

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

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

1a. Type of work: ☐ DRILL ☐ REENTER 1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other 1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone		5. Lease Serial No. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No.
2. Name of Operator		9. API Well No. 30-045-38316
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Exploratory
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area
14. Distance in miles and direction from nearest town or post office*		12. County or Parish
13. State		
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
24. Attachments		

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

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

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

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

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)



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

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

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

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

State of New Mexico
Energy, Minerals & Natural Resources Department

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 30-045-38316	² Pool Code 5860	³ Pool Name BISTI, S-GALLUP (O)
⁴ Property Code 334695	⁵ Property Name PONDEROSA	⁶ Well Number 115H
⁷ GRID No. 371838	⁸ Operator Name DJR OPERATING, LLC	⁹ Elevation 6801

¹⁰ Surface Location

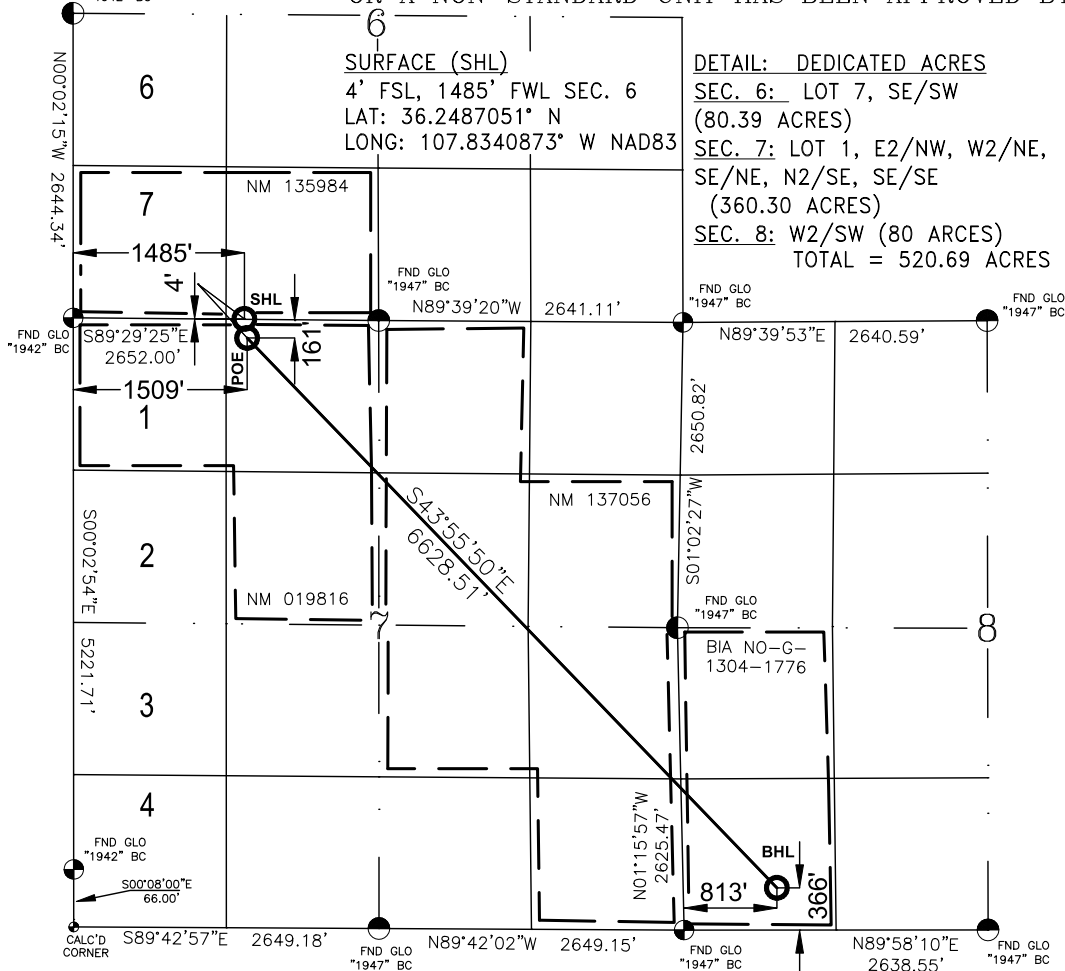
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	6	23-N	9-W		4	SOUTH	1485	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	8	23-N	9-W		366	SOUTH	813	WEST	SAN JUAN

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



POINT OF ENTRY (POE)

161' FNL, 1509' FWL SEC. 7
LAT: 36.2482514° N
LONG: 107.8340049° W NAD83

BOTTOM HOLE (BHL)

366' FSL, 813' FWL SEC. 8
LAT: 36.2351613° N
LONG: 107.8183927° 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 03/18/22

Signature Date

Shaw-Marie Ford

Printed Name

sford@djrlc.com

E-mail Address

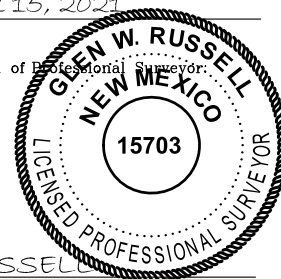
¹⁸ SURVEYOR CERTIFICATION

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.

NOVEMBER 15, 2021

Date of Survey

Signature and Seal of Professional Surveyor:



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:** 09 / 06 / 2023

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
Ponderosa 114H	TBD	C-07-23N-09W	30 FNL x 1534 FWL	383	488	136
Ponderosa 115H	TBD	N-06-23N-09W	4 FSL x 1485 FWL	407	519	145
Ponderosa 116H	TBD	C-07-23N-09W	7 FNL x 1502 FWL	420	535	149
Ponderosa 120H	TBD	C-07-23N-09W	19 FNL x 1518 FWL	371	472	132
Ponderosa 136H	TBD	C-07-23N-09W	41 FNL x 1550 FWL	337	430	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
Ponderosa 114H	TBD	07/01/2024	07/08/2024	08/15/2024	08/25/2024	08/27/2024
Ponderosa 115H	TBD	07/08/2024	07/15/2024	08/15/2024	08/27/2024	08/29/2024
Ponderosa 116H	TBD	07/15/2024	07/22/2024	08/15/2024	08/28/2024	08/30/2024
Ponderosa 120H	TBD	07/22/2024	07/29/2024	08/15/2024	08/29/2024	09/01/2024
Ponderosa 136H	TBD	07/29/2024	08/06/2024	08/15/2024	08/30/2024	09/02/2024

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: 09/06/2023
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
Ponderosa 114H, 115H, 116H, 120H and 136H
NENW C-07-23N-09W

SEPARATION EQUIPMENT

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

Separation equipment will be set as follows:

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

Heater treaters will be set as follows:

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

Vapor Recovery Equipment will be set as follows:

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

Production storage tanks will be set as follows:

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



DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
Ponderosa 114H, 115H, 116H, 120H and 136H
NENW C-07-23N-09W

VENTING and FLARING

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

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

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

DJR will only flare gas during the following times:

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



DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
Ponderosa 114H, 115H, 116H, 120H and 136H
NENW C-07-23N-09W

OPERATIONAL PRACTICES

19.15.27.8 A. Venting and Flaring of Natural Gas

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

19.15.27.8 B. Venting and flaring during drilling operations

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

19.15.27.8 E. Venting and flaring during completion or recompletion operations

During Completion Operations, DJR utilizes the following:

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



19.15.27.8 D. Venting and flaring during production operations

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

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

19.15.27.8 E. Performance standards

1. DJR has utilized process simulations with a safety factor to design all separation and storage equipment. The equipment is routed to a Vapor Recovery System and utilizes a flare as back up for periods of startup, shutdown, maintenance, or malfunction of the VRU System.
2. DJR will install a flare that designed to handle the full volume of vapors from the facility in case of the VRU failure and it 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
Ponderosa 114H, 115H, 116H, 120H and 136H
NENW C-07-23N-09W

BEST MANAGEMENT PRACTICES

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

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

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

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

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

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

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

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

Rev 0



DRILLING PLAN

Ponderosa #115H

San Juan County, New Mexico

Surface Location

1485-ft FWL & 4-ft FSL
 Sec 6 T23 R9
 Graded Elevation 6801' MSL
 RKB Elevation 6815' (14' KB)

SHL Geographical Coordinates (NAD-83)

Latitude 36.2487051° N
 Longitude 107.8340873° W

Kick Off Point for Horizontal Build Curve

3942-ft MD
 3904-ft TVD

Local Coordinates (from SHL)

303-ft North
 403-ft West

Heel Location (Pay zone entry)

1509-ft FWL & 161-ft FNL
 Sec 7 T23 R9

Heel Geographical Coordinates (NAD-83)

Latitude 36.2482514° N
 Longitude 107.83400490° W

Bottom Hole Location (TD)

813-ft FWL & 366-ft FSL
 Sec 8 T23 R9

BHL Geographical Coordinates (NAD-83)

Latitude 36.2351613° N
 Longitude 107.8183927° W

Well objectives

This well is planned as a 6630-ft lateral in the Gallup B sand.

Bottom Hole temperature and pressure

The temperature in the Gallup B horizontal objective is 132°F. Bottom hole pressure in the Gallup B 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	414	414	Sd	W	8.3	8.4 – 8.8
Kirtland	522	522	Sh	-	8.3	8.4 – 8.8
Fruitland	909	907	C	G	8.3	9.0 - 9.5
Pictured Cliffs	1164	1159	Sd	W	8.3	9.0 - 9.5
Lewis	1330	1323	Sh	-		9.0 - 9.5
Chacra	1968	1953	Sd	-	8.3	9.0 - 9.5
Menefee	2598	2576	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	3617	3583	Sd	-	8.3	9.0 - 9.5
Mancos	3773	3737	Sh	-		9.0 - 9.5
Mancos Silt	4081	4042	Slt	O/G	6.6	9.0 - 9.5
Gallup A	4719	4558	Slt	O/G	6.6	9.0 - 9.5
Gallup B	4860	4612	Sd	O/G	6.6	8.8 - 9.0
Gallup C	NP	4716	Sd	O/G	6.6	8.8 - 9.0
Target	5043	4637	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	4984	surf	4635	surface
4-1/2"	6-1/8"	11.6	P-110	BTC	4706	11669	4552	4594	4706

Note: all casing will be new

Rev 0



Casing Design Load Cases

		Casing String		
Description		9-5/8" Surface	7" Intermediate	4-1/2" Production Liner
Collapse	Full internal evacuation 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	3442-ft
Density (ppg)	12.30	13.50
Yield (cf/sx)	2.34	1.50
Mix water (gal/sx)	13.26	7.20
Volume (sx)	333	246
Volume (bbls)	139	66
Volume (cu.ft.)	779	368
Excess %	55	55



Rev 0

4-1/2" Production Liner

	BJ Services
Type	Poz/G
Planned top	4706-ft
Density (ppg)	13.3
Yield (cf/sx)	1.56
Mix water (gal/sx)	7.71
Volume (sx)	585
Volume (bbls)	163
Volume (cu.ft)	914
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 – 4984	9.0 – 9.5	38 – 45	8 – 14	<20
Production	Low solids, non-dispersed	4984 – 11669	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.

Company: DJR Operating
Project: Ponderosa Unit
Site: C07 2309
Well: # 115H
Wellbore: Original Drilling
Design: APD

WELL DETAILS: # 115H

	GL 6801' & RKB 14' @ 6815ft	Latitude	Longitude
+N/-S	0	1909827.14	36.24870510
+E/-W	0	2722869.36	-107.83408730

PROJECT DETAILS: Ponderosa 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 (# 115H/Original Drilling)

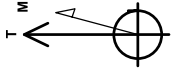
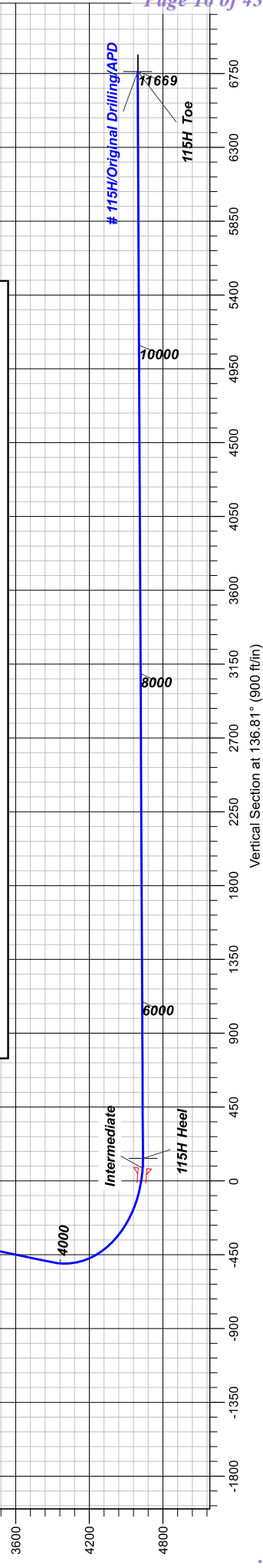
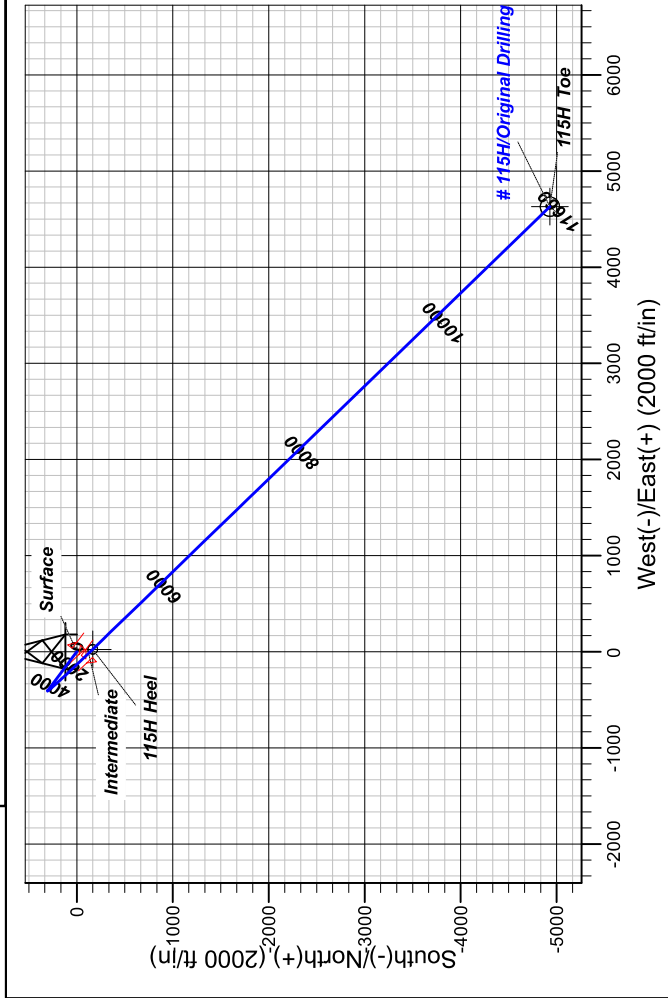
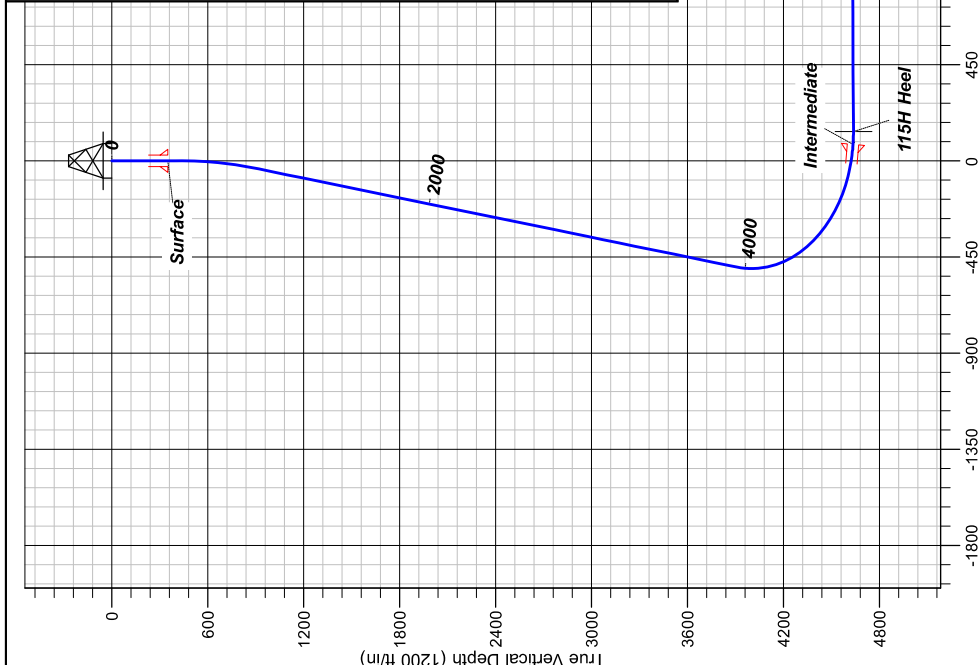
Created By: Janie Collins Date: 15:15, August 31 2021

DESIGN TARGET DETAILS

115H Heel	115H Toe
TVD	TVD
4637	4637
4594	4594
+N/-S	+N/-S
-165	-4930
+E/-W	+E/-W
24	4628
Northing	Northing
1909661.98	2722893.65
1904897.23	2727497.76
Latitude	Latitude
36.24825140	36.23516130
Longitude	Longitude
-107.83400490	-107.81839270

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
0	0.00	0.00	0	0	0.00	0.00	0.00	0
450	8.86	306.94	450	0	0.00	0.00	0.00	0
893	30.61	306.94	891	21	-27	2.00	306.94	-34
3842	90.37	135.98	3841	305	-43	2.00	0.00	-435
5842	90.37	135.98	5837	-165	24	9.00	-17.00	137
11669	90.37	135.98	4594	-4930	4628	0.00	0.00	6762



Azimuths to True North
Magnetic North: 10.15°
Magnetic Field
Strength: 50613.31 nT
Dip Angle: 63.15°
Date: 12/31/2019
Model: IGRF2005.0

CASING DETAILS

TVD	MD	MD	MD
350	350	350	350
4635	4984	4984	4984
		Surface	Intermediate

FORMATION DETAILS

MDPath	Formation
414	Ojo Alamo
522	Kirtland
907	Fruitland
1159	Pictured Cliffs
1330	Lewis
1968	Chacra
2598	Menefee
3583	Point Lookout
3737	Mancos
4042	Mancos Silt
4558	Gallup A
4719	Gallup B
4860	



DJR Operating

Ponderosa Unit

C07 2309

115H - Slot 5

Original Drilling

Plan: APD

Standard Planning Report

30 August, 2021





Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 115H - Slot 5
Company:	DJR Operating	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Project:	Ponderosa Unit	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site:	C07 2309	North Reference:	True
Well:	# 115H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Project	Ponderosa 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	C07 2309				
Site Position:		Northing:	1,909,781.02 usft	Latitude:	36.24857840
From:	Lat/Long	Easting:	2,722,934.49 usft	Longitude:	-107.83386640
Position Uncertainty:	0 ft	Slot Radius:	13.20 in	Grid Convergence:	0.00

Well	# 115H - Slot 5					
Well Position	+N/-S	46 ft	Northing:	1,909,827.14 usft	Latitude:	36.24870510
	+E/-W	-65 ft	Easting:	2,722,869.36 usft	Longitude:	-107.83408730
Position Uncertainty		0 ft	Wellhead Elevation:		Ground Level:	6801 ft

Wellbore	Original Drilling				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	10.02	63.07	50,613.73886709

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	136.81

Plan Survey Tool Program			Date	7/26/2021	
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks	
1	0	11,669	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	
893	8.86	306.94	891	21	-27	2.00	2.00	0.00	306.94	
3942	8.86	306.94	3904	303	-403	0.00	0.00	0.00	0.00	
5043	90.37	135.98	4637	-165	24	9.00	7.40	-15.52	-170.84	115H Heel
11,669	90.37	135.98	4594	-4930	4628	0.00	0.00	0.00	0.00	115H Toe



Lonestar Consulting, LLC

Planning Report



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Project:	Ponderosa Unit	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site:	C07 2309	North Reference:	True
Well:	# 115H	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	306.94	500	0	0	0	2.00	2.00	0.00
600	3.00	306.94	600	2	-3	-4	2.00	2.00	0.00
700	5.00	306.94	700	7	-9	-11	2.00	2.00	0.00
800	7.00	306.94	799	13	-17	-21	2.00	2.00	0.00
893	8.86	306.94	891	21	-27	-34	2.00	2.00	0.00
900	8.86	306.94	898	21	-28	-35	0.00	0.00	0.00
1000	8.86	306.94	997	30	-40	-50	0.00	0.00	0.00
1100	8.86	306.94	1096	40	-53	-65	0.00	0.00	0.00
1200	8.86	306.94	1195	49	-65	-80	0.00	0.00	0.00
1300	8.86	306.94	1293	58	-77	-95	0.00	0.00	0.00
1400	8.86	306.94	1392	67	-90	-111	0.00	0.00	0.00
1500	8.86	306.94	1491	77	-102	-126	0.00	0.00	0.00
1600	8.86	306.94	1590	86	-114	-141	0.00	0.00	0.00
1700	8.86	306.94	1689	95	-127	-156	0.00	0.00	0.00
1800	8.86	306.94	1787	105	-139	-171	0.00	0.00	0.00
1900	8.86	306.94	1886	114	-151	-187	0.00	0.00	0.00
2000	8.86	306.94	1985	123	-164	-202	0.00	0.00	0.00
2100	8.86	306.94	2084	132	-176	-217	0.00	0.00	0.00
2200	8.86	306.94	2183	142	-188	-232	0.00	0.00	0.00
2300	8.86	306.94	2281	151	-201	-247	0.00	0.00	0.00
2400	8.86	306.94	2380	160	-213	-262	0.00	0.00	0.00
2500	8.86	306.94	2479	169	-225	-278	0.00	0.00	0.00
2600	8.86	306.94	2578	179	-238	-293	0.00	0.00	0.00
2700	8.86	306.94	2677	188	-250	-308	0.00	0.00	0.00
2800	8.86	306.94	2775	197	-262	-323	0.00	0.00	0.00
2900	8.86	306.94	2874	206	-274	-338	0.00	0.00	0.00
3000	8.86	306.94	2973	216	-287	-354	0.00	0.00	0.00
3100	8.86	306.94	3072	225	-299	-369	0.00	0.00	0.00
3200	8.86	306.94	3171	234	-311	-384	0.00	0.00	0.00
3300	8.86	306.94	3269	243	-324	-399	0.00	0.00	0.00
3400	8.86	306.94	3368	253	-336	-414	0.00	0.00	0.00
3500	8.86	306.94	3467	262	-348	-429	0.00	0.00	0.00
3600	8.86	306.94	3566	271	-361	-445	0.00	0.00	0.00
3700	8.86	306.94	3665	280	-373	-460	0.00	0.00	0.00
3800	8.86	306.94	3764	290	-385	-475	0.00	0.00	0.00
3900	8.86	306.94	3862	299	-398	-490	0.00	0.00	0.00
3942	8.86	306.94	3904	303	-403	-496	0.00	0.00	0.00
4000	3.79	294.28	3961	306	-408	-503	9.00	-8.73	-21.79
4100	5.65	150.34	4061	303	-409	-501	9.00	1.86	-143.94
4200	14.54	141.42	4160	289	-398	-484	9.00	8.89	-8.93
4300	23.51	139.22	4254	264	-378	-451	9.00	8.97	-2.19
4400	32.50	138.20	4342	229	-347	-404	9.00	8.99	-1.03
4500	41.49	137.58	4422	185	-306	-344	9.00	8.99	-0.62
4600	50.49	137.15	4491	132	-257	-272	9.00	8.99	-0.43
4700	59.48	136.82	4549	72	-202	-190	9.00	9.00	-0.33
4800	68.48	136.55	4593	7	-140	-101	9.00	9.00	-0.27
4900	77.48	136.30	4622	-63	-74	-5	9.00	9.00	-0.24
5000	86.48	136.08	4636	-134	-6	94	9.00	9.00	-0.23



Lonestar Consulting, LLC

Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 115H - Slot 5
Company:	DJR Operating	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Project:	Ponderosa Unit	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site:	C07 2309	North Reference:	True
Well:	# 115H	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)	
5043	90.37	135.98	4637	-165	24	137	9.00	9.00	-0.22	
5100	90.37	135.98	4637	-206	64	194	0.00	0.00	0.00	
5200	90.37	135.98	4636	-278	133	294	0.00	0.00	0.00	
5300	90.37	135.98	4635	-350	203	394	0.00	0.00	0.00	
5400	90.37	135.98	4635	-422	272	494	0.00	0.00	0.00	
5500	90.37	135.98	4634	-494	342	594	0.00	0.00	0.00	
5600	90.37	135.98	4633	-565	411	694	0.00	0.00	0.00	
5700	90.37	135.98	4633	-637	481	794	0.00	0.00	0.00	
5800	90.37	135.98	4632	-709	550	894	0.00	0.00	0.00	
5900	90.37	135.98	4631	-781	620	994	0.00	0.00	0.00	
6000	90.37	135.98	4631	-853	689	1094	0.00	0.00	0.00	
6100	90.37	135.98	4630	-925	759	1194	0.00	0.00	0.00	
6200	90.37	135.98	4630	-997	828	1294	0.00	0.00	0.00	
6300	90.37	135.98	4629	-1069	898	1394	0.00	0.00	0.00	
6400	90.37	135.98	4628	-1141	967	1494	0.00	0.00	0.00	
6500	90.37	135.98	4628	-1213	1037	1594	0.00	0.00	0.00	
6600	90.37	135.98	4627	-1285	1106	1694	0.00	0.00	0.00	
6700	90.37	135.98	4626	-1356	1175	1794	0.00	0.00	0.00	
6800	90.37	135.98	4626	-1428	1245	1894	0.00	0.00	0.00	
6900	90.37	135.98	4625	-1500	1314	1994	0.00	0.00	0.00	
7000	90.37	135.98	4624	-1572	1384	2093	0.00	0.00	0.00	
7100	90.37	135.98	4624	-1644	1453	2193	0.00	0.00	0.00	
7200	90.37	135.98	4623	-1716	1523	2293	0.00	0.00	0.00	
7300	90.37	135.98	4622	-1788	1592	2393	0.00	0.00	0.00	
7400	90.37	135.98	4622	-1860	1662	2493	0.00	0.00	0.00	
7500	90.37	135.98	4621	-1932	1731	2593	0.00	0.00	0.00	
7600	90.37	135.98	4620	-2004	1801	2693	0.00	0.00	0.00	
7700	90.37	135.98	4620	-2076	1870	2793	0.00	0.00	0.00	
7800	90.37	135.98	4619	-2148	1940	2893	0.00	0.00	0.00	
7900	90.37	135.98	4618	-2219	2009	2993	0.00	0.00	0.00	
8000	90.37	135.98	4618	-2291	2079	3093	0.00	0.00	0.00	
8100	90.37	135.98	4617	-2363	2148	3193	0.00	0.00	0.00	
8200	90.37	135.98	4617	-2435	2218	3293	0.00	0.00	0.00	
8300	90.37	135.98	4616	-2507	2287	3393	0.00	0.00	0.00	
8400	90.37	135.98	4615	-2579	2357	3493	0.00	0.00	0.00	
8500	90.37	135.98	4615	-2651	2426	3593	0.00	0.00	0.00	
8600	90.37	135.98	4614	-2723	2496	3693	0.00	0.00	0.00	
8700	90.37	135.98	4613	-2795	2565	3793	0.00	0.00	0.00	
8800	90.37	135.98	4613	-2867	2635	3893	0.00	0.00	0.00	
8900	90.37	135.98	4612	-2939	2704	3993	0.00	0.00	0.00	
9000	90.37	135.98	4611	-3010	2774	4093	0.00	0.00	0.00	
9100	90.37	135.98	4611	-3082	2843	4193	0.00	0.00	0.00	
9200	90.37	135.98	4610	-3154	2913	4293	0.00	0.00	0.00	
9300	90.37	135.98	4609	-3226	2982	4393	0.00	0.00	0.00	
9400	90.37	135.98	4609	-3298	3052	4493	0.00	0.00	0.00	
9500	90.37	135.98	4608	-3370	3121	4593	0.00	0.00	0.00	
9600	90.37	135.98	4607	-3442	3191	4693	0.00	0.00	0.00	
9700	90.37	135.98	4607	-3514	3260	4793	0.00	0.00	0.00	
9800	90.37	135.98	4606	-3586	3330	4893	0.00	0.00	0.00	
9900	90.37	135.98	4605	-3658	3399	4993	0.00	0.00	0.00	
10,000	90.37	135.98	4605	-3730	3469	5093	0.00	0.00	0.00	
10,100	90.37	135.98	4604	-3801	3538	5193	0.00	0.00	0.00	
10,200	90.37	135.98	4604	-3873	3608	5293	0.00	0.00	0.00	
10,300	90.37	135.98	4603	-3945	3677	5393	0.00	0.00	0.00	



Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 115H - Slot 5
Company:	DJR Operating	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Project:	Ponderosa Unit	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site:	C07 2309	North Reference:	True
Well:	# 115H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,400	90.37	135.98	4602	-4017	3747	5493	0.00	0.00	0.00	
10,500	90.37	135.98	4602	-4089	3816	5593	0.00	0.00	0.00	
10,600	90.37	135.98	4601	-4161	3885	5693	0.00	0.00	0.00	
10,700	90.37	135.98	4600	-4233	3955	5793	0.00	0.00	0.00	
10,800	90.37	135.98	4600	-4305	4024	5893	0.00	0.00	0.00	
10,900	90.37	135.98	4599	-4377	4094	5993	0.00	0.00	0.00	
11,000	90.37	135.98	4598	-4449	4163	6093	0.00	0.00	0.00	
11,100	90.37	135.98	4598	-4521	4233	6193	0.00	0.00	0.00	
11,200	90.37	135.98	4597	-4592	4302	6293	0.00	0.00	0.00	
11,300	90.37	135.98	4596	-4664	4372	6393	0.00	0.00	0.00	
11,400	90.37	135.98	4596	-4736	4441	6493	0.00	0.00	0.00	
11,500	90.37	135.98	4595	-4808	4511	6593	0.00	0.00	0.00	
11,600	90.37	135.98	4594	-4880	4580	6693	0.00	0.00	0.00	
11,669	90.37	135.98	4594	-4930	4628	6762	0.00	0.00	0.00	

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
115H Toe	0.00	0.00	4594	-4930	4628	1,904,897.24	2,727,497.76	36.23516130	-107.81839270
- plan hits target center									
- Circle (radius 100)									
115H Heel	0.00	0.00	4637	-165	24	1,909,661.99	2,722,893.65	36.24825140	-107.83400490
- plan hits target center									
- Circle (radius 50)									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
350	350	Surface	9.63	12.25	
4984	4635	Intermediate	7.00	8.75	



Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 115H - Slot 5
Company:	DJR Operating	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Project:	Ponderosa Unit	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site:	C07 2309	North Reference:	True
Well:	# 115H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
414	414	Ojo Alamo		0.00	0.00	
522	522	Kirtland		0.00	0.00	
909	907	Fruitland		0.00	0.00	
1164	1159	Pictured Cliffs		0.00	0.00	
1330	1323	Lewis		0.00	0.00	
1968	1953	Chacra		0.00	0.00	
2598	2576	Menefee		0.00	0.00	
3617	3583	Point Lookout		0.00	0.00	
3773	3737	Mancos		0.00	0.00	
4081	4042	Mancos Silt		0.00	0.00	
4719	4558	Gallup A		0.00	0.00	
4860	4612	Gallup B		0.00	0.00	



DJR Operating

Ponderosa Unit

C07 2309

115H

Original Drilling

APD

Anticollision Report

30 August, 2021





Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 115H - Slot 5
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 115H	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 2000ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	7/26/2021		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0	11,669	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						
C07 2309						
# 114H - Original Drilling - APD	450	450	60	57	21.265	CC
# 114H - Original Drilling - APD	600	603	61	57	15.648	ES
# 114H - Original Drilling - APD	10,962	11,460	746	417	2.265	SF
# 116H - Original Drilling - APD	450	450	20	17	7.095	CC
# 116H - Original Drilling - APD	500	500	20	17	6.347	ES
# 116H - Original Drilling - APD	11,669	11,641	592	245	1.705	SF
# 120H - Original Drilling - APD	450	450	40	37	14.153	CC
# 120H - Original Drilling - APD	500	500	40	37	12.619	ES
# 120H - Original Drilling - APD	11,669	11,228	684	337	1.972	SF
# 136H - Original Drilling - APD	450	450	80	77	28.326	CC
# 136H - Original Drilling - APD	500	501	80	77	25.179	ES
# 136H - Original Drilling - APD	11,025	10,941	701	381	2.187	SF

Offset Design: C07 2309 - # 114H - 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		Minimum Separation		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)	Separation Factor			
0	0	0	0	0	0	125.47	-35	49	60					
100	100	100	100	0	0	125.47	-35	49	60	60	0.31	194.350		
200	200	200	200	1	1	125.47	-35	49	60	59	1.03	58.441		
300	300	300	300	1	1	125.47	-35	49	60	58	1.74	34.391		
400	400	400	400	1	1	125.47	-35	49	60	57	2.46	24.365		
450	450	450	450	1	1	125.47	-35	49	60	57	2.82	21.265 CC		
500	500	501	501	2	2	178.79	-35	48	60	57	3.17	18.908		
600	600	603	602	2	2	-179.12	-35	45	61	57	3.88	15.648 ES		
700	700	704	704	2	2	-175.09	-35	38	62	58	4.59	13.565		
800	799	805	805	3	3	-169.47	-35	27	65	60	5.31	12.264		
893	891	900	898	3	3	-163.28	-35	14	69	63	6.00	11.573		
900	898	907	905	3	3	-162.81	-35	13	70	64	6.05	11.534		
1000	997	1007	1004	3	3	-155.20	-35	-5	75	68	6.82	10.990		
1100	1096	1108	1102	4	4	-146.36	-36	-26	80	72	7.64	10.484		
1200	1195	1207	1198	4	4	-136.55	-36	-51	86	78	8.50	10.140		
1300	1293	1306	1293	5	5	-126.24	-36	-78	94	85	9.39	10.056		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 115H - Slot 5
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 115H	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: C07 2309 - # 114H - 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	Distance	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
							+N/-S (ft)	+E/-W (ft)						
1400	1392	1403	1385	5	5	-116.10	-37	-108	106	96	10.29	10.295		
1500	1491	1500	1478	5	6	-107.45	-37	-140	121	109	11.16	10.796		
1600	1590	1598	1570	6	6	-100.74	-37	-171	137	125	12.02	11.423		
1700	1689	1695	1662	6	7	-95.52	-38	-203	156	143	12.86	12.091		
1800	1787	1793	1754	7	8	-91.40	-38	-234	175	161	13.70	12.756		
1900	1886	1890	1846	7	8	-88.10	-38	-266	195	180	14.53	13.395		
2000	1985	1988	1939	8	9	-85.42	-39	-298	215	200	15.37	13.999		
2100	2084	2085	2031	8	9	-83.20	-39	-329	236	220	16.20	14.564		
2200	2183	2182	2123	8	10	-81.34	-39	-361	257	240	17.03	15.090		
2300	2281	2280	2215	9	11	-79.77	-40	-392	278	260	17.87	15.578		
2400	2380	2377	2307	9	11	-78.41	-40	-424	300	281	18.70	16.031		
2500	2479	2475	2399	10	12	-77.24	-41	-455	321	302	19.54	16.451		
2600	2578	2572	2492	10	12	-76.22	-41	-487	343	323	20.38	16.841		
2700	2677	2670	2584	10	13	-75.31	-41	-518	365	344	21.22	17.204		
2800	2775	2767	2676	11	14	-74.51	-42	-550	387	365	22.06	17.542		
2900	2874	2864	2768	11	14	-73.80	-42	-582	409	386	22.90	17.858		
3000	2973	2962	2860	12	15	-73.16	-42	-613	431	407	23.74	18.153		
3100	3072	3059	2953	12	15	-72.58	-43	-645	453	428	24.59	18.429		
3200	3171	3157	3045	12	16	-72.05	-43	-676	475	450	25.43	18.687		
3300	3269	3254	3137	13	17	-71.57	-44	-708	497	471	26.27	18.931		
3400	3368	3352	3229	13	17	-71.13	-44	-739	520	492	27.12	19.159		
3500	3467	3449	3321	14	18	-70.73	-44	-771	542	514	27.96	19.375		
3600	3566	3546	3413	14	18	-70.36	-45	-802	564	535	28.81	19.578		
3700	3665	3644	3506	15	19	-70.02	-45	-834	586	557	29.65	19.770		
3800	3764	3741	3598	15	20	-69.70	-45	-866	609	578	30.50	19.952		
3900	3862	3839	3690	15	20	-69.41	-46	-897	631	599	31.35	20.125		
3942	3904	3880	3729	16	21	-69.29	-46	-910	640	608	31.70	20.194		
3950	3912	3887	3736	16	21	-68.62	-46	-913	642	610	31.77	20.208		
4000	3961	3936	3782	16	21	-57.53	-46	-929	654	621	32.15	20.331		
4050	4011	3984	3827	16	21	45.00	-46	-944	666	634	32.46	20.517		
4100	4061	4031	3871	16	22	85.59	-46	-959	679	647	32.72	20.764		
4150	4111	4076	3915	16	22	91.86	-47	-974	693	661	32.91	21.068		
4200	4160	4120	3956	16	22	94.33	-47	-988	709	676	33.07	21.430		
4250	4208	4163	3997	16	22	95.67	-47	-1002	725	692	33.18	21.851		
4300	4254	4203	4035	17	23	96.49	-47	-1015	743	709	33.26	22.330		
4350	4299	4264	4093	17	23	97.93	-49	-1033	761	728	33.53	22.706		
4400	4342	4336	4162	17	23	99.44	-57	-1050	780	746	33.85	23.039		
4450	4383	4416	4240	17	24	100.91	-72	-1061	798	764	34.18	23.357		
4500	4422	4506	4326	17	24	102.33	-98	-1065	816	781	34.47	23.663		
4550	4458	4608	4420	17	24	103.63	-137	-1059	831	797	34.71	23.954		
4600	4491	4722	4518	17	24	104.68	-191	-1038	845	810	34.94	24.188		
4650	4522	4848	4613	17	24	105.31	-263	-999	856	821	35.30	24.251		
4700	4549	4982	4696	18	24	105.32	-351	-940	864	827	36.09	23.928		
4750	4572	5119	4757	18	25	104.63	-447	-865	867	830	37.57	23.081		
4800	4593	5253	4791	19	25	103.28	-544	-780	867	827	39.82	21.767		
4850	4609	5366	4798	19	26	101.69	-625	-701	863	821	42.30	20.406		
4900	4622	5414	4798	20	27	101.26	-659	-667	859	816	43.69	19.667		
4950	4631	5463	4798	20	27	100.96	-694	-633	856	811	45.15	18.968		
5000	4636	5513	4798	21	28	100.82	-729	-597	854	808	46.65	18.314		
5043	4637	5556	4797	21	29	100.84	-759	-567	853	805	47.98	17.780		
5100	4637	5613	4797	22	29	100.86	-799	-527	852	802	49.79	17.115		
5200	4636	5713	4796	24	31	100.88	-870	-456	850	797	53.22	15.978		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 115H - Slot 5
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 115H	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: C07 2309 - # 114H - 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		
5300	4635	5813	4796	26	33	100.91	-940	-385	848	792	56.89	14.914		
5400	4635	5913	4795	28	35	100.94	-1011	-314	847	786	60.77	13.932		
5500	4634	6013	4795	30	37	100.97	-1082	-243	845	780	64.82	13.034		
5600	4633	6113	4794	32	39	101.00	-1152	-172	843	774	69.00	12.218		
5700	4633	6213	4794	34	41	101.03	-1223	-102	841	768	73.29	11.478		
5800	4632	6313	4793	36	43	101.06	-1293	-31	839	762	77.67	10.807		
5900	4631	6413	4792	38	46	101.09	-1364	40	838	755	82.14	10.198		
6000	4631	6513	4792	41	48	101.12	-1435	111	836	749	86.66	9.644		
6100	4630	6613	4791	43	50	101.15	-1505	182	834	743	91.25	9.140		
6200	4630	6712	4791	45	53	101.19	-1576	252	832	736	95.87	8.679		
6300	4629	6812	4790	48	55	101.22	-1646	323	830	730	100.54	8.258		
6400	4628	6912	4790	50	58	101.25	-1717	394	829	723	105.25	7.872		
6500	4628	7012	4789	53	60	101.28	-1787	465	827	717	109.98	7.517		
6600	4627	7112	4789	55	62	101.31	-1858	536	825	710	114.74	7.189		
6700	4626	7212	4788	57	65	101.34	-1929	606	823	704	119.53	6.886		
6800	4626	7312	4787	60	67	101.37	-1999	677	821	697	124.33	6.605		
6900	4625	7412	4787	62	70	101.40	-2070	748	819	690	129.15	6.345		
7000	4624	7512	4786	65	72	101.44	-2140	819	818	684	133.99	6.102		
7100	4624	7612	4786	67	75	101.47	-2211	890	816	677	138.84	5.876		
7200	4623	7712	4785	70	77	101.50	-2282	960	814	670	143.70	5.664		
7300	4622	7812	4785	72	80	101.53	-2352	1031	812	664	148.58	5.466		
7400	4622	7912	4784	75	82	101.56	-2423	1102	810	657	153.46	5.280		
7500	4621	8012	4783	77	85	101.60	-2493	1173	809	650	158.35	5.106		
7600	4620	8112	4783	80	87	101.63	-2564	1244	807	643	163.25	4.941		
7700	4620	8212	4782	82	90	101.66	-2635	1314	805	637	168.16	4.786		
7800	4619	8312	4782	85	92	101.69	-2705	1385	803	630	173.08	4.640		
7900	4618	8412	4781	87	95	101.73	-2776	1456	801	623	178.00	4.502		
8000	4618	8512	4781	90	97	101.76	-2846	1527	799	617	182.92	4.371		
8100	4617	8612	4780	92	100	101.79	-2917	1598	798	610	187.85	4.246		
8200	4617	8712	4780	95	102	101.83	-2987	1668	796	603	192.79	4.128		
8300	4616	8812	4779	97	105	101.86	-3058	1739	794	596	197.72	4.016		
8400	4615	8912	4778	100	107	101.89	-3129	1810	792	590	202.66	3.909		
8500	4615	9012	4778	102	110	101.93	-3199	1881	790	583	207.61	3.807		
8600	4614	9112	4777	105	112	101.96	-3270	1952	789	576	212.56	3.710		
8700	4613	9212	4777	107	115	102.00	-3340	2023	787	569	217.51	3.617		
8800	4613	9312	4776	110	118	102.03	-3411	2093	785	563	222.46	3.529		
8900	4612	9412	4776	112	120	102.07	-3482	2164	783	556	227.41	3.444		
9000	4611	9512	4775	115	123	102.10	-3552	2235	781	549	232.36	3.363		
9100	4611	9612	4774	118	125	102.14	-3623	2306	780	542	237.32	3.285		
9200	4610	9712	4774	120	128	102.17	-3693	2377	778	535	242.28	3.210		
9300	4609	9812	4773	123	130	102.21	-3764	2447	776	529	247.24	3.138		
9400	4609	9912	4773	125	133	102.24	-3835	2518	774	522	252.20	3.069		
9500	4608	10,012	4772	128	135	102.28	-3905	2589	772	515	257.16	3.003		
9600	4607	10,112	4772	130	138	102.31	-3976	2660	770	508	262.12	2.939		
9700	4607	10,212	4771	133	140	102.35	-4046	2731	769	502	267.08	2.878		
9800	4606	10,312	4770	135	143	102.38	-4117	2801	767	495	272.04	2.819		
9900	4605	10,412	4770	138	146	102.42	-4187	2872	765	488	277.01	2.762		
10,000	4605	10,512	4769	140	148	102.46	-4258	2943	763	481	281.97	2.707		
10,100	4604	10,612	4769	143	151	102.49	-4329	3014	761	475	286.93	2.654		
10,200	4604	10,712	4768	145	153	102.53	-4399	3085	760	468	291.89	2.603		
10,300	4603	10,812	4768	148	156	102.57	-4470	3155	758	461	296.86	2.553		
10,400	4602	10,912	4767	151	158	102.60	-4540	3226	756	454	301.82	2.505		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 115H - Slot 5
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 115H	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: C07 2309 - # 114H - 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)			
10,500	4602	11,012	4767	153	161	102.64	-4611	3297	754	447	306.78	2.459	
10,600	4601	11,112	4766	156	164	102.68	-4682	3368	752	441	311.74	2.414	
10,700	4600	11,212	4765	158	166	102.72	-4752	3439	751	434	316.70	2.370	
10,800	4600	11,312	4765	161	169	102.75	-4823	3509	749	427	321.66	2.328	
10,900	4599	11,412	4764	163	171	102.79	-4893	3580	747	420	326.62	2.287	
10,962	4599	11,460	4764	165	172	102.81	-4928	3615	746	417	329.37	2.265 SF	
11,000	4598	11,460	4764	166	172	102.81	-4928	3615	747	417	329.78	2.265	
11,100	4598	11,460	4764	168	172	102.81	-4928	3615	759	432	326.93	2.321	
11,200	4597	11,460	4764	171	172	102.81	-4928	3615	783	464	318.99	2.455	
11,300	4596	11,460	4764	174	172	102.81	-4928	3615	819	512	307.22	2.666	
11,400	4596	11,460	4764	176	172	102.81	-4928	3615	865	572	293.05	2.952	
11,500	4595	11,460	4764	179	172	102.81	-4928	3615	920	642	277.77	3.312	
11,600	4594	11,460	4764	181	172	102.81	-4928	3615	982	719	262.34	3.742	
11,669	4594	11,460	4764	183	172	102.81	-4928	3615	1028	776	251.93	4.081	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 115H - Slot 5
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 115H	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: C07 2309 - # 116H - 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 (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0	0	0	0	0	0	125.64	-12	16	20					
100	100	100	100	0	0	125.64	-12	16	20	20	0.31	64.846		
200	200	200	200	1	1	125.64	-12	16	20	19	1.03	19.499		
300	300	300	300	1	1	125.64	-12	16	20	18	1.74	11.475		
400	400	400	400	1	1	125.64	-12	16	20	18	2.46	8.129		
450	450	450	450	1	1	125.64	-12	16	20	17	2.82	7.095 CC		
500	500	500	500	2	2	177.76	-11	16	20	17	3.18	6.347 ES		
600	600	601	601	2	2	170.82	-8	16	22	18	3.89	5.559		
700	700	701	700	2	2	159.73	-1	15	25	21	4.60	5.492		
800	799	801	800	3	3	148.50	10	15	32	27	5.33	6.004		
893	891	893	892	3	3	141.97	21	14	41	35	6.02	6.869		
900	898	900	898	3	3	141.70	22	14	42	36	6.07	6.939		
1000	997	999	997	3	3	138.72	34	13	54	47	6.81	7.884		
1100	1096	1099	1095	4	4	136.80	46	12	65	58	7.57	8.645		
1200	1195	1198	1194	4	4	135.46	59	11	77	69	8.33	9.267		
1300	1293	1297	1293	5	5	134.48	71	11	89	80	9.09	9.783		
1400	1392	1397	1391	5	5	133.73	83	10	101	91	9.86	10.218		
1500	1491	1496	1490	5	5	133.13	95	9	113	102	10.63	10.588		
1600	1590	1595	1588	6	6	132.65	108	8	124	113	11.40	10.907		
1700	1689	1694	1687	6	6	132.25	120	7	136	124	12.17	11.184		
1800	1787	1794	1785	7	6	131.92	132	6	148	135	12.95	11.427		
1900	1886	1893	1884	7	7	131.63	144	6	160	146	13.73	11.642		
2000	1985	1992	1982	8	7	131.39	156	5	172	157	14.51	11.833		
2100	2084	2092	2081	8	8	131.17	169	4	183	168	15.29	12.004		
2200	2183	2191	2179	8	8	130.98	181	3	195	179	16.07	12.158		
2300	2281	2290	2278	9	8	130.82	193	2	207	190	16.85	12.297		
2400	2380	2389	2376	9	9	130.67	205	1	219	201	17.63	12.424		
2500	2479	2489	2475	10	9	130.53	218	1	231	212	18.41	12.540		
2600	2578	2588	2574	10	10	130.41	230	0	243	224	19.19	12.646		
2700	2677	2687	2672	10	10	130.31	242	-1	255	235	19.98	12.743		
2800	2775	2787	2771	11	10	130.21	254	-2	266	246	20.76	12.833		
2900	2874	2886	2869	11	11	130.11	267	-3	278	257	21.54	12.916		
3000	2973	2985	2968	12	11	130.03	279	-4	290	268	22.33	12.994		
3100	3072	3085	3066	12	12	129.95	291	-5	302	279	23.11	13.066		
3200	3171	3184	3165	12	12	129.88	303	-5	314	290	23.89	13.133		
3300	3269	3283	3263	13	12	129.82	315	-6	326	301	24.68	13.195		
3400	3368	3382	3362	13	13	129.76	328	-7	337	312	25.46	13.254		
3500	3467	3482	3460	14	13	129.70	340	-8	349	323	26.25	13.309		
3600	3566	3581	3559	14	13	129.64	352	-9	361	334	27.03	13.361		
3700	3665	3680	3657	15	14	129.59	364	-10	373	345	27.82	13.410		
3800	3764	3780	3756	15	14	129.55	377	-10	385	356	28.60	13.457		
3900	3862	3879	3854	15	15	129.50	389	-11	397	367	29.39	13.500		
3942	3904	3921	3896	16	15	129.49	394	-12	402	372	29.72	13.518		
3950	3912	3929	3904	16	15	130.36	395	-12	403	373	29.78	13.520		
4000	3961	3978	3953	16	15	142.16	401	-12	407	377	30.17	13.501		
4050	4011	4028	4002	16	15	-115.44	407	-13	410	379	30.54	13.425		
4100	4061	4077	4051	16	15	-75.77	413	-13	411	380	30.89	13.300		
4150	4111	4125	4099	16	16	-71.15	419	-13	410	379	31.23	13.131		
4200	4160	4167	4141	16	16	-70.66	424	-13	408	377	31.52	12.955		
4250	4208	4200	4173	16	16	-71.05	427	-12	407	375	31.69	12.826		
4300	4254	4242	4215	17	16	-72.48	429	-9	405	373	31.94	12.679		
4350	4299	4280	4253	17	16	-74.05	429	-5	404	372	32.14	12.567		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 115H - Slot 5
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 115H	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: C07 2309 - # 116H - 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
4400	4342	4319	4292	17	16	-75.86	427	1	403	371	32.34	12.468	
4427	4365	4341	4313	17	16	-76.94	425	5	403	371	32.47	12.418	
4450	4383	4359	4330	17	16	-77.85	423	9	403	371	32.57	12.380	
4500	4422	4400	4370	17	16	-79.98	418	19	404	371	32.83	12.301	
4550	4458	4441	4408	17	17	-82.16	411	31	405	372	33.13	12.234	
4600	4491	4483	4447	17	17	-84.44	401	45	408	374	33.47	12.175	
4650	4522	4527	4486	17	17	-86.77	389	61	411	377	33.86	12.127	
4700	4549	4572	4525	18	17	-89.13	375	80	415	380	34.29	12.091	
4750	4572	4619	4563	18	17	-91.51	359	101	420	385	34.76	12.068	
4800	4593	4667	4600	19	17	-93.89	339	125	425	390	35.26	12.061	
4850	4609	4717	4636	19	17	-96.28	317	151	432	396	35.79	12.067	
4900	4622	4770	4671	20	17	-98.65	291	181	439	403	36.34	12.086	
4950	4631	4825	4704	20	18	-101.00	262	214	447	410	36.91	12.111	
5000	4636	4883	4734	21	18	-103.33	229	251	455	418	37.53	12.134	
5043	4637	4935	4758	21	18	-105.33	197	285	463	425	38.11	12.145	
5100	4637	5009	4785	22	19	-108.41	150	336	472	433	39.04	12.088	
5200	4636	5153	4813	24	21	-111.51	52	437	482	441	41.63	11.585	
5300	4635	5273	4815	26	23	-111.70	-32	522	485	440	44.96	10.782	
5400	4635	5373	4814	28	24	-111.62	-103	592	486	438	48.37	10.056	
5500	4634	5473	4813	30	26	-111.54	-173	663	488	436	52.01	9.383	
5600	4633	5573	4813	32	28	-111.47	-244	734	490	434	55.84	8.770	
5700	4633	5673	4812	34	30	-111.39	-314	805	491	432	59.82	8.213	
5800	4632	5773	4811	36	32	-111.31	-385	875	493	429	63.93	7.712	
5900	4631	5873	4811	38	35	-111.24	-456	946	495	427	68.14	7.259	
6000	4631	5973	4810	41	37	-111.16	-526	1017	496	424	72.44	6.852	
6100	4630	6073	4809	43	39	-111.09	-597	1088	498	421	76.81	6.484	
6200	4630	6173	4809	45	41	-111.01	-668	1158	500	418	81.23	6.151	
6300	4629	6273	4808	48	44	-110.94	-738	1229	501	416	85.72	5.849	
6400	4628	6373	4807	50	46	-110.86	-809	1300	503	413	90.24	5.574	
6500	4628	6473	4807	53	49	-110.79	-880	1371	505	410	94.80	5.323	
6600	4627	6573	4806	55	51	-110.72	-950	1441	506	407	99.40	5.094	
6700	4626	6673	4805	57	53	-110.65	-1021	1512	508	404	104.03	4.883	
6800	4626	6773	4805	60	56	-110.57	-1092	1583	510	401	108.68	4.689	
6900	4625	6873	4804	62	58	-110.50	-1162	1654	511	398	113.36	4.511	
7000	4624	6973	4803	65	61	-110.43	-1233	1724	513	395	118.06	4.345	
7100	4624	7073	4803	67	63	-110.36	-1304	1795	515	392	122.78	4.192	
7200	4623	7173	4802	70	66	-110.29	-1374	1866	516	389	127.52	4.049	
7300	4622	7273	4801	72	68	-110.22	-1445	1937	518	386	132.27	3.916	
7400	4622	7373	4801	75	71	-110.15	-1515	2007	520	383	137.03	3.792	
7500	4621	7473	4800	77	73	-110.09	-1586	2078	521	380	141.81	3.676	
7600	4620	7572	4799	80	76	-110.02	-1657	2149	523	376	146.61	3.568	
7700	4620	7672	4799	82	78	-109.95	-1727	2220	525	373	151.41	3.465	
7800	4619	7772	4798	85	81	-109.88	-1798	2290	526	370	156.22	3.369	
7900	4618	7872	4798	87	83	-109.82	-1869	2361	528	367	161.05	3.279	
8000	4618	7972	4797	90	86	-109.75	-1939	2432	530	364	165.88	3.193	
8100	4617	8072	4796	92	88	-109.68	-2010	2503	531	361	170.72	3.113	
8200	4617	8172	4796	95	91	-109.62	-2081	2573	533	358	175.57	3.036	
8300	4616	8272	4795	97	93	-109.55	-2151	2644	535	354	180.43	2.964	
8400	4615	8372	4794	100	96	-109.49	-2222	2715	536	351	185.30	2.895	
8500	4615	8472	4794	102	98	-109.42	-2293	2786	538	348	190.17	2.830	
8600	4614	8572	4793	105	101	-109.36	-2363	2856	540	345	195.05	2.768	
8700	4613	8672	4792	107	104	-109.30	-2434	2927	541	342	199.93	2.708	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 115H - Slot 5
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 115H	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: C07 2309 - # 116H - 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		
8800	4613	8772	4792	110	106	-109.23	-2505	2998	543	338	204.82	2.652		
8900	4612	8872	4791	112	109	-109.17	-2575	3069	545	335	209.72	2.598		
9000	4611	8972	4790	115	111	-109.11	-2646	3139	547	332	214.62	2.547		
9100	4611	9072	4790	118	114	-109.05	-2716	3210	548	329	219.53	2.497		
9200	4610	9172	4789	120	116	-108.99	-2787	3281	550	325	224.44	2.450		
9300	4609	9272	4788	123	119	-108.92	-2858	3352	552	322	229.36	2.405		
9400	4609	9372	4788	125	121	-108.86	-2928	3422	553	319	234.28	2.362		
9500	4608	9472	4787	128	124	-108.80	-2999	3493	555	316	239.21	2.320		
9600	4607	9572	4786	130	127	-108.74	-3070	3564	557	313	244.14	2.280		
9700	4607	9672	4786	133	129	-108.68	-3140	3635	558	309	249.08	2.242		
9800	4606	9772	4785	135	132	-108.62	-3211	3705	560	306	254.02	2.205		
9900	4605	9872	4784	138	134	-108.57	-3282	3776	562	303	258.96	2.169		
10,000	4605	9972	4784	140	137	-108.51	-3352	3847	563	300	263.91	2.135		
10,100	4604	10,072	4783	143	139	-108.45	-3423	3918	565	296	268.86	2.102		
10,200	4604	10,172	4782	145	142	-108.39	-3494	3988	567	293	273.81	2.070		
10,300	4603	10,272	4782	148	145	-108.33	-3564	4059	568	290	278.77	2.039		
10,400	4602	10,372	4781	151	147	-108.28	-3635	4130	570	286	283.74	2.010		
10,500	4602	10,472	4780	153	150	-108.22	-3706	4201	572	283	288.70	1.981		
10,600	4601	10,572	4780	156	152	-108.16	-3776	4271	574	280	293.67	1.953		
10,700	4600	10,672	4779	158	155	-108.11	-3847	4342	575	277	298.64	1.926		
10,800	4600	10,772	4778	161	157	-108.05	-3917	4413	577	273	303.62	1.900		
10,900	4599	10,872	4778	163	160	-107.99	-3988	4484	579	270	308.59	1.875		
11,000	4598	10,972	4777	166	163	-107.94	-4059	4554	580	267	313.57	1.851		
11,100	4598	11,072	4776	168	165	-107.88	-4129	4625	582	263	318.56	1.827		
11,200	4597	11,172	4776	171	168	-107.83	-4200	4696	584	260	323.54	1.804		
11,300	4596	11,272	4775	174	170	-107.78	-4271	4767	585	257	328.53	1.782		
11,400	4596	11,372	4775	176	173	-107.72	-4341	4837	587	254	333.52	1.760		
11,500	4595	11,472	4774	179	175	-107.67	-4412	4908	589	250	338.52	1.739		
11,600	4594	11,572	4773	181	178	-107.61	-4483	4979	591	247	343.52	1.719		
11,669	4594	11,641	4773	183	180	-107.58	-4532	5028	592	245	346.97	1.705 SF		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 115H - Slot 5
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 115H	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: C07 2309 - # 120H - 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 (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0	0	0	0	0	0	125.43	-23	32	40					
100	100	100	100	0	0	125.43	-23	32	40	40	0.31	129.349		
200	200	200	200	1	1	125.43	-23	32	40	39	1.03	38.895		
300	300	300	300	1	1	125.43	-23	32	40	38	1.74	22.889		
400	400	400	400	1	1	125.43	-23	32	40	37	2.46	16.216		
450	450	450	450	1	1	125.43	-23	32	40	37	2.82	14.153 CC		
500	500	500	500	2	2	177.97	-23	33	40	37	3.18	12.619 ES		
600	600	601	601	2	2	174.05	-19	33	42	38	3.89	10.737		
700	700	702	701	2	2	167.17	-12	33	46	41	4.61	9.908		
800	799	802	801	3	3	158.96	-2	33	52	47	5.33	9.836		
893	891	894	892	3	3	151.54	11	34	62	56	6.02	10.280		
900	898	901	899	3	3	151.07	12	34	63	57	6.07	10.323		
1000	997	1000	997	3	3	145.35	27	34	75	68	6.82	10.998		
1100	1096	1099	1095	4	4	141.27	42	35	88	80	7.58	11.593		
1200	1195	1198	1193	4	4	138.23	57	36	101	93	8.34	12.107		
1300	1293	1297	1291	5	5	135.90	72	36	114	105	9.12	12.550		
1400	1392	1396	1389	5	5	134.06	86	37	128	118	9.89	12.931		
1500	1491	1495	1486	5	5	132.57	101	37	142	131	10.67	13.263		
1600	1590	1594	1584	6	6	131.35	116	38	155	144	11.46	13.552		
1700	1689	1693	1682	6	6	130.32	131	38	169	157	12.25	13.807		
1800	1787	1792	1780	7	7	129.45	146	39	183	170	13.03	14.032		
1900	1886	1891	1878	7	7	128.70	160	40	197	183	13.82	14.232		
2000	1985	1990	1976	8	7	128.05	175	40	211	196	14.61	14.411		
2100	2084	2089	2074	8	8	127.48	190	41	225	209	15.41	14.572		
2200	2183	2188	2172	8	8	126.97	205	41	238	222	16.20	14.718		
2300	2281	2287	2270	9	9	126.52	220	42	252	235	17.00	14.850		
2400	2380	2386	2367	9	9	126.12	235	42	266	249	17.79	14.971		
2500	2479	2485	2465	10	9	125.76	249	43	280	262	18.59	15.082		
2600	2578	2584	2563	10	10	125.43	264	44	294	275	19.38	15.183		
2700	2677	2683	2661	10	10	125.14	279	44	308	288	20.18	15.277		
2800	2775	2782	2759	11	11	124.86	294	45	322	301	20.98	15.363		
2900	2874	2881	2857	11	11	124.62	309	45	336	314	21.77	15.443		
3000	2973	2980	2955	12	11	124.39	324	46	350	328	22.57	15.518		
3100	3072	3079	3053	12	12	124.17	338	47	364	341	23.37	15.587		
3200	3171	3178	3151	12	12	123.98	353	47	378	354	24.17	15.652		
3300	3269	3277	3248	13	13	123.80	368	48	392	367	24.97	15.713		
3400	3368	3376	3346	13	13	123.63	383	48	406	381	25.77	15.770		
3500	3467	3475	3444	14	13	123.47	398	49	420	394	26.56	15.824		
3600	3566	3574	3542	14	14	123.32	412	49	434	407	27.36	15.874		
3700	3665	3673	3640	15	14	123.18	427	50	448	420	28.16	15.921		
3800	3764	3770	3736	15	15	123.06	442	51	462	434	28.95	15.976		
3900	3862	3850	3815	15	15	123.59	450	55	479	450	29.54	16.233		
3942	3904	3875	3840	16	15	123.96	451	58	488	458	29.66	16.455		
3950	3912	3881	3845	16	15	125.01	451	59	490	460	29.70	16.496		
4000	3961	3916	3881	16	15	138.21	451	64	501	471	29.86	16.763		
4050	4011	3950	3914	16	15	-117.56	450	71	511	481	29.95	17.054		
4100	4061	3987	3949	16	15	-75.60	447	79	521	491	30.04	17.335		
4150	4111	4022	3983	16	15	-68.28	443	89	530	500	30.07	17.627		
4200	4160	4050	4010	16	15	-65.02	439	97	539	509	29.98	17.975		
4250	4208	4091	4048	16	16	-63.04	431	111	547	517	30.06	18.192		
4300	4254	4126	4079	17	16	-61.71	423	124	554	524	30.03	18.455		
4350	4299	4161	4109	17	16	-60.77	414	138	561	531	30.00	18.696		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 115H - Slot 5
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 115H	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: C07 2309 - # 120H - 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
4400	4342	4200	4143	17	16	-60.14	402	155	567	537	30.06	18.858	
4450	4383	4230	4167	17	16	-59.67	392	169	572	542	29.99	19.075	
4500	4422	4265	4194	17	16	-59.42	379	186	576	546	30.03	19.193	
4550	4458	4300	4221	17	16	-59.34	365	205	580	550	30.13	19.244	
4600	4491	4334	4245	17	16	-59.40	350	223	583	552	30.30	19.234	
4650	4522	4369	4269	17	16	-59.62	334	243	585	554	30.54	19.144	
4700	4549	4400	4289	18	16	-59.90	319	262	586	555	30.84	18.997	
4750	4572	4440	4312	18	16	-60.46	298	286	586	555	31.39	18.680	
4800	4593	4475	4332	19	16	-61.08	279	309	586	554	32.00	18.312	
4850	4609	4511	4350	19	17	-61.83	258	332	585	552	32.76	17.861	
4900	4622	4550	4367	20	17	-62.77	235	358	583	550	33.69	17.315	
4950	4631	4583	4380	20	17	-63.71	215	381	581	546	34.69	16.750	
5000	4636	4620	4393	21	18	-64.85	191	406	578	542	35.87	16.119	
5043	4637	4650	4402	21	18	-65.88	172	427	575	538	36.97	15.564	
5100	4637	4700	4414	22	19	-67.09	139	462	572	533	38.63	14.809	
5200	4636	4774	4425	24	20	-68.22	88	515	569	528	41.49	13.726	
5220	4636	4791	4426	24	20	-68.36	76	527	569	527	42.10	13.523	
5300	4635	4860	4427	26	21	-68.54	27	576	570	526	44.55	12.802	
5400	4635	4960	4426	28	23	-68.61	-43	647	572	524	47.99	11.921	
5500	4634	5060	4426	30	25	-68.68	-114	718	574	522	51.65	11.110	
5600	4633	5160	4425	32	27	-68.75	-184	789	576	520	55.50	10.371	
5700	4633	5260	4424	34	29	-68.82	-255	860	577	518	59.50	9.703	
5800	4632	5360	4424	36	31	-68.88	-326	931	579	515	63.63	9.101	
5900	4631	5460	4423	38	33	-68.95	-396	1001	581	513	67.86	8.560	
6000	4631	5560	4422	41	36	-69.02	-467	1072	583	510	72.17	8.073	
6100	4630	5660	4422	43	38	-69.08	-537	1143	584	508	76.55	7.634	
6200	4630	5760	4421	45	40	-69.15	-608	1214	586	505	81.00	7.237	
6300	4629	5860	4420	48	43	-69.21	-679	1285	588	502	85.49	6.877	
6400	4628	5960	4420	50	45	-69.28	-749	1355	590	500	90.03	6.550	
6500	4628	6060	4419	53	47	-69.34	-820	1426	591	497	94.60	6.252	
6600	4627	6160	4418	55	50	-69.41	-890	1497	593	494	99.21	5.980	
6700	4626	6260	4418	57	52	-69.47	-961	1568	595	491	103.85	5.730	
6800	4626	6360	4417	60	55	-69.53	-1031	1639	597	488	108.51	5.500	
6900	4625	6460	4416	62	57	-69.60	-1102	1710	599	485	113.19	5.288	
7000	4624	6560	4416	65	60	-69.66	-1173	1780	600	482	117.90	5.092	
7100	4624	6660	4415	67	62	-69.72	-1243	1851	602	479	122.63	4.910	
7200	4623	6760	4414	70	65	-69.78	-1314	1922	604	477	127.37	4.741	
7300	4622	6860	4414	72	67	-69.85	-1384	1993	606	474	132.12	4.584	
7400	4622	6960	4413	75	70	-69.91	-1455	2064	607	471	136.89	4.437	
7500	4621	7060	4412	77	72	-69.97	-1525	2134	609	468	141.68	4.300	
7600	4620	7160	4412	80	75	-70.03	-1596	2205	611	465	146.47	4.171	
7700	4620	7260	4411	82	77	-70.09	-1667	2276	613	461	151.28	4.051	
7800	4619	7360	4411	85	80	-70.15	-1737	2347	615	458	156.09	3.937	
7900	4618	7460	4410	87	82	-70.21	-1808	2418	616	455	160.92	3.830	
8000	4618	7560	4409	90	85	-70.27	-1878	2489	618	452	165.75	3.729	
8100	4617	7660	4409	92	87	-70.32	-1949	2559	620	449	170.59	3.634	
8200	4617	7760	4408	95	90	-70.38	-2019	2630	622	446	175.44	3.543	
8300	4616	7860	4407	97	92	-70.44	-2090	2701	623	443	180.30	3.458	
8400	4615	7960	4407	100	95	-70.50	-2161	2772	625	440	185.17	3.376	
8500	4615	8060	4406	102	98	-70.56	-2231	2843	627	437	190.04	3.299	
8600	4614	8160	4405	105	100	-70.61	-2302	2913	629	434	194.92	3.226	
8700	4613	8260	4405	107	103	-70.67	-2372	2984	631	431	199.80	3.156	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 115H - Slot 5
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 115H	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: C07 2309 - # 120H - 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	+N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)			
8800	4613	8360	4404	110	105	-70.73	-2443	3055	632	428	204.69	3.089		
8900	4612	8460	4403	112	108	-70.78	-2513	3126	634	425	209.58	3.026		
9000	4611	8560	4403	115	110	-70.84	-2584	3197	636	421	214.48	2.965		
9100	4611	8660	4402	118	113	-70.89	-2655	3268	638	418	219.39	2.907		
9200	4610	8760	4401	120	115	-70.95	-2725	3338	639	415	224.30	2.851		
9300	4609	8860	4401	123	118	-71.00	-2796	3409	641	412	229.21	2.798		
9400	4609	8960	4400	125	121	-71.06	-2866	3480	643	409	234.13	2.747		
9500	4608	9060	4399	128	123	-71.11	-2937	3551	645	406	239.05	2.697		
9600	4607	9160	4399	130	126	-71.17	-3007	3622	647	403	243.98	2.650		
9700	4607	9260	4398	133	128	-71.22	-3078	3692	648	399	248.91	2.605		
9800	4606	9360	4397	135	131	-71.27	-3149	3763	650	396	253.85	2.561		
9900	4605	9460	4397	138	133	-71.33	-3219	3834	652	393	258.79	2.519		
10,000	4605	9559	4396	140	136	-71.38	-3290	3905	654	390	263.73	2.479		
10,100	4604	9659	4396	143	139	-71.43	-3360	3976	656	387	268.67	2.440		
10,200	4604	9759	4395	145	141	-71.48	-3431	4047	657	384	273.62	2.402		
10,300	4603	9859	4394	148	144	-71.53	-3501	4117	659	381	278.58	2.366		
10,400	4602	9959	4394	151	146	-71.59	-3572	4188	661	377	283.53	2.331		
10,500	4602	10,059	4393	153	149	-71.64	-3643	4259	663	374	288.49	2.297		
10,600	4601	10,159	4392	156	151	-71.69	-3713	4330	665	371	293.45	2.265		
10,700	4600	10,259	4392	158	154	-71.74	-3784	4401	666	368	298.42	2.233		
10,800	4600	10,359	4391	161	157	-71.79	-3854	4471	668	365	303.39	2.202		
10,900	4599	10,459	4390	163	159	-71.84	-3925	4542	670	362	308.36	2.173		
11,000	4598	10,559	4390	166	162	-71.89	-3995	4613	672	358	313.33	2.144		
11,100	4598	10,659	4389	168	164	-71.94	-4066	4684	673	355	318.31	2.116		
11,200	4597	10,759	4388	171	167	-71.99	-4137	4755	675	352	323.29	2.089		
11,300	4596	10,859	4388	174	169	-72.04	-4207	4826	677	349	328.27	2.063		
11,400	4596	10,959	4387	176	172	-72.09	-4278	4896	679	346	333.25	2.037		
11,500	4595	11,059	4386	179	175	-72.14	-4348	4967	681	342	338.24	2.012		
11,600	4594	11,159	4386	181	177	-72.18	-4419	5038	682	339	343.23	1.988		
11,669	4594	11,228	4385	183	179	-72.22	-4468	5087	684	337	346.68	1.972 SF		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 115H - Slot 5
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 115H	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: C07 2309 - # 136H - 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		Distance		Minimum Separation (ft)	Separation Factor	Warning	
							+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0	0	0	0	0	0	125.30	-46	65	80					
100	100	100	100	0	0	125.30	-46	65	80	80	0.31	258.883		
200	200	200	200	1	1	125.30	-46	65	80	79	1.03	77.846		
300	300	300	300	1	1	125.30	-46	65	80	78	1.74	45.811		
400	400	400	400	1	1	125.30	-46	65	80	77	2.46	32.455		
450	450	450	450	1	1	125.30	-46	65	80	77	2.82	28.326 CC		
500	500	501	501	2	2	178.58	-46	65	80	77	3.17	25.179 ES		
600	600	603	603	2	2	-179.70	-46	61	81	77	3.88	20.807		
700	700	705	705	2	2	-176.37	-47	54	82	78	4.59	17.966		
800	799	807	806	3	3	-171.67	-48	43	86	80	5.31	16.116		
893	891	901	900	3	3	-166.41	-49	30	90	84	6.00	15.029		
900	898	908	906	3	3	-166.00	-49	29	91	85	6.06	14.964		
1000	997	1009	1006	3	3	-159.45	-50	11	96	89	6.83	14.081		
1100	1096	1110	1104	4	4	-151.88	-52	-10	101	94	7.63	13.276		
1200	1195	1210	1201	4	4	-143.42	-54	-35	107	99	8.49	12.646		
1300	1293	1308	1295	5	5	-134.38	-56	-62	115	106	9.39	12.273		
1400	1392	1406	1388	5	5	-125.26	-58	-92	126	116	10.30	12.215		
1500	1491	1503	1480	5	6	-117.36	-61	-123	139	128	11.20	12.439		
1600	1590	1600	1573	6	6	-110.92	-63	-154	155	143	12.09	12.830		
1700	1689	1698	1665	6	7	-105.68	-65	-185	172	159	12.96	13.305		
1800	1787	1795	1757	7	8	-101.42	-68	-216	191	177	13.82	13.815		
1900	1886	1892	1850	7	8	-97.91	-70	-247	210	196	14.68	14.330		
2000	1985	1990	1942	8	9	-94.99	-73	-277	230	215	15.53	14.833		
2100	2084	2087	2034	8	9	-92.54	-75	-308	251	234	16.37	15.316		
2200	2183	2185	2127	8	10	-90.46	-77	-339	272	254	17.22	15.775		
2300	2281	2282	2219	9	10	-88.67	-80	-370	293	275	18.07	16.207		
2400	2380	2379	2311	9	11	-87.13	-82	-401	314	295	18.91	16.614		
2500	2479	2477	2403	10	12	-85.78	-84	-432	336	316	19.76	16.995		
2600	2578	2574	2496	10	12	-84.60	-87	-463	358	337	20.61	17.353		
2700	2677	2671	2588	10	13	-83.55	-89	-494	379	358	21.45	17.688		
2800	2775	2769	2680	11	13	-82.61	-92	-524	401	379	22.30	18.002		
2900	2874	2866	2773	11	14	-81.77	-94	-555	423	400	23.15	18.296		
3000	2973	2963	2865	12	15	-81.02	-96	-586	446	422	23.99	18.573		
3100	3072	3061	2957	12	15	-80.33	-99	-617	468	443	24.84	18.833		
3200	3171	3158	3050	12	16	-79.71	-101	-648	490	464	25.69	19.078		
3300	3269	3255	3142	13	16	-79.14	-103	-679	512	486	26.54	19.309		
3400	3368	3353	3234	13	17	-78.62	-106	-710	535	507	27.39	19.527		
3500	3467	3450	3326	14	18	-78.14	-108	-740	557	529	28.24	19.733		
3600	3566	3548	3419	14	18	-77.70	-111	-771	580	551	29.09	19.928		
3700	3665	3645	3511	15	19	-77.29	-113	-802	602	572	29.94	20.113		
3800	3764	3742	3603	15	19	-76.91	-115	-833	625	594	30.79	20.288		
3900	3862	3841	3698	15	20	-76.63	-118	-864	647	615	31.66	20.441		
3942	3904	3885	3739	16	20	-76.81	-122	-875	656	624	32.04	20.487		
3950	3912	3893	3747	16	20	-76.23	-123	-877	658	626	32.11	20.495		
4000	3961	3944	3797	16	21	-65.82	-131	-887	669	637	32.53	20.573		
4050	4011	3995	3846	16	21	35.81	-141	-895	680	647	32.88	20.688		
4100	4061	4046	3895	16	21	75.31	-154	-899	691	658	33.18	20.833		
4150	4111	4096	3942	16	21	80.37	-170	-900	702	669	33.44	20.995		
4200	4160	4146	3989	16	21	81.55	-189	-899	713	679	33.67	21.165		
4250	4208	4196	4034	16	21	81.61	-209	-894	723	689	33.88	21.337		
4300	4254	4246	4078	17	21	81.22	-232	-887	733	699	34.09	21.504		
4350	4299	4296	4120	17	21	80.63	-257	-877	743	708	34.29	21.657		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 115H - Slot 5
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 115H	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: C07 2309 - # 136H - 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	
4400	4342	4345	4160	17	21	79.93	-284	-865	752	717	34.51	21.787		
4450	4383	4395	4197	17	22	79.21	-312	-850	760	726	34.75	21.884		
4500	4422	4444	4232	17	22	78.48	-342	-832	769	734	35.03	21.939		
4550	4458	4493	4264	17	22	77.77	-374	-812	776	741	35.37	21.941		
4600	4491	4542	4293	17	22	77.10	-406	-790	783	747	35.78	21.880		
4650	4522	4591	4320	17	22	76.48	-440	-766	789	753	36.28	21.748		
4700	4549	4640	4343	18	22	75.91	-474	-740	794	757	36.88	21.540		
4750	4572	4689	4363	18	22	75.39	-509	-713	799	761	37.59	21.255		
4800	4593	4737	4379	19	22	74.94	-544	-684	803	764	38.41	20.898		
4850	4609	4786	4392	19	22	74.55	-580	-653	806	766	39.33	20.482		
4900	4622	4834	4402	20	23	74.23	-615	-621	808	767	40.41	19.991		
4950	4631	4882	4408	20	23	73.97	-650	-588	809	767	41.58	19.457		
5000	4636	4930	4410	21	23	73.79	-684	-555	809	766	42.85	18.889		
5043	4637	4973	4410	21	24	73.73	-714	-525	809	765	44.04	18.368		
5100	4637	5030	4410	22	25	73.71	-754	-485	808	762	45.73	17.665		
5200	4636	5130	4409	24	26	73.68	-825	-414	806	757	48.96	16.463		
5300	4635	5230	4409	26	28	73.64	-895	-343	804	752	52.46	15.330		
5400	4635	5330	4408	28	30	73.61	-966	-272	802	746	56.18	14.283		
5500	4634	5430	4408	30	32	73.57	-1037	-201	801	741	60.08	13.326		
5600	4633	5530	4407	32	34	73.54	-1107	-131	799	735	64.12	12.458		
5700	4633	5630	4406	34	36	73.51	-1178	-60	797	729	68.28	11.672		
5800	4632	5730	4406	36	38	73.47	-1248	11	795	723	72.54	10.962		
5900	4631	5830	4405	38	40	73.44	-1319	82	793	717	76.88	10.320		
6000	4631	5930	4405	41	43	73.40	-1389	153	792	710	81.29	9.738		
6100	4630	6030	4404	43	45	73.37	-1460	223	790	704	85.76	9.210		
6200	4630	6130	4403	45	47	73.33	-1531	294	788	698	90.27	8.729		
6300	4629	6230	4403	48	50	73.30	-1601	365	786	691	94.83	8.291		
6400	4628	6330	4402	50	52	73.26	-1672	436	784	685	99.42	7.890		
6500	4628	6430	4402	53	55	73.23	-1742	507	783	679	104.04	7.522		
6600	4627	6530	4401	55	57	73.19	-1813	577	781	672	108.68	7.184		
6700	4626	6630	4401	57	60	73.16	-1884	648	779	666	113.35	6.872		
6800	4626	6730	4400	60	62	73.12	-1954	719	777	659	118.04	6.584		
6900	4625	6830	4399	62	65	73.08	-2025	790	775	653	122.75	6.316		
7000	4624	6929	4399	65	67	73.05	-2095	861	774	646	127.47	6.068		
7100	4624	7029	4398	67	69	73.01	-2166	931	772	640	132.20	5.837		
7200	4623	7129	4398	70	72	72.98	-2236	1002	770	633	136.95	5.622		
7300	4622	7229	4397	72	74	72.94	-2307	1073	768	626	141.71	5.420		
7400	4622	7329	4396	75	77	72.90	-2378	1144	766	620	146.47	5.232		
7500	4621	7429	4396	77	80	72.86	-2448	1215	764	613	151.24	5.055		
7600	4620	7529	4395	80	82	72.83	-2519	1285	763	607	156.03	4.888		
7700	4620	7629	4395	82	85	72.79	-2589	1356	761	600	160.81	4.731		
7800	4619	7729	4394	85	87	72.75	-2660	1427	759	593	165.61	4.584		
7900	4618	7829	4393	87	90	72.71	-2731	1498	757	587	170.40	4.444		
8000	4618	7929	4393	90	92	72.68	-2801	1569	755	580	175.20	4.312		
8100	4617	8029	4392	92	95	72.64	-2872	1640	754	574	180.01	4.187		
8200	4617	8129	4392	95	97	72.60	-2942	1710	752	567	184.82	4.068		
8300	4616	8229	4391	97	100	72.56	-3013	1781	750	560	189.63	3.955		
8400	4615	8329	4390	100	102	72.52	-3083	1852	748	554	194.44	3.848		
8500	4615	8429	4390	102	105	72.48	-3154	1923	746	547	199.26	3.746		
8600	4614	8529	4389	105	107	72.44	-3225	1994	745	541	204.08	3.649		
8700	4613	8629	4389	107	110	72.41	-3295	2064	743	534	208.90	3.556		
8800	4613	8729	4388	110	112	72.37	-3366	2135	741	527	213.72	3.467		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 115H - Slot 5
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 115H	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: C07 2309 - # 136H - 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	+N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)				
8900	4612	8829	4387	112	115	72.33	-3436	2206	739	521	218.54	3.383			
9000	4611	8929	4387	115	118	72.29	-3507	2277	737	514	223.36	3.302			
9100	4611	9029	4386	118	120	72.25	-3578	2348	736	507	228.18	3.224			
9200	4610	9129	4386	120	123	72.21	-3648	2418	734	501	233.01	3.149			
9300	4609	9229	4385	123	125	72.17	-3719	2489	732	494	237.83	3.078			
9400	4609	9329	4385	125	128	72.12	-3789	2560	730	488	242.65	3.009			
9500	4608	9429	4384	128	130	72.08	-3860	2631	728	481	247.48	2.944			
9600	4607	9529	4383	130	133	72.04	-3931	2702	727	474	252.30	2.880			
9700	4607	9629	4383	133	136	72.00	-4001	2772	725	468	257.12	2.819			
9800	4606	9729	4382	135	138	71.96	-4072	2843	723	461	261.94	2.760			
9900	4605	9829	4382	138	141	71.92	-4142	2914	721	454	266.76	2.704			
10,000	4605	9929	4381	140	143	71.88	-4213	2985	719	448	271.58	2.649			
10,100	4604	10,029	4380	143	146	71.83	-4283	3056	718	441	276.40	2.596			
10,200	4604	10,129	4380	145	148	71.79	-4354	3127	716	435	281.22	2.546			
10,300	4603	10,229	4379	148	151	71.75	-4425	3197	714	428	286.03	2.496			
10,400	4602	10,329	4379	151	153	71.71	-4495	3268	712	421	290.85	2.449			
10,500	4602	10,429	4378	153	156	71.66	-4566	3339	710	415	295.66	2.403			
10,600	4601	10,529	4377	156	159	71.62	-4636	3410	709	408	300.47	2.359			
10,700	4600	10,629	4377	158	161	71.58	-4707	3481	707	402	305.28	2.316			
10,800	4600	10,729	4376	161	164	71.53	-4778	3551	705	395	310.09	2.274			
10,900	4599	10,829	4376	163	166	71.49	-4848	3622	703	388	314.90	2.233			
11,000	4598	10,929	4375	166	169	71.45	-4919	3693	702	382	319.70	2.194			
11,025	4598	10,941	4375	167	169	71.44	-4928	3702	701	381	320.66	2.187 SF			
11,100	4598	10,941	4375	168	169	71.44	-4928	3702	705	385	320.61	2.199			
11,200	4597	10,941	4375	171	169	71.44	-4928	3702	723	407	315.24	2.292			
11,300	4596	10,941	4375	174	169	71.44	-4928	3702	753	448	304.88	2.470			
11,400	4596	10,941	4375	176	169	71.44	-4928	3702	795	504	291.13	2.731			
11,500	4595	10,941	4375	179	169	71.44	-4928	3702	847	571	275.63	3.073			
11,600	4594	10,941	4375	181	169	71.44	-4928	3702	907	647	259.64	3.492			
11,669	4594	10,941	4375	183	169	71.44	-4928	3702	952	703	248.77	3.828			



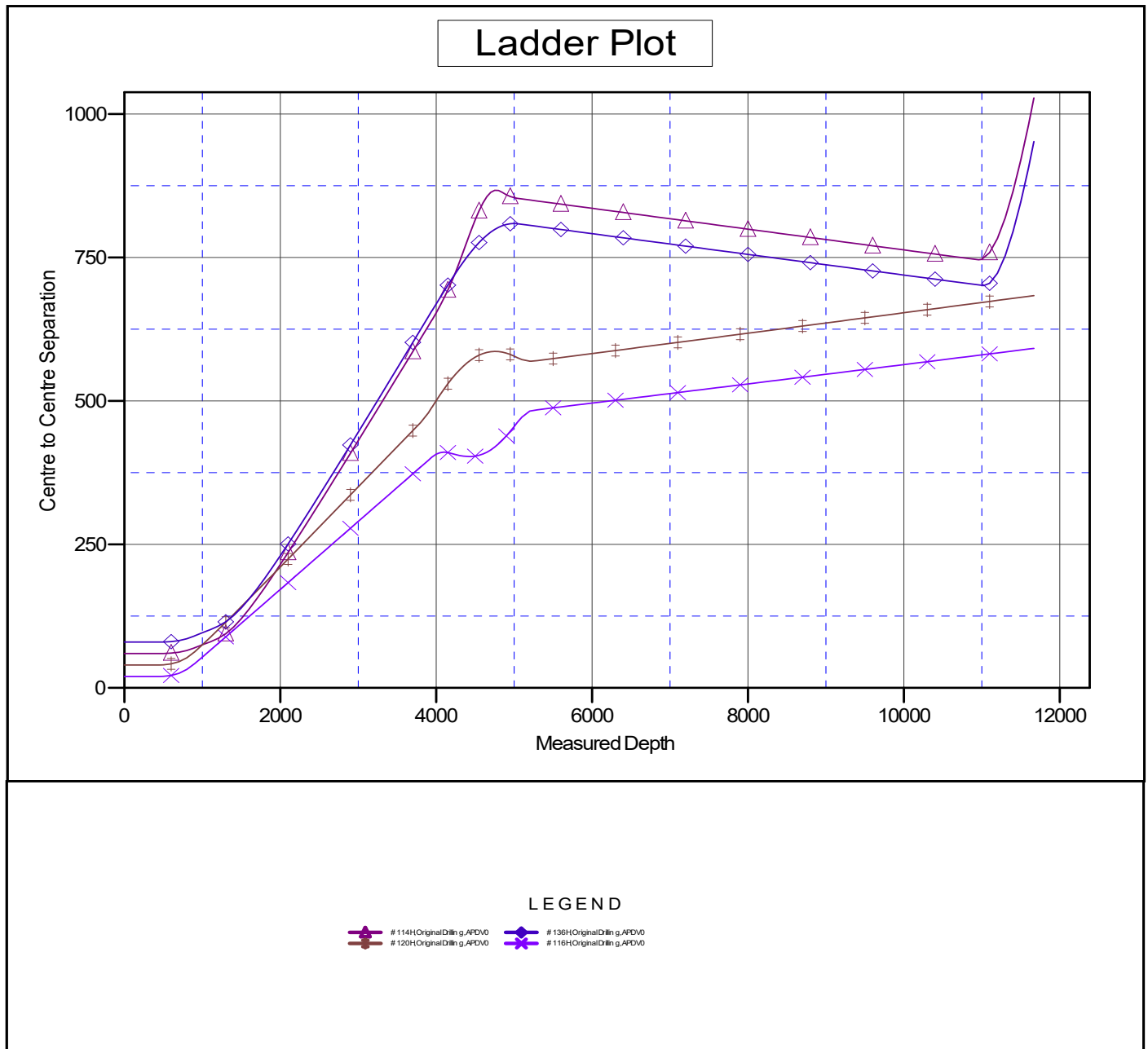
Lonestar Consulting, LLC
Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 115H - Slot 5
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 115H	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 6801' & RKB 14' @ 6815ft
Offset Depths are relative to Offset Datum
Central Meridian is -107.8333333

Coordinates are relative to: # 115H - Slot 5
Coordinate System is US State Plane 1983, New Mexico Western Zone
Grid Convergence at Surface is: 0.00°





Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 115H - Slot 5
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 115H	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 6801' & RKB 14' @ 6815ft

Offset Depths are relative to Offset Datum

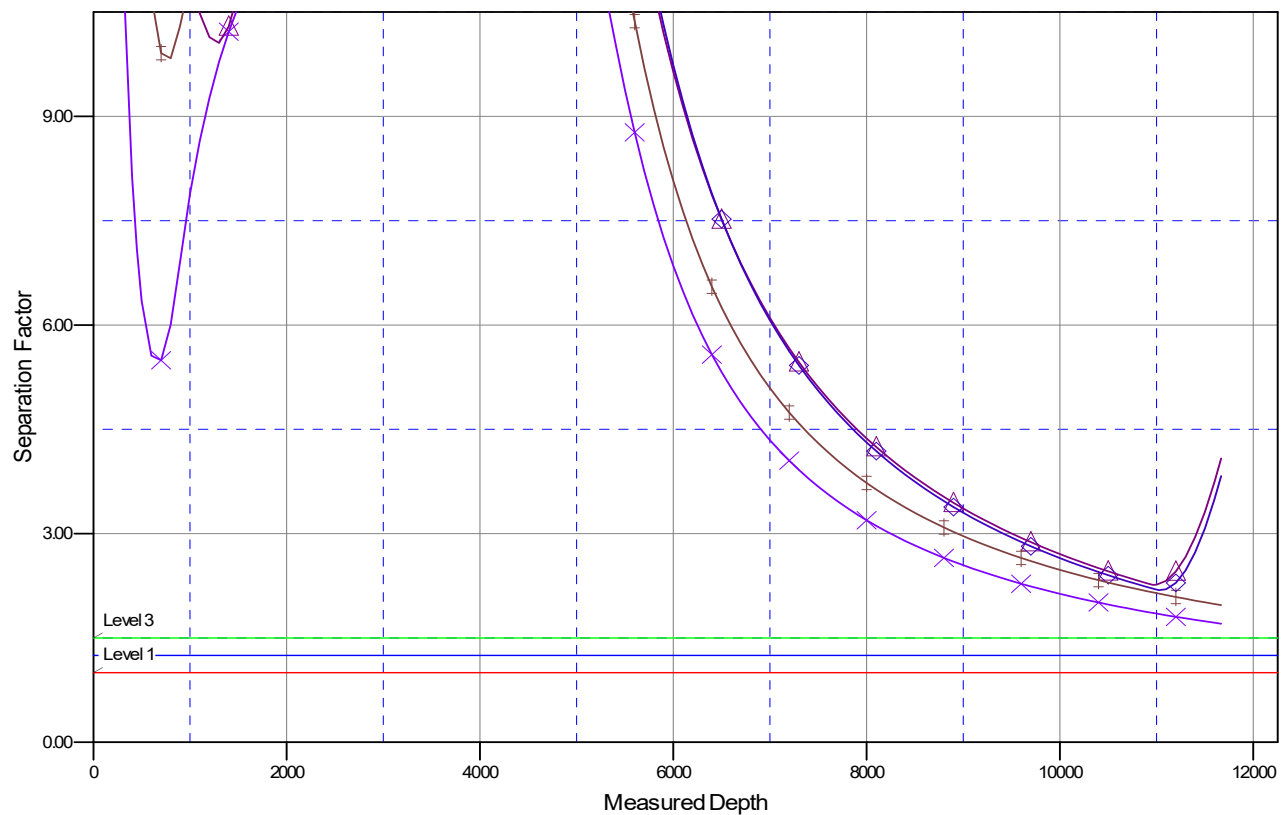
Central Meridian is -107.8333333

Coordinates are relative to: # 115H - Slot 5

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

Grid Convergence at Surface is: 0.00°

Separation Factor Plot



LEGEND

#114H Original Drilling g.APDV0
 #120H Original Drilling g.APDV0
 #116H Original Drilling g.APDV0



United States Department of the Interior

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



In Reply Refer To:
3162.3-1(NMF0110)

* DJR OPERATING LLC

#115H PONDEROSA

Lease: NMNM135984

SH: SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 6, T.23 N., R.9 W.
San Juan County, New Mexico

BH: SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 8, T.23 N., R.9 W.
San Juan County, New Mexico

***Above Data Required on Well Sign**

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

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

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

INTERIOR REGION 7 • UPPER COLORADO BASIN

COLORADO, NEW MEXICO, UTAH, WYOMING

I. GENERAL

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

II. REPORTING REQUIREMENTS

A. For reporting purposes, all well Sundry notices, well completion and other well actions shall be referenced by the appropriate lease, communitization agreement and/or unit agreement numbers.

B. Provide complete information (submit in AFMSS 2) concerning.

1. Original and three copies on Federal and an Original and five copies on Indian leases of Sundry Notice (Form 3150-5), giving complete information concerning.

- a. Setting of each string of casing. Show size and depth of hole, grade and weight of casing, depth set, depth of any and all cementing tools that are used, amount (in cubic feet) and types of cement used, whether cement circulated to surface and all cement tops in the casing annulus, casing test method and results, and the date work was done. Show spud date on first report submitted.
- b. Intervals tested, perforated (include; size, number and location of perforations), acidized, or fractured; and results obtained. Provide date work was done on well completion report and completion sundry notice.
- c. Subsequent Report of Abandonment, show the manner in which the well was plugged, including depths where casing was cut and pulled, intervals (by depths) where cement plugs were replaced, and dates of the operations.

2. Well Completion Report (submit in AFMSS 2) will be submitted with 30 days after well has been completed.

- a. Initial Bottom Hole Pressure (BHP) for the producing formations. Show the BHP on the completion report. The pressure may be: 1) measured with a bottom hole bomb, or; 2) calculated based on shut in surface pressures (minimum seven day buildup) and fluid level shot.

3. Submit a cement evaluation log, if cement is not circulated to surface.

III. DRILLER'S LOG

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

IV. GAS FLARING

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

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

V. SAFETY

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

VI. CHANGE OF PLANS OR ABANDONMENT

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

VII. PHONE NUMBERS

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

District I

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

District II

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

District III

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

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 262393

CONDITIONS

Operator: DJR OPERATING, LLC 1 Road 3263 Aztec, NM 87410	OGRID:
	371838
	Action Number:
	262393
Action Type:	
[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)	

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify OCD 24 hours prior to casing & cement	9/13/2023
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	9/13/2023
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	9/13/2023
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	9/13/2023
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	9/13/2023