

Form 3160-3
(June 2015)FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☐ DRILL ☐ REENTER		5. Lease Serial No.
1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator		8. Lease Name and Well No.
3a. Address		9. API Well No. 30-045-38369
3b. Phone No. (include area code)		10. Field and Pool, or Exploratory
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area
14. Distance in miles and direction from nearest town or post office*		12. County or Parish
		13. State
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be requested by the BLM. |

25. Signature	Name (Printed/Typed)	Date
Title		
Approved by (Signature)	Name (Printed/Typed)	Date
Title	Office	

Application approval 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.
Conditions of approval, if any, are attached.

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.

(Continued on page 2)

*(Instructions on page 2)



Approval Date: 08/12/2024

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024	
		Submittal Type:	☒ Initial Submittal ☐ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number 30-045-38369	Pool Code 98080	Pool Name NAGEEZI UNIT; MANCOS (OIL)
Property Code 325268	Property Name NAGEEZI UNIT	Well Number 732H
OGRID No. 371838	Operator Name DJR OPERATING, LLC	Ground Level Elevation 6711'
Surface Owner: ☐ State ☐ Fee ☒ Tribal ☐ Federal		Mineral Owner: ☐ State ☐ Fee ☒ Tribal ☒ Federal

Surface Location (SHL)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
P	4	23N	9W		1134' SOUTH	71' EAST	36.251880° N	107.785611° W	SAN JUAN

Bottom Hole Location (BHL)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
L	33	24N	9W		1462' SOUTH	339' WEST	36.267275° N	107.802118° W	SAN JUAN

Dedicated Acres PENETRATED SPACING UNIT; SEC 3: NW/SW & SW/SW (80 AC.); SEC 4: SE/SE, NE/SE, NW/SE, SE/NE, SW/NE, LOT 2, SE/NW, LOT 3 & LOT 4 (362.91 AC.); SEC 33: SE/SW, SW/SW & NW/SW (120 AC.) = 562.91 ACRES	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N) N	Consolidation Code
Order Numbers:	Well Setbacks are under Common Ownership: ☐ Yes ☐ No			

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
I	4	23N	9W		1561' SOUTH	136' EAST	36.253053° N	107.785830° W	SAN JUAN

Fist Take Point (FTP)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
I	4	23N	9W		1561' SOUTH	136' EAST	36.253053° N	107.785830° W	SAN JUAN

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
L	33	24N	9W		1462' SOUTH	339' WEST	36.267275° N	107.802118° W	SAN JUAN

Unitized Area or Area of Uniform Interest NAGEEZI	Spacing Unit Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation
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OPERATOR CERTIFICATIONS

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, 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 a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Shaw-Marie Ford
Signature

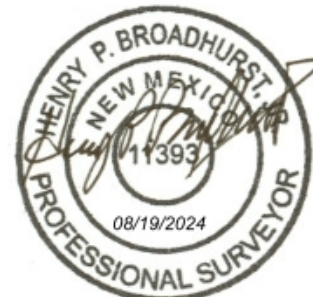
8/28/2024
Date

Shaw-Marie Ford
Printed Name

sford@enduringresources.com
E-mail Address

SURVEYOR CERTIFICATIONS

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.

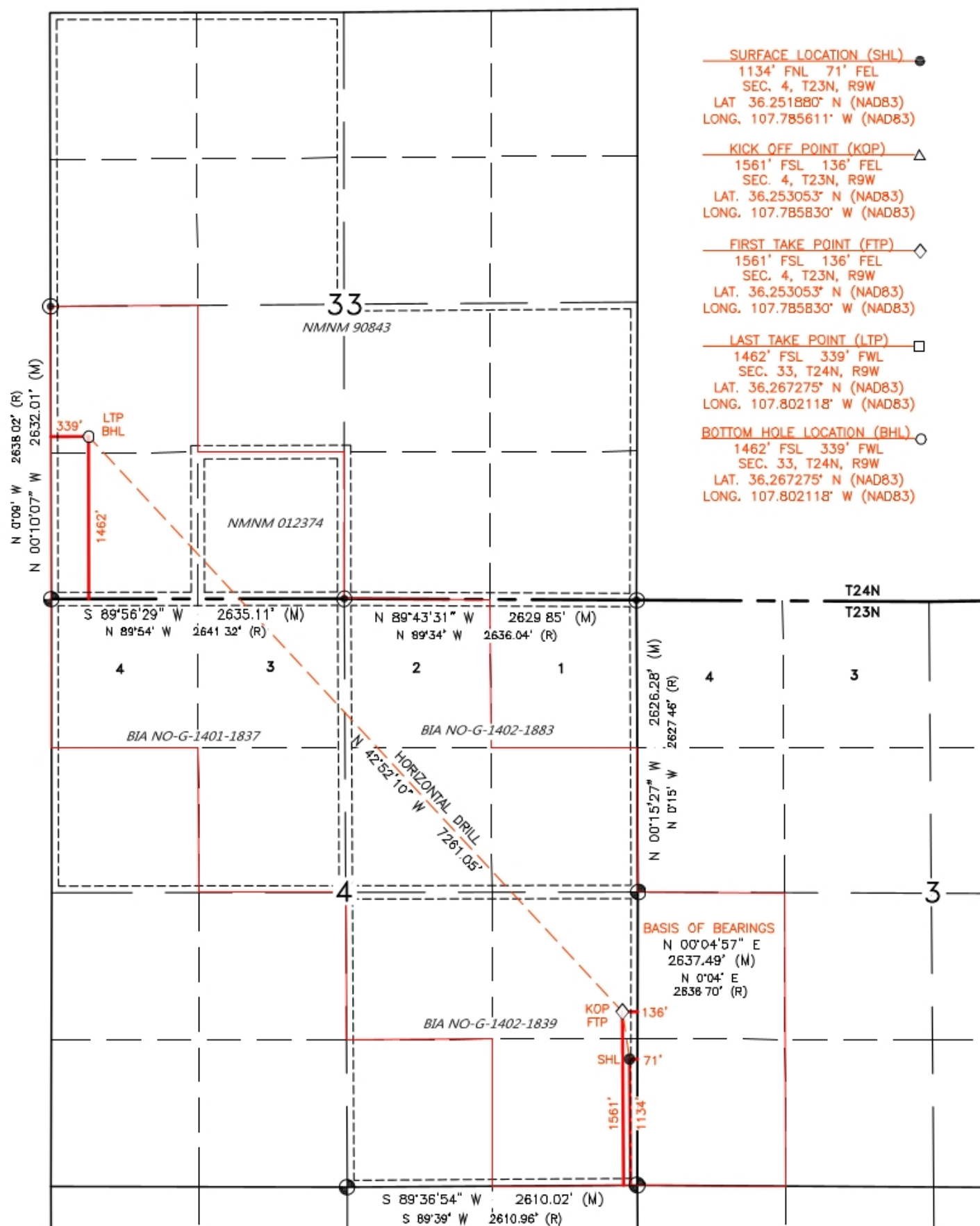


Signature and Seal of Professional Surveyor:

Certificate Number 11393	Date of Survey MARCH 24, 2023
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Note: 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.

© FND 2½" BC
GLO 1933



State of New Mexico
Energy, Minerals and Natural Resources Department

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

Submit Electronically
Via E-permitting

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: DJR Operating, LLC OGRID: 371838 Date: 08 / 19 / 2024

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe:

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
NAGEEZI UNIT 701H	TBD	P-04-23N-09W	1135 FSL x 131 FEL	185	47	46
NAGEEZI UNIT 704H	TBD	P-04-23N-09W	1134 FSL x 111 FEL	200	51	50
NAGEEZI UNIT 732H	TBD	P-04-23N-09W	1134 FSL x 71 FEL	225	58	56
NAGEEZI UNIT 733H	TBD	P-04-23N-09W	1134 FSL x 91 FEL	194	50	48

IV. Central Delivery Point Name: Chaco Processing Plant [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
NAGEEZI UNIT 701H	TBD	12/27/2024	1/6/2025	2/13/2025	2/28/2025	3/2/2025
NAGEEZI UNIT 704H	TBD	1/4/2025	1/14/2025	2/13/2025	3/4/2025	3/6/2025
NAGEEZI UNIT 732H	TBD	1/13/2025	1/23/2025	2/13/2025	3/9/2025	3/11/2025
NAGEEZI UNIT 733H	TBD	1/21/2025	1/31/2025	2/13/2025	3/14/2025	3/16/2025

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator’s best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan**EFFECTIVE APRIL 1, 2022**

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

If Operator checks this box, Operator will select one of the following:

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:
Printed Name: Shaw-Marie Ford
Title: Regulatory Specialist
E-mail Address: sford@enduringresources.com
Date: 8/19/2024
Phone: 505-716-3297
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:



DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
Nageezi Unit 701H, 704H, 732H, and 733H
SESE P-04-23N-09W

SEPARATION EQUIPMENT

DJR Operating, LLC (DJR) has pulled representative pressurized samples from wells in the same producing formation. DJR has utilized these samples in process simulations to determine the amount of gas anticipated in each stage of the process and utilized this information with a safety factor to size the equipment listed below:

Separation equipment will be set as follows:

- Individual 3-phase separator will be set for the individual well.
- The separator will be sized based on the anticipated volume of the well and the pressure of the lines utilized for oil, gas, and water takeaway.
- The 3-phase production separator will be equipped with a 0.75 MMBtu/hr indirect fired heater.

Heater treaters will be set as follows:

- Individual heater treaters will be set for the individual well.
- The heater treaters are sized based on the anticipated combined volume of oil and produced water predicted to come from the initial 3-phase separator.
- Oil will be separated from the produced water and the oil/produced water will be sent to its respective tanks.
- The combined oil and natural gas stream is routed to the Vapor Recovery Tower.

Vapor Recovery Equipment will be set as follows:

- The Vapor Recovery Tower has been sized, based on the anticipated volume of gas from the heater treater and oil and water tanks.
- The Vapor Recovery Unit has been sized, based on the anticipated volume of gas from the heater treater and oil and water tanks. The Vapor Recovery Unit is utilized to push the recovered gas into the sales pipeline.

Production storage tanks will be set as follows:

- The oil and produced water tanks utilize a closed vent capture system to ensure all breathing, working, and flashing losses are routed to the Vapor Recovery Tower and Vapor Recovery Unit.
- Each of the production storage tanks will be equipped with a 0.5 MMBtu/hr indirect heater.



DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
Nageezi Unit 701H, 704H, 732H, and 733H
SESE P-04-23N-09W

VENTING and FLARING

DJR Operating, LLC (DJR) has a natural gas system available prior to startup of completion operations. DJR utilizes a Vapor Recovery Unit System and sells all natural gas except during periods of startup, shutdown, maintenance, or malfunction for the gas capturing equipment, including the vapor recovery tower, vapor recovery unit, storage tanks, and pipelines.

Currently, DJR utilizes the following from list A-I of Section 3 for its operations to minimize flaring:

- a) DJR utilizes natural gas-powered generators to power its leases where grid power isn't available.
- b) When electrical grid power is unavailable, natural gas generators will be used for major equipment onsite.
- c) DJR's in service compression will be natural gas powered.
- d) Should liquids removal, such as dehydration be required, units will be powered by natural gas.

DJR will only flare gas during the following times:

- Scheduled maintenance for gas capturing equipment including:
 - Vapor Recovery Tower
 - Vapor Recovery Unit
 - Storage tanks
 - Pipelines
 - Emergency flaring



DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
Nageezi Unit 701H, 704H, 732H, and 733H
SESE P-04-23N-09W

OPERATIONAL PRACTICES

19.15.27.8 A. Venting and Flaring of Natural Gas

DJR Operating, LLC (DJR) understands the requirements of NMAC 19.15.27.8 which states that the venting and flaring of natural gas during drilling, completion or production that constitutes waste as defined in 19.15.2 are prohibited.

19.15.27.8 B. Venting and flaring during drilling operations

- DJR shall capture or combust natural gas if technically feasible during drilling operations using best industry practices.
- A flare stack with a 100% capacity for expected volumes will be set on location of the facility at least 100 feet from the nearest surface hole location, well heads, and storage tanks.
- In the event of an emergency, DJR will vent natural gas in order to avoid substantial impact. DJR shall report the vented or flared gas to the NMOCD.

19.15.27.8 E. Venting and flaring during completion or recompletion operations

During Completion Operations, DJR utilizes the following:

- DJR facilities are built and ready from day 1 of Flowback.
- Individual well test separators will be set to properly separate gas and liquids. Temporary test separator will be utilized initially to process volumes. In addition, separators will be tied into flowback tanks which will be tied into the gas processing equipment for sales down a pipeline. See Separation Equipment for details.
- Should the facility not yet be capable of processing gas, or the gas does not meet quality standards, then storage tanks will be set that are tied into gas busters or temporary flare to manage natural gas. This flare would meet the following requirements:
 - 1) An appropriately sized flare stack with an automatic igniter.
 - 2) DJR analyzes the natural gas samples twice per week.
 - 3) DJR routes the natural gas into a gathering pipeline as soon as the pipeline specifications are met.
 - 4) DJR provides the NMOCD with pipeline specifications and natural gas data.



19.15.27.8 D. Venting and flaring during production operations

During Production Operations DJR will not vent or flare natural gas except under the following circumstances:

1. During an emergency or malfunction
2. To unload or clean-up liquid holdup in a well to atmospheric pressure, provided:
 - a. DJR does not vent after the well achieves a stabilized rate and pressure.
 - b. DJR will remain present on-site during liquids unloading by manual purging and take all reasonable actions to achieve a stabilized rate and pressure at the earliest practical time.
 - c. DJR will optimize the system to minimize natural gas venting on any well equipped with a plunger lift or auto control system.
 - d. Best Management Practices will be used during downhole well maintenance.
3. During the first year of production from an exploratory well provided:
 - a. DJR receives approval from the NMOCD.
 - b. DJR remains in compliance with the NM gas capture requirements.
 - c. DJR submits an updated C-129 form to the NMOCD.
4. During the following activities unless prohibited:
 - a. Gauging or sampling a storage tank or low-pressure production vessel.
 - b. Loading out liquids from a storage tank.
 - c. Repair and maintenance.
 - d. Normal operation of gas activated pneumatic controller or pump.
 - e. Normal operation of a storage tank but not including venting from a thief hatch.
 - f. Normal operation of dehydration units.
 - g. Normal operations of compressors, compressor engines, turbines, valves, flanges, and connectors.
 - h. During a bradenhead, packer leakage test, or production test lasting less than 24-hours.
 - i. When natural gas does not meet the gathering pipeline specifications.
 - j. Commissioning of pipelines, equipment, or facilities only for as long as necessary to purge introduced impurities.

19.15.27.8 E. Performance standards

1. DJR has utilized process simulations with a safety factor to design all separation and storage equipment. The equipment is routed to a Vapor Recovery System and utilizes a flare as back up for periods of startup, shutdown, maintenance, or malfunction of the VRU System.
2. DJR will install a flare that designed to handle the full volume of vapors from the facility in case of the VRU failure and it its designed with an auto ignition system.
3. Flare stacks will be appropriately sized and designed to ensure proper combustion efficiency.
 - a. Flare stacks installed or replaced will be equipped with an automatic ignitor or continuous pilot.



- b. Previously installed flare stacks will be retrofitted with an automatic ignitor, continuous pilot, or technology that alerts DJR of flare malfunction within 18 months after May 25, 2021.
 - c. Flare stacks replaced after May 25, 2021, will be equipped with an automatic ignitor or continuous pilot if located at a well or facility with average daily production of 60,000 cubic feet of natural gas or less.
 - d. Flare stacks will be located at least 100 feet from the well and storage tanks and securely anchored.
4. DJR will conduct an AVO inspection on all components for leaks and defects on a weekly basis.
5. DJR will make and keep records of AVO inspections which will be available to the NMOCD for at least 5 years.
6. DJR may use a remote or automated monitoring technology to detect leaks and releases in lieu of AVO inspections with prior NMOCD approval.
7. Facilities will be designed to minimize waste.
8. DJR will resolve emergencies as promptly as possible.

19.15.27.8 F. Measurement or estimation of vented and flared natural gas

1. DJR will have meters on both the low- and high-pressure sides of the flares and the volumes will be recorded in DJR's SCADA system.
2. DJR will install equipment to measure the volume of flared natural gas that has an average daily production of 60,000 cubic feet or greater of natural gas.
3. DJR's measuring equipment will conform to the industry standards.
4. The measurement system is designed such that it cannot be bypassed except for inspections and servicing meters.
5. DJR will estimate the volume of vented or flared natural gas using a methodology that can be independently verified if metering is not practicable due to low flow rate or pressure.
6. DJR will estimate the volume of flared and vented natural gas based on the results of an annual GOR test for wells that do not require measuring equipment reported on Form C-116.
7. DJR will install measuring equipment whenever the NMOCD determines that metering is necessary.



DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
Nageezi Unit 701H, 704H, 732H, and 733H
SESE P-04-23N-09W

BEST MANAGEMENT PRACTICES

DJR Operating, LLC (DJR) utilizes the following Best Management Practices to minimize venting during active and planned maintenance.

DJR has a closed vent capture system to route emissions from the heater treater, tanks, and vapor recovery to the vapor recovery unit with an enclosed combustion device (ECD) for backup. The system is designed such that if the vapor recovery unit is taken out of service for any reason, the vapors will be routed to the ECD for combustion.

DJR will isolate and attempt to route all vapors to the vapor recovery unit or ECD prior to opening any lines for maintenance to minimize venting from the equipment.

DJR shall notify the NMOCD of venting or flaring that exceeds 50 MCF but less than 500 MCF in volume that either resulted from an emergency or malfunction, or an event lasting over eight hours or more cumulatively within any 24-hour period from a single event by filing a form C-129 no later than 15 days following the discovery or commencement of venting or flaring.

DJR shall notify the NMOCD verbally or by e-mail within 24-hours following discovery or commencement of venting or flaring that exceeds 500 MCF in volume or otherwise qualifies as a major release as defined in 19.15.29.7 NMAC from a single event and provide the information required in form C-129 to the NMOCD no later than 15 days that verifies, updates, or corrects the verbal or e-mail notification.

DJR will install measuring equipment to conform to industry standards such as American Petroleum Institute (API) Manual of Petroleum Measurement Standards (MPMS) Chapter 14.10 Measurement of Flow to Flares.

DJR's measuring equipment shall not be designed or equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.

DJR shall report the volume of vented and flared natural gas for each well or facility at which venting or flaring occurred on a monthly basis.

Rev 3



DRILLING AND CASING PLAN

Nageezi Unit #732H

San Juan County, New Mexico

Surface Location

71-ft FEL & 1134-ft FSL
 Sec 4 T23N R9W
 Graded Elevation 6711' MSL
 RKB Elevation 6725' (14' KB)

SHL Geographical Coordinates (NAD-83)

Latitude 36.2518800° N
 Longitude 107.7856110° W

Kick Off Point for Horizontal Build Curve

3858-ft MD
 3847-ft TVD

Local Coordinates (from SHL)

5-ft North
 277-ft East

Heel Location (Pay zone entry)

136-ft FEL & 1561-ft FSL
 Sec 4 T23N R9W

Heel Geographical Coordinates (NAD-83)

Latitude 36.25305276° N
 Longitude 107.78583021° W

Bottom Hole Location (TD)

339-ft FWL & 1462-ft FSL
 Sec 33 T24N R9W

BHL Geographical Coordinates (NAD-83)

Latitude 36.2672745° N
 Longitude 107.8021176° W

Well objectives

This well is planned as a 7060-ft lateral in the Mancos Silt sand.

Bottom Hole temperature and pressure

The temperature in the Mancos Silt horizontal objective is 130°F. Bottom hole pressure in the Mancos Silt 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	444	444	Sd	W	8.3	8.4 – 8.8
Kirtland	576	576	Sh	-	8.3	8.4 – 8.8
Fruitland	887	886	C	G	8.3	9.0 - 9.5
Pictured Cliffs	1154	1152	Sd	W	8.3	9.0 - 9.5
Lewis	1257	1255	Sh	-		9.0 - 9.5
Chacra	1846	1842	Sd	-	8.3	9.0 - 9.5
Menefee	2592	2585	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	3571	3560	Sd	-	8.3	9.0 - 9.5
Mancos	3720	3709	Sh	-		9.0 - 9.5
Mancos Silt	4045	4031	Slt	O/G	6.6	9.0 - 9.5
Gallup A	NP	NP	Slt	O/G	6.6	9.0 - 9.5
Gallup B	NP	NP	Sd	O/G	6.6	8.8 - 9.0
Gallup C	NP	NP	Sd	O/G	6.6	8.8 - 9.0
Target	4743	4422	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	4698	surf	4420	surface
4-1/2"	6-1/8"	11.6	P-110	BTC	4460	11804	4349	4469	4460

Note: all casing will be new

Rev 3



Casing Design Load Cases

		Casing String		
Description		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

		Design Factors			
Casing string	Casing OD	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

9-5/8" Surface Casing

	Lead
Name	Redi-Mix
Type	I-II
Planned top	Surface
Density (ppg)	14.50
Yield (cf/sx)	1.61
Mix water (gal/sx)	7.41
Volume (sx)	114
Volume (bbls)	33
Volume (cu. ft.)	185
Excess %	50

7" Intermediate Casing

	Lead	Tail
	American	American
Type	I/II	Poz/G
Planned top	Surface	3720-ft
Density (ppg)	12.30	13.50
Yield (cf/sx)	2.34	1.51
Mix water (gal/sx)	13.22	7.13
Volume (sx)	410	103
Volume (bbls)	171	28
Volume (cu.ft.)	960	156
Excess %	78	0



Rev 3

4-1/2" Production Liner

Type	American
Planned top	Poz/G
Density (ppg)	4460-ft
Yield (cf/sx)	13.3
Mix water (gal/sx)	1.52
Volume (sx)	7.52
Volume (bbls)	635
Volume (cu.ft)	172
Excess %	965
	40

Wellhead & Pressure Control

The well head will be an 11" 5M multi-bowl system. A 3M 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 – 4698	9.0 – 9.5	38 – 45	8 – 14	<20
Production	Low solids, non-dispersed	4698 – 11804	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

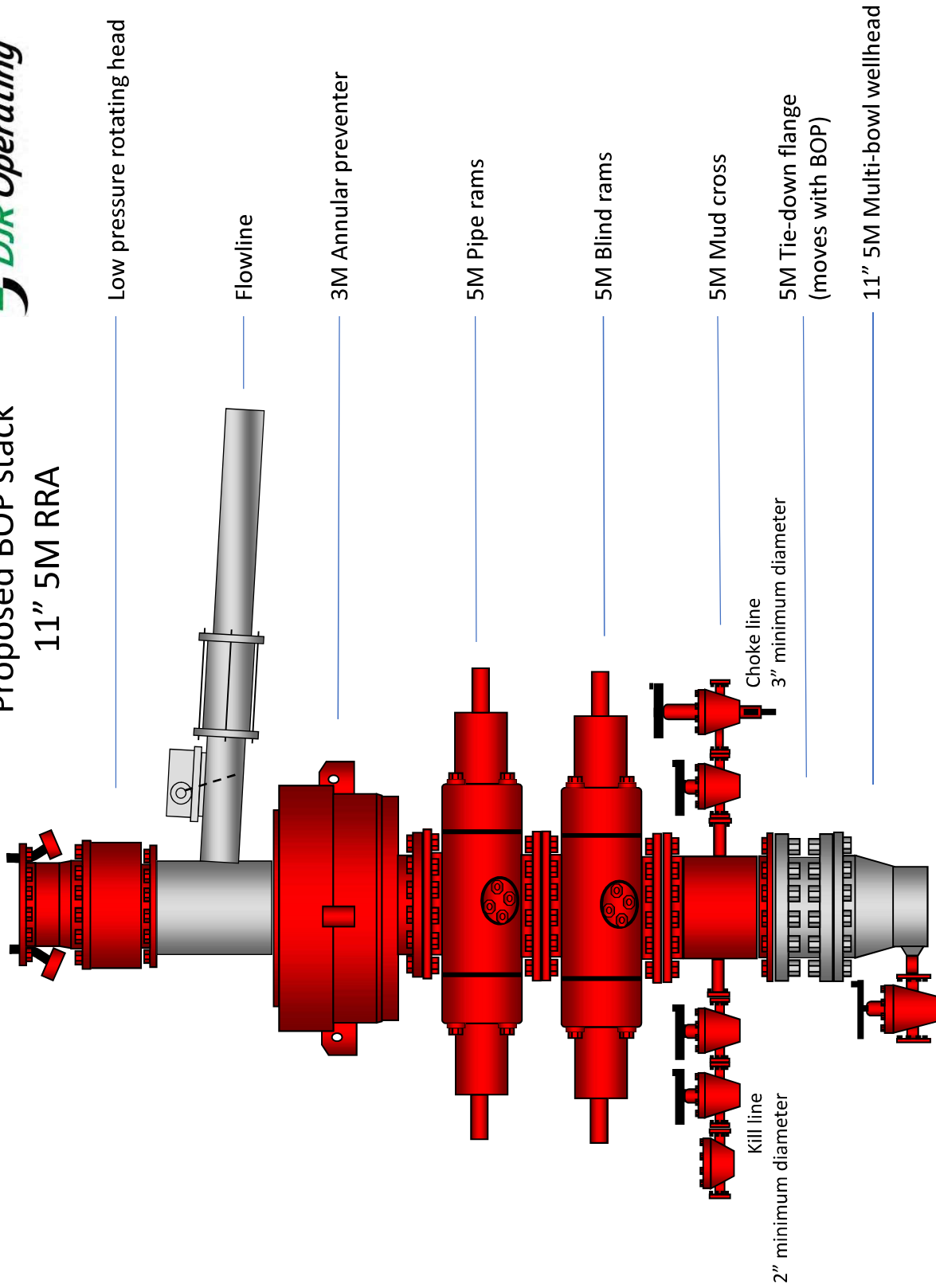
A closed loop, steel tank-based circulating system will be used. In addition to the rig solids control equipment, a dewatering centrifuge and chemical flocculation system will be operational to strip solids from the whole mud. All solids will be collected in 3-sided bins and will then be put into transports 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.



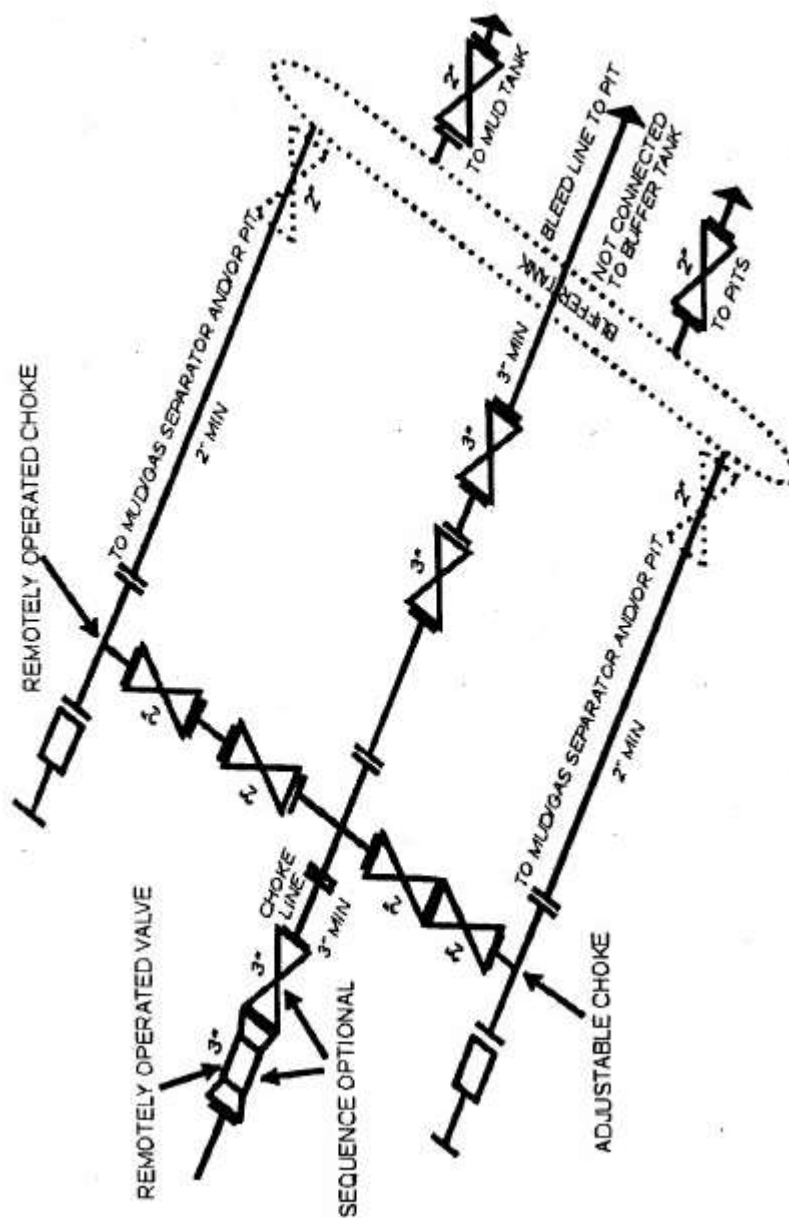
Proposed BOP stack
11" 5M RRA





Choke Manifold

Actual system to conform with Onshore Order 2





Company: DJR Operating
Project: Nageezi Unit
Site: P04 2309
Well: 732H
Wellbore: Original Drilling
Design: APD

PROJECT DETAILS: Nageezi Unit

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Western Zone
System Datum: Mean Sea Level
Local North: True



WELL DETAILS: 732H

GL 6711' & RKB 14' @ 6725ft

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0	0	1910986.34	2737162.31	36.25188000	-107.78561100

Plan: APD (732H/Original Drilling)

Created By: Janie Collins Date: 11:52, April 20 2023

DESIGN TARGET DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec
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
692	4.83	88.85	691	0	10	2.00	88.85	-7
3858	4.83	88.85	3847	6	277	0.00	0.00	-177
4743	89.62	317.16	4422	427	-65	10.50	-131.61	365
11804	89.62	317.16	4469	5604	-4866	0.00	0.00	7422

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec
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
692	4.83	88.85	691	0	10	2.00	88.85	-7
3858	4.83	88.85	3847	6	277	0.00	0.00	-177
4743	89.62	317.16	4422	427	-65	10.50	-131.61	365
11804	89.62	317.16	4469	5604	-4866	0.00	0.00	7422



Azimuths to True North
Magnetic North: 8

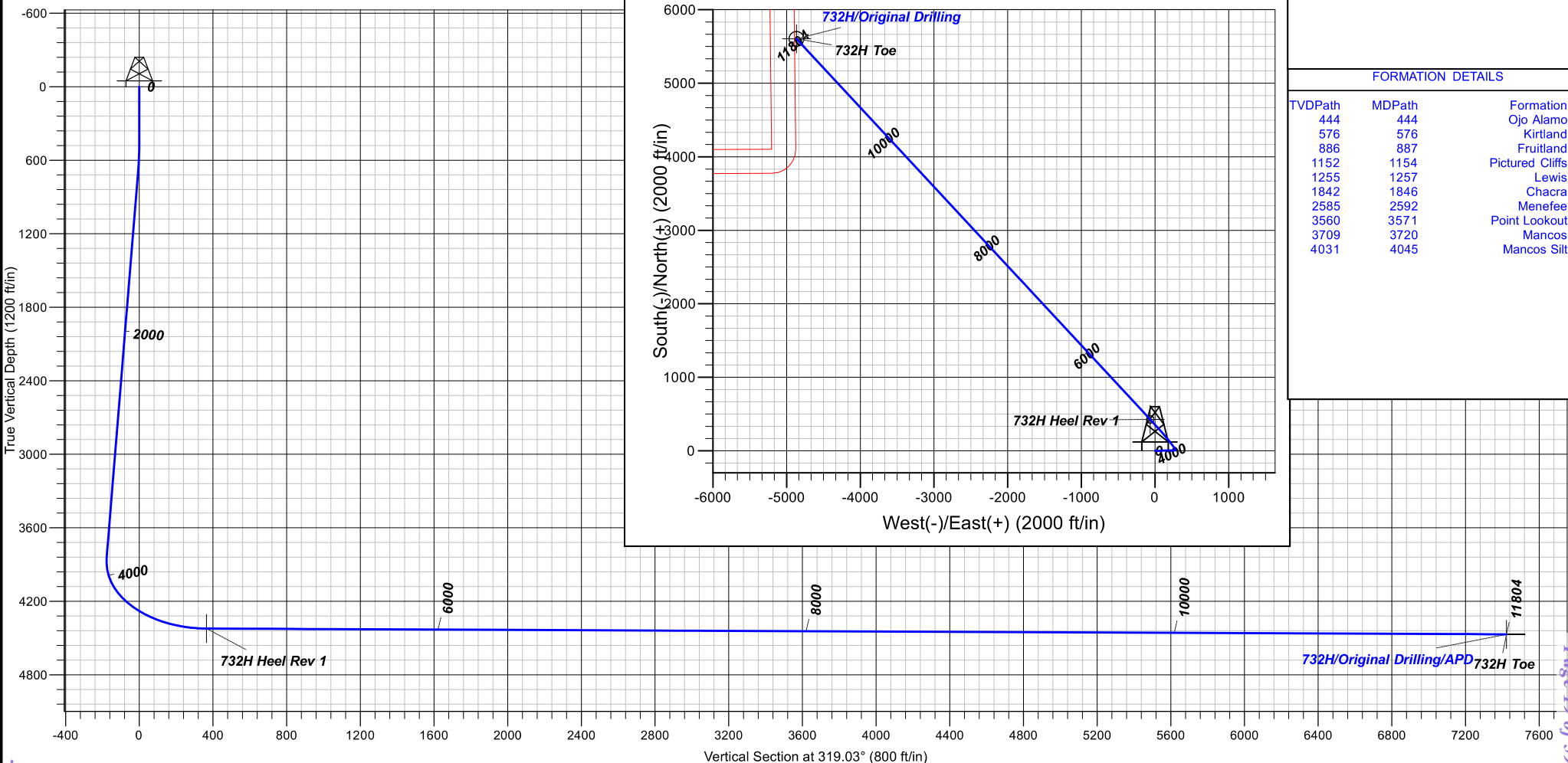
Magnetic Field
Strength: 49225
Dip Angle: 62.8
Date: 6/2/2022
Model: IGRF2015

CASING DETAILS

TVD	MD	Name
350	350	Surface
4420	4703	Intermediate

FORMATION DETAILS

TVDPATH	MDPATH	FORMATION
444	444	Ojo Alamo
576	576	Kirtland
886	887	Fruitland
1152	1154	Pictured Cliffs
1255	1257	Lewis
1842	1846	Chacra
2585	2592	Menefee
3560	3571	Point Lookout
3709	3720	Mancos
4031	4045	Mancos Silt





DJR Operating

Nageezi Unit

P04 2309

732H - Slot 4

Original Drilling

Plan: APD

Standard Planning Report

20 April, 2023





Lonestar Consulting, LLC

Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well 732H - Slot 4
Company:	DJR Operating	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Project:	Nageezi Unit	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site:	P04 2309	North Reference:	True
Well:	732H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

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	P04 2309				
Site Position:		Northing:	1,910,986.31 usft	Latitude:	36.25188000
From:	Lat/Long	Easting:	2,737,102.46 usft	Longitude:	-107.78581400
Position Uncertainty:	0 ft	Slot Radius:	13.20 in		

Well	732H - Slot 4					
Well Position	+N/-S	0 ft	Northing:	1,910,986.34 usft	Latitude:	36.25188000
	+E/-W	0 ft	Easting:	2,737,162.31 usft	Longitude:	-107.78561100
Position Uncertainty		0 ft	Wellhead Elevation:	ft	Ground Level:	6711 ft
Grid Convergence:		0.03 °				

Wellbore	Original Drilling				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	6/2/2022	8.71	62.86	49,225.40373778

Design	APD			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0	0	0	319.03

Plan Survey Tool Program	Date	4/20/2023		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0	11,804 APD (Original Drilling)	MWD+IGRF	
			OWSG MWD + IGRF or WMM	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	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	
692	4.83	88.85	691	0	10	2.00	2.00	0.00	88.85	
3858	4.83	88.85	3847	6	277	0.00	0.00	0.00	0.00	
4743	89.62	317.16	4422	427	-65	10.50	9.59	-14.90	-131.61	732H Heel Rev 1
11,804	89.62	317.16	4469	5604	-4866	0.00	0.00	0.00	0.00	732H Toe



Lonestar Consulting, LLC

Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well 732H - Slot 4
Company:	DJR Operating	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Project:	Nageezi Unit	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site:	P04 2309	North Reference:	True
Well:	732H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
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
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	1.00	88.85	500	0	0	0	2.00	2.00	0.00
600	3.00	88.85	600	0	4	-3	2.00	2.00	0.00
692	4.83	88.85	691	0	10	-7	2.00	2.00	0.00
700	4.83	88.85	700	0	11	-7	0.00	0.00	0.00
800	4.83	88.85	799	0	19	-12	0.00	0.00	0.00
900	4.83	88.85	899	1	28	-18	0.00	0.00	0.00
1000	4.83	88.85	999	1	36	-23	0.00	0.00	0.00
1100	4.83	88.85	1098	1	45	-29	0.00	0.00	0.00
1200	4.83	88.85	1198	1	53	-34	0.00	0.00	0.00
1300	4.83	88.85	1298	1	61	-39	0.00	0.00	0.00
1400	4.83	88.85	1397	1	70	-45	0.00	0.00	0.00
1500	4.83	88.85	1497	2	78	-50	0.00	0.00	0.00
1600	4.83	88.85	1596	2	87	-56	0.00	0.00	0.00
1700	4.83	88.85	1696	2	95	-61	0.00	0.00	0.00
1800	4.83	88.85	1796	2	104	-66	0.00	0.00	0.00
1900	4.83	88.85	1895	2	112	-72	0.00	0.00	0.00
2000	4.83	88.85	1995	2	120	-77	0.00	0.00	0.00
2100	4.83	88.85	2095	3	129	-82	0.00	0.00	0.00
2200	4.83	88.85	2194	3	137	-88	0.00	0.00	0.00
2300	4.83	88.85	2294	3	146	-93	0.00	0.00	0.00
2400	4.83	88.85	2394	3	154	-99	0.00	0.00	0.00
2500	4.83	88.85	2493	3	162	-104	0.00	0.00	0.00
2600	4.83	88.85	2593	3	171	-109	0.00	0.00	0.00
2700	4.83	88.85	2693	4	179	-115	0.00	0.00	0.00
2800	4.83	88.85	2792	4	188	-120	0.00	0.00	0.00
2900	4.83	88.85	2892	4	196	-126	0.00	0.00	0.00
3000	4.83	88.85	2992	4	205	-131	0.00	0.00	0.00
3100	4.83	88.85	3091	4	213	-136	0.00	0.00	0.00
3200	4.83	88.85	3191	4	221	-142	0.00	0.00	0.00
3300	4.83	88.85	3290	5	230	-147	0.00	0.00	0.00
3400	4.83	88.85	3390	5	238	-153	0.00	0.00	0.00
3500	4.83	88.85	3490	5	247	-158	0.00	0.00	0.00
3600	4.83	88.85	3589	5	255	-163	0.00	0.00	0.00
3700	4.83	88.85	3689	5	264	-169	0.00	0.00	0.00
3800	4.83	88.85	3789	5	272	-174	0.00	0.00	0.00
3858	4.83	88.85	3847	6	277	-177	0.00	0.00	0.00
3900	3.79	29.44	3888	7	279	-178	10.50	-2.51	-142.92
4000	12.19	334.12	3987	19	276	-167	10.50	8.40	-55.32
4100	22.43	325.93	4083	45	261	-137	10.50	10.24	-8.19
4200	32.83	322.75	4171	82	234	-91	10.50	10.40	-3.18
4300	43.27	320.98	4250	130	196	-30	10.50	10.44	-1.77
4400	53.74	319.79	4316	188	148	45	10.50	10.46	-1.19
4500	64.21	318.88	4368	253	92	130	10.50	10.47	-0.91
4600	74.68	318.13	4403	323	30	224	10.50	10.48	-0.76
4700	85.16	317.44	4420	396	-36	322	10.50	10.48	-0.68
4743	89.62	317.16	4422	427	-65	365	10.50	10.48	-0.66
4800	89.62	317.16	4422	469	-104	422	0.00	0.00	0.00
4900	89.62	317.16	4423	542	-172	522	0.00	0.00	0.00



Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well 732H - Slot 4
Company:	DJR Operating	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Project:	Nageezi Unit	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site:	P04 2309	North Reference:	True
Well:	732H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5000	89.62	317.16	4424	616	-240	622	0.00	0.00	0.00
5100	89.62	317.16	4424	689	-308	722	0.00	0.00	0.00
5200	89.62	317.16	4425	762	-376	822	0.00	0.00	0.00
5300	89.62	317.16	4426	836	-444	922	0.00	0.00	0.00
5400	89.62	317.16	4426	909	-512	1022	0.00	0.00	0.00
5500	89.62	317.16	4427	982	-580	1122	0.00	0.00	0.00
5600	89.62	317.16	4428	1056	-648	1222	0.00	0.00	0.00
5700	89.62	317.16	4428	1129	-716	1322	0.00	0.00	0.00
5800	89.62	317.16	4429	1202	-784	1422	0.00	0.00	0.00
5900	89.62	317.16	4430	1276	-852	1522	0.00	0.00	0.00
6000	89.62	317.16	4430	1349	-920	1621	0.00	0.00	0.00
6100	89.62	317.16	4431	1422	-988	1721	0.00	0.00	0.00
6200	89.62	317.16	4432	1496	-1056	1821	0.00	0.00	0.00
6300	89.62	317.16	4432	1569	-1124	1921	0.00	0.00	0.00
6400	89.62	317.16	4433	1642	-1192	2021	0.00	0.00	0.00
6500	89.62	317.16	4434	1716	-1260	2121	0.00	0.00	0.00
6600	89.62	317.16	4434	1789	-1328	2221	0.00	0.00	0.00
6700	89.62	317.16	4435	1862	-1396	2321	0.00	0.00	0.00
6800	89.62	317.16	4436	1935	-1464	2421	0.00	0.00	0.00
6900	89.62	317.16	4436	2009	-1532	2521	0.00	0.00	0.00
7000	89.62	317.16	4437	2082	-1600	2621	0.00	0.00	0.00
7100	89.62	317.16	4438	2155	-1668	2721	0.00	0.00	0.00
7200	89.62	317.16	4438	2229	-1736	2821	0.00	0.00	0.00
7300	89.62	317.16	4439	2302	-1804	2921	0.00	0.00	0.00
7400	89.62	317.16	4440	2375	-1872	3021	0.00	0.00	0.00
7500	89.62	317.16	4440	2449	-1940	3121	0.00	0.00	0.00
7600	89.62	317.16	4441	2522	-2008	3221	0.00	0.00	0.00
7700	89.62	317.16	4442	2595	-2076	3321	0.00	0.00	0.00
7800	89.62	317.16	4442	2669	-2144	3420	0.00	0.00	0.00
7900	89.62	317.16	4443	2742	-2212	3520	0.00	0.00	0.00
8000	89.62	317.16	4444	2815	-2280	3620	0.00	0.00	0.00
8100	89.62	317.16	4444	2889	-2348	3720	0.00	0.00	0.00
8200	89.62	317.16	4445	2962	-2416	3820	0.00	0.00	0.00
8300	89.62	317.16	4446	3035	-2484	3920	0.00	0.00	0.00
8400	89.62	317.16	4446	3109	-2552	4020	0.00	0.00	0.00
8500	89.62	317.16	4447	3182	-2620	4120	0.00	0.00	0.00
8600	89.62	317.16	4448	3255	-2688	4220	0.00	0.00	0.00
8700	89.62	317.16	4448	3329	-2756	4320	0.00	0.00	0.00
8800	89.62	317.16	4449	3402	-2824	4420	0.00	0.00	0.00
8900	89.62	317.16	4450	3475	-2892	4520	0.00	0.00	0.00
9000	89.62	317.16	4450	3549	-2960	4620	0.00	0.00	0.00
9100	89.62	317.16	4451	3622	-3027	4720	0.00	0.00	0.00
9200	89.62	317.16	4452	3695	-3095	4820	0.00	0.00	0.00
9300	89.62	317.16	4452	3769	-3163	4920	0.00	0.00	0.00
9400	89.62	317.16	4453	3842	-3231	5020	0.00	0.00	0.00
9500	89.62	317.16	4454	3915	-3299	5120	0.00	0.00	0.00
9600	89.62	317.16	4454	3989	-3367	5219	0.00	0.00	0.00
9700	89.62	317.16	4455	4062	-3435	5319	0.00	0.00	0.00
9800	89.62	317.16	4456	4135	-3503	5419	0.00	0.00	0.00
9900	89.62	317.16	4456	4208	-3571	5519	0.00	0.00	0.00
10,000	89.62	317.16	4457	4282	-3639	5619	0.00	0.00	0.00
10,100	89.62	317.16	4458	4355	-3707	5719	0.00	0.00	0.00
10,200	89.62	317.16	4458	4428	-3775	5819	0.00	0.00	0.00
10,300	89.62	317.16	4459	4502	-3843	5919	0.00	0.00	0.00



Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well 732H - Slot 4
Company:	DJR Operating	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Project:	Nageezi Unit	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site:	P04 2309	North Reference:	True
Well:	732H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,400	89.62	317.16	4460	4575	-3911	6019	0.00	0.00	0.00	
10,500	89.62	317.16	4460	4648	-3979	6119	0.00	0.00	0.00	
10,600	89.62	317.16	4461	4722	-4047	6219	0.00	0.00	0.00	
10,700	89.62	317.16	4462	4795	-4115	6319	0.00	0.00	0.00	
10,800	89.62	317.16	4462	4868	-4183	6419	0.00	0.00	0.00	
10,900	89.62	317.16	4463	4942	-4251	6519	0.00	0.00	0.00	
11,000	89.62	317.16	4464	5015	-4319	6619	0.00	0.00	0.00	
11,100	89.62	317.16	4464	5088	-4387	6719	0.00	0.00	0.00	
11,200	89.62	317.16	4465	5162	-4455	6819	0.00	0.00	0.00	
11,300	89.62	317.16	4466	5235	-4523	6919	0.00	0.00	0.00	
11,400	89.62	317.16	4466	5308	-4591	7018	0.00	0.00	0.00	
11,500	89.62	317.16	4467	5382	-4659	7118	0.00	0.00	0.00	
11,600	89.62	317.16	4468	5455	-4727	7218	0.00	0.00	0.00	
11,700	89.62	317.16	4468	5528	-4795	7318	0.00	0.00	0.00	
11,800	89.62	317.16	4469	5602	-4863	7418	0.00	0.00	0.00	
11,804	89.62	317.16	4469	5604	-4866	7422	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude		
- hit/miss target										
- Shape								Longitude		
732H Heel Rev 1	0.00	0.00	4422	427	-65	1,911,413.23	2,737,097.47	36.25305277		
- plan hits target center										
- Circle (radius 50)										
732H Toe	0.00	0.00	4469	5604	-4866	1,916,588.32	2,732,293.63	36.26727450		
- plan hits target center										
- Circle (radius 100)										

Casing Points						Casing Diameter (in)	Hole Diameter (in)
Measured Depth (ft)	Vertical Depth (ft)	Name					
350	350	Surface				9.63	12.25
4703	4420	Intermediate				7.00	8.75



Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well 732H - Slot 4
Company:	DJR Operating	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Project:	Nageezi Unit	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site:	P04 2309	North Reference:	True
Well:	732H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
444	444	Ojo Alamo		0.00	0.00	
576	576	Kirtland		0.00	0.00	
887	886	Fruitland		0.00	0.00	
1154	1152	Pictured Cliffs		0.00	0.00	
1257	1255	Lewis		0.00	0.00	
1846	1842	Chacra		0.00	0.00	
2592	2585	Menefee		0.00	0.00	
3571	3560	Point Lookout		0.00	0.00	
3720	3709	Mancos		0.00	0.00	
4045	4031	Mancos Silt		0.00	0.00	



DJR Operating

Nageezi Unit

P04 2309

732H

Original Drilling

APD

Anticollision Report

20 April, 2023





Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Reference	APD		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 15,000ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	4/20/2023		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0	11,804	APD (Original Drilling)	MWD+IGRF	OWSG MWD + IGRF or WMM	

Summary						
Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
A09 2309						
507H (ECA) - Original drilling - As drilled	6311	7834	814	707	7.645	CC
507H (ECA) - Original drilling - As drilled	11,004	12,507	821	509	2.627	ES, SF
K03 2309						
# 405H - Original drilling - Original drilling	6517	7637	889	766	7.190	CC
# 405H - Original drilling - Original drilling	11,804	12,945	899	535	2.470	ES, SF
# 406H - Original drilling - Original drilling	4350	4599	991	958	30.477	CC, ES
# 406H - Original drilling - Original drilling	4450	4611	999	966	30.380	SF
P04 2309						
701H - Original Drilling - APD	450	450	60	57	20.141	CC, ES
701H - Original Drilling - APD	10,800	10,782	1463	1146	4.620	SF
704H - Original Drilling - APD	450	450	40	37	12.734	CC, ES
704H - Original Drilling - APD	600	599	46	42	11.082	SF
733H - Original Drilling - APD	967	969	16	9	2.407	CC
733H - Original Drilling - APD	1000	1002	17	9	2.349	ES, SF
Ohwada 1 - OH - OH	11,100	1500	3120	3063	54.999	CC, ES
Ohwada 1 - OH - OH	11,804	1500	3198	3129	46.911	SF

Offset Design: A09 2309 - 507H (ECA) - Original drilling - As drilled													Offset Site Error: 0 ft	
Survey Program:		366-MWD+HDGM, 4189-MWD+HDGM, 5511-MWD+HDGM						Rule Assigned:					Offset Well Error: 0 ft	
Reference		Offset		Semi Major Axis					Distance					
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Between	Between	Minimum	Separation	Warning	
Depth	Depth	Depth	Depth	(ft)	(ft)	Toolface	+N/-S	+E/-W	Centres	Ellipses	Separation	Factor		
(ft)	(ft)	(ft)	(ft)			(°)	(ft)	(ft)	(ft)	(ft)	(ft)			
0	0	38	38	0	0	-170.31	-1396	-238	1416					
100	100	142	142	0	0	-170.30	-1395	-238	1416	1415	0.55	2,557.727		
200	200	246	246	1	0	-170.28	-1395	-239	1415	1414	1.09	1,297.348		
300	300	349	349	1	1	-170.24	-1394	-240	1414	1413	1.63	868.742		
400	400	447	447	1	1	-170.21	-1393	-240	1413	1411	2.30	613.471		
450	450	490	490	2	1	-170.21	-1393	-240	1413	1411	2.63	536.890		
500	500	546	546	2	1	100.93	-1393	-239	1413	1410	3.00	471.518		
600	600	661	661	2	2	100.87	-1392	-234	1413	1409	3.74	377.398		
669	669	726	726	2	2	100.82	-1392	-228	1412	1408	4.22	334.461		
692	691	747	747	2	2	100.80	-1392	-226	1412	1408	4.38	322.485		
700	700	755	755	2	2	100.80	-1392	-225	1412	1408	4.44	318.227		

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



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: A09 2309 - 507H (ECA) - Original drilling - As drilled												Offset Site Error:	0 ft
Survey Program: 366-MWD+HDGM, 4189-MWD+HDGM, 5511-MWD+HDGM												Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
800	799	860	859	3	2	100.62	-1393	-212	1413	1408	5.19	271.957	
900	899	965	963	3	3	100.31	-1394	-196	1413	1407	5.98	236.252	
1000	999	1072	1067	4	3	99.83	-1395	-175	1412	1405	6.80	207.762	
1100	1098	1178	1171	4	4	99.26	-1396	-152	1411	1403	7.64	184.692	
1200	1198	1281	1272	4	4	98.69	-1396	-130	1410	1401	8.49	166.106	
1300	1298	1375	1363	5	5	98.15	-1397	-108	1409	1399	9.31	151.359	
1400	1397	1478	1463	5	5	97.55	-1398	-85	1408	1398	10.17	138.418	
1500	1497	1573	1556	5	6	97.03	-1398	-65	1407	1396	11.00	127.872	
1600	1596	1669	1649	6	6	96.45	-1399	-42	1407	1395	11.85	118.700	
1700	1696	1776	1753	6	7	95.77	-1400	-17	1406	1394	12.76	110.171	
1800	1796	1874	1848	7	7	95.13	-1400	7	1406	1392	13.64	103.066	
1852	1848	1922	1895	7	7	94.82	-1401	18	1406	1392	14.08	99.805	
1900	1895	1967	1939	7	7	94.52	-1401	29	1406	1391	14.50	96.968	
2000	1995	2073	2041	7	8	93.83	-1402	55	1406	1390	15.42	91.184	
2004	1999	2076	2044	7	8	93.81	-1402	56	1406	1390	15.45	90.999	
2100	2095	2154	2120	8	8	93.31	-1403	74	1407	1390	16.21	86.771	
2200	2194	2248	2212	8	9	92.75	-1405	96	1408	1391	17.06	82.546	
2300	2294	2352	2313	9	9	92.18	-1407	119	1410	1392	17.95	78.545	
2400	2394	2460	2419	9	10	91.61	-1408	142	1411	1393	18.86	74.844	
2500	2493	2558	2515	9	10	91.10	-1409	162	1412	1393	19.71	71.658	
2600	2593	2663	2617	10	11	90.58	-1410	184	1414	1393	20.59	68.663	
2700	2693	2762	2714	10	11	90.12	-1411	204	1415	1393	21.44	65.989	
2800	2792	2856	2806	11	12	89.67	-1412	222	1416	1394	22.26	63.618	
2900	2892	2963	2911	11	12	89.11	-1413	245	1418	1394	23.16	61.212	
3000	2992	3064	3010	11	13	88.53	-1413	268	1419	1395	24.04	59.013	
3100	3091	3165	3107	12	13	87.97	-1413	290	1420	1395	24.91	56.987	
3200	3191	3266	3206	12	14	87.40	-1413	313	1421	1395	25.79	55.092	
3300	3290	3364	3302	12	14	86.88	-1413	334	1422	1396	26.65	53.369	
3400	3390	3455	3391	13	15	86.38	-1414	354	1424	1396	27.47	51.832	
3500	3490	3553	3486	13	15	85.84	-1415	375	1426	1398	28.33	50.345	
3600	3589	3621	3558	14	16	85.31	-1416	396	1427	1399	29.19	48.908	
3700	3689	3719	3658	14	16	84.78	-1417	417	1428	1400	30.04	47.471	
3800	3789	3819	3758	14	16	84.25	-1418	438	1429	1401	30.89	46.034	
3858	3847	3877	3817	15	17	83.72	-1419	459	1430	1402	31.74	44.597	
3900	3888	3918	3828	15	17	83.19	-1420	480	1431	1403	32.59	43.160	
3950	3938	3968	3888	15	18	82.66	-1421	501	1432	1404	33.44	41.723	
4000	3987	4017	3927	15	18	82.13	-1422	522	1433	1405	34.29	40.286	
4050	4036	4066	3976	15	19	81.60	-1423	543	1434	1406	35.14	38.849	
4100	4083	4113	4003	15	19	81.07	-1424	564	1435	1407	35.99	37.412	
4150	4128	4158	4038	15	20	80.54	-1425	585	1436	1408	36.84	35.975	
4200	4171	4201	4081	16	21	80.01	-1426	606	1437	1409	37.69	34.538	
4250	4212	4242	4124	16	21	79.48	-1427	627	1438	1410	38.54	33.101	
4300	4250	4280	4167	16	22	78.95	-1428	648	1439	1411	39.39	31.664	
4350	4285	4315	4202	16	22	78.42	-1429	669	1440	1412	40.24	30.227	
4400	4316	4346	4233	16	23	77.89	-1430	690	1441	1413	41.09	28.790	
4450	4344	4374	4264	16	23	77.36	-1431	711	1442	1414	41.94	27.353	
4500	4368	4398	4288	16	24	76.83	-1432	732	1443	1415	42.79	25.916	
4550	4387	4417	4307	17	24	76.30	-1433	753	1444	1416	43.64	24.479	
4600	4403	4433	4323	17	25	75.77	-1434	774	1445	1417	44.49	23.042	
4650	4414	4444	4334	18	25	75.24	-1435	795	1446	1418	45.34	21.605	
4662	4416	4446	4336	18	25	75.24	-1435	795	1446	1418	45.34	21.605	
4700	4420	4450	4340	18	26	74.71	-1436	816	1447	1419	46.19	20.168	

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



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: A09 2309 - 507H (ECA) - Original drilling - As drilled													Offset Site Error: 0 ft	
Survey Program: 366-MWD+HDGM, 4189-MWD+HDGM, 5511-MWD+HDGM													Offset Well Error: 0 ft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Rule Assigned: Distance				Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
4709	4421	6235	4878	19	32	-120.48	-81	-564	826	781	44.92	18.392		
4743	4422	6271	4878	19	32	-120.51	-54	-589	826	780	45.85	18.005		
4755	4422	6284	4878	19	33	-120.53	-45	-597	825	779	46.18	17.874		
4800	4422	6329	4879	20	34	-120.57	-11	-627	825	778	47.41	17.405		
4822	4423	6350	4879	20	34	-120.58	5	-642	825	777	48.02	17.178		
4900	4423	6432	4879	21	35	-120.54	65	-697	824	774	50.44	16.341		
4922	4423	6457	4878	22	36	-120.49	83	-714	824	773	51.21	16.089		
5000	4424	6539	4876	23	38	-120.29	143	-770	822	769	53.87	15.267		
5022	4424	6558	4875	23	38	-120.24	157	-783	822	767	54.56	15.067		
5100	4424	6632	4872	25	39	-120.01	211	-834	821	764	57.19	14.356		
5122	4425	6654	4871	25	40	-119.95	227	-849	821	763	57.99	14.154		
5200	4425	6731	4869	27	41	-119.76	283	-902	820	759	60.79	13.487		
5222	4425	6752	4868	27	42	-119.70	298	-916	820	758	61.60	13.308		
5300	4426	6829	4866	29	44	-119.46	354	-969	819	754	64.53	12.691		
5338	4426	6861	4865	30	44	-119.37	377	-991	819	753	65.83	12.438		
5400	4426	6911	4864	31	45	-119.30	412	-1025	819	751	67.86	12.073		
5404	4426	6915	4864	31	45	-119.29	416	-1029	819	751	68.04	12.043		
5500	4427	7013	4864	33	48	-119.16	486	-1097	821	749	71.84	11.424		
5504	4427	7018	4864	33	48	-119.15	489	-1100	821	749	72.03	11.396		
5600	4428	7108	4863	35	50	-118.95	554	-1164	822	747	75.75	10.857		
5621	4428	7140	4862	36	50	-118.85	577	-1186	823	746	76.96	10.689		
5700	4428	7225	4859	37	52	-118.56	637	-1245	822	742	80.47	10.221		
5721	4429	7247	4858	38	53	-118.50	653	-1260	822	741	81.38	10.106		
5800	4429	7323	4857	40	55	-118.40	708	-1312	822	738	84.55	9.725		
5804	4429	7327	4857	40	55	-118.39	711	-1315	822	737	84.72	9.705		
5900	4430	7409	4857	42	57	-118.32	771	-1372	823	735	88.28	9.324		
5921	4430	7437	4857	42	57	-118.29	791	-1391	824	734	89.36	9.216		
6000	4430	7551	4855	44	60	-118.13	875	-1468	822	728	93.71	8.772		
6023	4431	7576	4854	45	60	-118.10	894	-1485	821	726	94.75	8.668		
6100	4431	7651	4852	46	62	-117.96	949	-1534	818	721	97.97	8.355		
6123	4431	7673	4851	47	63	-117.92	966	-1549	818	719	98.94	8.265		
6200	4432	7744	4848	49	64	-117.76	1018	-1597	815	713	102.13	7.984		
6223	4432	7763	4848	49	65	-117.70	1032	-1610	815	712	103.03	7.910		
6300	4432	7826	4845	51	66	-117.52	1078	-1653	814	708	106.04	7.676		
6311	4432	7834	4845	51	67	-117.49	1084	-1659	814	707	106.47	7.645 CC		
6400	4433	7922	4843	53	69	-117.29	1147	-1719	814	704	110.39	7.375		
6404	4433	7926	4843	54	69	-117.28	1150	-1722	814	704	110.57	7.363		
6500	4434	8014	4843	56	71	-117.20	1214	-1783	815	700	114.50	7.117		
6504	4434	8018	4843	56	71	-117.20	1217	-1786	815	700	114.69	7.106		
6600	4434	8099	4844	58	73	-117.19	1276	-1842	817	699	118.37	6.901		
6604	4434	8104	4844	58	73	-117.19	1279	-1845	817	698	118.56	6.892		
6700	4435	8213	4847	61	76	-117.22	1357	-1921	820	696	123.15	6.656		
6721	4435	8243	4847	61	76	-117.23	1379	-1942	820	695	124.31	6.594		
6800	4436	8331	4848	63	79	-117.28	1444	-2001	819	691	127.94	6.402		
6870	4436	8395	4849	65	80	-117.31	1491	-2044	819	688	130.77	6.261		
6900	4436	8420	4849	65	81	-117.33	1510	-2061	819	687	131.90	6.208		
6904	4436	8424	4849	65	81	-117.33	1513	-2063	819	687	132.06	6.200		
7000	4437	8507	4852	68	83	-117.44	1573	-2120	820	684	135.71	6.043		
7004	4437	8511	4852	68	83	-117.44	1576	-2123	820	684	135.88	6.036		
7100	4438	8615	4855	70	86	-117.53	1652	-2194	822	682	140.24	5.860		
7104	4438	8620	4855	70	86	-117.54	1656	-2198	822	681	140.46	5.852		
7200	4438	8714	4856	73	88	-117.56	1724	-2262	823	678	144.55	5.693		

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



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: A09 2309 - 507H (ECA) - Original drilling - As drilled												Offset Site Error:	0 ft
Survey Program: 366-MWD+HDGM, 4189-MWD+HDGM, 5511-MWD+HDGM												Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis	Rule Assigned:										
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)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
7204	4438	8720	4856	73	88	-117.57	1728	-2266	823	678	144.78	5.684	
7300	4439	8824	4857	75	91	-117.61	1805	-2337	823	674	149.18	5.517	
7319	4439	8843	4858	75	91	-117.62	1819	-2350	823	673	150.01	5.486	
7400	4440	8915	4859	77	93	-117.66	1872	-2399	823	670	153.23	5.373	
7404	4440	8919	4859	77	93	-117.67	1875	-2402	823	670	153.40	5.368	
7500	4440	9022	4861	80	96	-117.71	1949	-2472	824	666	157.76	5.224	
7504	4440	9026	4861	80	96	-117.70	1953	-2475	824	666	157.96	5.218	
7600	4441	9120	4861	82	98	-117.70	2022	-2539	824	662	162.13	5.085	
7604	4441	9125	4861	82	98	-117.70	2025	-2542	824	662	162.32	5.079	
7700	4442	9221	4862	85	100	-117.69	2095	-2608	825	659	166.54	4.955	
7743	4442	9267	4862	86	102	-117.69	2128	-2639	825	657	168.54	4.896	
7800	4442	9311	4863	87	103	-117.68	2161	-2669	826	655	170.65	4.838	
7804	4442	9311	4863	87	103	-117.68	2161	-2669	826	655	170.70	4.837	
7900	4443	9393	4865	89	105	-117.69	2219	-2726	828	654	174.40	4.750	
7904	4443	9398	4865	90	105	-117.70	2223	-2730	829	654	174.62	4.745	
8000	4444	9506	4867	92	108	-117.71	2300	-2805	831	652	179.30	4.637	
8004	4444	9511	4867	92	108	-117.71	2304	-2809	832	652	179.54	4.632	
8100	4444	9628	4868	94	111	-117.71	2389	-2889	832	648	184.44	4.511	
8170	4445	9695	4868	96	112	-117.70	2438	-2934	832	644	187.45	4.437	
8200	4445	9720	4869	97	113	-117.71	2456	-2951	832	643	188.60	4.410	
8221	4445	9738	4869	97	113	-117.72	2470	-2964	832	642	189.44	4.392	
8300	4446	9842	4870	99	116	-117.78	2547	-3033	831	638	193.54	4.295	
8323	4446	9867	4870	100	117	-117.81	2566	-3050	831	636	194.55	4.270	
8400	4446	9943	4871	102	118	-117.93	2623	-3099	829	631	197.72	4.192	
8422	4446	9964	4872	102	119	-117.96	2639	-3113	828	630	198.62	4.170	
8500	4447	10,034	4873	104	121	-118.08	2692	-3160	827	625	201.64	4.101	
8522	4447	10,055	4874	105	121	-118.11	2707	-3174	827	624	202.52	4.082	
8600	4448	10,129	4875	107	123	-118.18	2762	-3223	826	620	205.72	4.015	
8621	4448	10,148	4875	107	124	-118.19	2776	-3236	826	619	206.58	3.997	
8700	4448	10,233	4875	109	126	-118.21	2839	-3293	825	615	210.21	3.926	
8722	4448	10,257	4875	109	126	-118.20	2857	-3310	825	614	211.25	3.906	
8800	4449	10,333	4875	111	128	-118.19	2913	-3360	824	609	214.64	3.839	
8822	4449	10,352	4875	112	129	-118.19	2927	-3374	824	608	215.54	3.822	
8900	4450	10,426	4876	114	130	-118.22	2981	-3423	823	605	218.80	3.763	
8923	4450	10,447	4876	114	131	-118.23	2997	-3437	823	604	219.74	3.747	
9000	4450	10,522	4877	116	133	-118.27	3052	-3488	823	600	223.01	3.692	
9021	4450	10,545	4878	117	133	-118.29	3069	-3504	823	599	223.98	3.676	
9100	4451	10,639	4878	119	136	-118.30	3139	-3567	823	595	227.88	3.611	
9122	4451	10,663	4878	119	136	-118.29	3156	-3583	822	593	228.91	3.593	
9200	4452	10,741	4878	121	138	-118.34	3215	-3635	821	589	232.25	3.535	
9222	4452	10,765	4879	122	139	-118.38	3233	-3651	820	587	233.21	3.518	
9300	4452	10,840	4880	124	141	-118.54	3289	-3700	819	582	236.23	3.466	
9322	4452	10,861	4881	124	141	-118.59	3306	-3714	818	581	237.09	3.451	
9400	4453	10,920	4883	126	143	-118.74	3350	-3752	817	578	239.64	3.411	
9404	4453	10,922	4883	126	143	-118.75	3352	-3754	817	578	239.77	3.409	
9500	4454	11,000	4887	129	145	-118.92	3408	-3807	820	577	242.98	3.374	
9504	4454	11,004	4887	129	145	-118.92	3411	-3810	820	577	243.17	3.372	
9600	4454	11,118	4888	131	148	-118.87	3493	-3889	822	574	248.19	3.311	
9604	4454	11,123	4888	131	148	-118.86	3497	-3893	822	573	248.44	3.308	
9700	4455	11,224	4886	133	150	-118.61	3569	-3963	822	568	253.36	3.244	
9704	4455	11,228	4885	134	151	-118.60	3572	-3966	822	568	253.57	3.241	
9800	4456	11,297	4885	136	152	-118.47	3622	-4013	823	566	257.12	3.201	

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



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: A09 2309 - 507H (ECA) - Original drilling - As drilled													Offset Site Error:	0 ft
Survey Program:		366-MWD+HDGM, 4189-MWD+HDGM, 5511-MWD+HDGM						Rule Assigned:		Offset Well Error:		0 ft		
Measured Depth	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning	
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation (ft)	Factor		
9804	4456	11,300	4885	136	152	-118.47	3623	-4015	823	566	257.25	3.200		
9900	4456	11,383	4885	138	155	-118.31	3681	-4075	828	566	261.34	3.167		
9904	4456	11,389	4885	138	155	-118.30	3685	-4080	828	566	261.63	3.165		
10,000	4457	11,504	4885	141	158	-118.07	3766	-4161	831	564	267.23	3.111		
10,004	4457	11,511	4885	141	158	-118.07	3771	-4166	831	564	267.54	3.107		
10,100	4458	11,614	4885	143	160	-117.98	3846	-4237	832	560	272.28	3.056		
10,104	4458	11,618	4885	143	161	-117.98	3849	-4240	832	560	272.46	3.054		
10,200	4458	11,727	4885	146	163	-117.88	3928	-4315	833	556	277.40	3.003		
10,221	4458	11,756	4884	146	164	-117.84	3949	-4335	833	554	278.65	2.989		
10,300	4459	11,841	4882	148	166	-117.66	4011	-4394	832	550	282.74	2.944		
10,323	4459	11,879	4881	149	167	-117.53	4039	-4419	832	547	284.36	2.925		
10,400	4460	11,962	4877	151	169	-117.31	4101	-4474	828	540	288.37	2.873		
10,424	4460	11,987	4876	151	170	-117.29	4119	-4490	827	538	289.50	2.858		
10,500	4460	12,046	4876	153	171	-117.32	4164	-4529	825	532	292.51	2.819		
10,523	4460	12,063	4876	154	172	-117.34	4177	-4541	824	531	293.36	2.809		
10,600	4461	12,147	4877	156	174	-117.45	4240	-4596	822	525	296.69	2.771		
10,623	4461	12,167	4877	156	174	-117.47	4256	-4609	821	524	297.58	2.760		
10,700	4462	12,250	4878	158	176	-117.54	4318	-4663	819	519	300.96	2.723		
10,770	4462	12,298	4878	160	178	-117.57	4354	-4695	818	515	303.49	2.696		
10,800	4462	12,321	4878	160	178	-117.59	4370	-4711	818	514	304.54	2.687		
10,804	4462	12,325	4878	161	178	-117.59	4373	-4713	818	514	304.72	2.686		
10,900	4463	12,415	4880	163	180	-117.65	4439	-4775	819	511	308.69	2.654		
10,904	4463	12,419	4880	163	181	-117.65	4442	-4778	819	510	308.87	2.653		
11,000	4464	12,503	4883	165	183	-117.74	4503	-4835	821	509	312.48	2.628		
11,004	4464	12,507	4883	165	183	-117.74	4506	-4838	821	509	312.66	2.627	ES, SF	
11,100	4464	12,548	4884	168	184	-117.79	4536	-4867	826	512	313.90	2.630		
11,104	4464	12,548	4884	168	184	-117.79	4536	-4867	826	512	313.80	2.633		
11,200	4465	12,548	4884	170	184	-117.79	4536	-4867	841	531	309.65	2.716		
11,204	4465	12,548	4884	170	184	-117.79	4536	-4867	842	532	309.37	2.721		
11,300	4466	12,548	4884	173	184	-117.79	4536	-4867	867	566	301.64	2.876		
11,304	4466	12,548	4884	173	184	-117.79	4536	-4867	869	568	301.21	2.885		
11,400	4466	12,548	4884	175	184	-117.79	4536	-4867	904	614	290.82	3.110		
11,404	4466	12,548	4884	175	184	-117.79	4536	-4867	906	616	290.29	3.122		
11,500	4467	12,548	4884	178	184	-117.79	4536	-4867	950	672	278.22	3.416		
11,600	4468	12,548	4884	180	184	-117.79	4536	-4867	1004	740	264.75	3.793		
11,700	4468	12,548	4884	183	184	-117.79	4536	-4867	1065	814	251.14	4.240		
11,804	4469	12,548	4884	185	184	-117.79	4536	-4867	1134	896	237.37	4.776		

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



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: K03 2309 - # 405H - Original drilling - Original drilling													Offset Site Error:	0 ft
Survey Program: 376-MWD+HDGM													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0	0	59	59	0	0	65.03	842	1809	1996					
100	100	157	154	0	1	64.40	862	1800	1996	1994	1.29	1,547.131		
200	200	243	233	1	2	63.40	894	1785	1996	1994	2.19	912.189		
300	300	315	293	1	2	62.27	929	1768	1998	1995	3.00	666.681		
400	400	556	513	1	3	60.42	986	1738	1999	1995	4.29	466.131		
450	450	623	579	2	3	60.44	985	1736	1997	1993	4.55	438.650		
500	500	691	647	2	3	-28.37	981	1735	1995	1990	4.82	413.584		
600	600	821	777	2	3	-28.25	970	1734	1987	1981	5.38	369.589		
692	691	928	882	2	3	-28.05	955	1734	1975	1969	5.89	335.278		
700	700	928	882	2	3	-28.05	955	1734	1974	1968	5.92	333.184		
800	799	928	882	3	3	-28.05	955	1734	1963	1956	6.28	312.645		
900	899	1331	1279	3	5	-27.25	901	1725	1949	1941	7.65	254.839		
1000	999	1470	1415	4	5	-26.78	871	1712	1923	1914	8.40	228.958		
1100	1098	1552	1494	4	5	-26.48	853	1705	1897	1888	9.02	210.362		
1200	1198	1626	1566	4	5	-26.22	837	1699	1872	1863	9.62	194.561		
1300	1298	1712	1650	5	6	-25.90	819	1693	1848	1838	10.28	179.830		
1400	1397	1834	1769	5	6	-25.31	790	1685	1825	1814	11.07	164.915		
1500	1497	1943	1873	5	7	-24.70	761	1678	1799	1788	11.85	151.826		
1600	1596	2023	1950	6	7	-24.22	740	1673	1775	1762	12.53	141.639		
1700	1696	2104	2028	6	7	-23.72	719	1669	1751	1738	13.23	132.307		
1800	1796	2281	2198	7	8	-22.57	670	1657	1726	1711	14.28	120.808		
1900	1895	2379	2291	7	9	-21.88	642	1648	1698	1683	15.07	112.658		
2000	1995	2510	2416	7	9	-21.00	605	1634	1670	1654	15.97	104.527		
2100	2095	2581	2484	8	10	-20.55	586	1626	1641	1624	16.68	98.392		
2200	2194	2658	2558	8	10	-20.05	566	1618	1614	1596	17.41	92.715		
2300	2294	2735	2632	9	11	-19.55	546	1611	1588	1570	18.14	87.539		
2400	2394	2813	2708	9	11	-19.03	527	1604	1563	1544	18.87	82.813		
2500	2493	2892	2784	9	11	-18.52	508	1598	1539	1520	19.61	78.489		
2600	2593	2971	2860	10	12	-17.99	489	1592	1517	1496	20.35	74.530		
2700	2693	3051	2938	10	12	-17.47	471	1587	1496	1475	21.09	70.899		
2800	2792	3137	3022	11	12	-16.89	452	1583	1476	1454	21.86	67.492		
2900	2892	3236	3118	11	13	-16.20	430	1578	1456	1433	22.68	64.187		
3000	2992	3330	3210	11	13	-15.51	409	1574	1437	1413	23.49	61.145		
3100	3091	3434	3311	12	14	-14.74	385	1568	1417	1393	24.34	58.229		
3200	3191	3563	3436	12	15	-13.74	355	1561	1397	1372	25.27	55.276		
3300	3290	3671	3541	12	15	-12.88	330	1552	1375	1349	26.14	52.605		
3400	3390	3764	3631	13	16	-12.12	308	1544	1353	1326	26.96	50.181		
3500	3490	3858	3721	13	16	-11.21	284	1537	1331	1304	27.81	47.881		
3600	3589	3946	3806	14	16	-10.26	259	1531	1311	1282	28.65	45.738		
3700	3689	4042	3898	14	17	-9.25	234	1525	1291	1261	29.53	43.707		
3800	3789	4282	4130	14	18	-8.19	201	1484	1260	1229	30.42	41.418		
3858	3847	4935	4661	15	19	-22.09	365	1178	1230	1202	28.14	43.717		
3900	3888	4945	4667	15	19	40.33	369	1171	1203	1174	28.61	42.041		
3950	3938	4969	4681	15	19	86.03	381	1155	1172	1143	29.16	40.180		
4000	3987	4998	4697	15	20	100.50	395	1136	1143	1113	29.72	38.464		
4050	4036	5058	4729	15	20	106.58	428	1097	1116	1086	30.35	36.783		
4100	4083	5151	4769	15	21	108.94	484	1035	1090	1059	31.30	34.838		
4150	4128	5228	4794	15	22	110.39	536	984	1066	1033	32.50	32.795		
4200	4171	5394	4821	16	25	107.11	654	870	1040	1005	35.33	29.451		
4250	4212	5440	4823	16	26	108.52	687	838	1016	979	36.67	27.698		
4300	4250	5480	4823	16	27	109.85	715	811	993	955	37.91	26.200		
4350	4285	5516	4824	16	28	110.94	741	785	973	934	39.11	24.886		

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



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: K03 2309 - # 405H - Original drilling - Original drilling													Offset Site Error:	0 ft	
Survey Program:		376-MWD+HDGM		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Well Error:	0 ft
Measured Depth (ft)	Reference Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
4400	4316	5566	4825	16	29	111.36	777	750	956	915	40.59	23.546			
4450	4344	5612	4826	16	29	111.80	809	718	940	898	42.01	22.382			
4500	4368	5648	4827	16	30	112.36	834	692	927	884	43.25	21.439			
4550	4387	5688	4828	17	31	112.69	863	664	917	872	44.60	20.559			
4600	4403	5729	4829	17	32	112.88	892	635	909	863	45.98	19.775			
4650	4414	5781	4829	18	33	112.89	930	599	904	856	47.63	18.976			
4700	4420	5838	4830	18	34	112.91	971	560	900	851	49.39	18.225			
4710	4421	5846	4830	19	34	112.94	977	554	900	850	49.69	18.107			
4743	4422	5874	4830	19	35	113.02	997	535	899	848	50.61	17.756			
4755	4422	5885	4831	19	35	113.03	1004	528	899	848	50.98	17.626			
4800	4422	5926	4832	20	36	113.08	1034	499	898	846	52.36	17.155			
4822	4423	5946	4832	20	37	113.11	1049	485	898	845	53.07	16.922			
4900	4423	6034	4834	21	39	113.23	1112	424	897	841	55.98	16.026			
4922	4423	6058	4834	22	39	113.26	1129	408	897	840	56.83	15.780			
5000	4424	6135	4835	23	41	113.28	1185	354	895	836	59.67	15.003			
5064	4424	6183	4834	24	42	113.25	1220	321	895	833	61.72	14.494			
5100	4424	6216	4834	25	43	113.22	1244	299	895	832	63.04	14.196			
5104	4424	6216	4834	25	43	113.22	1244	299	895	832	63.10	14.182			
5200	4425	6323	4836	27	45	113.31	1323	226	896	829	67.12	13.344			
5222	4425	6349	4837	27	46	113.35	1341	208	895	827	68.07	13.156			
5300	4426	6424	4838	29	48	113.40	1396	157	895	824	71.14	12.577			
5327	4426	6446	4838	29	48	113.38	1412	142	895	823	72.11	12.407			
5400	4426	6506	4837	31	50	113.26	1457	102	895	820	74.83	11.964			
5404	4426	6509	4837	31	50	113.25	1459	100	895	820	75.00	11.938			
5500	4427	6588	4834	33	51	112.97	1519	49	898	819	78.61	11.420			
5504	4427	6594	4834	33	52	112.95	1524	45	898	819	78.86	11.387			
5600	4428	6697	4834	35	54	112.82	1602	-22	901	818	83.13	10.840			
5604	4428	6703	4834	35	54	112.83	1606	-26	901	818	83.35	10.813			
5700	4428	6809	4837	37	57	112.92	1685	-97	903	815	87.66	10.298			
5704	4428	6813	4837	37	57	112.92	1688	-100	903	815	87.86	10.276			
5800	4429	6923	4839	40	59	113.00	1768	-175	903	811	92.31	9.785			
5821	4429	6945	4839	40	60	113.01	1785	-190	903	810	93.27	9.684			
5900	4430	7024	4840	42	62	113.05	1842	-244	903	806	96.68	9.337			
5922	4430	7049	4841	42	63	113.07	1860	-261	903	805	97.71	9.237			
6000	4430	7128	4841	44	64	113.10	1917	-316	901	800	101.16	8.911			
6021	4431	7143	4841	45	65	113.10	1928	-327	901	799	101.94	8.841			
6100	4431	7235	4842	46	67	113.11	1995	-389	901	795	105.74	8.521			
6122	4431	7254	4842	47	68	113.12	2009	-402	901	794	106.64	8.446			
6200	4432	7345	4843	49	70	113.17	2074	-465	899	789	110.38	8.147			
6224	4432	7375	4843	49	71	113.20	2096	-487	899	787	111.57	8.054			
6300	4432	7466	4844	51	73	113.38	2159	-552	895	780	115.20	7.770			
6325	4433	7488	4845	52	73	113.42	2174	-568	894	778	116.24	7.690			
6400	4433	7540	4845	53	75	113.49	2211	-605	891	772	119.05	7.484			
6423	4433	7562	4845	54	75	113.51	2227	-620	890	770	120.04	7.418			
6500	4434	7623	4846	56	77	113.58	2270	-662	889	766	123.04	7.229			
6517	4434	7637	4847	56	77	113.60	2280	-672	889	766	123.70	7.190 CC			
6600	4434	7698	4849	58	79	113.70	2326	-714	890	764	126.74	7.025			
6604	4434	7701	4849	58	79	113.70	2328	-716	890	764	126.89	7.017			
6700	4435	7789	4854	61	81	113.94	2393	-774	894	763	130.71	6.838			
6704	4435	7794	4855	61	81	113.95	2396	-777	894	763	130.91	6.828			
6800	4436	7864	4859	63	83	114.10	2449	-823	899	764	134.18	6.697			
6804	4436	7868	4859	63	83	114.11	2452	-826	899	765	134.37	6.690			

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



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: K03 2309 - # 405H - Original drilling - Original drilling												Offset Site Error:	0 ft
Survey Program: 376-MWD+HDGM												Offset Well Error:	0 ft
Reference	Offset	Rule Assigned:										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)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
6900	4436	7970	4865	65	85	114.32	2530	-892	905	766	138.64	6.526	
6904	4436	7975	4865	65	85	114.34	2534	-896	905	766	138.85	6.518	
7000	4437	8084	4872	68	88	114.59	2616	-967	910	767	143.30	6.350	
7004	4437	8091	4872	68	88	114.60	2621	-971	910	767	143.55	6.340	
7100	4438	8229	4874	70	92	114.63	2723	-1065	911	762	149.02	6.112	
7163	4438	8283	4873	72	93	114.53	2763	-1101	910	759	151.71	6.001	
7200	4438	8317	4873	73	94	114.49	2787	-1124	910	757	153.33	5.938	
7204	4438	8321	4873	73	94	114.49	2791	-1126	911	757	153.53	5.930	
7300	4439	8414	4873	75	96	114.44	2859	-1189	911	753	157.80	5.774	
7304	4439	8418	4873	75	96	114.45	2862	-1192	911	753	158.00	5.767	
7400	4440	8516	4876	77	99	114.57	2934	-1259	912	750	162.25	5.620	
7404	4440	8520	4876	77	99	114.58	2937	-1262	912	749	162.44	5.613	
7500	4440	8608	4878	80	101	114.66	3002	-1321	913	746	166.45	5.482	
7504	4440	8615	4878	80	101	114.66	3007	-1326	913	746	166.71	5.474	
7600	4441	8722	4880	82	104	114.68	3086	-1398	914	742	171.31	5.334	
7670	4441	8792	4879	84	106	114.63	3137	-1445	913	739	174.54	5.234	
7700	4442	8819	4879	85	106	114.62	3157	-1464	913	738	175.83	5.195	
7704	4442	8823	4879	85	106	114.62	3160	-1467	913	737	176.02	5.190	
7800	4442	8927	4879	87	109	114.55	3237	-1537	914	733	180.66	5.057	
7822	4442	8951	4879	88	110	114.52	3254	-1553	913	732	181.72	5.026	
7900	4443	9032	4877	89	112	114.41	3313	-1608	912	727	185.49	4.919	
7922	4443	9056	4877	90	112	114.37	3331	-1625	912	726	186.61	4.888	
8000	4444	9135	4875	92	114	114.25	3389	-1679	911	720	190.31	4.786	
8022	4444	9153	4875	92	115	114.23	3402	-1691	910	719	191.26	4.761	
8100	4444	9223	4874	94	117	114.17	3453	-1738	910	715	194.66	4.675	
8122	4444	9250	4874	95	117	114.14	3472	-1757	910	714	195.82	4.647	
8200	4445	9349	4873	97	120	114.09	3545	-1826	908	708	199.97	4.542	
8223	4445	9369	4873	97	120	114.09	3559	-1840	908	707	200.96	4.516	
8300	4446	9435	4872	99	122	114.08	3606	-1885	906	702	204.24	4.435	
8370	4446	9492	4872	101	123	114.03	3648	-1924	905	698	207.20	4.369	
8400	4446	9514	4872	102	124	114.01	3664	-1939	905	697	208.36	4.345	
8404	4446	9517	4872	102	124	114.01	3667	-1941	905	697	208.54	4.342	
8500	4447	9600	4872	104	126	113.96	3729	-1996	907	695	212.58	4.267	
8504	4447	9606	4872	104	126	113.96	3733	-2000	907	694	212.82	4.263	
8600	4448	9717	4874	107	129	113.98	3815	-2075	908	691	217.61	4.174	
8621	4448	9739	4874	107	130	113.98	3831	-2090	908	690	218.61	4.155	
8700	4448	9826	4874	109	132	113.94	3895	-2149	908	686	222.48	4.082	
8721	4448	9849	4874	109	132	113.92	3912	-2164	908	685	223.54	4.062	
8800	4449	9952	4873	111	135	113.84	3987	-2235	907	679	227.80	3.981	
8870	4449	9995	4872	113	136	113.84	4018	-2265	905	675	230.44	3.929	
8900	4450	10,022	4872	114	137	113.82	4038	-2283	906	674	231.75	3.908	
8904	4450	10,022	4872	114	137	113.82	4038	-2283	906	674	231.83	3.906	
9000	4450	10,104	4874	116	139	113.84	4099	-2338	907	672	235.77	3.849	
9004	4450	10,109	4874	116	139	113.84	4103	-2341	908	672	235.99	3.846	
9100	4451	10,197	4877	119	141	113.93	4168	-2400	909	669	239.97	3.789	
9104	4451	10,205	4877	119	141	113.94	4173	-2406	909	669	240.27	3.785	
9200	4452	10,292	4881	121	143	114.09	4238	-2463	913	668	244.08	3.738	
9204	4452	10,297	4881	121	144	114.10	4242	-2467	913	668	244.30	3.736	
9300	4452	10,404	4887	124	146	114.37	4321	-2539	915	666	248.60	3.680	
9304	4452	10,409	4887	124	146	114.38	4324	-2542	915	666	248.79	3.678	
9400	4453	10,525	4894	126	149	114.76	4408	-2623	916	663	253.11	3.618	
9422	4453	10,549	4894	127	150	114.81	4426	-2639	916	662	254.07	3.604	

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



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: K03 2309 - # 405H - Original drilling - Original drilling													Offset Site Error:	0 ft
Survey Program:		376-MWD+HDGM						Rule Assigned:					Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
9500	4454	10,641	4896	129	152	114.91	4491	-2703	915	657	257.79	3.548		
9522	4454	10,659	4896	129	153	114.91	4505	-2716	914	655	258.73	3.533		
9600	4454	10,723	4895	131	154	114.84	4551	-2759	913	651	262.07	3.485		
9621	4454	10,740	4895	132	155	114.81	4564	-2770	913	650	262.97	3.473		
9700	4455	10,829	4893	133	157	114.66	4630	-2831	913	646	267.13	3.419		
9722	4455	10,853	4893	134	158	114.62	4648	-2847	913	645	268.24	3.404		
9800	4456	10,933	4891	136	160	114.48	4706	-2901	912	640	272.12	3.352		
9821	4456	10,951	4890	136	160	114.44	4719	-2913	912	639	273.09	3.339		
9900	4456	11,037	4889	138	162	114.32	4783	-2971	912	634	277.09	3.290		
9923	4456	11,070	4889	139	163	114.35	4806	-2994	911	633	278.28	3.274		
10,000	4457	11,137	4890	141	165	114.45	4854	-3041	909	628	281.45	3.230		
10,038	4457	11,160	4891	142	165	114.48	4870	-3057	909	626	282.77	3.213		
10,100	4458	11,207	4892	143	167	114.51	4905	-3089	909	624	285.10	3.189		
10,104	4458	11,211	4892	143	167	114.51	4908	-3092	909	624	285.30	3.187		
10,200	4458	11,311	4891	146	169	114.35	4983	-3158	911	621	290.11	3.140		
10,204	4458	11,315	4891	146	169	114.35	4986	-3161	911	621	290.32	3.138		
10,300	4459	11,411	4892	148	172	114.37	5057	-3225	912	618	294.65	3.096		
10,304	4459	11,416	4893	148	172	114.38	5061	-3229	912	617	294.84	3.094		
10,400	4460	11,515	4895	151	174	114.51	5133	-3296	913	614	299.05	3.053		
10,404	4460	11,519	4895	151	174	114.51	5136	-3299	913	614	299.24	3.051		
10,500	4460	11,615	4896	153	177	114.46	5207	-3363	914	610	303.75	3.009		
10,504	4460	11,620	4896	153	177	114.45	5211	-3366	914	610	303.96	3.007		
10,600	4461	11,715	4895	156	179	114.35	5281	-3430	915	606	308.53	2.964		
10,604	4461	11,719	4895	156	180	114.35	5284	-3433	915	606	308.73	2.962		
10,700	4462	11,807	4896	158	182	114.32	5350	-3492	916	603	312.94	2.926		
10,704	4462	11,812	4896	158	182	114.32	5354	-3495	916	603	313.15	2.925		
10,800	4462	11,903	4896	160	184	114.25	5421	-3556	917	600	317.51	2.889		
10,804	4462	11,906	4896	161	184	114.25	5424	-3558	917	600	317.70	2.888		
10,900	4463	11,995	4897	163	186	114.24	5490	-3617	920	598	321.84	2.858		
10,904	4463	11,999	4897	163	187	114.24	5493	-3619	920	598	322.01	2.857		
11,000	4464	12,086	4900	165	189	114.27	5559	-3676	923	597	325.98	2.833		
11,004	4464	12,090	4900	165	189	114.27	5562	-3679	924	597	326.18	2.831		
11,100	4464	12,190	4901	168	191	114.19	5638	-3744	927	596	330.87	2.803		
11,120	4464	12,215	4901	168	192	114.19	5656	-3760	928	596	331.95	2.795		
11,200	4465	12,348	4905	170	195	114.40	5753	-3852	927	591	336.60	2.755		
11,223	4465	12,376	4906	171	196	114.48	5773	-3872	927	589	337.58	2.745		
11,300	4466	12,460	4908	173	198	114.69	5831	-3932	924	583	340.75	2.711		
11,324	4466	12,486	4909	173	199	114.74	5849	-3951	923	581	341.77	2.700		
11,400	4466	12,571	4909	175	201	114.86	5908	-4012	919	574	345.07	2.663		
11,500	4467	12,688	4909	178	204	114.96	5989	-4097	913	563	349.54	2.611		
11,600	4468	12,774	4907	180	206	115.00	6048	-4159	906	552	354.04	2.559		
11,625	4468	12,791	4907	181	207	114.98	6060	-4171	905	550	355.15	2.547		
11,700	4468	12,855	4905	183	209	114.89	6106	-4216	902	543	358.73	2.514		
11,724	4468	12,872	4904	183	209	114.86	6118	-4228	901	541	359.81	2.504		
11,804	4469	12,945	4900	185	211	114.59	6171	-4277	899	535	364.01	2.470 ES, SF		

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



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: K03 2309 - # 406H - Original drilling - Original drilling												Offset Site Error:	0 ft
Survey Program: 376-MWD+HDGM												Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Rule Assigned:		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0	0	57	57	0	0	64.59	854	1797	1989				
100	100	157	157	0	0	64.59	854	1797	1990	1989	0.58	3,437.987	
200	200	257	257	1	0	64.59	854	1797	1990	1988	1.11	1,793.363	
300	300	356	356	1	1	64.58	854	1797	1990	1988	1.64	1,213.082	
400	400	474	474	1	1	64.58	854	1797	1989	1987	2.37	837.595	
450	450	540	540	2	1	64.57	854	1796	1989	1986	2.79	713.615	
500	500	618	618	2	2	-24.34	854	1793	1987	1984	3.24	613.555	
600	600	773	773	2	2	-24.59	855	1786	1980	1975	4.15	477.526	
692	691	919	918	2	3	-25.04	857	1773	1967	1962	5.00	393.779	
700	700	934	933	2	3	-25.09	858	1771	1966	1961	5.09	386.465	
800	799	1289	1282	3	4	-26.49	862	1706	1941	1934	6.73	288.266	
900	899	1434	1422	3	5	-27.17	861	1668	1910	1903	7.63	250.486	
1000	999	1529	1514	4	5	-27.65	861	1643	1879	1870	8.35	224.895	
1100	1098	1597	1579	4	6	-28.01	860	1625	1848	1839	8.99	205.533	
1200	1198	1666	1645	4	6	-28.36	860	1608	1819	1809	9.64	188.696	
1300	1298	1773	1749	5	7	-28.95	860	1581	1790	1779	10.43	171.599	
1400	1397	1881	1853	5	7	-29.59	861	1553	1760	1749	11.23	156.699	
1500	1497	1981	1949	5	8	-30.25	863	1526	1730	1718	12.02	143.942	
1600	1596	2080	2044	6	8	-30.95	864	1499	1700	1687	12.82	132.660	
1700	1696	2199	2159	6	9	-31.85	867	1465	1670	1656	13.70	121.905	
1800	1796	2320	2274	7	9	-32.84	869	1428	1638	1623	14.59	112.217	
1900	1895	2406	2356	7	10	-33.60	870	1401	1605	1590	15.39	104.316	
2000	1995	2479	2426	7	10	-34.25	872	1378	1574	1558	16.15	97.498	
2100	2095	2554	2497	8	11	-34.92	873	1357	1544	1528	16.91	91.343	
2200	2194	2635	2575	8	11	-35.60	874	1335	1516	1498	17.69	85.699	
2300	2294	2707	2645	9	12	-36.18	874	1317	1489	1471	18.43	80.770	
2400	2394	2784	2719	9	12	-36.79	875	1298	1463	1444	19.19	76.249	
2500	2493	2859	2792	9	12	-37.35	875	1282	1439	1419	19.93	72.189	
2600	2593	2948	2880	10	13	-38.00	874	1263	1416	1395	20.72	68.347	
2700	2693	3042	2972	10	13	-38.73	875	1244	1393	1372	21.53	64.736	
2800	2792	3136	3064	11	14	-39.53	876	1224	1371	1349	22.35	61.364	
2900	2892	3236	3161	11	14	-40.39	877	1203	1349	1326	23.19	58.186	
3000	2992	3335	3258	11	15	-41.24	877	1182	1327	1303	24.03	55.238	
3100	3091	3436	3357	12	15	-42.15	877	1160	1305	1280	24.88	52.451	
3200	3191	3535	3453	12	16	-43.15	879	1137	1283	1257	25.75	49.821	
3300	3290	3628	3543	12	16	-44.10	880	1117	1261	1234	26.61	47.394	
3400	3390	3743	3656	13	17	-45.33	880	1090	1239	1211	27.54	44.993	
3500	3490	3865	3774	13	17	-46.70	879	1060	1215	1187	28.49	42.670	
3600	3589	3952	3858	14	18	-47.67	877	1039	1191	1162	29.35	40.587	
3700	3689	4041	3944	14	18	-48.59	875	1019	1169	1138	30.20	38.694	
3800	3789	4331	4223	14	19	-48.52	806	985	1136	1106	30.38	37.398	
3858	3847	4397	4282	15	19	-47.78	778	984	1113	1082	30.60	36.378	
3900	3888	4423	4306	15	20	13.78	766	984	1097	1066	30.86	35.542	
3950	3938	4443	4323	15	20	59.20	757	985	1078	1047	31.20	34.545	
4000	3987	4475	4352	15	20	74.35	742	987	1060	1028	31.42	33.725	
4050	4036	4506	4379	15	20	82.45	728	990	1043	1011	31.60	32.997	
4100	4083	4520	4391	15	20	87.44	722	992	1028	996	31.82	32.291	
4150	4128	4543	4411	15	20	91.55	711	995	1015	983	31.97	31.735	
4200	4171	4569	4434	16	20	95.09	700	998	1004	972	32.08	31.298	
4250	4212	4569	4434	16	20	96.70	700	998	996	964	32.24	30.900	
4300	4250	4589	4452	16	20	98.84	690	1001	992	959	32.36	30.648	
4350	4285	4599	4461	16	20	99.93	686	1003	991	958	32.50	30.477 CC, ES	

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



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: K03 2309 - # 406H - Original drilling - Original drilling													Offset Site Error:	0 ft	
Survey Program:		376-MWD+HDGM					Offset Wellbore Centre			Rule Assigned:				Offset Well Error:	0 ft
Measured Depth (ft)	Reference Vertical Depth (ft)	Measured Depth (ft)	Offset Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
4352	4286	4599	4461	16	20	99.97	686	1003	991	958	32.51	30.468			
4400	4316	4606	4467	16	20	100.43	683	1004	993	960	32.68	30.391			
4450	4344	4611	4471	16	20	100.32	681	1004	999	966	32.89	30.380 SF			
4500	4368	4612	4473	16	20	99.62	680	1005	1009	976	33.14	30.436			
4550	4387	4611	4471	17	20	98.32	681	1004	1022	988	33.45	30.551			
4600	4403	4607	4468	17	20	96.43	683	1004	1038	1004	33.79	30.720			
4650	4414	4600	4461	18	20	93.96	686	1003	1057	1023	34.17	30.936			
4700	4420	4589	4452	18	20	90.95	690	1001	1078	1044	34.57	31.195			
4743	4422	4569	4434	19	20	87.55	700	998	1098	1063	34.88	31.484			
4800	4422	4569	4434	20	20	87.55	700	998	1127	1091	35.45	31.781			
4900	4423	4534	4404	21	20	85.78	715	994	1181	1144	36.33	32.500			
5000	4424	4506	4379	23	20	84.34	728	990	1239	1202	37.23	33.293			
5100	4424	4506	4379	25	20	84.34	728	990	1303	1264	38.22	34.087			
5200	4425	4471	4348	27	20	82.63	744	987	1369	1330	39.01	35.099			
5300	4426	4443	4323	29	20	81.26	757	985	1440	1400	39.78	36.190			
5400	4426	4443	4323	31	20	81.26	757	985	1513	1472	40.59	37.273			
5500	4427	4443	4323	33	20	81.26	757	985	1589	1548	41.32	38.454			
5600	4428	4413	4297	35	19	79.87	771	984	1667	1625	41.92	39.765			
5700	4428	4402	4286	37	19	79.33	776	984	1747	1705	42.51	41.101			
5800	4429	4381	4268	40	19	78.37	785	984	1829	1786	43.03	42.507			
5900	4430	4381	4268	42	19	78.37	785	984	1912	1869	43.54	43.923			
6000	4430	4381	4268	44	19	78.37	785	984	1997	1953	44.00	45.391			
6100	4431	4381	4268	46	19	78.37	785	984	2083	2039	44.42	46.905			
6200	4432	4351	4241	49	19	77.03	798	984	2170	2125	44.78	48.463			
6300	4432	4343	4233	51	19	76.66	801	985	2258	2213	45.13	50.039			
6400	4433	4318	4210	53	19	75.55	811	986	2347	2302	45.44	51.656			
6500	4434	4318	4210	56	19	75.55	811	986	2437	2391	45.75	53.270			
6600	4434	4318	4210	58	19	75.55	811	986	2527	2481	46.02	54.910			
6700	4435	4318	4210	61	19	75.55	811	986	2618	2572	46.28	56.573			
6800	4436	4318	4210	63	19	75.55	811	986	2710	2663	46.52	58.256			
6900	4436	4318	4210	65	19	75.55	811	986	2802	2755	46.74	59.957			
7000	4437	4292	4186	68	19	74.42	820	987	2894	2848	46.95	61.654			
7100	4438	4286	4180	70	19	74.14	823	988	2988	2940	47.14	63.372			
7200	4438	4280	4175	73	19	73.87	825	988	3081	3034	47.33	65.100			
7300	4439	4254	4151	75	19	72.77	834	990	3175	3127	47.51	66.828			
7400	4440	4254	4151	77	19	72.77	834	990	3269	3221	47.67	68.573			
7500	4440	4254	4151	80	19	72.77	834	990	3363	3315	47.82	70.327			
7600	4441	4254	4151	82	19	72.77	834	990	3458	3410	47.97	72.090			
7700	4442	4254	4151	85	19	72.77	834	990	3553	3505	48.10	73.862			
7800	4442	4254	4151	87	19	72.77	834	990	3648	3600	48.23	75.640			
7900	4443	4254	4151	89	19	72.77	834	990	3744	3695	48.35	77.425			
8000	4444	4254	4151	92	19	72.77	834	990	3839	3791	48.47	79.215			
8100	4444	4254	4151	94	19	72.77	834	990	3935	3887	48.58	81.010			
8200	4445	4254	4151	97	19	72.77	834	990	4031	3983	48.68	82.810			
8300	4446	4228	4126	99	19	71.69	842	992	4127	4078	48.81	84.559			
8400	4446	4225	4123	102	19	71.54	843	993	4224	4175	48.91	86.354			
8500	4447	4221	4120	104	19	71.39	844	993	4320	4271	49.01	88.151			
8600	4448	4218	4117	107	19	71.26	845	993	4417	4368	49.10	89.950			
8700	4448	4191	4091	109	19	70.14	853	996	4514	4465	49.22	91.718			
8800	4449	4191	4091	111	19	70.14	853	996	4611	4561	49.30	93.522			
8900	4450	4191	4091	114	19	70.14	853	996	4708	4658	49.38	95.328			
9000	4450	4191	4091	116	19	70.14	853	996	4805	4755	49.47	97.135			

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



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: K03 2309 - # 406H - Original drilling - Original drilling													Offset Site Error:	0 ft
Survey Program:		376-MWD+HDGM						Rule Assigned:					Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance				Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
9100	4451	4191	4091	119	19	70.14	853	996	4902	4853	49.54	98.944		
9200	4452	4191	4091	121	19	70.14	853	996	4999	4950	49.62	100.753		
9300	4452	4191	4091	124	19	70.14	853	996	5097	5047	49.69	102.563		
9400	4453	4191	4091	126	19	70.14	853	996	5194	5145	49.77	104.374		
9500	4454	4191	4091	129	19	70.14	853	996	5292	5242	49.84	106.185		
9600	4454	4191	4091	131	19	70.14	853	996	5390	5340	49.91	107.996		
9700	4455	4191	4091	133	19	70.14	853	996	5488	5438	49.97	109.807		
9800	4456	4191	4091	136	19	70.14	853	996	5585	5535	50.04	111.617		
9900	4456	4191	4091	138	19	70.14	853	996	5683	5633	50.11	113.427		
10,000	4457	4191	4091	141	19	70.14	853	996	5781	5731	50.17	115.235		
10,100	4458	4191	4091	143	19	70.14	853	996	5879	5829	50.23	117.043		
10,200	4458	4191	4091	146	19	70.14	853	996	5978	5927	50.30	118.850		
10,300	4459	4191	4091	148	19	70.14	853	996	6076	6026	50.36	120.656		
10,400	4460	4191	4091	151	19	70.14	853	996	6174	6124	50.42	122.460		
10,500	4460	4191	4091	153	19	70.14	853	996	6272	6222	50.48	124.263		
10,600	4461	4191	4091	156	19	70.14	853	996	6371	6320	50.54	126.064		
10,700	4462	4191	4091	158	19	70.14	853	996	6469	6419	50.60	127.863		
10,800	4462	4191	4091	160	19	70.14	853	996	6568	6517	50.65	129.661		
10,900	4463	4191	4091	163	19	70.14	853	996	6666	6616	50.71	131.457		
11,000	4464	4191	4091	165	19	70.14	853	996	6765	6714	50.77	133.250		
11,100	4464	4191	4091	168	19	70.14	853	996	6863	6813	50.82	135.041		
11,200	4465	4191	4091	170	19	70.14	853	996	6962	6911	50.88	136.830		
11,300	4466	4191	4091	173	19	70.14	853	996	7061	7010	50.94	138.617		
11,400	4466	4191	4091	175	19	70.14	853	996	7159	7108	50.99	140.401		
11,500	4467	4191	4091	178	19	70.14	853	996	7258	7207	51.05	142.183		
11,600	4468	4191	4091	180	19	70.14	853	996	7357	7306	51.10	143.961		
11,700	4468	4191	4091	183	19	70.14	853	996	7456	7405	51.16	145.738		
11,804	4469	4191	4091	185	19	70.14	853	996	7558	7507	51.22	147.578		

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



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: P04 2309 - 701H - Original Drilling - APD													Offset Site Error: 0 ft	
Survey Program: 0-MWD+IGRF		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Well Error: 0 ft		
Measured Depth (ft)	Reference Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0	0	0	0	0	0	-90.00	0	-60	60					
100	100	100	100	0	0	-90.00	0	-60	60	59	0.46	129.433		
200	200	200	200	1	1	-90.00	0	-60	60	59	1.18	50.750		
300	300	300	300	1	1	-90.00	0	-60	60	58	1.90	31.563		
400	400	400	400	1	1	-90.00	0	-60	60	57	2.61	22.904		
450	450	450	450	2	1	-90.00	0	-60	60	57	2.97	20.141	CC, ES	
500	500	499	499	2	2	-179.17	0	-60	61	57	3.32	18.263		
600	600	598	598	2	2	178.55	-3	-62	66	62	3.99	16.601		
692	691	687	687	2	2	175.32	-8	-66	77	72	4.63	16.593		
700	700	695	695	2	2	175.00	-8	-67	78	73	4.69	16.631		
800	799	792	791	3	3	171.18	-16	-73	94	89	5.38	17.461		
900	899	887	885	3	3	167.48	-26	-81	113	107	6.07	18.583		
1000	999	981	978	4	3	164.09	-38	-91	135	128	6.75	19.934		
1100	1098	1073	1068	4	4	161.09	-52	-103	160	152	7.43	21.467		
1200	1198	1164	1157	4	4	158.48	-68	-116	188	179	8.11	23.143		
1300	1298	1253	1243	5	5	156.21	-86	-131	219	210	8.76	24.948		
1400	1397	1340	1326	5	5	154.26	-106	-148	253	243	9.41	26.839		
1500	1497	1426	1407	5	6	152.57	-127	-165	289	279	10.04	28.814		
1600	1596	1512	1488	6	6	151.06	-150	-184	329	318	10.70	30.716		
1700	1696	1604	1574	6	7	149.77	-174	-205	369	357	11.42	32.273		
1800	1796	1695	1659	7	8	148.73	-199	-225	409	396	12.15	33.641		
1900	1895	1786	1745	7	8	147.88	-223	-246	449	436	12.88	34.852		
2000	1995	1878	1831	7	9	147.17	-248	-266	489	475	13.61	35.929		
2100	2095	1969	1916	8	10	146.56	-273	-287	529	515	14.35	36.893		
2200	2194	2061	2002	8	10	146.04	-297	-307	570	555	15.09	37.761		
2300	2294	2152	2087	9	11	145.59	-322	-327	610	594	15.83	38.544		
2400	2394	2243	2173	9	12	145.19	-347	-348	650	634	16.57	39.256		
2500	2493	2335	2259	9	12	144.85	-371	-368	691	674	17.31	39.904		
2600	2593	2426	2344	10	13	144.54	-396	-389	731	713	18.06	40.496		
2700	2693	2518	2430	10	14	144.26	-421	-409	772	753	18.80	41.040		
2800	2792	2609	2515	11	14	144.01	-445	-430	812	793	19.55	41.541		
2900	2892	2700	2601	11	15	143.78	-470	-450	853	832	20.30	42.004		
3000	2992	2792	2686	11	16	143.57	-494	-471	893	872	21.05	42.432		
3100	3091	2883	2772	12	16	143.39	-519	-491	934	912	21.80	42.830		
3200	3191	2975	2858	12	17	143.21	-544	-512	974	952	22.55	43.200		
3300	3290	3066	2943	12	18	143.06	-568	-532	1015	991	23.30	43.546		
3400	3390	3157	3029	13	19	142.91	-593	-553	1055	1031	24.05	43.869		
3500	3490	3249	3114	13	19	142.77	-618	-573	1096	1071	24.81	44.171		
3600	3589	3340	3200	14	20	142.65	-642	-594	1136	1111	25.56	44.455		
3700	3689	3431	3286	14	21	142.53	-667	-614	1177	1150	26.31	44.722		
3800	3789	3523	3371	14	21	142.42	-692	-635	1217	1190	27.07	44.974		
3858	3847	3576	3421	15	22	142.36	-706	-647	1241	1214	27.51	45.114		
3900	3888	3614	3457	15	22	-156.57	-716	-655	1258	1230	27.81	45.227		
3950	3938	3660	3499	15	22	-111.84	-728	-665	1278	1249	28.14	45.398		
4000	3987	3704	3541	15	23	-98.05	-740	-675	1297	1268	28.44	45.600		
4050	4036	3748	3582	15	23	-91.54	-752	-685	1316	1287	28.71	45.823		
4100	4083	3790	3622	15	23	-87.61	-764	-694	1334	1305	28.95	46.062		
4150	4128	3831	3660	15	24	-84.91	-775	-703	1351	1322	29.18	46.309		
4200	4171	3869	3695	16	24	-82.90	-785	-712	1368	1339	29.39	46.556		
4250	4212	3905	3729	16	24	-81.31	-795	-720	1385	1356	29.61	46.790		
4300	4250	3938	3760	16	25	-79.98	-804	-728	1402	1372	29.82	46.997		
4350	4285	3968	3789	16	25	-78.81	-812	-734	1418	1388	30.06	47.165		

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



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: P04 2309 - 701H - Original Drilling - APD											Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF											Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
4400	4316	3995	3814	16	25	-77.71	-819	-740	1434	1403	30.32	47.279
4450	4344	4019	3836	16	25	-76.63	-825	-746	1449	1419	30.63	47.328
4500	4368	4039	3854	16	25	-75.52	-831	-750	1465	1434	30.98	47.301
4550	4387	4073	3887	17	26	-75.05	-839	-759	1481	1449	31.54	46.955
4600	4403	4089	3902	17	26	-73.95	-842	-763	1496	1464	32.02	46.721
4650	4414	4136	3945	18	26	-74.08	-850	-778	1511	1478	32.85	45.998
4700	4420	4234	4035	18	27	-76.17	-857	-817	1525	1491	34.14	44.681
4743	4422	4343	4129	19	27	-78.73	-848	-871	1537	1501	35.40	43.411
4800	4422	4811	4381	20	30	-88.49	-638	-1184	1548	1508	39.25	39.431
4898	4423	5010	4393	21	31	-88.87	-493	-1320	1546	1503	42.86	36.076
4900	4423	5012	4393	21	31	-88.87	-491	-1321	1546	1503	42.92	36.026
4996	4424	5108	4393	23	32	-88.87	-420	-1385	1545	1499	46.02	33.566
5000	4424	5112	4393	23	32	-88.87	-417	-1388	1545	1499	46.16	33.465
5096	4424	5208	4394	25	33	-88.86	-346	-1452	1543	1494	49.53	31.156
5100	4424	5212	4394	25	33	-88.86	-343	-1455	1543	1494	49.69	31.060
5196	4425	5308	4395	27	34	-88.86	-271	-1519	1542	1488	53.35	28.897
5200	4425	5312	4395	27	34	-88.86	-268	-1522	1542	1488	53.55	28.791
5296	4426	5408	4395	29	35	-88.86	-197	-1586	1540	1483	57.13	26.961
5300	4426	5412	4395	29	35	-88.86	-194	-1589	1540	1483	57.28	26.891
5396	4426	5508	4396	31	37	-88.86	-123	-1653	1539	1478	61.21	25.140
5400	4426	5512	4396	31	37	-88.86	-120	-1656	1539	1477	61.37	25.073
5496	4427	5608	4397	33	38	-88.86	-48	-1720	1537	1472	65.39	23.509
5500	4427	5612	4397	33	39	-88.86	-45	-1722	1537	1472	65.56	23.448
5596	4428	5708	4397	35	40	-88.86	26	-1787	1536	1466	69.67	22.044
5600	4428	5712	4397	35	40	-88.86	29	-1789	1536	1466	69.84	21.988
5696	4428	5808	4398	37	42	-88.86	100	-1853	1534	1460	74.03	20.725
5700	4428	5812	4398	37	42	-88.86	103	-1856	1534	1460	74.20	20.675
5796	4429	5908	4399	39	44	-88.86	175	-1920	1533	1454	78.45	19.537
5800	4429	5912	4399	40	44	-88.86	178	-1923	1533	1454	78.63	19.491
5896	4430	6008	4399	42	46	-88.86	249	-1987	1531	1448	82.93	18.463
5900	4430	6012	4399	42	46	-88.86	252	-1990	1531	1448	83.12	18.421
5996	4430	6108	4400	44	48	-88.85	323	-2054	1530	1442	87.46	17.489
6000	4430	6112	4400	44	48	-88.85	326	-2057	1530	1442	87.65	17.451
6096	4431	6208	4401	46	50	-88.85	398	-2121	1528	1436	92.04	16.604
6100	4431	6212	4401	46	50	-88.85	401	-2124	1528	1436	92.22	16.569
6196	4432	6308	4401	49	52	-88.85	472	-2188	1527	1430	96.64	15.797
6200	4432	6312	4401	49	52	-88.85	475	-2190	1527	1430	96.83	15.765
6296	4432	6408	4402	51	54	-88.85	546	-2255	1525	1424	101.28	15.059
6300	4432	6412	4402	51	54	-88.85	549	-2257	1525	1424	101.47	15.030
6396	4433	6508	4403	53	56	-88.85	621	-2321	1524	1418	105.94	14.382
6400	4433	6512	4403	53	56	-88.85	624	-2324	1524	1417	106.14	14.355
6496	4434	6608	4403	56	58	-88.85	695	-2388	1522	1411	110.63	13.759
6500	4434	6612	4403	56	58	-88.85	698	-2391	1522	1411	110.82	13.734
6596	4434	6708	4404	58	61	-88.85	769	-2455	1521	1405	115.33	13.184
6600	4434	6712	4404	58	61	-88.85	772	-2458	1521	1405	115.53	13.161
6696	4435	6808	4405	60	63	-88.85	844	-2522	1519	1399	120.06	12.653
6700	4435	6812	4405	61	63	-88.85	847	-2525	1519	1399	120.26	12.631
6796	4436	6908	4405	63	65	-88.84	918	-2589	1518	1393	124.80	12.160
6800	4436	6912	4405	63	65	-88.84	921	-2592	1518	1393	125.00	12.140
6896	4436	7008	4406	65	67	-88.84	992	-2656	1516	1386	129.55	11.702
6900	4436	7012	4406	65	67	-88.84	995	-2659	1516	1386	129.75	11.684
6996	4437	7108	4407	68	69	-88.84	1066	-2723	1515	1380	134.32	11.276

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



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: P04 2309 - 701H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
7000	4437	7112	4407	68	70	-88.84	1070	-2725	1514	1380	134.52	11.258		
7096	4438	7208	4407	70	72	-88.84	1141	-2789	1513	1374	139.10	10.877		
7100	4438	7212	4407	70	72	-88.84	1144	-2792	1513	1374	139.30	10.861		
7196	4438	7308	4408	72	74	-88.84	1215	-2856	1512	1368	143.89	10.505		
7200	4438	7312	4408	73	74	-88.84	1218	-2859	1511	1367	144.09	10.490		
7296	4439	7408	4409	75	76	-88.84	1289	-2923	1510	1361	148.68	10.156		
7300	4439	7412	4409	75	76	-88.84	1293	-2926	1510	1361	148.89	10.141		
7396	4440	7508	4409	77	79	-88.84	1364	-2990	1508	1355	153.49	9.828		
7400	4440	7512	4409	77	79	-88.84	1367	-2993	1508	1355	153.70	9.814		
7496	4440	7608	4410	80	81	-88.84	1438	-3057	1507	1349	158.30	9.520		
7500	4440	7612	4410	80	81	-88.84	1441	-3060	1507	1348	158.51	9.507		
7596	4441	7708	4411	82	83	-88.84	1512	-3124	1505	1342	163.12	9.229		
7600	4441	7712	4411	82	83	-88.84	1516	-3127	1505	1342	163.33	9.217		
7696	4442	7808	4411	84	86	-88.83	1587	-3191	1504	1336	167.95	8.955		
7700	4442	7812	4411	85	86	-88.83	1590	-3194	1504	1336	168.16	8.943		
7796	4442	7907	4412	87	88	-88.83	1661	-3258	1502	1330	172.78	8.696		
7800	4442	7912	4412	87	88	-88.83	1664	-3260	1502	1329	172.99	8.685		
7896	4443	8007	4413	89	90	-88.83	1735	-3324	1501	1323	177.62	8.450		
7900	4443	8012	4413	89	90	-88.83	1739	-3327	1501	1323	177.83	8.440		
7996	4444	8107	4413	92	93	-88.83	1810	-3391	1499	1317	182.46	8.218		
8000	4444	8112	4413	92	93	-88.83	1813	-3394	1499	1317	182.67	8.208		
8096	4444	8207	4414	94	95	-88.83	1884	-3458	1498	1311	187.31	7.997		
8100	4444	8212	4414	94	95	-88.83	1887	-3461	1498	1310	187.52	7.988		
8196	4445	8307	4415	97	97	-88.83	1958	-3525	1496	1304	192.16	7.787		
8200	4445	8312	4415	97	98	-88.83	1962	-3528	1496	1304	192.37	7.778		
8296	4446	8407	4415	99	100	-88.83	2033	-3592	1495	1298	197.02	7.588		
8300	4446	8412	4415	99	100	-88.83	2036	-3595	1495	1298	197.23	7.579		
8396	4446	8507	4416	102	102	-88.83	2107	-3659	1493	1291	201.87	7.398		
8400	4446	8512	4416	102	102	-88.83	2110	-3662	1493	1291	202.09	7.389		
8496	4447	8607	4417	104	105	-88.82	2181	-3726	1492	1285	206.74	7.216		
8500	4447	8612	4417	104	105	-88.82	2185	-3728	1492	1285	206.95	7.208		
8596	4448	8707	4417	106	107	-88.82	2256	-3792	1490	1279	211.60	7.043		
8600	4448	8712	4417	107	107	-88.82	2259	-3795	1490	1278	211.82	7.036		
8696	4448	8807	4418	109	109	-88.82	2330	-3859	1489	1272	216.47	6.878		
8700	4448	8812	4418	109	109	-88.82	2333	-3862	1489	1272	216.69	6.871		
8796	4449	8907	4419	111	112	-88.82	2404	-3926	1487	1266	221.34	6.720		
8800	4449	8912	4419	111	112	-88.82	2408	-3929	1487	1266	221.56	6.713		
8896	4450	9007	4419	114	114	-88.82	2479	-3993	1486	1260	226.21	6.568		
8900	4450	9012	4419	114	114	-88.82	2482	-3996	1486	1259	226.43	6.562		
8995	4450	9107	4420	116	117	-88.82	2553	-4060	1484	1253	231.09	6.423		
9000	4450	9112	4420	116	117	-88.82	2556	-4063	1484	1253	231.31	6.417		
9095	4451	9207	4421	119	119	-88.82	2627	-4127	1483	1247	235.97	6.284		
9100	4451	9212	4421	119	119	-88.82	2631	-4130	1483	1247	236.19	6.278		
9195	4452	9307	4421	121	121	-88.82	2702	-4194	1481	1240	240.85	6.150		
9200	4452	9312	4421	121	121	-88.82	2705	-4197	1481	1240	241.07	6.144		
9295	4452	9407	4422	124	124	-88.81	2776	-4260	1480	1234	245.73	6.022		
9300	4452	9412	4422	124	124	-88.81	2779	-4263	1480	1234	245.95	6.016		
9395	4453	9507	4423	126	126	-88.81	2850	-4327	1478	1228	250.61	5.899		
9400	4453	9512	4423	126	126	-88.81	2854	-4330	1478	1227	250.83	5.893		
9495	4454	9607	4423	128	129	-88.81	2925	-4394	1477	1221	255.50	5.780		
9500	4454	9612	4423	129	129	-88.81	2928	-4397	1477	1221	255.72	5.775		
9595	4454	9707	4424	131	131	-88.81	2999	-4461	1475	1215	260.38	5.666		

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Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: P04 2309 - 701H - Original Drilling - APD											Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF											Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
9600	4454	9712	4424	131	131	-88.81	3002	-4464	1475	1215	260.61	5.660
9695	4455	9807	4425	133	133	-88.81	3073	-4528	1474	1208	265.27	5.555
9700	4455	9812	4425	133	133	-88.81	3077	-4531	1474	1208	265.50	5.551
9795	4456	9907	4425	136	136	-88.81	3148	-4595	1472	1202	270.16	5.449
9800	4456	9912	4425	136	136	-88.81	3151	-4598	1472	1202	270.39	5.445
9895	4456	10,007	4426	138	138	-88.81	3222	-4662	1471	1196	275.05	5.347
9900	4456	10,012	4426	138	138	-88.81	3225	-4665	1471	1195	275.28	5.342
9995	4457	10,107	4427	141	141	-88.81	3296	-4728	1469	1189	279.94	5.248
10,000	4457	10,112	4427	141	141	-88.81	3300	-4732	1469	1189	280.17	5.244
10,095	4458	10,207	4427	143	143	-88.81	3371	-4795	1468	1183	284.84	5.153
10,100	4458	10,212	4427	143	143	-88.80	3374	-4798	1468	1183	285.07	5.148
10,195	4458	10,307	4428	146	145	-88.80	3445	-4862	1466	1176	289.73	5.060
10,200	4458	10,312	4428	146	146	-88.80	3448	-4865	1466	1176	289.96	5.056
10,295	4459	10,407	4428	148	148	-88.80	3519	-4929	1465	1170	294.63	4.971
10,300	4459	10,412	4429	148	148	-88.80	3523	-4932	1465	1170	294.86	4.967
10,395	4460	10,507	4429	151	150	-88.80	3593	-4996	1463	1164	299.53	4.885
10,400	4460	10,512	4429	151	150	-88.80	3597	-4999	1463	1163	299.76	4.881
10,495	4460	10,607	4430	153	153	-88.80	3668	-5063	1462	1157	304.43	4.801
10,500	4460	10,612	4430	153	153	-88.80	3671	-5066	1462	1157	304.66	4.797
10,595	4461	10,707	4430	155	155	-88.80	3742	-5130	1460	1151	309.32	4.720
10,600	4461	10,711	4431	156	155	-88.80	3746	-5133	1460	1150	309.56	4.717
10,693	4462	10,782	4431	158	157	-88.80	3798	-5180	1459	1145	313.83	4.648
10,700	4462	10,782	4431	158	157	-88.80	3798	-5180	1459	1145	314.05	4.645
10,800	4462	10,782	4431	160	157	-88.80	3798	-5180	1463	1146	316.61	4.620 SF
10,900	4463	10,782	4431	163	157	-88.80	3798	-5180	1473	1156	317.72	4.638
11,000	4464	10,782	4431	165	157	-88.80	3798	-5180	1491	1173	317.41	4.697
11,100	4464	10,782	4431	168	157	-88.80	3798	-5180	1515	1199	315.79	4.796
11,200	4465	10,782	4431	170	157	-88.80	3798	-5180	1544	1231	313.00	4.934
11,300	4466	10,782	4431	173	157	-88.80	3798	-5180	1580	1271	309.21	5.110
11,400	4466	10,782	4431	175	157	-88.80	3798	-5180	1621	1317	304.58	5.323
11,500	4467	10,782	4431	178	157	-88.80	3798	-5180	1667	1368	299.31	5.570
11,600	4468	10,782	4431	180	157	-88.80	3798	-5180	1718	1424	293.55	5.852
11,700	4468	10,782	4431	183	157	-88.80	3798	-5180	1773	1485	287.46	6.167
11,804	4469	10,782	4431	185	157	-88.80	3798	-5180	1834	1553	280.92	6.528

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Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: P04 2309 - 704H - 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	Semi Major Axis Offset	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
				(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0	0	0	0			-90.00	0	-40	40					
100	100	100	100	0	0	-90.00	0	-40	40	39	0.62	64.557		
200	200	200	200	1	1	-90.00	0	-40	40	38	1.33	29.849		
300	300	300	300	1	1	-90.00	0	-40	40	38	2.05	19.412		
400	400	400	400	1	1	-90.00	0	-40	40	37	2.77	14.383		
450	450	450	450	2	2	-90.00	0	-40	40	37	3.13	12.734 CC, ES		
500	500	500	500	2	2	-179.37	0	-40	40	37	3.47	11.662		
600	600	599	598	2	2	177.03	-3	-42	46	42	4.15	11.082 SF		
692	691	688	688	2	2	172.37	-8	-45	56	51	4.79	11.737		
700	700	697	696	2	2	171.94	-9	-46	57	52	4.85	11.829		
800	799	794	793	3	3	166.97	-17	-51	73	67	5.54	13.161		
900	899	890	888	3	3	162.45	-28	-58	91	85	6.23	14.668		
1000	999	984	981	4	4	158.53	-42	-67	113	106	6.92	16.323		
1100	1098	1078	1073	4	4	155.19	-57	-77	138	130	7.60	18.099		
1200	1198	1169	1162	4	4	152.37	-75	-89	165	157	8.27	19.977		
1300	1298	1259	1248	5	5	149.98	-95	-102	196	187	8.93	21.936		
1400	1397	1347	1332	5	5	147.95	-116	-116	230	220	9.58	23.960		
1500	1497	1433	1414	5	6	146.22	-140	-131	266	256	10.22	26.043		
1600	1596	1517	1492	6	6	144.73	-164	-147	305	294	10.84	28.179		
1700	1696	1606	1575	6	7	143.38	-192	-166	346	335	11.54	30.023		
1800	1796	1697	1660	7	8	142.30	-220	-184	388	375	12.27	31.605		
1900	1895	1788	1744	7	8	141.42	-248	-202	429	416	13.00	33.004		
2000	1995	1879	1829	7	9	140.70	-276	-221	470	457	13.73	34.250		
2100	2095	1970	1913	8	10	140.09	-304	-239	512	497	14.47	35.365		
2200	2194	2060	1998	8	10	139.58	-332	-257	553	538	15.22	36.367		
2300	2294	2151	2082	9	11	139.13	-360	-276	595	579	15.96	37.273		
2400	2394	2242	2167	9	12	138.75	-388	-294	636	620	16.71	38.094		
2500	2493	2333	2251	9	13	138.41	-416	-312	678	661	17.45	38.843		
2600	2593	2424	2336	10	13	138.11	-444	-331	720	701	18.20	39.528		
2700	2693	2515	2420	10	14	137.84	-472	-349	761	742	18.96	40.156		
2800	2792	2606	2505	11	15	137.61	-500	-368	803	783	19.71	40.734		
2900	2892	2697	2589	11	15	137.39	-528	-386	844	824	20.46	41.268		
3000	2992	2788	2674	11	16	137.19	-556	-404	886	865	21.22	41.762		
3100	3091	2878	2758	12	17	137.02	-584	-423	928	906	21.97	42.220		
3200	3191	2969	2843	12	18	136.85	-612	-441	969	947	22.73	42.647		
3300	3290	3060	2927	12	18	136.71	-640	-459	1011	988	23.49	43.046		
3400	3390	3151	3012	13	19	136.57	-668	-478	1053	1028	24.25	43.418		
3500	3490	3242	3096	13	20	136.44	-696	-496	1094	1069	25.00	43.767		
3600	3589	3333	3181	14	20	136.32	-724	-514	1136	1110	25.76	44.094		
3700	3689	3424	3265	14	21	136.21	-752	-533	1178	1151	26.52	44.402		
3800	3789	3515	3350	14	22	136.11	-780	-551	1219	1192	27.28	44.692		
3858	3847	3568	3399	15	22	136.06	-796	-562	1244	1216	27.73	44.853		
3900	3888	3605	3434	15	23	-162.78	-808	-570	1261	1233	28.03	44.988		
3950	3938	3650	3476	15	23	-117.87	-821	-579	1282	1254	28.36	45.203		
4000	3987	3694	3517	15	23	-103.83	-835	-588	1303	1274	28.66	45.469		
4050	4036	3737	3556	15	24	-97.03	-848	-596	1324	1295	28.92	45.776		
4100	4083	3778	3595	15	24	-92.75	-861	-604	1344	1315	29.15	46.116		
4150	4128	3817	3631	15	24	-89.65	-873	-612	1365	1335	29.36	46.482		
4200	4171	3854	3665	16	25	-87.19	-884	-620	1385	1356	29.56	46.862		
4250	4212	3889	3697	16	25	-85.11	-895	-627	1405	1376	29.75	47.245		
4300	4250	3920	3727	16	25	-83.26	-905	-633	1426	1396	29.94	47.615		
4350	4285	3949	3753	16	25	-81.53	-913	-639	1446	1416	30.15	47.957		

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



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: P04 2309 - 704H - Original Drilling - APD													Offset Site Error:	0 ft	
Survey Program:		0-MWD+IGRF		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Well Error:	0 ft
Measured Depth (ft)	Reference Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
4400	4316	3974	3776	16	26	-79.84	-921	-644	1466	1435	30.38	48.256			
4450	4344	3995	3796	16	26	-78.16	-928	-648	1486	1455	30.64	48.499			
4500	4368	4013	3813	16	26	-76.43	-933	-652	1506	1475	30.94	48.676			
4550	4387	4027	3826	17	26	-74.63	-937	-655	1526	1495	31.28	48.783			
4600	4403	4036	3835	17	26	-72.76	-940	-657	1546	1514	31.67	48.819			
4650	4414	4042	3840	18	26	-70.81	-942	-658	1566	1534	32.09	48.791			
4700	4420	4044	3841	18	26	-68.79	-943	-658	1585	1553	32.55	48.708			
4743	4422	4042	3839	19	26	-67.04	-942	-658	1602	1569	32.95	48.605			
4800	4422	4037	3835	20	26	-66.86	-941	-657	1624	1591	33.53	48.434			
4900	4423	4029	3827	21	26	-66.54	-938	-655	1667	1633	34.64	48.127			
5000	4424	4020	3820	23	26	-66.23	-935	-653	1715	1679	35.82	47.880			
5100	4424	4012	3812	25	26	-65.91	-933	-652	1767	1730	37.02	47.740			
5200	4425	4004	3804	27	26	-65.59	-930	-650	1824	1785	38.21	47.729			
5300	4426	3996	3797	29	26	-65.28	-928	-648	1883	1844	39.36	47.857			
5400	4426	3987	3789	31	26	-64.96	-925	-647	1947	1906	40.45	48.122			
5500	4427	3979	3781	33	26	-64.65	-923	-645	2013	1971	41.48	48.519			
5600	4428	3971	3774	35	25	-64.33	-920	-643	2081	2039	42.44	49.039			
5700	4428	3963	3766	37	25	-64.02	-918	-642	2152	2109	43.33	49.670			
5800	4429	3954	3759	40	25	-63.70	-915	-640	2226	2182	44.16	50.404			
5900	4430	3946	3751	42	25	-63.39	-913	-638	2301	2256	44.92	51.230			
6000	4430	3938	3743	44	25	-63.07	-910	-637	2378	2332	45.61	52.139			
6100	4431	3930	3736	46	25	-62.76	-908	-635	2457	2411	46.25	53.124			
6200	4432	3922	3728	49	25	-62.45	-905	-633	2537	2490	46.83	54.176			
6300	4432	3913	3720	51	25	-62.13	-902	-632	2619	2571	47.36	55.290			
6400	4433	3905	3713	53	25	-61.82	-900	-630	2701	2653	47.84	56.460			
6500	4434	3897	3705	56	25	-61.51	-897	-628	2785	2737	48.29	57.681			
6600	4434	3889	3697	58	25	-61.20	-895	-627	2870	2821	48.69	58.947			
6700	4435	3880	3690	61	25	-60.89	-892	-625	2956	2907	49.05	60.256			
6800	4436	3872	3682	63	25	-60.58	-890	-623	3042	2993	49.39	61.603			
6900	4436	3864	3674	65	25	-60.27	-887	-622	3130	3080	49.69	62.985			
7000	4437	3856	3667	68	25	-59.96	-885	-620	3218	3168	49.97	64.401			
7100	4438	3848	3659	70	25	-59.65	-882	-618	3307	3256	50.22	65.846			
7200	4438	3839	3651	73	24	-59.34	-880	-617	3396	3346	50.45	67.320			
7300	4439	3831	3644	75	24	-59.03	-877	-615	3486	3435	50.65	68.820			
7400	4440	3823	3636	77	24	-58.73	-875	-614	3576	3526	50.84	70.344			
7500	4440	3815	3628	80	24	-58.42	-872	-612	3667	3616	51.01	71.891			
7600	4441	3806	3621	82	24	-58.11	-870	-610	3759	3708	51.17	73.459			
7700	4442	3798	3613	85	24	-57.81	-867	-609	3851	3799	51.31	75.047			
7800	4442	3790	3606	87	24	-57.50	-864	-607	3943	3891	51.44	76.654			
7900	4443	3782	3598	89	24	-57.20	-862	-605	4035	3984	51.55	78.278			
8000	4444	3773	3590	92	24	-56.89	-859	-604	4128	4076	51.65	79.920			
8100	4444	3765	3583	94	24	-56.59	-857	-602	4221	4170	51.75	81.577			
8200	4445	3757	3575	97	24	-56.29	-854	-600	4315	4263	51.83	83.250			
8300	4446	3749	3567	99	24	-55.99	-852	-599	4408	4357	51.90	84.937			
8400	4446	3741	3560	102	24	-55.69	-849	-597	4502	4450	51.97	86.637			
8500	4447	3732	3552	104	24	-55.39	-847	-595	4597	4545	52.03	88.351			
8600	4448	3724	3544	107	24	-55.09	-844	-594	4691	4639	52.08	90.077			
8700	4448	3716	3537	109	23	-54.79	-842	-592	4786	4734	52.12	91.815			
8800	4449	3708	3529	111	23	-54.49	-839	-590	4881	4828	52.16	93.565			
8900	4450	3699	3521	114	23	-54.20	-837	-589	4976	4923	52.20	95.325			
9000	4450	3691	3514	116	23	-53.90	-834	-587	5071	5019	52.23	97.096			
9100	4451	3683	3506	119	23	-53.60	-831	-585	5166	5114	52.25	98.878			

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



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: P04 2309 - 704H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF												Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
9200	4452	3675	3498	121	23	-53.31	-829	-584	5262	5210	52.27	100.669	
9300	4452	3666	3491	124	23	-53.02	-826	-582	5358	5305	52.28	102.469	
9400	4453	3658	3483	126	23	-52.72	-824	-580	5453	5401	52.30	104.279	
9500	4454	3650	3475	129	23	-52.43	-821	-579	5549	5497	52.30	106.097	
9600	4454	3642	3468	131	23	-52.14	-819	-577	5645	5593	52.31	107.923	
9700	4455	3634	3460	133	23	-51.85	-816	-575	5742	5689	52.31	109.758	
9800	4456	3625	3452	136	23	-51.56	-814	-574	5838	5786	52.31	111.601	
9900	4456	3617	3445	138	23	-51.27	-811	-572	5934	5882	52.31	113.452	
10,000	4457	3609	3437	141	23	-50.99	-809	-570	6031	5979	52.30	115.309	
10,100	4458	3601	3430	143	23	-50.70	-806	-569	6128	6075	52.30	117.174	
10,200	4458	3592	3422	146	22	-50.41	-804	-567	6224	6172	52.29	119.046	
10,300	4459	3584	3414	148	22	-50.13	-801	-565	6321	6269	52.27	120.925	
10,400	4460	3576	3407	151	22	-49.85	-799	-564	6418	6366	52.26	122.810	
10,500	4460	3568	3399	153	22	-49.56	-796	-562	6515	6463	52.25	124.701	
10,600	4461	3559	3391	156	22	-49.28	-793	-560	6612	6560	52.23	126.599	
10,700	4462	3551	3384	158	22	-49.00	-791	-559	6709	6657	52.21	128.502	
10,800	4462	3543	3376	160	22	-48.72	-788	-557	6807	6754	52.19	130.411	
10,900	4463	3535	3368	163	22	-48.44	-786	-555	6904	6852	52.17	132.326	
11,000	4464	3527	3361	165	22	-48.17	-783	-554	7001	6949	52.15	134.246	
11,100	4464	3518	3353	168	22	-47.89	-781	-552	7099	7047	52.13	136.171	
11,200	4465	3510	3345	170	22	-47.61	-778	-550	7196	7144	52.11	138.102	
11,300	4466	3502	3338	173	22	-47.34	-776	-549	7294	7242	52.08	140.037	
11,400	4466	3494	3330	175	22	-47.07	-773	-547	7391	7339	52.06	141.977	
11,500	4467	3485	3322	178	22	-46.79	-771	-545	7489	7437	52.04	143.922	
11,600	4468	3477	3315	180	22	-46.52	-768	-544	7587	7535	52.01	145.871	
11,700	4468	3469	3307	183	22	-46.25	-766	-542	7685	7633	51.98	147.825	
11,804	4469	3460	3299	185	21	-45.97	-763	-540	7786	7734	51.96	149.856	

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



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: P04 2309 - 733H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0	0	0	0	0	0	-90.00	0	-20	20					
100	100	100	100	0	0	-90.00	0	-20	20	20	0.46	43.357		
200	200	200	200	1	1	-90.00	0	-20	20	19	1.18	17.000		
300	300	300	300	1	1	-90.00	0	-20	20	18	1.90	10.573		
400	400	400	400	1	1	-90.00	0	-20	20	17	2.61	7.672		
450	450	450	450	2	1	-90.00	0	-20	20	17	2.97	6.747		
500	500	500	500	2	2	-179.23	0	-20	20	17	3.32	6.041		
600	600	601	601	2	2	177.76	-1	-16	20	16	4.01	5.043		
692	691	693	693	2	2	172.51	-3	-10	21	16	4.65	4.438		
700	700	702	701	2	2	171.92	-3	-9	21	16	4.71	4.392		
800	799	802	801	3	3	162.13	-6	1	20	14	5.42	3.653		
900	899	902	901	3	3	143.43	-10	14	17	11	6.18	2.790		
967	965	969	966	3	3	123.49	-13	25	16	9	6.75	2.407 CC		
1000	999	1002	999	4	3	112.98	-15	30	17	9	7.04	2.349 ES, SF		
1100	1098	1102	1097	4	4	86.98	-19	46	20	12	7.82	2.588		
1200	1198	1201	1195	4	4	71.16	-24	62	27	18	8.55	3.119		
1300	1298	1301	1293	5	5	61.88	-29	78	34	25	9.26	3.701		
1400	1397	1400	1392	5	5	56.07	-33	94	42	32	9.98	4.254		
1500	1497	1500	1490	5	6	52.16	-38	110	51	40	10.71	4.756		
1600	1596	1600	1588	6	6	49.37	-43	126	60	48	11.44	5.207		
1700	1696	1699	1686	6	7	47.29	-47	142	68	56	12.18	5.611		
1800	1796	1799	1784	7	7	45.69	-52	158	77	64	12.92	5.973		
1900	1895	1898	1883	7	8	44.42	-56	173	86	72	13.66	6.298		
2000	1995	1998	1981	7	8	43.38	-61	189	95	81	14.40	6.591		
2100	2095	2098	2079	8	9	42.52	-66	205	104	89	15.15	6.856		
2200	2194	2197	2177	8	9	41.80	-70	221	113	97	15.89	7.098		
2300	2294	2297	2275	9	9	41.18	-75	237	122	105	16.64	7.318		
2400	2394	2396	2374	9	10	40.65	-80	253	131	113	17.39	7.520		
2500	2493	2496	2472	9	10	40.19	-84	269	140	122	18.14	7.705		
2600	2593	2596	2570	10	11	39.78	-89	285	149	130	18.88	7.876		
2700	2693	2695	2668	10	11	39.42	-94	301	158	138	19.63	8.034		
2800	2792	2795	2766	11	12	39.10	-98	317	167	146	20.38	8.181		
2900	2892	2894	2865	11	12	38.81	-103	333	176	155	21.13	8.317		
3000	2992	2994	2963	11	13	38.55	-108	349	185	163	21.88	8.444		
3100	3091	3094	3061	12	13	38.31	-112	365	194	171	22.63	8.563		
3200	3191	3193	3159	12	14	38.10	-117	381	203	179	23.38	8.674		
3300	3290	3293	3257	12	14	37.90	-122	397	212	188	24.13	8.778		
3400	3390	3392	3356	13	15	37.72	-126	413	221	196	24.88	8.876		
3500	3490	3492	3454	13	15	37.56	-131	429	230	204	25.63	8.968		
3600	3589	3591	3552	14	16	37.40	-136	445	239	213	26.38	9.055		
3700	3689	3691	3650	14	16	37.26	-140	460	248	221	27.13	9.137		
3800	3789	3791	3748	14	17	37.13	-145	476	257	229	27.89	9.215		
3858	3847	3849	3806	15	17	37.05	-148	486	262	234	28.32	9.259		
3900	3888	3890	3846	15	17	96.23	-150	492	268	239	28.64	9.342		
3950	3938	3939	3895	15	17	139.03	-152	500	278	249	29.02	9.579		
4000	3987	3987	3942	15	18	151.23	-154	508	293	263	29.40	9.959		
4050	4036	4019	3973	15	18	156.25	-156	513	313	283	29.62	10.553		
4100	4083	4050	4004	15	18	158.90	-159	520	339	309	29.82	11.359		
4150	4128	4069	4022	15	18	160.16	-162	524	370	340	29.83	12.412		
4200	4171	4089	4041	16	18	160.68	-165	530	407	377	29.87	13.614		
4250	4212	4100	4051	16	18	160.21	-167	533	447	417	29.77	15.016		
4300	4250	4119	4069	16	18	159.35	-171	538	491	461	29.89	16.410		

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



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: P04 2309 - 733H - 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	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4350	4285	4129	4078	16	18	156.92	-173	541	536	507	29.89	17.946	
4400	4316	4135	4084	16	18	151.95	-174	543	584	554	29.90	19.538	
4450	4344	4150	4097	16	19	143.59	-178	548	633	603	30.11	21.037	
4500	4368	4150	4097	16	19	115.29	-178	548	683	653	30.10	22.689	
4550	4387	4150	4097	17	19	57.35	-178	548	733	703	30.14	24.310	
4600	4403	4150	4097	17	19	26.23	-178	548	782	752	30.22	25.884	
4650	4414	4150	4097	18	19	14.86	-178	548	831	801	30.34	27.401	
4700	4420	4131	4080	18	18	8.55	-173	542	879	849	30.22	29.095	
4743	4422	4125	4075	19	18	6.05	-172	540	919	889	30.30	30.334	
4800	4422	4118	4068	20	18	5.83	-170	538	973	942	30.42	31.974	
4900	4423	4100	4051	21	18	5.35	-167	533	1066	1036	30.54	34.918	
5000	4424	4100	4051	23	18	5.35	-167	533	1161	1130	30.81	37.676	
5100	4424	4100	4051	25	18	5.35	-167	533	1256	1225	31.02	40.487	
5200	4425	4077	4029	27	18	4.76	-163	526	1351	1320	31.00	43.588	
5300	4426	4069	4022	29	18	4.58	-162	524	1447	1416	31.10	46.537	
5400	4426	4050	4004	31	18	4.16	-159	520	1544	1513	31.10	49.645	
5500	4427	4050	4004	33	18	4.16	-159	520	1640	1609	31.22	52.536	
5600	4428	4050	4004	35	18	4.16	-159	520	1737	1706	31.33	55.447	
5700	4428	4050	4004	37	18	4.16	-159	520	1835	1803	31.43	58.374	
5800	4429	4050	4004	40	18	4.16	-159	520	1932	1901	31.51	61.312	
5900	4430	4050	4004	42	18	4.16	-159	520	2030	1998	31.59	64.261	
6000	4430	4050	4004	44	18	4.16	-159	520	2128	2096	31.66	67.217	
6100	4431	4026	3981	46	18	3.68	-157	515	2226	2194	31.60	70.424	
6200	4432	4023	3977	49	18	3.61	-156	514	2324	2292	31.65	73.425	
6300	4432	4000	3955	51	18	3.20	-155	510	2422	2391	31.60	76.661	
6400	4433	4000	3955	53	18	3.20	-155	510	2521	2489	31.66	79.620	
6500	4434	4000	3955	56	18	3.20	-155	510	2619	2587	31.71	82.581	
6600	4434	4000	3955	58	18	3.20	-155	510	2717	2686	31.77	85.543	
6700	4435	4000	3955	61	18	3.20	-155	510	2816	2784	31.82	88.503	
6800	4436	4000	3955	63	18	3.20	-155	510	2915	2883	31.87	91.463	
6900	4436	4000	3955	65	18	3.20	-155	510	3013	2982	31.92	94.419	
7000	4437	4000	3955	68	18	3.20	-155	510	3112	3080	31.96	97.373	
7100	4438	4000	3955	70	18	3.20	-155	510	3211	3179	32.01	100.323	
7200	4438	3994	3949	73	18	3.10	-154	509	3310	3278	32.03	103.335	
7300	4439	3992	3947	75	18	3.07	-154	509	3409	3377	32.07	106.302	
7400	4440	3979	3934	77	18	2.84	-154	507	3508	3476	32.07	109.407	
7500	4440	3965	3920	80	17	2.63	-153	504	3607	3575	32.06	112.509	
7600	4441	3951	3907	82	17	2.43	-152	502	3706	3674	32.06	115.605	
7700	4442	3938	3893	85	17	2.24	-152	500	3805	3773	32.06	118.697	
7800	4442	3924	3880	87	17	2.06	-151	498	3904	3872	32.06	121.784	
7900	4443	3910	3866	89	17	1.89	-151	496	4004	3971	32.06	124.866	
8000	4444	3897	3853	92	17	1.72	-150	493	4103	4070	32.07	127.942	
8100	4444	3883	3839	94	17	1.57	-149	491	4202	4170	32.07	131.011	
8200	4445	3869	3826	97	17	1.42	-149	489	4301	4269	32.08	134.074	
8300	4446	3856	3813	99	17	1.28	-148	487	4400	4368	32.08	137.129	
8400	4446	3842	3799	102	17	1.14	-147	485	4499	4467	32.09	140.178	
8500	4447	3828	3786	104	17	1.01	-147	482	4598	4566	32.10	143.218	
8600	4448	3815	3772	107	17	0.89	-146	480	4697	4665	32.12	146.251	
8700	4448	3801	3759	109	17	0.77	-145	478	4796	4764	32.13	149.275	
8800	4449	3787	3745	111	17	0.65	-145	476	4895	4863	32.14	152.291	
8900	4450	3774	3732	114	17	0.54	-144	474	4994	4962	32.16	155.297	
9000	4450	3760	3718	116	16	0.43	-143	472	5093	5061	32.17	158.295	

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



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: P04 2309 - 733H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF												Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
9100	4451	3746	3705	119	16	0.33	-143	469	5192	5160	32.19	161.283	
9200	4452	3733	3691	121	16	0.23	-142	467	5291	5259	32.21	164.261	
9300	4452	3719	3678	124	16	0.14	-142	465	5390	5358	32.23	167.228	
9400	4453	3706	3664	126	16	0.05	-141	463	5489	5457	32.25	170.186	
9500	4454	3692	3651	129	16	-0.04	-140	461	5588	5556	32.28	173.133	
9600	4454	3678	3637	131	16	-0.13	-140	458	5687	5655	32.30	176.068	
9700	4455	3665	3624	133	16	-0.21	-139	456	5786	5754	32.33	178.993	
9800	4456	3651	3611	136	16	-0.29	-138	454	5886	5853	32.35	181.907	
9900	4456	3637	3597	138	16	-0.37	-138	452	5985	5952	32.38	184.809	
10,000	4457	3624	3584	141	16	-0.44	-137	450	6084	6051	32.41	187.699	
10,100	4458	3610	3570	143	16	-0.51	-136	447	6183	6150	32.44	190.577	
10,200	4458	3596	3557	146	16	-0.58	-136	445	6282	6249	32.47	193.443	
10,300	4459	3583	3543	148	16	-0.65	-135	443	6381	6348	32.51	196.297	
10,400	4460	3569	3530	151	16	-0.72	-135	441	6480	6447	32.54	199.138	
10,500	4460	3555	3516	153	15	-0.78	-134	439	6579	6546	32.57	201.966	
10,600	4461	3542	3503	156	15	-0.84	-133	437	6678	6645	32.61	204.782	
10,700	4462	3528	3489	158	15	-0.90	-133	434	6777	6744	32.65	207.584	
10,800	4462	3514	3476	160	15	-0.96	-132	432	6876	6843	32.69	210.374	
10,900	4463	3501	3462	163	15	-1.02	-131	430	6975	6942	32.72	213.150	
11,000	4464	3487	3449	165	15	-1.07	-131	428	7074	7041	32.76	215.913	
11,100	4464	3473	3436	168	15	-1.12	-130	426	7173	7140	32.81	218.662	
11,200	4465	3460	3422	170	15	-1.18	-129	423	7272	7239	32.85	221.398	
11,300	4466	3446	3409	173	15	-1.23	-129	421	7371	7339	32.89	224.120	
11,400	4466	3432	3395	175	15	-1.28	-128	419	7470	7438	32.93	226.828	
11,500	4467	3419	3382	178	15	-1.32	-128	417	7570	7537	32.98	229.522	
11,600	4468	3405	3368	180	15	-1.37	-127	415	7669	7636	33.03	232.202	
11,700	4468	3391	3355	183	15	-1.42	-126	413	7768	7735	33.07	234.868	
11,804	4469	3377	3341	185	15	-1.46	-126	410	7870	7837	33.12	237.620	

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Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: P04 2309 - Ohwada 1 - OH - OH													Offset Site Error:	0 ft
Survey Program: 500-INCLINOMETER													Offset Well Error:	0 ft
Reference	Offset	Rule Assigned:												
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Distance		Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S	+E/-W	Between Centres	Between Ellipses	(ft)			
0	0	155	155	0	5	-40.51	5126	-4380	6742					
100	100	255	255	0	8	-40.51	5126	-4380	6742	6734	8.05	837.310		
200	200	355	355	1	11	-40.51	5126	-4380	6742	6731	11.45	588.970		
300	300	455	455	1	14	-40.51	5126	-4380	6742	6728	14.84	454.245		
400	400	555	555	1	17	-40.51	5126	-4380	6742	6724	18.24	369.677		
450	450	605	605	2	18	-40.51	5126	-4380	6742	6722	19.94	338.197		
500	500	655	655	2	20	-129.36	5126	-4380	6743	6721	21.63	311.731		
600	600	755	755	2	23	-129.34	5127	-4380	6745	6720	25.03	269.531		
692	691	856	856	2	26	-129.33	5126	-4380	6749	6721	28.40	237.649		
700	700	865	865	2	26	-129.34	5126	-4380	6750	6721	28.71	235.105		
800	799	974	974	3	30	-129.40	5126	-4380	6755	6722	32.39	208.532		
900	899	1054	1054	3	32	-129.44	5126	-4380	6760	6725	35.17	192.193		
1000	999	1154	1154	4	35	-129.50	5126	-4380	6765	6727	38.57	175.422		
1100	1098	1253	1253	4	38	-129.55	5126	-4380	6771	6729	41.96	161.356		
1200	1198	1353	1353	4	41	-129.61	5126	-4380	6776	6731	45.36	149.391		
1300	1298	1453	1453	5	44	-129.66	5126	-4380	6781	6733	48.76	139.089		
1400	1397	1500	1500	5	46	-129.69	5126	-4380	6787	6737	50.57	134.220		
1500	1497	1500	1500	5	46	-129.69	5126	-4380	6794	6743	50.93	133.403		
1600	1596	1500	1500	6	46	-129.69	5126	-4380	6802	6751	51.28	132.654		
1700	1696	1500	1500	6	46	-129.69	5126	-4380	6812	6761	51.62	131.972		
1800	1796	1500	1500	7	46	-129.69	5126	-4380	6823	6771	51.95	131.356		
1900	1895	1500	1500	7	46	-129.69	5126	-4380	6836	6784	52.26	130.803		
2000	1995	1500	1500	7	46	-129.69	5126	-4380	6850	6798	52.57	130.312		
2100	2095	1500	1500	8	46	-129.69	5126	-4380	6866	6813	52.86	129.883		
2200	2194	1500	1500	8	46	-129.69	5126	-4380	6883	6830	53.14	129.513		
2300	2294	1500	1500	9	46	-129.69	5126	-4380	6901	6848	53.41	129.202		
2400	2394	1500	1500	9	46	-129.69	5126	-4380	6921	6867	53.67	128.947		
2500	2493	1500	1500	9	46	-129.69	5126	-4380	6942	6888	53.92	128.748		
2600	2593	1500	1500	10	46	-129.69	5126	-4380	6965	6911	54.16	128.604		
2700	2693	1500	1500	10	46	-129.69	5126	-4380	6989	6934	54.38	128.512		
2800	2792	1500	1500	11	46	-129.69	5126	-4380	7014	6959	54.60	128.472		
2900	2892	1500	1500	11	46	-129.69	5126	-4380	7041	6986	54.80	128.483		
3000	2992	1500	1500	11	46	-129.69	5126	-4380	7068	7013	54.99	128.543		
3100	3091	1500	1500	12	46	-129.69	5126	-4380	7098	7042	55.17	128.652		
3200	3191	1500	1500	12	46	-129.69	5126	-4380	7128	7073	55.34	128.807		
3300	3290	1500	1500	12	46	-129.69	5126	-4380	7160	7104	55.50	129.009		
3400	3390	1500	1500	13	46	-129.69	5126	-4380	7193	7137	55.65	129.255		
3500	3490	1500	1500	13	46	-129.69	5126	-4380	7227	7171	55.79	129.545		
3600	3589	1500	1500	14	46	-129.69	5126	-4380	7263	7207	55.92	129.877		
3700	3689	1500	1500	14	46	-129.69	5126	-4380	7299	7243	56.04	130.251		
3800	3789	1500	1500	14	46	-129.69	5126	-4380	7337	7281	56.15	130.666		
3858	3847	1500	1500	15	46	-129.69	5126	-4380	7360	7303	56.21	130.927		
3900	3888	1500	1500	15	46	-70.47	5126	-4380	7375	7318	56.25	131.112		
3950	3938	1500	1500	15	46	-27.69	5126	-4380	7389	7332	56.27	131.299		
4000	3987	1500	1500	15	46	-15.57	5126	-4380	7399	7343	56.29	131.434		
4050	4036	1500	1500	15	46	-10.48	5126	-4380	7405	7348	56.30	131.512		
4100	4083	1500	1500	15	46	-7.74	5126	-4380	7406	7350	56.31	131.532		
4150	4128	1500	1500	15	46	-6.04	5126	-4380	7404	7348	56.31	131.493		
4200	4171	1500	1500	16	46	-4.88	5126	-4380	7397	7341	56.30	131.396		
4250	4212	1500	1500	16	46	-4.04	5126	-4380	7386	7330	56.28	131.241		
4300	4250	1500	1500	16	46	-3.39	5126	-4380	7371	7315	56.26	131.027		
4350	4285	1500	1500	16	46	-2.87	5126	-4380	7352	7296	56.23	130.754		

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Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: P04 2309 - Ohwada 1 - OH - OH													Offset Site Error:	0 ft
Survey Program:		500-INCLINOMETER					Rule Assigned:				Offset Well Error:	0 ft		
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance				Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
4400	4316	1500	1500	16	46	-2.43	5126	-4380	7329	7273	56.19	130.424		
4450	4344	1500	1500	16	46	-2.04	5126	-4380	7302	7246	56.16	130.037		
4500	4368	1500	1500	16	46	-1.68	5126	-4380	7272	7216	56.11	129.594		
4550	4387	1500	1500	17	46	-1.33	5126	-4380	7239	7183	56.07	129.098		
4600	4403	1500	1500	17	46	-0.95	5126	-4380	7202	7146	56.02	128.551		
4650	4414	1500	1500	18	46	-0.53	5126	-4380	7163	7107	55.98	127.956		
4700	4420	1500	1500	18	46	-0.01	5126	-4380	7121	7065	55.93	127.316		
4743	4422	1500	1500	19	46	0.57	5126	-4380	7083	7027	55.89	126.736		
4800	4422	1500	1500	20	46	0.57	5126	-4380	7032	6976	55.83	125.958		
4900	4423	1500	1500	21	46	0.57	5126	-4380	6942	6886	55.71	124.617		
5000	4424	1500	1500	23	46	0.57	5126	-4380	6853	6797	55.60	123.263		
5100	4424	1500	1500	25	46	0.57	5126	-4380	6764	6709	55.49	121.897		
5200	4425	1500	1500	27	46	0.57	5126	-4380	6676	6620	55.39	120.518		
5300	4426	1500	1500	29	46	0.57	5126	-4380	6587	6532	55.30	119.124		
5400	4426	1500	1500	31	46	0.57	5126	-4380	6499	6444	55.21	117.717		
5500	4427	1500	1500	33	46	0.57	5126	-4380	6412	6357	55.13	116.296		
5600	4428	1500	1500	35	46	0.57	5126	-4380	6325	6270	55.06	114.860		
5700	4428	1500	1500	37	46	0.57	5126	-4380	6238	6183	55.00	113.411		
5800	4429	1500	1500	40	46	0.57	5126	-4380	6151	6097	54.95	111.947		
5900	4430	1500	1500	42	46	0.57	5126	-4380	6065	6011	54.91	110.468		
6000	4430	1500	1500	44	46	0.57	5126	-4380	5980	5925	54.87	108.976		
6100	4431	1500	1500	46	46	0.57	5126	-4380	5895	5840	54.85	107.471		
6200	4432	1500	1500	49	46	0.57	5126	-4380	5810	5755	54.84	105.953		
6300	4432	1500	1500	51	46	0.57	5126	-4380	5726	5671	54.84	104.422		
6400	4433	1500	1500	53	46	0.57	5126	-4380	5643	5588	54.85	102.880		
6500	4434	1500	1500	56	46	0.57	5126	-4380	5559	5505	54.87	101.328		
6600	4434	1500	1500	58	46	0.57	5126	-4380	5477	5422	54.90	99.767		
6700	4435	1500	1500	61	46	0.57	5126	-4380	5395	5340	54.94	98.198		
6800	4436	1500	1500	63	46	0.57	5126	-4380	5314	5259	55.00	96.622		
6900	4436	1500	1500	65	46	0.57	5126	-4380	5233	5178	55.06	95.041		
7000	4437	1500	1500	68	46	0.57	5126	-4380	5153	5098	55.14	93.458		
7100	4438	1500	1500	70	46	0.57	5126	-4380	5074	5019	55.23	91.872		
7200	4438	1500	1500	73	46	0.57	5126	-4380	4996	4940	55.33	90.288		
7300	4439	1500	1500	75	46	0.57	5126	-4380	4918	4862	55.44	88.706		
7400	4440	1500	1500	77	46	0.57	5126	-4380	4841	4785	55.56	87.129		
7500	4440	1500	1500	80	46	0.57	5126	-4380	4765	4709	55.69	85.559		
7600	4441	1500	1500	82	46	0.57	5126	-4380	4690	4634	55.83	83.998		
7700	4442	1500	1500	85	46	0.57	5126	-4380	4616	4560	55.98	82.449		
7800	4442	1500	1500	87	46	0.57	5126	-4380	4542	4486	56.14	80.915		
7900	4443	1500	1500	89	46	0.57	5126	-4380	4470	4414	56.30	79.398		
8000	4444	1500	1500	92	46	0.57	5126	-4380	4399	4343	56.47	77.900		
8100	4444	1500	1500	94	46	0.57	5126	-4380	4330	4273	56.65	76.430		
8100	4444	1500	1500	94	46	0.57	5126	-4380	4329	4273	56.65	76.424		
8199	4445	1500	1500	97	46	0.57	5126	-4380	4261	4204	56.83	74.987		
8200	4445	1500	1500	97	46	0.57	5126	-4380	4261	4204	56.83	74.973		
8298	4446	1500	1500	99	46	0.57	5126	-4380	4194	4137	57.01	73.572		
8300	4446	1500	1500	99	46	0.57	5126	-4380	4193	4136	57.01	73.551		
8398	4446	1500	1500	102	46	0.57	5126	-4380	4128	4071	57.19	72.187		
8400	4446	1500	1500	102	46	0.57	5126	-4380	4127	4070	57.19	72.158		
8497	4447	1500	1500	104	46	0.57	5126	-4380	4064	4007	57.37	70.835		
8500	4447	1500	1500	104	46	0.57	5126	-4380	4062	4005	57.38	70.799		
8597	4448	1500	1500	106	46	0.57	5126	-4380	4001	3943	57.55	69.518		

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Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: P04 2309 - Ohwada 1 - OH - OH												Offset Site Error:	0 ft
Survey Program: 500-INCLINOMETER												Offset Well Error:	0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
8600	4448	1500	1500	107	46	0.57	5126	-4380	3999	3941	57.56	69.476	
8696	4448	1500	1500	109	46	0.57	5126	-4380	3939	3882	57.73	68.240	
8700	4448	1500	1500	109	46	0.57	5126	-4380	3937	3879	57.74	68.192	
8796	4449	1500	1500	111	46	0.57	5126	-4380	3880	3822	57.90	67.004	
8800	4449	1500	1500	111	46	0.57	5126	-4380	3877	3819	57.91	66.950	
8895	4450	1500	1500	114	46	0.57	5126	-4380	3821	3763	58.06	65.812	
8900	4450	1500	1500	114	46	0.57	5126	-4380	3818	3760	58.07	65.752	
8994	4450	1500	1500	116	46	0.57	5126	-4380	3765	3707	58.22	64.667	
9000	4450	1500	1500	116	46	0.57	5126	-4380	3762	3703	58.23	64.603	
9094	4451	1500	1500	119	46	0.57	5126	-4380	3710	3652	58.36	63.571	
9100	4451	1500	1500	119	46	0.57	5126	-4380	3707	3648	58.37	63.504	
9193	4452	1500	1500	121	46	0.57	5126	-4380	3657	3599	58.49	62.529	
9200	4452	1500	1500	121	46	0.57	5126	-4380	3654	3595	58.50	62.458	
9292	4452	1500	1500	123	46	0.57	5126	-4380	3606	3548	58.60	61.543	
9300	4452	1500	1500	124	46	0.57	5126	-4380	3603	3544	58.61	61.470	
9392	4453	1500	1500	126	46	0.57	5126	-4380	3558	3499	58.69	60.616	
9400	4453	1500	1500	126	46	0.57	5126	-4380	3554	3495	58.70	60.541	
9491	4454	1500	1500	128	46	0.57	5126	-4380	3511	3452	58.76	59.750	
9500	4454	1500	1500	129	46	0.57	5126	-4380	3507	3448	58.77	59.675	
9590	4454	1500	1500	131	46	0.57	5126	-4380	3466	3408	58.80	58.949	
9600	4454	1500	1500	131	46	0.57	5126	-4380	3462	3403	58.81	58.874	
9690	4455	1500	1500	133	46	0.57	5126	-4380	3424	3366	58.82	58.215	
9700	4455	1500	1500	133	46	0.57	5126	-4380	3420	3361	58.82	58.143	
9789	4456	1500	1500	136	46	0.57	5126	-4380	3385	3326	58.81	57.552	
9800	4456	1500	1500	136	46	0.57	5126	-4380	3380	3322	58.81	57.482	
9888	4456	1500	1500	138	46	0.57	5126	-4380	3347	3289	58.76	56.962	
9900	4456	1500	1500	138	46	0.57	5126	-4380	3343	3284	58.76	56.897	
9987	4457	1500	1500	140	46	0.57	5126	-4380	3313	3254	58.68	56.448	
10,000	4457	1500	1500	141	46	0.57	5126	-4380	3308	3250	58.67	56.389	
10,087	4458	1500	1500	143	46	0.57	5126	-4380	3281	3222	58.57	56.013	
10,100	4458	1500	1500	143	46	0.57	5126	-4380	3277	3218	58.55	55.961	
10,186	4458	1500	1500	145	46	0.57	5126	-4380	3251	3193	58.41	55.659	
10,200	4458	1500	1500	146	46	0.57	5126	-4380	3247	3189	58.39	55.615	
10,285	4459	1500	1500	148	46	0.57	5126	-4380	3225	3167	58.22	55.387	
10,300	4459	1500	1500	148	46	0.57	5126	-4380	3221	3163	58.19	55.354	
10,384	4460	1500	1500	150	46	0.57	5126	-4380	3201	3143	57.99	55.199	
10,400	4460	1500	1500	151	46	0.57	5126	-4380	3198	3140	57.95	55.177	
10,483	4460	1500	1500	153	46	0.57	5126	-4380	3180	3123	57.72	55.095	
10,500	4460	1500	1500	153	46	0.57	5126	-4380	3177	3119	57.68	55.085	
10,583	4461	1500	1500	155	46	0.57	5126	-4380	3163	3105	57.43	55.071	
10,600	4461	1500	1500	156	46	0.57	5126	-4380	3160	3102	57.37	55.074	
10,682	4462	1500	1500	158	46	0.57	5126	-4380	3148	3091	57.11	55.119	
10,700	4462	1500	1500	158	46	0.57	5126	-4380	3145	3088	57.05	55.134	
10,781	4462	1500	1500	160	46	0.57	5126	-4380	3136	3079	56.79	55.221	
10,800	4462	1500	1500	160	46	0.57	5126	-4380	3134	3077	56.73	55.244	
10,880	4463	1500	1500	162	46	0.57	5126	-4380	3128	3071	56.52	55.336	
10,900	4463	1500	1500	163	46	0.57	5126	-4380	3126	3070	56.48	55.354	
10,979	4464	1500	1500	165	46	0.57	5126	-4380	3122	3066	56.39	55.367	
11,000	4464	1500	1500	165	46	0.57	5126	-4380	3121	3065	56.39	55.347	
11,078	4464	1500	1500	167	46	0.57	5126	-4380	3120	3063	56.60	55.118	
11,100	4464	1500	1500	168	46	0.57	5126	-4380	3120	3063	56.72	54.999 CC, ES	
11,200	4465	1500	1500	170	46	0.57	5126	-4380	3121	3064	57.68	54.113	

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Lonestar Consulting, LLC
Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: P04 2309 - Ohwada 1 - OH - OH													Offset Site Error:	0 ft
Survey Program: 500-INCLINOMETER													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
11,300	4466	1500	1500	173	46	0.57	5126	-4380	3126	3067	59.16	52.836		
11,400	4466	1500	1500	175	46	0.57	5126	-4380	3134	3073	60.90	51.457		
11,500	4467	1500	1500	178	46	0.57	5126	-4380	3145	3082	62.73	50.137		
11,600	4468	1500	1500	180	46	0.57	5126	-4380	3159	3095	64.56	48.936		
11,700	4468	1500	1500	183	46	0.57	5126	-4380	3176	3110	66.36	47.871		
11,804	4469	1500	1500	185	46	0.57	5126	-4380	3198	3129	68.16	46.911 SF		



Lonestar Consulting, LLC

Anticollision Report

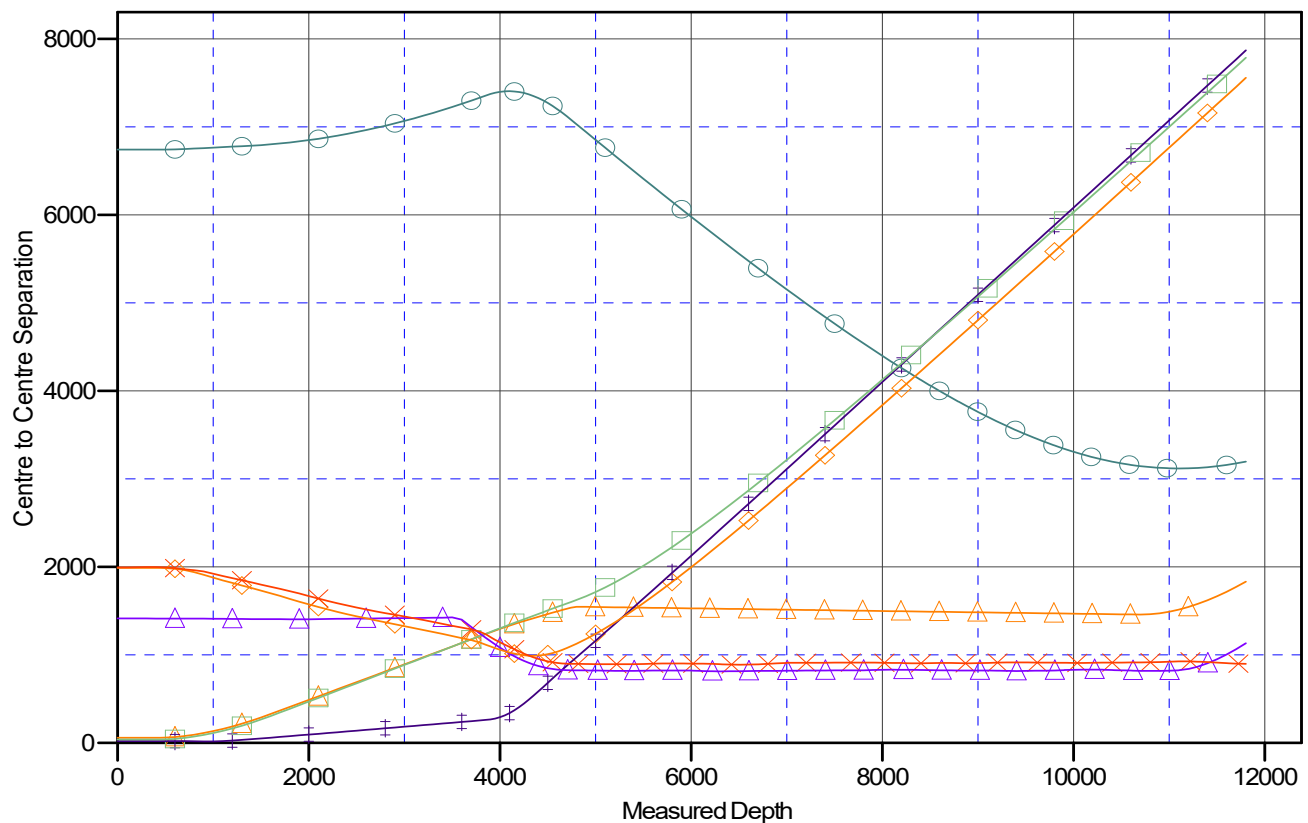


Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
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Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

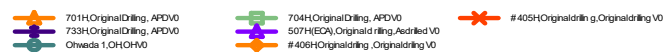
Reference Depths are relative to GL 6711' & RKB 14' @ 6725ft
 Offset Depths are relative to Offset Datum
 Central Meridian is -107.8333333

Coordinates are relative to: 732H - Slot 4
 Coordinate System is US State Plane 1983, New Mexico Western Zone
 Grid Convergence at Surface is: 0.03°

Ladder Plot



LEGEND



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



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well 732H - Slot 4
Project:	Nageezi Unit	TVD Reference:	GL 6711' & RKB 14' @ 6725ft
Reference Site:	P04 2309	MD Reference:	GL 6711' & RKB 14' @ 6725ft
Site Error:	0 ft	North Reference:	True
Reference Well:	732H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Reference Depths are relative to GL 6711' & RKB 14' @ 6725ft

Offset Depths are relative to Offset Datum

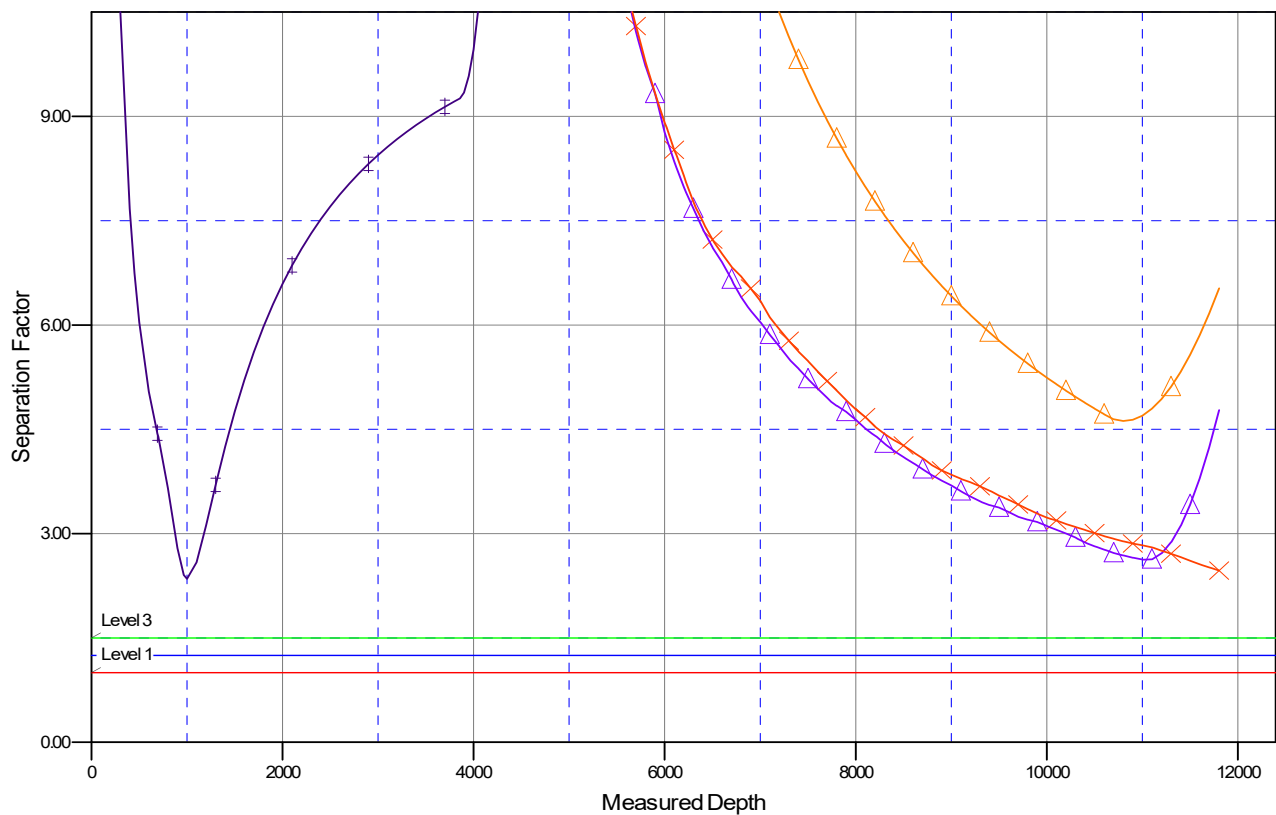
Central Meridian is -107.83333333

Coordinates are relative to: 732H - Slot 4

Coordinate System is US State Plane 1983, New Mexico Western Zone

Grid Convergence at Surface is: 0.03°

Separation Factor Plot



LEGEND

701H:Original Drilling, APDVO	704H:Original Drilling, APDVO	# 405H:Original drilling, Original drilling VO
733H:Original Drilling, APDVO	507H(ECA):Original drilling, Adrifted VO	
Orwada 1, OHORVO	# 406H:Original drilling, Original drilling VO	

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



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Farmington District Office
6251 College Blvd, Suite A
Farmington, New Mexico 87402



In Reply Refer To:
3162.3-1(NMF0110)

* ENDURING RESOURCES LLC

#732H NAGEEZI UNIT

Lease: NO-G-1402-1839

Agreement: NMNM132981A

SH: SESE Section 4, T. 23 N., R. 9 W.

San Juan County, New Mexico

BH: NWSW Section 33, T. 23 N., R. 9 W.

San Juan County, New Mexico

***Above Data Required on Well Sign**

GENERAL REQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL AND INDIAN LEASES

The following special requirements apply and are effective when **checked**:

- A. ☒ Note all surface/drilling conditions of approval attached.
- B. ☒ The required wait on cement (WOC) time will be a minimum of 500 psi compressive strength at 60 degrees. Blowout preventor (BOP) nipple-up operations may then be initiated
- C. ☐ Test the surface casing to a minimum of _____ psi for 30 minutes.
- D. ☐ Test all casing strings below the surface casing to .22 psi/ft. of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield burst) for a minimum of 30 minutes.
- E. ☐ Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the Bureau of Land Management, New Mexico State Office, Reservoir Management Group, 301 Dinosaur Trail, Santa Fe, New Mexico 87508.
The effective date of the agreement must be **prior** to any sales.
- F. ☐ The use of co-flex hose is authorized contingent upon the following:
 1. From the BOP to the choke manifold: the co-flex hose must be hobbled on both ends and saddle to prevent whip.
 2. From the choke manifold to the discharge tank: the co-flex hoses must be as straight as practical, hobbled on both ends and anchored to prevent whip.
 3. The co-flex hose pressure rating must be at least commensurate with approved BOPE.

INTERIOR REGION 7 • UPPER COLORADO BASIN

COLORADO, NEW MEXICO, UTAH, WYOMING

I. GENERAL

- A. Full compliance with all applicable laws and regulations with the approved Permit to drill, and with the approved Surface Use and Operations Plan is required. Lessees and/or operators are fully accountable for the actions of their contractors and subcontractors. Failure to comply with these requirements and the filing of required reports will result in strict enforcement pursuant to 43 CFR 3163.1 or 3163.2.
- B. Each well shall have a well sign in legible condition from spud date to final abandonment. The sign should show the operator's name, lease serial number, or unit name, well number, location of the well, and whether lease is Tribal or Allotted, (See 43 CFR 3162.6(b)).
- C. A complete copy of the approved Application for Permit to Drill, along with any conditions of approval, shall be available to authorized personnel at the drill site whenever active drilling operations are under way.
- D. For Wildcat wells only, a drilling operations progress report is to be submitted, to the BLM-Field Office, weekly from the spud date until the well is completed and the Well Completion Report (Form 3160-4) is filed. The report should be on 8-1/2 x 11 inch paper, and each page should identify the well by; operator's name, well number, location and lease number.
- E. As soon as practical, notice is required of all blowouts, fires and accidents involving life-threatening injuries or loss of life. (See NTL-3A).
- F. Prior approval by the BLM-Authorized Office (Drilling and Production Section) is required for variance from the approved drilling program and before commencing plugging operations, plug back work casing repair work, corrective cementing operations, or suspending drilling operations indefinitely. Emergency approval may be obtained orally, but such approval is contingent upon filing of a notice of intent (on a Sundry Notice, Form 3160-5) within three business days (original and three copies of Federal leases and an original and four copies on Indian leases). **Any changes to the approved plan or any questions regarding drilling operations should be directed to BLM during regular business hours at 505-564-7600. Emergency program changes after hours should be directed to at Virgil Lucero at 505-793-1836.**
- G. **The Inspection and Enforcement Section (I&E), phone number (505-564-7750) is to be notified at least 24 hours in advance of BOP test, spudding, cementing, or plugging operations so that a BLM representative may witness the operations.**
- I. From the time drilling operations are initiated and until drilling operations are completed, a member of the drilling crew or the tool pusher shall maintain rig surveillance at all time, unless the well is secured with blowout preventers or cement plugs.
- J. If for any reason, drilling operations are suspended for more than 90 days, a written notice must be provided to this office outlining your plans for this well.

II. REPORTING REQUIREMENTS

- A. For reporting purposes, all well Sundry notices, well completion and other well actions shall be referenced by the appropriate lease, communitization agreement and/or unit agreement numbers.
- B. The following reports shall be filed with the BLM-Authorized Officer within 30 days after the work is completed.
1. Original and three copies on Federal and an Original and five copies on Indian leases of Sundry Notice (Form 3150-5), giving complete information concerning.
 - a. Setting of each string of casing. Show size and depth of hole, grade and weight of casing, depth set, depth of any and all cementing tools that are used, amount (in cubic feet) and types of cement used, whether cement circulated to surface and all cement tops in the casing annulus, casing test method and results, and the date work was done. Show spud date on first report submitted.
 - b. Intervals tested, perforated (include; size, number and location of perforations), acidized, or fractured; and results obtained. Provide date work was done on well completion report and completion sundry notice.
 - c. Subsequent Report of Abandonment, show the manner in which the well was plugged, including depths where casing was cut and pulled, intervals (by depths) where cement plugs were replaced, and dates of the operations.
 2. Well Completion Report (Form 3160-4) will be submitted with 30 days after well has been completed.
 - a. Initial Bottom Hole Pressure (BHP) for the producing formations. Show the BHP on the completion report. The pressure may be: 1) measured with a bottom hole bomb, or; 2) calculated based on shut in surface pressures (minimum seven day buildup) and fluid level shot.
 3. Submit a cement evaluation log, if cement is not circulated to surface.

III. DRILLER'S LOG

The following shall be entered in the daily driller's log: 1) Blowout preventer pressures tests, including test pressures and results. 2) Blowout preventer tests for proper functioning, 3) Blowout prevention drills conducted, 4) Casing run, including size, grade, weight, and depth set, 5) How pipe was cemented, including amount of cement, type, whether cement circulated to surface, location of cementing tools, etc., 6) Waiting on cement time for each casing string, 7) Casing pressure tests after cementing, including test pressure and results and 8) Estimated amounts of oil and gas recovered and/or produced during drill stem test.

IV. GAS FLARING

Gas produced from this well may not be vented or flared beyond an initial, authorized test period of *** Days** or 50 MMCF following its (completion)(recompletion), whichever first occurs, without the prior, written approval of the authorized officer. Should gas be vented or flared without approval beyond the test period authorized above, you may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted. You shall be required to compensate the lessor for the portion of the gas vented or flared without approval which is determined to have been avoidably lost.

***30 days**, unless a longer test period is specifically approved by the authorized officer. The 30-day period will commence upon the first gas to surface.

V. SAFETY

- A. All rig heating stoves are to be of the explosion-proof type.
- B. Rig safety lines are to be installed.
- C. Hard hats and other Personal Protective Equipment (PPE) must be utilized.

VI. CHANGE OF PLANS OR ABANDONMENT

- A. Any changes of plans required in order to mitigate unanticipated conditions encountered during drilling operations, will require approval as set forth in Section 1.F.
- B. If the well is dry, it is to be plugged in accordance with 43 CFR 3162.3-4, approval of the proposed plugging program is required as set forth in Section 1.F. The report should show the total depth reached, the reason for plugging, and the proposed intervals, by depths, where cement plugs are to be placed, type of plugging mud, etc. A Subsequent Report of Abandonment is required as set forth in Section II.B.1c.
- C. Unless a well has been properly cased and cemented, or properly plugged, the drilling rig must not be moved from the drill site without prior approval from the BLM-Authorized Officer.

VII. PHONE NUMBERS

- A. For BOPE tests, cementing, and plugging operations the phone number is 505-564-7750 and must be called 24 hours in advance in order that a BLM representative may witness the operations.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 378734

CONDITIONS

Operator: DJR OPERATING, LLC 200 Energy Court Farmington, NM 87401	OGRID:
	371838
	Action Number:
	378734
Action Type:	
[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)	

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify OCD 24 hours prior to casing & cement	9/12/2024
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	9/12/2024
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	9/12/2024
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	9/12/2024
ward.rikala	If cement does not circulate on any string, a CBL is required for that string of casing	9/12/2024
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	9/12/2024
ward.rikala	This well can not be produced until the operator is in compliance with Rule 5.9.	9/12/2024