

Form 3160-3  
(June 2015)FORM APPROVED  
OMB No. 1004-0137  
Expires: January 31, 2018

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**APPLICATION FOR PERMIT TO DRILL OR REENTER**

1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER 1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other 1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		5. Lease Serial No.  6. If Indian, Allottee or Tribe Name  7. If Unit or CA Agreement, Name and No.  8. Lease Name and Well No.
2. Name of Operator		9. API Well No. <b>30-045-38275</b>
3a. Address	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.<br>2. A Drilling Plan.<br>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). | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).<br>5. Operator certification.<br>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: 06/10/2022

**DISTRICT I**

1625 N. French Dr., Hobbs, N.M. 88240  
Phone: (575) 393-6161 Fax: (575) 748-0720

**DISTRICT II**

811 S. First St., Artesia, N.M. 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720

**DISTRICT III**

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

**DISTRICT IV**

1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 1, 2011

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

Submit one copy to appropriate  
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-045-38275</b>	<sup>2</sup> Pool Code <b>98175</b>	<sup>3</sup> Pool Name <b>BETONNIE TSOSIE WASH UNIT MANCOS POOL</b>
<sup>4</sup> Property Code <b>325179</b>	<sup>5</sup> Property Name <b>BETONNIE TSOSIE WASH UNIT</b>	<sup>6</sup> Well Number <b>714H</b>
<sup>7</sup> OGRID No. <b>371838</b>	<sup>8</sup> Operator Name <b>DJR OPERATING, LLC</b>	<sup>9</sup> Elevation <b>6870'</b>

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	3	22N	8W		1674'	NORTH	470'	WEST	SAN JUAN

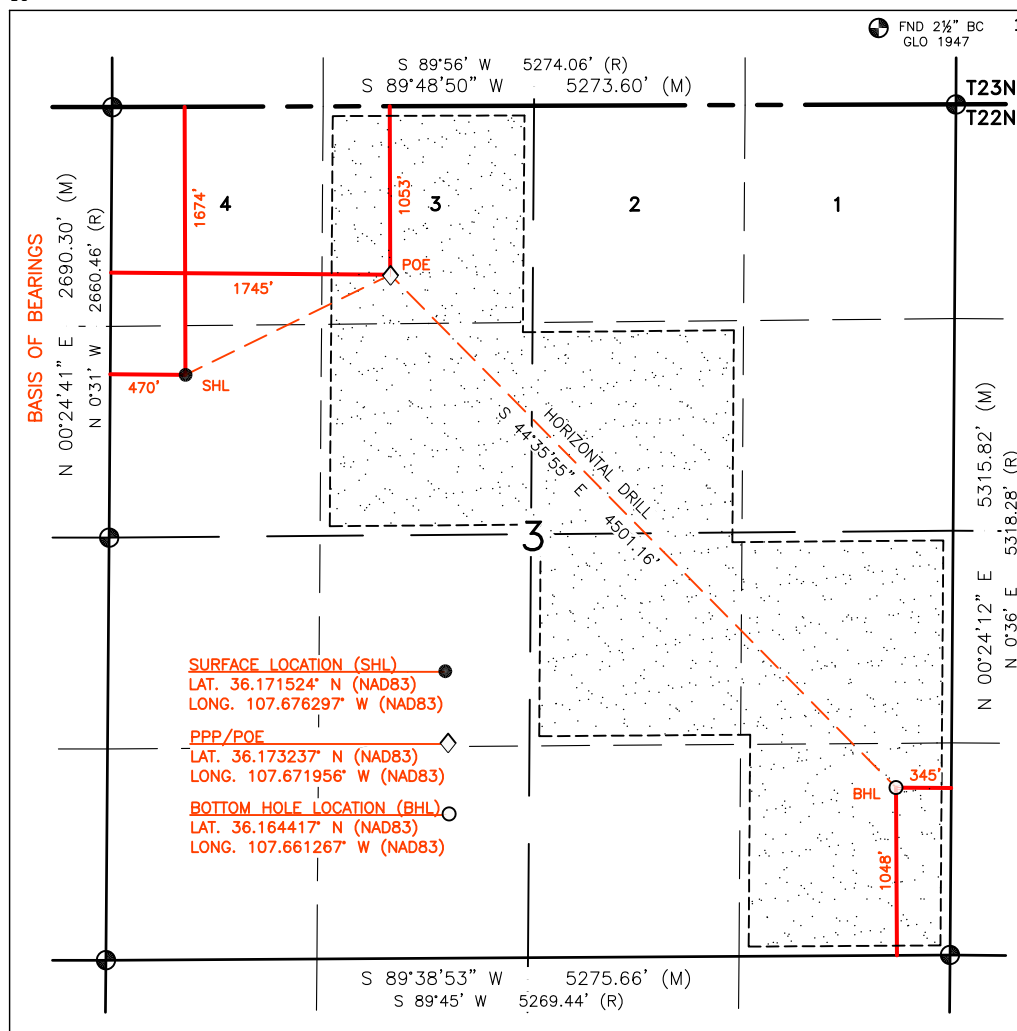
<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	3	22N	8W		1048'	SOUTH	345'	EAST	SAN JUAN

<sup>12</sup> Dedicated Acres SEC 3: NE/NW, SE/NW, SW/NE, NW/SE, NE/SE & SE/SE = 241.09 ACRES	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No. <b>R-13930 R-13930A</b>
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

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<sup>17</sup> OPERATOR CERTIFICATION

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

*Shaw-Marie Ford* 9/2/21  
Signature Date

Shaw-Marie Ford

Printed Name

sford@djrlc.com

E-mail Address

SURVEYOR CERTIFICATION

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

MARCH 30, 2021

Date of Survey

Signature and Seal of Professional Surveyor:



Certificate Number

11393

State of New Mexico  
Energy, Minerals and Natural Resources Department

Submit Electronically  
Via E-permitting

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

## 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:** 07 / 15 / 2022

**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
Betonne Tsosie Wash Unit 602H	TBD	E-03-22N-08W	1709' FNL x 451' FWL	500	750	180
Betonne Tsosie Wash Unit 714H	TBD	E-03-22N-08W	1674' FNL x 470' FWL	300	460	110
Betonne Tsosie Wash Unit 715H	TBD	E-03-22N-08W	1692' FNL x 460' FWL	260	545	130

**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
Betonne Tsosie Wash Unit 602H	TBD	09/04/2022	09/14/2022	12/13/2022	12/21/2022	12/22/2022
Betonne Tsosie Wash Unit 714H	TBD	09/05/2022	09/15/2022	12/13/2022	12/21/2022	12/22/2022
Betonne Tsosie Wash Unit 715H	TBD	09/06/2022	09/16/2022	12/13/2022	12/21/2022	12/22/2022

**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: <i>Shaw-Marie Ford</i>
Printed Name: Shaw-Marie Ford
Title: Regulatory Specialist
E-mail Address: sford@djrlc.com
Date: 07/15/2022
Phone: 505-716-3297
<b>OIL CONSERVATION DIVISION</b> <b>(Only applicable when submitted as a standalone form)</b>
Approved By:
Title:
Approval Date:
Conditions of Approval:



DJR OPERATING, LLC.  
OGRID NO: 371838  
NATURAL GAS MANAGEMENT PLAN  
BETONNIE TSOSIE WASH UNIT 602H, 714H and 715H  
SWNW E-03-22N-08W

### 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.  
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NATURAL GAS MANAGEMENT PLAN  
BETONNIE TSOSIE WASH UNIT 602H, 714H and 715H  
SWNW E-03-22N-08W

### **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.  
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SWNW E-03-22N-08W

## **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 is designed with an auto ignition system.
3. Flare stacks will 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.



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SWNW E-03-22N-08W

### **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 0



## DRILLING PLAN

### Bettonnie Tsosie Wash #714H

### San Juan County, New Mexico

**Surface Location**

470-ft FWL & 1674-ft FNL  
 Sec 3 T22N R08W  
 Graded Elevation 6870' MSL  
 RKB Elevation 6884' (14' KB)

**SHL Geographical Coordinates (NAD-83)**

Latitude 36.1715240° N  
 Longitude 107.6762970° W

**Kick Off Point for Horizontal Build Curve**

4351-ft MD  
 4164-ft TVD

**Local Coordinates (from SHL)**

923-ft North  
 673-ft East

**Heel Location (Pay zone entry)**

1745-ft FWL & 1053-ft FNL  
 Sec 3 T22N R08W

**Heel Geographical Coordinates (NAD-83)**

Latitude 36.17323653° N  
 Longitude 107.67195607° W

**Bottom Hole Location (TD)**

345-ft FEL & 1048-ft FSL  
 Sec 3 T22N R08W

**BHL Geographical Coordinates (NAD-83)**

Latitude 36.1644171° N  
 Longitude 107.6612671° W

**Well objectives**

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

**Bottom Hole temperature and pressure**

The temperature in the Gallup C horizontal objective is 134°F. Bottom hole pressure in the Gallup C 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	501	501	Sd	W	8.3	8.4 – 8.8
Kirtland	624	624	Sh	-	8.3	8.4 – 8.8
Fruitland	916	914	C	G	8.3	9.0 - 9.5
Pictured Cliffs	1187	1179	Sd	W	8.3	9.0 - 9.5
Lewis	1341	1327	Sh	-		9.0 - 9.5
Chacra	1980	1929	Sd	-	8.3	9.0 - 9.5
Menefee	2732	2638	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	3723	3572	Sd	-	8.3	9.0 - 9.5
Mancos	3877	3717	Sh	-		9.0 - 9.5
Mancos Silt	4182	4005	Slt	O/G	6.6	9.0 - 9.5
Gallup A	4754	4525	Slt	O/G	6.6	9.0 - 9.5
Gallup B	4814	4571	Sd	O/G	6.6	8.8 - 9.0
Gallup C	4958	4667	Sd	O/G	6.6	8.8 - 9.0
Target	5390	4797	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	5326	surf	4794	surface
4-1/2"	6-1/8"	11.6	P-110	BTC	5030	9892	4706	4763	5030

Note: all casing will be new

Rev 0



## Casing Design Load Cases

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

## 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
	BJ Services	BJ Services
Type	III	Poz/G
Planned top	Surface	3851-ft
Density (ppg)	12.30	13.50
Yield (cf/sx)	2.34	1.50
Mix water (gal/sx)	13.26	7.20
Volume (sx)	374	236
Volume (bbls)	156	63
Volume (cu.ft.)	874	353
Excess %	55	55



Rev 0

4-1/2" Production Liner

	BJ Services
Type	Poz/G
Planned top	5030-ft
Density (ppg)	13.3
Yield (cf/sx)	1.56
Mix water (gal/sx)	7.71
Volume (sx)	407
Volume (bbls)	113
Volume (cu.ft)	637
Excess %	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 – 5326	9.0 – 9.5	38 – 45	8 – 14	<20
Production	Low solids, non-dispersed	5326 – 9892	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**

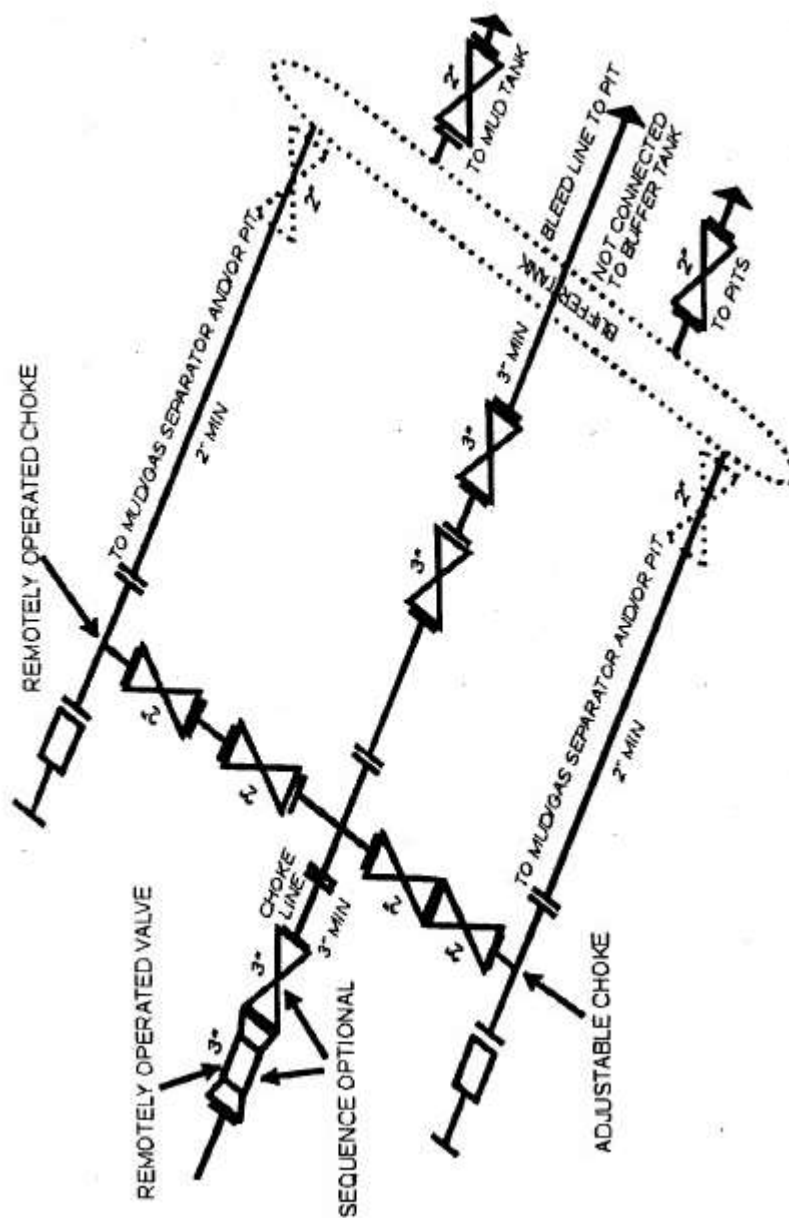
It is envisioned that this well will be completed with a multi-stage sand frac, using the plug and perf technique. After drilling out the plugs, the current plan is to install a 2-7/8" plunger-assisted gas lift tubing string. The stimulation and completion plan will be sundried at a later date.





## Choke Manifold

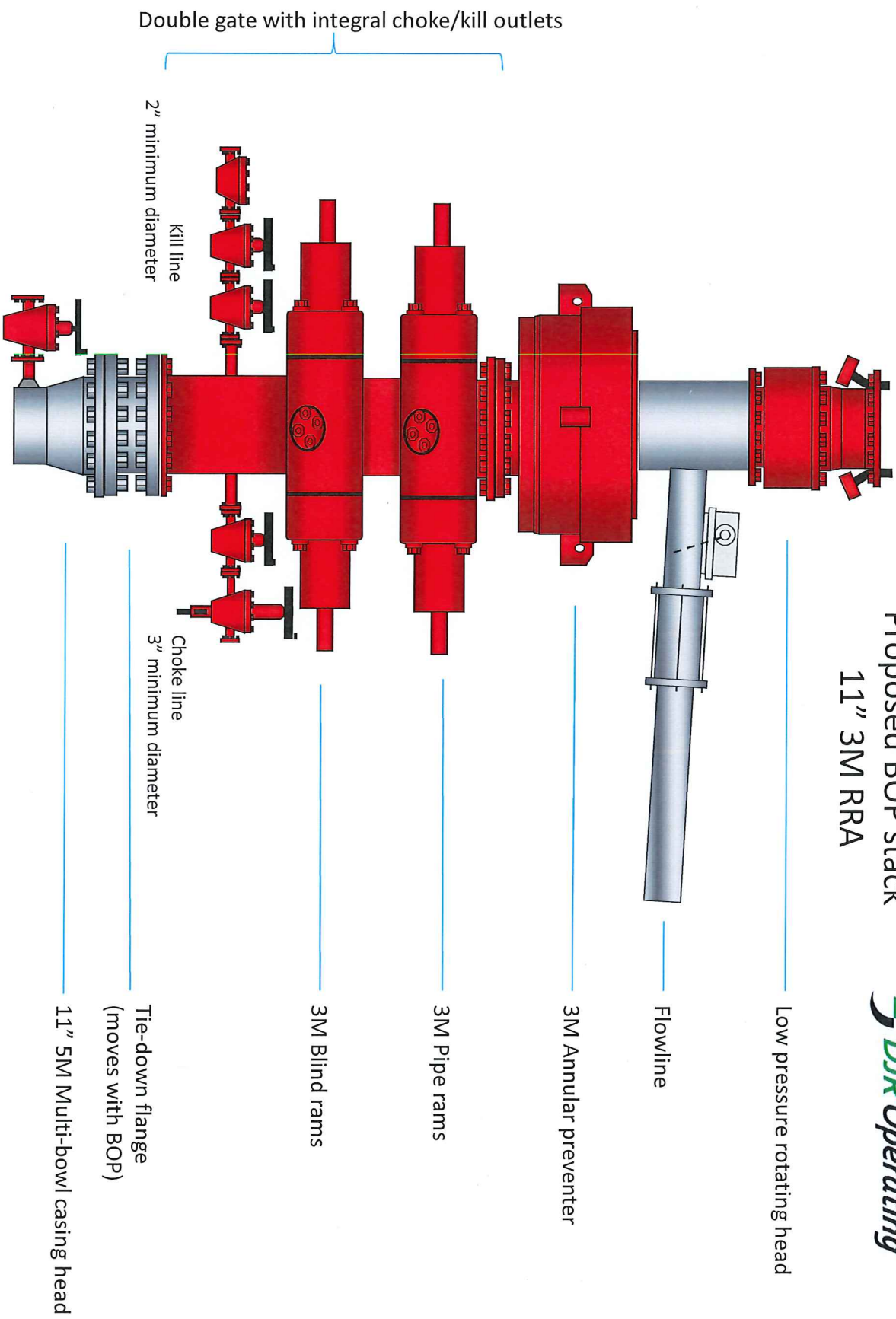
Actual system to conform with Onshore Order 2



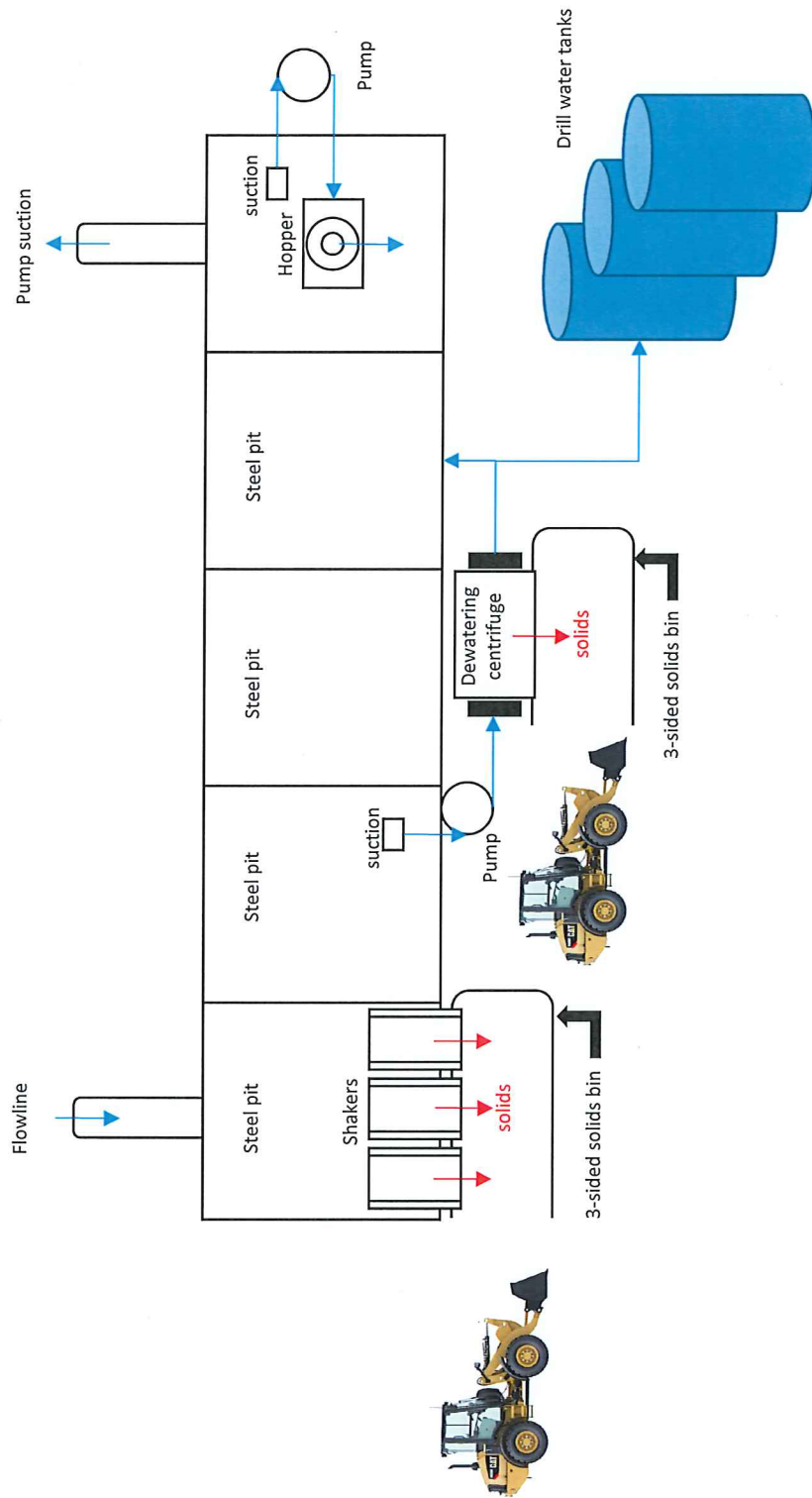




## Proposed BOP stack 11" 3M RRA



## Closed Loop Mud System





Company: DJR Operating  
Project: Bettonnie Tsose Unit  
Site: E03 2208 Pad  
Well: # 714H  
Wellbore: Original drilling  
Design: APD

PROJECT DETAILS: Bettonnie Tsose 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: # 714H

GL 6870' & RKB 14' @ 6884ft

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0	0	1881769.13	2769440.26	36.17152400	-107.67629700

Plan: APD (# 714H/Original drilling)

Created By: Janie Collins Date: 12:17, May 12 2021



Azimuths to True North  
Magnetic North: 8

Magnetic Field  
Strength: 49184  
Dip Angle: 62.63°  
Date: 3/11/2021  
Model: HDGM2021\_FLE

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
714H heel Rev 1	4797	623	1281	1882394.62	2770720.43	36.17323653	-107.67195607
714H toe	4763	-2587	4436	1879189.61	2773880.86	36.16441710	-107.66126710

SECTION DETAILS

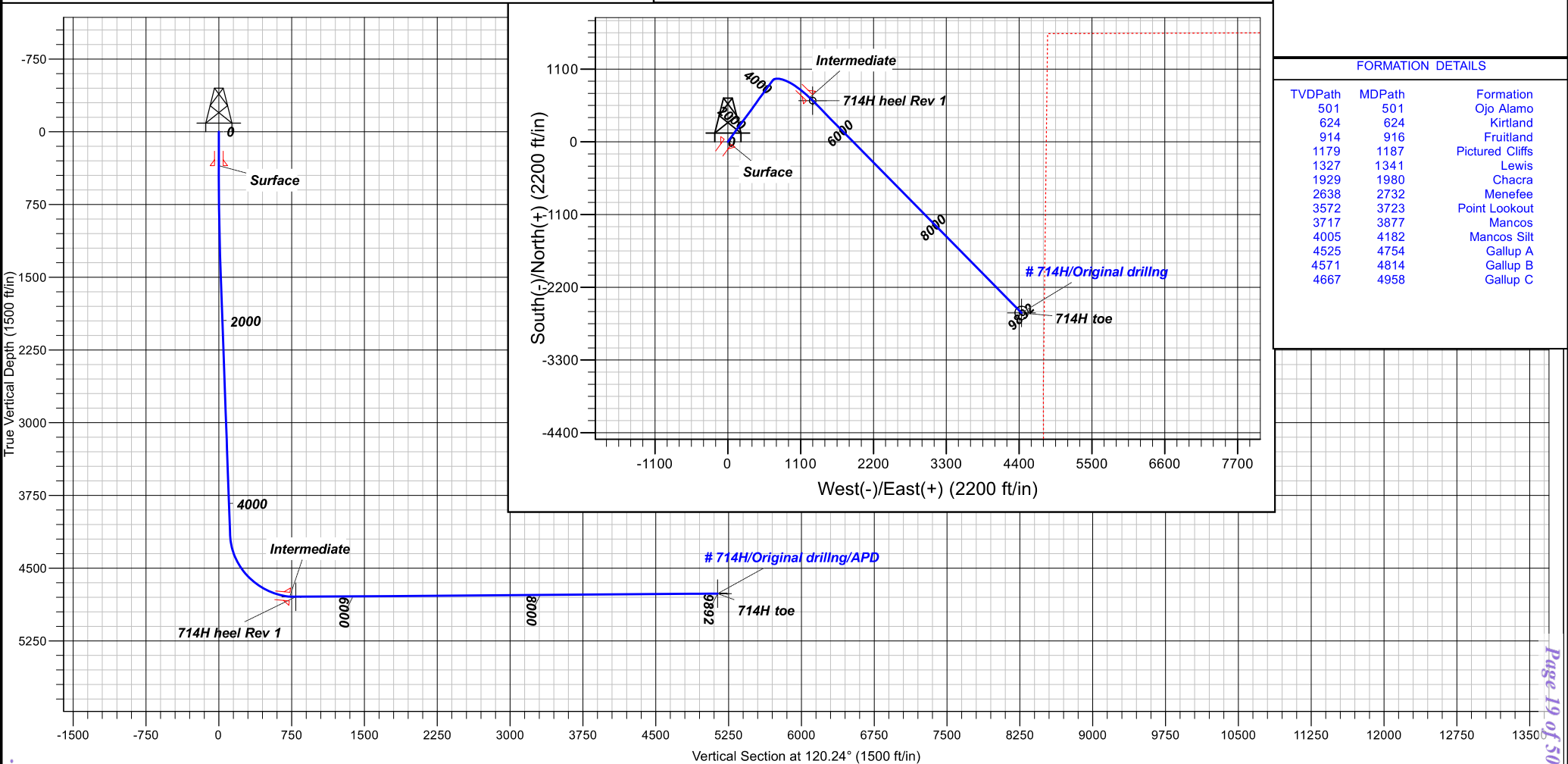
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Target
0	0.00	0.00	0	0	0	0.00	0.00	0	
450	0.00	0.00	450	0	0	0.00	0.00	0	
1427	19.53	36.09	1408	133	97	2.00	36.09	17	
4351	19.53	36.09	4164	923	673	0.00	0.00	116	
5390	90.43	135.49	4797	623	1281	9.00	98.73	793	714H heel Rev 1
9892	90.43	135.49	4763	-2587	4436	0.00	0.00	5135	714H toe

CASING DETAILS

TVD	MD	Name
350	350	Surface
4794	5326	Intermediate

FORMATION DETAILS

TVDPATH	MDPATH	FORMATION
501	501	Ojo Alamo
624	624	Kirtland
914	916	Fruitland
1179	1187	Pictured Cliffs
1327	1341	Lewis
1929	1980	Chacra
2638	2732	Menefee
3572	3723	Point Lookout
3717	3877	Mancos
4005	4182	Mancos Silt
4525	4754	Gallup A
4571	4814	Gallup B
4667	4958	Gallup C





## **DJR Operating**

**Bettonnie Tsosie Unit**

**E03 2208 Pad**

**# 714H - Slot 5**

**Original drilling**

**Plan: APD**

## **Standard Planning Report**

**12 May, 2021**





**Lonestar Consulting, LLC**  
Planning Report



<b>Database:</b>	Grand Junction	<b>Local Co-ordinate Reference:</b>	Well # 714H - Slot 5
<b>Company:</b>	DJR Operating	<b>TVD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Project:</b>	Betonne Tsoie Unit	<b>MD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Site:</b>	E03 2208 Pad	<b>North Reference:</b>	True
<b>Well:</b>	# 714H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original drilling		
<b>Design:</b>	APD		

<b>Project</b>	Betonne Tsoie Unit		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Western Zone		

<b>Site</b>	E03 2208 Pad		
<b>Site Position:</b>		<b>Northing:</b>	1,881,698.81 usft
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,769,402.00 usft
<b>Position Uncertainty:</b>	0 ft	<b>Slot Radius:</b>	13.20 in
		<b>Latitude:</b>	36.17133100
		<b>Longitude:</b>	-107.67642700
		<b>Grid Convergence:</b>	0.09 °

<b>Well</b>	# 714H - Slot 5		
<b>Well Position</b>	<b>+N/-S</b>	70 ft	<b>Northing:</b> 1,881,769.13 usft
	<b>+E/-W</b>	38 ft	<b>Easting:</b> 2,769,440.26 usft
<b>Position Uncertainty</b>	0 ft	<b>Wellhead Elevation:</b>	<b>Latitude:</b> 36.17152400
			<b>Longitude:</b> -107.67629700
			<b>Ground Level:</b> 6870 ft

<b>Wellbore</b>	Original drilling				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM2021_FILE	3/11/2021	8.62	62.68	49,184.90000000

<b>Design</b>	APD			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0	0	0	120.24

<b>Plan Survey Tool Program</b>	<b>Date</b>	5/12/2021		
<b>Depth From (ft)</b>	<b>Depth To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0	9892 APD (Original drilling)	MWD+IGRF	
			OWSG MWD + IGRF or WMM	

<b>Plan Sections</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
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	
1427	19.53	36.09	1408	133	97	2.00	2.00	0.00	36.09	
4351	19.53	36.09	4164	923	673	0.00	0.00	0.00	0.00	
5390	90.43	135.49	4797	623	1281	9.00	6.82	9.56	98.73	714H heel Rev 1
9892	90.43	135.49	4763	-2587	4436	0.00	0.00	0.00	0.00	714H toe



## Lonestar Consulting, LLC

## Planning Report



<b>Database:</b>	Grand Junction	<b>Local Co-ordinate Reference:</b>	Well # 714H - Slot 5
<b>Company:</b>	DJR Operating	<b>TVD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Project:</b>	Betonne Tsoie Unit	<b>MD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Site:</b>	E03 2208 Pad	<b>North Reference:</b>	True
<b>Well:</b>	# 714H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original drilling		
<b>Design:</b>	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	36.09	500	0	0	0	2.00	2.00	0.00
600	3.00	36.09	600	3	2	0	2.00	2.00	0.00
700	5.00	36.09	700	9	6	1	2.00	2.00	0.00
800	7.00	36.09	799	17	13	2	2.00	2.00	0.00
900	9.00	36.09	898	29	21	4	2.00	2.00	0.00
1000	11.00	36.09	997	43	31	5	2.00	2.00	0.00
1100	13.00	36.09	1094	59	43	7	2.00	2.00	0.00
1200	15.00	36.09	1191	79	57	10	2.00	2.00	0.00
1300	17.00	36.09	1288	101	74	13	2.00	2.00	0.00
1400	19.00	36.09	1383	126	92	16	2.00	2.00	0.00
1427	19.53	36.09	1408	133	97	17	2.00	2.00	0.00
1500	19.53	36.09	1477	153	112	19	0.00	0.00	0.00
1600	19.53	36.09	1571	180	131	23	0.00	0.00	0.00
1700	19.53	36.09	1665	207	151	26	0.00	0.00	0.00
1800	19.53	36.09	1760	234	171	29	0.00	0.00	0.00
1900	19.53	36.09	1854	261	190	33	0.00	0.00	0.00
2000	19.53	36.09	1948	288	210	36	0.00	0.00	0.00
2100	19.53	36.09	2042	315	230	40	0.00	0.00	0.00
2200	19.53	36.09	2137	342	249	43	0.00	0.00	0.00
2300	19.53	36.09	2231	369	269	47	0.00	0.00	0.00
2400	19.53	36.09	2325	396	289	50	0.00	0.00	0.00
2500	19.53	36.09	2419	423	309	53	0.00	0.00	0.00
2600	19.53	36.09	2514	450	328	57	0.00	0.00	0.00
2700	19.53	36.09	2608	477	348	60	0.00	0.00	0.00
2800	19.53	36.09	2702	504	368	64	0.00	0.00	0.00
2900	19.53	36.09	2796	531	387	67	0.00	0.00	0.00
3000	19.53	36.09	2891	558	407	70	0.00	0.00	0.00
3100	19.53	36.09	2985	585	427	74	0.00	0.00	0.00
3200	19.53	36.09	3079	612	446	77	0.00	0.00	0.00
3300	19.53	36.09	3173	639	466	81	0.00	0.00	0.00
3400	19.53	36.09	3268	666	486	84	0.00	0.00	0.00
3500	19.53	36.09	3362	693	505	87	0.00	0.00	0.00
3600	19.53	36.09	3456	720	525	91	0.00	0.00	0.00
3700	19.53	36.09	3550	748	545	94	0.00	0.00	0.00
3800	19.53	36.09	3645	775	565	98	0.00	0.00	0.00
3900	19.53	36.09	3739	802	584	101	0.00	0.00	0.00
4000	19.53	36.09	3833	829	604	104	0.00	0.00	0.00
4100	19.53	36.09	3927	856	624	108	0.00	0.00	0.00
4200	19.53	36.09	4022	883	643	111	0.00	0.00	0.00
4300	19.53	36.09	4116	910	663	115	0.00	0.00	0.00
4351	19.53	36.09	4164	923	673	116	0.00	0.00	0.00
4400	19.34	49.36	4210	935	684	120	9.00	-0.39	27.07
4500	21.80	74.22	4304	951	715	138	9.00	2.45	24.86
4600	27.05	92.05	4395	955	755	171	9.00	5.25	17.83
4700	33.82	103.83	4481	948	805	218	9.00	6.77	11.79
4800	41.37	111.91	4561	929	863	278	9.00	7.55	8.08
4900	49.33	117.83	4631	899	927	348	9.00	7.96	5.92
5000	57.53	122.47	4690	858	996	428	9.00	8.20	4.63



## Lonestar Consulting, LLC

## Planning Report



<b>Database:</b>	Grand Junction	<b>Local Co-ordinate Reference:</b>	Well # 714H - Slot 5
<b>Company:</b>	DJR Operating	<b>TVD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Project:</b>	Betonne Tsoie Unit	<b>MD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Site:</b>	E03 2208 Pad	<b>North Reference:</b>	True
<b>Well:</b>	# 714H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original drilling		
<b>Design:</b>	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)
5100	65.87	126.32	4738	809	1069	516	9.00	8.34	3.85
5200	74.29	129.69	4772	751	1143	609	9.00	8.42	3.37
5300	82.76	132.79	4792	686	1217	705	9.00	8.47	3.10
5390	90.43	135.49	4797	623	1281	793	9.00	8.49	2.99
5400	90.43	135.49	4797	617	1288	802	0.00	0.00	0.00
5500	90.43	135.49	4796	545	1358	899	0.00	0.00	0.00
5600	90.43	135.49	4795	474	1428	995	0.00	0.00	0.00
5700	90.43	135.49	4795	403	1498	1092	0.00	0.00	0.00
5800	90.43	135.49	4794	331	1568	1188	0.00	0.00	0.00
5900	90.43	135.49	4793	260	1638	1285	0.00	0.00	0.00
6000	90.43	135.49	4792	189	1709	1381	0.00	0.00	0.00
6100	90.43	135.49	4792	117	1779	1477	0.00	0.00	0.00
6200	90.43	135.49	4791	46	1849	1574	0.00	0.00	0.00
6300	90.43	135.49	4790	-25	1919	1670	0.00	0.00	0.00
6400	90.43	135.49	4789	-97	1989	1767	0.00	0.00	0.00
6500	90.43	135.49	4789	-168	2059	1863	0.00	0.00	0.00
6600	90.43	135.49	4788	-239	2129	1960	0.00	0.00	0.00
6700	90.43	135.49	4787	-311	2199	2056	0.00	0.00	0.00
6800	90.43	135.49	4786	-382	2269	2153	0.00	0.00	0.00
6900	90.43	135.49	4786	-453	2339	2249	0.00	0.00	0.00
7000	90.43	135.49	4785	-525	2410	2346	0.00	0.00	0.00
7100	90.43	135.49	4784	-596	2480	2442	0.00	0.00	0.00
7200	90.43	135.49	4783	-667	2550	2539	0.00	0.00	0.00
7300	90.43	135.49	4783	-738	2620	2635	0.00	0.00	0.00
7400	90.43	135.49	4782	-810	2690	2732	0.00	0.00	0.00
7500	90.43	135.49	4781	-881	2760	2828	0.00	0.00	0.00
7600	90.43	135.49	4780	-952	2830	2925	0.00	0.00	0.00
7700	90.43	135.49	4780	-1024	2900	3021	0.00	0.00	0.00
7800	90.43	135.49	4779	-1095	2970	3118	0.00	0.00	0.00
7900	90.43	135.49	4778	-1166	3040	3214	0.00	0.00	0.00
8000	90.43	135.49	4777	-1238	3110	3311	0.00	0.00	0.00
8100	90.43	135.49	4777	-1309	3181	3407	0.00	0.00	0.00
8200	90.43	135.49	4776	-1380	3251	3503	0.00	0.00	0.00
8300	90.43	135.49	4775	-1452	3321	3600	0.00	0.00	0.00
8400	90.43	135.49	4774	-1523	3391	3696	0.00	0.00	0.00
8500	90.43	135.49	4774	-1594	3461	3793	0.00	0.00	0.00
8600	90.43	135.49	4773	-1666	3531	3889	0.00	0.00	0.00
8700	90.43	135.49	4772	-1737	3601	3986	0.00	0.00	0.00
8800	90.43	135.49	4771	-1808	3671	4082	0.00	0.00	0.00
8900	90.43	135.49	4770	-1880	3741	4179	0.00	0.00	0.00
9000	90.43	135.49	4770	-1951	3811	4275	0.00	0.00	0.00
9100	90.43	135.49	4769	-2022	3882	4372	0.00	0.00	0.00
9200	90.43	135.49	4768	-2093	3952	4468	0.00	0.00	0.00
9300	90.43	135.49	4767	-2165	4022	4565	0.00	0.00	0.00
9400	90.43	135.49	4767	-2236	4092	4661	0.00	0.00	0.00
9500	90.43	135.49	4766	-2307	4162	4758	0.00	0.00	0.00
9600	90.43	135.49	4765	-2379	4232	4854	0.00	0.00	0.00
9700	90.43	135.49	4764	-2450	4302	4951	0.00	0.00	0.00
9800	90.43	135.49	4764	-2521	4372	5047	0.00	0.00	0.00
9892	90.43	135.49	4763	-2587	4436	5135	0.00	0.00	0.00



**Lonestar Consulting, LLC**  
Planning Report



<b>Database:</b>	Grand Junction	<b>Local Co-ordinate Reference:</b>	Well # 714H - Slot 5
<b>Company:</b>	DJR Operating	<b>TVD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Project:</b>	Betonne Tsoie Unit	<b>MD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Site:</b>	E03 2208 Pad	<b>North Reference:</b>	True
<b>Well:</b>	# 714H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original drilling		
<b>Design:</b>	APD		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
714H toe	0.00	0.00	4763	-2587	4436	1,879,189.61	2,773,880.86	36.16441710	-107.66126710
- plan hits target center									
- Circle (radius 100)									
714H heel Rev 1	0.00	0.00	4797	623	1281	1,882,394.62	2,770,720.43	36.17323653	-107.67195607
- plan hits target center									
- Circle (radius 50)									

Casing Points					
Measured Depth	Vertical Depth		Casing Diameter	Hole Diameter	
(ft)	(ft)	Name	(in)	(in)	
350	350	Surface	9.63	12.25	
5326	4794	Intermediate	7.00	8.75	

Formations						
Measured Depth	Vertical Depth			Dip	Dip Direction	
(ft)	(ft)	Name	Lithology	(°)	(°)	
501	501	Ojo Alamo		0.00	0.00	
624	624	Kirtland		0.00	0.00	
916	914	Fruitland		0.00	0.00	
1187	1179	Pictured Cliffs		0.00	0.00	
1341	1327	Lewis		0.00	0.00	
1980	1929	Chacra		0.00	0.00	
2732	2638	Menefee		0.00	0.00	
3723	3572	Point Lookout		0.00	0.00	
3877	3717	Mancos		0.00	0.00	
4182	4005	Mancos Silt		0.00	0.00	
4754	4525	Gallup A		0.00	0.00	
4814	4571	Gallup B		0.00	0.00	
4958	4667	Gallup C		0.00	0.00	





## **DJR Operating**

**Betonnies Tsosie Unit**

**E03 2208 Pad**

**# 714H**

**Original drilling**

**APD**

## **Anticollision Report**

**19 May, 2021**





# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 714H - Slot 5
<b>Project:</b>	Betonnies Tsoie Unit	<b>TVD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Reference Site:</b>	E03 2208 Pad	<b>MD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Site Error:</b>	0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 714H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original drilling	<b>Database:</b>	Grand Junction
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	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 10,000ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	5/19/2021		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0	9892	APD (Original drilling)	MWD+IGRF	OWSG MWD + IGRF or WMM	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
E03 2208 Pad						
# 602H - Original drilling - APD Rev 1	1031	1038	29	22	4.016	CC
# 602H - Original drilling - APD Rev 1	1100	1107	29	21	3.720	ES
# 602H - Original drilling - APD Rev 1	1300	1308	33	23	3.303	SF
# 603H - Original drilling - APD	475	475	80	77	26.646	CC
# 603H - Original drilling - APD	500	501	80	77	25.153	ES
# 603H - Original drilling - APD	800	801	96	91	17.917	SF
# 715H - Original drilling - APD	533	534	18	15	5.396	CC, ES
# 715H - Original drilling - APD	9892	9702	1229	977	4.885	SF
# 716H - Original drilling - APD	304	304	60	58	33.831	CC
# 716H - Original drilling - APD	400	400	60	58	24.466	ES
# 716H - Original drilling - APD	700	695	82	77	17.757	SF

Offset Design: E03 2208 Pad - # 602H - Original drilling - APD Rev 1													Offset Site Error: 0 ft	
Survey Program: 0-MWD+IGRF													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)				
0	0	0	0	0	0	-151.23	-35	-19	40					
100	100	100	100	0	0	-151.23	-35	-19	40	40	0.31	129.314		
200	200	200	200	1	1	-151.23	-35	-19	40	39	1.03	38.885		
300	300	300	300	1	1	-151.23	-35	-19	40	38	1.74	22.883		
400	400	400	400	1	1	-151.28	-35	-19	40	37	2.46	16.164		
450	450	451	451	1	1	-151.65	-34	-18	39	36	2.82	13.799		
500	500	502	502	2	2	171.57	-33	-17	38	34	3.18	11.849		
600	600	603	603	2	2	169.39	-29	-13	35	31	3.89	9.049		
700	700	704	703	2	2	165.95	-22	-6	33	28	4.61	7.157		
800	799	805	803	3	3	161.07	-12	4	31	26	5.34	5.822		
900	898	906	903	3	3	154.65	0	15	30	24	6.09	4.864		
1000	997	1006	1001	3	4	146.78	14	30	29	22	6.90	4.185		
1031	1027	1038	1032	4	4	144.08	19	35	29	22	7.18	4.016	CC	
1100	1094	1107	1099	4	4	137.88	31	47	29	21	7.82	3.720	ES	
1200	1191	1207	1196	4	5	128.70	50	66	30	22	8.87	3.426		
1300	1288	1308	1291	5	5	121.25	71	87	33	23	10.03	3.303	SF	



# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 714H - Slot 5
<b>Project:</b>	Betonnies Tsois Unit	<b>TVD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Reference Site:</b>	E03 2208 Pad	<b>MD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Site Error:</b>	0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 714H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original drilling	<b>Database:</b>	Grand Junction
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design:</b> E03 2208 Pad - # 602H - Original drilling - APD Rev 1													<b>Offset Site Error:</b>	0 ft
<b>Survey Program:</b> 0-MWD+IGRF													<b>Offset Well Error:</b>	0 ft
<b>Reference</b>	<b>Offset</b>	<b>Semi Major Axis</b>		<b>Distance</b>		<b>Rule Assigned:</b>		<b>Warning</b>						
<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Reference (ft)</b>	<b>Offset (ft)</b>	<b>Highside Toolface (°)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Between Centres (ft)</b>	<b>Between Ellipses (ft)</b>	<b>Minimum Separation (ft)</b>	<b>Separation Factor</b>		
1400	1383	1407	1387	6	6	119.48	92	108	38	27	11.19	3.384		
1427	1408	1434	1412	6	6	119.82	98	113	39	28	11.50	3.430		
1500	1477	1507	1482	6	6	121.07	113	129	44	32	12.33	3.561		
1600	1571	1607	1577	7	7	122.43	134	150	50	37	13.48	3.711		
1700	1665	1707	1673	8	8	123.49	155	171	56	42	14.64	3.837		
1800	1760	1807	1768	8	8	124.34	176	192	62	47	15.81	3.943		
1900	1854	1906	1863	9	9	125.03	197	213	69	52	16.99	4.033		
2000	1948	2006	1958	10	10	125.61	218	234	75	57	18.17	4.111		
2100	2042	2106	2054	10	10	126.11	239	255	81	62	19.36	4.179		
2200	2137	2206	2149	11	11	126.53	260	276	87	67	20.55	4.238		
2300	2231	2306	2244	12	12	126.89	281	297	93	72	21.74	4.290		
2400	2325	2405	2339	12	12	127.21	302	318	99	77	22.93	4.337		
2500	2419	2505	2435	13	13	127.50	323	339	106	82	24.13	4.379		
2600	2514	2605	2530	14	14	127.75	344	360	112	87	25.33	4.416		
2700	2608	2705	2625	15	14	127.97	365	381	118	92	26.53	4.450		
2800	2702	2805	2721	15	15	128.18	386	402	124	97	27.74	4.481		
2900	2796	2905	2816	16	16	128.36	407	423	131	102	28.94	4.509		
3000	2891	3004	2911	17	16	128.53	428	444	137	107	30.15	4.535		
3100	2985	3104	3006	17	17	128.68	449	465	143	112	31.35	4.559		
3200	3079	3204	3102	18	18	128.82	471	486	149	117	32.56	4.580		
3300	3173	3304	3197	19	18	128.95	492	508	155	122	33.77	4.601		
3400	3268	3404	3292	20	19	129.07	513	529	162	127	34.98	4.619		
3500	3362	3503	3387	20	20	129.17	534	550	168	132	36.19	4.637		
3600	3456	3603	3483	21	20	129.28	555	571	174	137	37.40	4.653		
3700	3550	3703	3578	22	21	129.37	576	592	180	142	38.61	4.668		
3800	3645	3803	3673	22	22	129.46	597	613	186	147	39.82	4.682		
3900	3739	3903	3768	23	22	129.54	618	634	193	152	41.03	4.695		
4000	3833	4002	3864	24	23	129.62	639	655	199	157	42.24	4.708		
4100	3927	4102	3959	25	24	129.69	660	676	205	162	43.45	4.720		
4200	4022	4202	4054	25	24	129.76	681	697	211	167	44.66	4.731		
4300	4116	4302	4150	26	25	129.83	702	718	218	172	45.88	4.741		
4351	4164	4353	4198	26	25	129.86	713	729	221	174	46.49	4.747		
4400	4210	4421	4264	27	26	118.23	729	741	220	173	46.89	4.693		
4450	4257	4490	4328	27	26	109.00	751	747	212	165	46.45	4.557		
4500	4304	4552	4385	27	27	103.81	776	749	197	151	45.19	4.349		
4550	4350	4607	4434	28	27	103.47	800	747	177	133	43.21	4.089		
4600	4395	4652	4473	28	27	107.78	822	742	155	114	40.67	3.813		
4650	4439	4688	4504	28	27	115.01	841	737	136	98	38.06	3.571		
4700	4481	4717	4527	29	27	122.26	857	732	125	88	36.96	3.390		
4714	4493	4724	4532	29	28	123.92	861	730	125	88	37.17	3.354		
4750	4522	4739	4544	29	28	127.24	870	727	129	90	38.72	3.330		
4800	4561	4754	4556	29	28	129.09	879	724	148	106	41.55	3.561		
4850	4597	4765	4564	29	28	127.75	885	721	179	135	43.50	4.108		
4900	4631	4771	4569	30	28	123.30	889	720	217	172	44.53	4.869		
4950	4662	4773	4571	30	28	115.76	890	719	259	214	45.05	5.751		
5000	4690	4773	4570	30	28	105.34	890	719	304	258	45.35	6.697		
5050	4716	4770	4568	31	28	92.90	888	720	350	304	45.59	7.669		
5100	4738	4765	4564	31	28	80.07	885	721	396	350	45.82	8.642		
5150	4756	4750	4553	31	28	66.68	876	725	442	397	45.49	9.728		
5200	4772	4750	4553	31	28	59.19	876	725	488	442	46.43	10.517		
5250	4784	4750	4553	32	28	53.03	876	725	534	486	47.37	11.268		
5300	4792	4728	4536	32	28	46.02	863	730	578	531	47.00	12.297		



# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 714H - Slot 5
<b>Project:</b>	Betonnies Tsoie Unit	<b>TVD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Reference Site:</b>	E03 2208 Pad	<b>MD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Site Error:</b>	0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 714H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original drilling	<b>Database:</b>	Grand Junction
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design:</b> E03 2208 Pad - # 602H - Original drilling - APD Rev 1											<b>Offset Site Error:</b>	0 ft
<b>Survey Program:</b> 0-MWD+IGRF											<b>Offset Well Error:</b>	0 ft
<b>Reference</b>		<b>Offset</b>		<b>Semi Major Axis</b>			<b>Offset Wellbore Centre</b>		<b>Distance</b>			<b>Warning</b>
<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Reference (ft)</b>	<b>Offset (ft)</b>	<b>Highside Toolface (°)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Between Centres (ft)</b>	<b>Between Ellipses (ft)</b>	<b>Minimum Separation (ft)</b>	
5350	4796	4716	4526	32	27	41.80	856	732	621	574	47.35	13.116
5390	4797	4700	4513	33	27	38.91	848	735	655	608	47.38	13.825
5400	4797	4700	4513	33	27	38.91	848	735	663	615	47.59	13.934
5500	4796	4678	4495	34	27	37.91	836	739	747	699	48.41	15.439
5600	4795	4650	4472	35	27	36.71	821	743	834	785	48.73	17.115
5700	4795	4650	4472	36	27	36.71	821	743	922	872	49.89	18.489
5800	4794	4620	4446	37	27	35.57	807	746	1012	962	49.86	20.291
5900	4793	4600	4428	38	27	34.84	797	747	1103	1053	50.05	22.028
6000	4792	4600	4428	40	27	34.84	797	747	1194	1144	50.70	23.559
6100	4792	4579	4410	42	27	34.14	787	748	1287	1236	50.73	25.372
6200	4791	4568	4400	43	27	33.79	782	749	1380	1329	50.93	27.102
6300	4790	4550	4383	45	27	33.24	775	749	1474	1423	50.95	28.938
6400	4789	4550	4383	47	27	33.24	775	749	1569	1518	51.30	30.585
6500	4789	4550	4383	49	27	33.24	775	749	1664	1612	51.59	32.257
6600	4788	4550	4383	51	27	33.24	775	749	1760	1708	51.83	33.949
6700	4787	4525	4360	53	26	32.52	765	749	1855	1803	51.62	35.935
6800	4786	4500	4337	55	26	31.87	755	748	1952	1900	51.43	37.949
6900	4786	4500	4337	57	26	31.87	755	748	2048	1996	51.62	39.673
7000	4785	4500	4337	60	26	31.87	755	748	2144	2093	51.79	41.408
7100	4784	4500	4337	62	26	31.87	755	748	2241	2189	51.93	43.154
7200	4783	4500	4337	64	26	31.87	755	748	2338	2286	52.07	44.908
7300	4783	4500	4337	66	26	31.87	755	748	2436	2383	52.19	46.670
7400	4782	4500	4337	68	26	31.87	755	748	2533	2481	52.30	48.438
7500	4781	4500	4337	71	26	31.87	755	748	2631	2579	52.40	50.212
7600	4780	4478	4317	73	26	31.34	747	747	2728	2676	52.21	52.259
7700	4780	4475	4314	75	26	31.25	746	746	2826	2774	52.25	54.089
7800	4779	4471	4310	78	26	31.17	745	746	2924	2872	52.29	55.920
7900	4778	4450	4291	80	26	30.69	738	744	3023	2971	52.12	57.997
8000	4777	4450	4291	82	26	30.69	738	744	3121	3069	52.20	59.790
8100	4777	4450	4291	85	26	30.69	738	744	3219	3167	52.27	61.584
8200	4776	4450	4291	87	26	30.69	738	744	3317	3265	52.34	63.381
8300	4775	4450	4291	89	26	30.69	738	744	3416	3363	52.41	65.179
8400	4774	4450	4291	92	26	30.69	738	744	3514	3462	52.47	66.977
8500	4774	4450	4291	94	26	30.69	738	744	3613	3560	52.53	68.777
8600	4773	4450	4291	96	26	30.69	738	744	3712	3659	52.59	70.577
8700	4772	4450	4291	99	26	30.69	738	744	3810	3758	52.65	72.377
8800	4771	4450	4291	101	26	30.69	738	744	3909	3857	52.70	74.177
8900	4770	4450	4291	103	26	30.69	738	744	4008	3955	52.75	75.976
9000	4770	4450	4291	106	26	30.69	738	744	4107	4054	52.81	77.775
9100	4769	4450	4291	108	26	30.69	738	744	4206	4153	52.86	79.573
9200	4768	4450	4291	111	26	30.69	738	744	4305	4252	52.91	81.370
9300	4767	4450	4291	113	26	30.69	738	744	4404	4351	52.96	83.166
9400	4767	4450	4291	115	26	30.69	738	744	4503	4450	53.00	84.961
9500	4766	4450	4291	118	26	30.69	738	744	4602	4549	53.05	86.754
9600	4765	4450	4291	120	26	30.69	738	744	4702	4648	53.10	88.545
9700	4764	4450	4291	123	26	30.69	738	744	4801	4748	53.14	90.335
9800	4764	4427	4269	125	26	30.21	731	741	4900	4847	52.96	92.518
9892	4763	4426	4268	127	26	30.18	731	741	4990	4937	52.99	94.181



# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 714H - Slot 5
<b>Project:</b>	Betonne Tsois Unit	<b>TVD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Reference Site:</b>	E03 2208 Pad	<b>MD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Site Error:</b>	0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 714H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original drilling	<b>Database:</b>	Grand Junction
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design:</b> E03 2208 Pad - # 603H - Original drilling - APD													<b>Offset Site Error:</b>	0 ft
<b>Survey Program:</b> 0-MWD+IGRF													<b>Offset Well Error:</b>	0 ft
<b>Reference</b>	<b>Offset</b>	<b>Semi Major Axis</b>		<b>Distance</b>		<b>Rule Assigned:</b>		<b>Warning</b>						
<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Reference (ft)</b>	<b>Offset (ft)</b>	<b>Highside Toolface (°)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Between Centres (ft)</b>	<b>Between Ellipses (ft)</b>	<b>Minimum Separation (ft)</b>	<b>Separation Factor</b>		
0	0	0	0	0	0	-151.36	-70	-38	80					
100	100	100	100	0	0	-151.36	-70	-38	80	80	0.31	259.663		
200	200	200	200	1	1	-151.36	-70	-38	80	79	1.03	78.081		
300	300	300	300	1	1	-151.36	-70	-38	80	78	1.74	45.949		
400	400	400	400	1	1	-151.36	-70	-38	80	78	2.46	32.553		
450	450	450	450	1	1	-151.06	-70	-39	80	77	2.82	28.349		
475	475	475	475	1	1	173.23	-70	-39	80	77	3.00	26.646 CC		
500	500	501	501	2	2	173.79	-69	-40	80	77	3.18	25.153 ES		
600	600	602	601	2	2	177.58	-65	-43	82	78	3.90	21.020		
700	700	702	701	2	2	-176.61	-58	-49	87	82	4.63	18.822		
800	799	801	800	3	3	-169.77	-49	-57	96	91	5.38	17.917 SF		
900	898	899	897	3	3	-163.44	-39	-67	110	104	6.14	17.928		
1000	997	997	994	3	4	-159.02	-28	-76	128	121	6.92	18.516		
1100	1094	1095	1090	4	4	-156.17	-17	-85	150	142	7.71	19.430		
1200	1191	1191	1186	4	4	-154.46	-7	-95	175	166	8.52	20.532		
1300	1288	1287	1281	5	5	-153.54	4	-104	203	194	9.33	21.748		
1400	1383	1382	1375	6	5	-153.15	14	-113	234	224	10.16	23.040		
1427	1408	1408	1400	6	5	-153.11	17	-116	243	232	10.39	23.387		
1500	1477	1477	1468	6	6	-153.25	24	-123	267	256	10.99	24.319		
1600	1571	1571	1561	7	6	-153.41	35	-132	301	289	11.83	25.422		
1700	1665	1665	1655	8	6	-153.54	45	-141	334	321	12.67	26.364		
1800	1760	1760	1748	8	7	-153.64	55	-150	367	354	13.52	27.176		
1900	1854	1854	1841	9	7	-153.72	66	-159	401	386	14.37	27.881		
2000	1948	1948	1934	10	8	-153.80	76	-168	434	419	15.23	28.500		
2100	2042	2042	2028	10	8	-153.86	86	-178	468	451	16.10	29.046		
2200	2137	2137	2121	11	9	-153.91	96	-187	501	484	16.96	29.532		
2300	2231	2231	2214	12	9	-153.96	107	-196	534	516	17.83	29.966		
2400	2325	2325	2307	12	9	-154.00	117	-205	568	549	18.70	30.356		
2500	2419	2419	2401	13	10	-154.04	127	-214	601	581	19.57	30.708		
2600	2514	2514	2494	14	10	-154.07	138	-223	634	614	20.44	31.028		
2700	2608	2608	2587	15	11	-154.10	148	-232	668	646	21.32	31.319		
2800	2702	2702	2681	15	11	-154.13	158	-242	701	679	22.20	31.586		
2900	2796	2796	2774	16	11	-154.15	168	-251	734	711	23.07	31.830		
3000	2891	2891	2867	17	12	-154.17	179	-260	768	744	23.95	32.056		
3100	2985	2985	2960	17	12	-154.19	189	-269	801	776	24.83	32.264		
3200	3079	3079	3054	18	13	-154.21	199	-278	835	809	25.71	32.457		
3300	3173	3174	3147	19	13	-154.23	210	-287	868	841	26.59	32.636		
3400	3268	3268	3240	20	14	-154.25	220	-297	901	874	27.48	32.803		
3500	3362	3362	3333	20	14	-154.26	230	-306	935	906	28.36	32.959		
3600	3456	3456	3427	21	14	-154.28	240	-315	968	939	29.24	33.105		
3700	3550	3551	3520	22	15	-154.29	251	-324	1001	971	30.12	33.241		
3800	3645	3645	3613	22	15	-154.30	261	-333	1035	1004	31.01	33.370		
3900	3739	3739	3706	23	16	-154.31	271	-342	1068	1036	31.89	33.490		
4000	3833	3833	3800	24	16	-154.32	282	-352	1101	1069	32.78	33.604		
4100	3927	3928	3893	25	17	-154.33	292	-361	1135	1101	33.66	33.711		
4200	4022	4022	3986	25	17	-154.34	302	-370	1168	1134	34.55	33.813		
4300	4116	4116	4079	26	17	-154.35	312	-379	1202	1166	35.44	33.909		
4351	4164	4164	4127	26	18	-154.36	318	-384	1219	1183	35.89	33.956		
4400	4210	4210	4172	27	18	-168.34	323	-388	1235	1199	36.32	34.019		
4450	4257	4257	4218	27	18	177.84	328	-393	1254	1217	36.74	34.122		
4500	4304	4295	4257	27	18	165.45	332	-396	1273	1236	37.09	34.316		
4550	4350	4324	4284	28	18	154.86	336	-400	1293	1256	37.35	34.624		



# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 714H - Slot 5
<b>Project:</b>	Betonne Tsois Unit	<b>TVD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Reference Site:</b>	E03 2208 Pad	<b>MD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Site Error:</b>	0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 714H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original drilling	<b>Database:</b>	Grand Junction
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design:</b> E03 2208 Pad - # 603H - Original drilling - APD												<b>Offset Site Error:</b>	0 ft
<b>Survey Program:</b> 0-MWD+IGRF												<b>Offset Well Error:</b>	0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4600	4395	4350	4310	28	18	146.03	340	-404	1315	1278	37.59	34.987	
4650	4439	4373	4332	28	19	138.58	345	-408	1338	1301	37.79	35.414	
4700	4481	4400	4358	29	19	132.42	351	-414	1363	1325	38.04	35.828	
4750	4522	4400	4358	29	19	126.15	351	-414	1389	1351	37.94	36.605	
4800	4561	4425	4382	29	19	121.36	357	-420	1416	1378	38.16	37.095	
4850	4597	4437	4393	29	19	116.49	361	-423	1444	1406	38.20	37.793	
4900	4631	4450	4404	30	19	111.97	364	-426	1473	1435	38.24	38.509	
4950	4662	4450	4404	30	19	107.12	364	-426	1503	1464	38.11	39.427	
5000	4690	4450	4404	30	19	102.46	364	-426	1533	1495	37.98	40.366	
5050	4716	4450	4404	31	19	97.99	364	-426	1564	1526	37.86	41.313	
5100	4738	4450	4404	31	19	93.72	364	-426	1595	1557	37.75	42.255	
5150	4756	4450	4404	31	19	89.68	364	-426	1626	1589	37.66	43.184	
5200	4772	4450	4404	31	19	85.89	364	-426	1657	1620	37.59	44.087	
5250	4784	4450	4404	32	19	82.36	364	-426	1688	1650	37.55	44.958	
5300	4792	4450	4404	32	19	79.13	364	-426	1718	1681	37.53	45.788	
5350	4796	4450	4404	32	19	76.19	364	-426	1748	1710	37.53	46.573	
5390	4797	4450	4404	33	19	74.04	364	-426	1771	1733	37.55	47.170	
5400	4797	4450	4404	33	19	74.04	364	-426	1777	1739	37.55	47.311	
5500	4796	4424	4380	34	19	73.14	357	-419	1835	1798	37.33	49.165	
5600	4795	4400	4358	35	19	72.31	351	-414	1897	1860	37.19	51.018	
5700	4795	4400	4358	36	19	72.31	351	-414	1962	1925	37.37	52.508	
5800	4794	4400	4358	37	19	72.31	351	-414	2030	1992	37.56	54.041	
5900	4793	4381	4340	38	19	71.65	347	-410	2100	2062	37.58	55.879	
6000	4792	4373	4332	40	19	71.36	345	-408	2172	2134	37.71	57.600	
6100	4792	4350	4310	42	18	70.55	340	-404	2246	2209	37.71	59.563	
6200	4791	4350	4310	43	18	70.55	340	-404	2322	2284	37.93	61.221	
6300	4790	4350	4310	45	18	70.55	340	-404	2400	2362	38.15	62.916	
6400	4789	4350	4310	47	18	70.55	340	-404	2479	2441	38.35	64.646	
6500	4789	4350	4310	49	18	70.55	340	-404	2560	2522	38.55	66.408	
6600	4788	4350	4310	51	18	70.55	340	-404	2642	2604	38.74	68.200	
6700	4787	4329	4290	53	18	69.82	337	-401	2725	2686	38.79	70.260	
6800	4786	4324	4285	55	18	69.66	336	-400	2809	2770	38.94	72.152	
6900	4786	4320	4281	57	18	69.51	335	-400	2895	2855	39.08	74.061	
7000	4785	4300	4261	60	18	68.80	333	-397	2981	2942	39.13	76.183	
7100	4784	4300	4261	62	18	68.80	333	-397	3068	3028	39.29	78.076	
7200	4783	4300	4261	64	18	68.80	333	-397	3155	3116	39.45	79.987	
7300	4783	4300	4261	66	18	68.80	333	-397	3243	3204	39.59	81.917	
7400	4782	4300	4261	68	18	68.80	333	-397	3332	3293	39.74	83.862	
7500	4781	4300	4261	71	18	68.80	333	-397	3422	3382	39.87	85.822	
7600	4780	4300	4261	73	18	68.80	333	-397	3512	3472	40.00	87.795	
7700	4780	4300	4261	75	18	68.80	333	-397	3603	3563	40.13	89.780	
7800	4779	4290	4252	78	18	68.46	331	-396	3694	3654	40.20	91.879	
7900	4778	4283	4244	80	18	68.21	331	-395	3785	3745	40.29	93.962	
8000	4777	4283	4244	82	18	68.21	331	-395	3877	3837	40.40	95.974	
8100	4777	4283	4244	85	18	68.21	331	-395	3970	3929	40.51	97.994	
8200	4776	4268	4229	87	18	67.69	329	-394	4062	4022	40.55	100.181	
8300	4775	4253	4214	89	18	67.16	327	-392	4155	4115	40.59	102.376	
8400	4774	4237	4199	92	18	66.64	326	-391	4248	4208	40.62	104.575	
8500	4774	4222	4184	94	18	66.12	324	-389	4342	4301	40.66	106.778	
8600	4773	4207	4169	96	18	65.61	322	-388	4435	4395	40.70	108.984	
8700	4772	4191	4154	99	18	65.10	321	-386	4529	4489	40.73	111.194	
8800	4771	4176	4138	101	18	64.59	319	-385	4623	4583	40.77	113.406	



**Lonestar Consulting, LLC**  
Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 714H - Slot 5
<b>Project:</b>	Betonnies Tsosie Unit	<b>TVD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Reference Site:</b>	E03 2208 Pad	<b>MD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Site Error:</b>	0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 714H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original drilling	<b>Database:</b>	Grand Junction
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design:</b> E03 2208 Pad - # 603H - Original drilling - APD													<b>Offset Site Error:</b>	0 ft
<b>Survey Program:</b> 0-MWD+IGRF													<b>Offset Well Error:</b>	0 ft
<b>Reference</b>		<b>Offset</b>		<b>Semi Major Axis</b>		<b>Highside Toolface (°)</b>	<b>Offset Wellbore Centre</b>		<b>Distance</b>		<b>Rule Assigned:</b>		<b>Warning</b>	
<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Reference (ft)</b>	<b>Offset (ft)</b>		<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Between Centres (ft)</b>	<b>Between Ellipses (ft)</b>	<b>Minimum Separation (ft)</b>	<b>Separation Factor</b>		
8900	4770	4161	4123	103	18	64.09	317	-383	4718	4677	40.80	115.620		
9000	4770	4145	4108	106	18	63.59	316	-382	4812	4771	40.84	117.835		
9100	4769	4130	4093	108	17	63.10	314	-380	4907	4866	40.87	120.052		
9200	4768	4114	4078	111	17	62.61	312	-379	5002	4961	40.91	122.271		
9300	4767	4099	4062	113	17	62.12	311	-377	5097	5056	40.94	124.489		
9400	4767	4084	4047	115	17	61.64	309	-376	5192	5151	40.97	126.709		
9500	4766	4068	4032	118	17	61.17	307	-374	5287	5246	41.01	128.928		
9600	4765	4053	4017	120	17	60.70	306	-373	5382	5341	41.04	131.147		
9700	4764	4038	4002	123	17	60.23	304	-371	5478	5437	41.07	133.366		
9800	4764	4022	3987	125	17	59.77	302	-370	5573	5532	41.11	135.584		
9892	4763	4008	3973	127	17	59.35	301	-369	5661	5620	41.14	137.616		



## Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 714H - Slot 5
<b>Project:</b>	Betonnies Tsois Unit	<b>TVD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Reference Site:</b>	E03 2208 Pad	<b>MD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Site Error:</b>	0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 714H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original drilling	<b>Database:</b>	Grand Junction
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design:</b> E03 2208 Pad - # 715H - Original drilling - APD														<b>Offset Site Error:</b>	0 ft
<b>Survey Program:</b> 0-MWD+IGRF														<b>Offset Well Error:</b>	0 ft
<b>Reference</b>	<b>Offset</b>	<b>Semi Major Axis</b>		<b>Distance</b>		<b>Rule Assigned:</b>		<b>Warning</b>							
<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Reference (ft)</b>	<b>Offset (ft)</b>	<b>Highside Toolface (°)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Between Centres (ft)</b>	<b>Between Ellipses (ft)</b>	<b>Minimum Separation (ft)</b>	<b>Separation Factor</b>			
0	0	0	0	0	0	-151.61	-17	-9	20						
100	100	100	100	0	0	-151.61	-17	-9	20	20	0.31	64.428			
200	200	200	200	1	1	-151.61	-17	-9	20	19	1.03	19.373			
300	300	300	300	1	1	-151.61	-17	-9	20	18	1.74	11.401			
400	400	400	400	1	1	-151.37	-17	-9	20	17	2.46	8.046			
450	450	450	450	1	1	-149.42	-17	-10	19	16	2.82	6.815			
500	500	501	500	2	2	178.78	-15	-10	19	15	3.18	5.846			
533	533	534	534	2	2	-177.00	-13	-11	18	15	3.42	5.396 CC, ES			
600	600	601	600	2	2	-166.25	-9	-12	19	15	3.90	4.928			
700	700	700	700	2	2	-154.55	-3	-15	24	19	4.62	5.190			
800	799	800	799	3	3	-150.25	4	-17	32	27	5.36	6.050			
900	898	899	898	3	3	-150.10	10	-19	44	38	6.10	7.200			
1000	997	998	997	3	3	-151.66	17	-22	58	52	6.85	8.537			
1100	1094	1097	1095	4	4	-153.74	23	-24	76	68	7.60	10.014			
1200	1191	1194	1193	4	4	-155.84	30	-26	97	89	8.35	11.604			
1300	1288	1291	1289	5	5	-157.78	36	-28	121	112	9.11	13.285			
1400	1383	1387	1385	6	5	-159.49	43	-31	148	138	9.86	15.040			
1427	1408	1413	1411	6	5	-159.91	44	-31	156	146	10.07	15.513			
1500	1477	1483	1480	6	5	-161.04	49	-33	178	167	10.62	16.774			
1600	1571	1578	1576	7	6	-162.20	55	-35	208	197	11.37	18.301			
1700	1665	1674	1671	8	6	-163.06	61	-37	238	226	12.12	19.636			
1800	1760	1769	1766	8	6	-163.73	68	-39	268	255	12.88	20.812			
1900	1854	1864	1861	9	7	-164.27	74	-42	298	285	13.64	21.855			
2000	1948	1960	1956	10	7	-164.71	80	-44	328	314	14.41	22.785			
2100	2042	2055	2051	10	7	-165.07	86	-46	358	343	15.17	23.619			
2200	2137	2150	2146	11	8	-165.38	93	-48	389	373	15.94	24.371			
2300	2231	2246	2241	12	8	-165.64	99	-50	419	402	16.71	25.052			
2400	2325	2341	2336	12	9	-165.87	105	-53	449	431	17.48	25.672			
2500	2419	2436	2432	13	9	-166.07	111	-55	479	461	18.25	26.238			
2600	2514	2532	2527	14	9	-166.24	118	-57	509	490	19.03	26.756			
2700	2608	2627	2622	15	10	-166.40	124	-59	539	519	19.80	27.234			
2800	2702	2722	2717	15	10	-166.54	130	-61	569	549	20.57	27.674			
2900	2796	2818	2812	16	10	-166.67	137	-64	600	578	21.35	28.081			
3000	2891	2913	2907	17	11	-166.78	143	-66	630	608	22.13	28.460			
3100	2985	3008	3002	17	11	-166.88	149	-68	660	637	22.90	28.812			
3200	3079	3104	3097	18	11	-166.98	155	-70	690	666	23.68	29.140			
3300	3173	3199	3192	19	12	-167.06	162	-72	720	696	24.46	29.447			
3400	3268	3294	3287	20	12	-167.14	168	-75	750	725	25.24	29.734			
3500	3362	3390	3383	20	12	-167.22	174	-77	781	755	26.01	30.004			
3600	3456	3485	3478	21	13	-167.28	180	-79	811	784	26.79	30.258			
3700	3550	3580	3573	22	13	-167.35	187	-81	841	813	27.57	30.497			
3800	3645	3676	3668	22	14	-167.40	193	-83	871	843	28.35	30.723			
3900	3739	3771	3763	23	14	-167.46	199	-86	901	872	29.13	30.936			
4000	3833	3866	3858	24	14	-167.51	205	-88	931	901	29.91	31.138			
4100	3927	3962	3953	25	15	-167.56	212	-90	962	931	30.69	31.329			
4200	4022	4057	4048	25	15	-167.60	218	-92	992	960	31.47	31.511			
4300	4116	4155	4146	26	15	-167.72	224	-94	1022	990	32.26	31.676			
4351	4164	4207	4198	26	16	-168.05	223	-91	1037	1004	32.62	31.791			
4400	4210	4256	4247	27	16	177.65	220	-86	1052	1019	32.92	31.941			
4450	4257	4306	4295	27	16	163.47	214	-78	1067	1033	33.20	32.126			
4500	4304	4355	4343	27	16	150.77	206	-68	1081	1048	33.44	32.335			
4550	4350	4403	4388	28	16	140.00	195	-55	1096	1062	33.66	32.557			





# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 714H - Slot 5
<b>Project:</b>	Betonnies Tsois Unit	<b>TVD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Reference Site:</b>	E03 2208 Pad	<b>MD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Site Error:</b>	0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 714H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original drilling	<b>Database:</b>	Grand Junction
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design:</b> E03 2208 Pad - # 715H - Original drilling - APD												<b>Offset Site Error:</b>	0 ft
<b>Survey Program:</b> 0-MWD+IGRF												<b>Offset Well Error:</b>	0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4600	4395	4452	4432	28	16	131.12	181	-40	1110	1077	33.87	32.782	
4650	4439	4500	4475	28	16	123.83	166	-23	1124	1090	34.07	32.998	
4700	4481	4548	4515	29	16	117.82	148	-3	1138	1104	34.29	33.190	
4750	4522	4596	4553	29	16	112.81	128	18	1151	1116	34.52	33.344	
4800	4561	4644	4588	29	16	108.60	106	41	1163	1129	34.79	33.444	
4850	4597	4691	4621	29	17	105.03	83	66	1175	1140	35.10	33.474	
4900	4631	4738	4651	30	17	101.99	57	92	1186	1150	35.48	33.422	
4950	4662	4786	4679	30	17	99.39	30	120	1196	1160	35.94	33.275	
5000	4690	4833	4703	30	17	97.17	2	148	1205	1169	36.49	33.027	
5050	4716	4880	4724	31	18	95.28	-27	178	1213	1176	37.14	32.673	
5100	4738	4927	4742	31	18	93.69	-58	209	1220	1183	37.88	32.217	
5150	4756	4974	4757	31	19	92.36	-89	241	1227	1188	38.74	31.665	
5200	4772	5021	4769	31	19	91.29	-121	273	1232	1192	39.69	31.029	
5250	4784	5067	4777	32	20	90.46	-154	306	1235	1195	40.74	30.325	
5300	4792	5114	4782	32	20	89.84	-186	338	1238	1196	41.88	29.568	
5350	4796	5160	4783	32	21	89.45	-219	371	1240	1197	43.08	28.776	
5390	4797	5201	4783	33	21	89.34	-248	399	1240	1196	44.18	28.067	
5400	4797	5210	4783	33	22	89.34	-255	406	1240	1196	44.46	27.889	
5500	4796	5310	4782	34	23	89.33	-326	476	1240	1192	47.50	26.102	
5600	4795	5410	4781	35	25	89.33	-397	546	1239	1189	50.84	24.381	
5700	4795	5510	4780	36	27	89.32	-468	617	1239	1185	54.43	22.769	
5800	4794	5610	4779	37	29	89.32	-539	687	1239	1181	58.22	21.281	
5900	4793	5710	4778	38	31	89.31	-610	757	1239	1177	62.18	19.922	
6000	4792	5810	4777	40	33	89.31	-682	827	1238	1172	66.28	18.687	
6100	4792	5910	4776	42	35	89.30	-753	898	1238	1168	70.49	17.567	
6200	4791	6010	4776	43	37	89.29	-824	968	1238	1163	74.79	16.553	
6300	4790	6110	4775	45	39	89.29	-895	1038	1238	1159	79.17	15.634	
6400	4789	6210	4774	47	42	89.28	-966	1109	1237	1154	83.62	14.800	
6500	4789	6310	4773	49	44	89.28	-1037	1179	1237	1149	88.12	14.041	
6600	4788	6410	4772	51	46	89.27	-1108	1249	1237	1144	92.67	13.349	
6700	4787	6510	4771	53	48	89.27	-1180	1319	1237	1139	97.26	12.716	
6800	4786	6610	4770	55	51	89.26	-1251	1390	1236	1135	101.89	12.136	
6900	4786	6710	4770	57	53	89.26	-1322	1460	1236	1130	106.55	11.603	
7000	4785	6810	4769	60	55	89.25	-1393	1530	1236	1125	111.23	11.112	
7100	4784	6910	4768	62	58	89.25	-1464	1600	1236	1120	115.94	10.658	
7200	4783	7010	4767	64	60	89.24	-1535	1671	1235	1115	120.67	10.238	
7300	4783	7110	4766	66	63	89.23	-1606	1741	1235	1110	125.42	9.849	
7400	4782	7210	4765	68	65	89.23	-1678	1811	1235	1105	130.19	9.486	
7500	4781	7310	4764	71	67	89.22	-1749	1882	1235	1100	134.97	9.148	
7600	4780	7410	4763	73	70	89.22	-1820	1952	1234	1095	139.76	8.833	
7700	4780	7510	4763	75	72	89.21	-1891	2022	1234	1090	144.57	8.537	
7800	4779	7610	4762	78	75	89.21	-1962	2092	1234	1085	149.38	8.260	
7900	4778	7710	4761	80	77	89.20	-2033	2163	1234	1080	154.21	8.000	
8000	4777	7810	4760	82	80	89.20	-2104	2233	1233	1074	159.05	7.756	
8100	4777	7910	4759	85	82	89.19	-2175	2303	1233	1069	163.89	7.525	
8200	4776	8010	4758	87	84	89.19	-2247	2373	1233	1064	168.74	7.307	
8300	4775	8110	4757	89	87	89.18	-2318	2444	1233	1059	173.60	7.101	
8400	4774	8210	4756	92	89	89.17	-2389	2514	1232	1054	178.46	6.906	
8500	4774	8310	4756	94	92	89.17	-2460	2584	1232	1049	183.33	6.721	
8600	4773	8410	4755	96	94	89.16	-2531	2655	1232	1044	188.21	6.546	
8700	4772	8510	4754	99	97	89.16	-2602	2725	1232	1039	193.09	6.379	
8800	4771	8610	4753	101	99	89.15	-2673	2795	1231	1034	197.97	6.220	



**Lonestar Consulting, LLC**  
Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 714H - Slot 5
<b>Project:</b>	Betonnies Tsosie Unit	<b>TVD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Reference Site:</b>	E03 2208 Pad	<b>MD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Site Error:</b>	0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 714H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original drilling	<b>Database:</b>	Grand Junction
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design:</b> E03 2208 Pad - # 715H - Original drilling - APD												<b>Offset Site Error:</b>	0 ft
<b>Survey Program:</b> 0-MWD+IGRF												<b>Offset Well Error:</b>	0 ft
<b>Reference</b>		<b>Offset</b>		<b>Semi Major Axis</b>		<b>Highside Toolface (°)</b>	<b>Offset Wellbore Centre</b>		<b>Distance</b>		<b>Rule Assigned:</b>		<b>Warning</b>
<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Reference (ft)</b>	<b>Offset (ft)</b>		<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Between Centres (ft)</b>	<b>Between Ellipses (ft)</b>	<b>Minimum Separation (ft)</b>	<b>Separation Factor</b>	
8900	4770	8710	4752	103	102	89.15	-2745	2865	1231	1028	202.86	6.069	
9000	4770	8810	4751	106	104	89.14	-2816	2936	1231	1023	207.76	5.925	
9100	4769	8910	4750	108	106	89.14	-2887	3006	1231	1018	212.65	5.788	
9200	4768	9010	4750	111	109	89.13	-2958	3076	1230	1013	217.55	5.656	
9300	4767	9110	4749	113	111	89.12	-3029	3147	1230	1008	222.46	5.530	
9400	4767	9210	4748	115	114	89.12	-3100	3217	1230	1003	227.36	5.410	
9500	4766	9310	4747	118	116	89.11	-3171	3287	1230	997	232.27	5.294	
9600	4765	9410	4746	120	119	89.11	-3243	3357	1229	992	237.18	5.184	
9700	4764	9510	4745	123	121	89.10	-3314	3428	1229	987	242.09	5.078	
9800	4764	9610	4744	125	124	89.10	-3385	3498	1229	982	247.01	4.975	
9892	4763	9702	4744	127	126	89.09	-3450	3562	1229	977	251.52	4.885 SF	



# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 714H - Slot 5
<b>Project:</b>	Betonnies Tsois Unit	<b>TVD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Reference Site:</b>	E03 2208 Pad	<b>MD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Site Error:</b>	0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 714H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original drilling	<b>Database:</b>	Grand Junction
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design:</b> E03 2208 Pad - # 716H - Original drilling - APD													<b>Offset Site Error:</b>	0 ft
<b>Survey Program:</b> 0-MWD+IGRF													<b>Offset Well Error:</b>	0 ft
<b>Reference</b>	<b>Offset</b>	<b>Semi Major Axis</b>		<b>Distance</b>		<b>Rule Assigned:</b>		<b>Warning</b>						
<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Reference (ft)</b>	<b>Offset (ft)</b>	<b>Highside Toolface (°)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Between Centres (ft)</b>	<b>Between Ellipses (ft)</b>	<b>Minimum Separation (ft)</b>	<b>Separation Factor</b>		
0	0	0	0	0	0	-151.11	-52	-29	60					
100	100	100	100	0	0	-151.11	-52	-29	60	60	0.31	194.201		
200	200	200	200	1	1	-151.11	-52	-29	60	59	1.03	58.396		
300	300	300	300	1	1	-151.11	-52	-29	60	58	1.74	34.365		
304	304	304	304	1	1	-151.11	-52	-29	60	58	1.77	33.831 CC		
400	400	400	400	1	1	-150.73	-52	-29	60	58	2.45	24.466 ES		
450	450	449	449	1	1	-149.62	-52	-31	61	58	2.81	21.580		
500	500	499	499	2	2	176.13	-52	-33	62	59	3.16	19.606		
600	600	597	597	2	2	-178.58	-51	-40	69	65	3.87	17.760		
700	700	695	694	2	2	-172.60	-50	-50	82	77	4.60	17.757 SF		
800	799	791	789	3	3	-167.25	-49	-63	101	95	5.32	18.916		
900	898	888	885	3	3	-163.61	-48	-77	124	118	6.05	20.525		
1000	997	984	980	3	3	-161.48	-46	-91	151	145	6.79	22.291		
1100	1094	1079	1074	4	4	-160.30	-45	-104	182	174	7.53	24.135		
1200	1191	1173	1168	4	4	-159.70	-43	-118	215	207	8.28	26.006		
1300	1288	1266	1260	5	5	-159.47	-42	-132	252	243	9.03	27.895		
1400	1383	1358	1350	6	5	-159.45	-41	-145	291	282	9.78	29.792		
1427	1408	1383	1374	6	5	-159.47	-40	-148	302	292	9.99	30.286		
1500	1477	1449	1440	6	6	-159.75	-39	-158	333	323	10.54	31.624		
1600	1571	1540	1530	7	6	-160.06	-38	-171	375	364	11.29	33.230		
1700	1665	1631	1620	8	6	-160.30	-36	-184	417	405	12.05	34.618		
1800	1760	1721	1710	8	7	-160.51	-35	-198	459	446	12.81	35.829		
1900	1854	1812	1799	9	7	-160.67	-34	-211	501	487	13.58	36.893		
2000	1948	1903	1889	10	8	-160.81	-32	-224	543	528	14.35	37.835		
2100	2042	1994	1979	10	8	-160.93	-31	-237	585	570	15.12	38.673		
2200	2137	2084	2069	11	8	-161.04	-30	-250	627	611	15.90	39.424		
2300	2231	2175	2159	12	9	-161.13	-28	-264	669	652	16.67	40.100		
2400	2325	2266	2249	12	9	-161.21	-27	-277	711	693	17.45	40.712		
2500	2419	2357	2338	13	10	-161.28	-26	-290	752	734	18.23	41.268		
2600	2514	2448	2428	14	10	-161.35	-24	-303	794	775	19.02	41.775		
2700	2608	2538	2518	15	10	-161.41	-23	-316	836	817	19.80	42.239		
2800	2702	2629	2608	15	11	-161.46	-22	-329	878	858	20.59	42.665		
2900	2796	2720	2698	16	11	-161.51	-20	-343	920	899	21.37	43.059		
3000	2891	2811	2787	17	12	-161.55	-19	-356	962	940	22.16	43.422		
3100	2985	2901	2877	17	12	-161.59	-18	-369	1004	981	22.95	43.759		
3200	3079	2992	2967	18	12	-161.63	-16	-382	1046	1022	23.74	44.073		
3300	3173	3083	3057	19	13	-161.66	-15	-395	1088	1063	24.52	44.365		
3400	3268	3174	3147	20	13	-161.69	-13	-409	1130	1105	25.31	44.637		
3500	3362	3265	3236	20	14	-161.72	-12	-422	1172	1146	26.10	44.892		
3600	3456	3355	3326	21	14	-161.75	-11	-435	1214	1187	26.90	45.132		
3700	3550	3446	3416	22	15	-161.77	-9	-448	1256	1228	27.69	45.356		
3800	3645	3537	3506	22	15	-161.80	-8	-461	1298	1269	28.48	45.568		
3900	3739	3628	3596	23	15	-161.82	-7	-474	1340	1310	29.27	45.767		
4000	3833	3718	3685	24	16	-161.84	-5	-488	1382	1352	30.06	45.955		
4100	3927	3809	3775	25	16	-161.86	-4	-501	1424	1393	30.86	46.133		
4200	4022	3900	3865	25	17	-161.88	-3	-514	1466	1434	31.65	46.302		
4300	4116	3991	3955	26	17	-161.89	-1	-527	1507	1475	32.45	46.462		
4351	4164	4037	4001	26	17	-161.90	-1	-534	1529	1496	32.85	46.540		
4400	4210	4081	4044	27	17	-176.40	0	-540	1550	1516	33.23	46.632		
4450	4257	4126	4089	27	18	169.28	1	-547	1571	1538	33.60	46.764		
4500	4304	4170	4132	27	18	156.50	1	-553	1593	1559	33.95	46.934		
4550	4350	4213	4174	28	18	145.69	2	-559	1616	1582	34.27	47.142		



# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 714H - Slot 5
<b>Project:</b>	Betonnies Tsois Unit	<b>TVD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Reference Site:</b>	E03 2208 Pad	<b>MD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Site Error:</b>	0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 714H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original drilling	<b>Database:</b>	Grand Junction
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design:</b> E03 2208 Pad - # 716H - Original drilling - APD												<b>Offset Site Error:</b>	0 ft
<b>Survey Program:</b> 0-MWD+IGRF												<b>Offset Well Error:</b>	0 ft
<b>Reference</b>	<b>Offset</b>	<b>Semi Major Axis</b>		<b>Distance</b>		<b>Rule Assigned:</b>		<b>Warning</b>					
<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Reference (ft)</b>	<b>Offset (ft)</b>	<b>Highside Toolface (°)</b>	<b>Offset Wellbore Centre +N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Between Centres (ft)</b>	<b>Between Ellipses (ft)</b>	<b>Minimum Separation (ft)</b>	<b>Separation Factor</b>	
4600	4395	4254	4216	28	18	136.78	3	-565	1638	1604	34.57	47.389	
4650	4439	4280	4241	28	18	129.20	3	-569	1661	1627	34.73	47.832	
4700	4481	4300	4261	29	18	122.73	4	-573	1685	1650	34.83	48.375	
4750	4522	4300	4261	29	18	116.68	4	-573	1709	1674	34.74	49.198	
4800	4561	4321	4281	29	19	111.82	4	-577	1734	1699	34.83	49.774	
4850	4597	4331	4291	29	19	107.24	5	-579	1759	1724	34.83	50.507	
4900	4631	4350	4309	30	19	103.37	6	-584	1784	1750	34.90	51.128	
4950	4662	4350	4309	30	19	99.25	6	-584	1810	1775	34.80	52.016	
5000	4690	4350	4309	30	19	95.42	6	-584	1836	1801	34.70	52.901	
5050	4716	4350	4309	31	19	91.86	6	-584	1861	1827	34.62	53.768	
5100	4738	4350	4309	31	19	88.56	6	-584	1887	1852	34.56	54.602	
5150	4756	4350	4309	31	19	85.51	6	-584	1912	1877	34.52	55.393	
5200	4772	4350	4309	31	19	82.72	6	-584	1937	1902	34.51	56.128	
5250	4784	4350	4309	32	19	80.17	6	-584	1961	1926	34.52	56.799	
5300	4792	4350	4309	32	19	77.87	6	-584	1984	1950	34.57	57.400	
5350	4796	4350	4309	32	19	75.81	6	-584	2007	1972	34.64	57.927	
5390	4797	4350	4309	33	19	74.34	6	-584	2024	1990	34.72	58.297	
5400	4797	4350	4309	33	19	74.34	6	-584	2028	1994	34.74	58.382	
5500	4796	4350	4309	34	19	74.34	6	-584	2073	2038	35.02	59.200	
5600	4795	4350	4309	35	19	74.34	6	-584	2122	2087	35.37	60.009	
5700	4795	4350	4309	36	19	74.34	6	-584	2175	2139	35.75	60.823	
5800	4794	4350	4309	37	19	74.34	6	-584	2230	2194	36.17	61.657	
5900	4793	4328	4288	38	19	73.66	5	-578	2288	2252	36.42	62.827	
6000	4792	4323	4283	40	19	73.52	4	-577	2349	2312	36.84	63.776	
6100	4792	4300	4261	42	18	72.83	4	-573	2413	2376	37.11	65.029	
6200	4791	4300	4261	43	18	72.83	4	-573	2479	2442	37.57	65.986	
6300	4790	4300	4261	45	18	72.83	4	-573	2547	2509	38.03	66.992	
6400	4789	4300	4261	47	18	72.83	4	-573	2618	2579	38.47	68.047	
6500	4789	4300	4261	49	18	72.83	4	-573	2690	2651	38.90	69.150	
6600	4788	4300	4261	51	18	72.83	4	-573	2764	2724	39.31	70.299	
6700	4787	4300	4261	53	18	72.83	4	-573	2839	2799	39.71	71.492	
6800	4786	4300	4261	55	18	72.83	4	-573	2916	2876	40.09	72.728	
6900	4786	4300	4261	57	18	72.83	4	-573	2994	2954	40.46	74.003	
7000	4785	4300	4261	60	18	72.83	4	-573	3074	3033	40.81	75.316	
7100	4784	4287	4247	62	18	72.42	3	-570	3154	3113	41.06	76.815	
7200	4783	4284	4245	64	18	72.35	3	-570	3236	3195	41.37	78.220	
7300	4783	4270	4231	66	18	71.94	3	-568	3319	3277	41.59	79.792	
7400	4782	4270	4231	68	18	71.94	3	-568	3402	3360	41.89	81.226	
7500	4781	4270	4231	71	18	71.94	3	-568	3487	3445	42.17	82.686	
7600	4780	4270	4231	73	18	71.94	3	-568	3572	3530	42.44	84.171	
7700	4780	4270	4231	75	18	71.94	3	-568	3658	3615	42.69	85.680	
7800	4779	4270	4231	78	18	71.94	3	-568	3745	3702	42.94	87.209	
7900	4778	4270	4231	80	18	71.92	3	-568	3832	3789	43.17	88.765	
8000	4777	4258	4219	82	18	71.56	3	-566	3920	3877	43.33	90.470	
8100	4777	4246	4207	85	18	71.20	3	-564	4008	3965	43.48	92.192	
8200	4776	4234	4195	87	18	70.84	2	-563	4097	4054	43.62	93.929	
8300	4775	4222	4183	89	18	70.48	2	-561	4187	4143	43.76	95.682	
8400	4774	4210	4171	92	18	70.13	2	-559	4277	4233	43.89	97.448	
8500	4774	4198	4160	94	18	69.77	2	-557	4367	4323	44.01	99.228	
8600	4773	4186	4148	96	18	69.42	2	-556	4458	4413	44.13	101.021	
8700	4772	4174	4136	99	18	69.07	1	-554	4549	4504	44.24	102.825	
8800	4771	4162	4124	101	18	68.71	1	-552	4640	4596	44.34	104.640	



**Lonestar Consulting, LLC**  
Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 714H - Slot 5
<b>Project:</b>	Betonnies Tsosie Unit	<b>TVD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Reference Site:</b>	E03 2208 Pad	<b>MD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Site Error:</b>	0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 714H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original drilling	<b>Database:</b>	Grand Junction
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design:</b> E03 2208 Pad - # 716H - Original drilling - APD													<b>Offset Site Error:</b>	0 ft
<b>Survey Program:</b> 0-MWD+IGRF													<b>Offset Well Error:</b>	0 ft
<b>Reference</b>		<b>Offset</b>		<b>Semi Major Axis</b>		<b>Highside Toolface (°)</b>	<b>Offset Wellbore Centre</b>		<b>Rule Assigned:</b>				<b>Warning</b>	
<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Reference (ft)</b>	<b>Offset (ft)</b>		<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Between Centres (ft)</b>	<b>Between Ellipses (ft)</b>	<b>Minimum Separation (ft)</b>	<b>Separation Factor</b>		
8900	4770	4150	4112	103	18	68.36	1	-550	4732	4687	44.44	106.465		
9000	4770	4138	4100	106	18	68.02	1	-549	4824	4779	44.54	108.300		
9100	4769	4126	4088	108	18	67.67	1	-547	4916	4871	44.63	110.145		
9200	4768	4114	4077	111	18	67.32	1	-545	5008	4964	44.72	111.998		
9300	4767	4102	4065	113	18	66.98	0	-543	5101	5056	44.80	113.859		
9400	4767	4090	4053	115	17	66.63	0	-542	5194	5149	44.88	115.728		
9500	4766	4078	4041	118	17	66.29	0	-540	5287	5242	44.96	117.603		
9600	4765	4066	4029	120	17	65.95	0	-538	5381	5336	45.03	119.486		
9700	4764	4054	4017	123	17	65.61	0	-536	5475	5429	45.10	121.375		
9800	4764	4042	4005	125	17	65.27	-1	-535	5568	5523	45.17	123.270		
9892	4763	4031	3995	127	17	64.96	-1	-533	5655	5609	45.23	125.011		



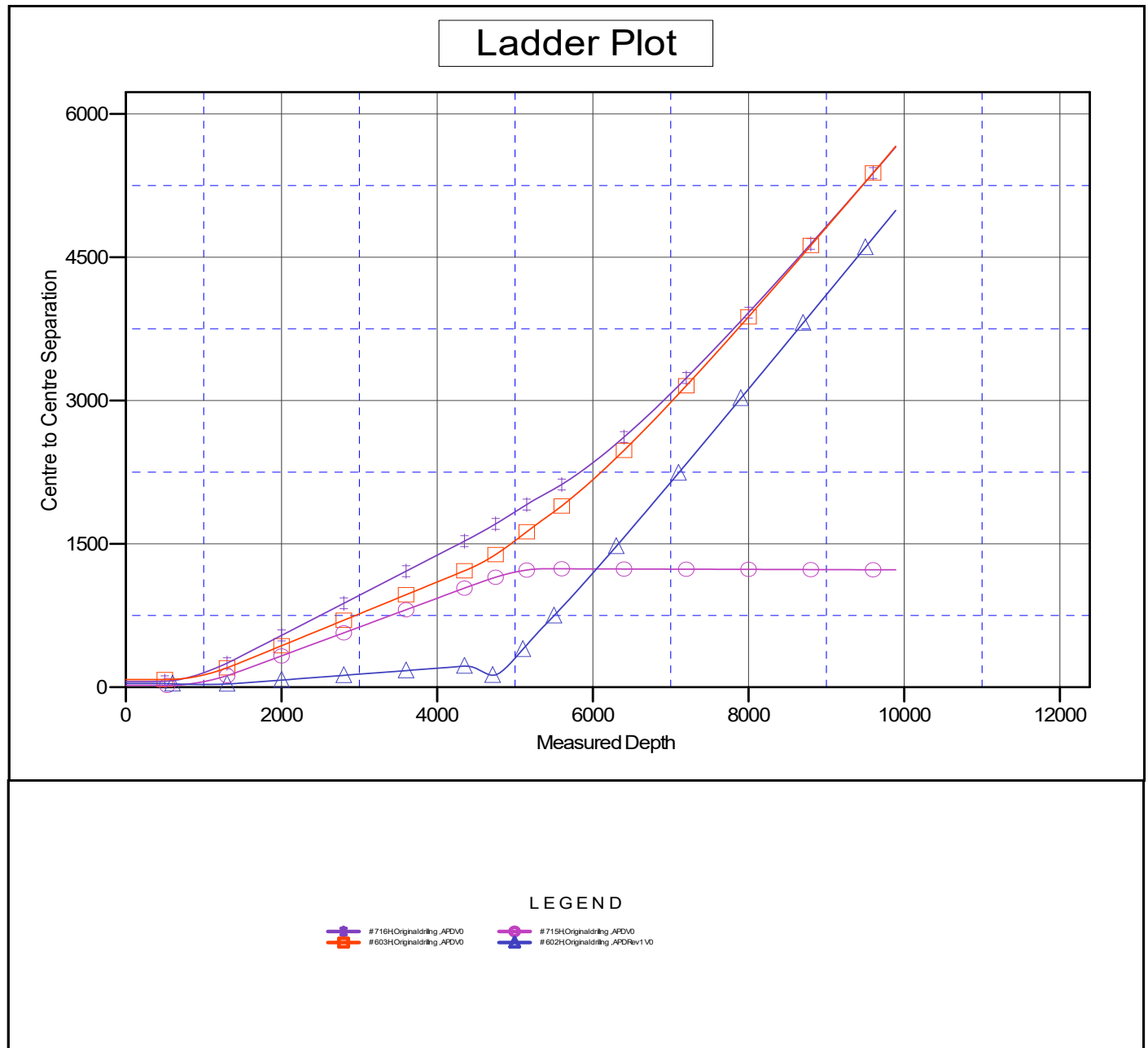
**Lonestar Consulting, LLC**  
Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 714H - Slot 5
<b>Project:</b>	Betonne Tsoie Unit	<b>TVD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Reference Site:</b>	E03 2208 Pad	<b>MD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Site Error:</b>	0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 714H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original drilling	<b>Database:</b>	Grand Junction
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to GL 6870' & RKB 14' @ 6884ft  
Offset Depths are relative to Offset Datum  
Central Meridian is -107.8333333

Coordinates are relative to: # 714H - Slot 5  
Coordinate System is US State Plane 1983, New Mexico Western Zone  
Grid Convergence at Surface is: 0.09°





# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 714H - Slot 5
<b>Project:</b>	Betonne Tsoie Unit	<b>TVD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Reference Site:</b>	E03 2208 Pad	<b>MD Reference:</b>	GL 6870' & RKB 14' @ 6884ft
<b>Site Error:</b>	0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 714H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original drilling	<b>Database:</b>	Grand Junction
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to GL 6870' &amp; RKB 14' @ 6884ft

Offset Depths are relative to Offset Datum

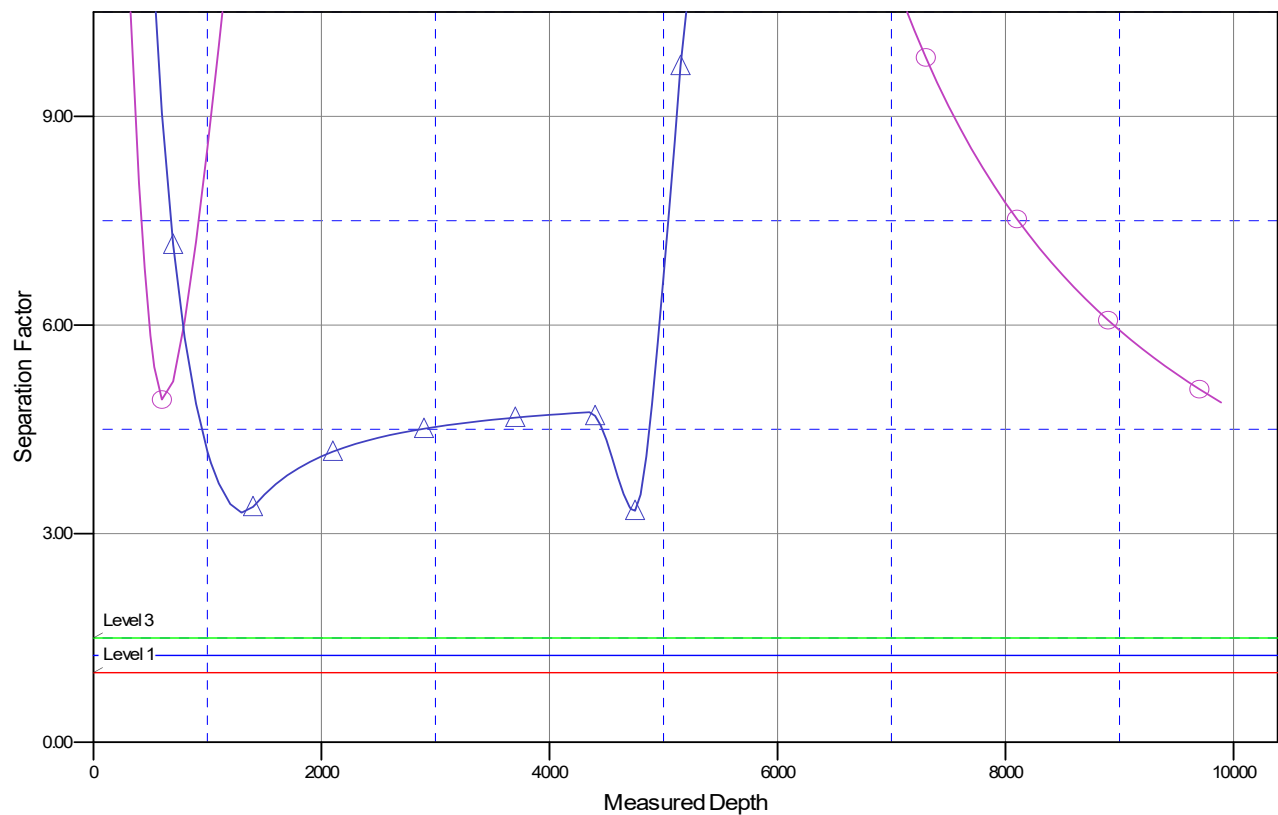
Central Meridian is -107.8333333

Coordinates are relative to: # 714H - Slot 5

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

Grid Convergence at Surface is: 0.09°

## Separation Factor Plot



### LEGEND

#714HOriginaldrilling, APD V0
 #715HOriginaldrilling, APD V0

#603HOriginaldrilling, APD V0
 #602HOriginaldrilling, APD Rev1 V0

## **DJR Operating, LLC. Betonnie Tsosie Wash Unit E03-2208 Nos. 602H, 714H, and 715H Oil and Natural Gas Wells Project**

### **DOI-BLM-NM-F010-2022-0005-EA**

## **Conditions of Approval (COA), Design Features, and Best Management Practices**

DJR would adhere to any conditions required by the BLM FFO. Additional project-specific design features will be included as determined during the BLM on-site meeting. DJR has also committed to the following design features and BMPs to lessen impacts to resources. Where applicable, additional details related to the design features may be found in the APDs on file at the BLM-FFO.

#### *Air Resources*

- Areas not required for facilities would be revegetated during interim reclamation.
- Dirt roads would be watered during periods of high use (magnesium chloride, organic-based compounds, and/or polymer compounds could also be used on dirt roads upon approval of the BLM).
- BMPs provided in The Gold Book would be implemented for proposed and existing roads (BLM and U.S. Forest Service 2007).
- Compressor engines 300 horsepower or less used during well production must be rated by the manufacturer as emitting NO<sub>x</sub> at 2 grams per horsepower hour or less to comply with the NMED, Air Quality Bureau's guidance.

#### *Water Resources*

- To prevent erosion, the certain areas surrounding the proposed site would be recontoured during interim reclamation.
- Culverts and silt traps would be installed as appropriate and locations to be determined during the BLM on-site and facility on-site.

#### *Wildlife, Migratory Birds, and Special Status Species*

- Any wildlife encountered within the proposed project area would be avoided and allowed to move out of the proposed project area. No wildlife would be intentionally harmed or harassed.
- Wildlife hazards, such as storage tanks, associated with the proposed project would be fenced or covered, as necessary.
- Because the proposed project would disturb more than 4.0 acres of vegetation, migratory breeding bird nesting surveys would be required if construction activities are scheduled to occur during the migratory bird nesting season (May 15 – July 31). If an active nest is encountered, it would be avoided (avoidance buffer to be determined by BLM FFO) and left undisturbed until the nest has failed, or nestlings have fledged. If present, an inactive nest could be cleared by a BLM FFO-approved wildlife biologist.
- DJR would notify the BLM and USFWS upon discovery of a dead or injured migratory bird, bald eagle, or golden eagle within or adjacent to the proposed project area. If the BLM becomes aware of such mortality or injury, the BLM will inform DJR. If DJR fails to notify the USFWS of the mortality or injury, the BLM would notify the USFWS. The BLM and the USFWS would then attempt to determine the cause of mortality and identify appropriate mitigation measures to avoid future occurrences.



- Should other special status species be observed within the proposed project area prior to or during the proposed project, construction would cease, and the BLM FFO would be immediately contacted. The BLM FFO would then evaluate the resource. Should a discovery be evaluated as significant (protected under the Endangered Species Act, etc.), it would be protected in place until mitigation could be developed and implemented according to guidelines set by the BLM FFO.
- Per BLM FFO Instruction Memorandum No. NM-200-2008-001 (BLM 2008b), an updated pre-construction biological survey could be required for the proposed project if vegetation removal would occur more than 1 year following the previous biological survey.

#### Soil, Upland Vegetation, and Noxious Weeds and Invasive Species

- Reclamation would follow the guidance provided in the *Farmington Field Office Bare Soil Reclamation Procedures* (BLM 2013). These procedures are referenced in DJR's Surface Reclamation Plan.
- During the pre-disturbance on-site meeting with BLM, a suitable vegetation community from the *Farmington Field Office Bare Soil Reclamation Procedures* (BLM 2013) will be selected by BLM. Plant species will be chosen from the BLM FFO's seed pick list for the selected community.
- A noxious weed inventory utilizing the New Mexico Noxious Weed List (New Mexico Department of Agriculture 2009, 2020) and the U.S. Department of Agriculture's (USDA's) Federal Noxious Weed List (Natural Resources Conservation Service 2017; USDA 2010, 2012) will be conducted during the pre-disturbance on-site meeting.
- Identified noxious weeds would be treated prior to new surface disturbance, as determined by the BLM FFO Noxious Weed Specialist (505-564-7600). A Pesticide Use Proposal (PUP) would be submitted to and approved by the BLM FFO Noxious Weed Specialist prior to application of any pesticide.
- See the above water resources section for erosion-control features.

#### Cultural Resources

- All cultural resources stipulations would be followed as indicated in the BLM Cultural Resource Records of Review and the Conditions of Approvals. These stipulations may include, but are not limited to, temporary or permanent fencing or other physical barriers, monitoring of earth-disturbing construction, project area reduction and/or specific construction avoidance zones, and employee education.
- All employees, contractors, and subcontractors would be informed by the project proponent that cultural sites are to be avoided by all personnel, personal vehicles, and company equipment, and that it is illegal to collect, damage, or disturb cultural resources, and that such activities on federal and tribal lands are punishable by criminal and or administrative penalties under the provisions of Archaeological Resources Protection Act (ARPA) (16 USC 470aa-mm).
- In the event of a cultural resource's discovery during construction, construction activities would immediately cease in the immediate vicinity of the discovery, and DJR would immediately notify the archaeological monitor, if present, or the BLM. The BLM would then ensure the site is evaluated. Should a discovery be evaluated as significant (e.g., National Register of Historic Places, Native American Graves Protection and Repatriation Act of 1990, ARPA), it would be protected in place until mitigating measures can be developed and implemented according to guidelines set by the BLM.
- Known sites and sites identified during the pre-construction cultural resources inventory surveys would be avoided.

### Paleontological Resources

If any paleontological resources are discovered during activities associated with the proposed project:

- DJR would immediately inform the BLM Authorized Officer.
- Activities in the vicinity of the discovery would be immediately suspended until written authorization to proceed is issued by the BLM Authorized Officer.
- The discovery would be protected from damage or looting.
- The Authorized Officer would ensure evaluation of the discovery as soon as possible.
- Appropriate measures to mitigate adverse effects to significant paleontological resources would be determined by the Authorized Officer after consulting with the operator.

### Visual Resources and Dark Skies

- Equipment not subject to safety requirements would be painted a BLM Standard Environmental Color (Covert Green) to minimize contrast with the surrounding landscape.
- If applicable, during reclamation, stockpiled rocks, if available, would be placed within the reclaimed area for erosion control and/or to discourage off-highway vehicle traffic (if requested by the BLM FFO). Rocks would be placed in a manner that visually blends with the adjacent, undisturbed landscape.
- Lights would be limited to those needed for safety during construction and operations.
- Lighting would be downward-facing or shielded where possible.

### Livestock Grazing and Rangeland Health Standards

- Livestock grazing operators in the vicinity of the proposed project area would be contacted prior to construction.
- Safety meetings would be conducted prior to construction to increase awareness of livestock, such as the presence of open range and driving speed to avoid livestock collisions.
- To the extent feasible, construction activities would not be conducted when livestock are present within the proposed project area.
- If livestock are present during construction, barriers would be placed to ensure that livestock do not come in contact with potential hazards. Barrier examples could include fencing of exposed ditch-type holes, covering of holes when personnel are not present on site, and containing contaminants, fluid leaks, or hazards that could cause injury to livestock.

### Public Health and Safety

- The hauling of equipment and materials on public roads would comply with New Mexico Department of Transportation regulations. Any accidents involving persons or property would be reported to the BLM FFO. DJR would notify the public of potential hazards by posting signage, having flaggers, or using lighted signs, as necessary.
- Worker safety incidents would be reported to the BLM FFO as required under NTL-3A (U.S. Geological Survey 1979). DJR would adhere to company safety policies and Occupational Safety and Health Administration (OSHA) regulations.
- Vehicles would be restricted to proposed and existing disturbance areas.
- The proposed site would have an informational sign, delineating Operator, Legal Description, etc.
- Oil and gas industry traffic is expected to adhere to all posted speed limits and signs. Drivers would be appropriately licensed and inspected.

Lay-Flat Pipeline BMP's

- Time construction activities at perennial, intermittent, and ephemeral drainage crossings (e.g., buried pipelines, culverts) to avoid high-flow conditions. When construction disturbs a flowing stream, utilize either a piped stream diversion or a cofferdam and pump to divert flow around the disturbed area.
- Design and construct surface pipelines at drainage crossings at an adequate height above possible flood levels. Bore/bury pipeline crossings below the surface deep enough to remain undisturbed by scour and fill processes typically associated with peak flows. Complete a hydraulic analysis during the pipeline design phase to avoid repeated maintenance of such a crossing and eliminate costly repairs and potential environmental degradation associated with pipeline breaks at stream crossings. Utilize horizontal directional boring techniques below perennial water bodies and/or wetland complexes when environmental circumstances allow.
- X-ray pipeline welds within 100 feet of a perennial stream to prevent leakage into the stream. Where pipelines cross streams that support Federal or State-listed threatened or endangered species or BLM-listed sensitive species, utilize additional safeguards (such as double-walled pipe, and remotely actuated block or check valves) on both sides of the stream.
- Avoid water courses when locating pipelines and flowlines; utilize road corridors wherever possible to minimize surface disturbance and provide better leak detection and access for installation and repair activities.
- Reclamation, including seeding, of temporarily disturbed areas along roads and pipelines, and of topsoil piles and berms, shall be completed within 30 days following completion of construction. Any such area on which construction is completed prior to December 1 shall be seeded during the remainder of the early winter season instead of during the following spring unless BLM approves otherwise based on weather. If road or pipeline construction occurs discontinuously (e.g., new segments installed as new pads are built) or continuously but with a total duration greater than 30 days, reclamation, including seeding, shall be phased such that no portion of the temporarily disturbed area remains in an un-reclaimed condition for longer than 30 days. BLM may authorize deviation from this requirement based on the season and the amount of work remaining on the entirety of the road or pipeline when the 30-day period has expired.
- To the extent practical, existing vegetation shall be preserved when clearing and grading for pads, roads, and pipelines. Cleared trees and rocks may be salvaged for redistribution over reshaped cut and-fill slopes or along linear features.

## Weeds

### *Farmington Field Office Standard Noxious/Invasive Weeds Design Features and Best Management Practices*

**Noxious/Invasive Weeds:** DJR will inventory the proposed site for the presence of noxious and invasive weeds. Noxious weeds are those listed on the New Mexico Noxious Weed List and USDA's Federal Noxious Weed List. The New Mexico Noxious Weed List or USDA's Noxious Weed List can be updated at any time and should be regularly checked for any changes. Invasive species may or may not be listed as a noxious weed but have been identified to likely cause economic or environmental harm or harm to human health. The following noxious weeds have been identified as occurring on lands within the boundaries of the Farmington Field Office (FFO). There are numerous invasive species on the FFO such as Russian thistle (*Salsola spp.*) and field bindweed (*Convolvulus arvensis*).

African rue ( <i>Peganum harmala</i> )	Leafy spurge ( <i>Euphorbia esula</i> )
Bull thistle ( <i>Cirsium vulgare</i> )	Musk thistle ( <i>Carduus nutans</i> )
Camelthorn ( <i>Alhagi pseudalhagi</i> )	Perennial pepperweed ( <i>Lepidium latifolium</i> )
Canada thistle ( <i>Cirsium arvense</i> )	Russian knapweed ( <i>Centaurea repens</i> )
Dalmation toadflax ( <i>Linaria genistifolia</i> )	Saltcedar ( <i>Tamarix spp.</i> )
Diffuse knapweed ( <i>Centaurea diffusa</i> )	Scotch thistle ( <i>Onopordum acanthium</i> )
Halogeton ( <i>Halogeton glomeratus</i> )	Spotted knapweed ( <i>Centaurea maculosa</i> )
Hoary cress ( <i>Cardaria draba</i> )	Yellow toadflax ( <i>Linaria vulgaris</i> )

- a. Any identified weeds will be treated prior to new surface disturbance if determined by the BLM FFO Noxious Weed Specialist. If a Weed Management Plan is not on file, a Weed Management Plan will be created. A Pesticide Use Proposal (PUP) will be submitted to and approved by the FFO Noxious Weed Specialist prior to application of pesticide. The FFO Noxious Weed Specialist (505-564-7600) can provide assistance in the development of the PUP.
- b. Vehicles and equipment should be inspected and cleaned prior to coming onto the site. This is especially important on vehicles from out of state or if coming from a weed- infested site.
- c. Fill dirt or gravel may be needed for excavation, road construction/repair, or as a surfacing material. If fill dirt or gravel will be required, the source shall be noxious weed free and approved by the BLM FFO Noxious Weed Specialist.
- d. The site shall be monitored for the life of the project for the presence of noxious weeds (includes maintenance and construction activities). If weeds are found the FFO Specialist shall be notified at (505) 564-7600 and provided with a Weed Management Plan and if necessary, a PUP. The BLM FFO can provide assistance developing the

Weed Management Plan and/or the PUP.

- e. Only pesticides authorized for use on BLM lands would be used and applied by a licensed pesticide applicator. The use of pesticides would comply with federal and state laws and used only in accordance with their registered use and limitations. DJR's weed-control contractor would contact the BLM-FFO prior to using these chemicals.

Noxious/invasive weed treatments must be reported to the BLM FFO Noxious Weed Specialist. A Pesticide Use Report (PUR) is required to report any mechanical, chemical, biological or cultural treatments used to eradicate, and/or control noxious or invasive species. Reporting will be required quarterly and annually or per request from the FFO Noxious Weed Specialist.

**Bare ground vegetation trim-out:**

Facility/ Structure	Required Trim-Out Buffer Distance	Pesticide Use for Vegetation Control	Pesticide Use Plan On file with BLM
Well Head	10'	Yes	Yes
Tanks/Containment	10'	Yes	Yes
Gas Lift Compressors	10'	Yes	Yes
Metering Equipment	10'	Yes	Yes
SCC (Smokeless Combustion Chamber	10'	Yes	Yes



**DJR OPERATING, LLC**

**BARE GROUND VEGETATION TRIM-OUT DESIGN**

**ATTACHED TO**

**SURFACE PLAN OF OPERATIONS**

Pesticide use for trim-out will require a PUP submitted for approval by the FFO Noxious Weed Specialist. A PUP is required *prior* to any treatment. Only pesticides authorized for use on BLM lands would be used and applied by a licensed pesticide applicator. The use of pesticides would comply with federal and state laws and used only in accordance with their registered use and limitations. DJR's weed-control contractor would contact the BLM-FFO prior to using these chemicals and provide PUR post treatment.

A PUR is required to report any mechanical, chemical, biological or cultural treatments used to eradicate, or control vegetation on site. Reporting will be required quarterly and annually or per request from the FFO Noxious Weed Specialist.



## 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)

\* DJR OPERATING LLC  
#714H BETONNIE TSOSIE WASH UNIT  
Lease: NMNM55836  
SH: SW $\frac{1}{4}$ NW $\frac{1}{4}$  Section 3, T.22 N., R.8W.  
San Juan County, New Mexico  
BH: SE $\frac{1}{4}$ SE $\frac{1}{4}$  Section 3 T.22 N., R8 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, Farmington District Office, Branch of Reservoir Management, 6251 College Blvd. Suite A, Farmington, New Mexico 87402. 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, regulations, and Onshore Orders, 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.**
- H. Unless drilling operations are commenced within two years, approval of the Application for Permit to Drill will expire. A written request for a two years extension may be granted if submitted prior to expiration.
- 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.**
- B. Emergency program changes after hours contact:

**Virgil Lucero (505) 793-1836**  
**Joe Killins (505) 564-7736**

**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 125860

**CONDITIONS**

Operator: DJR OPERATING, LLC 1 Road 3263 Aztec, NM 87410	OGRID: 371838
	Action Number: 125860
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

**CONDITIONS**

Created By	Condition	Condition Date
kpickford	Notify OCD 24 hours prior to casing & cement	7/19/2022
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104	7/19/2022
kpickford	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	7/19/2022
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing	7/19/2022
kpickford	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	7/19/2022