

Form 3160-3
(June 2015)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NMNM109385
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: ☐ Hydraulic Fracturing ☒ Single Zone ☐ Multiple Zone		7. If Unit or CA Agreement, Name and No. VENADO CANYON UNIT / NMNM 1353
2. Name of Operator DJR OPERATING LLC		8. Lease Name and Well No. VENADO CANYON UNIT 507H
3a. Address 1700 LINCOLN STREET, SUITE 2800, DENVER, CO 802	3b. Phone No. (include area code) (505) 632-3476	9. API Well No. 30-043-21408
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SWSE / 1178 FSL / 1343 FEL / LAT 36.1480903 / LONG -107.4339019 At proposed prod. zone SENE / 2233 FNL / 91 FEL / LAT 36.153673 / LONG -107.447228		10. Field and Pool, or Exploratory BASIN MANCOS/LYBROOK GALLUP
14. Distance in miles and direction from nearest town or post office* 60 miles		11. Sec., T. R. M. or Blk. and Survey or Area SEC 11/T22N/R6W/NMP
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1178 feet	16. No of acres in lease 360.0	12. County or Parish SANDOVAL
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 20 feet	19. Proposed Depth 4936 feet / 9919 feet	13. State NM
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 7075 feet	22. Approximate date work will start* 05/09/2021	17. Spacing Unit dedicated to this well 360.0
24. Attachments		20. BLM/BIA Bond No. in file FED: NMB001464
23. Estimated duration 10 days		
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 (Electronic Submission)	Name (Printed/Typed) SHAW-MARIE FORD / Ph: (505) 632-3476	Date 11/10/2020
Title Regulatory Specialist		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) DAVE J MANKIEWICZ / Ph: (505) 564-7761	Date 02/17/2022
Title AFM-Minerals Office Farmington Field 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.		

APPROVED WITH CONDITIONS
Approval Date: 02/17/2022

(Continued on page 2)

*(Instructions on page 2)

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

DISTRICT II
611 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

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-043-21408	² Pool Code 42289	³ Pool Name LYBROOK GALLUP
⁴ Property Code 325271	⁵ Property Name VENADO CANYON UNIT	⁶ Well Number 507H
⁷ OGRID No. 371838	⁸ Operator Name DJR OPERATING, LLC	⁹ Elevation 7075

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
O	11	22-N	6-W		1178	SOUTH	1343	EAST	SANDOVAL

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
H	10	22-N	6-W		2233	NORTH	91	EAST	SANDOVAL

¹² Dedicated Acres SEE DETAIL BELOW	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-14067 R-14067A
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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

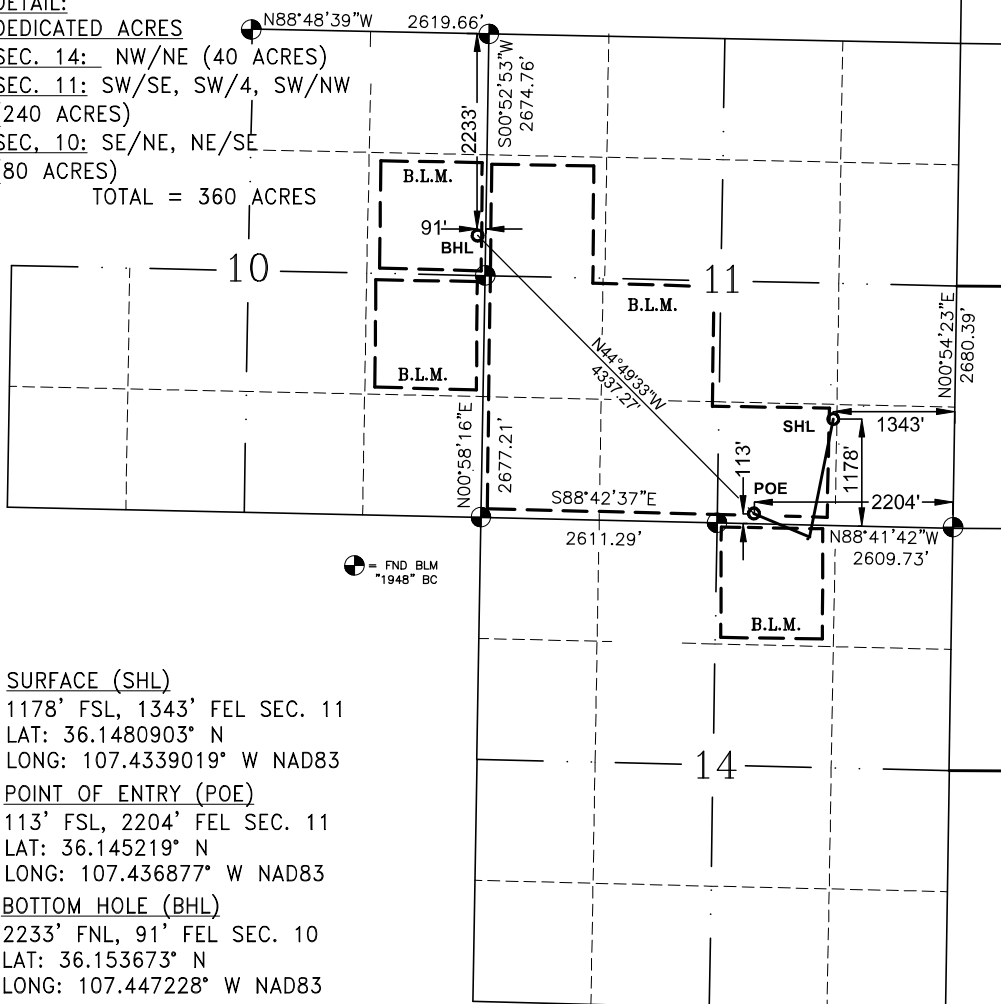
DETAIL:

DEDICATED ACRES

SEC. 14: NW/NE (40 ACRES)

SEC. 11: SW/SE, SW/4, SW/NW
(240 ACRES)SEC. 10: SE/NE, NE/SE
(80 ACRES)

TOTAL = 360 ACRES



SURFACE (SHL)

1178' FSL, 1343' FEL SEC. 11

LAT: 36.1480903° N

LONG: 107.4339019° W NAD83

POINT OF ENTRY (POE)

113' FSL, 2204' FEL SEC. 11

LAT: 36.145219° N

LONG: 107.436877° W NAD83

BOTTOM HOLE (BHL)

2233' FNL, 91' FEL SEC. 10

LAT: 36.153673° N

LONG: 107.447228° W NAD83

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 a working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Shaw-Marie Ford 6/1/21
Signature Date

Shaw-Marie Ford

Printed Name

sford@djrlc.com

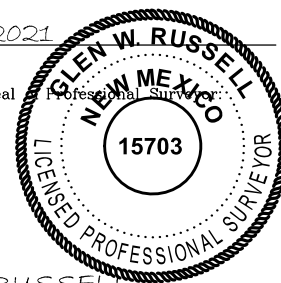
E-mail Address

18 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.

MAY 17, 2021
Date of Survey

Signature and Seal



GLEN W. RUSSELL

Certificate Number

15703

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:** _02 / 23 / 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
Venado Canyon Unit 504H	TBD	O-11-22N-06W	1087 FSL x 1405 FEL	280	415	100
Venado Canyon Unit 505H	TBD	O-11-22N-06W	1070 FSL x 1416 FEL	445	660	160
Venado Canyon Unit 506H	TBD	O-11-22N-06W	1104 FSL x 1395 FEL	450	660	160
Venado Canyon Unit 507H	TBD	O-11-22N-06W	1054 FSL x 1427 FEL	280	420	100
Venado Canyon Unit 508H	TBD	O-11-22N-06W	1139 FSL x 1374 FEL	430	640	150
Venado Canyon Unit 509H	TBD	O-11-22N-06W	1121 FSL x 1383 FEL	340	500	120

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
Venado Canyon Unit 504H	TBD	06/03/2022	06/13/2022	10/07/2022	11/01/2022	11/01/2022
Venado Canyon Unit 505H	TBD	05/10/2022	05/20/2022	09/25/2022	11/01/2022	11/01/2022
Venado Canyon Unit 506H	TBD	05/26/2022	06/05/2022	10/03/2022	11/01/2022	11/01/2022
Venado Canyon Unit 507H	TBD	05/19/2022	05/29/2022	09/29/2022	11/01/2022	11/01/2022
Venado Canyon Unit 508H	TBD	06/12/2022	06/22/2022	10/11/2022	11/01/2022	11/01/2022
Venado Canyon Unit 509H	TBD	06/21/2022	07/01/2022	10/15/2022	11/01/2022	11/01/2022

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: 02/23/2022
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
VENADO CANYON UNIT 504H, 505H, 506H, 507H, 508H, 509H
SWSE O-11-22N-06W

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 separators will be set for each individual well.
- The separators 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 separators will each 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 each 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 separators.
- Oil will be separated from the produced water and the 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
VENADO CANYON UNIT 504H, 505H, 506H, 507H, 508H, 509H
SWSE O-11-22N-06W

VENTING and FLARING

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

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

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

DJR will only flare gas during the following times:

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



DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
VENADO CANYON UNIT 504H, 505H, 506H, 507H, 508H, 509H
SWSE O-11-22N-06W

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
VENADO CANYON UNIT 504H, 505H, 506H, 507H, 508H, 509H
SWSE O-11-22N-06W

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

Venado Canyon #507H

Sandoval County, New Mexico

Surface Location

1343-ft FEL & 1178-ft FSL
 Sec 11 T22N R06W
 Graded Elevation 7075' MSL
 RKB Elevation 7089' (14' KB)

SHL Geographical Coordinates (NAD-83)

Latitude 36.1480903° N
 Longitude 107.4339019° W

Kick Off Point for Horizontal Build Curve

4445-ft MD
 4192-ft TVD

Local Coordinates (from SHL)

1306-ft South
 261-ft West

Heel Location (Pay zone entry)

2204-ft FEL & 1113-ft FSL
 Sec 11 T22N R6W

Heel Geographical Coordinates (NAD-83)

Latitude 36.14521919° N
 Longitude 107.43687673° W

Bottom Hole Location (TD)

91-ft FEL & 2233-ft FNL
 Sec 10 T22N R6W

BHL Geographical Coordinates (NAD-83)

Latitude 36.1536732° N
 Longitude 107.4472276° W

Well objectives

This well is planned as a 4340-ft lateral in the Mancos Silt sand.

Bottom Hole temperature and pressure

The temperature in the Mancos Silt horizontal objective is 137°F. Bottom hole pressure in the Mancos Silt is forecast to be 1985 psi.

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

Name	MD (ft)	TVD (ft)	Lithology	Pore fluid	Expected Pore Pressure (ppg)	Planned Mud Weight (ppg)
Ojo Alamo	1293	1281	Sd	W	8.3	8.4 – 8.8
Kirtland	1450	1430	Sh	-	8.3	8.4 – 8.8
Fruitland	1689	1651	C	G	8.3	9.0 - 9.5
Pictured Cliffs	1900	1846	Sd	W	8.3	9.0 - 9.5
Lewis	2001	1939	Sh	-		9.0 - 9.5
Chacra	2775	2652	Sd	-	8.3	9.0 - 9.5
Menefee	3509	3329	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	4346	4100	Sd	-	8.3	9.0 - 9.5
Mancos	4501	4244	Sh	-		9.0 - 9.5
Mancos Silt	4895	4604	Slt	O/G	6.6	9.0 - 9.5
Gallup A	NP	NP	Slt	O/G	6.6	9.0 - 9.5
Gallup B	NP	NP	Sd	O/G	6.6	8.8 - 9.0
Gallup C	NP	NP	Sd	O/G	6.6	8.8 - 9.0
Target	5582	4923	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	5525	surf	4920	surface
4-1/2"	6-1/8"	11.6	P-110	BTC	5229	9919	4832	4936	5229

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 Design

9-5/8" Surface Casing

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

7" Intermediate Casing

	Lead	Tail
	BJ Services	BJ Services
Type	III	Poz/G
Planned top	Surface	3945-ft
Density (ppg)	12.30	13.50
Yield (cf/sx)	2.34	1.50
Mix water (gal/sx)	13.26	7.20
Volume (sx)	383	252
Volume (bbls)	160	67
Volume (cu.ft.)	896	377
Excess %	50	50



Rev 1

4-1/2" Production Liner

	BJ Services
Type	Poz/G
Planned top	5229-ft
Density (ppg)	13.3
Yield (cf/sx)	1.56
Mix water (gal/sx)	7.71
Volume (sx)	393
Volume (bbls)	109
Volume (cu.ft)	614
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 – 5525	9.0 – 9.5	38 – 45	8 – 14	<20
Production	Low solids, non-dispersed	5525 – 9919	8.8 – 9.2	34 – 38	6 – 8	6 – 8

Cores, tests and logs

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

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

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

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

Cuttings and drilling fluids management

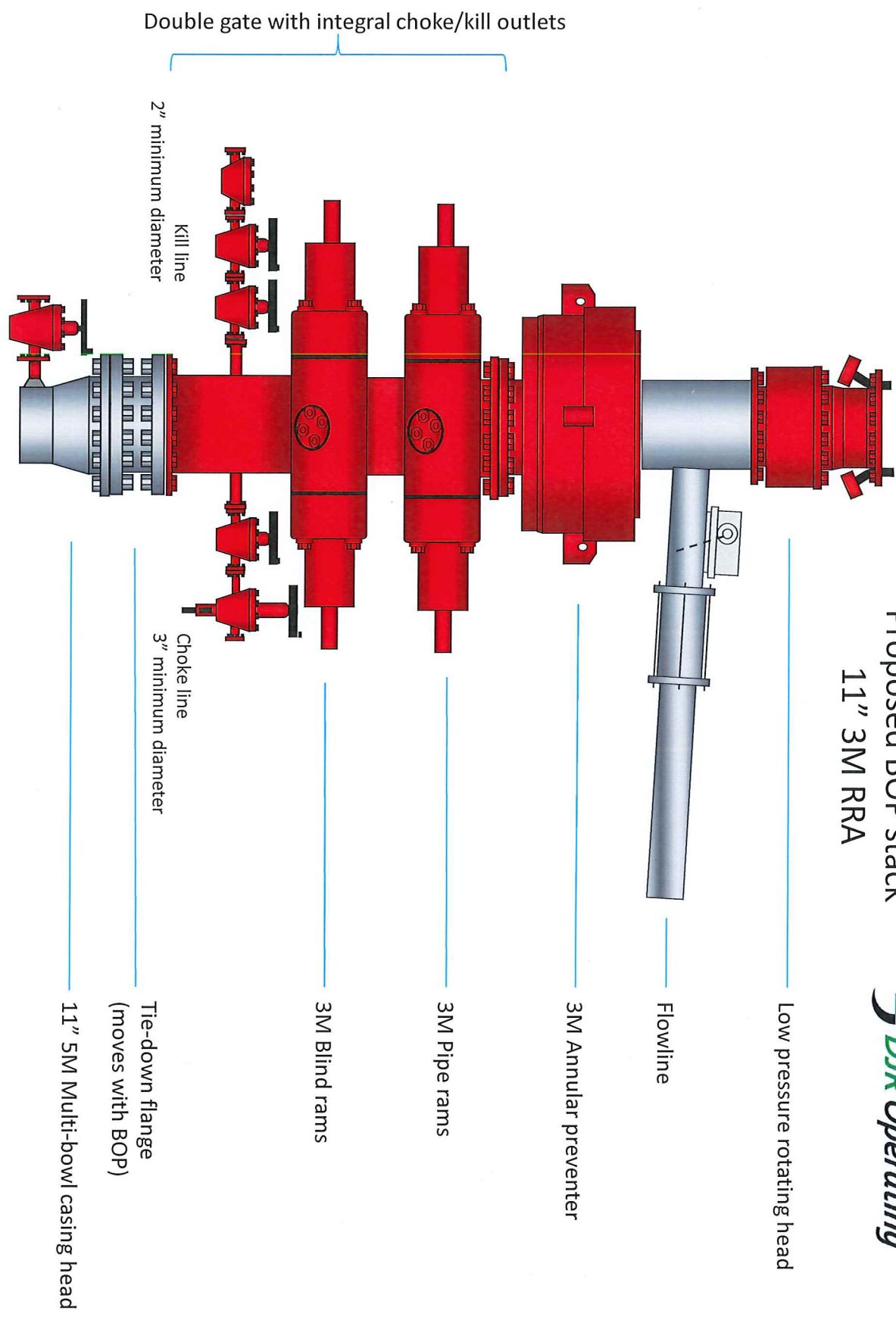
A closed loop, steel tank-based circulating system will be used. In addition to the rig solids control equipment, a dewatering centrifuge and chemical flocculation system will be operational to strip solids from the whole mud. All solids will be collected in 3-sided bins and will then be put into transports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

Completion

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



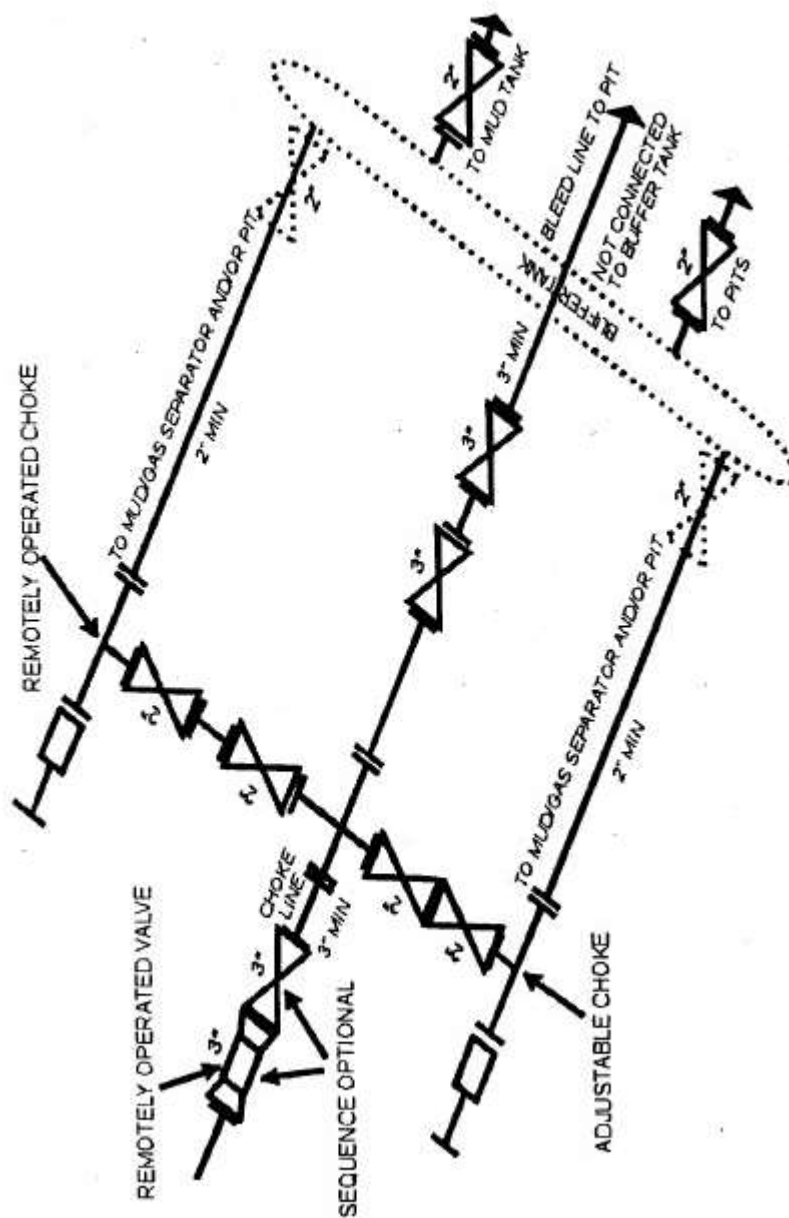
Proposed BOP stack 11" 3M RRA



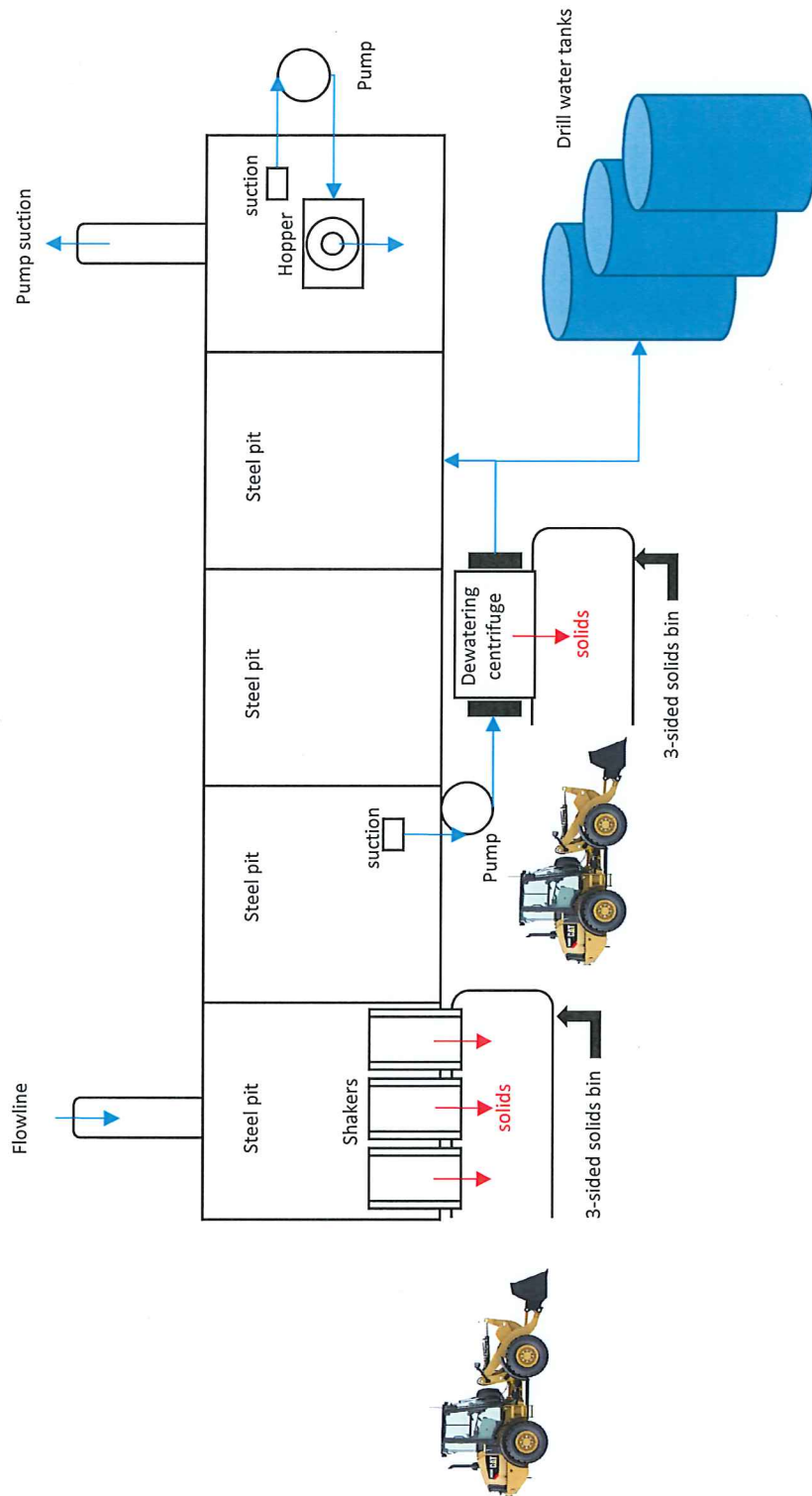


Choke Manifold

Actual system to conform with Onshore Order 2



Closed Loop Mud System





Company: DJR Operating
Project: Venado Canyon Unit
Site: O11 2206 Pad
Well: # 507H
Wellbore: Original Drilling
Design: APD

WELL DETAILS: # 507H

	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
	0	0	1873443.84	2841017.45	36.14809030	-107.43390190
GL 7075' & RKB 14' @ 7089ft						

PROJECT DETAILS: Venado Canyon 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

Plan: APD (# 507H/Original Drilling)
Created By: Janie Collins Date: 17:06, May 04 2021

DESIGN TARGET DETAILS

Time	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
507H Heel Rev 1	4923	-1045	-878	1872385.10	2840143.44	36.14521919	-107.43687673
507H Toe	4936	2033	-3934	1875460.21	2837075.15	36.15367320	-107.44722760

SECTION DETAILS

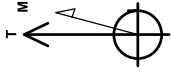
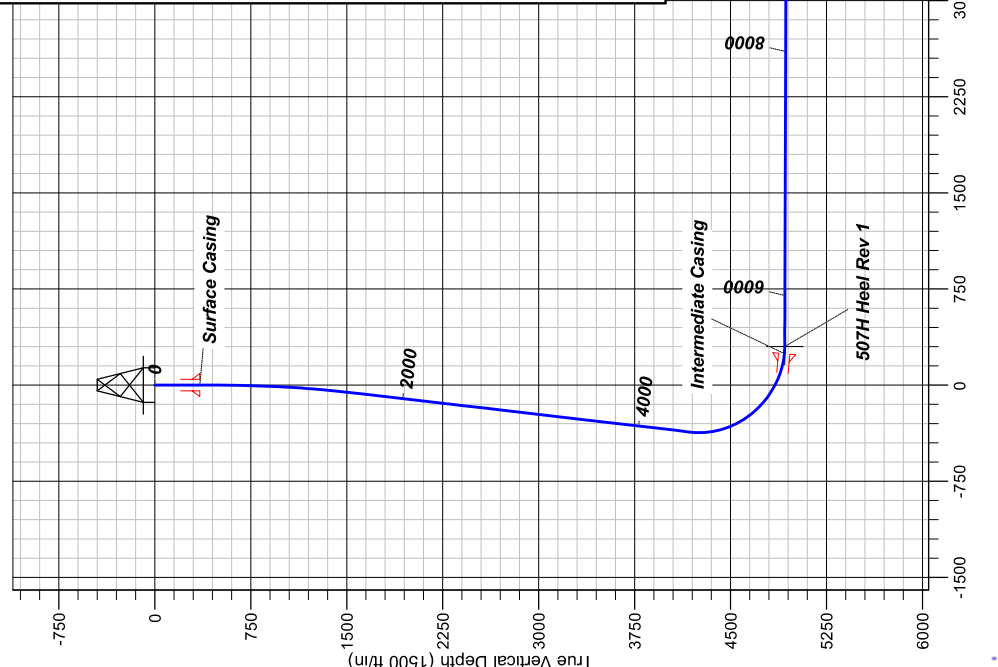
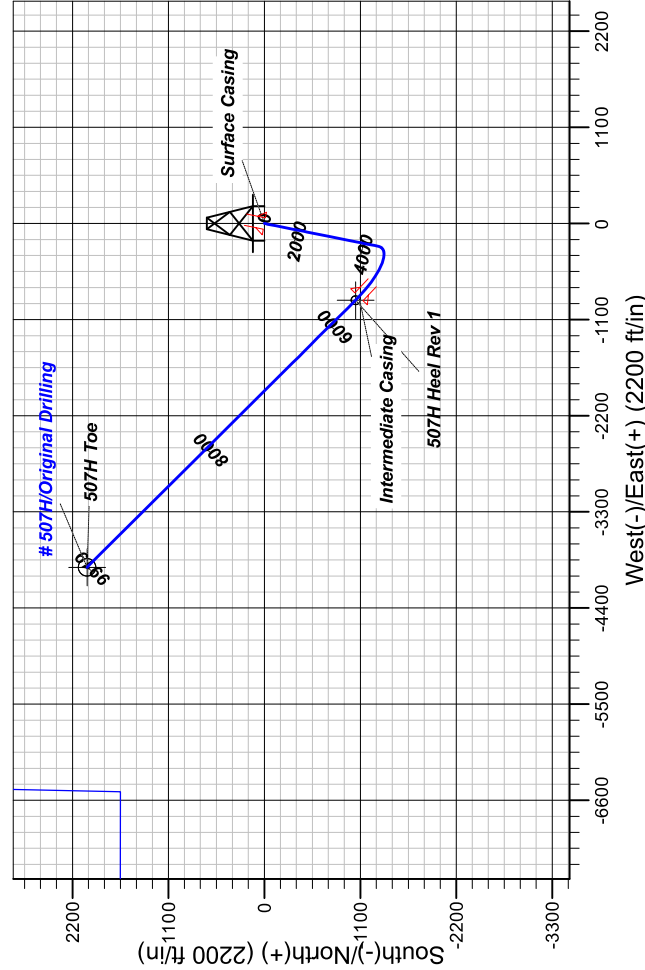
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
0	0.00	0.00	0	0	0	0.00	0.00	0	
1591	22.82	191.31	1561	-220	-44	2.00	191.31	-82	
1939	44.12	130.6	1939	-1306	-378	0.00	0	-367	
5582	88.82	315.21	4923	-1045	-878	0.00	12.83	317	507H Heel Rev 1
5919	89.83	315.21	4936	2033	-3934	0.00	3.18	4428	507H Toe

CASING DETAILS

TVD	MD	Ne	Surface Casing
350	350	5525	Intermediate Casing
4920	5525		

FORMATION DETAILS

MDPath	Formation
1281	Ojo Alamo
1430	Kirtland
1651	Fruitland
1846	Pictured Cliffs
1939	Lewis
2652	Chaca
3329	Menefee
4100	Point Lookout
4244	Mancos
4604	Mancos Silt



Azimuths to True North
Magnetic North: 8.33°
Magnetic Field
Strength: 49466
Dip Angle: 62.13°
Date: 12/31/2019
Model: IGRF2015





DJR Operating

Venado Canyon Unit

O11 2206 Pad

507H - Slot 1

Original Drilling

Plan: APD

Standard Planning Report

04 May, 2021





Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 507H - Slot 1
Company:	DJR Operating	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Project:	Venado Canyon Unit	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site:	O11 2206 Pad	North Reference:	True
Well:	# 507H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Project	Venado Canyon 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	O11 2206 Pad				
Site Position:		Northing:	1,873,443.84 usft	Latitude:	36.14809030
From:	Lat/Long	Easting:	2,841,017.46 usft	Longitude:	-107.43390190
Position Uncertainty:	0 ft	Slot Radius:	13.20 in	Grid Convergence:	0.24

Well	# 507H - Slot 1					
Well Position	+N/-S	0 ft	Northing:	1,873,443.84 usft	Latitude:	36.1480903
	+E/-W	0 ft	Easting:	2,841,017.46 usft	Longitude:	-107.4339019
Position Uncertainty		0 ft	Wellhead Elevation:		Ground Level:	7075

Wellbore	Original Drilling				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	12/31/2019	8.80	62.86	49,466.69703437

Design	APD			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0	0	0	297.32

Plan Survey Tool Program	Date	5/4/2021		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0	9919 APD (Original Drilling)	MWD+HDGM	
			OWSG MWD + HDGM	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0	0.00	0.00	0	0	0	0.00	0.00	0.00	0.00	
450	0.00	0.00	450	0	0	0.00	0.00	0.00	0.00	
1591	22.82	191.31	1561	-220	-44	2.00	2.00	0.00	191.31	
4445	22.82	191.31	4192	-1306	-261	0.00	0.00	0.00	0.00	
5582	89.83	315.21	4923	-1045	-878	9.00	5.89	10.90	121.83	507H Heel Rev 1
9919	89.83	315.21	4936	2033	-3934	0.00	0.00	0.00	3.18	507H Toe



Lonestar Consulting, LLC

Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 507H - Slot 1
Company:	DJR Operating	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Project:	Venado Canyon Unit	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site:	O11 2206 Pad	North Reference:	True
Well:	# 507H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0	0.00	0.00	0	0	0	0	0.00	0.00	0.00
100	0.00	0.00	100	0	0	0	0.00	0.00	0.00
200	0.00	0.00	200	0	0	0	0.00	0.00	0.00
300	0.00	0.00	300	0	0	0	0.00	0.00	0.00
400	0.00	0.00	400	0	0	0	0.00	0.00	0.00
450	0.00	0.00	450	0	0	0	0.00	0.00	0.00
500	1.00	191.31	500	0	0	0	2.00	2.00	0.00
600	3.00	191.31	600	-4	-1	-1	2.00	2.00	0.00
700	5.00	191.31	700	-11	-2	-3	2.00	2.00	0.00
800	7.00	191.31	799	-21	-4	-6	2.00	2.00	0.00
900	9.00	191.31	898	-35	-7	-10	2.00	2.00	0.00
1000	11.00	191.31	997	-52	-10	-15	2.00	2.00	0.00
1100	13.00	191.31	1094	-72	-14	-20	2.00	2.00	0.00
1200	15.00	191.31	1191	-96	-19	-27	2.00	2.00	0.00
1300	17.00	191.31	1288	-123	-25	-35	2.00	2.00	0.00
1400	19.00	191.31	1383	-153	-31	-43	2.00	2.00	0.00
1500	21.00	191.31	1477	-187	-37	-53	2.00	2.00	0.00
1591	22.82	191.31	1561	-220	-44	-62	2.00	2.00	0.00
1600	22.82	191.31	1569	-223	-45	-63	0.00	0.00	0.00
1700	22.82	191.31	1662	-261	-52	-74	0.00	0.00	0.00
1800	22.82	191.31	1754	-299	-60	-84	0.00	0.00	0.00
1900	22.82	191.31	1846	-337	-67	-95	0.00	0.00	0.00
2000	22.82	191.31	1938	-375	-75	-106	0.00	0.00	0.00
2100	22.82	191.31	2030	-413	-83	-116	0.00	0.00	0.00
2200	22.82	191.31	2122	-452	-90	-127	0.00	0.00	0.00
2300	22.82	191.31	2215	-490	-98	-138	0.00	0.00	0.00
2400	22.82	191.31	2307	-528	-105	-148	0.00	0.00	0.00
2500	22.82	191.31	2399	-566	-113	-159	0.00	0.00	0.00
2600	22.82	191.31	2491	-604	-121	-170	0.00	0.00	0.00
2700	22.82	191.31	2583	-642	-128	-181	0.00	0.00	0.00
2800	22.82	191.31	2675	-680	-136	-191	0.00	0.00	0.00
2900	22.82	191.31	2768	-718	-144	-202	0.00	0.00	0.00
3000	22.82	191.31	2860	-756	-151	-213	0.00	0.00	0.00
3100	22.82	191.31	2952	-794	-159	-223	0.00	0.00	0.00
3200	22.82	191.31	3044	-832	-166	-234	0.00	0.00	0.00
3300	22.82	191.31	3136	-870	-174	-245	0.00	0.00	0.00
3400	22.82	191.31	3228	-908	-182	-256	0.00	0.00	0.00
3500	22.82	191.31	3321	-946	-189	-266	0.00	0.00	0.00
3600	22.82	191.31	3413	-984	-197	-277	0.00	0.00	0.00
3700	22.82	191.31	3505	-1022	-204	-288	0.00	0.00	0.00
3800	22.82	191.31	3597	-1060	-212	-298	0.00	0.00	0.00
3900	22.82	191.31	3689	-1098	-220	-309	0.00	0.00	0.00
4000	22.82	191.31	3781	-1136	-227	-320	0.00	0.00	0.00
4100	22.82	191.31	3874	-1174	-235	-330	0.00	0.00	0.00
4200	22.82	191.31	3966	-1212	-242	-341	0.00	0.00	0.00
4300	22.82	191.31	4058	-1250	-250	-352	0.00	0.00	0.00
4400	22.82	191.31	4150	-1288	-258	-363	0.00	0.00	0.00
4445	22.82	191.31	4192	-1306	-261	-367	0.00	0.00	0.00
4500	20.63	203.30	4243	-1325	-267	-371	9.00	-4.00	21.83
4600	19.29	229.59	4337	-1352	-287	-366	9.00	-1.33	26.29
4700	21.79	254.44	4431	-1368	-317	-346	9.00	2.50	24.86
4800	27.08	272.21	4522	-1372	-358	-312	9.00	5.29	17.76
4900	33.87	283.93	4608	-1364	-408	-264	9.00	6.79	11.73
5000	41.43	291.97	4687	-1345	-465	-204	9.00	7.56	8.04



Lonestar Consulting, LLC

Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 507H - Slot 1
Company:	DJR Operating	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Project:	Venado Canyon Unit	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site:	O11 2206 Pad	North Reference:	True
Well:	# 507H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5100	49.40	297.86	4757	-1315	-530	-133	9.00	7.97	5.89
5200	57.60	302.47	4817	-1274	-599	-53	9.00	8.20	4.61
5300	65.95	306.30	4864	-1224	-672	35	9.00	8.34	3.83
5400	74.38	309.67	4898	-1167	-746	127	9.00	8.43	3.36
5500	82.85	312.76	4918	-1102	-819	222	9.00	8.48	3.09
5582	89.83	315.21	4923	-1045	-878	301	9.00	8.50	2.98
5600	89.83	315.21	4923	-1032	-891	318	0.00	0.00	0.00
5700	89.83	315.21	4923	-961	-961	413	0.00	0.00	0.00
5800	89.83	315.21	4924	-890	-1032	508	0.00	0.00	0.00
5900	89.83	315.21	4924	-820	-1102	603	0.00	0.00	0.00
6000	89.83	315.21	4924	-749	-1173	698	0.00	0.00	0.00
6100	89.83	315.21	4925	-678	-1243	793	0.00	0.00	0.00
6200	89.83	315.21	4925	-607	-1314	889	0.00	0.00	0.00
6300	89.83	315.21	4925	-536	-1384	984	0.00	0.00	0.00
6400	89.83	315.21	4925	-465	-1455	1079	0.00	0.00	0.00
6500	89.83	315.21	4926	-394	-1525	1174	0.00	0.00	0.00
6600	89.83	315.21	4926	-323	-1596	1269	0.00	0.00	0.00
6700	89.83	315.21	4926	-252	-1666	1364	0.00	0.00	0.00
6800	89.83	315.21	4927	-181	-1736	1460	0.00	0.00	0.00
6900	89.83	315.21	4927	-110	-1807	1555	0.00	0.00	0.00
7000	89.83	315.21	4927	-39	-1877	1650	0.00	0.00	0.00
7100	89.83	315.21	4928	32	-1948	1745	0.00	0.00	0.00
7200	89.83	315.21	4928	103	-2018	1840	0.00	0.00	0.00
7300	89.83	315.21	4928	174	-2089	1936	0.00	0.00	0.00
7400	89.83	315.21	4928	245	-2159	2031	0.00	0.00	0.00
7500	89.83	315.21	4929	316	-2230	2126	0.00	0.00	0.00
7600	89.83	315.21	4929	387	-2300	2221	0.00	0.00	0.00
7700	89.83	315.21	4929	458	-2371	2316	0.00	0.00	0.00
7800	89.83	315.21	4930	529	-2441	2411	0.00	0.00	0.00
7900	89.83	315.21	4930	600	-2511	2507	0.00	0.00	0.00
8000	89.83	315.21	4930	671	-2582	2602	0.00	0.00	0.00
8100	89.83	315.21	4931	742	-2652	2697	0.00	0.00	0.00
8200	89.83	315.21	4931	813	-2723	2792	0.00	0.00	0.00
8300	89.83	315.21	4931	884	-2793	2887	0.00	0.00	0.00
8400	89.83	315.21	4931	955	-2864	2982	0.00	0.00	0.00
8500	89.83	315.21	4932	1026	-2934	3078	0.00	0.00	0.00
8600	89.83	315.21	4932	1097	-3005	3173	0.00	0.00	0.00
8700	89.83	315.21	4932	1167	-3075	3268	0.00	0.00	0.00
8800	89.83	315.21	4933	1238	-3146	3363	0.00	0.00	0.00
8900	89.83	315.21	4933	1309	-3216	3458	0.00	0.00	0.00
9000	89.83	315.21	4933	1380	-3286	3553	0.00	0.00	0.00
9100	89.83	315.21	4934	1451	-3357	3649	0.00	0.00	0.00
9200	89.83	315.21	4934	1522	-3427	3744	0.00	0.00	0.00
9300	89.83	315.21	4934	1593	-3498	3839	0.00	0.00	0.00
9400	89.83	315.21	4934	1664	-3568	3934	0.00	0.00	0.00
9500	89.83	315.21	4935	1735	-3639	4029	0.00	0.00	0.00
9600	89.83	315.21	4935	1806	-3709	4124	0.00	0.00	0.00
9700	89.83	315.21	4935	1877	-3780	4220	0.00	0.00	0.00
9800	89.83	315.21	4936	1948	-3850	4315	0.00	0.00	0.00
9900	89.83	315.21	4936	2019	-3921	4410	0.00	0.00	0.00
9919	89.83	315.21	4936	2033	-3934	4428	0.00	0.00	0.00



Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 507H - Slot 1
Company:	DJR Operating	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Project:	Venado Canyon Unit	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site:	O11 2206 Pad	North Reference:	True
Well:	# 507H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
507H Heel Rev 1 - hit/miss target - Shape	0.00	0.00	4923	-1045	-878	1,872,395.10	2,840,143.45	36.14521919	-107.43687673
507H Toe - plan hits target center - Circle (radius 50)	0.00	0.00	4936	2033	-3934	1,875,460.22	2,837,075.16	36.15367320	-107.44722760

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
350	350	Surface Casing	9.62	12.25	
5525	4920	Intermediate Casing	7.00	8.75	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1293	1281	Ojo Alamo		0.00	0.00
1450	1430	Kirtland		0.00	0.00
1689	1651	Fruitland		0.00	0.00
1900	1846	Pictured Cliffs		0.00	0.00
2001	1939	Lewis		0.00	0.00
2775	2652	Chacra		0.00	0.00
3509	3329	Menefee		0.00	0.00
4346	4100	Point Lookout		0.00	0.00
4501	4244	Mancos		0.00	0.00
4895	4604	Mancos Silt		0.00	0.00



DJR Operating

Venado Canyon Unit

O11 2206 Pad

507H

Original Drilling

APD

Anticollision Report

04 May, 2021





Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 507H - Slot 1
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 507H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

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

Survey Tool Program		Date	5/4/2021		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0	9919	APD (Original Drilling)	MWD+HDGM	OWSG MWD + HDGM	

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						
O11 2206 Pad						
# 504H - Original Drilling - APD	450	450	40	37	14.205	CC
# 504H - Original Drilling - APD	600	602	41	37	10.587	ES
# 504H - Original Drilling - APD	9919	10,264	756	543	3.559	SF
# 505H - Original Drilling - APD	573	574	20	16	5.392	CC
# 505H - Original Drilling - APD	700	701	20	16	4.492	ES
# 505H - Original Drilling - APD	900	902	24	18	4.100	SF
# 506H - Original Drilling - APD	450	450	60	57	21.339	CC
# 506H - Original Drilling - APD	600	603	61	57	15.820	ES
# 506H - Original Drilling - APD	1100	1107	75	67	10.045	SF
# 508H - Original Drilling - APD	450	450	100	97	35.517	CC, ES
# 508H - Original Drilling - APD	1000	998	147	140	21.845	SF
# 509H - Original Drilling - APD	450	450	80	77	28.436	CC
# 509H - Original Drilling - APD	500	501	80	77	25.397	ES
# 509H - Original Drilling - APD	9919	9318	1265	1023	5.228	SF

Offset Design: O11 2206 Pad - # 504H - Original Drilling - APD													Offset Site Error: 0 ft	
Survey Program: 0-MWD+HDGM													Offset Well Error: 0 ft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			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	33.39	33	22	40					
100	100	100	100	0	0	33.39	33	22	40	40	0.31	129.823		
200	200	200	200	1	1	33.39	33	22	40	39	1.03	39.038		
300	300	300	300	1	1	33.39	33	22	40	38	1.74	22.973		
400	400	400	400	1	1	33.39	33	22	40	38	2.46	16.275		
450	450	450	450	1	1	33.39	33	22	40	37	2.82	14.205	CC	
500	500	501	501	2	2	-157.77	33	22	40	37	3.16	12.680		
600	600	602	602	2	2	-156.59	29	22	41	37	3.83	10.587	ES	
700	700	703	702	2	2	-154.31	22	23	41	37	4.51	9.186		
800	799	804	803	3	3	-151.09	12	23	43	38	5.21	8.238		
900	898	905	903	3	3	-147.15	-3	24	45	39	5.93	7.603		
1000	997	1006	1002	3	3	-142.75	-20	26	48	41	6.68	7.194		
1100	1094	1107	1101	4	4	-138.17	-41	27	52	44	7.47	6.948		
1200	1191	1207	1199	4	4	-133.66	-66	29	57	48	8.32	6.824		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 507H - Slot 1
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 507H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 504H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM													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)				
1300	1288	1307	1295	5	5	-130.10	-93	30	63	54	9.22	6.832		
1400	1383	1407	1391	5	5	-129.24	-120	32	72	61	10.15	7.050		
1500	1477	1507	1486	6	6	-130.42	-147	34	82	71	11.07	7.432		
1591	1561	1597	1573	6	6	-132.59	-171	36	94	82	11.91	7.906		
1600	1569	1606	1582	6	6	-132.84	-174	36	95	83	11.99	7.956		
1700	1662	1704	1677	7	7	-135.36	-201	38	110	97	12.90	8.500		
1800	1754	1803	1772	7	7	-137.29	-227	39	124	110	13.81	8.980		
1900	1846	1902	1867	8	8	-138.82	-254	41	139	124	14.74	9.404		
2000	1938	2001	1962	9	8	-140.06	-281	43	153	138	15.66	9.780		
2100	2030	2100	2058	9	9	-141.09	-308	45	168	151	16.59	10.115		
2200	2122	2199	2153	10	9	-141.95	-335	47	183	165	17.53	10.415		
2300	2215	2298	2248	11	10	-142.68	-361	48	197	179	18.47	10.685		
2400	2307	2397	2343	11	10	-143.31	-388	50	212	193	19.41	10.929		
2500	2399	2495	2438	12	11	-143.85	-415	52	227	207	20.35	11.150		
2600	2491	2594	2533	13	11	-144.33	-442	54	242	220	21.29	11.351		
2700	2583	2693	2629	13	12	-144.76	-469	56	257	234	22.24	11.536		
2800	2675	2792	2724	14	12	-145.14	-496	57	271	248	23.18	11.704		
2900	2768	2891	2819	14	13	-145.48	-522	59	286	262	24.13	11.860		
3000	2860	2990	2914	15	13	-145.78	-549	61	301	276	25.08	12.003		
3100	2952	3089	3009	16	14	-146.06	-576	63	316	290	26.03	12.136		
3200	3044	3188	3104	16	14	-146.31	-603	65	331	304	26.98	12.259		
3300	3136	3286	3199	17	15	-146.54	-630	66	346	318	27.94	12.374		
3400	3228	3385	3295	18	15	-146.75	-656	68	361	332	28.89	12.481		
3500	3321	3484	3390	18	16	-146.95	-683	70	375	346	29.84	12.581		
3600	3413	3583	3485	19	16	-147.13	-710	72	390	360	30.80	12.674		
3700	3505	3682	3580	20	17	-147.29	-737	73	405	373	31.75	12.762		
3800	3597	3781	3675	20	17	-147.45	-764	75	420	387	32.71	12.845		
3900	3689	3880	3770	21	18	-147.59	-790	77	435	401	33.66	12.923		
4000	3781	3979	3866	22	19	-147.73	-817	79	450	415	34.62	12.996		
4100	3874	4078	3961	22	19	-147.85	-844	81	465	429	35.58	13.066		
4200	3966	4176	4056	23	20	-147.97	-871	82	480	443	36.53	13.131		
4300	4058	4275	4151	24	20	-148.08	-898	84	495	457	37.49	13.194		
4400	4150	4374	4246	24	21	-148.19	-925	86	510	471	38.45	13.253		
4445	4192	4419	4289	25	21	-148.23	-937	87	516	477	38.88	13.279		
4450	4196	4424	4294	25	21	-149.20	-938	87	517	478	38.93	13.281		
4500	4243	4473	4341	25	21	-159.91	-951	88	524	485	39.44	13.299		
4550	4290	4522	4389	25	21	-171.92	-965	89	532	492	39.99	13.299		
4600	4337	4571	4435	25	22	175.60	-978	90	539	499	40.59	13.288		
4650	4384	4618	4481	26	22	163.85	-991	90	547	506	41.24	13.269		
4700	4431	4665	4526	26	22	153.83	-1003	91	555	513	41.91	13.250		
4750	4477	4709	4569	26	22	145.91	-1015	92	564	522	42.62	13.238		
4800	4522	4753	4610	26	23	139.91	-1027	93	574	531	43.35	13.243		
4850	4566	4801	4657	26	23	135.71	-1039	92	585	541	44.10	13.265		
4900	4608	4852	4707	26	23	132.68	-1049	89	597	552	44.77	13.327		
4950	4649	4905	4759	26	23	130.57	-1056	83	609	564	45.35	13.432		
5000	4687	4962	4815	27	23	129.14	-1060	73	622	576	45.79	13.585		
5050	4724	5022	4873	27	24	128.25	-1060	58	635	589	46.08	13.788		
5100	4757	5087	4935	27	24	127.77	-1056	38	649	603	46.20	14.045		
5150	4789	5156	4998	27	24	127.62	-1046	12	662	616	46.11	14.360		
5200	4817	5231	5064	27	24	127.71	-1030	-20	675	629	45.81	14.736		
5250	4842	5312	5129	27	24	127.95	-1005	-61	687	642	45.31	15.163		
5300	4864	5399	5193	26	24	128.27	-971	-110	698	653	44.69	15.618		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 507H - Slot 1
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 507H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 504H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM												Offset Well Error:	0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5350	4883	5493	5251	26	24	128.57	-927	-168	707	663	44.08	16.046	
5400	4898	5592	5301	26	24	128.76	-873	-234	715	671	43.70	16.358	
5450	4910	5695	5339	26	24	128.75	-809	-306	720	676	43.77	16.446	
5500	4918	5801	5361	26	25	128.49	-738	-380	723	678	44.51	16.234	
5550	4922	5895	5367	26	26	128.02	-671	-447	723	677	45.81	15.777	
5567	4923	5912	5367	26	26	127.96	-659	-459	723	676	46.18	15.649	
5582	4923	5927	5367	26	26	127.93	-648	-469	723	676	46.49	15.546	
5600	4923	5945	5367	26	26	127.92	-636	-482	723	676	46.86	15.423	
5700	4923	6045	5367	26	27	127.87	-564	-551	724	674	49.12	14.731	
5800	4924	6145	5368	28	29	127.82	-492	-621	724	673	51.62	14.032	
5900	4924	6245	5368	29	31	127.78	-421	-691	725	671	54.33	13.346	
6000	4924	6345	5368	31	32	127.73	-349	-761	726	669	57.22	12.684	
6100	4925	6445	5369	33	34	127.69	-277	-830	727	666	60.27	12.054	
6200	4925	6545	5369	35	36	127.64	-206	-900	727	664	63.46	11.461	
6300	4925	6645	5369	37	38	127.59	-134	-970	728	661	66.76	10.905	
6400	4925	6745	5370	39	40	127.55	-62	-1040	729	659	70.16	10.387	
6500	4926	6845	5370	41	43	127.50	9	-1110	730	656	73.66	9.904	
6600	4926	6945	5370	44	45	127.46	81	-1179	730	653	77.23	9.456	
6700	4926	7045	5370	46	47	127.41	152	-1249	731	650	80.86	9.040	
6800	4927	7145	5371	48	49	127.37	224	-1319	732	647	84.56	8.654	
6900	4927	7245	5371	51	52	127.32	296	-1389	733	644	88.31	8.295	
7000	4927	7345	5371	53	54	127.28	367	-1458	733	641	92.10	7.962	
7100	4928	7445	5372	55	56	127.23	439	-1528	734	638	95.94	7.651	
7200	4928	7545	5372	58	59	127.19	511	-1598	735	635	99.81	7.362	
7300	4928	7645	5372	60	61	127.14	582	-1668	736	632	103.72	7.092	
7400	4928	7745	5373	62	64	127.10	654	-1737	736	629	107.65	6.840	
7500	4929	7845	5373	65	66	127.05	725	-1807	737	625	111.62	6.604	
7600	4929	7945	5373	67	68	127.01	797	-1877	738	622	115.61	6.382	
7700	4929	8045	5373	70	71	126.96	869	-1947	739	619	119.62	6.174	
7800	4930	8145	5374	72	73	126.92	940	-2017	739	616	123.66	5.979	
7900	4930	8245	5374	75	76	126.88	1012	-2086	740	612	127.71	5.795	
8000	4930	8345	5374	77	78	126.83	1084	-2156	741	609	131.78	5.622	
8100	4931	8445	5375	80	81	126.79	1155	-2226	742	606	135.87	5.458	
8200	4931	8545	5375	82	83	126.74	1227	-2296	742	602	139.98	5.304	
8300	4931	8645	5375	85	86	126.70	1298	-2365	743	599	144.10	5.157	
8400	4931	8745	5376	87	88	126.66	1370	-2435	744	596	148.23	5.019	
8500	4932	8845	5376	90	91	126.61	1442	-2505	745	592	152.38	4.887	
8600	4932	8945	5376	92	93	126.57	1513	-2575	745	589	156.54	4.762	
8700	4932	9045	5376	95	96	126.53	1585	-2645	746	586	160.71	4.643	
8800	4933	9145	5377	97	98	126.48	1657	-2714	747	582	164.89	4.530	
8900	4933	9245	5377	100	101	126.44	1728	-2784	748	579	169.08	4.422	
9000	4933	9345	5377	102	103	126.40	1800	-2854	749	575	173.29	4.320	
9100	4934	9445	5378	105	106	126.35	1871	-2924	749	572	177.50	4.221	
9200	4934	9545	5378	107	108	126.31	1943	-2993	750	568	181.72	4.128	
9300	4934	9645	5378	110	111	126.27	2015	-3063	751	565	185.95	4.038	
9400	4934	9745	5379	112	113	126.23	2086	-3133	752	561	190.19	3.952	
9500	4935	9845	5379	115	116	126.18	2158	-3203	752	558	194.44	3.870	
9600	4935	9945	5379	117	118	126.14	2230	-3273	753	554	198.69	3.791	
9700	4935	10,045	5380	120	121	126.10	2301	-3342	754	551	202.95	3.715	
9800	4936	10,145	5380	122	123	126.06	2373	-3412	755	547	207.22	3.642	
9900	4936	10,245	5380	125	126	126.02	2444	-3482	755	544	211.50	3.572	
9919	4936	10,264	5380	125	126	126.01	2458	-3495	756	543	212.32	3.559 SF	



Lonestar Consulting, LLC
Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 507H - Slot 1
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 507H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 507H - Slot 1
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 507H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 505H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0 ft
Reference	Offset	Rule Assigned:												
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0	0	0	0	0	0	33.50	17	11	20					
100	100	100	100	0	0	33.50	17	11	20	20	0.31	65.418		
200	200	200	200	1	1	33.50	17	11	20	19	1.03	19.671		
300	300	300	300	1	1	33.50	17	11	20	18	1.74	11.576		
400	400	400	400	1	1	33.50	17	11	20	18	2.46	8.201		
450	450	450	450	1	1	33.69	17	11	20	17	2.81	7.136		
500	500	500	500	2	2	-156.52	16	11	20	17	3.16	6.274		
573	573	574	574	2	2	-153.78	13	11	20	16	3.64	5.392 CC		
600	600	601	601	2	2	-152.43	11	12	20	16	3.82	5.145		
700	700	701	701	2	2	-146.16	4	12	20	16	4.51	4.492 ES		
800	799	802	801	3	3	-138.54	-8	13	22	17	5.21	4.174		
900	898	902	900	3	3	-130.70	-23	14	24	18	5.95	4.100 SF		
1000	997	1002	998	3	3	-123.57	-41	16	28	22	6.74	4.196		
1100	1094	1102	1096	4	4	-117.61	-63	18	33	26	7.57	4.405		
1200	1191	1202	1193	4	4	-112.84	-88	20	40	31	8.45	4.681		
1300	1288	1302	1289	5	5	-109.11	-116	22	47	38	9.40	4.992		
1400	1383	1402	1383	5	5	-106.21	-148	24	55	45	10.40	5.316		
1500	1477	1501	1476	6	6	-103.95	-182	27	65	53	11.47	5.638		
1591	1561	1592	1560	6	6	-102.30	-217	30	74	62	12.51	5.922		
1600	1569	1601	1568	6	6	-102.17	-220	30	75	62	12.61	5.949		
1700	1662	1700	1659	7	7	-100.78	-260	34	86	72	13.80	6.218		
1800	1754	1800	1750	7	8	-99.70	-299	37	97	82	15.01	6.437		
1900	1846	1899	1841	8	8	-98.84	-339	40	107	91	16.24	6.618		
2000	1938	1998	1933	9	9	-98.14	-378	43	118	101	17.48	6.769		
2100	2030	2098	2024	9	9	-97.55	-418	46	129	110	18.73	6.896		
2200	2122	2197	2115	10	10	-97.06	-457	49	140	120	20.00	7.005		
2300	2215	2297	2206	11	11	-96.63	-497	53	151	130	21.27	7.099		
2400	2307	2396	2297	11	11	-96.27	-536	56	162	139	22.54	7.180		
2500	2399	2495	2388	12	12	-95.95	-576	59	173	149	23.83	7.252		
2600	2491	2595	2480	13	13	-95.66	-615	62	184	159	25.11	7.315		
2700	2583	2694	2571	13	13	-95.41	-655	65	195	168	26.40	7.371		
2800	2675	2794	2662	14	14	-95.19	-694	69	206	178	27.70	7.421		
2900	2768	2893	2753	14	15	-94.99	-734	72	216	187	28.99	7.466		
3000	2860	2992	2844	15	15	-94.81	-773	75	227	197	30.29	7.507		
3100	2952	3092	2935	16	16	-94.64	-813	78	238	207	31.59	7.543		
3200	3044	3191	3026	16	17	-94.49	-852	81	249	216	32.89	7.577		
3300	3136	3291	3118	17	17	-94.35	-892	85	260	226	34.20	7.608		
3400	3228	3390	3209	18	18	-94.23	-931	88	271	236	35.50	7.636		
3500	3321	3489	3300	18	19	-94.11	-971	91	282	245	36.81	7.662		
3600	3413	3589	3391	19	19	-94.00	-1010	94	293	255	38.12	7.685		
3700	3505	3688	3482	20	20	-93.90	-1050	97	304	264	39.43	7.708		
3800	3597	3788	3573	20	21	-93.81	-1089	101	315	274	40.74	7.728		
3900	3689	3887	3665	21	21	-93.72	-1129	104	326	284	42.05	7.747		
4000	3781	3986	3756	22	22	-93.64	-1168	107	337	293	43.36	7.765		
4100	3874	4086	3847	22	23	-93.56	-1208	110	348	303	44.67	7.782		
4200	3966	4185	3938	23	23	-93.49	-1248	113	359	313	45.99	7.797		
4300	4058	4285	4029	24	24	-93.42	-1287	117	370	322	47.30	7.812		
4400	4150	4384	4120	24	25	-93.36	-1327	120	380	332	48.62	7.826		
4445	4192	4429	4161	25	25	-93.33	-1344	121	385	336	49.21	7.832		
4450	4196	4434	4166	25	25	-94.25	-1346	121	386	337	49.27	7.833		
4500	4243	4483	4211	25	25	-104.66	-1366	123	393	343	49.91	7.881		
4550	4290	4532	4256	25	26	-116.63	-1385	125	404	353	50.50	7.997		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 507H - Slot 1
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 507H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 505H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM												Offset Well Error:	0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4600	4337	4579	4300	25	26	-129.35	-1404	126	418	367	51.04	8.180	
4650	4384	4626	4342	26	26	-141.61	-1423	128	434	383	51.53	8.430	
4700	4431	4671	4383	26	27	-152.39	-1441	129	454	402	51.96	8.746	
4750	4477	4714	4423	26	27	-161.32	-1458	130	478	425	52.33	9.126	
4800	4522	4755	4460	26	27	-168.54	-1474	132	504	451	52.64	9.570	
4850	4566	4791	4494	26	28	-174.50	-1488	133	533	480	52.87	10.081	
4900	4608	4811	4512	26	28	179.76	-1497	134	566	513	52.84	10.705	
4950	4649	4828	4527	26	28	174.38	-1504	135	602	549	52.74	11.412	
5000	4687	4850	4547	27	28	169.54	-1514	137	641	588	52.71	12.163	
5050	4724	4850	4547	27	28	162.62	-1514	137	683	631	52.30	13.058	
5100	4757	4863	4558	27	28	156.10	-1520	138	727	675	52.17	13.931	
5150	4789	4870	4564	27	28	147.56	-1523	139	772	720	51.94	14.868	
5200	4817	4875	4568	27	28	136.68	-1525	140	819	767	51.72	15.835	
5250	4842	4877	4571	27	28	122.97	-1526	140	867	815	51.51	16.823	
5300	4864	4878	4571	26	28	106.91	-1527	140	915	863	51.31	17.824	
5350	4883	4877	4570	26	28	90.46	-1526	140	963	912	51.13	18.828	
5400	4898	4875	4568	26	28	75.97	-1525	140	1011	960	50.97	19.829	
5450	4910	4871	4565	26	28	64.54	-1523	139	1058	1007	50.83	20.819	
5500	4918	4866	4561	26	28	56.00	-1521	139	1105	1054	50.70	21.793	
5550	4922	4850	4547	26	28	49.12	-1514	137	1151	1100	50.44	22.818	
5582	4923	4850	4547	26	28	46.31	-1514	137	1180	1129	50.45	23.383	
5600	4923	4850	4547	26	28	46.31	-1514	137	1196	1145	50.46	23.696	
5700	4923	4850	4547	26	28	46.31	-1514	137	1286	1235	50.48	25.467	
5800	4924	4827	4527	28	28	45.21	-1504	135	1376	1326	50.21	27.412	
5900	4924	4800	4502	29	28	43.96	-1492	133	1469	1419	49.91	29.424	
6000	4924	4800	4502	31	28	43.96	-1492	133	1561	1511	49.92	31.269	
6100	4925	4800	4502	33	28	43.96	-1492	133	1654	1604	49.91	33.144	
6200	4925	4788	4491	35	27	43.44	-1487	133	1748	1698	49.79	35.109	
6300	4925	4759	4465	37	27	42.24	-1476	132	1842	1793	49.54	37.188	
6400	4925	4729	4437	39	27	41.09	-1464	131	1937	1887	49.30	39.284	
6500	4926	4699	4409	41	27	40.03	-1452	130	2031	1982	49.07	41.388	
6600	4926	4669	4382	44	27	39.05	-1440	129	2125	2077	48.86	43.499	
6700	4926	4639	4354	46	26	38.14	-1428	128	2220	2171	48.67	45.617	
6800	4927	4608	4326	48	26	37.29	-1416	127	2315	2266	48.49	47.739	
6900	4927	4578	4298	51	26	36.51	-1404	126	2409	2361	48.32	49.867	
7000	4927	4548	4271	53	26	35.77	-1392	125	2504	2456	48.16	51.998	
7100	4928	4518	4243	55	26	35.09	-1380	124	2599	2551	48.01	54.133	
7200	4928	4488	4215	58	25	34.44	-1368	123	2694	2646	47.87	56.270	
7300	4928	4457	4188	60	25	33.84	-1356	122	2789	2741	47.74	58.409	
7400	4928	4427	4160	62	25	33.28	-1344	121	2883	2836	47.62	60.550	
7500	4929	4397	4132	65	25	32.74	-1332	120	2978	2931	47.51	62.691	
7600	4929	4367	4105	67	25	32.24	-1320	119	3073	3026	47.40	64.833	
7700	4929	4337	4077	70	24	31.76	-1308	118	3168	3121	47.31	66.974	
7800	4930	4306	4049	72	24	31.32	-1296	117	3263	3216	47.21	69.114	
7900	4930	4276	4022	75	24	30.89	-1284	116	3358	3311	47.13	71.253	
8000	4930	4246	3994	77	24	30.49	-1272	115	3453	3406	47.05	73.390	
8100	4931	4216	3966	80	24	30.10	-1260	114	3548	3501	46.98	75.525	
8200	4931	4186	3938	82	23	29.74	-1248	113	3643	3596	46.92	77.657	
8300	4931	4155	3911	85	23	29.39	-1236	112	3738	3692	46.86	79.785	
8400	4931	4125	3883	87	23	29.06	-1224	111	3833	3787	46.80	81.910	
8500	4932	4095	3855	90	23	28.75	-1212	110	3929	3882	46.75	84.031	
8600	4932	4065	3828	92	23	28.45	-1200	110	4024	3977	46.71	86.147	



Lonestar Consulting, LLC
Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 507H - Slot 1
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 507H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 505H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM												Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned:		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)	Minimum Separation (ft)	Separation Factor	
8700	4932	4035	3800	95	22	28.16	-1188	109	4119	4072	46.67	88.258	
8800	4933	4004	3772	97	22	27.88	-1176	108	4214	4167	46.63	90.363	
8900	4933	3974	3745	100	22	27.62	-1164	107	4309	4262	46.60	92.463	
9000	4933	3944	3717	102	22	27.37	-1152	106	4404	4358	46.58	94.557	
9100	4934	3914	3689	105	22	27.13	-1140	105	4499	4453	46.56	96.644	
9200	4934	3884	3662	107	21	26.89	-1128	104	4594	4548	46.54	98.724	
9300	4934	3853	3634	110	21	26.67	-1116	103	4690	4643	46.53	100.798	
9400	4934	3823	3606	112	21	26.46	-1104	102	4785	4738	46.52	102.864	
9500	4935	3793	3578	115	21	26.25	-1092	101	4880	4833	46.51	104.922	
9600	4935	3763	3551	117	21	26.05	-1080	100	4975	4929	46.51	106.973	
9700	4935	3733	3523	120	20	25.86	-1068	99	5070	5024	46.51	109.015	
9800	4936	3702	3495	122	20	25.67	-1056	98	5166	5119	46.52	111.049	
9900	4936	3672	3468	125	20	25.49	-1044	97	5261	5214	46.52	113.074	
9919	4936	3666	3462	125	20	25.46	-1041	97	5279	5232	46.53	113.460	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 507H - Slot 1
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 507H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 506H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM													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		
0	0	0	0	0	0	33.33	50	33	60					
100	100	100	100	0	0	33.33	50	33	60	60	0.31	195.031		
200	200	200	200	1	1	33.33	50	33	60	59	1.03	58.646		
300	300	300	300	1	1	33.33	50	33	60	58	1.74	34.512		
400	400	400	400	1	1	33.33	50	33	60	58	2.46	24.450		
450	450	450	450	1	1	33.33	50	33	60	57	2.82	21.339 CC		
500	500	501	501	2	2	-157.87	50	33	60	57	3.16	19.034		
600	600	603	602	2	2	-157.08	46	33	61	57	3.83	15.820 ES		
700	700	704	704	2	2	-155.52	39	34	61	57	4.51	13.607		
800	799	806	805	3	3	-153.26	28	34	63	58	5.21	12.040		
900	898	907	906	3	3	-150.41	14	35	65	59	5.93	10.909		
1000	997	1008	1004	3	3	-147.93	-2	36	68	62	6.68	10.217		
1100	1094	1107	1103	4	4	-147.15	-19	37	75	67	7.44	10.045 SF		
1200	1191	1207	1201	4	4	-147.77	-35	38	84	76	8.21	10.250		
1300	1288	1306	1299	5	5	-149.31	-51	40	97	88	8.99	10.746		
1400	1383	1405	1396	5	5	-151.32	-67	41	112	102	9.77	11.476		
1500	1477	1503	1493	6	5	-153.50	-84	42	131	120	10.54	12.402		
1591	1561	1592	1581	6	6	-155.44	-98	42	151	139	11.26	13.387		
1600	1569	1600	1589	6	6	-155.64	-99	43	153	141	11.33	13.484		
1700	1662	1697	1685	7	6	-157.55	-115	44	176	164	12.10	14.557		
1800	1754	1794	1780	7	7	-159.02	-131	45	200	187	12.88	15.504		
1900	1846	1892	1876	8	7	-160.18	-147	46	223	210	13.67	16.345		
2000	1938	1989	1972	9	7	-161.12	-163	47	247	233	14.46	17.093		
2100	2030	2086	2068	9	8	-161.89	-179	48	271	256	15.25	17.764		
2200	2122	2183	2164	10	8	-162.54	-195	49	295	279	16.05	18.367		
2300	2215	2280	2259	11	9	-163.09	-211	50	319	302	16.85	18.913		
2400	2307	2377	2355	11	9	-163.56	-227	51	343	325	17.65	19.407		
2500	2399	2474	2451	12	10	-163.97	-242	52	366	348	18.45	19.858		
2600	2491	2571	2547	13	10	-164.34	-258	53	390	371	19.26	20.270		
2700	2583	2668	2642	13	10	-164.66	-274	54	414	394	20.07	20.649		
2800	2675	2765	2738	14	11	-164.94	-290	55	438	417	20.87	20.997		
2900	2768	2862	2834	14	11	-165.20	-306	56	462	441	21.68	21.318		
3000	2860	2959	2930	15	12	-165.43	-322	57	486	464	22.49	21.616		
3100	2952	3056	3025	16	12	-165.63	-338	58	510	487	23.30	21.893		
3200	3044	3153	3121	16	12	-165.82	-354	59	534	510	24.11	22.150		
3300	3136	3250	3217	17	13	-166.00	-370	60	558	533	24.93	22.390		
3400	3228	3348	3313	18	13	-166.16	-385	61	582	556	25.74	22.615		
3500	3321	3445	3408	18	14	-166.30	-401	62	606	580	26.55	22.825		
3600	3413	3542	3504	19	14	-166.44	-417	63	630	603	27.37	23.023		
3700	3505	3639	3600	20	14	-166.57	-433	64	654	626	28.18	23.209		
3800	3597	3736	3696	20	15	-166.68	-449	65	678	649	29.00	23.384		
3900	3689	3833	3791	21	15	-166.79	-465	66	702	672	29.81	23.549		
4000	3781	3930	3887	22	16	-166.89	-481	67	726	695	30.63	23.705		
4100	3874	4027	3983	22	16	-166.99	-497	68	750	719	31.45	23.853		
4200	3966	4124	4079	23	17	-167.08	-513	69	774	742	32.26	23.994		
4300	4058	4221	4174	24	17	-167.16	-528	70	798	765	33.08	24.127		
4400	4150	4318	4270	24	17	-167.24	-544	71	822	788	33.90	24.253		
4445	4192	4362	4313	25	18	-167.27	-551	71	833	799	34.27	24.308		
4450	4196	4367	4318	25	18	-168.28	-552	71	834	800	34.31	24.314		
4500	4243	4415	4366	25	18	-179.38	-560	72	845	811	34.72	24.349		
4550	4290	4464	4414	25	18	168.17	-568	72	855	820	35.14	24.343		
4600	4337	4513	4462	25	18	155.21	-576	73	864	828	35.56	24.299		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 507H - Slot 1
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 507H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 506H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
4650	4384	4560	4509	26	18	142.99	-584	73	871	835	35.98	24.221		
4700	4431	4607	4555	26	19	132.52	-592	74	878	841	36.40	24.112		
4750	4477	4653	4600	26	19	124.21	-599	74	883	846	36.83	23.976		
4800	4522	4697	4644	26	19	117.94	-606	75	888	850	37.26	23.820		
4850	4566	4740	4686	26	19	113.36	-613	75	892	854	37.70	23.647		
4900	4608	4781	4726	26	19	110.10	-620	76	895	857	38.15	23.462		
4950	4649	4819	4764	26	20	107.81	-626	76	899	860	38.62	23.273		
5000	4687	4855	4800	27	20	106.23	-632	77	902	863	39.10	23.083		
5050	4724	4891	4835	27	20	105.30	-638	77	907	867	39.62	22.883		
5100	4757	4923	4866	27	20	104.65	-645	79	912	872	40.18	22.692		
5150	4789	4947	4890	27	20	103.93	-650	81	918	877	40.72	22.541		
5200	4817	4964	4906	27	20	103.03	-655	83	925	884	41.25	22.437		
5250	4842	4977	4918	27	20	101.91	-658	84	935	893	41.76	22.385		
5300	4864	4984	4925	26	20	100.55	-660	85	946	904	42.25	22.388		
5350	4883	4988	4928	26	20	98.95	-661	86	959	916	42.72	22.442		
5400	4898	4988	4929	26	20	97.15	-661	86	973	930	43.17	22.545		
5450	4910	4986	4927	26	20	95.16	-661	85	989	946	43.60	22.691		
5500	4918	4981	4922	26	20	93.04	-659	85	1007	963	44.01	22.875		
5550	4922	4975	4916	26	20	90.83	-658	84	1025	981	44.39	23.094		
5582	4923	4970	4912	26	20	89.39	-656	83	1037	993	44.61	23.250		
5600	4923	4967	4909	26	20	89.22	-656	83	1044	1000	44.74	23.343		
5700	4923	4950	4893	26	20	88.25	-651	81	1088	1043	45.38	23.980		
5800	4924	4950	4893	28	20	88.25	-651	81	1139	1093	46.08	24.712		
5900	4924	4929	4872	29	20	87.05	-646	79	1195	1149	46.50	25.707		
6000	4924	4920	4863	31	20	86.52	-644	79	1257	1210	46.92	26.793		
6100	4925	4900	4844	33	20	85.38	-640	78	1324	1277	47.18	28.054		
6200	4925	4900	4844	35	20	85.38	-640	78	1394	1346	47.52	29.332		
6300	4925	4900	4844	37	20	85.38	-640	78	1468	1420	47.79	30.710		
6400	4925	4900	4844	39	20	85.38	-640	78	1544	1496	48.00	32.173		
6500	4926	4888	4832	41	20	84.67	-638	77	1623	1575	48.10	33.748		
6600	4926	4883	4827	44	20	84.40	-637	77	1705	1656	48.21	35.356		
6700	4926	4870	4814	46	20	83.66	-635	77	1788	1739	48.25	37.047		
6800	4927	4870	4814	48	20	83.66	-635	77	1872	1824	48.34	38.736		
6900	4927	4870	4814	51	20	83.66	-635	77	1959	1910	48.40	40.466		
7000	4927	4863	4808	53	20	83.29	-634	77	2046	1997	48.42	42.251		
7100	4928	4851	4796	55	20	82.60	-632	77	2134	2086	48.42	44.081		
7200	4928	4839	4784	58	20	81.92	-630	76	2224	2175	48.41	45.936		
7300	4928	4827	4772	60	20	81.25	-628	76	2314	2265	48.39	47.812		
7400	4928	4815	4760	62	20	80.58	-626	76	2405	2356	48.38	49.707		
7500	4929	4803	4749	65	19	79.91	-624	76	2496	2448	48.36	51.618		
7600	4929	4791	4737	67	19	79.25	-622	76	2588	2540	48.34	53.544		
7700	4929	4779	4725	70	19	78.59	-620	76	2681	2633	48.32	55.483		
7800	4930	4767	4713	72	19	77.93	-618	76	2774	2726	48.30	57.433		
7900	4930	4755	4701	75	19	77.28	-616	76	2867	2819	48.28	59.393		
8000	4930	4743	4689	77	19	76.64	-614	75	2961	2913	48.26	61.362		
8100	4931	4731	4677	80	19	76.00	-612	75	3055	3007	48.24	63.339		
8200	4931	4719	4665	82	19	75.37	-610	75	3150	3102	48.22	65.323		
8300	4931	4707	4653	85	19	74.74	-608	75	3245	3197	48.20	67.313		
8400	4931	4695	4642	87	19	74.12	-606	75	3340	3292	48.19	69.307		
8500	4932	4683	4630	90	19	73.50	-604	75	3435	3387	48.17	71.307		
8600	4932	4671	4618	92	19	72.89	-602	75	3531	3482	48.16	73.310		
8700	4932	4659	4606	95	19	72.28	-600	75	3626	3578	48.15	75.316		



Lonestar Consulting, LLC
Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 507H - Slot 1
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 507H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 506H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM												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)			
8800	4933	4646	4594	97	19	71.68	-598	74	3722	3674	48.14	77.325	
8900	4933	4634	4582	100	19	71.09	-596	74	3818	3770	48.13	79.337	
9000	4933	4622	4570	102	19	70.50	-594	74	3915	3866	48.12	81.350	
9100	4934	4610	4558	105	19	69.91	-592	74	4011	3963	48.11	83.365	
9200	4934	4598	4546	107	19	69.34	-590	74	4107	4059	48.11	85.380	
9300	4934	4586	4534	110	19	68.76	-588	74	4204	4156	48.10	87.396	
9400	4934	4574	4523	112	19	68.20	-586	74	4301	4253	48.10	89.413	
9500	4935	4562	4511	115	18	67.64	-584	73	4398	4350	48.10	91.430	
9600	4935	4550	4499	117	18	67.08	-582	73	4495	4447	48.10	93.446	
9700	4935	4538	4487	120	18	66.54	-580	73	4592	4544	48.10	95.462	
9800	4936	4526	4475	122	18	65.99	-578	73	4689	4641	48.10	97.477	
9900	4936	4514	4463	125	18	65.46	-576	73	4786	4738	48.11	99.490	
9919	4936	4512	4461	125	18	65.35	-576	73	4805	4757	48.11	99.875	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 507H - Slot 1
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 507H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 508H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM													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		
0	0	0	0	0	0	33.40	84	55	100					
100	100	100	100	0	0	33.40	84	55	100	100	0.31	324.611		
200	200	200	200	1	1	33.40	84	55	100	99	1.03	97.610		
300	300	300	300	1	1	33.40	84	55	100	98	1.74	57.441		
400	400	400	400	1	1	33.40	84	55	100	98	2.46	40.695		
450	450	450	450	1	1	33.40	84	55	100	97	2.82	35.517 CC, ES		
500	500	500	500	2	2	-157.75	83	55	100	97	3.16	31.773		
600	600	600	600	2	2	-156.52	81	58	103	100	3.83	26.965		
700	700	700	700	2	2	-154.27	77	64	109	105	4.52	24.152		
800	799	800	799	3	3	-151.32	70	72	118	113	5.23	22.622		
900	898	899	897	3	3	-148.46	62	82	131	125	5.96	21.950		
1000	997	998	995	3	3	-146.76	54	91	147	140	6.71	21.845 SF		
1100	1094	1096	1092	4	4	-146.02	46	101	165	158	7.46	22.115		
1200	1191	1194	1189	4	4	-145.96	38	111	186	178	8.23	22.651		
1300	1288	1290	1285	5	5	-146.37	30	121	211	202	9.01	23.385		
1400	1383	1387	1381	5	5	-147.09	22	131	238	228	9.80	24.276		
1500	1477	1482	1475	6	5	-147.98	14	140	268	257	10.59	25.296		
1591	1561	1568	1561	6	6	-148.87	7	149	298	286	11.31	26.319		
1600	1569	1576	1569	6	6	-148.98	6	150	301	289	11.38	26.414		
1700	1662	1670	1662	7	6	-150.19	-2	159	335	323	12.17	27.511		
1800	1754	1764	1755	7	6	-151.17	-9	169	369	356	12.97	28.472		
1900	1846	1857	1848	8	7	-151.99	-17	178	404	390	13.77	29.319		
2000	1938	1951	1941	9	7	-152.68	-25	188	438	424	14.57	30.070		
2100	2030	2045	2033	9	8	-153.27	-33	197	473	457	15.37	30.740		
2200	2122	2139	2126	10	8	-153.78	-40	206	507	491	16.18	31.340		
2300	2215	2232	2219	11	8	-154.22	-48	216	542	525	16.99	31.881		
2400	2307	2326	2312	11	9	-154.61	-56	225	576	559	17.80	32.370		
2500	2399	2420	2405	12	9	-154.96	-63	235	611	592	18.62	32.816		
2600	2491	2514	2498	13	9	-155.27	-71	244	646	626	19.43	33.222		
2700	2583	2607	2591	13	10	-155.54	-79	254	680	660	20.25	33.594		
2800	2675	2701	2684	14	10	-155.79	-87	263	715	694	21.07	33.936		
2900	2768	2795	2777	14	11	-156.02	-94	273	750	728	21.89	34.251		
3000	2860	2889	2870	15	11	-156.23	-102	282	784	762	22.71	34.542		
3100	2952	2982	2963	16	11	-156.42	-110	291	819	795	23.53	34.813		
3200	3044	3076	3056	16	12	-156.59	-117	301	854	829	24.35	35.064		
3300	3136	3170	3149	17	12	-156.75	-125	310	888	863	25.17	35.298		
3400	3228	3264	3242	18	12	-156.90	-133	320	923	897	25.99	35.517		
3500	3321	3357	3335	18	13	-157.04	-141	329	958	931	26.81	35.722		
3600	3413	3451	3428	19	13	-157.17	-148	339	993	965	27.64	35.914		
3700	3505	3545	3521	20	14	-157.29	-156	348	1027	999	28.46	36.094		
3800	3597	3639	3614	20	14	-157.40	-164	358	1062	1033	29.29	36.264		
3900	3689	3732	3707	21	14	-157.51	-172	367	1097	1067	30.11	36.424		
4000	3781	3826	3800	22	15	-157.60	-179	376	1132	1101	30.94	36.575		
4100	3874	3920	3893	22	15	-157.70	-187	386	1166	1134	31.76	36.718		
4200	3966	4014	3986	23	15	-157.78	-195	395	1201	1168	32.59	36.854		
4300	4058	4108	4079	24	16	-157.87	-202	405	1236	1202	33.41	36.982		
4400	4150	4201	4171	24	16	-157.94	-210	414	1270	1236	34.24	37.104		
4445	4192	4244	4213	25	16	-157.98	-214	418	1286	1252	34.61	37.157		
4450	4196	4248	4218	25	16	-159.04	-214	419	1288	1253	34.66	37.163		
4500	4243	4295	4265	25	17	-170.81	-218	424	1305	1270	35.07	37.212		
4550	4290	4342	4311	25	17	175.97	-222	428	1321	1286	35.47	37.246		
4600	4337	4389	4357	25	17	162.14	-226	433	1337	1301	35.87	37.267		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 507H - Slot 1
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 507H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 508H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program:		0-MWD+HDGM						Rule Assigned:					Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis			Offset Wellbore Centre			Distance				Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		Separation Factor	
4650	4384	4445	4413	26	17	149.10	-231	439	1351	1315	36.33	37.191		
4700	4431	4522	4488	26	18	138.41	-242	452	1364	1327	37.02	36.852		
4750	4477	4588	4550	26	18	129.98	-257	468	1376	1338	37.67	36.522		
4800	4522	4641	4599	26	18	123.42	-272	484	1387	1348	38.26	36.244		
4850	4566	4683	4635	26	19	118.20	-286	499	1397	1359	38.77	36.042		
4900	4608	4714	4661	26	19	113.90	-298	511	1408	1369	39.19	35.933		
4950	4649	4737	4680	26	19	110.21	-307	520	1419	1380	39.52	35.918		
5000	4687	4752	4692	27	19	106.91	-313	526	1431	1391	39.77	35.993		
5050	4724	4761	4700	27	19	103.86	-317	531	1444	1404	39.95	36.139		
5100	4757	4766	4704	27	19	101.00	-319	533	1457	1417	40.09	36.347		
5150	4789	4767	4704	27	19	98.27	-320	533	1471	1431	40.19	36.600		
5200	4817	4765	4702	27	19	95.65	-319	532	1485	1445	40.27	36.881		
5250	4842	4760	4699	27	19	93.12	-316	530	1500	1460	40.35	37.173		
5300	4864	4750	4691	26	19	90.59	-312	526	1515	1475	40.40	37.499		
5350	4883	4750	4691	26	19	88.60	-312	526	1530	1490	40.64	37.654		
5400	4898	4734	4678	26	19	86.18	-306	519	1546	1505	40.70	37.971		
5450	4910	4722	4668	26	19	84.11	-301	514	1561	1520	40.87	38.179		
5500	4918	4700	4650	26	19	81.87	-293	505	1575	1534	40.95	38.472		
5550	4922	4700	4650	26	19	80.56	-293	505	1590	1548	41.36	38.435		
5582	4923	4687	4639	26	19	79.40	-288	500	1598	1557	41.47	38.543		
5600	4923	4682	4634	26	19	79.24	-286	498	1603	1562	41.57	38.573		
5700	4923	4650	4606	26	18	78.22	-275	487	1634	1592	42.09	38.813		
5800	4924	4633	4592	28	18	77.68	-270	482	1669	1626	42.86	38.944		
5900	4924	4600	4561	29	18	76.58	-260	471	1709	1666	43.44	39.341		
6000	4924	4600	4561	31	18	76.58	-260	471	1753	1709	44.37	39.508		
6100	4925	4581	4544	33	18	75.95	-255	466	1801	1756	45.08	39.961		
6200	4925	4567	4531	35	18	75.49	-252	462	1853	1808	45.79	40.474		
6300	4925	4550	4515	37	18	74.91	-248	458	1909	1863	46.43	41.117		
6400	4925	4550	4515	39	18	74.91	-248	458	1968	1921	47.17	41.729		
6500	4926	4550	4515	41	18	74.91	-248	458	2031	1983	47.84	42.444		
6600	4926	4525	4491	44	18	74.07	-243	452	2095	2047	48.28	43.398		
6700	4926	4500	4467	46	17	73.22	-238	448	2163	2114	48.68	44.434		
6800	4927	4500	4467	48	17	73.22	-238	448	2233	2183	49.20	45.374		
6900	4927	4500	4467	51	17	73.22	-238	448	2304	2255	49.68	46.385		
7000	4927	4500	4467	53	17	73.22	-238	448	2378	2328	50.11	47.459		
7100	4928	4500	4467	55	17	73.22	-238	448	2454	2404	50.51	48.592		
7200	4928	4500	4467	58	17	73.22	-238	448	2532	2481	50.86	49.776		
7300	4928	4479	4447	60	17	72.52	-235	444	2610	2559	51.08	51.102		
7400	4928	4474	4442	62	17	72.35	-234	443	2690	2639	51.35	52.392		
7500	4929	4470	4438	65	17	72.20	-234	442	2772	2720	51.60	53.716		
7600	4929	4450	4418	67	17	71.53	-231	440	2855	2803	51.76	55.157		
7700	4929	4450	4418	70	17	71.53	-231	440	2938	2886	51.98	56.521		
7800	4930	4450	4418	72	17	71.53	-231	440	3023	2971	52.19	57.914		
7900	4930	4450	4418	75	17	71.53	-231	440	3108	3056	52.39	59.334		
8000	4930	4450	4418	77	17	71.53	-231	440	3195	3142	52.56	60.779		
8100	4931	4450	4418	80	17	71.53	-231	440	3282	3229	52.72	62.245		
8200	4931	4450	4418	82	17	71.53	-231	440	3369	3317	52.87	63.731		
8300	4931	4450	4418	85	17	71.53	-231	440	3458	3405	53.01	65.236		
8400	4931	4450	4418	87	17	71.53	-231	440	3547	3494	53.13	66.757		
8500	4932	4438	4406	90	17	71.11	-230	438	3637	3583	53.21	68.347		
8600	4932	4435	4403	92	17	71.03	-230	438	3727	3673	53.31	69.907		
8700	4932	4423	4391	95	17	70.60	-228	436	3817	3764	53.37	71.530		



Lonestar Consulting, LLC
Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 507H - Slot 1
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 507H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 508H - Original Drilling - APD													Offset Site Error: 0 ft	
Survey Program: 0-MWD+HDGM													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)				
8800	4933	4423	4391	97	17		70.60	-228	436	3908				3855
8900	4933	4423	4391	100	17	70.60	-228	436	4000	3946	53.56	74.687		
9000	4933	4423	4391	102	17	70.60	-228	436	4092	4038	53.64	76.281		
9100	4934	4423	4391	105	17	70.60	-228	436	4184	4130	53.72	77.884		
9200	4934	4423	4391	107	17	70.60	-228	436	4277	4223	53.80	79.496		
9300	4934	4415	4383	110	17	70.34	-228	436	4369	4316	53.84	81.152		
9400	4934	4402	4371	112	17	69.91	-227	434	4463	4409	53.87	82.836		
9500	4935	4389	4358	115	17	69.49	-226	433	4556	4502	53.90	84.527		
9600	4935	4377	4345	117	17	69.07	-225	432	4650	4596	53.93	86.224		
9700	4935	4364	4333	120	17	68.65	-224	431	4744	4690	53.95	87.926		
9800	4936	4351	4320	122	17	68.24	-223	429	4838	4784	53.97	89.632		
9900	4936	4339	4308	125	17	67.82	-222	428	4932	4878	53.99	91.343		
9919	4936	4336	4305	125	17	67.75	-221	428	4950	4896	54.00	91.671		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 507H - Slot 1
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 507H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 509H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0	0	0	0	0	0	33.38	67	44	80					
100	100	100	100	0	0	33.38	67	44	80	80	0.31	259.896		
200	200	200	200	1	1	33.38	67	44	80	79	1.03	78.151		
300	300	300	300	1	1	33.38	67	44	80	78	1.74	45.990		
400	400	400	400	1	1	33.38	67	44	80	78	2.46	32.582		
450	450	450	450	1	1	33.38	67	44	80	77	2.82	28.436 CC		
500	500	501	501	2	2	-157.77	66	44	80	77	3.16	25.397 ES		
600	600	602	602	2	2	-156.56	63	46	82	78	3.83	21.318		
700	700	704	703	2	2	-154.26	57	49	85	80	4.52	18.698		
800	799	805	804	3	3	-151.09	47	53	89	84	5.23	17.028		
900	898	904	903	3	3	-148.31	36	58	96	90	5.96	16.124		
1000	997	1004	1001	3	3	-146.92	24	64	106	99	6.70	15.840		
1100	1094	1103	1100	4	4	-146.67	13	69	119	112	7.45	15.980		
1200	1191	1202	1198	4	4	-147.22	2	74	135	127	8.22	16.427		
1300	1288	1300	1295	5	5	-148.30	-9	79	154	145	8.99	17.111		
1400	1383	1397	1392	5	5	-149.67	-20	84	176	166	9.77	17.986		
1500	1477	1494	1488	6	5	-151.15	-31	89	201	190	10.55	19.019		
1591	1561	1581	1575	6	6	-152.52	-41	94	226	215	11.26	20.076		
1600	1569	1590	1583	6	6	-152.67	-42	94	229	217	11.33	20.176		
1700	1662	1685	1677	7	6	-154.20	-53	99	258	246	12.11	21.315		
1800	1754	1781	1772	7	6	-155.42	-64	104	288	275	12.89	22.319		
1900	1846	1876	1867	8	7	-156.41	-74	109	317	304	13.67	23.208		
2000	1938	1971	1961	9	7	-157.23	-85	114	347	333	14.46	24.001		
2100	2030	2067	2056	9	8	-157.93	-96	119	377	362	15.25	24.710		
2200	2122	2162	2151	10	8	-158.52	-107	124	407	391	16.05	25.348		
2300	2215	2257	2245	11	8	-159.03	-118	129	437	420	16.84	25.924		
2400	2307	2353	2340	11	9	-159.47	-128	134	467	449	17.64	26.447		
2500	2399	2448	2434	12	9	-159.86	-139	138	496	478	18.44	26.924		
2600	2491	2543	2529	13	9	-160.21	-150	143	526	507	19.24	27.360		
2700	2583	2639	2624	13	10	-160.52	-161	148	556	536	20.04	27.760		
2800	2675	2734	2718	14	10	-160.80	-172	153	586	566	20.85	28.129		
2900	2768	2830	2813	14	11	-161.05	-182	158	616	595	21.65	28.469		
3000	2860	2925	2908	15	11	-161.28	-193	163	646	624	22.45	28.784		
3100	2952	3020	3002	16	11	-161.48	-204	168	676	653	23.26	29.077		
3200	3044	3116	3097	16	12	-161.67	-215	173	706	682	24.07	29.349		
3300	3136	3211	3191	17	12	-161.85	-225	178	736	712	24.87	29.604		
3400	3228	3306	3286	18	13	-162.01	-236	183	766	741	25.68	29.841		
3500	3321	3402	3381	18	13	-162.16	-247	188	796	770	26.49	30.064		
3600	3413	3497	3475	19	13	-162.30	-258	193	826	799	27.30	30.273		
3700	3505	3592	3570	20	14	-162.42	-269	198	857	828	28.11	30.470		
3800	3597	3688	3664	20	14	-162.54	-279	203	887	858	28.92	30.655		
3900	3689	3783	3759	21	14	-162.66	-290	208	917	887	29.73	30.830		
4000	3781	3879	3854	22	15	-162.76	-301	213	947	916	30.54	30.996		
4100	3874	3974	3948	22	15	-162.86	-312	218	977	945	31.35	31.152		
4200	3966	4069	4043	23	16	-162.95	-323	223	1007	975	32.16	31.300		
4300	4058	4165	4138	24	16	-163.04	-333	228	1037	1004	32.98	31.441		
4400	4150	4257	4230	24	16	-163.12	-344	232	1067	1033	33.77	31.594		
4445	4192	4287	4259	25	16	-163.18	-347	233	1081	1047	34.03	31.763		
4450	4196	4290	4262	25	16	-164.23	-347	233	1082	1048	34.05	31.784		
4500	4243	4321	4293	25	17	-175.96	-349	233	1098	1064	34.30	32.011		
4550	4290	4350	4322	25	17	170.71	-350	232	1113	1079	34.50	32.259		
4600	4337	4383	4355	25	17	156.62	-349	230	1128	1093	34.72	32.489		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 507H - Slot 1
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 507H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 509H - Original Drilling - APD													Offset Site Error: 0 ft	
Survey Program: 0-MWD+HDGM		Offset		Semi Major Axis		Offset Wellbore Centre			Rule Assigned: Distance				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	
4650	4384	4414	4385	26	17	143.06	-348	227	1142	1107	34.89	32.732		
4700	4431	4450	4421	26	17	131.10	-345	222	1156	1121	35.09	32.936		
4750	4477	4475	4446	26	17	121.11	-342	218	1169	1134	35.20	33.205		
4800	4522	4500	4470	26	17	113.04	-339	213	1181	1146	35.29	33.465		
4850	4566	4537	4506	26	17	106.71	-332	204	1193	1157	35.47	33.622		
4900	4608	4568	4535	26	17	101.64	-325	196	1203	1168	35.61	33.794		
4950	4649	4600	4564	26	17	97.62	-318	186	1213	1177	35.76	33.929		
5000	4687	4631	4592	27	17	94.40	-309	176	1222	1186	35.92	34.021		
5050	4724	4663	4620	27	17	91.85	-299	164	1230	1194	36.12	34.057		
5100	4757	4700	4651	27	17	89.90	-286	150	1237	1201	36.39	34.001		
5150	4789	4727	4674	27	18	88.28	-276	138	1244	1207	36.66	33.925		
5200	4817	4760	4700	27	18	87.11	-263	124	1249	1212	37.01	33.741		
5250	4842	4800	4731	27	18	86.39	-245	105	1253	1216	37.48	33.433		
5300	4864	4827	4750	26	18	85.75	-233	91	1256	1218	37.95	33.107		
5350	4883	4861	4773	26	18	85.50	-216	73	1259	1220	38.54	32.659		
5400	4898	4900	4799	26	18	85.59	-196	52	1260	1221	39.26	32.103		
5450	4910	4930	4817	26	18	85.75	-179	34	1261	1221	40.00	31.523		
5500	4918	4966	4838	26	18	86.22	-159	13	1260	1220	40.85	30.856		
5550	4922	5000	4855	26	19	86.87	-139	-8	1259	1218	41.76	30.156		
5582	4923	5026	4868	26	19	87.48	-123	-24	1258	1216	42.43	29.655		
5600	4923	5039	4874	26	19	87.76	-114	-33	1257	1215	42.79	29.384		
5700	4923	5120	4905	26	20	89.16	-63	-86	1255	1210	45.05	27.851		
5800	4924	5208	4928	28	20	90.19	-3	-146	1254	1206	47.65	26.310		
5871	4924	5273	4937	29	21	90.61	43	-192	1254	1204	49.68	25.234		
5900	4924	5300	4939	29	22	90.70	62	-211	1254	1203	50.57	24.790		
6000	4924	5399	4940	31	23	90.73	132	-280	1254	1200	53.84	23.291		
6100	4925	5499	4940	33	25	90.73	203	-351	1254	1197	57.40	21.850		
6200	4925	5599	4941	35	27	90.73	275	-421	1254	1193	61.20	20.498		
6300	4925	5699	4941	37	29	90.73	346	-491	1255	1190	65.19	19.247		
6400	4925	5799	4941	39	31	90.72	417	-561	1255	1186	69.35	18.099		
6500	4926	5899	4942	41	33	90.72	488	-632	1255	1182	73.63	17.049		
6600	4926	5999	4942	44	35	90.72	559	-702	1256	1178	78.02	16.093		
6700	4926	6099	4942	46	37	90.72	630	-772	1256	1173	82.51	15.222		
6800	4927	6199	4942	48	39	90.72	702	-842	1256	1169	87.07	14.428		
6900	4927	6299	4943	51	42	90.72	773	-913	1257	1165	91.70	13.703		
7000	4927	6399	4943	53	44	90.72	844	-983	1257	1160	96.38	13.040		
7100	4928	6499	4943	55	46	90.72	915	-1053	1257	1156	101.11	12.433		
7200	4928	6599	4944	58	49	90.72	986	-1123	1257	1151	105.88	11.875		
7300	4928	6699	4944	60	51	90.72	1057	-1194	1258	1147	110.69	11.362		
7400	4928	6799	4944	62	54	90.72	1129	-1264	1258	1142	115.53	10.889		
7500	4929	6899	4944	65	56	90.72	1200	-1334	1258	1138	120.40	10.451		
7600	4929	6999	4945	67	59	90.71	1271	-1404	1259	1133	125.29	10.045		
7700	4929	7099	4945	70	61	90.71	1342	-1475	1259	1129	130.20	9.668		
7800	4930	7199	4945	72	63	90.71	1413	-1545	1259	1124	135.13	9.318		
7900	4930	7299	4946	75	66	90.71	1484	-1615	1259	1119	140.08	8.990		
8000	4930	7399	4946	77	68	90.71	1556	-1685	1260	1115	145.05	8.685		
8100	4931	7499	4946	80	71	90.71	1627	-1756	1260	1110	150.03	8.398		
8200	4931	7599	4946	82	73	90.71	1698	-1826	1260	1105	155.02	8.130		
8300	4931	7699	4947	85	76	90.71	1769	-1896	1261	1101	160.02	7.878		
8400	4931	7799	4947	87	78	90.71	1840	-1966	1261	1096	165.03	7.640		
8500	4932	7899	4947	90	81	90.71	1911	-2037	1261	1091	170.05	7.416		
8600	4932	7999	4948	92	83	90.71	1983	-2107	1261	1086	175.08	7.205		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 507H - Slot 1
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 507H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 509H - Original Drilling - APD											Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM											Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned:	
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)	Minimum Separation (ft)	Separation Factor
8700	4932	8099	4948	95	86	90.71	2054	-2177	1262	1082	180.12	7.005
8800	4933	8199	4948	97	89	90.71	2125	-2247	1262	1077	185.17	6.815
8900	4933	8299	4949	100	91	90.71	2196	-2318	1262	1072	190.22	6.636
9000	4933	8399	4949	102	94	90.71	2267	-2388	1263	1067	195.28	6.466
9100	4934	8499	4949	105	96	90.70	2338	-2458	1263	1063	200.34	6.304
9200	4934	8599	4949	107	99	90.70	2410	-2528	1263	1058	205.41	6.149
9300	4934	8699	4950	110	101	90.70	2481	-2599	1263	1053	210.49	6.002
9400	4934	8799	4950	112	104	90.70	2552	-2669	1264	1048	215.57	5.862
9500	4935	8899	4950	115	106	90.70	2623	-2739	1264	1043	220.65	5.729
9600	4935	8999	4951	117	109	90.70	2694	-2809	1264	1039	225.74	5.601
9700	4935	9099	4951	120	111	90.70	2765	-2880	1265	1034	230.83	5.479
9800	4936	9199	4951	122	114	90.70	2837	-2950	1265	1029	235.92	5.361
9900	4936	9299	4951	125	116	90.70	2908	-3020	1265	1024	241.02	5.249
9919	4936	9318	4951	125	117	90.70	2921	-3034	1265	1023	242.00	5.228 SF



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 507H - Slot 1
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 507H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Reference Depths are relative to GL 7075' & RKB 14' @ 7089ft

Offset Depths are relative to Offset Datum

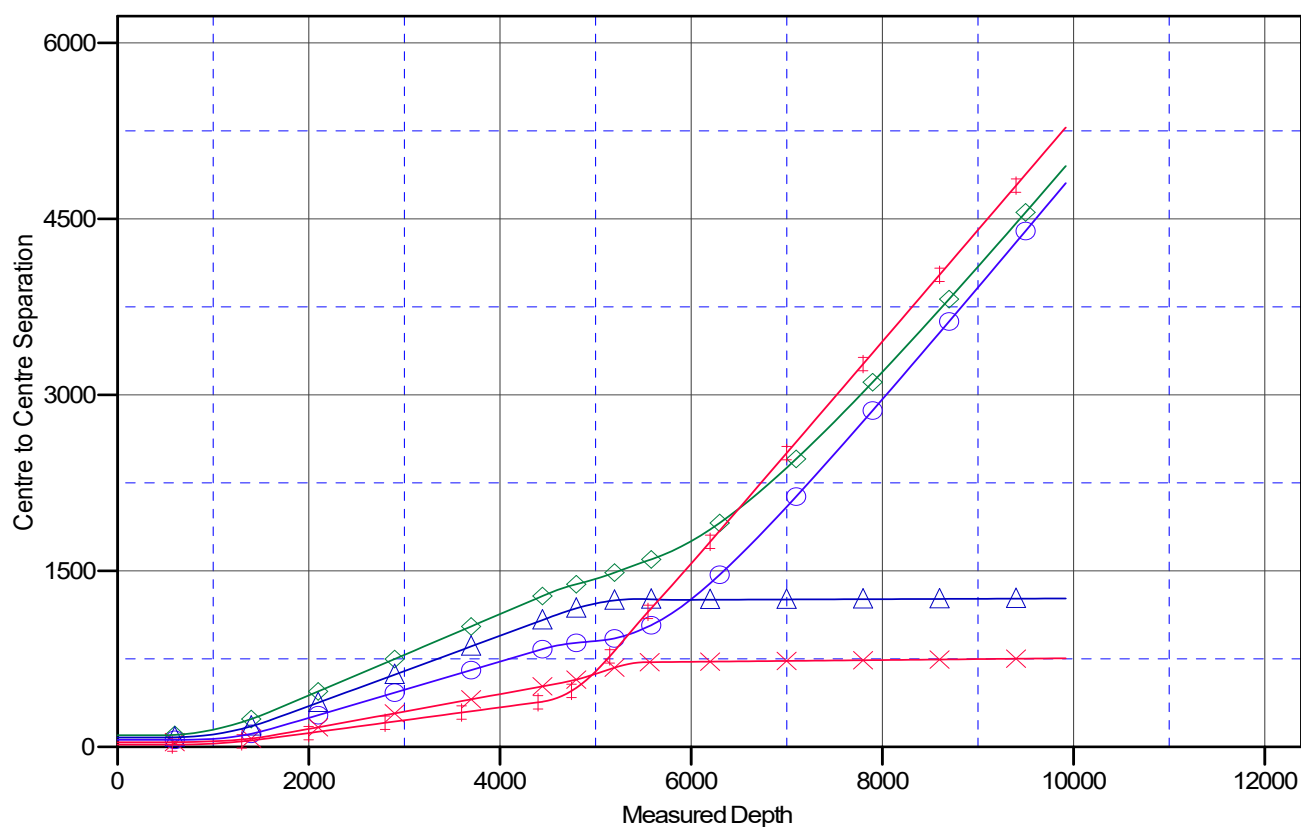
Central Meridian is -107.8333333

Coordinates are relative to: # 507H - Slot 1

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

Grid Convergence at Surface is: 0.24°

Ladder Plot



LEGEND

● # 506H Original Drilling, APDVO ✕ # 504H Original Drilling, APDVO ✕ # 505H Original Drilling, APDVO
◆ # 508H Original Drilling, APDVO ▲ # 509H Original Drilling, APDVO



Lonestar Consulting, LLC
Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 507H - Slot 1
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 507H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Reference Depths are relative to GL 7075' & RKB 14' @ 7089ft

Offset Depths are relative to Offset Datum

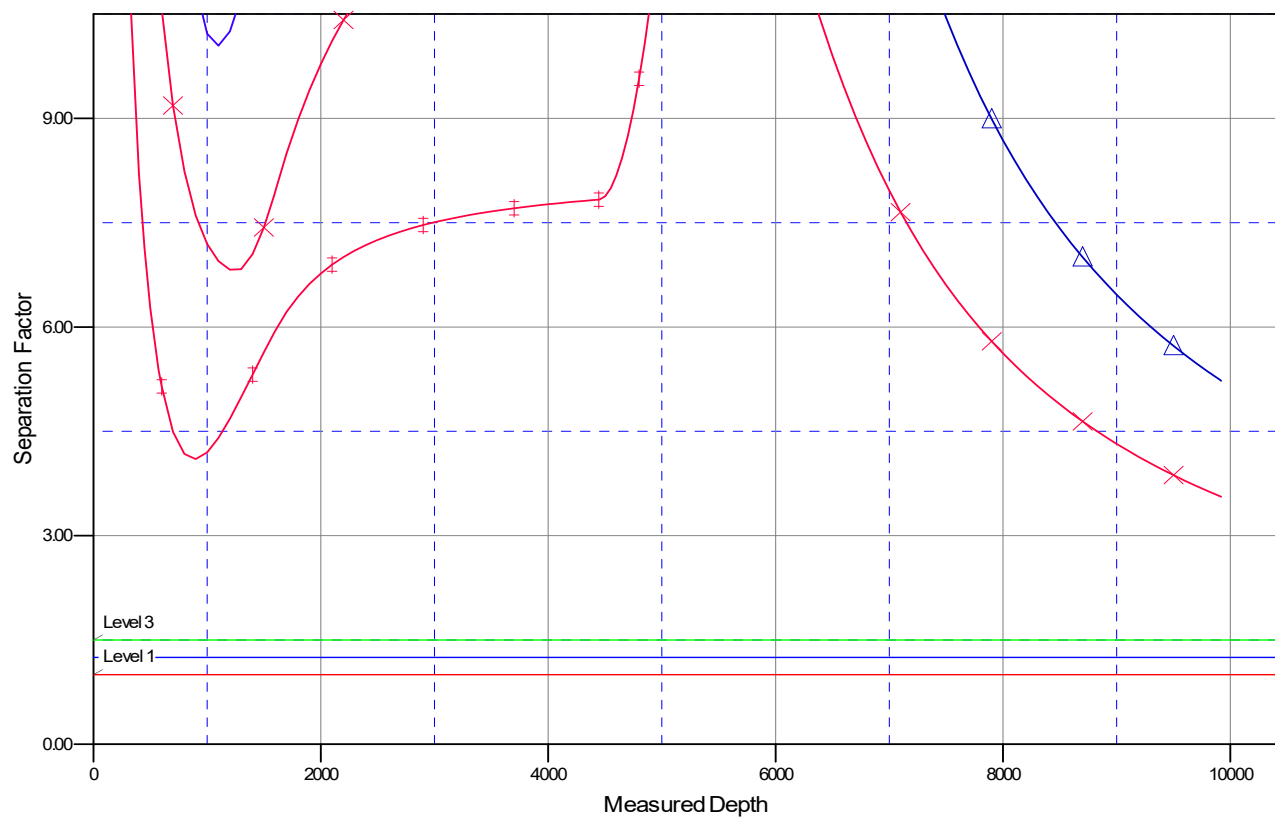
Central Meridian is -107.8333333

Coordinates are relative to: # 507H - Slot 1

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

Grid Convergence at Surface is: 0.24°

Separation Factor Plot



LEGEND

#506H Original Drilling, APOVO
 #504H Original Drilling, APOVO
 #505H Original Drilling, APOVO

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 83656

CONDITIONS

Operator: DJR OPERATING, LLC 1 Road 3263 Aztec, NM 87410	OGRID:
	371838
	Action Number:
	83656
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	2/28/2022
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104	2/28/2022
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	2/28/2022
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing	2/28/2022
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	2/28/2022