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Form 3160-5
(March 2012)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

AUG 06 2019

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2014**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE – Other instructions on page 2.		5. Lease Serial No. NMSF 078860
1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator DJR Operating LLC.		7. If Unit of CA/Agreement, Name and/or No. NMNM 132981A
3a. Address 1 Road 3263 Aztec, New Mexico 87410		8. Well Name and No. NAGEEZI UNIT #628H
3b. Phone No. (include area code) 505-632-3476		9. API Well No. 30-045-35650
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) SHL: 1162' FSL and 454' FWL Section 30, T24N, R8W BHL: 349' FNL and 1705' FWL Section 25, T24N, R9W		10. Field and Pool or Exploratory Area BASIN MANCOS
		11. County or Parish, State San Juan County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Name Change, BHL Change & New Dill Plan
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

DJR Operating LLC. has an approved APD for the proposed well, Escrito M30-2408 01H (API 30-045-35650) which will now be part of the NAGEEZI UNIT. DJR Operating is submitting this sundry to change the well name from Escrito M30-2408 01H to the Nageezi Unit 628H (API #30-045-35650).

Please find attached an updated C-102 package reflecting the Name change, BHL change and the new drilling plan.

ADHERE TO PREVIOUS NMOCD
CONDITIONS OF APPROVAL

NMOCD

SEP 18 2019

DISTRICT III

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Steven Merrell

Title Regulatory Specialist

Signature

Date 08/06/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

SEP 16 2019

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

FARMINGTON FIELD OFFICE

BY:

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.

(Instructions on page 2)

NMOCD

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DISTRICT I
1825 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1883 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3480 Fax: (505) 476-3482

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to appropriate
District Office

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-352050	² Pool Code 98080	³ Pool Name NAGEEZI UNIT; MANCOS OIL-POOL
⁴ Property Code 3252108	⁵ Property Name NAGEEZI UNIT	⁶ Well Number 628H
⁷ OGRID No. 371838	⁸ Operator Name DJR OPERATING, LLC	⁹ Elevation 6800.6'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	30	24N	8W	4	1162'	SOUTH	454'	WEST	SAN JUAN

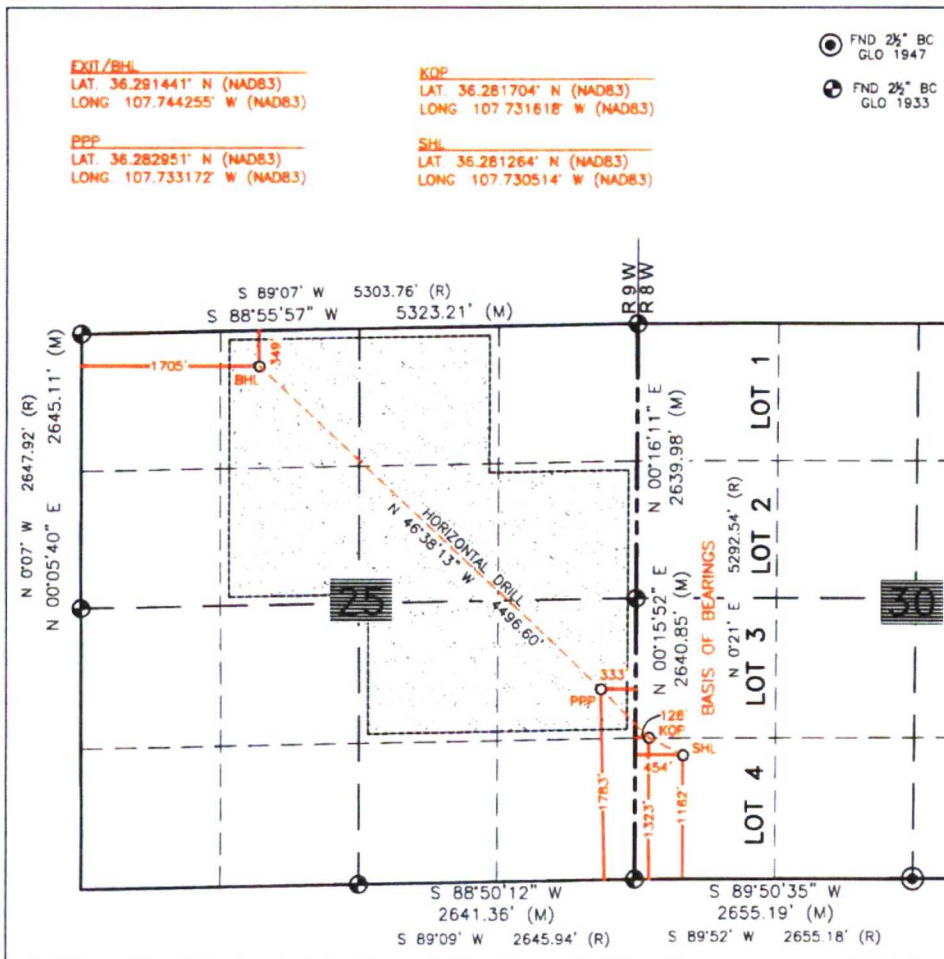
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	25	24N	9W		349'	NORTH	1705'	WEST	SAN JUAN

¹² Dedicated Acres SEC 25: NW/SE, NE/SE, SE/NE, SW/NE, NW/NE, SE/NW & NE/NW = 280 ACRES	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-13856, R-13856A
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

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¹⁷ OPERATOR CERTIFICATION

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

Steven Merrell 8/6/19
Signature Date

Steven Merrell
Printed Name
Smerrell@djrlc.com
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.
APRIL 1, 2014

Date of Survey
Signature and Seal of Professional Surveyor:



Certificate Number

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-6181 Fax: (575) 393-0720

DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (575) 746-1283 Fax: (575) 746-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone: (505) 834-6178 Fax: (505) 834-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3480 Fax: (505) 476-3482

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
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Submit one copy to appropriate
District Office

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

☐ AMENDED REPORT

DJR OPERATING, LLC
NAGEEZI UNIT #628H

NW CORNER SEC. 25
LAT. 36.292318' N (NAD83)
LONG. 107.750036' W (NAD83)

NE CORNER SEC. 25
LAT. 36.292576' N (NAD83)
LONG. 107.731976' W (NAD83)

SE CORNER SEC. 25
LAT. 36.278070' N (NAD83)
LONG. 107.732078' W (NAD83)

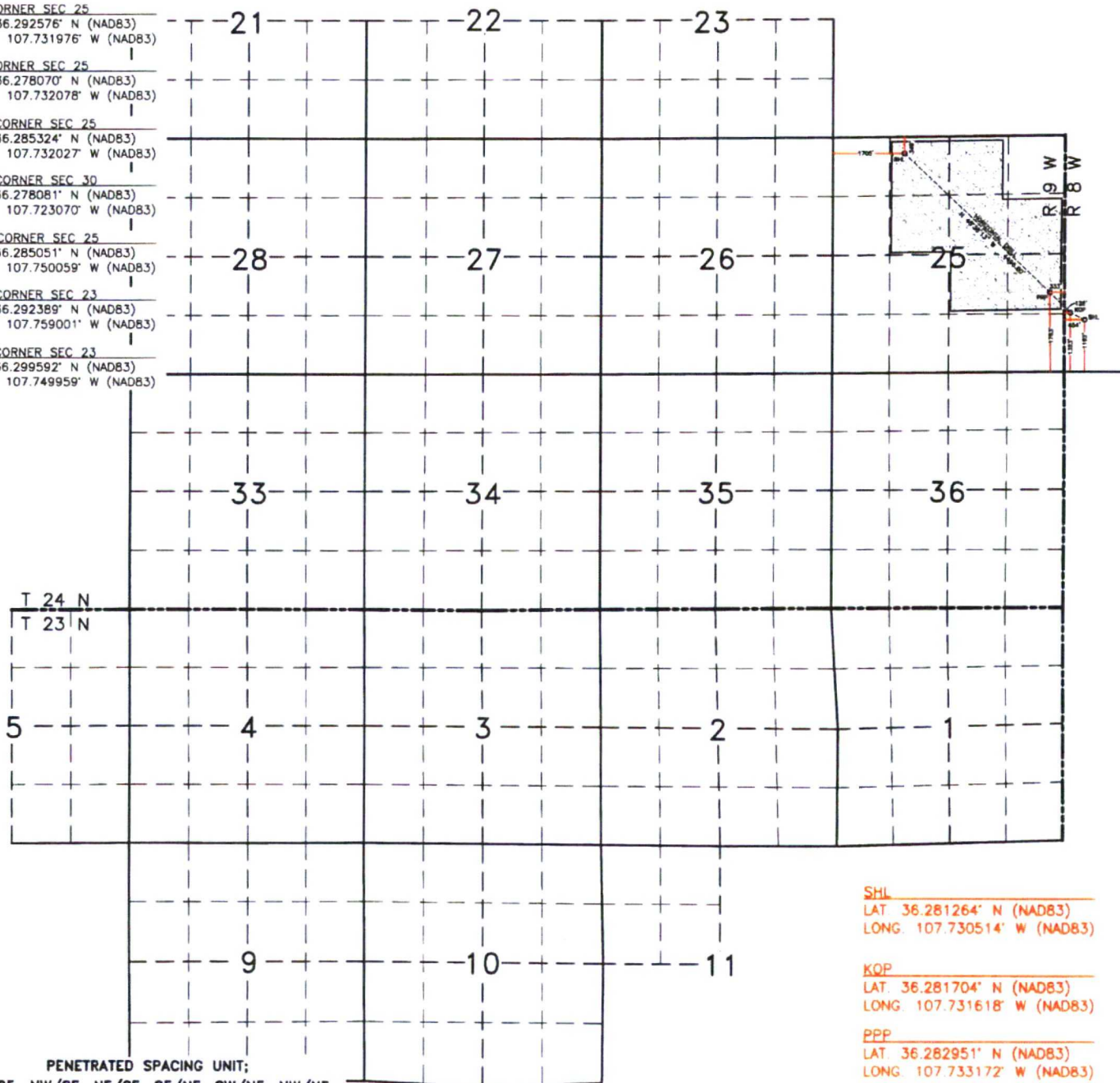
E/4 CORNER SEC. 25
LAT. 36.285324' N (NAD83)
LONG. 107.732027' W (NAD83)

S/4 CORNER SEC. 30
LAT. 36.278081' N (NAD83)
LONG. 107.723070' W (NAD83)

W/4 CORNER SEC. 25
LAT. 36.285051' N (NAD83)
LONG. 107.750059' W (NAD83)

S/4 CORNER SEC. 23
LAT. 36.292389' N (NAD83)
LONG. 107.759001' W (NAD83)

E/4 CORNER SEC. 23
LAT. 36.299592' N (NAD83)
LONG. 107.749959' W (NAD83)



PENETRATED SPACING UNIT;
SEC 25: NW/SE, NE/SE, SE/NE, SW/NE, NW/NE,
SE/NW & NE/NW = 280 ACRES
TOTAL 10,415.12 ACRES: T24N R9W, SEC. 21-23 (S/2),
25-28, 33-36, 1-4, 9-10 (ALL); T23N R9W, SEC. 5
(W/2), 11 (NW/4) - UNDIVIDED UNIT

SHL
LAT. 36.281264' N (NAD83)
LONG. 107.730514' W (NAD83)

KQP
LAT. 36.281704' N (NAD83)
LONG. 107.731618' W (NAD83)

PPP
LAT. 36.282951' N (NAD83)
LONG. 107.733172' W (NAD83)

EXIT/BHL
LAT. 36.291441' N (NAD83)
LONG. 107.744255' W (NAD83)

DRILLING PLAN **Nageezi Unit 628H** **San Juan County, New Mexico**

Surface Location
 454-ft FWL & 1162-ft FSL
 Sec 30 T24N R08W
 Graded Elevation 6801' MSL
 RKB Elevation 6826' (25' KB)

SHL Geographical Coordinates (NAD-83)

Latitude 36.2812640° N
 Longitude 107.7305140° W

Kick Off Point for Horizontal Build Curve
 4763-ft MD
 4747-ft TVD

Local Coordinates (from SHL)

189-ft North
 318-ft West

First Take Point (Heel target)

5704-ft MD
 333-ft FEL & 1783-ft FSL
 Sec 25 T24N R09W

FTP Geographical Coordinates (NAD-83)

Latitude 36.2829511° N
 Longitude 107.73317230° W

Last Take Point (Toe target & BHL)

10201-ft MD
 1705-ft FWL & 349-ft FNL
 Sec 25 T24N R09W

LTP Geographical Coordinates (NAD-83)

Latitude 36.2914413° N
 Longitude 107.7442546° W

Well objectives

This well is planned as a 4500-ft lateral in the Gallup CR3 sand.

Bottom Hole temperature and pressure

The temperature in the Gallup CR3 horizontal objective is 142.0°F. Bottom hole pressure in the Gallup CR3 is forecast to be 1985 psi.

Formation Tops (Sd = Sand; Sh = Shale; Siltstone = Slt, Coal = C; W = water; O = oil; G = gas; NP = no penetration)

Name	MD (ft)	TVD (ft)	Lithology	Pore fluid	Expected Pore Pressure (ppg)	Planned Mud Weight (ppg)
Ojo Alamo	918	917	Sd	W	8.3	8.4 - 8.8
Kirtland	1055	1053	Sh	-	8.3	8.4 - 8.8
Fruitland	1436	1433	C	G	8.3	9.0 - 9.5
Picture Cliffs	1648	1644	Sd	W	8.3	9.0 - 9.5
Lewis	1750	1745	Sh	-		9.0 - 9.5
Chacra	2488	2481	Sd	-	8.3	9.0 - 9.5
Menefee	3190	3180	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	4084	4070	Sd	-	8.3	9.0 - 9.5
Mancos	4254	4240	Sh	-		9.0 - 9.5
Mancos Silt	4595	4579	Slt	O/G	6.6	9.0 - 9.5
Gallup A	5104	5063	Slt	O/G	6.6	9.0 - 9.5
Gallup B	5143	5094	Sd	O/G	6.6	8.8 - 9.0
Gallup C	5311	5209	Sd	O/G	6.6	8.8 - 9.0
Target	5704	5329	Sd	O/G	6.6	8.8 - 9.0

Casing Program

Casing OD	Hole Size	Weight (#/ft)	Grade	Coupling	MD Top	MD Bottom	TVD Top	TVD Bottom	Top of Cement
9-5/8"	12-1/4"	36	K-55	STC	surf	350	surf	350	surface
7"	8-3/4"	26	K-55	LTC	surf	5694	surf	5329	surface
4-1/2"	6-1/8"	11.6	P-110	BTC	5494	10201	5293	5361	5494

Note: all casing will be new

Casing Design Load Cases

Description		Casing String		
		9-5/8" Surface	7" Intermediate	4-1/2" Production Liner
Collapse	Full internal evacuation ¹	✓	✓	✓
	Cementing	✓	✓	✓
Burst	Pressure test	✓ ²	✓ ²	✓
	Gas kick		✓ ³	
	Fracture at shoe, 1/3 BHP at surface		✓ ⁴	
	Injection down casing			✓ ⁵
Axial	Dynamic load on casing coupling ⁶	✓	✓	✓
Axial	Overpull ⁷	✓	✓	✓

Note

- 1 Fluid level at shoe, air column to surface, pore pressure outside
- 2 Tested to 80% of minimum internal yield with freshwater inside, pore pressure outside
- 3 50 bbl kick at TD, 0.50 ppg intensity, 4" drill pipe, 9.0 ppg mud, fracture gradient at shoe
- 4 2060 psi BHP, 687 psi surface pressure, 12.5 ppg EMW shoe integrity
- 5 Surface stimulation pressure of 8000 psi on 8.3 ppg fluid column. Stimulation will be down frac string, so load does not apply to 7" intermediate casing.
- 6 Shock load from abrupt pipe deceleration, evaluated against coupling rating
- 7 Overpull values as follows: Surface casing 20,000 lbs, Intermediate & Production 100,000 lbs

Casing Design Factors

Casing string		Design Factors			
		Burst	Collapse	Axial	Triaxial
Surface	9-5/8"	1.25	13.38	8.16	1.56
Intermediate	7"	1.25	1.50	1.68	1.34
Production liner	4-1/2"	1.37	3.68	1.88	1.69

Cement Design

Additives: A=Accelerator; B=Bond Enhancer; De=Defoamer; Di=Dispersant; Ex=Extender; FI=Fluid Loss L=Lost Circulation; R=Retarder; SA=Suspending Agent; THX=Thixotropic Additive; V=Viscosifier

9-5/8" Surface Casing

Name	Lead
Type	Redi-Mix
Additives	I-II
Planned top	20% Fly Ash
Density (ppg)	Surface
Yield (cf/sx)	14.50
Mix water (gal/sx)	1.61
Volume (sx)	7.41
Volume (bbls)	114
	33

7" Intermediate Casing

Halliburton Name	Lead	Tail
Type	ECONOC	VARICEM
Additives	Poz/G	Poz/G
Planned top	Ex; L, SA	Ex, FI, SA, L, THX
Density (ppg)	Surface	3754-ft
Yield (cf/sx)	12.30	13.50
Mix water (gal/sx)	1.90	1.31
Volume (sx)	10.03	5.81
Volume (bbls)	484	385
	165	90

<u>4-1/2" Production Liner</u>	<u>Lead</u>
Halliburton Name	EXTENDACEM
Type	Poz/G
Additives	B, De, Di, FI, Re, V
Planned top	5494-ft
Density (ppg)	13.3
Yield (cf/sx)	1.36
Mix water (gal/sx)	6.01
Volume (sx)	497
Volume (bbls)	120

Wellhead & Pressure Control

The well head will be an 11" 5M multi-bowl system. A 2M BOPE conforming to Onshore Order #2 will be installed on the surface casing. The BOP and accumulator will meet API 16D and 16E respectively.

A PVT mud monitoring system and a trip tank will be rigged up and operational for all hole intervals. An electronic geolograph will be employed to monitor and record drilling data (ROP, WOB, SPM, Pressure, RPM and torque).

Mud Program

Surface hole will be drilled with a fresh water, native mud system. In intermediate hole, a low weight 7% KCl LSND drilling fluid will be used, with KCl providing chemical stability for the young shales and clays present in the interval. In production hole a LSND system with polymer and lubricant additives is programmed. Sufficient drill water and mud additives will be on hand to maintain adequate pit volumes and maintain well control.

Hole Section	Fluid type	Interval (MD)	Density (ppg)	Funnel Viscosity	Yield Point	Fluid Loss (cc/30 min)
Surface	Fresh water spud mud	0 – 350	8.4 – 8.8	32 – 44	2 – 12	NC
Intermediate	7% KCl Low solids, non-dispersed	350 – 5694	9.0 – 9.5	38 – 45	8 – 14	<20
Production	Low solids, non-dispersed	5694 – 10201	8.8 – 9.2	34 – 38	6 – 8	6 – 8

Cores, tests and logs

Wellbore surveying: Drift (inclination only) surveys will be obtained in surface hole. MWD directional surveys will be taken in intermediate and production hole.

Logging while drilling: None in surface hole. MWD GR in intermediate and production hole.

Mud logging: a two-person mud logging unit with C1 – C4 gas analysis will be operational in intermediate and production hole.

Electric logging: No open hole electric logs are programmed. A cased hole GR/CCL will be run during completions for perforating depth control.

Cuttings and drilling fluids management

A closed loop, steel tank-based circulating system will be used. In addition to the rig solids control equipment, a dewatering centrifuge and chemical flocculation system will be operational to strip solids from the whole mud. All solids will be collected in 3-sided bins and will then be put into transports with a bucket loader. Drying agents will be used if necessary. The solids will be taken to a licensed commercial disposal facility. Whole mud will be dewatered back to drill water and used as make up for subsequent wells or hauled off for disposal. A diagram of the closed loop system is included.

Completion

It is envisioned that this well will be completed with a multi-stage sand frac, using the plug and perf technique. After drilling out the plugs, the current plan is to install a 2-7/8" plunger-assisted gas lift tubing string. The stimulation and completion plan will be sundried at a later date.



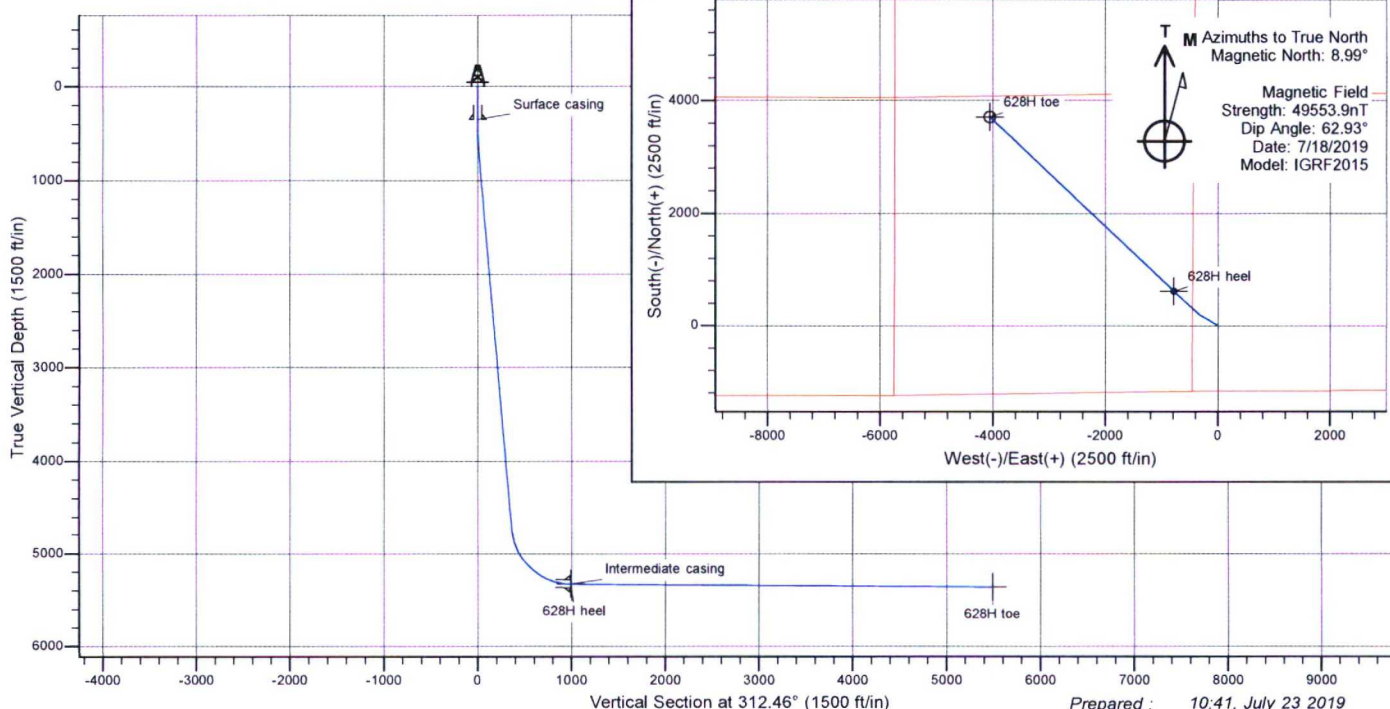
Pad name : M30 2409 pad
Well name : Nageezi Unit #628H

SHL Latitude : 36.28126400
SHL Longitude : -107.73051400

US State Plane 1983
North American Datum 1983
New Mexico Western Zone

TRAJECTORY DETAILS									
Pad elevation : 6801 RIG @ 6826ft (AD #1000)									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
0	0.00	0.00	0	0	0	0.00	0.00	0	
450	0.00	0.00	450	0	0	0.00	0.00	0	
652	5.05	300.75	652	5	-8	2.50	300.75	9	
4763	5.05	300.75	4747	189	-318	0.00	0.00	363	
5704	89.59	313.42	5329	614	-783	9.00	12.73	993	628H heel
10201	89.59	313.42	5361	3705	-4049	0.00	0.00	5489	628H toe

TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
628H heel	5329	614	-783	1922309	2752612	36.28295110	-107.73317230
628H toe	5361	3705	-4049	1925396	2749343	36.29144130	-107.74425460



DJR Operating

**Nageezi Unit
M30 2409 pad
628H**

Original drilling

Plan: APD

Standard Planning Report

23 July, 2019

Planning Report

Database: EDM
Company: DJR Operating
Project: Nageezi Unit
Site: M30 2409 pad
Well: 628H
Wellbore: Original drilling
Design: APD

Local Co-ordinate Reference: Well 628H
TVD Reference: RIG @ 6826ft (AD #1000)
MD Reference: RIG @ 6826ft (AD #1000)
North Reference: True
Survey Calculation Method: Minimum Curvature

Project	Nageezi Unit		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site		M30 2409 pad			
Site Position:		Northing:	1,921,666 usft	Latitude:	36.28118400
From:	Lat/Long	Easting:	2,753,388 usft	Longitude:	-107.73054000
Position Uncertainty:	0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.06 °

Well	628H					
Well Position	+N/-S	29 ft	Northing:	1,921,695 usft	Latitude:	36.28126400
	+E/-W	8 ft	Easting:	2,753,396 usft	Longitude:	-107.73051400
Position Uncertainty		0 ft	Wellhead Elevation:		Ground Level:	6801 ft

Wellbore	Original drilling				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	7/18/2019	8.99	62.93	49,553.87841434

Design	APD			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0	0	0	312.46

Plan Survey Tool Program	Date	7/23/2019		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0	10,201 APD (Original drilling)	MWD+IGRF	
			OWSG MWD + IGRF or WH	

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	0.00	0.00	0	0	0	0.00	0.00	0.00	0.00	
450	0.00	0.00	450	0	0	0.00	0.00	0.00	0.00	
652	5.05	300.75	652	5	-8	2.50	2.50	0.00	300.75	
4763	5.05	300.75	4747	189	-318	0.00	0.00	0.00	0.00	
5704	89.59	313.42	5329	614	-783	9.00	8.99	1.35	12.73	628H heel
10,201	89.59	313.42	5361	3705	-4049	0.00	0.00	0.00	0.00	628H toe

Planning Report

Database: EDM
Company: DJR Operating
Project: Nageezi Unit
Site: M30 2409 pad
Well: 628H
Wellbore: Original drilling
Design: APD

Local Co-ordinate Reference: Well 628H
TVD Reference: RIG @ 6826ft (AD #1000)
MD Reference: RIG @ 6826ft (AD #1000)
North Reference: True
Survey Calculation Method: Minimum Curvature

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	0.00	0.00	0	0	0	0	0.00	0.00	0.00
100	0.00	0.00	100	0	0	0	0.00	0.00	0.00
200	0.00	0.00	200	0	0	0	0.00	0.00	0.00
300	0.00	0.00	300	0	0	0	0.00	0.00	0.00
350	0.00	0.00	350	0	0	0	0.00	0.00	0.00
Surface casing									
400	0.00	0.00	400	0	0	0	0.00	0.00	0.00
450	0.00	0.00	450	0	0	0	0.00	0.00	0.00
500	1.25	300.75	500	0	0	1	2.50	2.50	0.00
600	3.75	300.75	600	3	-4	5	2.50	2.50	0.00
652	5.05	300.75	652	5	-8	9	2.50	2.50	0.00
700	5.05	300.75	700	7	-11	13	0.00	0.00	0.00
800	5.05	300.75	799	11	-19	21	0.00	0.00	0.00
900	5.05	300.75	899	16	-26	30	0.00	0.00	0.00
918	5.05	300.75	917	17	-28	32	0.00	0.00	0.00
Ojo Alamo									
1000	5.05	300.75	998	20	-34	39	0.00	0.00	0.00
1055	5.05	300.75	1053	23	-38	43	0.00	0.00	0.00
Kirtland									
1100	5.05	300.75	1098	25	-42	47	0.00	0.00	0.00
1200	5.05	300.75	1198	29	-49	56	0.00	0.00	0.00
1300	5.05	300.75	1297	34	-57	65	0.00	0.00	0.00
1400	5.05	300.75	1397	38	-64	73	0.00	0.00	0.00
1436	5.05	300.75	1433	40	-67	76	0.00	0.00	0.00
Fruitland									
1500	5.05	300.75	1496	43	-72	82	0.00	0.00	0.00
1600	5.05	300.75	1596	47	-79	90	0.00	0.00	0.00
1648	5.05	300.75	1644	49	-83	94	0.00	0.00	0.00
Picture Cliffs									
1700	5.05	300.75	1696	52	-87	99	0.00	0.00	0.00
1750	5.05	300.75	1745	54	-91	103	0.00	0.00	0.00
Lewis									
1800	5.05	300.75	1795	56	-94	108	0.00	0.00	0.00
1900	5.05	300.75	1895	61	-102	116	0.00	0.00	0.00
2000	5.05	300.75	1995	65	-110	125	0.00	0.00	0.00
2100	5.05	300.75	2094	70	-117	133	0.00	0.00	0.00
2200	5.05	300.75	2194	74	-125	142	0.00	0.00	0.00
2300	5.05	300.75	2293	79	-132	151	0.00	0.00	0.00
2400	5.05	300.75	2393	83	-140	159	0.00	0.00	0.00
2488	5.05	300.75	2481	87	-146	167	0.00	0.00	0.00
Chacra									
2500	5.05	300.75	2493	88	-147	168	0.00	0.00	0.00
2600	5.05	300.75	2592	92	-155	176	0.00	0.00	0.00
2700	5.05	300.75	2692	97	-162	185	0.00	0.00	0.00
2800	5.05	300.75	2791	101	-170	194	0.00	0.00	0.00
2900	5.05	300.75	2891	106	-178	202	0.00	0.00	0.00
3000	5.05	300.75	2991	110	-185	211	0.00	0.00	0.00
3100	5.05	300.75	3090	115	-193	220	0.00	0.00	0.00
3190	5.05	300.75	3180	119	-199	227	0.00	0.00	0.00
Menefee									
3200	5.05	300.75	3190	119	-200	228	0.00	0.00	0.00
3300	5.05	300.75	3289	124	-208	237	0.00	0.00	0.00
3400	5.05	300.75	3389	128	-215	245	0.00	0.00	0.00

Planning Report

Database: EDM
Company: DJR Operating
Project: Nageezi Unit
Site: M30 2409 pad
Well: 628H
Wellbore: Original drilling
Design: APD

Local Co-ordinate Reference: Well 628H
TVD Reference: RIG @ 6826ft (AD #1000)
MD Reference: RIG @ 6826ft (AD #1000)
North Reference: True
Survey Calculation Method: Minimum Curvature

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)
3500	5.05	300.75	3489	133	-223	254	0.00	0.00	0.00
3600	5.05	300.75	3588	137	-230	263	0.00	0.00	0.00
3700	5.05	300.75	3688	142	-238	271	0.00	0.00	0.00
3800	5.05	300.75	3788	146	-246	280	0.00	0.00	0.00
3900	5.05	300.75	3887	151	-253	288	0.00	0.00	0.00
4000	5.05	300.75	3987	155	-261	297	0.00	0.00	0.00
4084	5.05	300.75	4070	159	-267	304	0.00	0.00	0.00
Point Lookout									
4100	5.05	300.75	4086	160	-268	306	0.00	0.00	0.00
4200	5.05	300.75	4186	164	-276	314	0.00	0.00	0.00
4254	5.05	300.75	4240	167	-280	319	0.00	0.00	0.00
Mancos									
4300	5.05	300.75	4286	169	-283	323	0.00	0.00	0.00
4400	5.05	300.75	4385	173	-291	331	0.00	0.00	0.00
4500	5.05	300.75	4485	178	-299	340	0.00	0.00	0.00
4595	5.05	300.75	4579	182	-306	348	0.00	0.00	0.00
Mancos Silt									
4600	5.05	300.75	4584	182	-306	349	0.00	0.00	0.00
4700	5.05	300.75	4684	187	-314	357	0.00	0.00	0.00
4763	5.05	300.75	4747	189	-318	363	0.00	0.00	0.00
4800	8.30	305.79	4784	192	-322	367	9.00	8.87	13.76
4850	12.77	308.52	4833	197	-329	376	9.00	8.95	5.47
4900	17.26	309.85	4881	206	-339	389	9.00	8.97	2.66
4950	21.75	310.65	4928	216	-352	406	9.00	8.98	1.59
5000	26.25	311.18	4974	230	-367	426	9.00	8.99	1.06
5050	30.74	311.56	5018	245	-385	450	9.00	8.99	0.77
5100	35.24	311.86	5060	264	-406	477	9.00	8.99	0.59
5104	35.61	311.88	5063	265	-407	479	9.00	8.99	0.52
Gallup A									
5143	39.12	312.07	5094	281	-425	503	9.00	9.00	0.47
Gallup B									
5150	39.74	312.10	5099	284	-428	507	9.00	9.00	0.43
5200	44.23	312.29	5136	306	-453	541	9.00	9.00	0.39
5250	48.73	312.46	5171	331	-480	577	9.00	9.00	0.33
5300	53.23	312.60	5202	357	-508	616	9.00	9.00	0.29
5311	54.25	312.63	5209	363	-515	625	9.00	9.00	0.27
Gallup C									
5350	57.73	312.73	5231	385	-539	657	9.00	9.00	0.25
5400	62.23	312.85	5256	414	-570	700	9.00	9.00	0.23
5450	66.73	312.95	5277	445	-603	746	9.00	9.00	0.21
5500	71.23	313.05	5295	477	-638	792	9.00	9.00	0.20
5550	75.73	313.15	5309	510	-672	840	9.00	9.00	0.19
5600	80.22	313.24	5320	543	-708	889	9.00	9.00	0.18
5650	84.72	313.33	5326	577	-744	939	9.00	9.00	0.18
5694	88.68	313.41	5329	607	-776	983	9.00	9.00	0.18
Intermediate casing									
5704	89.59	313.42	5329	614	-783	993	9.00	9.00	0.17
Target - 628H heel									
5800	89.59	313.42	5330	680	-853	1088	0.00	0.00	0.00
5900	89.59	313.42	5330	749	-926	1188	0.00	0.00	0.00
6000	89.59	313.42	5331	818	-998	1288	0.00	0.00	0.00
6100	89.59	313.42	5332	886	-1071	1388	0.00	0.00	0.00
6200	89.59	313.42	5333	955	-1144	1488	0.00	0.00	0.00

Planning Report

Database: EDM
Company: DJR Operating
Project: Nageezi Unit
Site: M30 2409 pad
Well: 628H
Wellbore: Original drilling
Design: APD

Local Co-ordinate Reference: Well 628H
TVD Reference: RIG @ 6826ft (AD #1000)
MD Reference: RIG @ 6826ft (AD #1000)
North Reference: True
Survey Calculation Method: Minimum Curvature

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)
6300	89.59	313.42	5333	1024	-1216	1588	0.00	0.00	0.00
6400	89.59	313.42	5334	1093	-1289	1688	0.00	0.00	0.00
6500	89.59	313.42	5335	1161	-1362	1788	0.00	0.00	0.00
6600	89.59	313.42	5335	1230	-1434	1888	0.00	0.00	0.00
6700	89.59	313.42	5336	1299	-1507	1988	0.00	0.00	0.00
6800	89.59	313.42	5337	1367	-1579	2088	0.00	0.00	0.00
6900	89.59	313.42	5338	1436	-1652	2188	0.00	0.00	0.00
7000	89.59	313.42	5338	1505	-1725	2288	0.00	0.00	0.00
7100	89.59	313.42	5339	1574	-1797	2388	0.00	0.00	0.00
7200	89.59	313.42	5340	1642	-1870	2488	0.00	0.00	0.00
7300	89.59	313.42	5340	1711	-1943	2588	0.00	0.00	0.00
7400	89.59	313.42	5341	1780	-2015	2688	0.00	0.00	0.00
7500	89.59	313.42	5342	1849	-2088	2788	0.00	0.00	0.00
7600	89.59	313.42	5342	1917	-2160	2888	0.00	0.00	0.00
7700	89.59	313.42	5343	1986	-2233	2988	0.00	0.00	0.00
7800	89.59	313.42	5344	2055	-2306	3088	0.00	0.00	0.00
7900	89.59	313.42	5345	2124	-2378	3188	0.00	0.00	0.00
8000	89.59	313.42	5345	2192	-2451	3288	0.00	0.00	0.00
8100	89.59	313.42	5346	2261	-2524	3388	0.00	0.00	0.00
8200	89.59	313.42	5347	2330	-2596	3488	0.00	0.00	0.00
8300	89.59	313.42	5347	2399	-2669	3588	0.00	0.00	0.00
8400	89.59	313.42	5348	2467	-2741	3688	0.00	0.00	0.00
8500	89.59	313.42	5349	2536	-2814	3788	0.00	0.00	0.00
8600	89.59	313.42	5350	2605	-2887	3888	0.00	0.00	0.00
8700	89.59	313.42	5350	2673	-2959	3988	0.00	0.00	0.00
8800	89.59	313.42	5351	2742	-3032	4088	0.00	0.00	0.00
8900	89.59	313.42	5352	2811	-3105	4188	0.00	0.00	0.00
9000	89.59	313.42	5352	2880	-3177	4288	0.00	0.00	0.00
9100	89.59	313.42	5353	2948	-3250	4388	0.00	0.00	0.00
9200	89.59	313.42	5354	3017	-3322	4488	0.00	0.00	0.00
9300	89.59	313.42	5355	3086	-3395	4588	0.00	0.00	0.00
9400	89.59	313.42	5355	3155	-3468	4688	0.00	0.00	0.00
9500	89.59	313.42	5356	3223	-3540	4788	0.00	0.00	0.00
9600	89.59	313.42	5357	3292	-3613	4888	0.00	0.00	0.00
9700	89.59	313.42	5357	3361	-3686	4988	0.00	0.00	0.00
9800	89.59	313.42	5358	3430	-3758	5088	0.00	0.00	0.00
9900	89.59	313.42	5359	3498	-3831	5188	0.00	0.00	0.00
10,000	89.59	313.42	5360	3567	-3903	5288	0.00	0.00	0.00
10,100	89.59	313.42	5360	3636	-3976	5388	0.00	0.00	0.00
10,201	89.59	313.42	5361	3705	-4049	5489	0.00	0.00	0.00

628H toe

Planning Report

Database: EDM
Company: DJR Operating
Project: Nageezi Unit
Site: M30 2409 pad
Well: 628H
Wellbore: Original drilling
Design: APD

Local Co-ordinate Reference: Well 628H
TVD Reference: RIG @ 6826ft (AD #1000)
MD Reference: RIG @ 6826ft (AD #1000)
North Reference: True
Survey Calculation Method: Minimum Curvature

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
628H heel - plan hits target center - Circle (radius 50)	0.00	0.00	5329	614	-783	1,922,309	2,752,612	36.28295110	-107.73317230
628H toe - plan hits target center - Circle (radius 100)	0.00	0.00	5361	3705	-4049	1,925,396	2,749,343	36.29144130	-107.74425460

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
350	350	Surface casing	9.625	12.250
5694	5329	Intermediate casing	7.000	8.750

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
918	917	Ojo Alamo		0.00	
1055	1053	Kirtland		0.00	
1436	1433	Fruitland		0.00	
1648	1644	Picture Cliffs		0.00	
1750	1745	Lewis		0.00	
2488	2481	Chacra		0.00	
3190	3180	Menefee		0.00	
4084	4070	Point Lookout		0.00	
4254	4240	Mancos		0.00	
4595	4579	Mancos Silt		0.00	
5104	5063	Gallup A		0.00	
5143	5094	Gallup B		0.00	
5311	5209	Gallup C		0.00	
5704	5329	Target		0.00	

DJR Operating

**Nageezi Unit
M30 2409 pad
628H**

**Original drilling
APD**

Anticollision Report

23 July, 2019

Anticollision Report

Company: DJR Operating
Project: Nageezi Unit
Reference Site: M30 2409 pad
Site Error: 0 ft
Reference Well: 628H
Well Error: 0 ft
Reference Wellbore: Original drilling
Reference Design: APD

Local Co-ordinate Reference: Well 628H
TVD Reference: RIG @ 6826ft (AD #1000)
MD Reference: RIG @ 6826ft (AD #1000)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM
Offset TVD Reference: Offset Datum

Reference	APD
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	Stations
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 10,000 ft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Survey Tool Program		Date	7/23/2019		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0	10,201	APD (Original drilling)	MWD+IGRF	OWSG MWD + IGRF or WMM	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
M30 2409 pad						
627H - Original drilling - APD	402	402	30	28	12.384	CC
627H - Original drilling - APD	450	450	30	27	10.904	ES
627H - Original drilling - APD	10,201	10,966	1267	991	4.592	SF

Offset Design													M30 2409 pad - 627H - Original drilling - APD		Offset Site Error:		0 ft
Survey Program: 0-MWD+IGRF															Offset Well Error:		0 ft
Reference		Offset		Semi Major Axis			Distance										
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning				
0	0	0	0	0	0	-165.26	-29	-8	30								
100	100	100	100	0	0	-165.26	-29	-8	30	30	0.27	112.007					
200	200	200	200	0	0	-165.26	-29	-8	30	29	0.99	30.547					
300	300	300	300	1	1	-165.26	-29	-8	30	28	1.70	17.685					
400	400	400	400	1	1	-165.26	-29	-8	30	28	2.42	12.445					
402	402	402	402	1	1	-165.26	-29	-8	30	28	2.43	12.384	CC				
450	450	450	450	1	1	-165.18	-29	-8	30	27	2.77	10.904	ES				
500	500	499	499	2	2	-106.28	-30	-8	31	28	3.12	10.068					
600	600	597	597	2	2	-109.99	-35	-11	38	34	3.81	9.939					
652	652	648	648	2	2	-112.62	-38	-13	43	39	4.18	10.403					
700	700	695	694	2	2	-114.67	-43	-16	50	45	4.51	11.040					
800	799	791	790	3	3	-116.29	-54	-23	66	61	5.22	12.639					
900	899	887	884	3	3	-115.97	-69	-32	86	80	5.93	14.473					
1000	998	980	975	3	3	-114.81	-86	-43	109	103	6.63	16.467					
1100	1098	1072	1064	4	4	-113.35	-106	-55	136	129	7.32	18.588					
1200	1198	1166	1154	4	4	-111.95	-129	-70	166	158	8.05	20.570					
1300	1297	1262	1245	5	5	-110.94	-153	-84	195	187	8.81	22.173					
1400	1397	1357	1337	5	6	-110.19	-176	-99	225	216	9.58	23.510					
1500	1496	1453	1428	5	6	-109.62	-199	-113	255	245	10.34	24.642					
1600	1596	1548	1519	6	7	-109.17	-223	-128	285	274	11.12	25.610					
1700	1696	1644	1611	6	7	-108.81	-246	-142	314	303	11.89	26.447					
1800	1795	1739	1702	7	8	-108.51	-269	-157	344	332	12.67	27.176					
1900	1895	1834	1794	7	9	-108.25	-293	-171	374	361	13.45	27.817					
2000	1995	1930	1885	7	9	-108.04	-316	-186	404	390	14.23	28.385					

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: DJR Operating
Project: Nageezi Unit
Reference Site: M30 2409 pad
Site Error: 0 ft
Reference Well: 628H
Well Error: 0 ft
Reference Wellbore: Original drilling
Reference Design: APD

Local Co-ordinate Reference: Well 628H
TVD Reference: RIG @ 6826ft (AD #1000)
MD Reference: RIG @ 6826ft (AD #1000)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM
Offset TVD Reference: Offset Datum

Offset Design M30 2409 pad - 627H - Original drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Separation Factor		Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
2100	2094	2025	1976	8	10	-107.85	-339	-200	434	419	15.01	28.891		
2200	2194	2121	2068	8	10	-107.69	-363	-215	464	448	15.80	29.345		
2300	2293	2216	2159	8	11	-107.54	-386	-229	493	477	16.58	29.754		
2400	2393	2312	2251	9	12	-107.42	-410	-244	523	506	17.37	30.125		
2500	2493	2407	2342	9	12	-107.30	-433	-258	553	535	18.16	30.462		
2600	2592	2502	2433	10	13	-107.20	-456	-273	583	564	18.95	30.770		
2700	2692	2598	2525	10	14	-107.11	-480	-287	613	593	19.74	31.052		
2800	2791	2693	2616	10	14	-107.03	-503	-302	643	622	20.53	31.312		
2900	2891	2789	2708	11	15	-106.95	-526	-316	673	651	21.32	31.552		
3000	2991	2884	2799	11	15	-106.88	-550	-331	702	680	22.11	31.775		
3100	3090	2980	2890	12	16	-106.82	-573	-345	732	709	22.90	31.981		
3200	3190	3075	2982	12	17	-106.76	-596	-360	762	738	23.69	32.173		
3300	3289	3171	3073	12	17	-106.71	-620	-374	792	767	24.48	32.352		
3400	3389	3266	3164	13	18	-106.66	-643	-388	822	797	25.27	32.520		
3500	3489	3361	3256	13	19	-106.61	-667	-403	852	826	26.06	32.677		
3600	3588	3457	3347	14	19	-106.57	-690	-417	882	855	26.86	32.824		
3700	3688	3552	3439	14	20	-106.53	-713	-432	911	884	27.65	32.963		
3800	3788	3648	3530	14	20	-106.49	-737	-446	941	913	28.44	33.093		
3900	3887	3743	3621	15	21	-106.45	-760	-461	971	942	29.24	33.217		
4000	3987	3839	3713	15	22	-106.42	-783	-475	1001	971	30.03	33.333		
4100	4086	3934	3804	16	22	-106.39	-807	-490	1031	1000	30.82	33.443		
4200	4186	4029	3896	16	23	-106.36	-830	-504	1061	1029	31.62	33.548		
4300	4286	4125	3987	16	24	-106.33	-853	-519	1091	1058	32.41	33.647		
4400	4385	4220	4078	17	24	-106.30	-877	-533	1120	1087	33.20	33.742		
4500	4485	4316	4170	17	25	-106.28	-900	-548	1150	1116	34.00	33.831		
4600	4584	4411	4261	18	25	-106.25	-924	-562	1180	1145	34.79	33.917		
4700	4684	4507	4353	18	26	-106.23	-947	-577	1210	1174	35.59	33.998		
4763	4747	4567	4410	18	27	-106.22	-962	-586	1229	1193	36.09	34.048		
4800	4784	4602	4444	18	27	-110.31	-970	-591	1240	1204	36.39	34.080		
4850	4833	4649	4489	19	27	-111.74	-982	-598	1257	1221	36.84	34.135		
4900	4881	4694	4532	19	27	-111.74	-993	-605	1276	1239	37.31	34.205		
4950	4928	4739	4575	19	28	-111.16	-1004	-612	1297	1259	37.81	34.290		
5000	4974	4782	4616	19	28	-110.26	-1014	-619	1319	1280	38.34	34.388		
5050	5018	4924	4762	20	33	-95.01	-682	-1262	1308	1266	42.20	30.989		
5100	5060	4952	4804	20	33	-95.09	-663	-1282	1299	1255	43.38	29.938		
5150	5099	4982	4835	21	34	-94.89	-642	-1304	1291	1246	44.58	28.960		
5200	5136	5016	4905	21	34	-94.47	-619	-1328	1285	1239	45.85	28.023		
5250	5171	5052	4945	21	34	-93.90	-594	-1355	1280	1233	47.20	27.123		
5300	5202	5091	4984	22	35	-93.22	-567	-1383	1277	1228	48.57	26.284		
5350	5231	5133	5036	23	35	-92.48	-539	-1413	1274	1224	50.06	25.451		
5400	5256	5176	5076	23	36	-91.73	-509	-1445	1272	1221	51.58	24.665		
5450	5277	5222	5126	24	36	-91.01	-477	-1478	1271	1218	53.19	23.898		
5500	5295	5268	5157	25	37	-90.36	-445	-1511	1271	1216	54.87	23.155		
5550	5309	5316	5167	25	37	-89.82	-412	-1546	1270	1213	56.73	22.390		
5600	5320	5365	5177	26	38	-89.41	-379	-1582	1270	1211	58.58	21.682		
5650	5326	5415	5188	27	39	-89.15	-344	-1618	1270	1210	60.10	21.131		
5704	5329	5469	5199	28	40	-89.06	-307	-1657	1270	1208	62.07	20.458		
5800	5330	5565	5209	30	41	-89.05	-241	-1727	1270	1204	65.84	19.287		
5900	5330	5665	5219	32	43	-89.05	-173	-1799	1270	1200	69.84	18.181		
6000	5331	5765	5229	34	45	-89.05	-104	-1872	1270	1196	73.97	17.166		
6100	5332	5865	5239	36	47	-89.05	-35	-1944	1270	1191	78.19	16.237		
6200	5333	5965	5249	38	49	-89.05	34	-2017	1270	1187	82.51	15.386		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: DJR Operating
 Project: Nageezi Unit
 Reference Site: M30 2409 pad
 Site Error: 0 ft
 Reference Well: 628H
 Well Error: 0 ft
 Reference Wellbore: Original drilling
 Reference Design: APD

Local Co-ordinate Reference: Well 628H
 TVD Reference: RIG @ 6826ft (AD #1000)
 MD Reference: RIG @ 6826ft (AD #1000)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM
 Offset TVD Reference: Offset Datum

Offset Design M30 2409 pad - 627H - Original drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
6300	5333	7065	5312	40	51	-89.05		103	-2090	1269	1183	86.91	14.607	
6400	5334	7165	5313	42	53	-89.05		171	-2162	1269	1178	91.37	13.892	
6500	5335	7265	5314	44	55	-89.05		240	-2235	1269	1173	95.89	13.237	
6600	5335	7365	5314	47	57	-89.05		309	-2307	1269	1169	100.46	12.634	
6700	5336	7465	5315	49	59	-89.05		378	-2380	1269	1164	105.07	12.079	
6800	5337	7565	5316	51	61	-89.05		447	-2452	1269	1159	109.72	11.567	
6900	5338	7665	5316	54	64	-89.04		515	-2525	1269	1155	114.40	11.093	
7000	5338	7765	5317	56	66	-89.04		584	-2598	1269	1150	119.10	10.854	
7100	5339	7865	5318	58	68	-89.04		653	-2670	1269	1145	123.84	10.246	
7200	5340	7965	5318	61	71	-89.04		722	-2743	1269	1140	128.59	9.867	
7300	5340	8065	5319	63	73	-89.04		791	-2815	1269	1135	133.37	9.513	
7400	5341	8165	5320	65	75	-89.04		859	-2888	1269	1131	138.16	9.183	
7500	5342	8265	5321	68	78	-89.04		928	-2960	1269	1126	142.97	8.873	
7600	5342	8365	5321	70	80	-89.04		997	-3033	1269	1121	147.80	8.583	
7700	5343	8465	5322	73	82	-89.04		1066	-3106	1268	1116	152.63	8.310	
7800	5344	8565	5323	75	85	-89.04		1134	-3178	1268	1111	157.48	8.054	
7900	5345	8665	5323	77	87	-89.04		1203	-3251	1268	1106	162.34	7.813	
8000	5345	8765	5324	80	89	-89.04		1272	-3323	1268	1101	167.21	7.585	
8100	5346	8865	5325	82	92	-89.03		1341	-3396	1268	1096	172.09	7.369	
8200	5347	8965	5325	85	94	-89.03		1410	-3469	1268	1091	176.98	7.185	
8300	5347	9065	5326	87	97	-89.03		1478	-3541	1268	1086	181.87	6.972	
8400	5346	9165	5327	90	99	-89.03		1547	-3614	1268	1081	186.78	6.789	
8500	5349	9265	5327	92	101	-89.03		1616	-3686	1268	1076	191.68	6.614	
8600	5350	9365	5328	95	104	-89.03		1685	-3759	1268	1071	196.60	6.449	
8700	5350	9465	5329	97	106	-89.03		1754	-3831	1268	1066	201.52	6.291	
8800	5351	9565	5330	99	109	-89.03		1822	-3904	1268	1061	206.44	6.140	
8900	5352	9665	5330	102	111	-89.03		1891	-3977	1268	1056	211.37	5.997	
9000	5352	9765	5331	104	113	-89.03		1960	-4049	1268	1051	216.31	5.860	
9100	5353	9865	5332	107	116	-89.03		2029	-4122	1267	1046	221.25	5.729	
9200	5354	9965	5332	109	118	-89.03		2098	-4194	1267	1041	226.19	5.603	
9300	5355	10,065	5333	112	121	-89.02		2166	-4267	1267	1036	231.13	5.483	
9400	5355	10,165	5334	114	123	-89.02		2235	-4339	1267	1031	236.08	5.368	
9500	5356	10,265	5334	117	126	-89.02		2304	-4412	1267	1026	241.04	5.257	
9600	5357	10,365	5335	119	128	-89.02		2373	-4485	1267	1021	245.99	5.151	
9700	5357	10,465	5336	122	131	-89.02		2442	-4557	1267	1016	250.95	5.049	
9800	5358	10,565	5336	124	133	-89.02		2510	-4630	1267	1011	255.91	4.951	
9900	5359	10,665	5337	127	136	-89.02		2579	-4702	1267	1006	260.87	4.856	
10,000	5360	10,765	5338	129	138	-89.02		2648	-4775	1267	1001	265.84	4.765	
10,100	5360	10,865	5339	132	140	-89.02		2717	-4847	1267	996	270.81	4.678	
10,201	5361	10,966	5339	134	143	-89.02		2786	-4921	1267	991	275.82	4.592 SF	

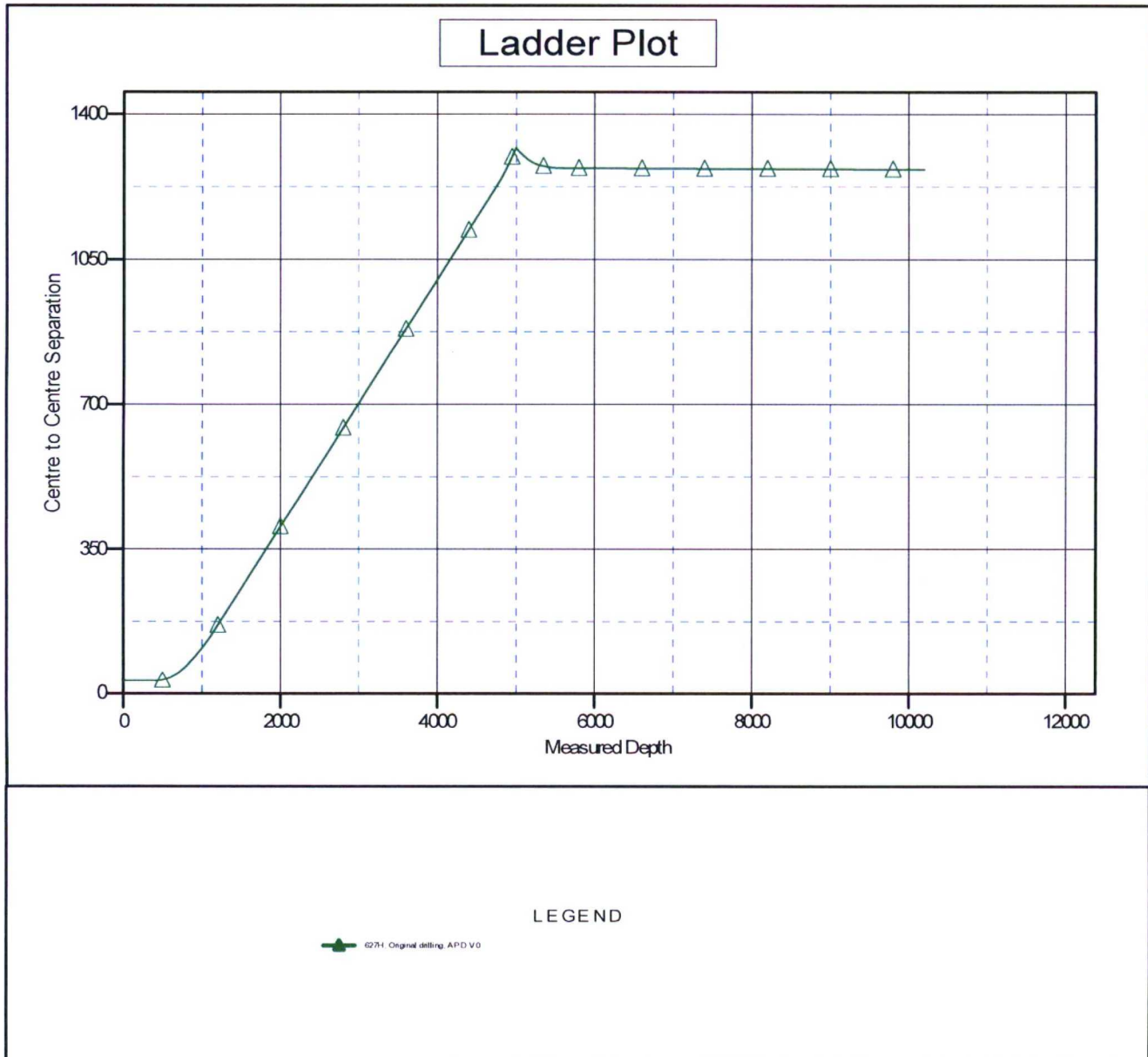
Anticollision Report

Company: DJR Operating
Project: Nageezi Unit
Reference Site: M30 2409 pad
Site Error: 0 ft
Reference Well: 628H
Well Error: 0 ft
Reference Wellbore: Original drilling
Reference Design: APD

Local Co-ordinate Reference: Well 628H
TVD Reference: RIG @ 6826ft (AD #1000)
MD Reference: RIG @ 6826ft (AD #1000)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM
Offset TVD Reference: Offset Datum

Reference Depths are relative to RIG @ 6826ft (AD #1000)
Offset Depths are relative to Offset Datum
Central Meridian is -107.83333333

Coordinates are relative to: 628H
Coordinate System is US State Plane 1983, New Mexico Western Zone
Grid Convergence at Surface is: 0.06°



Anticollision Report

Company: DJR Operating
Project: Nageezi Unit
Reference Site: M30 2409 pad
Site Error: 0 ft
Reference Well: 628H
Well Error: 0 ft
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Output errors are at 2.00 sigma
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Reference Depths are relative to RIG @ 6826ft (AD #1000)
Offset Depths are relative to Offset Datum
Central Meridian is -107.8333333

Coordinates are relative to: 628H
Coordinate System is US State Plane 1983, New Mexico Western Zone
Grid Convergence at Surface is: 0.06°

