

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: ☐ DRILL ☐ REENTER 1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other 1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ 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. 30-045-38274
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.
2. A Drilling Plan.
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).
5. Operator certification.
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) 393-0720

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

¹ API Number 30-045-38274	² Pool Code 98175	³ Pool Name BETONNIE TSOSIE WASH UNIT MANCOS POOL
⁴ Property Code 325179	⁵ Property Name BETONNIE TSOSIE WASH UNIT	⁶ Well Number 602H
⁷ OGRID No. 371838	⁸ Operator Name DJR OPERATING, LLC	⁹ Elevation 6870'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	3	22N	8W		1709'	NORTH	451'	WEST	SAN JUAN

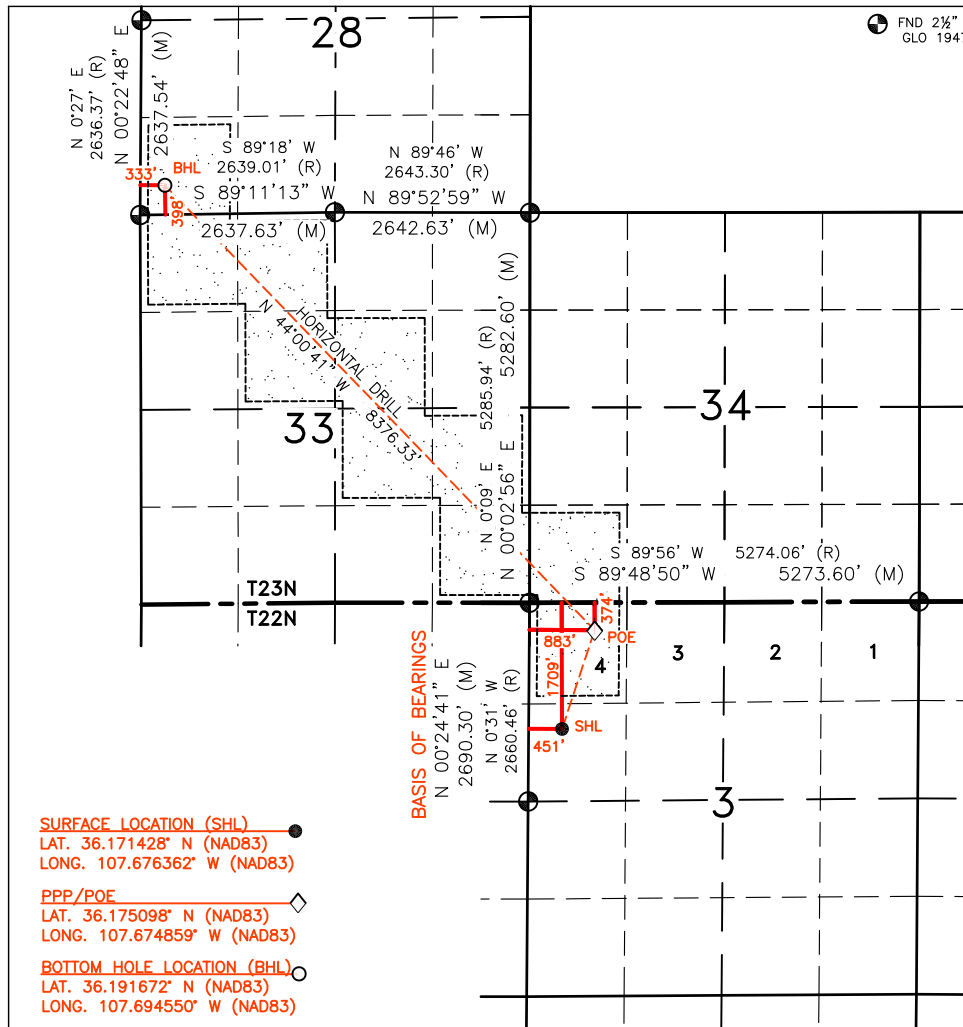
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	28	23N	8W		398'	SOUTH	333'	WEST	SAN JUAN

¹² Dedicated Acres PENETRATED SPACING UNIT; SEC 3: NW/NW (41.37 AC.); SEC 34: SW/SW (40 AC.); SEC 33: SE/SE, NE/SE, NW/SE, SW/NE, SE/NW, NE/NW & NW/NW (280 AC.); SEC 28: SW/SW (40 AC.) = 401.37 ACRES	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-13930 R-13930A
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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

16



FND 2 1/2" BC
GLO 1947

18

17 OPERATOR CERTIFICATION

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

Shaw-Marie Ford 06/22/21
Signature Date

Shaw-Marie Ford
Printed Name

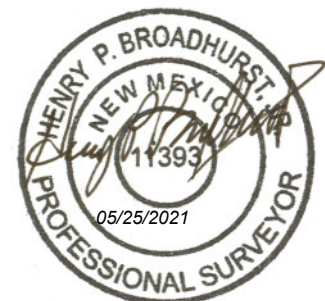
sford@djrlc.com
E-mail Address

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
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:



DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
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.
OGRID NO: 371838
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



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OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
BETONNIE TSOSIE WASH UNIT 602H, 714H and 715H
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.



DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
BETONNIE TSOSIE WASH UNIT 602H, 714H and 715H
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 1



DRILLING PLAN

Bettonie Tsosie Wash #602H

San Juan County, New Mexico

Surface Location

451-ft FWL & 1709-ft FNL
 Sec 3 T22N R08W
 Graded Elevation 6870' MSL
 RKB Elevation 6884' (14' KB)

SHL Geographical Coordinates (NAD-83)

Latitude 36.1714280° N
 Longitude 107.6763620° W

Kick Off Point for Horizontal Build Curve

4355-ft MD
 4201-ft TVD

Local Coordinates (from SHL)

748-ft North
 748-ft East

Heel Location (Pay zone entry)

883-ft FWL & 374-ft FNL
 Sec 3 T22N R08W

Heel Geographical Coordinates (NAD-83)

Latitude 36.175098° N
 Longitude 107.67485930° W

Bottom Hole Location (TD)

333-ft FWL & 398-ft FSL
 Sec 28 T23N R08W

BHL Geographical Coordinates (NAD-83)

Latitude 36.1916718° N
 Longitude 107.6945496° W

Well objectives

This well is planned as a 8380-ft lateral in the Gallup C sand.

Bottom Hole temperature and pressure

The temperature in the Gallup C horizontal objective is 135°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	506	506	Sd	W	8.3	8.4 – 8.8
Kirtland	629	629	Sh	-	8.3	8.4 – 8.8
Fruitland	922	919	C	G	8.3	9.0 - 9.5
Pictured Cliffs	1195	1184	Sd	W	8.3	9.0 - 9.5
Lewis	1350	1332	Sh	-		9.0 - 9.5
Chacra	1981	1934	Sd	-	8.3	9.0 - 9.5
Menefee	2724	2643	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	3702	3577	Sd	-	8.3	9.0 - 9.5
Mancos	3854	3722	Sh	-		9.0 - 9.5
Mancos Silt	4156	4010	Slt	O/G	6.6	9.0 - 9.5
Gallup A	4721	4530	Slt	O/G	6.6	9.0 - 9.5
Gallup B	4780	4576	Sd	O/G	6.6	8.8 -9.0
Gallup C	4923	4672	Sd	O/G	6.6	8.8 -9.0
Target	5350	4805	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	5294	surf	4802	surface
4-1/2"	6-1/8"	11.6	P-110	BTC	5001	13726	4715	4828	5001

Note: all casing will be new

Rev 1

**Casing Design Load Cases**

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

Note #

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

Casing Design Factors

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

Cement Design9-5/8" 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	3855-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	230
Volume (bbls)	156	61
Volume (cu.ft.)	875	344
Excess %	55	55



Rev 1

4-1/2" Production Liner

	BJ Services
Type	Poz/G
Planned top	5001-ft
Density (ppg)	13.3
Yield (cf/sx)	1.56
Mix water (gal/sx)	7.71
Volume (sx)	733
Volume (bbls)	204
Volume (cu.ft)	1146
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 – 5294	9.0 – 9.5	38 – 45	8 – 14	<20
Production	Low solids, non-dispersed	5294 – 13726	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.

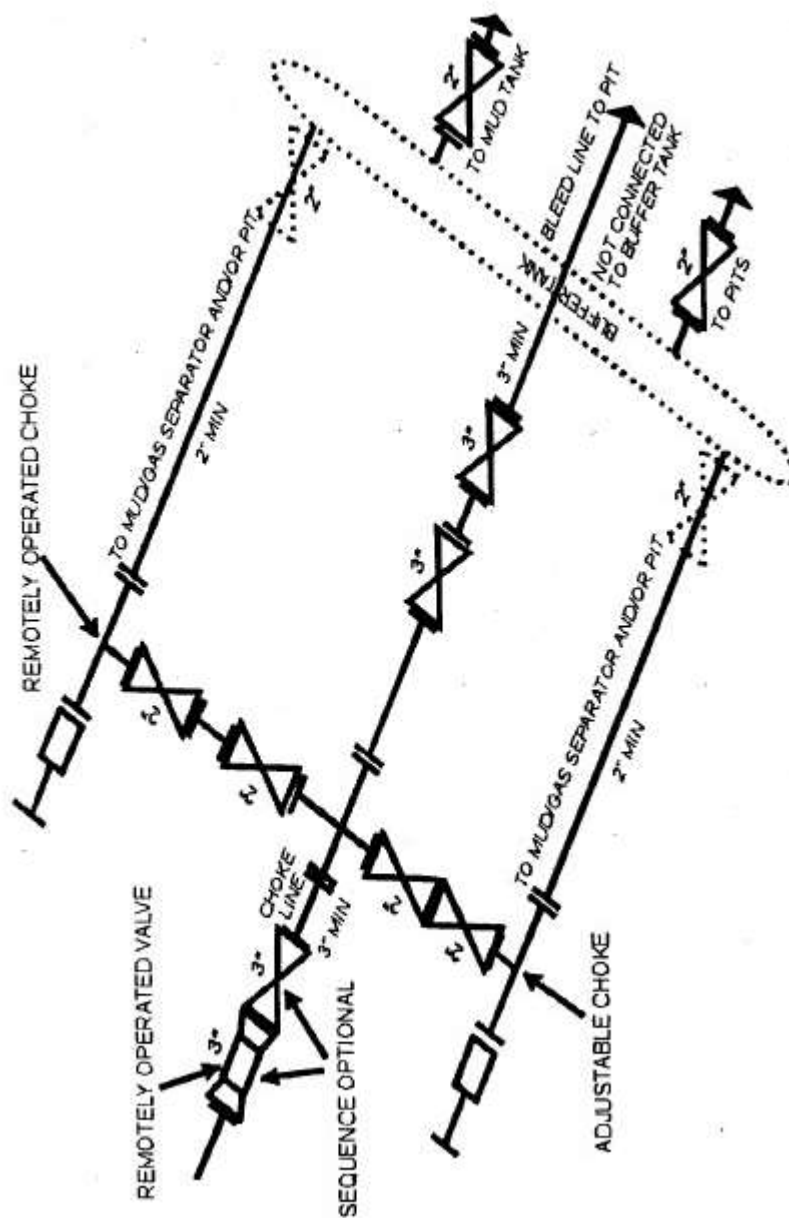
Completion

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.



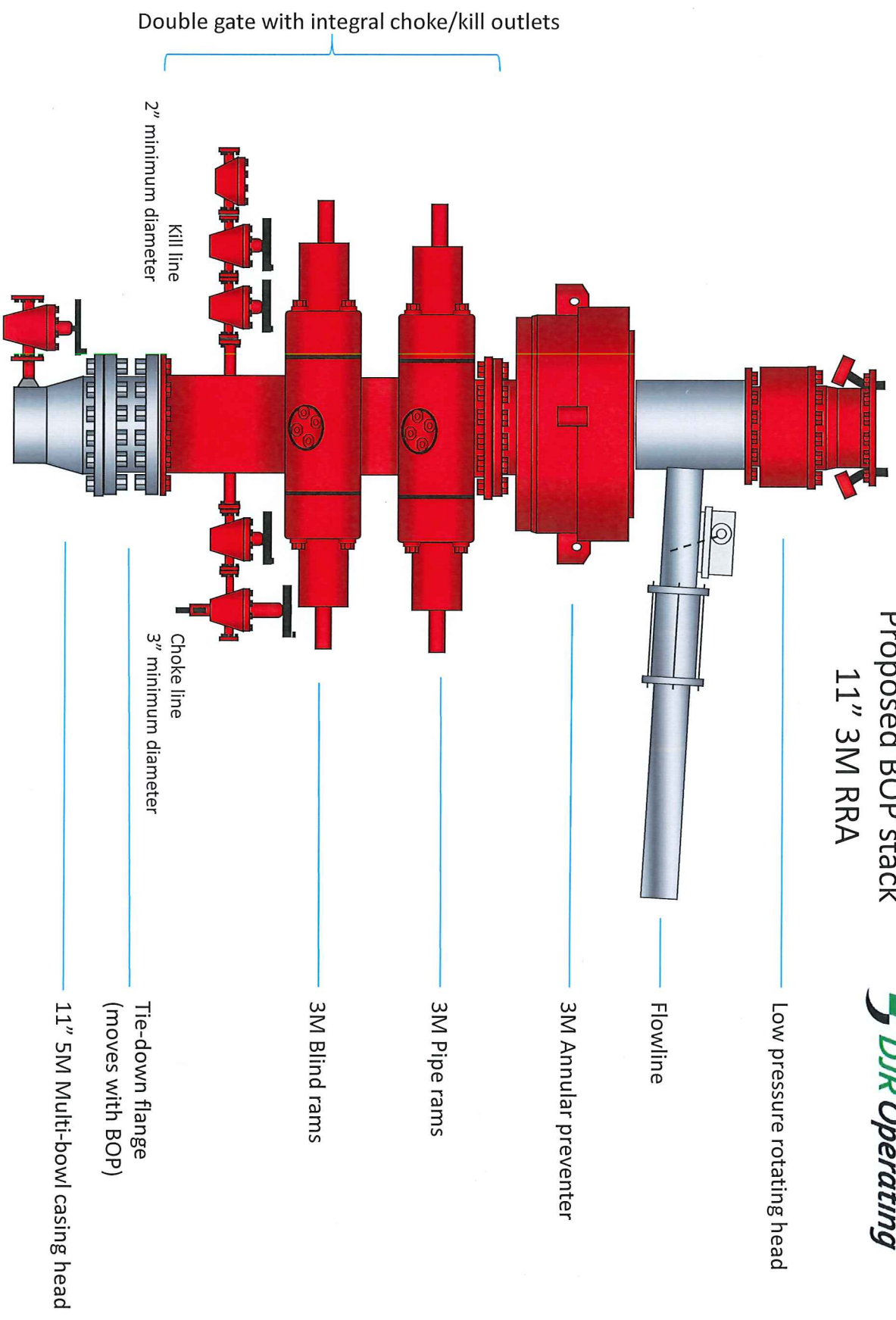
Choke Manifold

Actual system to conform with Onshore Order 2

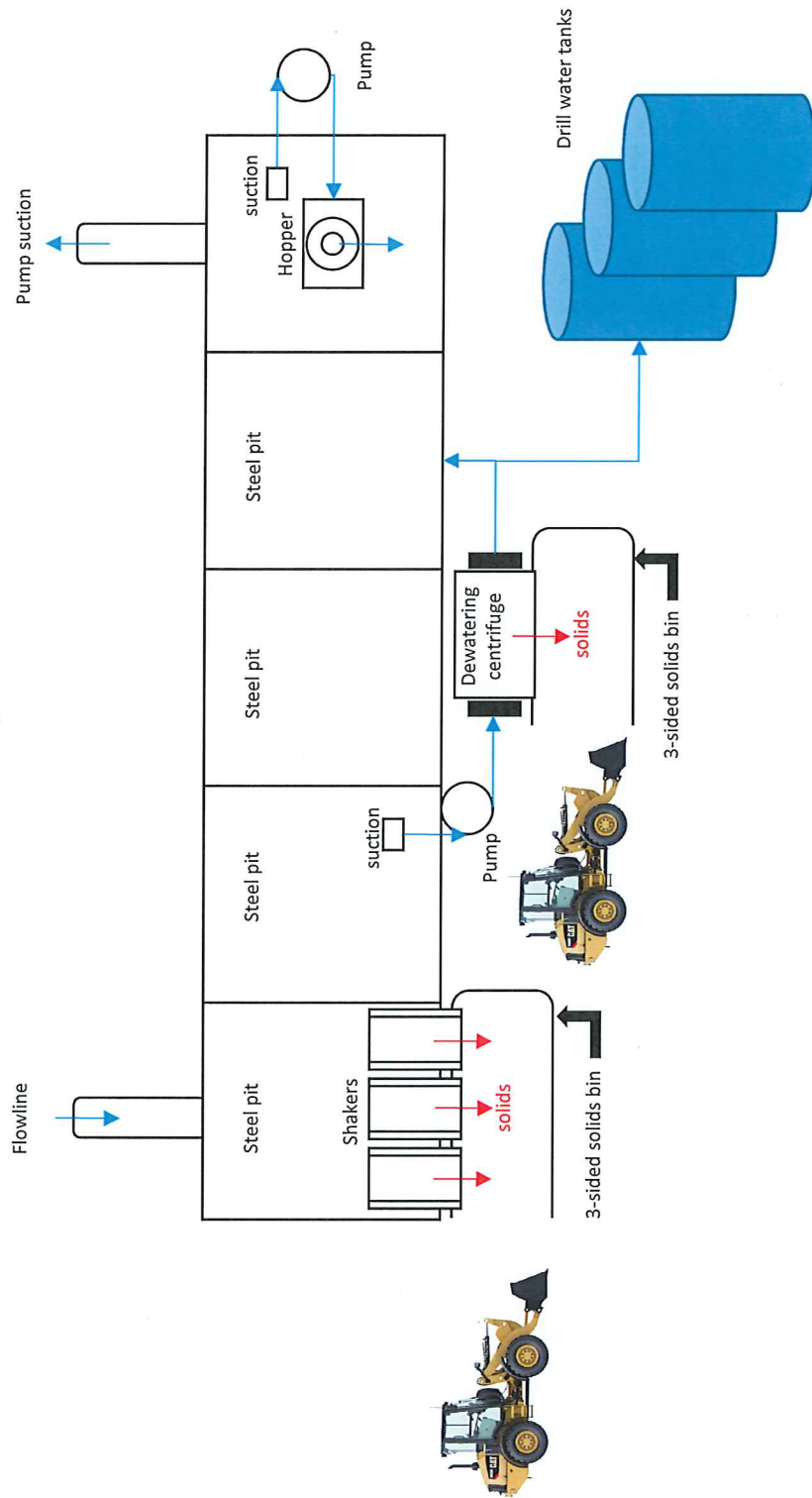




Proposed BOP stack 11" 3M RRA



Closed Loop Mud System





Company: DJR Operating
Project: Betonnie Tsosie Unit
Site: E03 2208 Pad
Well: # 602H
Wellbore: Original drilling
Design: APD Rev 1

PROJECT DETAILS: Betonnie Tsosie 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: # 602H

GL 6870' & RKB 14' @ 6884ft

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0	0	1881734.15	2769421.13	36.17142800	-107.67636200

Plan: APD Rev 1 (# 602H/Original drilling)

Created By: Janie Collins Date: 11:25, May 19 2021

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
602H heel	4805	1336	443	1883070.82	2769862.46	36.17509800	-107.67485930
602H toe	4828	7370	-5367	1889095.10	2764042.59	36.19167180	-107.69454960

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0	0.00	0.00	0	0	0	0.00	0.00	0	
375	0.00	0.00	375	0	0	0.00	0.00	0	
1242	17.34	45.01	1229	92	92	2.00	45.01	20	
4355	17.34	45.01	4201	748	748	0.00	0.00	164	
5350	89.84	316.08	4805	1336	443	9.00	-89.03	819	602H heel
13726	89.84	316.08	4828	7370	-5367	0.00	0.00	9117	602H toe



Azimuths to True North
Magnetic North: 8

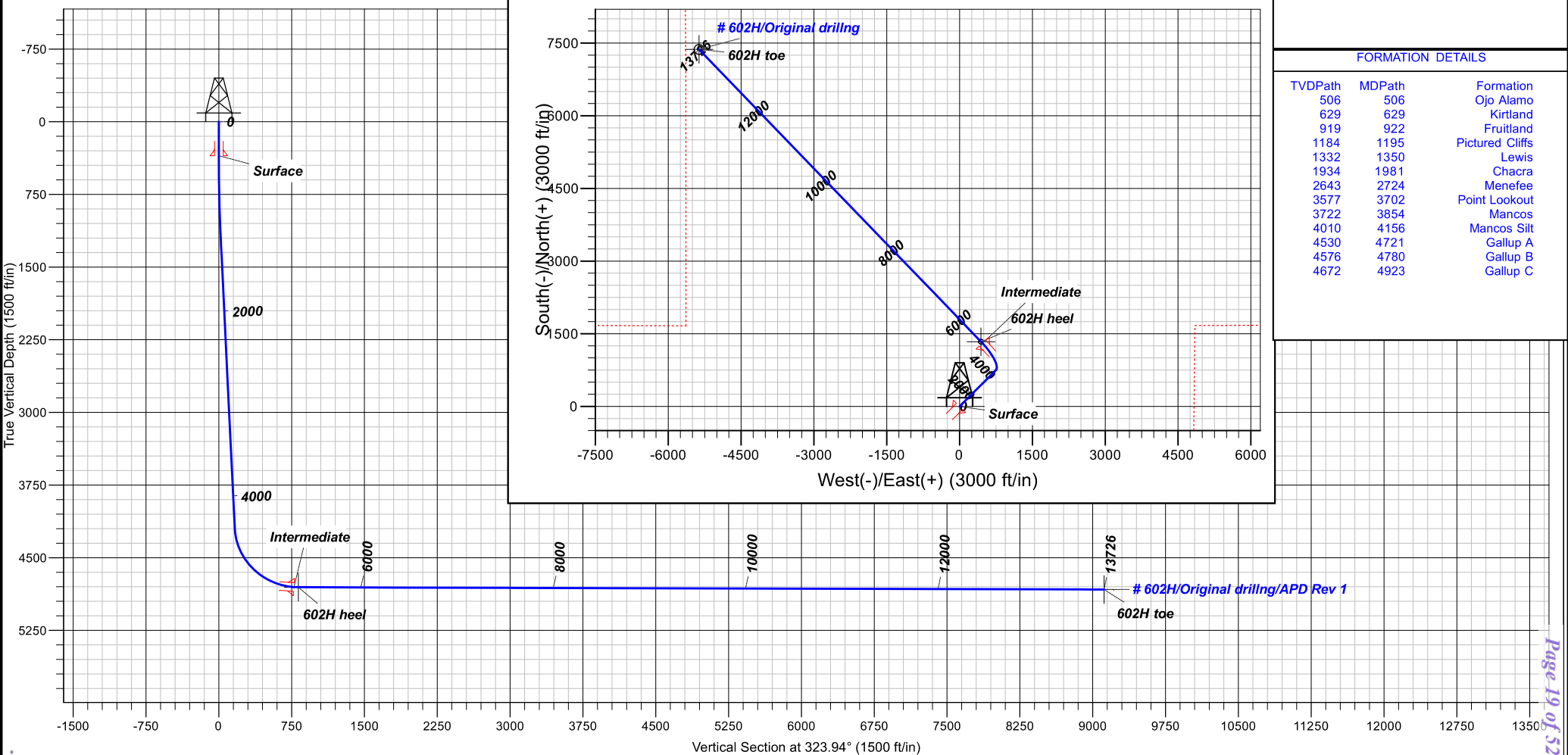
Magnetic Field
Strength: 49183
Dip Angle: 62.63°
Date: 3/11/2021
Model: HDGM2021_

CASING DETAILS

TVD	MD	Name
350	350	Surface
4803	5305	Intermediate

FORMATION DETAILS

TVDPath	MDPath	Formation
506	506	Ojo Alamo
629	629	Kirtland
919	922	Fruitland
1184	1195	Pictured Cliffs
1332	1350	Lewis
1934	1981	Chacra
2643	2724	Menefee
3577	3702	Point Lookout
3722	3854	Mancos
4010	4156	Mancos Silt
4530	4721	Gallup A
4576	4780	Gallup B
4672	4923	Gallup C





DJR Operating

Betonneie Tsosie Unit

E03 2208 Pad

602H - Slot 3

Original drilling

Plan: APD Rev 1

Standard Planning Report

19 May, 2021





Lonestar Consulting, LLC Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 602H - Slot 3
Company:	DJR Operating	TVD Reference:	GL 6870' & RKB 14' @ 6884ft
Project:	Betonne Tsoie Unit	MD Reference:	GL 6870' & RKB 14' @ 6884ft
Site:	E03 2208 Pad	North Reference:	True
Well:	# 602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original drilling		
Design:	APD Rev 1		

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

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

Well	# 602H - Slot 3					
Well Position	+N/-S	35 ft	Northing:	1,881,734.15 usft	Latitude:	36.17142800
	+E/-W	19 ft	Easting:	2,769,421.13 usft	Longitude:	-107.67636200
Position Uncertainty		0 ft	Wellhead Elevation:		Ground Level:	6870 ft

Wellbore	Original drilling				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2021_FILE	3/11/2021	8.62	62.68	49,183.70000000

Design	APD Rev 1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0	0	0	323.94

Plan Survey Tool Program	Date	5/19/2021		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0	13,726	APD Rev 1 (Original drilling)	MWD+IGRF
				OWSG MWD + IGRF or WMM

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0	0.00	0.00	0	0	0	0.00	0.00	0.00	0.00	
375	0.00	0.00	375	0	0	0.00	0.00	0.00	0.00	
1242	17.34	45.01	1229	92	92	2.00	2.00	0.00	45.01	
4355	17.34	45.01	4201	748	748	0.00	0.00	0.00	0.00	
5350	89.84	316.08	4805	1336	443	9.00	7.29	-8.94	-89.03	602H heel
13,726	89.84	316.08	4828	7370	-5367	0.00	0.00	0.00	0.00	602H toe



Lonestar Consulting, LLC

Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 602H - Slot 3
Company:	DJR Operating	TVD Reference:	GL 6870' & RKB 14' @ 6884ft
Project:	Betonne Tsoie Unit	MD Reference:	GL 6870' & RKB 14' @ 6884ft
Site:	E03 2208 Pad	North Reference:	True
Well:	# 602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original drilling		
Design:	APD Rev 1		

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
375	0.00	0.00	375	0	0	0	0.00	0.00	0.00
400	0.50	45.01	400	0	0	0	2.00	2.00	0.00
500	2.50	45.01	500	2	2	0	2.00	2.00	0.00
600	4.50	45.01	600	6	6	1	2.00	2.00	0.00
700	6.50	45.01	699	13	13	3	2.00	2.00	0.00
800	8.50	45.01	798	22	22	5	2.00	2.00	0.00
900	10.50	45.01	897	34	34	7	2.00	2.00	0.00
1000	12.50	45.01	995	48	48	11	2.00	2.00	0.00
1100	14.50	45.01	1092	65	65	14	2.00	2.00	0.00
1200	16.50	45.01	1189	83	83	18	2.00	2.00	0.00
1242	17.34	45.01	1229	92	92	20	2.00	2.00	0.00
1300	17.34	45.01	1284	104	104	23	0.00	0.00	0.00
1400	17.34	45.01	1380	125	125	28	0.00	0.00	0.00
1500	17.34	45.01	1475	146	146	32	0.00	0.00	0.00
1600	17.34	45.01	1571	167	168	37	0.00	0.00	0.00
1700	17.34	45.01	1666	189	189	41	0.00	0.00	0.00
1800	17.34	45.01	1761	210	210	46	0.00	0.00	0.00
1900	17.34	45.01	1857	231	231	51	0.00	0.00	0.00
2000	17.34	45.01	1952	252	252	55	0.00	0.00	0.00
2100	17.34	45.01	2048	273	273	60	0.00	0.00	0.00
2200	17.34	45.01	2143	294	294	65	0.00	0.00	0.00
2300	17.34	45.01	2239	315	315	69	0.00	0.00	0.00
2400	17.34	45.01	2334	336	336	74	0.00	0.00	0.00
2500	17.34	45.01	2430	357	357	78	0.00	0.00	0.00
2600	17.34	45.01	2525	378	378	83	0.00	0.00	0.00
2700	17.34	45.01	2621	399	399	88	0.00	0.00	0.00
2800	17.34	45.01	2716	420	421	92	0.00	0.00	0.00
2900	17.34	45.01	2811	441	442	97	0.00	0.00	0.00
3000	17.34	45.01	2907	462	463	102	0.00	0.00	0.00
3100	17.34	45.01	3002	484	484	106	0.00	0.00	0.00
3200	17.34	45.01	3098	505	505	111	0.00	0.00	0.00
3300	17.34	45.01	3193	526	526	115	0.00	0.00	0.00
3400	17.34	45.01	3289	547	547	120	0.00	0.00	0.00
3500	17.34	45.01	3384	568	568	125	0.00	0.00	0.00
3600	17.34	45.01	3480	589	589	129	0.00	0.00	0.00
3700	17.34	45.01	3575	610	610	134	0.00	0.00	0.00
3800	17.34	45.01	3671	631	631	139	0.00	0.00	0.00
3900	17.34	45.01	3766	652	652	143	0.00	0.00	0.00
4000	17.34	45.01	3861	673	673	148	0.00	0.00	0.00
4100	17.34	45.01	3957	694	695	152	0.00	0.00	0.00
4200	17.34	45.01	4052	715	716	157	0.00	0.00	0.00
4300	17.34	45.01	4148	736	737	162	0.00	0.00	0.00
4355	17.34	45.01	4201	748	748	164	0.00	0.00	0.00
4400	17.86	31.76	4243	759	757	168	9.00	1.15	-29.59
4500	21.75	7.53	4337	790	767	187	9.00	3.89	-24.23
4600	28.00	351.99	4428	832	766	221	9.00	6.25	-15.55
4700	35.38	342.11	4513	883	754	270	9.00	7.38	-9.88
4800	43.31	335.37	4591	942	731	331	9.00	7.93	-6.74
4900	51.54	330.39	4658	1007	697	404	9.00	8.22	-4.98
5000	59.93	326.45	4715	1077	654	486	9.00	8.39	-3.95



Lonestar Consulting, LLC

Planning Report



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Company:	DJR Operating	TVD Reference:	GL 6870' & RKB 14' @ 6884ft
Project:	Betonne Tsoie Unit	MD Reference:	GL 6870' & RKB 14' @ 6884ft
Site:	E03 2208 Pad	North Reference:	True
Well:	# 602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original drilling		
Design:	APD Rev 1		

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	68.42	323.13	4758	1151	602	576	9.00	8.49	-3.32	
5200	76.97	320.18	4788	1225	543	671	9.00	8.55	-2.95	
5300	85.55	317.43	4803	1300	478	769	9.00	8.58	-2.75	
5350	89.84	316.08	4805	1336	443	819	9.00	8.59	-2.69	
5400	89.84	316.08	4805	1372	409	868	0.00	0.00	0.00	
5500	89.84	316.08	4805	1444	339	967	0.00	0.00	0.00	
5600	89.84	316.08	4806	1516	270	1067	0.00	0.00	0.00	
5700	89.84	316.08	4806	1588	201	1166	0.00	0.00	0.00	
5800	89.84	316.08	4806	1660	131	1265	0.00	0.00	0.00	
5900	89.84	316.08	4807	1732	62	1364	0.00	0.00	0.00	
6000	89.84	316.08	4807	1804	-7	1463	0.00	0.00	0.00	
6100	89.84	316.08	4807	1876	-77	1562	0.00	0.00	0.00	
6200	89.84	316.08	4807	1948	-146	1661	0.00	0.00	0.00	
6300	89.84	316.08	4808	2020	-215	1760	0.00	0.00	0.00	
6400	89.84	316.08	4808	2092	-285	1859	0.00	0.00	0.00	
6500	89.84	316.08	4808	2164	-354	1958	0.00	0.00	0.00	
6600	89.84	316.08	4808	2236	-424	2057	0.00	0.00	0.00	
6700	89.84	316.08	4809	2308	-493	2156	0.00	0.00	0.00	
6800	89.84	316.08	4809	2380	-562	2255	0.00	0.00	0.00	
6900	89.84	316.08	4809	2452	-632	2354	0.00	0.00	0.00	
7000	89.84	316.08	4810	2524	-701	2453	0.00	0.00	0.00	
7100	89.84	316.08	4810	2597	-770	2552	0.00	0.00	0.00	
7200	89.84	316.08	4810	2669	-840	2652	0.00	0.00	0.00	
7300	89.84	316.08	4810	2741	-909	2751	0.00	0.00	0.00	
7400	89.84	316.08	4811	2813	-978	2850	0.00	0.00	0.00	
7500	89.84	316.08	4811	2885	-1048	2949	0.00	0.00	0.00	
7600	89.84	316.08	4811	2957	-1117	3048	0.00	0.00	0.00	
7700	89.84	316.08	4811	3029	-1187	3147	0.00	0.00	0.00	
7800	89.84	316.08	4812	3101	-1256	3246	0.00	0.00	0.00	
7900	89.84	316.08	4812	3173	-1325	3345	0.00	0.00	0.00	
8000	89.84	316.08	4812	3245	-1395	3444	0.00	0.00	0.00	
8100	89.84	316.08	4813	3317	-1464	3543	0.00	0.00	0.00	
8200	89.84	316.08	4813	3389	-1533	3642	0.00	0.00	0.00	
8300	89.84	316.08	4813	3461	-1603	3741	0.00	0.00	0.00	
8400	89.84	316.08	4813	3533	-1672	3840	0.00	0.00	0.00	
8500	89.84	316.08	4814	3605	-1741	3939	0.00	0.00	0.00	
8600	89.84	316.08	4814	3677	-1811	4038	0.00	0.00	0.00	
8700	89.84	316.08	4814	3749	-1880	4137	0.00	0.00	0.00	
8800	89.84	316.08	4814	3821	-1950	4237	0.00	0.00	0.00	
8900	89.84	316.08	4815	3893	-2019	4336	0.00	0.00	0.00	
9000	89.84	316.08	4815	3965	-2088	4435	0.00	0.00	0.00	
9100	89.84	316.08	4815	4037	-2158	4534	0.00	0.00	0.00	
9200	89.84	316.08	4816	4109	-2227	4633	0.00	0.00	0.00	
9300	89.84	316.08	4816	4181	-2296	4732	0.00	0.00	0.00	
9400	89.84	316.08	4816	4253	-2366	4831	0.00	0.00	0.00	
9500	89.84	316.08	4816	4325	-2435	4930	0.00	0.00	0.00	
9600	89.84	316.08	4817	4397	-2504	5029	0.00	0.00	0.00	
9700	89.84	316.08	4817	4469	-2574	5128	0.00	0.00	0.00	
9800	89.84	316.08	4817	4541	-2643	5227	0.00	0.00	0.00	
9900	89.84	316.08	4817	4613	-2713	5326	0.00	0.00	0.00	
10,000	89.84	316.08	4818	4685	-2782	5425	0.00	0.00	0.00	
10,100	89.84	316.08	4818	4758	-2851	5524	0.00	0.00	0.00	
10,200	89.84	316.08	4818	4830	-2921	5623	0.00	0.00	0.00	
10,300	89.84	316.08	4819	4902	-2990	5722	0.00	0.00	0.00	



Lonestar Consulting, LLC

Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 602H - Slot 3
Company:	DJR Operating	TVD Reference:	GL 6870' & RKB 14' @ 6884ft
Project:	Betonne Tsoie Unit	MD Reference:	GL 6870' & RKB 14' @ 6884ft
Site:	E03 2208 Pad	North Reference:	True
Well:	# 602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original drilling		
Design:	APD Rev 1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,400	89.84	316.08	4819	4974	-3059	5821	0.00	0.00	0.00	
10,500	89.84	316.08	4819	5046	-3129	5921	0.00	0.00	0.00	
10,600	89.84	316.08	4819	5118	-3198	6020	0.00	0.00	0.00	
10,700	89.84	316.08	4820	5190	-3267	6119	0.00	0.00	0.00	
10,800	89.84	316.08	4820	5262	-3337	6218	0.00	0.00	0.00	
10,900	89.84	316.08	4820	5334	-3406	6317	0.00	0.00	0.00	
11,000	89.84	316.08	4821	5406	-3476	6416	0.00	0.00	0.00	
11,100	89.84	316.08	4821	5478	-3545	6515	0.00	0.00	0.00	
11,200	89.84	316.08	4821	5550	-3614	6614	0.00	0.00	0.00	
11,300	89.84	316.08	4821	5622	-3684	6713	0.00	0.00	0.00	
11,400	89.84	316.08	4822	5694	-3753	6812	0.00	0.00	0.00	
11,500	89.84	316.08	4822	5766	-3822	6911	0.00	0.00	0.00	
11,600	89.84	316.08	4822	5838	-3892	7010	0.00	0.00	0.00	
11,700	89.84	316.08	4822	5910	-3961	7109	0.00	0.00	0.00	
11,800	89.84	316.08	4823	5982	-4030	7208	0.00	0.00	0.00	
11,900	89.84	316.08	4823	6054	-4100	7307	0.00	0.00	0.00	
12,000	89.84	316.08	4823	6126	-4169	7406	0.00	0.00	0.00	
12,100	89.84	316.08	4824	6198	-4239	7506	0.00	0.00	0.00	
12,200	89.84	316.08	4824	6270	-4308	7605	0.00	0.00	0.00	
12,300	89.84	316.08	4824	6342	-4377	7704	0.00	0.00	0.00	
12,400	89.84	316.08	4824	6414	-4447	7803	0.00	0.00	0.00	
12,500	89.84	316.08	4825	6486	-4516	7902	0.00	0.00	0.00	
12,600	89.84	316.08	4825	6558	-4585	8001	0.00	0.00	0.00	
12,700	89.84	316.08	4825	6630	-4655	8100	0.00	0.00	0.00	
12,800	89.84	316.08	4825	6702	-4724	8199	0.00	0.00	0.00	
12,900	89.84	316.08	4826	6774	-4793	8298	0.00	0.00	0.00	
13,000	89.84	316.08	4826	6846	-4863	8397	0.00	0.00	0.00	
13,100	89.84	316.08	4826	6918	-4932	8496	0.00	0.00	0.00	
13,200	89.84	316.08	4827	6991	-5002	8595	0.00	0.00	0.00	
13,300	89.84	316.08	4827	7063	-5071	8694	0.00	0.00	0.00	
13,400	89.84	316.08	4827	7135	-5140	8793	0.00	0.00	0.00	
13,500	89.84	316.08	4827	7207	-5210	8892	0.00	0.00	0.00	
13,600	89.84	316.08	4828	7279	-5279	8991	0.00	0.00	0.00	
13,700	89.84	316.08	4828	7351	-5348	9091	0.00	0.00	0.00	
13,726	89.84	316.08	4828	7370	-5367	9117	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude		Longitude
602H heel	0.00	0.00	4805	1336	443	1,883,070.82	2,769,862.47	36.17509800		-107.67485930
- hit/miss target										
- Shape										
- plan hits target center										
- Circle (radius 50)										
602H toe	0.00	0.00	4828	7370	-5367	1,889,095.11	2,764,042.59	36.19167180		-107.69454960
- hit/miss target										
- Shape										
- plan hits target center										
- Circle (radius 100)										



Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 602H - Slot 3
Company:	DJR Operating	TVD Reference:	GL 6870' & RKB 14' @ 6884ft
Project:	Betonne Tsoie Unit	MD Reference:	GL 6870' & RKB 14' @ 6884ft
Site:	E03 2208 Pad	North Reference:	True
Well:	# 602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original drilling		
Design:	APD Rev 1		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
350	350	Surface	9.63	12.25	
5305	4803	Intermediate	7.00	8.75	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
506	506	Ojo Alamo		0.00	0.00	
629	629	Kirtland		0.00	0.00	
922	919	Fruitland		0.00	0.00	
1195	1184	Pictured Cliffs		0.00	0.00	
1350	1332	Lewis		0.00	0.00	
1981	1934	Chacra		0.00	0.00	
2724	2643	Menefee		0.00	0.00	
3702	3577	Point Lookout		0.00	0.00	
3854	3722	Mancos		0.00	0.00	
4156	4010	Mancos Silt		0.00	0.00	
4721	4530	Gallup A		0.00	0.00	
4780	4576	Gallup B		0.00	0.00	
4923	4672	Gallup C		0.00	0.00	



DJR Operating

**Betonnies Tsosie Unit
E03 2208 Pad
602H**

**Original drilling
APD Rev 1**

Anticollision Report

19 May, 2021





Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 602H - Slot 3
Project:	Betonnies Tsois Unit	TVD Reference:	GL 6870' & RKB 14' @ 6884ft
Reference Site:	E03 2208 Pad	MD Reference:	GL 6870' & RKB 14' @ 6884ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Reference	APD Rev 1		
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	13,726	APD Rev 1 (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						Out of range
# 603H - Original drilling - APD	375	375	40	38	17.626	CC
# 603H - Original drilling - APD	400	400	40	38	16.388	ES
# 603H - Original drilling - APD	12,400	11,737	1282	907	3.420	SF
# 714H - Original drilling - APD	1038	1031	29	22	4.016	CC
# 714H - Original drilling - APD	1100	1093	29	21	3.749	ES
# 714H - Original drilling - APD	1300	1291	33	23	3.310	SF
# 715H - Original drilling - APD	551	550	19	16	5.428	CC
# 715H - Original drilling - APD	600	599	19	16	5.001	ES
# 715H - Original drilling - APD	700	698	21	16	4.547	SF
# 716H - Original drilling - APD	300	300	20	18	11.477	CC
# 716H - Original drilling - APD	375	375	20	18	8.801	ES
# 716H - Original drilling - APD	500	499	25	21	7.770	SF

Offset Design:	E03 2208 Pad - # 603H - Original drilling - APD											Offset Site Error:	0 ft
Survey Program:	0-MWD+IGRF											Offset Well Error:	0 ft
Reference Measured Depth (ft)	Vertical Depth (ft)	Offset Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (ft)		Minimum Separation (ft)	Separation Factor	Warning
							+N/-S (ft)	+E/-W (ft)					
0	0	0	0	0	0	-151.48	-35	-19	40				
100	100	100	100	0	0	-151.48	-35	-19	40	40	0.31	130.350	
200	200	200	200	1	1	-151.48	-35	-19	40	39	1.03	39.196	
300	300	300	300	1	1	-151.48	-35	-19	40	38	1.74	23.066	
375	375	375	375	1	1	-151.48	-35	-19	40	38	2.28	17.626	CC
400	400	400	400	1	1	163.55	-35	-19	40	38	2.46	16.388	ES
500	500	500	500	2	2	166.79	-34	-20	42	39	3.17	13.326	
600	600	600	600	2	2	174.62	-30	-24	47	43	3.89	12.118	
700	699	700	699	2	2	-175.65	-24	-30	56	52	4.62	12.155	
800	798	798	797	3	3	-166.53	-15	-38	70	65	5.37	13.092	
900	897	896	893	3	3	-159.72	-4	-47	89	83	6.13	14.585	
1000	995	993	989	4	3	-155.93	6	-56	113	106	6.91	16.282	
1100	1092	1089	1085	4	4	-153.97	17	-66	139	131	7.70	18.035	
1200	1189	1185	1179	5	4	-153.08	27	-75	168	160	8.50	19.793	
1242	1229	1225	1219	5	4	-152.92	32	-79	182	173	8.85	20.523	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 602H - Slot 3
Project:	Betonnies Tsois Unit	TVD Reference:	GL 6870' & RKB 14' @ 6884ft
Reference Site:	E03 2208 Pad	MD Reference:	GL 6870' & RKB 14' @ 6884ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: E03 2208 Pad - # 603H - Original drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
1300	1284	1279	1273	5	5	-152.93	38	-84	200	191	9.32	21.491		
1400	1380	1374	1367	6	5	-152.95	48	-93	232	222	10.13	22.940		
1500	1475	1469	1460	6	6	-152.96	58	-103	265	254	10.95	24.155		
1600	1571	1563	1554	7	6	-152.97	69	-112	297	285	11.78	25.186		
1700	1666	1658	1648	8	6	-152.97	79	-121	329	316	12.62	26.070		
1800	1761	1753	1741	8	7	-152.98	89	-130	361	348	13.46	26.835		
1900	1857	1848	1835	9	7	-152.99	100	-139	393	379	14.30	27.504		
2000	1952	1942	1929	10	8	-152.99	110	-149	425	410	15.15	28.092		
2100	2048	2037	2022	10	8	-152.99	120	-158	458	442	15.99	28.614		
2200	2143	2132	2116	11	8	-153.00	131	-167	490	473	16.84	29.079		
2300	2239	2226	2210	12	9	-153.00	141	-176	522	504	17.70	29.496		
2400	2334	2321	2303	12	9	-153.00	151	-185	554	536	18.55	29.873		
2500	2430	2416	2397	13	10	-153.01	162	-195	586	567	19.41	30.214		
2600	2525	2510	2491	14	10	-153.01	172	-204	619	598	20.26	30.524		
2700	2621	2605	2584	14	11	-153.01	182	-213	651	630	21.12	30.808		
2800	2716	2700	2678	15	11	-153.01	193	-222	683	661	21.98	31.068		
2900	2811	2794	2772	16	11	-153.01	203	-231	715	692	22.84	31.307		
3000	2907	2889	2865	16	12	-153.01	213	-241	747	724	23.70	31.528		
3100	3002	2984	2959	17	12	-153.01	224	-250	779	755	24.56	31.733		
3200	3098	3078	3053	18	13	-153.02	234	-259	812	786	25.42	31.923		
3300	3193	3173	3146	18	13	-153.02	244	-268	844	817	26.29	32.100		
3400	3289	3268	3240	19	14	-153.02	255	-277	876	849	27.15	32.265		
3500	3384	3362	3334	20	14	-153.02	265	-287	908	880	28.01	32.419		
3600	3480	3457	3427	20	14	-153.02	275	-296	940	911	28.88	32.563		
3700	3575	3552	3521	21	15	-153.02	286	-305	972	943	29.74	32.699		
3800	3671	3647	3615	22	15	-153.02	296	-314	1005	974	30.60	32.827		
3900	3766	3741	3708	22	16	-153.02	306	-323	1037	1005	31.47	32.947		
4000	3861	3836	3802	23	16	-153.02	317	-333	1069	1037	32.33	33.060		
4100	3957	3931	3896	24	17	-153.02	327	-342	1101	1068	33.20	33.168		
4200	4052	4025	3989	24	17	-153.02	337	-351	1133	1099	34.07	33.269		
4300	4148	4120	4083	25	17	-153.02	348	-360	1166	1131	34.93	33.365		
4355	4201	4172	4135	25	18	-153.02	353	-365	1183	1148	35.41	33.416		
4400	4243	4215	4177	26	18	-139.30	358	-369	1197	1161	35.80	33.434		
4450	4291	4263	4224	26	18	-125.81	363	-374	1211	1175	36.25	33.401		
4500	4337	4300	4261	26	18	-114.86	368	-378	1223	1186	36.61	33.399		
4550	4383	4325	4286	27	18	-106.21	371	-381	1234	1197	36.89	33.454		
4600	4428	4350	4310	27	18	-99.52	375	-385	1244	1207	37.15	33.486		
4650	4472	4379	4338	27	19	-94.41	381	-390	1253	1216	37.49	33.430		
4700	4513	4400	4358	27	19	-90.36	386	-395	1261	1224	37.73	33.431		
4750	4553	4433	4389	28	19	-87.37	394	-403	1268	1230	38.16	33.239		
4800	4591	4460	4414	28	19	-85.00	402	-410	1274	1236	38.53	33.075		
4850	4626	4488	4439	28	19	-83.20	411	-418	1279	1240	38.93	32.859		
4900	4658	4516	4463	28	20	-81.87	420	-427	1283	1244	39.37	32.588		
4950	4688	4550	4493	29	20	-81.06	433	-439	1286	1246	39.98	32.168		
5000	4715	4571	4511	29	20	-80.34	442	-447	1288	1247	40.40	31.872		
5050	4738	4600	4534	29	20	-80.05	454	-459	1289	1248	41.01	31.423		
5100	4758	4628	4556	30	21	-80.02	466	-471	1288	1247	41.67	30.917		
5150	4775	4650	4573	30	21	-80.08	476	-481	1287	1245	42.26	30.462		
5200	4788	4686	4599	30	21	-80.70	494	-498	1285	1242	43.23	29.736		
5250	4797	4716	4619	31	22	-81.37	510	-512	1283	1239	44.12	29.072		
5300	4803	4750	4642	31	22	-82.37	528	-530	1279	1234	45.19	28.307		
5350	4805	4776	4658	31	22	-83.35	543	-544	1275	1229	46.14	27.637		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 602H - Slot 3
Project:	Betonnies Tsois Unit	TVD Reference:	GL 6870' & RKB 14' @ 6884ft
Reference Site:	E03 2208 Pad	MD Reference:	GL 6870' & RKB 14' @ 6884ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: E03 2208 Pad - # 603H - Original drilling - APD											Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF											Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance			Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
5400	4805	4807	4677	32	23	-84.17	561	-562	1271	1224	47.27	26.895
5500	4805	4878	4713	33	24	-85.81	605	-604	1266	1216	49.82	25.408
5600	4806	4957	4746	34	25	-87.29	657	-654	1263	1210	52.77	23.936
5700	4806	5045	4772	35	27	-88.44	717	-712	1262	1206	56.10	22.497
5770	4806	5111	4783	36	28	-88.95	764	-757	1262	1203	58.49	21.575
5800	4806	5139	4786	36	28	-89.08	784	-776	1262	1202	59.73	21.127
5900	4807	5237	4788	38	30	-89.16	854	-844	1262	1199	63.58	19.852
6000	4807	5337	4788	40	32	-89.16	926	-914	1262	1195	67.61	18.673
6100	4807	5437	4788	42	34	-89.15	998	-984	1263	1191	71.76	17.598
6200	4807	5537	4789	43	36	-89.15	1070	-1053	1263	1187	76.00	16.619
6300	4808	5637	4789	45	38	-89.14	1141	-1123	1263	1183	80.33	15.728
6400	4808	5737	4789	47	41	-89.14	1213	-1192	1264	1179	84.72	14.915
6500	4808	5837	4789	49	43	-89.13	1285	-1262	1264	1175	89.18	14.174
6600	4808	5937	4789	52	45	-89.13	1357	-1332	1264	1171	93.68	13.496
6700	4809	6037	4789	54	47	-89.12	1429	-1401	1265	1166	98.23	12.874
6800	4809	6137	4789	56	50	-89.12	1500	-1471	1265	1162	102.81	12.303
6900	4809	6237	4790	58	52	-89.11	1572	-1540	1265	1158	107.43	11.777
7000	4810	6337	4790	60	54	-89.10	1644	-1610	1266	1153	112.08	11.291
7100	4810	6437	4790	62	57	-89.10	1716	-1679	1266	1149	116.75	10.842
7200	4810	6537	4790	65	59	-89.09	1788	-1749	1266	1145	121.44	10.425
7300	4810	6637	4790	67	61	-89.09	1860	-1819	1266	1140	126.16	10.038
7400	4811	6737	4790	69	64	-89.08	1931	-1888	1267	1136	130.89	9.678
7500	4811	6837	4791	72	66	-89.08	2003	-1958	1267	1131	135.64	9.341
7600	4811	6937	4791	74	68	-89.07	2075	-2027	1267	1127	140.40	9.027
7700	4811	7037	4791	76	71	-89.07	2147	-2097	1268	1122	145.17	8.732
7800	4812	7137	4791	79	73	-89.06	2219	-2166	1268	1118	149.96	8.455
7900	4812	7237	4791	81	76	-89.06	2291	-2236	1268	1113	154.75	8.195
8000	4812	7337	4791	83	78	-89.05	2362	-2306	1269	1109	159.56	7.950
8100	4813	7437	4791	86	80	-89.05	2434	-2375	1269	1104	164.37	7.719
8200	4813	7537	4792	88	83	-89.04	2506	-2445	1269	1100	169.20	7.501
8300	4813	7637	4792	90	85	-89.04	2578	-2514	1269	1095	174.03	7.294
8400	4813	7737	4792	93	88	-89.03	2650	-2584	1270	1091	178.86	7.099
8500	4814	7837	4792	95	90	-89.03	2721	-2654	1270	1086	183.71	6.913
8600	4814	7937	4792	98	92	-89.02	2793	-2723	1270	1082	188.55	6.737
8700	4814	8037	4792	100	95	-89.02	2865	-2793	1271	1077	193.41	6.570
8800	4814	8137	4792	102	97	-89.01	2937	-2862	1271	1073	198.27	6.410
8900	4815	8237	4793	105	100	-89.00	3009	-2932	1271	1068	203.13	6.258
9000	4815	8337	4793	107	102	-89.00	3081	-3001	1272	1064	208.00	6.113
9100	4815	8437	4793	110	105	-88.99	3152	-3071	1272	1059	212.87	5.975
9200	4816	8537	4793	112	107	-88.99	3224	-3141	1272	1054	217.74	5.842
9300	4816	8637	4793	114	109	-88.98	3296	-3210	1272	1050	222.62	5.716
9400	4816	8737	4793	117	112	-88.98	3368	-3280	1273	1045	227.50	5.594
9500	4816	8837	4794	119	114	-88.97	3440	-3349	1273	1041	232.39	5.478
9600	4817	8937	4794	122	117	-88.97	3512	-3419	1273	1036	237.27	5.367
9700	4817	9037	4794	124	119	-88.96	3583	-3488	1274	1031	242.16	5.259
9800	4817	9137	4794	127	122	-88.96	3655	-3558	1274	1027	247.05	5.157
9900	4817	9237	4794	129	124	-88.95	3727	-3628	1274	1022	251.95	5.058
10,000	4818	9337	4794	131	127	-88.95	3799	-3697	1275	1018	256.85	4.962
10,100	4818	9437	4794	134	129	-88.94	3871	-3767	1275	1013	261.74	4.871
10,200	4818	9537	4795	136	131	-88.94	3942	-3836	1275	1008	266.64	4.782
10,300	4819	9637	4795	139	134	-88.93	4014	-3906	1275	1004	271.55	4.697
10,400	4819	9737	4795	141	136	-88.93	4086	-3976	1276	999	276.45	4.615



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 602H - Slot 3
Project:	Betonnies Tsois Unit	TVD Reference:	GL 6870' & RKB 14' @ 6884ft
Reference Site:	E03 2208 Pad	MD Reference:	GL 6870' & RKB 14' @ 6884ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: E03 2208 Pad - # 603H - Original drilling - APD												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)			
10,500	4819	9837	4795	144	139	-88.92	4158	-4045	1276	995	281.36	4.535	
10,600	4819	9937	4795	146	141	-88.92	4230	-4115	1276	990	286.26	4.459	
10,700	4820	10,037	4795	148	144	-88.91	4302	-4184	1277	985	291.17	4.384	
10,800	4820	10,137	4796	151	146	-88.91	4373	-4254	1277	981	296.08	4.313	
10,900	4820	10,237	4796	153	149	-88.90	4445	-4323	1277	976	301.00	4.243	
11,000	4821	10,337	4796	156	151	-88.89	4517	-4393	1278	972	305.91	4.176	
11,100	4821	10,437	4796	158	154	-88.89	4589	-4463	1278	967	310.82	4.111	
11,200	4821	10,537	4796	161	156	-88.88	4661	-4532	1278	962	315.74	4.048	
11,300	4821	10,637	4796	163	158	-88.88	4733	-4602	1278	958	320.65	3.987	
11,400	4822	10,737	4796	166	161	-88.87	4804	-4671	1279	953	325.57	3.928	
11,500	4822	10,837	4797	168	163	-88.87	4876	-4741	1279	949	330.49	3.870	
11,600	4822	10,937	4797	170	166	-88.86	4948	-4810	1279	944	335.41	3.814	
11,700	4822	11,037	4797	173	168	-88.86	5020	-4880	1280	939	340.33	3.760	
11,800	4823	11,137	4797	175	171	-88.85	5092	-4950	1280	935	345.25	3.707	
11,900	4823	11,237	4797	178	173	-88.85	5163	-5019	1280	930	350.17	3.656	
12,000	4823	11,337	4797	180	176	-88.84	5235	-5089	1281	925	355.10	3.606	
12,100	4824	11,437	4798	183	178	-88.84	5307	-5158	1281	921	360.02	3.558	
12,200	4824	11,537	4798	185	181	-88.83	5379	-5228	1281	916	364.94	3.511	
12,300	4824	11,637	4798	188	183	-88.83	5451	-5298	1281	912	369.87	3.465	
12,400	4824	11,737	4798	190	186	-88.82	5523	-5367	1282	907	374.79	3.420 SF	
12,500	4825	11,740	4798	193	186	-88.82	5525	-5370	1286	911	375.08	3.428	
12,600	4825	11,740	4798	195	186	-88.82	5525	-5370	1297	924	373.04	3.478	
12,700	4825	11,740	4798	197	186	-88.82	5525	-5370	1316	948	368.95	3.568	
12,800	4825	11,740	4798	200	186	-88.82	5525	-5370	1343	980	363.06	3.699	
12,900	4826	11,740	4798	202	186	-88.82	5525	-5370	1376	1020	355.67	3.869	
13,000	4826	11,740	4798	205	186	-88.82	5525	-5370	1415	1068	347.11	4.078	
13,100	4826	11,740	4798	207	186	-88.82	5525	-5370	1461	1123	337.70	4.325	
13,200	4827	11,740	4798	210	186	-88.82	5525	-5370	1511	1183	327.73	4.611	
13,300	4827	11,740	4798	212	186	-88.82	5525	-5370	1566	1249	317.48	4.934	
13,400	4827	11,740	4798	215	186	-88.82	5525	-5370	1626	1319	307.13	5.294	
13,500	4827	11,740	4798	217	186	-88.82	5525	-5370	1689	1392	296.88	5.690	
13,600	4828	11,740	4798	220	186	-88.82	5525	-5370	1756	1469	286.83	6.122	
13,700	4828	11,740	4798	222	186	-88.82	5525	-5370	1826	1549	277.08	6.590	
13,726	4828	11,740	4798	223	186	-88.82	5525	-5370	1845	1570	274.57	6.719	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 602H - Slot 3
Project:	Betonnies Tsois Unit	TVD Reference:	GL 6870' & RKB 14' @ 6884ft
Reference Site:	E03 2208 Pad	MD Reference:	GL 6870' & RKB 14' @ 6884ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: E03 2208 Pad - # 714H - Original drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0	0	0	0	0	0	28.77	35	19	40					
100	100	100	100	0	0	28.77	35	19	40	40	0.31	129.313		
200	200	200	200	1	1	28.77	35	19	40	39	1.03	38.884		
300	300	300	300	1	1	28.77	35	19	40	38	1.74	22.883		
375	375	375	375	1	1	28.77	35	19	40	38	2.28	17.486		
400	400	400	400	1	1	-16.29	35	19	40	37	2.46	16.172		
500	500	499	499	2	2	-17.33	35	19	38	35	3.17	11.890		
600	600	598	598	2	2	-19.45	38	21	35	31	3.88	9.099		
700	699	697	697	2	2	-22.78	44	25	33	28	4.59	7.205		
800	798	796	795	3	3	-27.51	52	31	31	26	5.31	5.866		
900	897	895	893	3	3	-33.76	63	39	30	24	6.05	4.905		
1000	995	994	990	4	3	-41.43	77	49	29	22	6.85	4.220		
1038	1032	1031	1027	4	4	-44.64	82	54	29	22	7.18	4.016 CC		
1100	1092	1093	1087	4	4	-50.14	93	61	29	21	7.75	3.749 ES		
1200	1189	1192	1184	5	4	-59.19	112	75	30	21	8.77	3.448		
1242	1229	1234	1224	5	5	-62.90	121	82	31	22	9.25	3.363		
1300	1284	1291	1279	5	5	-66.89	134	91	33	23	9.92	3.310 SF		
1400	1380	1391	1374	6	6	-69.05	159	109	37	26	11.07	3.380		
1500	1475	1490	1468	6	6	-67.53	185	129	43	31	12.19	3.558		
1600	1571	1590	1562	7	7	-66.14	212	148	50	36	13.34	3.711		
1700	1666	1690	1656	8	7	-65.06	239	168	56	41	14.50	3.838		
1800	1761	1790	1750	8	8	-64.20	266	188	62	46	15.67	3.945		
1900	1857	1889	1844	9	9	-63.49	293	207	68	51	16.84	4.036		
2000	1952	1989	1938	10	10	-62.90	320	227	74	56	18.03	4.114		
2100	2048	2089	2032	10	10	-62.40	347	247	80	61	19.21	4.182		
2200	2143	2189	2126	11	11	-61.97	374	266	87	66	20.40	4.242		
2300	2239	2289	2220	12	12	-61.60	401	286	93	71	21.60	4.294		
2400	2334	2388	2314	12	12	-61.28	428	306	99	76	22.79	4.341		
2500	2430	2488	2408	13	13	-60.99	455	325	105	81	23.99	4.383		
2600	2525	2588	2502	14	14	-60.74	482	345	111	86	25.19	4.420		
2700	2621	2688	2596	14	14	-60.51	509	365	118	91	26.39	4.454		
2800	2716	2788	2690	15	15	-60.31	536	384	124	96	27.59	4.485		
2900	2811	2887	2785	16	16	-60.12	563	404	130	101	28.80	4.513		
3000	2907	2987	2879	16	17	-59.95	590	424	136	106	30.00	4.539		
3100	3002	3087	2973	17	17	-59.80	617	443	142	111	31.21	4.562		
3200	3098	3187	3067	18	18	-59.66	644	463	149	116	32.42	4.584		
3300	3193	3287	3161	18	19	-59.53	671	483	155	121	33.63	4.604		
3400	3289	3386	3255	19	19	-59.41	698	502	161	126	34.83	4.623		
3500	3384	3486	3349	20	20	-59.30	725	522	167	131	36.04	4.640		
3600	3480	3586	3443	20	21	-59.20	752	542	173	136	37.25	4.656		
3700	3575	3686	3537	21	22	-59.10	779	561	180	141	38.46	4.671		
3800	3671	3786	3631	22	22	-59.02	806	581	186	146	39.68	4.685		
3900	3766	3885	3725	22	23	-58.93	833	601	192	151	40.89	4.699		
4000	3861	3985	3819	23	24	-58.85	860	620	198	156	42.10	4.711		
4100	3957	4085	3913	24	25	-58.78	886	640	205	161	43.31	4.723		
4200	4052	4185	4007	24	25	-58.71	913	660	211	166	44.52	4.734		
4300	4148	4285	4101	25	26	-58.65	940	679	217	171	45.74	4.744		
4355	4201	4340	4153	25	26	-58.61	955	690	220	174	46.41	4.750		
4400	4243	4399	4209	26	27	-45.43	970	703	221	174	46.96	4.702		
4450	4291	4468	4274	26	27	-30.14	982	723	214	167	46.90	4.559		
4500	4337	4531	4333	26	28	-14.68	989	745	200	154	46.03	4.342		
4550	4383	4587	4383	27	28	1.41	990	769	181	136	44.40	4.071		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 602H - Slot 3
Project:	Betonne Tsois Unit	TVD Reference:	GL 6870' & RKB 14' @ 6884ft
Reference Site:	E03 2208 Pad	MD Reference:	GL 6870' & RKB 14' @ 6884ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: E03 2208 Pad - # 714H - Original drilling - APD													Offset Site Error: 0 ft	
Survey Program: 0-MWD+IGRF							Rule Assigned:				Offset Well Error: 0 ft			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
4600	4428	4634	4425	27	28	18.56	989	790	159	117	42.07	3.785		
4650	4472	4672	4458	27	29	36.08	986	810	139	100	39.27	3.545		
4700	4513	4702	4483	27	29	51.91	983	825	126	89	37.22	3.396		
4724	4532	4714	4493	28	29	58.20	981	832	125	88	37.17	3.354		
4750	4553	4725	4502	28	29	64.07	979	838	127	89	38.01	3.339		
4800	4591	4742	4515	28	29	71.83	976	847	143	102	40.95	3.494		
4850	4626	4750	4522	28	29	74.13	975	852	172	129	43.14	3.983		
4900	4658	4760	4530	28	29	75.01	973	858	209	163	45.21	4.615		
4950	4688	4763	4532	29	29	70.92	972	860	250	204	46.21	5.414		
5000	4715	4763	4532	29	29	63.40	972	860	294	248	46.89	6.279		
5050	4738	4761	4530	29	29	53.25	973	858	340	293	47.43	7.170		
5100	4758	4750	4522	30	29	40.07	975	852	386	339	47.41	8.150		
5150	4775	4750	4522	30	29	31.68	975	852	433	384	48.43	8.933		
5200	4788	4750	4522	30	29	24.32	975	852	479	429	49.46	9.681		
5250	4797	4731	4507	31	29	15.47	978	841	524	475	49.29	10.631		
5300	4803	4720	4498	31	29	10.01	980	835	568	519	49.76	11.423		
5350	4805	4700	4481	31	29	5.21	983	824	612	562	49.79	12.290		
5400	4805	4700	4481	32	29	5.21	983	824	655	604	50.88	12.872		
5500	4805	4675	4460	33	29	3.64	986	811	743	691	51.46	14.429		
5600	4806	4650	4439	34	28	2.24	988	798	832	780	51.84	16.049		
5700	4806	4650	4439	35	28	2.24	988	798	923	870	52.92	17.439		
5800	4806	4624	4417	36	28	0.94	990	786	1015	962	52.95	19.164		
5900	4807	4600	4395	38	28	-0.19	990	774	1108	1055	52.95	20.920		
6000	4807	4600	4395	40	28	-0.19	990	774	1201	1148	53.56	22.427		
6100	4807	4600	4395	42	28	-0.19	990	774	1296	1242	54.05	23.973		
6200	4807	4579	4376	43	28	-1.07	990	765	1390	1337	53.96	25.767		
6300	4808	4570	4368	45	28	-1.42	990	761	1486	1432	54.13	27.452		
6400	4808	4550	4350	47	28	-2.18	990	753	1582	1528	54.01	29.285		
6500	4808	4550	4350	49	28	-2.18	990	753	1678	1624	54.30	30.902		
6600	4808	4550	4350	52	28	-2.18	990	753	1774	1720	54.54	32.534		
6700	4809	4550	4350	54	28	-2.18	990	753	1871	1816	54.75	34.179		
6800	4809	4550	4350	56	28	-2.18	990	753	1968	1913	54.93	35.835		
6900	4809	4531	4332	58	28	-2.87	989	745	2065	2011	54.75	37.721		
7000	4810	4526	4328	60	28	-3.03	988	743	2163	2108	54.82	39.452		
7100	4810	4521	4323	62	28	-3.19	988	741	2260	2206	54.89	41.186		
7200	4810	4500	4304	65	27	-3.84	986	734	2359	2304	54.68	43.135		
7300	4810	4500	4304	67	27	-3.84	986	734	2456	2402	54.80	44.823		
7400	4811	4500	4304	69	27	-3.84	986	734	2554	2499	54.91	46.516		
7500	4811	4500	4304	72	27	-3.84	986	734	2652	2597	55.02	48.213		
7600	4811	4500	4304	74	27	-3.84	986	734	2751	2696	55.11	49.913		
7700	4811	4500	4304	76	27	-3.84	986	734	2849	2794	55.20	51.616		
7800	4812	4500	4304	79	27	-3.84	986	734	2948	2892	55.28	53.321		
7900	4812	4500	4304	81	27	-3.84	986	734	3046	2991	55.36	55.028		
8000	4812	4500	4304	83	27	-3.84	986	734	3145	3089	55.43	56.737		
8100	4813	4500	4304	86	27	-3.84	986	734	3244	3188	55.50	58.446		
8200	4813	4500	4304	88	27	-3.84	986	734	3342	3287	55.56	60.156		
8300	4813	4500	4304	90	27	-3.84	986	734	3441	3386	55.63	61.866		
8400	4813	4500	4304	93	27	-3.84	986	734	3540	3485	55.69	63.577		
8500	4814	4478	4284	95	27	-4.48	984	726	3639	3583	55.46	65.617		
8600	4814	4476	4282	98	27	-4.53	983	726	3738	3682	55.49	67.363		
8700	4814	4474	4280	100	27	-4.59	983	725	3837	3781	55.52	69.108		
8800	4814	4472	4278	102	27	-4.64	983	724	3936	3880	55.55	70.852		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 602H - Slot 3
Project:	Betonnies Tsoie Unit	TVD Reference:	GL 6870' & RKB 14' @ 6884ft
Reference Site:	E03 2208 Pad	MD Reference:	GL 6870' & RKB 14' @ 6884ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: E03 2208 Pad - # 714H - Original drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF												Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
8900	4815	4450	4257	105	27	-5.23	980	717	4036	3980	55.32	72.944	
9000	4815	4450	4257	107	27	-5.23	980	717	4135	4079	55.38	74.661	
9100	4815	4450	4257	110	27	-5.23	980	717	4234	4178	55.43	76.377	
9200	4816	4450	4257	112	27	-5.23	980	717	4333	4277	55.48	78.092	
9300	4816	4450	4257	114	27	-5.23	980	717	4432	4377	55.54	79.806	
9400	4816	4450	4257	117	27	-5.23	980	717	4531	4476	55.59	81.518	
9500	4816	4450	4257	119	27	-5.23	980	717	4631	4575	55.64	83.228	
9600	4817	4450	4257	122	27	-5.23	980	717	4730	4674	55.69	84.938	
9700	4817	4450	4257	124	27	-5.23	980	717	4829	4774	55.74	86.645	
9800	4817	4450	4257	127	27	-5.23	980	717	4929	4873	55.79	88.350	
9900	4817	4450	4257	129	27	-5.23	980	717	5028	4972	55.83	90.054	
10,000	4818	4450	4257	131	27	-5.23	980	717	5127	5072	55.88	91.755	
10,100	4818	4450	4257	134	27	-5.23	980	717	5227	5171	55.93	93.455	
10,200	4818	4450	4257	136	27	-5.23	980	717	5326	5270	55.98	95.152	
10,300	4819	4450	4257	139	27	-5.23	980	717	5426	5370	56.03	96.846	
10,400	4819	4450	4257	141	27	-5.23	980	717	5525	5469	56.07	98.539	
10,500	4819	4450	4257	144	27	-5.23	980	717	5625	5569	56.12	100.229	
10,600	4819	4450	4257	146	27	-5.23	980	717	5724	5668	56.17	101.916	
10,700	4820	4450	4257	148	27	-5.23	980	717	5824	5768	56.22	103.600	
10,800	4820	4450	4257	151	27	-5.23	980	717	5924	5867	56.26	105.282	
10,900	4820	4450	4257	153	27	-5.23	980	717	6023	5967	56.31	106.962	
11,000	4821	4450	4257	156	27	-5.23	980	717	6123	6066	56.36	108.638	
11,100	4821	4450	4257	158	27	-5.23	980	717	6222	6166	56.41	110.311	
11,200	4821	4450	4257	161	27	-5.23	980	717	6322	6265	56.45	111.982	
11,300	4821	4450	4257	163	27	-5.23	980	717	6422	6365	56.50	113.649	
11,400	4822	4450	4257	166	27	-5.23	980	717	6521	6465	56.55	115.314	
11,500	4822	4450	4257	168	27	-5.23	980	717	6621	6564	56.60	116.975	
11,600	4822	4450	4257	170	27	-5.23	980	717	6720	6664	56.65	118.633	
11,700	4822	4450	4257	173	27	-5.23	980	717	6820	6763	56.70	120.288	
11,800	4823	4450	4257	175	27	-5.23	980	717	6920	6863	56.75	121.940	
11,900	4823	4450	4257	178	27	-5.23	980	717	7020	6963	56.80	123.588	
12,000	4823	4450	4257	180	27	-5.23	980	717	7119	7062	56.85	125.233	
12,100	4824	4450	4257	183	27	-5.23	980	717	7219	7162	56.90	126.874	
12,200	4824	4450	4257	185	27	-5.23	980	717	7319	7262	56.95	128.512	
12,300	4824	4450	4257	188	27	-5.23	980	717	7418	7361	57.00	130.147	
12,400	4824	4450	4257	190	27	-5.23	980	717	7518	7461	57.05	131.778	
12,500	4825	4450	4257	193	27	-5.23	980	717	7618	7561	57.10	133.405	
12,600	4825	4450	4257	195	27	-5.23	980	717	7718	7660	57.16	135.029	
12,700	4825	4450	4257	197	27	-5.23	980	717	7817	7760	57.21	136.649	
12,800	4825	4450	4257	200	27	-5.23	980	717	7917	7860	57.26	138.265	
12,900	4826	4450	4257	202	27	-5.23	980	717	8017	7960	57.31	139.878	
13,000	4826	4450	4257	205	27	-5.23	980	717	8117	8059	57.37	141.486	
13,100	4826	4450	4257	207	27	-5.23	980	717	8216	8159	57.42	143.091	
13,200	4827	4450	4257	210	27	-5.23	980	717	8316	8259	57.47	144.692	
13,300	4827	4450	4257	212	27	-5.23	980	717	8416	8358	57.53	146.290	
13,400	4827	4450	4257	215	27	-5.23	980	717	8516	8458	57.58	147.883	
13,500	4827	4450	4257	217	27	-5.23	980	717	8616	8558	57.64	149.472	
13,600	4828	4450	4257	220	27	-5.23	980	717	8715	8658	57.70	151.058	
13,700	4828	4450	4257	222	27	-5.23	980	717	8815	8757	57.75	152.639	
13,726	4828	4450	4257	223	27	-5.23	980	717	8841	8784	57.77	153.055	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 602H - Slot 3
Project:	Betonnies Tsois Unit	TVD Reference:	GL 6870' & RKB 14' @ 6884ft
Reference Site:	E03 2208 Pad	MD Reference:	GL 6870' & RKB 14' @ 6884ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: E03 2208 Pad - # 715H - Original drilling - APD														Offset Site Error:		0 ft
Survey Program:		0-MWD+IGRF						Rule Assigned:						Offset Well Error:		0 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance				Rule Assigned:		Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning			
0	0	0	0	0	0	29.14	17	10	20							
100	100	100	100	0	0	29.14	17	10	20	20	0.31	64.888				
200	200	200	200	1	1	29.14	17	10	20	19	1.03	19.512				
300	300	300	300	1	1	29.14	17	10	20	18	1.74	11.482				
375	375	375	375	1	1	29.14	17	10	20	18	2.28	8.774				
400	400	400	400	1	1	-16.19	18	10	20	18	2.46	8.125				
500	500	499	499	2	2	-24.08	20	9	19	16	3.17	6.114				
551	551	550	550	2	2	-32.41	22	8	19	16	3.53	5.428 CC				
600	600	599	599	2	2	-43.04	26	7	19	16	3.88	5.001 ES				
700	699	698	698	2	2	-68.54	32	5	21	16	4.61	4.547 SF				
800	798	798	797	3	3	-94.99	39	2	26	21	5.37	4.827				
900	897	896	896	3	3	-115.85	45	0	36	30	6.14	5.827				
1000	995	995	994	4	3	-129.92	52	-2	50	44	6.91	7.300				
1100	1092	1093	1091	4	4	-139.26	58	-5	69	62	7.68	9.039				
1200	1189	1189	1188	5	4	-145.68	64	-7	92	84	8.44	10.926				
1242	1229	1230	1228	5	4	-147.79	67	-8	103	94	8.76	11.746				
1300	1284	1286	1284	5	5	-150.31	71	-9	118	109	9.20	12.849				
1400	1380	1382	1380	6	5	-153.41	77	-11	145	135	9.95	14.562				
1500	1475	1478	1476	6	5	-155.54	83	-13	172	161	10.71	16.054				
1600	1571	1574	1571	7	6	-157.09	90	-16	199	188	11.47	17.359				
1700	1666	1670	1667	8	6	-158.28	96	-18	226	214	12.23	18.506				
1800	1761	1766	1763	8	6	-159.20	102	-20	254	241	12.99	19.521				
1900	1857	1862	1859	9	7	-159.95	109	-22	281	267	13.76	20.424				
2000	1952	1959	1955	10	7	-160.56	115	-25	308	294	14.53	21.232				
2100	2048	2055	2051	10	7	-161.08	121	-27	336	321	15.30	21.958				
2200	2143	2151	2147	11	8	-161.51	128	-29	363	347	16.07	22.615				
2300	2239	2247	2243	12	8	-161.89	134	-31	391	374	16.84	23.211				
2400	2334	2343	2339	12	9	-162.21	140	-33	418	401	17.61	23.755				
2500	2430	2439	2434	13	9	-162.50	147	-36	446	427	18.38	24.252				
2600	2525	2535	2530	14	9	-162.75	153	-38	473	454	19.16	24.709				
2700	2621	2631	2626	14	10	-162.97	159	-40	501	481	19.93	25.130				
2800	2716	2727	2722	15	10	-163.18	166	-42	528	508	20.71	25.520				
2900	2811	2824	2818	16	10	-163.36	172	-45	556	534	21.48	25.880				
3000	2907	2920	2914	16	11	-163.52	178	-47	583	561	22.26	26.216				
3100	3002	3016	3010	17	11	-163.67	185	-49	611	588	23.03	26.528				
3200	3098	3112	3106	18	11	-163.81	191	-51	639	615	23.81	26.820				
3300	3193	3208	3202	18	12	-163.93	197	-53	666	642	24.59	27.093				
3400	3289	3304	3297	19	12	-164.05	203	-56	694	668	25.36	27.349				
3500	3384	3400	3393	20	13	-164.15	210	-58	721	695	26.14	27.590				
3600	3480	3496	3489	20	13	-164.25	216	-60	749	722	26.92	27.817				
3700	3575	3593	3585	21	13	-164.34	222	-62	776	749	27.70	28.031				
3800	3671	3689	3681	22	14	-164.43	229	-65	804	775	28.47	28.233				
3900	3766	3785	3777	22	14	-164.51	235	-67	831	802	29.25	28.424				
4000	3861	3881	3873	23	14	-164.58	241	-69	859	829	30.03	28.605				
4100	3957	3977	3969	24	15	-164.65	248	-71	887	856	30.81	28.776				
4200	4052	4073	4064	24	15	-164.72	254	-73	914	883	31.59	28.939				
4300	4148	4200	4191	25	16	-165.14	258	-72	941	908	32.52	28.932				
4355	4201	4282	4272	25	16	-166.13	252	-63	954	921	32.95	28.944				
4400	4243	4344	4333	26	16	-153.96	243	-51	963	929	33.21	28.987				
4450	4291	4407	4392	26	16	-142.41	229	-35	971	938	33.44	29.047				
4500	4337	4460	4440	26	16	-133.39	214	-18	979	946	33.64	29.115				
4550	4383	4504	4478	27	16	-126.55	199	-2	987	954	33.82	29.196				



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 602H - Slot 3
Project:	Betonnies Tsois Unit	TVD Reference:	GL 6870' & RKB 14' @ 6884ft
Reference Site:	E03 2208 Pad	MD Reference:	GL 6870' & RKB 14' @ 6884ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: E03 2208 Pad - # 715H - Original drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF												Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
4600	4428	4539	4507	27	16	-121.26	187	12	996	962	33.99	29.305	
4650	4472	4565	4528	27	16	-116.99	176	23	1006	972	34.13	29.465	
4700	4513	4584	4543	27	16	-113.31	168	32	1017	983	34.24	29.694	
4750	4553	4597	4554	28	16	-109.98	162	38	1029	995	34.31	30.002	
4800	4591	4606	4560	28	16	-106.80	159	42	1044	1009	34.34	30.388	
4850	4626	4610	4563	28	16	-103.70	157	44	1059	1025	34.34	30.852	
4900	4658	4610	4564	28	16	-100.60	157	44	1077	1042	34.30	31.384	
4950	4688	4608	4562	29	16	-97.51	157	43	1095	1061	34.25	31.971	
5000	4715	4600	4556	29	16	-94.20	161	39	1115	1081	34.16	32.633	
5050	4738	4600	4556	29	16	-91.46	161	39	1135	1101	34.16	33.225	
5100	4758	4589	4547	30	16	-88.25	166	34	1156	1122	34.10	33.909	
5150	4775	4579	4540	30	16	-85.27	170	29	1178	1144	34.08	34.559	
5200	4788	4568	4531	30	16	-82.38	175	24	1199	1165	34.08	35.187	
5250	4797	4550	4516	31	16	-79.36	182	17	1221	1187	34.06	35.850	
5300	4803	4550	4516	31	16	-77.33	182	17	1242	1208	34.27	36.251	
5350	4805	4529	4499	31	16	-74.65	190	8	1263	1229	34.31	36.823	
5400	4805	4516	4488	32	16	-74.11	195	3	1285	1250	34.45	37.294	
5500	4805	4500	4474	33	16	-73.48	201	-4	1332	1297	34.89	38.162	
5600	4806	4469	4448	34	16	-72.23	211	-15	1383	1348	35.19	39.296	
5700	4806	4450	4431	35	16	-71.44	217	-21	1439	1403	35.62	40.400	
5800	4806	4433	4415	36	16	-70.74	222	-27	1499	1463	36.05	41.578	
5900	4807	4417	4401	38	16	-70.10	226	-32	1562	1526	36.48	42.835	
6000	4807	4400	4385	40	16	-69.38	231	-37	1629	1593	36.86	44.208	
6100	4807	4400	4385	42	16	-69.38	231	-37	1699	1662	37.37	45.477	
6200	4807	4380	4366	43	16	-68.55	235	-42	1772	1734	37.66	47.047	
6300	4808	4369	4356	45	16	-68.12	238	-45	1847	1809	38.01	48.584	
6400	4808	4350	4338	47	16	-67.32	242	-50	1924	1886	38.26	50.287	
6500	4808	4350	4338	49	16	-67.32	242	-50	2003	1964	38.63	51.841	
6600	4808	4350	4338	52	16	-67.32	242	-50	2083	2044	38.97	53.459	
6700	4809	4350	4338	54	16	-67.32	242	-50	2166	2126	39.28	55.131	
6800	4809	4329	4318	56	16	-66.46	245	-54	2249	2209	39.42	57.045	
6900	4809	4323	4312	58	16	-66.20	246	-56	2334	2294	39.65	58.861	
7000	4810	4300	4290	60	16	-65.27	250	-60	2420	2380	39.74	60.880	
7100	4810	4300	4290	62	16	-65.27	250	-60	2506	2466	39.97	62.697	
7200	4810	4300	4290	65	16	-65.27	250	-60	2594	2554	40.19	64.547	
7300	4810	4300	4290	67	16	-65.27	250	-60	2682	2642	40.38	66.425	
7400	4811	4300	4290	69	16	-65.27	250	-60	2772	2731	40.56	68.329	
7500	4811	4300	4290	72	16	-65.27	250	-60	2862	2821	40.73	70.256	
7600	4811	4300	4290	74	16	-65.27	250	-60	2952	2911	40.89	72.204	
7700	4811	4300	4290	76	16	-65.27	250	-60	3044	3002	41.03	74.169	
7800	4812	4300	4290	79	16	-65.27	250	-60	3135	3094	41.17	76.151	
7900	4812	4278	4268	81	16	-64.39	253	-64	3227	3186	41.20	78.335	
8000	4812	4275	4265	83	16	-64.26	253	-64	3320	3278	41.30	80.369	
8100	4813	4272	4262	86	16	-64.13	253	-65	3413	3371	41.41	82.413	
8200	4813	4250	4241	88	16	-63.26	256	-68	3506	3465	41.42	84.650	
8300	4813	4250	4241	90	16	-63.26	256	-68	3600	3558	41.53	86.682	
8400	4813	4250	4241	93	16	-63.26	256	-68	3694	3652	41.63	88.723	
8500	4814	4250	4241	95	16	-63.26	256	-68	3788	3746	41.73	90.771	
8600	4814	4250	4241	98	16	-63.26	256	-68	3883	3841	41.83	92.826	
8700	4814	4250	4241	100	16	-63.26	256	-68	3977	3935	41.92	94.887	
8800	4814	4250	4241	102	16	-63.26	256	-68	4072	4030	42.00	96.953	
8900	4815	4250	4241	105	16	-63.26	256	-68	4168	4126	42.09	99.024	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 602H - Slot 3
Project:	Betonnies Tsoie Unit	TVD Reference:	GL 6870' & RKB 14' @ 6884ft
Reference Site:	E03 2208 Pad	MD Reference:	GL 6870' & RKB 14' @ 6884ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: E03 2208 Pad - # 715H - Original drilling - APD											Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF											Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
9000	4815	4250	4241	107	16	-63.26	256	-68	4263	4221	42.17	101.098
9100	4815	4250	4241	110	16	-63.26	256	-68	4359	4317	42.25	103.175
9200	4816	4250	4241	112	16	-63.26	256	-68	4455	4412	42.32	105.255
9300	4816	4250	4241	114	16	-63.26	256	-68	4551	4508	42.40	107.336
9400	4816	4250	4241	117	16	-63.26	256	-68	4647	4605	42.47	109.419
9500	4816	4250	4241	119	16	-63.26	256	-68	4743	4701	42.54	111.504
9600	4817	4250	4241	122	16	-63.26	256	-68	4840	4797	42.61	113.589
9700	4817	4250	4241	124	16	-63.26	256	-68	4937	4894	42.68	115.674
9800	4817	4250	4241	127	16	-63.26	256	-68	5033	4991	42.74	117.759
9900	4817	4250	4241	129	16	-63.26	256	-68	5130	5087	42.81	119.844
10,000	4818	4250	4241	131	16	-63.26	256	-68	5227	5184	42.87	121.928
10,100	4818	4250	4241	134	16	-63.26	256	-68	5324	5282	42.94	124.011
10,200	4818	4250	4241	136	16	-63.26	256	-68	5422	5379	43.00	126.093
10,300	4819	4250	4241	139	16	-63.26	256	-68	5519	5476	43.06	128.173
10,400	4819	4250	4241	141	16	-63.26	256	-68	5617	5573	43.12	130.251
10,500	4819	4250	4241	144	16	-63.26	256	-68	5714	5671	43.18	132.328
10,600	4819	4227	4218	146	16	-62.35	257	-70	5811	5768	43.17	134.621
10,700	4820	4226	4217	148	16	-62.30	257	-70	5909	5866	43.22	136.704
10,800	4820	4225	4216	151	16	-62.26	257	-70	6007	5963	43.28	138.783
10,900	4820	4224	4215	153	16	-62.22	257	-70	6104	6061	43.34	140.859
11,000	4821	4223	4214	156	16	-62.18	257	-71	6202	6159	43.39	142.932
11,100	4821	4200	4191	158	16	-61.30	258	-72	6301	6257	43.38	145.238
11,200	4821	4200	4191	161	16	-61.30	258	-72	6399	6355	43.44	147.295
11,300	4821	4200	4191	163	16	-61.30	258	-72	6497	6453	43.50	149.348
11,400	4822	4200	4191	166	16	-61.30	258	-72	6595	6551	43.56	151.398
11,500	4822	4200	4191	168	16	-61.30	258	-72	6693	6649	43.62	153.443
11,600	4822	4200	4191	170	16	-61.30	258	-72	6791	6747	43.68	155.485
11,700	4822	4200	4191	173	16	-61.30	258	-72	6889	6845	43.73	157.523
11,800	4823	4200	4191	175	16	-61.30	258	-72	6988	6944	43.79	159.556
11,900	4823	4200	4191	178	16	-61.30	258	-72	7086	7042	43.85	161.585
12,000	4823	4200	4191	180	16	-61.30	258	-72	7184	7140	43.91	163.610
12,100	4824	4200	4191	183	16	-61.30	258	-72	7283	7239	43.97	165.630
12,200	4824	4200	4191	185	16	-61.30	258	-72	7381	7337	44.03	167.646
12,300	4824	4200	4191	188	16	-61.30	258	-72	7480	7436	44.09	169.656
12,400	4824	4200	4191	190	16	-61.30	258	-72	7578	7534	44.15	171.662
12,500	4825	4200	4191	193	16	-61.30	258	-72	7677	7633	44.21	173.662
12,600	4825	4200	4191	195	16	-61.30	258	-72	7775	7731	44.26	175.658
12,700	4825	4200	4191	197	16	-61.30	258	-72	7874	7830	44.32	177.648
12,800	4825	4200	4191	200	16	-61.30	258	-72	7973	7928	44.38	179.634
12,900	4826	4200	4191	202	16	-61.30	258	-72	8072	8027	44.44	181.613
13,000	4826	4200	4191	205	16	-61.30	258	-72	8170	8126	44.50	183.588
13,100	4826	4200	4191	207	16	-61.30	258	-72	8269	8225	44.56	185.556
13,200	4827	4200	4191	210	16	-61.30	258	-72	8368	8323	44.62	187.520
13,300	4827	4200	4191	212	16	-61.30	258	-72	8467	8422	44.68	189.477
13,400	4827	4200	4191	215	16	-61.30	258	-72	8566	8521	44.75	191.429
13,500	4827	4200	4191	217	16	-61.30	258	-72	8665	8620	44.81	193.375
13,600	4828	4200	4191	220	16	-61.30	258	-72	8763	8719	44.87	195.315
13,700	4828	4200	4191	222	16	-61.30	258	-72	8862	8817	44.93	197.249
13,726	4828	4200	4191	223	16	-61.30	258	-72	8888	8844	44.95	197.758



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 602H - Slot 3
Project:	Betonnies Tsois Unit	TVD Reference:	GL 6870' & RKB 14' @ 6884ft
Reference Site:	E03 2208 Pad	MD Reference:	GL 6870' & RKB 14' @ 6884ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: E03 2208 Pad - # 716H - Original drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0	0	0	0	0	0	-150.86	-17	-10	20					
100	100	100	100	0	0	-150.86	-17	-10	20	20	0.31	64.888		
200	200	200	200	1	1	-150.86	-17	-10	20	19	1.03	19.512		
300	300	300	300	1	1	-150.86	-17	-10	20	18	1.74	11.482		
300	300	300	300	1	1	-150.86	-17	-10	20	18	1.74	11.477 CC		
375	375	375	375	1	1	-150.58	-17	-10	20	18	2.28	8.801 ES		
400	400	400	400	1	1	165.33	-17	-10	20	18	2.45	8.265		
500	500	499	499	2	2	174.25	-17	-14	25	21	3.16	7.770 SF		
600	600	598	598	2	2	-175.29	-16	-20	35	31	3.88	9.029		
700	699	695	694	2	2	-167.96	-15	-30	52	48	4.60	11.335		
800	798	791	789	3	3	-163.47	-14	-43	76	70	5.31	14.218		
900	897	887	884	3	3	-161.31	-13	-57	103	97	6.04	17.095		
1000	995	982	978	4	3	-160.48	-11	-71	134	127	6.77	19.815		
1100	1092	1076	1071	4	4	-160.27	-10	-85	168	161	7.50	22.416		
1200	1189	1169	1163	5	4	-160.38	-8	-98	205	197	8.24	24.906		
1242	1229	1208	1202	5	4	-160.48	-8	-104	222	213	8.55	25.918		
1300	1284	1261	1254	5	5	-160.77	-7	-112	245	236	8.98	27.267		
1400	1380	1353	1345	6	5	-161.15	-6	-125	285	275	9.71	29.318		
1500	1475	1444	1436	6	6	-161.45	-4	-138	325	314	10.45	31.065		
1600	1571	1536	1526	7	6	-161.67	-3	-152	364	353	11.19	32.567		
1700	1666	1628	1617	8	6	-161.86	-2	-165	404	392	11.94	33.872		
1800	1761	1719	1708	8	7	-162.01	0	-178	444	432	12.69	35.014		
1900	1857	1811	1798	9	7	-162.13	1	-191	484	471	13.44	36.022		
2000	1952	1903	1889	10	8	-162.24	3	-205	524	510	14.20	36.917		
2100	2048	1994	1980	10	8	-162.33	4	-218	564	549	14.95	37.717		
2200	2143	2086	2070	11	8	-162.41	5	-231	604	588	15.71	38.436		
2300	2239	2178	2161	12	9	-162.48	7	-245	644	627	16.47	39.085		
2400	2334	2269	2252	12	9	-162.54	8	-258	684	667	17.23	39.674		
2500	2430	2361	2343	13	10	-162.59	9	-271	724	706	18.00	40.211		
2600	2525	2453	2433	14	10	-162.64	11	-285	764	745	18.76	40.702		
2700	2621	2545	2524	14	10	-162.69	12	-298	804	784	19.53	41.153		
2800	2716	2636	2615	15	11	-162.73	13	-311	843	823	20.29	41.568		
2900	2811	2728	2705	16	11	-162.76	15	-325	883	862	21.06	41.952		
3000	2907	2820	2796	16	12	-162.80	16	-338	923	901	21.82	42.307		
3100	3002	2911	2887	17	12	-162.83	18	-351	963	941	22.59	42.638		
3200	3098	3003	2978	18	13	-162.85	19	-365	1003	980	23.36	42.945		
3300	3193	3095	3068	18	13	-162.88	20	-378	1043	1019	24.13	43.232		
3400	3289	3186	3159	19	13	-162.90	22	-391	1083	1058	24.90	43.501		
3500	3384	3278	3250	20	14	-162.93	23	-405	1123	1097	25.66	43.753		
3600	3480	3370	3340	20	14	-162.95	24	-418	1163	1136	26.43	43.989		
3700	3575	3461	3431	21	15	-162.97	26	-431	1203	1176	27.20	44.212		
3800	3671	3553	3522	22	15	-162.98	27	-444	1243	1215	27.97	44.422		
3900	3766	3645	3612	22	15	-163.00	29	-458	1283	1254	28.74	44.620		
4000	3861	3736	3703	23	16	-163.02	30	-471	1323	1293	29.52	44.807		
4100	3957	3828	3794	24	16	-163.03	31	-484	1362	1332	30.29	44.984		
4200	4052	3920	3885	24	17	-163.05	33	-498	1402	1371	31.06	45.152		
4300	4148	4011	3975	25	17	-163.06	34	-511	1442	1410	31.83	45.311		
4355	4201	4062	4025	25	17	-163.07	35	-518	1464	1432	32.26	45.396		
4400	4243	4103	4066	26	18	-148.86	35	-524	1482	1449	32.61	45.444		
4450	4291	4149	4112	26	18	-134.80	36	-531	1500	1467	33.01	45.451		
4500	4337	4195	4157	26	18	-123.33	37	-538	1518	1484	33.42	45.411		
4550	4383	4241	4202	27	18	-114.38	37	-544	1534	1500	33.84	45.329		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 602H - Slot 3
Project:	Betonnies Tsois Unit	TVD Reference:	GL 6870' & RKB 14' @ 6884ft
Reference Site:	E03 2208 Pad	MD Reference:	GL 6870' & RKB 14' @ 6884ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: E03 2208 Pad - # 716H - Original drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
4600	4428	4270	4231	27	18	-107.30	38	-549	1549	1515	34.13	45.377		
4650	4472	4300	4261	27	18	-101.76	39	-554	1563	1529	34.44	45.388		
4700	4513	4300	4261	27	18	-96.87	39	-554	1577	1542	34.49	45.725		
4750	4553	4329	4289	28	19	-93.35	40	-560	1590	1555	34.82	45.668		
4800	4591	4350	4309	28	19	-90.36	41	-565	1603	1568	35.09	45.680		
4850	4626	4350	4309	28	19	-87.47	41	-565	1615	1580	35.16	45.941		
4900	4658	4378	4336	28	19	-85.63	43	-573	1627	1591	35.56	45.739		
4950	4688	4400	4357	29	19	-84.01	45	-579	1638	1602	35.92	45.584		
5000	4715	4400	4357	29	19	-82.17	45	-579	1648	1612	36.06	45.695		
5050	4738	4424	4380	29	19	-81.20	47	-588	1657	1621	36.55	45.346		
5100	4758	4450	4403	30	19	-80.51	50	-598	1666	1629	37.10	44.915		
5150	4775	4450	4403	30	19	-79.35	50	-598	1675	1637	37.36	44.819		
5200	4788	4466	4418	30	19	-78.82	52	-604	1682	1644	37.90	44.383		
5250	4797	4479	4429	31	20	-78.37	53	-610	1689	1651	38.44	43.941		
5300	4803	4500	4448	31	20	-78.33	56	-619	1696	1657	39.16	43.305		
5350	4805	4500	4448	31	20	-77.83	56	-619	1701	1662	39.60	42.963		
5400	4805	4514	4460	32	20	-78.25	58	-625	1707	1667	40.29	42.376		
5500	4805	4539	4481	33	20	-79.00	62	-638	1723	1682	41.70	41.328		
5600	4806	4567	4505	34	20	-79.84	67	-653	1744	1701	43.24	40.342		
5700	4806	4600	4531	35	21	-80.76	73	-671	1770	1725	44.88	39.431		
5800	4806	4639	4561	36	21	-81.81	81	-695	1799	1753	46.68	38.540		
5900	4807	4684	4594	38	22	-82.95	91	-724	1832	1784	48.63	37.680		
6000	4807	4736	4629	40	22	-84.18	103	-760	1869	1818	50.77	36.804		
6100	4807	4797	4666	42	23	-85.45	119	-806	1907	1854	53.17	35.875		
6200	4807	4868	4703	43	24	-86.69	140	-863	1948	1892	55.90	34.850		
6300	4808	4948	4736	45	26	-87.80	165	-931	1990	1931	59.01	33.722		
6400	4808	5037	4762	47	27	-88.64	195	-1011	2032	1970	62.53	32.500		
6500	4808	5133	4776	49	29	-89.10	228	-1100	2075	2008	66.39	31.249		
6600	4808	5228	4778	52	31	-89.16	263	-1188	2117	2047	70.32	30.105		
6700	4809	5318	4778	54	33	-89.16	295	-1273	2159	2085	74.21	29.092		
6800	4809	5409	4777	56	35	-89.16	328	-1357	2201	2123	78.20	28.146		
6900	4809	5500	4777	58	37	-89.16	361	-1442	2243	2161	82.27	27.266		
7000	4810	5590	4777	60	39	-89.16	394	-1526	2285	2199	86.41	26.448		
7100	4810	5681	4776	62	41	-89.16	426	-1611	2327	2237	90.61	25.688		
7200	4810	5772	4776	65	43	-89.16	459	-1695	2370	2275	94.85	24.983		
7300	4810	5862	4776	67	46	-89.17	492	-1780	2412	2313	99.14	24.327		
7400	4811	5953	4775	69	48	-89.17	525	-1865	2454	2350	103.46	23.718		
7500	4811	6044	4775	72	50	-89.17	557	-1949	2496	2388	107.81	23.151		
7600	4811	6135	4775	74	52	-89.17	590	-2034	2538	2426	112.20	22.622		
7700	4811	6225	4774	76	55	-89.17	623	-2118	2580	2464	116.61	22.128		
7800	4812	6316	4774	79	57	-89.17	656	-2203	2622	2501	121.04	21.666		
7900	4812	6407	4774	81	59	-89.17	688	-2287	2664	2539	125.49	21.233		
8000	4812	6497	4774	83	61	-89.17	721	-2372	2707	2577	129.95	20.827		
8100	4813	6588	4773	86	64	-89.17	754	-2457	2749	2614	134.44	20.446		
8200	4813	7200	4772	88	79	-89.17	1020	-3006	2790	2631	158.24	17.629		
8300	4813	8233	4774	90	103	-89.17	1710	-3768	2785	2601	183.57	15.172		
8400	4813	8333	4774	93	105	-89.17	1788	-3831	2776	2588	188.33	14.743		
8500	4814	8432	4774	95	108	-89.17	1865	-3894	2768	2575	193.09	14.334		
8600	4814	8532	4775	98	110	-89.17	1942	-3956	2759	2561	197.85	13.945		
8700	4814	8632	4775	100	112	-89.17	2020	-4019	2750	2548	202.63	13.574		
8800	4814	8731	4775	102	114	-89.17	2097	-4081	2742	2534	207.40	13.220		
8900	4815	8831	4776	105	116	-89.17	2175	-4144	2733	2521	212.18	12.881		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 602H - Slot 3
Project:	Betonnies Tsoie Unit	TVD Reference:	GL 6870' & RKB 14' @ 6884ft
Reference Site:	E03 2208 Pad	MD Reference:	GL 6870' & RKB 14' @ 6884ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: E03 2208 Pad - # 716H - Original drilling - APD												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)			
9000	4815	8931	4776	107	118	-89.17	2252	-4207	2725	2508	216.97	12.557	
9100	4815	9030	4777	110	121	-89.16	2330	-4269	2716	2494	221.76	12.247	
9200	4816	9130	4777	112	123	-89.16	2407	-4332	2707	2481	226.55	11.950	
9300	4816	9229	4777	114	125	-89.16	2485	-4395	2699	2467	231.35	11.665	
9400	4816	9329	4778	117	127	-89.16	2562	-4457	2690	2454	236.15	11.391	
9500	4816	9429	4778	119	129	-89.16	2640	-4520	2681	2440	240.95	11.128	
9600	4817	9528	4778	122	132	-89.16	2717	-4583	2673	2427	245.75	10.875	
9700	4817	9628	4779	124	134	-89.16	2795	-4645	2664	2413	250.56	10.632	
9800	4817	9728	4779	127	136	-89.16	2872	-4708	2655	2400	255.37	10.398	
9900	4817	9827	4779	129	138	-89.16	2950	-4770	2647	2387	260.18	10.173	
10,000	4818	9927	4780	131	141	-89.16	3027	-4833	2638	2373	265.00	9.955	
10,100	4818	10,026	4780	134	143	-89.16	3104	-4896	2629	2360	269.81	9.745	
10,200	4818	10,126	4781	136	145	-89.16	3182	-4958	2621	2346	274.63	9.543	
10,300	4819	10,226	4781	139	147	-89.16	3259	-5021	2612	2333	279.45	9.347	
10,400	4819	10,325	4781	141	150	-89.16	3337	-5084	2604	2319	284.28	9.158	
10,500	4819	10,425	4782	144	152	-89.16	3414	-5146	2595	2306	289.10	8.976	
10,600	4819	10,525	4782	146	154	-89.16	3492	-5209	2586	2292	293.93	8.799	
10,700	4820	10,624	4782	148	157	-89.16	3569	-5272	2578	2279	298.75	8.628	
10,800	4820	10,724	4783	151	159	-89.15	3647	-5334	2569	2265	303.58	8.462	
10,900	4820	10,775	4783	153	160	-89.15	3687	-5367	2561	2253	307.97	8.315	
11,000	4821	10,775	4783	156	160	-89.15	3687	-5367	2556	2244	311.57	8.203	
11,073	4821	10,775	4783	158	160	-89.15	3687	-5367	2555	2241	313.92	8.139	
11,100	4821	10,775	4783	158	160	-89.15	3687	-5367	2555	2240	314.71	8.119	
11,200	4821	10,775	4783	161	160	-89.15	3687	-5367	2558	2241	317.38	8.060	
11,300	4821	10,775	4783	163	160	-89.15	3687	-5367	2565	2245	319.56	8.026	
11,400	4822	10,775	4783	166	160	-89.15	3687	-5367	2576	2254	321.26	8.017	
11,500	4822	10,775	4783	168	160	-89.15	3687	-5367	2590	2268	322.48	8.032	
11,600	4822	10,775	4783	170	160	-89.15	3687	-5367	2609	2285	323.24	8.070	
11,700	4822	10,775	4783	173	160	-89.15	3687	-5367	2631	2307	323.53	8.131	
11,800	4823	10,775	4783	175	160	-89.15	3687	-5367	2656	2333	323.40	8.213	
11,900	4823	10,775	4783	178	160	-89.15	3687	-5367	2685	2362	322.86	8.317	
12,000	4823	10,775	4783	180	160	-89.15	3687	-5367	2718	2396	321.94	8.442	
12,100	4824	10,775	4783	183	160	-89.15	3687	-5367	2753	2433	320.67	8.587	
12,200	4824	10,775	4783	185	160	-89.15	3687	-5367	2792	2473	319.08	8.751	
12,300	4824	10,775	4783	188	160	-89.15	3687	-5367	2834	2517	317.21	8.935	
12,400	4824	10,775	4783	190	160	-89.15	3687	-5367	2879	2564	315.08	9.137	
12,500	4825	10,775	4783	193	160	-89.15	3687	-5367	2926	2614	312.74	9.357	
12,600	4825	10,775	4783	195	160	-89.15	3687	-5367	2976	2666	310.21	9.595	
12,700	4825	10,775	4783	197	160	-89.15	3687	-5367	3029	2721	307.51	9.849	
12,800	4825	10,775	4783	200	160	-89.15	3687	-5367	3084	2779	304.68	10.121	
12,900	4826	10,775	4783	202	160	-89.15	3687	-5367	3141	2839	301.75	10.409	
13,000	4826	10,775	4783	205	160	-89.15	3687	-5367	3200	2901	298.72	10.712	
13,100	4826	10,775	4783	207	160	-89.15	3687	-5367	3261	2966	295.64	11.031	
13,200	4827	10,775	4783	210	160	-89.15	3687	-5367	3324	3032	292.50	11.365	
13,300	4827	10,775	4783	212	160	-89.15	3687	-5367	3389	3100	289.34	11.713	
13,400	4827	10,775	4783	215	160	-89.15	3687	-5367	3456	3169	286.16	12.076	
13,500	4827	10,775	4783	217	160	-89.15	3687	-5367	3524	3241	282.98	12.452	
13,600	4828	10,775	4783	220	160	-89.15	3687	-5367	3593	3313	279.81	12.842	
13,700	4828	10,775	4783	222	160	-89.15	3687	-5367	3664	3388	276.66	13.245	
13,726	4828	10,775	4783	223	160	-89.15	3687	-5367	3683	3407	275.83	13.353	



Lonestar Consulting, LLC

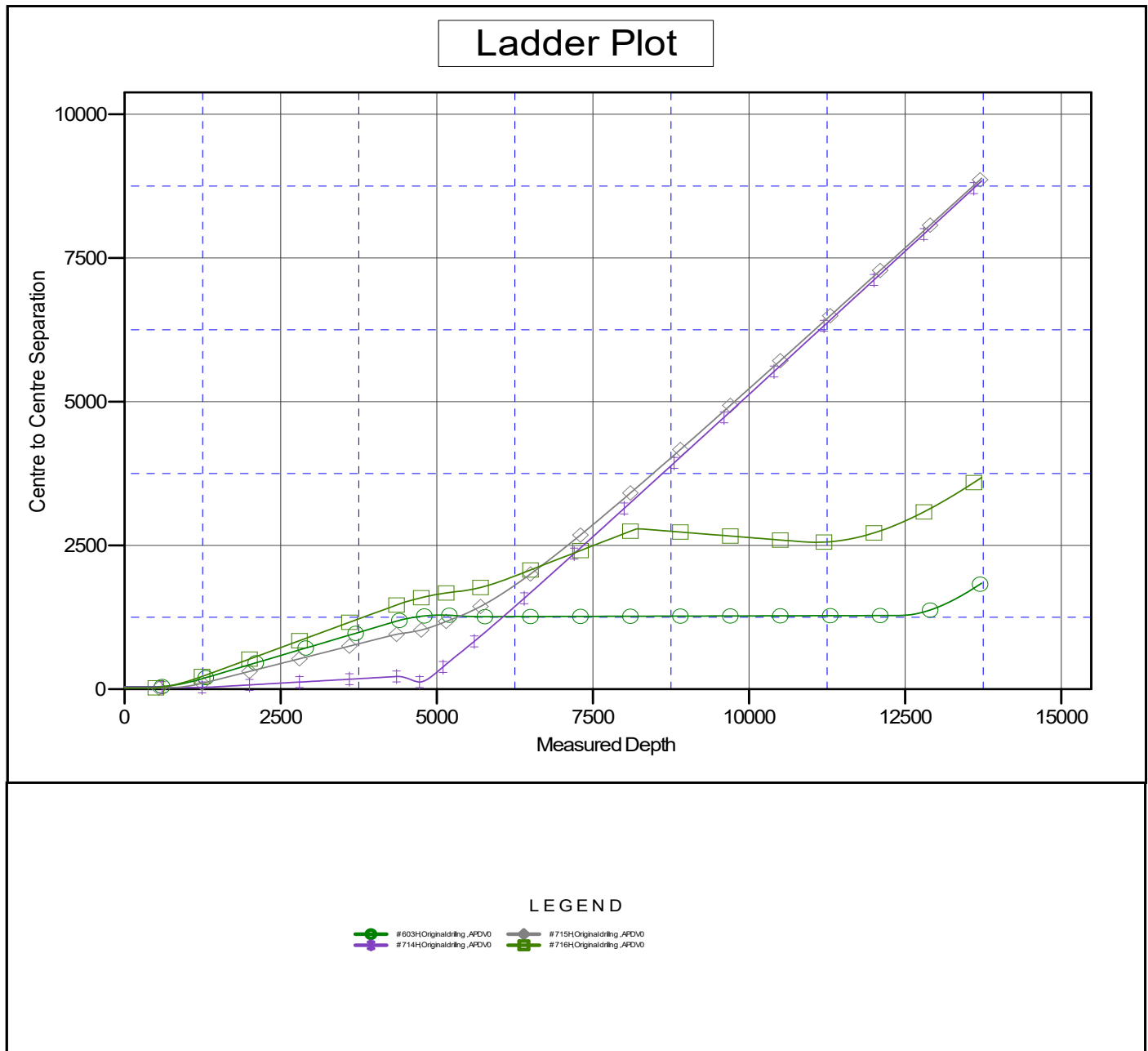
Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 602H - Slot 3
Project:	Betonnies Tsosie Unit	TVD Reference:	GL 6870' & RKB 14' @ 6884ft
Reference Site:	E03 2208 Pad	MD Reference:	GL 6870' & RKB 14' @ 6884ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	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: # 602H - Slot 3
 Coordinate System is US State Plane 1983, New Mexico Western Zone
 Grid Convergence at Surface is: 0.09°





Lonestar Consulting, LLC
Anticollision Report

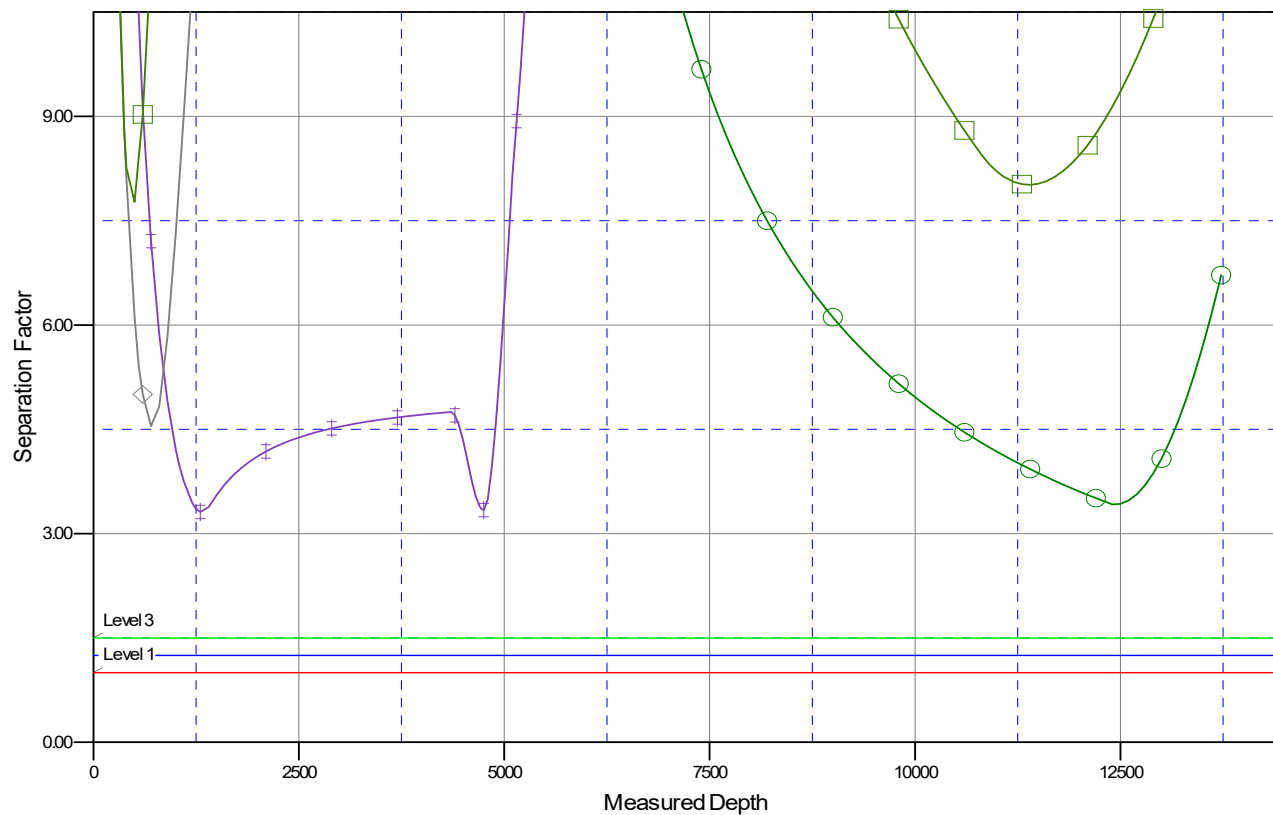


Company:	DJR Operating	Local Co-ordinate Reference:	Well # 602H - Slot 3
Project:	Betonne Tsoie Unit	TVD Reference:	GL 6870' & RKB 14' @ 6884ft
Reference Site:	E03 2208 Pad	MD Reference:	GL 6870' & RKB 14' @ 6884ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	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: # 602H - Slot 3
Coordinate System is US State Plane 1983, New Mexico Western Zone
Grid Convergence at Surface is: 0.09°

Separation Factor Plot



LEGEND

● #603HOriginaldrilling_AFDVD
■ #714HOriginaldrilling_AFDVD
◆ #715HOriginaldrilling_AFDVD
■ #716HOriginaldrilling_AFDVD

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_x 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
#602H 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: SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 28 T.23 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 125856

CONDITIONS

Operator: DJR OPERATING, LLC 1 Road 3263 Aztec, NM 87410	OGRID:
	371838
	Action Number:
	125856
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