.00	89.71	313.029	5,355.42	3,099.46	-2,559.09	1,925,304.58	2,740,581.57	36.29120800	-107.77398442	
9,800.00	89.71	313.029	5,355.93	3,167.69	-2,632.19	1,925,372.82	2,740,508.47	36.29139557	-107.77423232	
9,900.00	89.71	313.029	5,356.44	3,235.93	-2,705.29	1,925,441.06	2,740,435.37	36.29158314	-107.77448024	
10,000.00	89.71	313.029	5,356.95	3,304.16	-2,778.39	1,925,509.29	2,740,362.27	36.29177071	-107.77472815	
10,100.00	89.71	313.029	5,357.47	3,372.40	-2,851.49	1,925,577.53	2,740,289.17	36.29195828	-107.77497606	
10,200.00	89.71	313.029	5,357.98	3,440.64	-2,924.59	1,925,645.76	2,740,216.07	36.29214585	-107.77522396	
10,300.00	89.71	313.029	5,358.49	3,508.87	-2,997.69	1,925,714.00	2,740,142.97	36.29233342	-107.77547188	
10,400.00	89.71	313.029	5,359.00	3,577.11	-3,070.79	1,925,782.24	2,740,069.87	36.29252099	-107.77571979	
10,500.00	89.71	313.029	5,359.52	3,645.34	-3,143.89	1,925,850.47	2,739,996.77	36.29270856	-107.77596771	
10,600.00	89.71	313.029	5,360.03	3,713.58	-3,216.99	1,925,918.71	2,739,923.67	36.29289612	-107.77621563	
10,700.00	89.71	313.029	5,360.54	3,781.82	-3,290.09	1,925,986.94	2,739,850.57	36.29308369	-107.77646355	
10,800.00	89.71	313.029	5,361.05	3,850.05	-3,363.19	1,926,055.18	2,739,777.47	36.29327126	-107.77671147	
10,900.00	89.71	313.029	5,361.57	3,918.29	-3,436.29	1,926,123.42	2,739,704.37	36.29345882	-107.77695939	
11,000.00	89.71	313.029	5,362.08	3,986.52	-3,509.39	1,926,191.65	2,739,631.27	36.29364639	-107.77720732	
11,100.00	89.71	313.029	5,362.59	4,054.76	-3,582.49	1,926,259.89	2,739,558.17	36.29383395	-107.77745524	
11,200.00	89.71	313.029	5,363.10	4,123.00	-3,655.58	1,926,328.12	2,739,485.07	36.29402151	-107.77770317	
11,300.00	89.71	313.029	5,363.61	4,191.23	-3,728.68	1,926,396.36	2,739,411.97	36.29420908	-107.77795110	
11,400.00	89.71	313.029	5,364.13	4,259.47	-3,801.78	1,926,464.60	2,739,338.87	36.29439664	-107.77819902	
11,500.00	89.71	313.029	5,364.64	4,327.71	-3,874.88	1,926,532.83	2,739,265.77	36.29458420	-107.77844695	
11,600.00	89.71	313.029	5,365.15	4,395.94	-3,947.98	1,926,601.07	2,739,192.67	36.29477177	-107.77869488	
11,700.00	89.71	313.029	5,365.66	4,464.18	-4,021.08	1,926,669.30	2,739,119.57	36.29495933	-107.77894281	
11,800.00	89.71	313.029	5,366.18	4,532.41	-4,094.18	1,926,737.54	2,739,046.47	36.29514689	-107.77919075	
11,900.00	89.71	313.029	5,366.69	4,600.65	-4,167.28	1,926,805.78	2,738,973.37	36.29533445	-107.77943868	
12,000.00	89.71	313.029	5,367.20	4,668.89	-4,240.38	1,926,874.01	2,738,900.27	36.29552201	-107.77968662	
12,100.00	89.71	313.029	5,367.71	4,737.12	-4,313.48	1,926,942.25	2,738,827.18	36.29570957	-107.77993455	
12,200.00	89.71	313.029	5,368.23	4,805.36	-4,386.58	1,927,010.48	2,738,754.08	36.29589713	-107.78018249	
12,300.00	89.71	313.029	5,368.74	4,873.59	-4,459.68	1,927,078.72	2,738,680.98	36.29608468	-107.78043043	
12,400.00	89.71	313.029	5,369.25	4,941.83	-4,532.78	1,927,146.96	2,738,607.88	36.29627224	-107.78067837	
12,500.00	89.71	313.029	5,369.76	5,010.07	-4,605.88	1,927,215.19	2,738,534.78	36.29645980	-107.78092631	
12,600.00	89.71	313.029	5,370.28	5,078.30	-4,678.98	1,927,283.43	2,738,461.68	36.29664736	-107.78117425	
12,700.00	89.71	313.029	5,370.79	5,146.54	-4,752.08	1,927,351.66	2,738,388.58	36.29683491	-107.78142220	
12,800.00	89.71	313.029	5,371.30	5,214.78	-4,825.18	1,927,419.90	2,738,315.48	36.29702247	-107.78167014	
12,900.00	89.71	313.029	5,371.81	5,283.01	-4,898.28	1,927,488.14	2,738,242.38	36.29721002	-107.78191809	
13,000.00	89.71	313.029	5,372.32	5,351.25	-4,971.38	1,927,556.37	2,738,169.28	36.29739758	-107.78216604	
13,100.00	89.71	313.029	5,372.84	5,419.48	-5,044.48	1,927,624.61	2,738,096.18	36.29758513	-107.78241398	
13,200.00	89.71	313.029	5,373.35	5,487.72	-5,117.58	1,927,692.84	2,738,023.08	36.29777268	-107.78266193	
13,300.00	89.71	313.029	5,373.86	5,555.96	-5,190.68	1,927,761.08	2,737,949.98	36.29796024	-107.78290988	
13,327.07	89.71	313.029	5,374.00	5,574.42	-5,210.46	1,927,779.55	2,737,930.20	36.29801100	-107.78297700	
PBHL @ 13327.07 MD 5374.00 TVD										



Planning Report - Geographic

Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Well Nageezi Unit 213H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6826+25 @ 6851.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6826+25 @ 6851.00ft
Site:	Nageezi Unit (213, 214, 215, 216, 217 & 218)	North Reference:	Grid
Well:	Nageezi Unit 213H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

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 213 vert - plan hits target center - Point	0.00	0.000	4,600.00	13.92	746.36	1,922,219.06	2,743,887.01	36.28272577	-107.76277561
Nageezi 213 PPP/POE ; - plan hits target center - Point	0.00	0.000	5,300.62	271.17	470.78	1,922,476.30	2,743,611.43	36.28343300	-107.76371000
Nageezi 213 0 VS - plan misses target center by 1.01ft at 5714.28ft MD (5333.99 TVD, 379.77 N, 354.45 E) - Point	0.00	0.000	5,335.00	379.74	354.48	1,922,584.87	2,743,495.13	36.28373148	-107.76410435
Nageezi 213 BHL 2060 I - plan hits target center - Point	0.00	0.000	5,374.00	5,574.42	-5,210.46	1,927,779.55	2,737,930.20	36.29801100	-107.78297700

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
350.00	350.00	9-5/8" Surface Casing	9-5/8	12-1/4	
5,651.12	5,326.47	7" Intermediate Casing	7	8-1/2	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
831.00	831.00	Ojo Alamo		0.29	313.030
956.00	956.00	Kirtland		0.29	313.030
1,246.00	1,246.00	Fruitland		0.29	313.030
1,593.63	1,590.85	Pictured Cliffs		0.29	313.030
1,706.62	1,700.76	Lewis		0.29	313.030
2,015.99	2,000.48	Chacra_A		0.29	313.030
3,140.01	3,089.47	Cliff House_Basal		0.29	313.030
3,170.95	3,119.44	Menefee		0.29	313.030
4,140.29	4,058.57	Point Lookout		0.29	313.030
4,348.50	4,261.40	Mancos		0.29	313.030
4,707.19	4,618.29	MNCS_A		0.29	313.030
4,790.19	4,701.29	MNCS_B		0.29	313.030
4,895.24	4,806.30	MNCS_C		0.29	313.030
4,942.62	4,853.32	MNCS_Cms		0.29	313.030
5,065.35	4,971.49	MNCS_D		0.29	313.030
5,190.12	5,081.78	MNCS_E		0.29	313.030
5,278.50	5,151.06	MNCS_F		0.29	313.030
5,397.56	5,229.51	MNCS_G		0.29	313.030
5,481.44	5,272.87	MNCS_H		0.29	313.030
5,596.40	5,314.41	MNCS_I		0.29	313.030



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Well:	Nageezi Unit 213H	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)		
1,200.00	1,200.00	0.00	0.00	KOP Begin 3°/100' build	
1,678.11	1,673.13	1.11	59.52	Begin 14.34° tangent	
4,210.79	4,126.87	12.81	686.84	Begin 3°/100' drop	
4,688.90	4,600.00	13.92	746.36	Begin vertical hold	
4,851.12	4,762.22	13.92	746.36	Begin 10°/100' build	
5,551.12	5,300.62	271.17	470.78	POE @ 5551.12 MD 5300.62 TVD	
5,748.19	5,335.17	402.89	329.67	Begin 89.71° lateral	
13,327.07	5,374.00	5,574.42	-5,210.46	PBHL @ 13327.07 MD 5374.00 TVD	

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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 334015

CONDITIONS

Operator: DJR OPERATING, LLC 200 Energy Court Farmington, NM 87401	OGRID: 371838
	Action Number: 334015
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	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