

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

WELL LOCATION INFORMATION

API Number 30-045-38463	Pool Code 98194	Pool Name CROW CANYON MANCOS OIL POOL
Property Code 325183	Property Name CROW CANYON UNIT	Well Number 136H
OGRID No. 371838	Operator Name DJR OPERATING, LLC	Ground Level Elevation 6794'
Surface Owner: ☒ State ☐ Fee ☐ Tribal ☐ Federal		Mineral Owner: ☒ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location (SHL)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
L	16	24N	8W		2412' SOUTH	31' WEST	36.313565° N	107.695925° W	SAN JUAN

Bottom Hole Location (BHL)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
I	21	24N	8W		2140' SOUTH	330' EAST	36.298458° N	107.679287° W	SAN JUAN

Dedicated Acres SEC 17: NE/SE (40 AC.); SEC 16: NW/SW, SW/SW & SE/SW (120 AC.); SEC 21: NE/NW, NW/NE, SW/NE, SE/NE, & NE/SE (200 AC.) = 360 ACRES	PENETRATED SPACING UNIT: Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N) N	Consolidation Code UNIT
Order Numbers: R-14090 R-14090A		Well Setbacks are under Common Ownership: ☒ Yes ☐ No		

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
L	16	24N	8W		2412' SOUTH	31' WEST	36.313565° N	107.695925° W	SAN JUAN

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
I	17	24N	8W		1943' SOUTH	69' EAST	36.312280° N	107.696276° W	SAN JUAN

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
I	21	24N	8W		2140' SOUTH	330' EAST	36.298458° N	107.679287° W	SAN JUAN

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

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

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

Shaw-Marie Ford

Signature

2/19/2025

Date

Shaw-Marie Ford

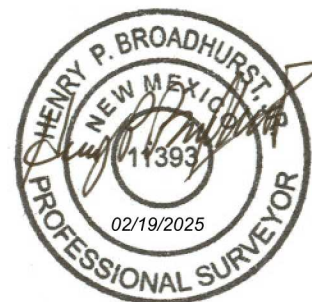
Printed Name

sford@enduringresources.com

E-mail Address

SURVEYOR CERTIFICATIONS

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



Signature and Seal of Professional Surveyor:

Certificate Number

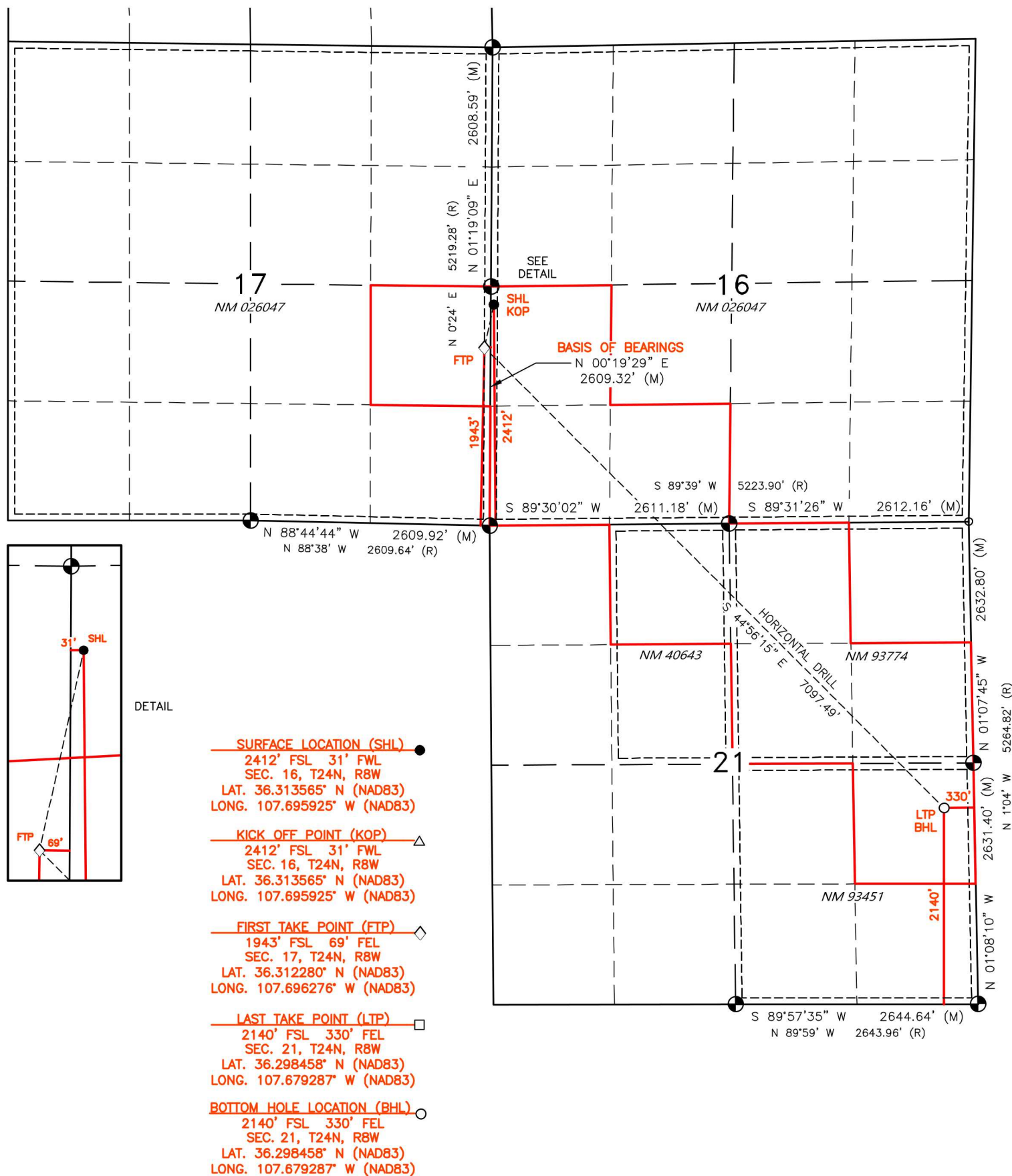
11393

Date of Survey

JUNE 18, 2021

Note: No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

FND 2 1/2" BC
 GLO 1947
 O CALC



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. 30-045-38463
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)

Additional Operator Remarks

Location of Well

0. SHL: NWSW / 2412 FSL / 31 FWL / TWSP: 24N / RANGE: 8W / SECTION: 16 / LAT: 36.313565 / LONG: -107.695925 (TVD: 0 feet, MD: 0 feet)
PPP: NESE / 1943 FSL / 69 FEL / TWSP: 24N / RANGE: 8W / SECTION: 17 / LAT: 36.31228 / LONG: -107.696276 (TVD: 5332 feet, MD: 5677 feet)
PPP: NWSW / 1876 FSL / 1 FWL / TWSP: 24N / RANGE: 8W / SECTION: 16 / LAT: 36.312089 / LONG: -107.696042 (TVD: 5335 feet, MD: 12835 feet)
PPP: NESE / 2630 FSL / 807 FEL / TWSP: 24N / RANGE: 8W / SECTION: 21 / LAT: 36.299799 / LONG: -107.680936 (TVD: 5335 feet, MD: 12835 feet)
PPP: NENW / 1 FNL / 1866 FWL / TWSP: 24N / RANGE: 8W / SECTION: 21 / LAT: 36.306974 / LONG: -107.689753 (TVD: 5335 feet, MD: 12835 feet)
PPP: NWNE / 764 FNL / 2617 FWL / TWSP: 24N / RANGE: 8W / SECTION: 21 / LAT: 36.304891 / LONG: -107.687193 (TVD: 5335 feet, MD: 12835 feet)
BHL: NESE / 2140 FSL / 330 FEL / TWSP: 24N / RANGE: 8W / SECTION: 21 / LAT: 36.298458 / LONG: -107.679287 (TVD: 5335 feet, MD: 12835 feet)

BLM Point of Contact

Name: CHRISTOPHER P WENMAN

Title: Natural Resource Specialist

Phone: (505) 564-7727

Email: cwenman@blm.gov

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:** 2/14/2025

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
Crow Canyon Unit 130H	TBD	L-16-24N-8W	2413 FSL x 51 FWL	561	1273	196
Crow Canyon Unit 131H	TBD	L-16-24N-8W	2416 FSL x 110 FWL	850	1929	298
Crow Canyon Unit 134H	TBD	L-16-24N-8W	2415 FSL x 91 FWL	489	1109	171
Crow Canyon Unit 135H	TBD	L-16-24N-8W	2417 FSL x 130 FWL	302	685	106
Crow Canyon Unit 136H	TBD	L-16-24N-8W	2412 FSL x 31 FWL	651	1476	228
Crow Canyon Unit 137H	TBD	L-16-24N-8W	2414 FSL x 70 FWL	549	1244	192
				3-year Decline	3-year Decline	3-year Decline
Crow Canyon Unit 130H	TBD	L-16-24N-8W	2413 FSL x 51 FWL	127	507	44
Crow Canyon Unit 131H	TBD	L-16-24N-8W	2416 FSL x 110 FWL	192	768	67
Crow Canyon Unit 134H	TBD	L-16-24N-8W	2415 FSL x 91 FWL	110	442	39
Crow Canyon Unit 135H	TBD	L-16-24N-8W	2417 FSL x 130 FWL	68	273	24
Crow Canyon Unit 136H	TBD	L-16-24N-8W	2412 FSL x 31 FWL	147	588	51
Crow Canyon Unit 137H	TBD	L-16-24N-8W	2414 FSL x 70 FWL	124	496	43

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
Crow Canyon Unit 130H	TBD	7/18/2026	7/26/2026	8/2/2026	8/9/2026	8/11/2026
Crow Canyon Unit 131H	TBD	7/19/2026	7/27/2026	8/3/2026	8/10/2026	8/12/2026
Crow Canyon Unit 134H	TBD	7/20/2026	7/28/2026	8/4/2026	8/11/2026	8/13/2026
Crow Canyon Unit 135H	TBD	7/21/2026	7/29/2026	8/5/2026	8/12/2026	8/14/2026
Crow Canyon Unit 136H	TBD	7/22/2026	7/30/2026	8/6/2026	8/13/2026	8/15/2026
Crow Canyon Unit 137H	TBD	7/23/2026	7/31/2026	8/7/2026	8/14/2026	8/16/2026

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@enduringresources.com
Date: 2/14/2025
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
Crow Canyon Unit 130H, 131H, 134H, 135H, 136H and 137H

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
Crow Canyon Unit 130H, 131H, 134H, 135H, 136H and 137H

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
Crow Canyon Unit 130H, 131H, 134H, 135H, 136H and 137H

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
Crow Canyon Unit 130H, 131H, 134H, 135H, 136H and 137H

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

Crow Canyon Unit 136H

San Juan County, New Mexico

Surface Location

31-ft FWL & 2412-ft FSL
 Sec 16 T24N R08W
 Graded Elevation 6794' MSL
 RKB Elevation 6808' (14' KB)

SHL Geographical Coordinates (NAD-83)

Latitude 36.3135650° N
 Longitude 107.6959250° W

Kick Off Point for Horizontal Build Curve

4673-ft MD
 4641-ft TVD

Local Coordinates (from SHL)

27-ft North
 511-ft West

Heel Location (Pay zone entry)

69-ft FEL & 1943-ft FSL
 Sec 17 T24N R08W

Heel Geographical Coordinates (NAD-83)

Latitude 36.31228004° N
 Longitude 107.69627584° W

Bottom Hole Location (TD)

330-ft FEL & 2140-ft FSL
 Sec 21 T24N R08W

BHL Geographical Coordinates (NAD-83)

Latitude 36.298458° N
 Longitude 107.6792870° W

Well objectives

This well is planned as a 7100-ft lateral in the Gallup B sand.

Bottom Hole temperature and pressure

The temperature in the Gallup B horizontal objective is 141°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	1165	1161	Sd	W	8.3	8.4 – 8.8
Kirtland	1297	1292	Sh	-	8.3	8.4 – 8.8
Fruitland	1689	1681	C	G	8.3	9.0 - 9.5
Pictured Cliffs	1908	1898	Sd	W	8.3	9.0 - 9.5
Lewis	1985	1975	Sh	-		9.0 - 9.5
Chacra	2738	2722	Sd	-	8.3	9.0 - 9.5
Menefee	3409	3387	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	4295	4266	Sd	-	8.3	9.0 - 9.5
Mancos	4507	4476	Sh	-		9.0 - 9.5
Mancos Silt	4873	4839	Slt	O/G	6.6	9.0 - 9.5
Gallup A	5447	5272	Slt	O/G	6.6	9.0 - 9.5
Gallup B	5562	5312	Sd	O/G	6.6	8.8 - 9.0
Gallup C	NP	NP	Sd	O/G	6.6	8.8 - 9.0
Target	5738	5335	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	5677	surf	5332	surface
4-1/2"	6-1/8"	11.6	P-110	BTC	5398	12835	5249	5282	5398

Note: all casing will be new

Rev 0



Casing Design Load Cases

Description		Casing String		
		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

Casing string		Design Factors			
		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	4173-ft
Density (ppg)	12.30	13.50
Yield (cf/sx)	2.34	1.50
Mix water (gal/sx)	13.26	7.20
Volume (sx)	406	241
Volume (bbls)	169	64
Volume (cu.ft.)	949	360
Excess %	55	55



Rev 0

4-1/2" Production Liner

	BJ Services
Type	Poz/G
Planned top	5398-ft
Density (ppg)	13.3
Yield (cf/sx)	1.56
Mix water (gal/sx)	7.71
Volume (sx)	625
Volume (bbls)	174
Volume (cu.ft)	977
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 – 5677	9.0 – 9.5	38 – 45	8 – 14	<20
Production	Low solids, non-dispersed	5677 – 12835	8.8 – 9.2	34 – 38	6 – 8	6 – 8

Cores, tests and logs

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

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

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

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

Cuttings and drilling fluids management

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

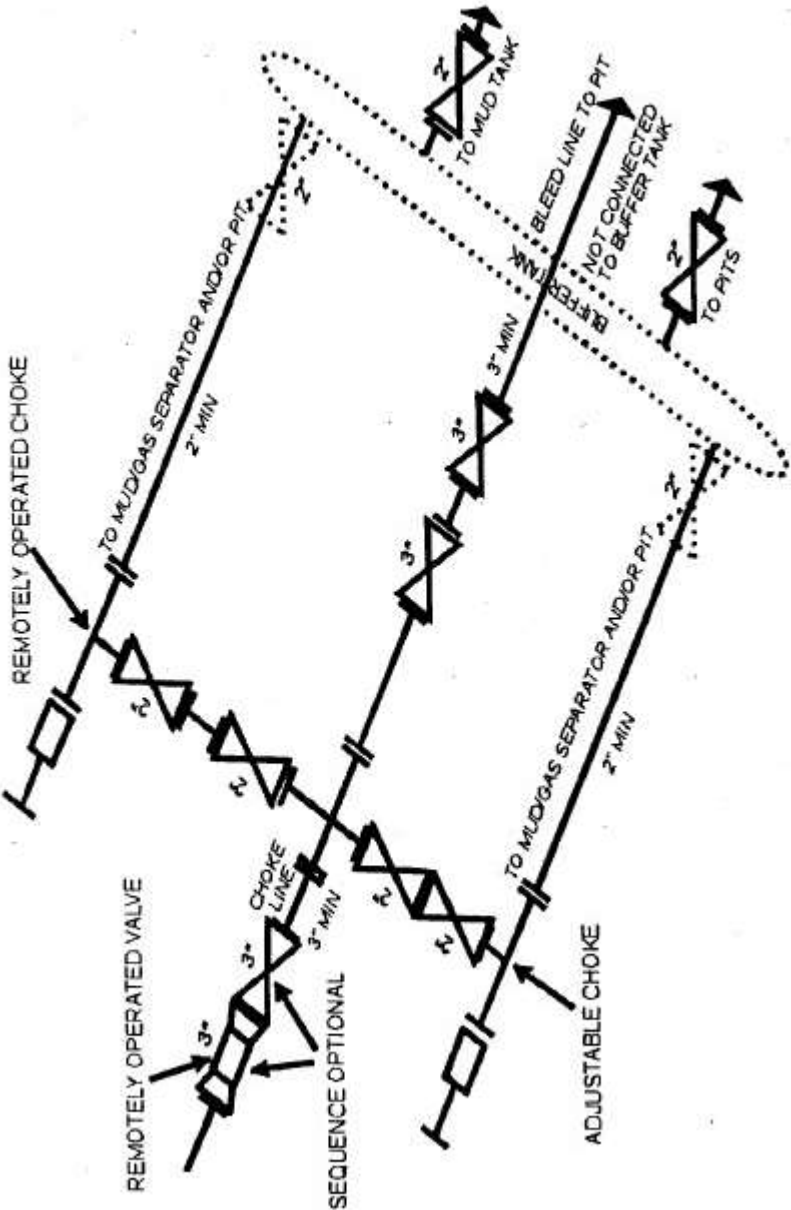
Completion

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



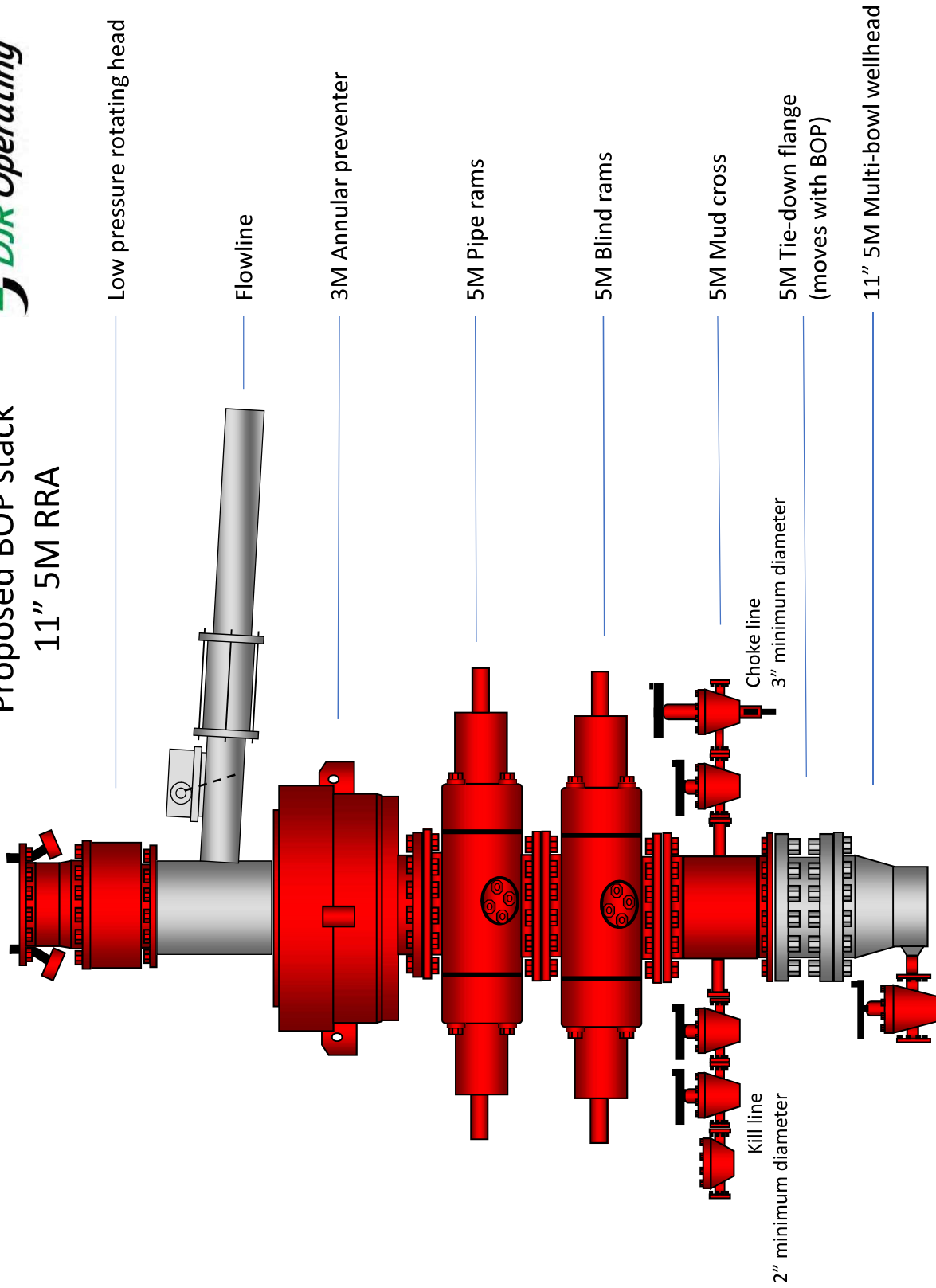
Choke Manifold

Actual system to conform with Onshore Order 2





Proposed BOP stack 11" 5M RRA





DJR Operating

Crow Canyon Unit

L16 2408 Pad

136H - Slot 1

Original Drilling

Plan: APD

Standard Planning Report

24 June, 2021





Lonestar Consulting, LLC

Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 136H - Slot 1
Company:	DJR Operating	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Project:	Crow Canyon Unit	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site:	L16 2408 Pad	North Reference:	True
Well:	# 136H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

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

Site	L16 2408 Pad		
Site Position:		Northing:	1,933,466.49 usft
From:	Lat/Long	Easting:	2,763,573.83 usft
Position Uncertainty:	0 ft	Slot Radius:	13.20 in
		Latitude:	36.31356497
		Longitude:	-107.69592500
		Grid Convergence:	0.08 °

Well	# 136H - Slot 1		
Well Position	+N/-S	0 ft	Northing: 1,933,466.49 usft
	+E/-W	0 ft	Easting: 2,763,573.83 usft
Position Uncertainty	0 ft	Wellhead Elevation:	Latitude: 36.31356497
			Longitude: -107.69592500
			Ground Level: 6794 ft

Wellbore	Original Drilling				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	6/11/2021	8.78	62.94	49,374.61251340

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	138.28

Plan Survey Tool Program	Date	6/23/2021		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0	12,835	APD (Original Drilling)	MWD+IGRF
				OWSG MWD + IGRF or WMM

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0	0.00	0.00	0	0	0	0.00	0.00	0.00	0.00	
450	0.00	0.00	450	0	0	0.00	0.00	0.00	0.00	
814	7.28	273.04	813	1	-23	2.00	2.00	0.00	273.04	
4673	7.28	273.04	4641	27	-511	0.00	0.00	0.00	0.00	
5738	90.43	135.14	5335	-468	-103	9.00	7.81	-12.95	-137.62	136H Heel Rev 1
12,835	90.43	135.14	5282	-5499	4903	0.00	0.00	0.00	0.00	136H Toe



Lonestar Consulting, LLC

Planning Report



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Site:	L16 2408 Pad	North Reference:	True
Well:	# 136H	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	273.04	500	0	0	0	2.00	2.00	0.00
600	3.00	273.04	600	0	-4	-3	2.00	2.00	0.00
700	5.00	273.04	700	1	-11	-8	2.00	2.00	0.00
800	7.00	273.04	799	1	-21	-15	2.00	2.00	0.00
814	7.28	273.04	813	1	-23	-16	2.00	2.00	0.00
900	7.28	273.04	898	2	-34	-24	0.00	0.00	0.00
1000	7.28	273.04	998	2	-47	-33	0.00	0.00	0.00
1100	7.28	273.04	1097	3	-59	-42	0.00	0.00	0.00
1200	7.28	273.04	1196	4	-72	-51	0.00	0.00	0.00
1300	7.28	273.04	1295	4	-85	-60	0.00	0.00	0.00
1400	7.28	273.04	1394	5	-97	-69	0.00	0.00	0.00
1500	7.28	273.04	1493	6	-110	-77	0.00	0.00	0.00
1600	7.28	273.04	1593	6	-123	-86	0.00	0.00	0.00
1700	7.28	273.04	1692	7	-135	-95	0.00	0.00	0.00
1800	7.28	273.04	1791	8	-148	-104	0.00	0.00	0.00
1900	7.28	273.04	1890	9	-160	-113	0.00	0.00	0.00
2000	7.28	273.04	1989	9	-173	-122	0.00	0.00	0.00
2100	7.28	273.04	2089	10	-186	-131	0.00	0.00	0.00
2200	7.28	273.04	2188	11	-198	-140	0.00	0.00	0.00
2300	7.28	273.04	2287	11	-211	-149	0.00	0.00	0.00
2400	7.28	273.04	2386	12	-224	-158	0.00	0.00	0.00
2500	7.28	273.04	2485	13	-236	-167	0.00	0.00	0.00
2600	7.28	273.04	2585	13	-249	-176	0.00	0.00	0.00
2700	7.28	273.04	2684	14	-262	-184	0.00	0.00	0.00
2800	7.28	273.04	2783	15	-274	-193	0.00	0.00	0.00
2900	7.28	273.04	2882	15	-287	-202	0.00	0.00	0.00
3000	7.28	273.04	2981	16	-300	-211	0.00	0.00	0.00
3100	7.28	273.04	3081	17	-312	-220	0.00	0.00	0.00
3200	7.28	273.04	3180	17	-325	-229	0.00	0.00	0.00
3300	7.28	273.04	3279	18	-338	-238	0.00	0.00	0.00
3400	7.28	273.04	3378	19	-350	-247	0.00	0.00	0.00
3500	7.28	273.04	3477	19	-363	-256	0.00	0.00	0.00
3600	7.28	273.04	3577	20	-376	-265	0.00	0.00	0.00
3700	7.28	273.04	3676	21	-388	-274	0.00	0.00	0.00
3800	7.28	273.04	3775	21	-401	-283	0.00	0.00	0.00
3900	7.28	273.04	3874	22	-413	-292	0.00	0.00	0.00
4000	7.28	273.04	3973	23	-426	-300	0.00	0.00	0.00
4100	7.28	273.04	4073	23	-439	-309	0.00	0.00	0.00
4200	7.28	273.04	4172	24	-451	-318	0.00	0.00	0.00
4300	7.28	273.04	4271	25	-464	-327	0.00	0.00	0.00
4400	7.28	273.04	4370	25	-477	-336	0.00	0.00	0.00
4500	7.28	273.04	4469	26	-489	-345	0.00	0.00	0.00
4600	7.28	273.04	4569	27	-502	-354	0.00	0.00	0.00
4673	7.28	273.04	4641	27	-511	-360	0.00	0.00	0.00
4700	5.72	256.36	4668	27	-514	-362	9.00	-5.77	-61.71
4800	7.77	174.07	4767	19	-518	-359	9.00	2.05	-82.28
4900	15.80	152.81	4865	0	-512	-340	9.00	8.03	-21.27
5000	24.51	146.02	4959	-29	-494	-307	9.00	8.70	-6.79



Lonestar Consulting, LLC

Planning Report



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Project:	Crow Canyon Unit	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site:	L16 2408 Pad	North Reference:	True
Well:	# 136H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5100	33.36	142.66	5046	-68	-465	-259	9.00	8.86	-3.36
5200	42.27	140.59	5125	-116	-427	-197	9.00	8.91	-2.07
5300	51.21	139.13	5194	-172	-380	-125	9.00	8.94	-1.46
5400	60.16	138.00	5250	-234	-326	-42	9.00	8.95	-1.13
5500	69.12	137.05	5293	-300	-265	48	9.00	8.96	-0.94
5600	78.09	136.22	5321	-370	-199	144	9.00	8.96	-0.84
5700	87.05	135.43	5334	-441	-130	243	9.00	8.97	-0.78
5738	90.43	135.14	5335	-468	-103	280	9.00	8.97	-0.77
5800	90.43	135.14	5334	-512	-59	343	0.00	0.00	0.00
5900	90.43	135.14	5334	-583	11	442	0.00	0.00	0.00
6000	90.43	135.14	5333	-654	82	542	0.00	0.00	0.00
6100	90.43	135.14	5332	-725	152	642	0.00	0.00	0.00
6200	90.43	135.14	5331	-796	223	742	0.00	0.00	0.00
6300	90.43	135.14	5331	-866	293	842	0.00	0.00	0.00
6400	90.43	135.14	5330	-937	364	942	0.00	0.00	0.00
6500	90.43	135.14	5329	-1008	434	1042	0.00	0.00	0.00
6600	90.43	135.14	5328	-1079	505	1141	0.00	0.00	0.00
6700	90.43	135.14	5328	-1150	575	1241	0.00	0.00	0.00
6800	90.43	135.14	5327	-1221	646	1341	0.00	0.00	0.00
6900	90.43	135.14	5326	-1292	716	1441	0.00	0.00	0.00
7000	90.43	135.14	5325	-1363	787	1541	0.00	0.00	0.00
7100	90.43	135.14	5325	-1433	858	1641	0.00	0.00	0.00
7200	90.43	135.14	5324	-1504	928	1740	0.00	0.00	0.00
7300	90.43	135.14	5323	-1575	999	1840	0.00	0.00	0.00
7400	90.43	135.14	5322	-1646	1069	1940	0.00	0.00	0.00
7500	90.43	135.14	5322	-1717	1140	2040	0.00	0.00	0.00
7600	90.43	135.14	5321	-1788	1210	2140	0.00	0.00	0.00
7700	90.43	135.14	5320	-1859	1281	2240	0.00	0.00	0.00
7800	90.43	135.14	5319	-1930	1351	2340	0.00	0.00	0.00
7900	90.43	135.14	5319	-2001	1422	2439	0.00	0.00	0.00
8000	90.43	135.14	5318	-2071	1492	2539	0.00	0.00	0.00
8100	90.43	135.14	5317	-2142	1563	2639	0.00	0.00	0.00
8200	90.43	135.14	5316	-2213	1633	2739	0.00	0.00	0.00
8300	90.43	135.14	5316	-2284	1704	2839	0.00	0.00	0.00
8400	90.43	135.14	5315	-2355	1774	2939	0.00	0.00	0.00
8500	90.43	135.14	5314	-2426	1845	3039	0.00	0.00	0.00
8600	90.43	135.14	5313	-2497	1916	3138	0.00	0.00	0.00
8700	90.43	135.14	5313	-2568	1986	3238	0.00	0.00	0.00
8800	90.43	135.14	5312	-2639	2057	3338	0.00	0.00	0.00
8900	90.43	135.14	5311	-2709	2127	3438	0.00	0.00	0.00
9000	90.43	135.14	5311	-2780	2198	3538	0.00	0.00	0.00
9100	90.43	135.14	5310	-2851	2268	3638	0.00	0.00	0.00
9200	90.43	135.14	5309	-2922	2339	3737	0.00	0.00	0.00
9300	90.43	135.14	5308	-2993	2409	3837	0.00	0.00	0.00
9400	90.43	135.14	5308	-3064	2480	3937	0.00	0.00	0.00
9500	90.43	135.14	5307	-3135	2550	4037	0.00	0.00	0.00
9600	90.43	135.14	5306	-3206	2621	4137	0.00	0.00	0.00
9700	90.43	135.14	5305	-3277	2691	4237	0.00	0.00	0.00
9800	90.43	135.14	5305	-3347	2762	4337	0.00	0.00	0.00
9900	90.43	135.14	5304	-3418	2832	4436	0.00	0.00	0.00
10,000	90.43	135.14	5303	-3489	2903	4536	0.00	0.00	0.00
10,100	90.43	135.14	5302	-3560	2973	4636	0.00	0.00	0.00
10,200	90.43	135.14	5302	-3631	3044	4736	0.00	0.00	0.00
10,300	90.43	135.14	5301	-3702	3115	4836	0.00	0.00	0.00



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Project:	Crow Canyon Unit	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site:	L16 2408 Pad	North Reference:	True
Well:	# 136H	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	90.43	135.14	5300	-3773	3185	4936	0.00	0.00	0.00	
10,500	90.43	135.14	5299	-3844	3256	5035	0.00	0.00	0.00	
10,600	90.43	135.14	5299	-3914	3326	5135	0.00	0.00	0.00	
10,700	90.43	135.14	5298	-3985	3397	5235	0.00	0.00	0.00	
10,800	90.43	135.14	5297	-4056	3467	5335	0.00	0.00	0.00	
10,900	90.43	135.14	5296	-4127	3538	5435	0.00	0.00	0.00	
11,000	90.43	135.14	5296	-4198	3608	5535	0.00	0.00	0.00	
11,100	90.43	135.14	5295	-4269	3679	5635	0.00	0.00	0.00	
11,200	90.43	135.14	5294	-4340	3749	5734	0.00	0.00	0.00	
11,300	90.43	135.14	5293	-4411	3820	5834	0.00	0.00	0.00	
11,400	90.43	135.14	5293	-4482	3890	5934	0.00	0.00	0.00	
11,500	90.43	135.14	5292	-4552	3961	6034	0.00	0.00	0.00	
11,600	90.43	135.14	5291	-4623	4031	6134	0.00	0.00	0.00	
11,700	90.43	135.14	5290	-4694	4102	6234	0.00	0.00	0.00	
11,800	90.43	135.14	5290	-4765	4173	6333	0.00	0.00	0.00	
11,900	90.43	135.14	5289	-4836	4243	6433	0.00	0.00	0.00	
12,000	90.43	135.14	5288	-4907	4314	6533	0.00	0.00	0.00	
12,100	90.43	135.14	5287	-4978	4384	6633	0.00	0.00	0.00	
12,200	90.43	135.14	5287	-5049	4455	6733	0.00	0.00	0.00	
12,300	90.43	135.14	5286	-5120	4525	6833	0.00	0.00	0.00	
12,400	90.43	135.14	5285	-5190	4596	6933	0.00	0.00	0.00	
12,500	90.43	135.14	5284	-5261	4666	7032	0.00	0.00	0.00	
12,600	90.43	135.14	5284	-5332	4737	7132	0.00	0.00	0.00	
12,700	90.43	135.14	5283	-5403	4807	7232	0.00	0.00	0.00	
12,800	90.43	135.14	5282	-5474	4878	7332	0.00	0.00	0.00	
12,835	90.43	135.14	5282	-5499	4903	7367	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	
136H Toe	0.00	0.00	5282	-5499	4903	1,927,974.53	2,768,484.34	36.29845800	-107.67928700	
- hit/miss target										
- Shape										
- plan hits target center										
- Circle (radius 100)										
136H Heel Rev 1	0.00	0.00	5335	-468	-103	1,932,998.60	2,763,471.13	36.31228004	-107.69627585	
- 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		
5677	5332	Intermediate	7.00	8.75		



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 136H - Slot 1
Company:	DJR Operating	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Project:	Crow Canyon Unit	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site:	L16 2408 Pad	North Reference:	True
Well:	# 136H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1165	1161	Ojo Alamo		0.00	0.00	
1297	1292	Kirtland		0.00	0.00	
1689	1681	Fruitland		0.00	0.00	
1908	1898	Pictured Cliffs		0.00	0.00	
1985	1975	Lewis		0.00	0.00	
2738	2722	Chacra		0.00	0.00	
3409	3387	Menefee		0.00	0.00	
4295	4266	Point Lookout		0.00	0.00	
4507	4476	Mancos		0.00	0.00	
4873	4839	Mancos Silt		0.00	0.00	
5447	5272	Gallup A		0.00	0.00	
5562	5312	Gallup B		0.00	0.00	



DJR Operating

Crow Canyon Unit

L16 2408 Pad

136H

Original Drilling

APD

Anticollision Report

24 June, 2021





Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 136H - Slot 1
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 136H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

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

Survey Tool Program		Date	6/24/2021		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0	12,835	APD (Original Drilling)	MWD+IGRF	OWSG MWD + IGRF or WMM	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
L16 2408 Pad						
# 130H - Original Drilling - APD	450	450	20	17	7.115	CC
# 130H - Original Drilling - APD	700	702	21	16	4.569	ES
# 130H - Original Drilling - APD	1100	1102	28	20	3.542	SF
# 131H - Original Drilling - APD	1331	1345	66	56	6.724	CC
# 131H - Original Drilling - APD	1400	1413	67	56	6.321	ES
# 131H - Original Drilling - APD	12,835	13,115	668	307	1.852	SF
# 134H - Original Drilling - APD	450	450	60	57	21.356	CC
# 134H - Original Drilling - APD	500	501	60	57	19.029	ES
# 134H - Original Drilling - APD	1100	1101	100	92	12.860	SF
# 135H - Original Drilling - APD	450	450	100	97	35.486	CC
# 135H - Original Drilling - APD	500	501	100	97	31.562	ES
# 135H - Original Drilling - APD	12,143	12,791	696	363	2.090	SF
# 137H - Original Drilling - APD	1863	1868	25	11	1.795	CC
# 137H - Original Drilling - APD	2100	2105	26	10	1.604	ES
# 137H - Original Drilling - APD	2300	2305	29	10	1.570	SF
Mesa #4 SWD - OH - OH	8942	4650	2638	2412	11.696	CC
Mesa #4 SWD - OH - OH	9000	4650	2638	2412	11.634	ES
Mesa #4 SWD - OH - OH	9400	4650	2677	2443	11.422	SF

Offset Design: L16 2408 Pad - # 130H - Original Drilling - APD													Offset Site Error: 0 ft	
Survey Program: 0-MWD+IGRF												Offset Well Error: 0 ft		
Reference	Measured Depth (ft)	Vertical Depth (ft)	Offset Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance				Warning
					Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
	0	0	0	0	0	0	87.92	1	20	20				
	100	100	100	100	0	0	87.92	1	20	20	20	0.31	65.027	
	200	200	200	200	1	1	87.92	1	20	20	19	1.03	19.554	
	300	300	300	300	1	1	87.92	1	20	20	18	1.74	11.507	
	400	400	400	400	1	1	87.92	1	20	20	18	2.46	8.152	
	450	450	450	450	1	1	87.92	1	20	20	17	2.82	7.115 CC	
	500	500	500	500	2	2	175.36	1	20	20	17	3.17	6.334	
	600	600	601	601	2	2	179.10	-1	16	20	16	3.85	5.246	
	700	700	702	701	2	2	-173.66	-3	10	21	16	4.55	4.569 ES	
	800	799	802	801	3	3	-163.78	-6	0	22	17	5.27	4.219	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 136H - Slot 1
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 136H	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: L16 2408 Pad - # 130H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
814	813	816	815	3	3	-162.28	-7	-2	23	17	5.37	4.193		
900	898	903	901	3	3	-151.43	-11	-14	24	18	6.03	3.957		
1000	998	1003	999	3	3	-134.11	-16	-30	25	18	6.88	3.619		
1100	1097	1102	1097	4	4	-112.32	-23	-50	28	20	7.81	3.542 SF		
1200	1196	1202	1193	4	4	-91.50	-31	-72	34	26	8.68	3.968		
1300	1295	1301	1289	5	5	-78.09	-38	-95	44	35	9.47	4.692		
1400	1394	1400	1385	5	6	-69.84	-46	-118	56	46	10.24	5.462		
1500	1493	1499	1481	6	6	-64.47	-54	-141	68	57	11.00	6.192		
1600	1593	1598	1577	6	7	-60.75	-61	-164	81	69	11.78	6.858		
1700	1692	1697	1674	6	7	-58.05	-69	-186	94	81	12.56	7.458		
1800	1791	1796	1770	7	8	-56.00	-77	-209	107	93	13.35	7.996		
1900	1890	1895	1866	7	8	-54.40	-84	-232	120	106	14.14	8.479		
2000	1989	1994	1962	8	9	-53.11	-92	-255	133	118	14.93	8.914		
2100	2089	2093	2058	8	9	-52.06	-100	-278	146	131	15.73	9.307		
2200	2188	2192	2154	9	10	-51.18	-108	-301	160	143	16.53	9.663		
2300	2287	2291	2250	9	11	-50.44	-115	-323	173	156	17.33	9.988		
2400	2386	2390	2346	9	11	-49.81	-123	-346	186	168	18.13	10.284		
2500	2485	2490	2442	10	12	-49.25	-131	-369	200	181	18.93	10.556		
2600	2585	2589	2539	10	12	-48.77	-138	-392	213	194	19.73	10.805		
2700	2684	2688	2635	11	13	-48.35	-146	-415	227	206	20.54	11.036		
2800	2783	2787	2731	11	14	-47.97	-154	-437	240	219	21.34	11.249		
2900	2882	2886	2827	12	14	-47.64	-161	-460	254	231	22.15	11.446		
3000	2981	2985	2923	12	15	-47.33	-169	-483	267	244	22.96	11.630		
3100	3081	3084	3019	12	15	-47.06	-177	-506	280	257	23.76	11.801		
3200	3180	3183	3115	13	16	-46.81	-185	-529	294	269	24.57	11.961		
3300	3279	3282	3211	13	16	-46.58	-192	-551	307	282	25.38	12.111		
3400	3378	3381	3308	14	17	-46.38	-200	-574	321	295	26.19	12.252		
3500	3477	3480	3404	14	18	-46.18	-208	-597	334	307	27.00	12.384		
3600	3577	3579	3500	15	18	-46.01	-215	-620	348	320	27.81	12.508		
3700	3676	3679	3596	15	19	-45.84	-223	-643	361	333	28.62	12.626		
3800	3775	3778	3692	15	19	-45.69	-231	-665	375	345	29.43	12.737		
3900	3874	3877	3788	16	20	-45.55	-239	-688	388	358	30.24	12.842		
4000	3973	3976	3884	16	21	-45.42	-246	-711	402	371	31.05	12.941		
4100	4073	4075	3980	17	21	-45.30	-254	-734	415	383	31.86	13.035		
4200	4172	4174	4076	17	22	-45.18	-262	-757	429	396	32.67	13.125		
4300	4271	4273	4173	18	22	-45.07	-269	-780	442	409	33.48	13.210		
4400	4370	4372	4269	18	23	-44.97	-277	-802	456	421	34.29	13.292		
4500	4469	4471	4365	18	23	-44.88	-285	-825	469	434	35.10	13.369		
4600	4569	4570	4461	19	24	-44.79	-292	-848	483	447	35.91	13.443		
4673	4641	4643	4531	19	25	-44.72	-298	-865	493	456	36.50	13.495		
4700	4668	4669	4557	19	25	-28.39	-300	-871	496	460	36.71	13.519		
4750	4718	4719	4605	19	25	19.96	-304	-882	503	466	37.02	13.595		
4800	4767	4767	4652	20	25	53.65	-308	-893	510	473	37.23	13.709		
4850	4817	4815	4699	20	26	68.30	-312	-904	518	481	37.37	13.861		
4900	4865	4862	4744	20	26	76.01	-315	-915	526	489	37.45	14.053		
4950	4913	4908	4788	20	26	81.00	-319	-926	535	498	37.47	14.286		
5000	4959	4951	4831	20	26	84.68	-322	-936	546	508	37.47	14.559		
5050	5004	4993	4871	20	27	87.60	-325	-945	557	520	37.46	14.872		
5100	5046	5033	4909	20	27	89.98	-328	-954	571	533	37.48	15.222		
5150	5087	5070	4945	20	27	91.89	-331	-963	586	548	37.55	15.605		
5200	5125	5104	4979	20	27	93.33	-334	-971	604	566	37.69	16.016		
5250	5161	5127	5001	20	27	93.61	-335	-976	624	586	37.83	16.491		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 136H - Slot 1
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 136H	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: L16 2408 Pad - # 130H - Original Drilling - APD													Offset Site Error: 0 ft	
Survey Program: 0-MWD+IGRF									Rule Assigned:				Offset Well Error: 0 ft	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
5300	5194	5150	5023	20	28	93.64	-336	-982	647	609	38.10	16.984		
5350	5223	5159	5032	20	28	92.10	-337	-985	673	635	38.36	17.551		
5400	5250	5170	5042	20	28	90.24	-337	-988	702	663	38.73	18.124		
5450	5273	5178	5050	20	28	87.64	-337	-991	733	694	39.17	18.718		
5500	5293	5183	5055	20	28	84.32	-337	-992	766	727	39.65	19.328		
5550	5309	5186	5057	20	28	80.32	-337	-993	801	761	40.17	19.949		
5600	5321	5186	5057	21	28	75.76	-337	-993	838	797	40.70	20.578		
5650	5329	5184	5056	21	28	70.77	-337	-993	875	833	41.24	21.211		
5700	5334	5181	5053	22	28	65.53	-337	-992	912	871	41.77	21.843		
5738	5335	5177	5049	22	28	61.53	-337	-990	941	899	42.17	22.317		
5800	5334	5171	5043	23	28	60.98	-337	-989	989	947	42.80	23.115		
5900	5334	5150	5023	24	28	59.13	-336	-982	1070	1026	43.61	24.530		
6000	5333	5150	5023	26	28	59.13	-336	-982	1153	1108	44.52	25.896		
6100	5332	5150	5023	27	28	59.13	-336	-982	1238	1193	45.31	27.334		
6200	5331	5150	5023	29	28	59.13	-336	-982	1326	1280	45.99	28.834		
6300	5331	5150	5023	31	28	59.13	-336	-982	1415	1369	46.58	30.382		
6400	5330	5130	5004	33	27	57.44	-336	-977	1505	1459	46.94	32.074		
6500	5329	5126	5000	35	27	57.05	-335	-976	1597	1550	47.36	33.721		
6600	5328	5121	4995	37	27	56.69	-335	-975	1689	1642	47.73	35.396		
6700	5328	5105	4980	39	27	55.34	-334	-971	1783	1735	47.96	37.172		
6800	5327	5105	4980	42	27	55.34	-334	-971	1877	1828	48.28	38.866		
6900	5326	5105	4980	44	27	55.34	-334	-971	1971	1922	48.57	40.579		
7000	5325	5105	4980	46	27	55.34	-334	-971	2066	2017	48.83	42.308		
7100	5325	5104	4979	48	27	55.25	-334	-971	2161	2112	49.06	44.056		
7200	5324	5093	4968	51	27	54.31	-333	-968	2257	2208	49.19	45.889		
7300	5323	5081	4957	53	27	53.37	-332	-966	2353	2304	49.30	47.736		
7400	5322	5070	4946	55	27	52.45	-331	-963	2450	2400	49.39	49.594		
7500	5322	5059	4934	57	27	51.55	-330	-960	2546	2497	49.47	51.464		
7600	5321	5047	4923	60	27	50.65	-330	-958	2643	2593	49.54	53.344		
7700	5320	5036	4912	62	27	49.77	-329	-955	2740	2690	49.60	55.235		
7800	5319	5024	4901	65	27	48.91	-328	-952	2837	2787	49.65	57.134		
7900	5319	5013	4890	67	27	48.06	-327	-950	2934	2884	49.70	59.042		
8000	5318	5001	4879	69	27	47.22	-326	-947	3032	2982	49.73	60.958		
8100	5317	4990	4868	72	27	46.40	-325	-945	3129	3079	49.76	62.881		
8200	5316	4978	4857	74	26	45.59	-324	-942	3227	3177	49.79	64.811		
8300	5316	4967	4846	76	26	44.79	-323	-939	3324	3275	49.81	66.748		
8400	5315	4956	4835	79	26	44.01	-322	-937	3422	3372	49.82	68.692		
8500	5314	4944	4823	81	26	43.24	-322	-934	3520	3470	49.83	70.641		
8600	5313	4933	4812	84	26	42.49	-321	-931	3618	3568	49.84	72.596		
8700	5313	4921	4801	86	26	41.75	-320	-929	3716	3666	49.84	74.557		
8800	5312	4910	4790	89	26	41.02	-319	-926	3814	3765	49.85	76.522		
8900	5311	4898	4779	91	26	40.31	-318	-923	3913	3863	49.85	78.493		
9000	5311	4887	4768	93	26	39.61	-317	-921	4011	3961	49.84	80.468		
9100	5310	4875	4757	96	26	38.92	-316	-918	4109	4059	49.84	82.447		
9200	5309	4864	4746	98	26	38.24	-315	-916	4207	4158	49.83	84.430		
9300	5308	4853	4735	101	26	37.58	-314	-913	4306	4256	49.83	86.418		
9400	5308	4841	4724	103	26	36.93	-314	-910	4404	4354	49.82	88.409		
9500	5307	4830	4712	106	26	36.29	-313	-908	4503	4453	49.81	90.403		
9600	5306	4818	4701	108	26	35.67	-312	-905	4601	4551	49.80	92.401		
9700	5305	4807	4690	111	25	35.05	-311	-902	4700	4650	49.79	94.402		
9800	5305	4795	4679	113	25	34.45	-310	-900	4798	4749	49.77	96.406		
9900	5304	4784	4668	116	25	33.86	-309	-897	4897	4847	49.76	98.412		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 136H - Slot 1
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 136H	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: L16 2408 Pad - # 130H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF												Offset Well Error:	0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,000	5303	4772	4657	118	25	33.28	-308	-894	4996	4946	49.75	100.422	
10,100	5302	4761	4646	120	25	32.72	-307	-892	5094	5045	49.73	102.433	
10,200	5302	4750	4635	123	25	32.16	-306	-889	5193	5143	49.72	104.447	
10,300	5301	4738	4624	125	25	31.61	-306	-887	5292	5242	49.70	106.463	
10,400	5300	4727	4613	128	25	31.08	-305	-884	5390	5341	49.69	108.481	
10,500	5299	4715	4601	130	25	30.55	-304	-881	5489	5440	49.68	110.500	
10,600	5299	4704	4590	133	25	30.04	-303	-879	5588	5538	49.66	112.521	
10,700	5298	4692	4579	135	25	29.53	-302	-876	5687	5637	49.65	114.544	
10,800	5297	4681	4568	138	25	29.03	-301	-873	5786	5736	49.63	116.568	
10,900	5296	4669	4557	140	25	28.55	-300	-871	5884	5835	49.62	118.593	
11,000	5296	4658	4546	143	25	28.07	-299	-868	5983	5934	49.61	120.619	
11,100	5295	4647	4535	145	25	27.60	-298	-865	6082	6033	49.59	122.646	
11,200	5294	4635	4524	148	24	27.14	-298	-863	6181	6132	49.58	124.673	
11,300	5293	4624	4513	150	24	26.69	-297	-860	6280	6230	49.57	126.702	
11,400	5293	4612	4501	153	24	26.25	-296	-858	6379	6329	49.55	128.730	
11,500	5292	4601	4490	155	24	25.82	-295	-855	6478	6428	49.54	130.759	
11,600	5291	4589	4479	157	24	25.39	-294	-852	6577	6527	49.53	132.788	
11,700	5290	4578	4468	160	24	24.97	-293	-850	6676	6626	49.52	134.817	
11,800	5290	4566	4457	162	24	24.56	-292	-847	6775	6725	49.51	136.846	
11,900	5289	4555	4446	165	24	24.16	-291	-844	6874	6824	49.50	138.875	
12,000	5288	4544	4435	167	24	23.76	-290	-842	6973	6923	49.49	140.903	
12,100	5287	4532	4424	170	24	23.38	-290	-839	7072	7022	49.48	142.931	
12,200	5287	4521	4413	172	24	23.00	-289	-836	7171	7121	49.47	144.959	
12,300	5286	4509	4402	175	24	22.62	-288	-834	7270	7220	49.46	146.985	
12,400	5285	4498	4390	177	24	22.25	-287	-831	7369	7319	49.45	149.011	
12,500	5284	4486	4379	180	24	21.89	-286	-829	7468	7418	49.44	151.035	
12,600	5284	4475	4368	182	24	21.54	-285	-826	7567	7517	49.44	153.059	
12,700	5283	4463	4357	185	23	21.19	-284	-823	7666	7616	49.43	155.081	
12,800	5282	4452	4346	187	23	20.85	-283	-821	7765	7715	49.43	157.102	
12,835	5282	4448	4342	188	23	20.73	-283	-820	7800	7750	49.42	157.814	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 136H - Slot 1
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 136H	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: L16 2408 Pad - # 131H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0	0	0	0	0	0	87.13	4	80	80					
100	100	100	100	0	0	87.13	4	80	80	80	0.31	259.306		
200	200	200	200	1	1	87.13	4	80	80	79	1.03	77.973		
300	300	300	300	1	1	87.13	4	80	80	78	1.74	45.886		
400	400	400	400	1	1	87.13	4	80	80	77	2.46	32.508		
450	450	450	450	1	1	87.13	4	80	80	77	2.82	28.372		
500	500	501	501	2	2	174.23	4	79	80	77	3.17	25.216		
600	600	604	604	2	2	175.33	3	76	80	76	3.86	20.710		
700	700	707	706	2	2	177.51	0	69	80	76	4.57	17.582		
800	799	809	808	3	3	-179.26	-4	59	81	76	5.28	15.330		
814	813	824	822	3	3	-178.74	-5	57	81	76	5.38	15.066		
900	898	912	910	3	3	-174.99	-9	45	81	75	6.00	13.462		
1000	998	1014	1010	3	4	-169.28	-16	28	78	71	6.75	11.576		
1100	1097	1115	1109	4	4	-161.44	-24	8	74	66	7.57	9.744		
1200	1196	1215	1206	4	5	-150.91	-33	-14	69	60	8.49	8.109		
1300	1295	1314	1302	5	5	-139.00	-42	-37	66	57	9.52	6.973		
1331	1326	1345	1332	5	5	-135.21	-44	-44	66	56	9.85	6.724 CC		
1400	1394	1413	1398	5	6	-126.75	-51	-60	67	56	10.60	6.321 ES		
1500	1493	1512	1494	6	6	-115.23	-59	-83	71	59	11.65	6.059		
1600	1593	1611	1590	6	7	-105.16	-68	-106	77	64	12.63	6.075		
1700	1692	1710	1686	6	7	-96.78	-77	-129	85	71	13.54	6.269		
1800	1791	1809	1781	7	8	-89.97	-86	-152	95	80	14.40	6.567		
1900	1890	1908	1877	7	8	-84.48	-95	-174	105	90	15.23	6.916		
2000	1989	2007	1973	8	9	-80.02	-104	-197	117	101	16.03	7.287		
2100	2089	2106	2069	8	10	-76.38	-113	-220	129	112	16.83	7.661		
2200	2188	2205	2165	9	10	-73.37	-122	-243	141	124	17.63	8.027		
2300	2287	2304	2261	9	11	-70.86	-131	-266	154	136	18.42	8.380		
2400	2386	2403	2357	9	11	-68.73	-140	-289	167	148	19.21	8.716		
2500	2485	2502	2453	10	12	-66.91	-148	-312	181	161	20.01	9.035		
2600	2585	2601	2548	10	13	-65.35	-157	-334	194	173	20.80	9.336		
2700	2684	2700	2644	11	13	-63.98	-166	-357	208	186	21.60	9.620		
2800	2783	2799	2740	11	14	-62.79	-175	-380	221	199	22.40	9.887		
2900	2882	2898	2836	12	14	-61.73	-184	-403	235	212	23.20	10.139		
3000	2981	2996	2932	12	15	-60.79	-193	-426	249	225	24.00	10.376		
3100	3081	3095	3028	12	15	-59.95	-202	-449	263	238	24.81	10.600		
3200	3180	3194	3124	13	16	-59.19	-211	-472	277	251	25.61	10.811		
3300	3279	3293	3220	13	17	-58.51	-220	-494	291	264	26.42	11.010		
3400	3378	3392	3315	14	17	-57.89	-229	-517	305	278	27.23	11.199		
3500	3477	3491	3411	14	18	-57.32	-238	-540	319	291	28.04	11.377		
3600	3577	3590	3507	15	18	-56.80	-246	-563	333	304	28.85	11.546		
3700	3676	3689	3603	15	19	-56.32	-255	-586	347	318	29.66	11.706		
3800	3775	3788	3699	15	20	-55.88	-264	-609	361	331	30.47	11.859		
3900	3874	3887	3795	16	20	-55.48	-273	-632	375	344	31.28	12.003		
4000	3973	3986	3891	16	21	-55.10	-282	-654	390	358	32.09	12.141		
4100	4073	4085	3986	17	21	-54.75	-291	-677	404	371	32.90	12.272		
4200	4172	4184	4082	17	22	-54.42	-300	-700	418	384	33.72	12.397		
4300	4271	4283	4178	18	23	-54.12	-309	-723	432	398	34.53	12.516		
4400	4370	4382	4274	18	23	-53.83	-318	-746	446	411	35.34	12.630		
4500	4469	4481	4370	18	24	-53.57	-327	-769	461	424	36.16	12.739		
4600	4569	4580	4466	19	24	-53.31	-335	-792	475	438	36.97	12.843		
4673	4641	4652	4536	19	25	-53.14	-342	-808	485	448	37.57	12.917		
4700	4668	4679	4562	19	25	-36.78	-344	-814	489	451	37.77	12.947		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 136H - Slot 1
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 136H	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: L16 2408 Pad - # 131H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													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 (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
4750	4718	4728	4609	19	25	11.68	-349	-826	496	458	38.07	13.023		
4800	4767	4777	4657	20	26	45.51	-353	-837	502	464	38.27	13.125		
4850	4817	4825	4703	20	26	60.37	-358	-848	509	470	38.37	13.255		
4900	4865	4872	4749	20	26	68.32	-362	-859	515	477	38.39	13.415		
4950	4913	4917	4793	20	26	73.61	-366	-870	522	483	38.35	13.609		
5000	4959	4961	4835	20	27	77.64	-370	-880	529	491	38.25	13.840		
5050	5004	5006	4879	20	27	81.05	-375	-889	538	500	38.17	14.091		
5100	5046	5054	4926	20	27	84.00	-382	-897	547	509	38.15	14.344		
5150	5087	5104	4974	20	27	86.62	-393	-903	558	519	38.20	14.594		
5200	5125	5156	5024	20	28	89.01	-407	-905	568	530	38.32	14.836		
5250	5161	5212	5077	20	28	91.24	-425	-905	580	541	38.49	15.069		
5300	5194	5270	5131	20	28	93.35	-448	-900	592	553	38.70	15.294		
5350	5223	5333	5186	20	28	95.36	-475	-891	604	565	38.92	15.516		
5400	5250	5401	5243	20	28	97.28	-509	-877	616	577	39.13	15.738		
5450	5273	5473	5300	20	28	99.12	-548	-856	628	588	39.32	15.959		
5500	5293	5551	5355	20	29	100.86	-595	-827	638	599	39.48	16.174		
5550	5309	5635	5407	20	29	102.46	-650	-791	648	609	39.64	16.356		
5600	5321	5724	5452	21	29	103.87	-712	-744	657	617	39.88	16.472		
5650	5329	5820	5489	21	29	105.02	-780	-689	664	623	40.30	16.469		
5700	5334	5920	5513	22	29	105.85	-852	-625	668	627	41.00	16.297		
5738	5335	5997	5522	22	29	106.22	-908	-572	670	628	41.76	16.044		
5800	5334	6079	5523	23	29	106.31	-967	-514	670	627	43.18	15.522		
5900	5334	6179	5522	24	29	106.32	-1038	-444	670	625	45.65	14.682		
6000	5333	6279	5521	26	30	106.32	-1109	-373	670	622	48.46	13.829		
6100	5332	6379	5520	27	31	106.33	-1179	-302	670	619	51.60	12.988		
6200	5331	6479	5520	29	32	106.33	-1250	-232	670	615	54.75	12.240		
6300	5331	6579	5519	31	34	106.33	-1321	-161	670	612	58.43	11.468		
6400	5330	6679	5518	33	35	106.34	-1392	-91	670	608	62.17	10.778		
6500	5329	6779	5518	35	37	106.34	-1463	-20	670	604	66.04	10.145		
6600	5328	6879	5517	37	39	106.35	-1534	50	670	600	70.03	9.567		
6700	5328	6979	5516	39	41	106.35	-1605	121	670	596	74.11	9.039		
6800	5327	7079	5515	42	43	106.35	-1675	191	670	592	78.28	8.558		
6900	5326	7179	5515	44	45	106.36	-1746	262	670	587	82.51	8.116		
7000	5325	7279	5514	46	47	106.36	-1817	333	670	583	86.81	7.716		
7100	5325	7379	5513	48	49	106.37	-1888	403	670	579	91.16	7.347		
7200	5324	7479	5513	51	52	106.37	-1959	474	670	574	95.55	7.009		
7300	5323	7579	5512	53	54	106.37	-2030	544	670	570	99.98	6.698		
7400	5322	7679	5511	55	56	106.38	-2100	615	670	565	104.44	6.411		
7500	5322	7779	5511	57	58	106.38	-2171	685	670	561	108.94	6.147		
7600	5321	7879	5510	60	61	106.39	-2242	756	670	556	113.46	5.901		
7700	5320	7979	5509	62	63	106.39	-2313	827	670	552	118.00	5.674		
7800	5319	8079	5508	65	65	106.39	-2384	897	669	547	122.56	5.462		
7900	5319	8179	5508	67	68	106.40	-2455	968	669	542	127.14	5.265		
8000	5318	8279	5507	69	70	106.40	-2526	1038	669	538	131.74	5.081		
8100	5317	8379	5506	72	72	106.41	-2596	1109	669	533	136.35	4.909		
8200	5316	8479	5506	74	75	106.41	-2667	1179	669	528	140.98	4.748		
8300	5316	8579	5505	76	77	106.42	-2738	1250	669	524	145.62	4.596		
8400	5315	8679	5504	79	79	106.42	-2809	1321	669	519	150.26	4.454		
8500	5314	8779	5503	81	82	106.42	-2880	1391	669	514	154.92	4.320		
8600	5313	8879	5503	84	84	106.43	-2951	1462	669	510	159.59	4.193		
8700	5313	8979	5502	86	87	106.43	-3022	1532	669	505	164.26	4.074		
8800	5312	9079	5501	89	89	106.44	-3092	1603	669	500	168.94	3.960		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 136H - Slot 1
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 136H	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: L16 2408 Pad - # 131H - Original Drilling - APD											Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF											Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
8900	5311	9179	5501	91	91	106.44	-3163	1673	669	495	173.63	3.853
9000	5311	9279	5500	93	94	106.44	-3234	1744	669	491	178.33	3.752
9100	5310	9379	5499	96	96	106.45	-3305	1815	669	486	183.03	3.655
9200	5309	9479	5498	98	99	106.45	-3376	1885	669	481	187.73	3.563
9300	5308	9579	5498	101	101	106.46	-3447	1956	669	476	192.44	3.476
9400	5308	9679	5497	103	103	106.46	-3517	2026	669	472	197.16	3.392
9500	5307	9779	5496	106	106	106.46	-3588	2097	669	467	201.88	3.313
9600	5306	9879	5496	108	108	106.47	-3659	2167	669	462	206.60	3.237
9700	5305	9979	5495	111	111	106.47	-3730	2238	669	457	211.33	3.164
9800	5305	10,079	5494	113	113	106.48	-3801	2309	669	453	216.06	3.095
9900	5304	10,179	5494	116	116	106.48	-3872	2379	669	448	220.79	3.028
10,000	5303	10,279	5493	118	118	106.48	-3943	2450	669	443	225.53	2.965
10,100	5302	10,379	5492	120	120	106.49	-4013	2520	669	438	230.27	2.903
10,200	5302	10,479	5491	123	123	106.49	-4084	2591	669	434	235.01	2.845
10,300	5301	10,579	5491	125	125	106.50	-4155	2661	669	429	239.76	2.788
10,400	5300	10,679	5490	128	128	106.50	-4226	2732	668	424	244.50	2.734
10,500	5299	10,779	5489	130	130	106.51	-4297	2802	668	419	249.25	2.682
10,600	5299	10,879	5489	133	133	106.51	-4368	2873	668	414	254.00	2.631
10,700	5298	10,979	5488	135	135	106.51	-4439	2944	668	410	258.76	2.583
10,800	5297	11,079	5487	138	138	106.52	-4509	3014	668	405	263.51	2.536
10,900	5296	11,179	5486	140	140	106.52	-4580	3085	668	400	268.27	2.491
11,000	5296	11,279	5486	143	143	106.53	-4651	3155	668	395	273.02	2.448
11,100	5295	11,379	5485	145	145	106.53	-4722	3226	668	390	277.78	2.405
11,200	5294	11,479	5484	148	147	106.53	-4793	3296	668	386	282.54	2.365
11,300	5293	11,579	5484	150	150	106.54	-4864	3367	668	381	287.31	2.325
11,400	5293	11,679	5483	153	152	106.54	-4934	3438	668	376	292.07	2.287
11,500	5292	11,779	5482	155	155	106.55	-5005	3508	668	371	296.83	2.251
11,600	5291	11,879	5481	157	157	106.55	-5076	3579	668	366	301.60	2.215
11,700	5290	11,979	5481	160	160	106.55	-5147	3649	668	362	306.36	2.180
11,800	5290	12,079	5480	162	162	106.56	-5218	3720	668	357	311.13	2.147
11,900	5289	12,179	5479	165	165	106.56	-5289	3790	668	352	315.90	2.114
12,000	5288	12,279	5479	167	167	106.57	-5360	3861	668	347	320.67	2.083
12,100	5287	12,379	5478	170	170	106.57	-5430	3932	668	342	325.44	2.052
12,200	5287	12,479	5477	172	172	106.58	-5501	4002	668	338	330.21	2.022
12,300	5286	12,579	5476	175	175	106.58	-5572	4073	668	333	334.98	1.993
12,400	5285	12,679	5476	177	177	106.58	-5643	4143	668	328	339.75	1.965
12,500	5284	12,779	5475	180	180	106.59	-5714	4214	668	323	344.53	1.938
12,600	5284	12,879	5474	182	182	106.59	-5785	4284	668	318	349.30	1.911
12,700	5283	12,979	5474	185	185	106.60	-5856	4355	668	314	354.07	1.885
12,800	5282	13,079	5473	187	187	106.60	-5926	4426	668	309	358.85	1.860
12,835	5282	13,115	5473	188	188	106.60	-5951	4450	668	307	360.53	1.852 SF



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 136H - Slot 1
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 136H	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: L16 2408 Pad - # 134H - Original Drilling - APD														Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF														Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0	0	0	0	0	0	87.23	3	60	60						
100	100	100	100	0	0	87.23	3	60	60	60	0.31	195.181			
200	200	200	200	1	1	87.23	3	60	60	59	1.03	58.691			
300	300	300	300	1	1	87.23	3	60	60	58	1.74	34.538			
400	400	400	400	1	1	87.23	3	60	60	58	2.46	24.469			
450	450	450	450	1	1	87.23	3	60	60	57	2.82	21.356 CC			
500	500	501	501	2	2	173.87	3	60	60	57	3.17	19.029 ES			
600	600	602	601	2	2	171.38	6	58	62	58	3.88	16.013			
700	700	702	702	2	2	166.83	12	54	66	61	4.60	14.343			
800	799	803	802	3	3	160.96	21	48	72	67	5.33	13.557			
814	813	817	816	3	3	160.09	22	47	73	68	5.44	13.494			
900	898	903	901	3	3	154.34	33	40	80	74	6.09	13.208			
1000	998	1002	999	3	4	146.83	47	31	89	82	6.90	12.951			
1100	1097	1101	1095	4	4	138.84	64	19	100	92	7.74	12.860 SF			
1200	1196	1199	1191	4	4	131.51	83	7	112	103	8.62	12.971			
1300	1295	1297	1287	5	5	125.68	101	-5	125	116	9.50	13.206			
1400	1394	1396	1382	5	5	121.02	120	-18	140	130	10.38	13.500			
1500	1493	1494	1478	6	6	117.25	138	-30	156	144	11.26	13.815			
1600	1593	1592	1574	6	6	114.17	157	-42	172	159	12.14	14.131			
1700	1692	1691	1670	6	7	111.62	175	-54	188	175	13.02	14.437			
1800	1791	1789	1765	7	8	109.48	194	-67	205	191	13.89	14.728			
1900	1890	1887	1861	7	8	107.66	213	-79	222	207	14.77	15.002			
2000	1989	1986	1957	8	9	106.10	231	-91	239	223	15.64	15.257			
2100	2089	2084	2053	8	9	104.74	250	-104	256	239	16.52	15.495			
2200	2188	2182	2149	9	10	103.56	268	-116	273	256	17.39	15.717			
2300	2287	2281	2244	9	10	102.52	287	-128	291	273	18.26	15.923			
2400	2386	2379	2340	9	11	101.60	305	-141	308	289	19.13	16.115			
2500	2485	2477	2436	10	11	100.78	324	-153	326	306	20.01	16.294			
2600	2585	2576	2532	10	12	100.04	342	-165	344	323	20.88	16.461			
2700	2684	2674	2627	11	12	99.37	361	-178	361	340	21.75	16.617			
2800	2783	2772	2723	11	13	98.77	379	-190	379	357	22.62	16.763			
2900	2882	2871	2819	12	13	98.22	398	-202	397	374	23.49	16.899			
3000	2981	2969	2915	12	14	97.72	416	-215	415	391	24.37	17.028			
3100	3081	3067	3011	12	15	97.26	435	-227	433	408	25.24	17.148			
3200	3180	3166	3106	13	15	96.83	454	-239	451	425	26.11	17.262			
3300	3279	3264	3202	13	16	96.44	472	-251	469	442	26.98	17.368			
3400	3378	3362	3298	14	16	96.08	491	-264	487	459	27.85	17.469			
3500	3477	3461	3394	14	17	95.74	509	-276	505	476	28.72	17.565			
3600	3577	3559	3489	15	17	95.43	528	-288	523	493	29.60	17.655			
3700	3676	3657	3585	15	18	95.14	546	-301	541	510	30.47	17.741			
3800	3775	3756	3681	15	18	94.86	565	-313	559	527	31.34	17.822			
3900	3874	3854	3777	16	19	94.60	583	-325	577	544	32.21	17.899			
4000	3973	3952	3873	16	19	94.36	602	-338	595	561	33.08	17.973			
4100	4073	4051	3968	17	20	94.13	620	-350	613	579	33.95	18.042			
4200	4172	4149	4064	17	21	93.92	639	-362	631	596	34.83	18.109			
4300	4271	4247	4160	18	21	93.72	657	-375	649	613	35.70	18.173			
4400	4370	4346	4256	18	22	93.53	676	-387	667	630	36.57	18.234			
4500	4469	4444	4351	18	22	93.35	695	-399	685	647	37.44	18.292			
4600	4569	4542	4447	19	23	93.17	713	-412	703	665	38.31	18.347			
4673	4641	4614	4517	19	23	93.05	727	-420	716	677	38.95	18.386			
4700	4668	4640	4543	19	23	109.92	732	-424	721	682	39.18	18.413			
4750	4718	4689	4590	19	24	158.91	741	-430	733	693	39.55	18.532			



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 136H - Slot 1
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 136H	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: L16 2408 Pad - # 134H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF												Offset Well Error:	0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4800	4767	4736	4636	20	24	-167.20	750	-436	747	707	39.86	18.737	
4850	4817	4783	4681	20	24	-152.68	758	-442	763	723	40.12	19.025	
4900	4865	4827	4725	20	24	-145.35	767	-447	782	742	40.33	19.394	
4950	4913	4870	4767	20	25	-140.87	775	-453	803	763	40.48	19.843	
5000	4959	4911	4806	20	25	-137.67	783	-458	827	786	40.59	20.369	
5050	5004	4949	4844	20	25	-135.07	790	-462	853	812	40.66	20.972	
5100	5046	4985	4879	20	25	-132.70	797	-467	881	840	40.70	21.649	
5150	5087	5018	4911	20	25	-130.33	803	-471	912	871	40.70	22.398	
5200	5125	5048	4940	20	26	-127.78	808	-475	944	904	40.68	23.215	
5250	5161	5075	4966	20	26	-124.90	814	-478	979	939	40.64	24.096	
5300	5194	5098	4989	20	26	-121.55	818	-481	1016	975	40.57	25.037	
5350	5223	5118	5009	20	26	-117.59	822	-484	1054	1014	40.50	26.033	
5400	5250	5135	5025	20	26	-112.91	825	-486	1094	1054	40.41	27.077	
5450	5273	5147	5037	20	26	-107.39	827	-487	1135	1095	40.31	28.164	
5500	5293	5156	5045	20	26	-101.01	829	-488	1177	1137	40.20	29.287	
5550	5309	5161	5050	20	26	-93.81	830	-489	1220	1180	40.09	30.440	
5600	5321	5162	5051	21	26	-85.99	830	-489	1264	1224	39.97	31.614	
5650	5329	5160	5049	21	26	-77.90	829	-489	1307	1267	39.85	32.804	
5700	5334	5153	5042	22	26	-69.95	828	-488	1351	1311	39.73	34.000	
5738	5335	5145	5035	22	26	-64.29	827	-487	1383	1344	39.63	34.900	
5800	5334	5131	5021	23	26	-63.26	824	-485	1437	1397	39.49	36.387	
5900	5334	5108	4999	24	26	-61.66	820	-482	1524	1485	39.31	38.772	
6000	5333	5085	4976	26	26	-60.09	815	-480	1613	1573	39.18	41.161	
6100	5332	5062	4954	27	26	-58.57	811	-477	1702	1663	39.08	43.553	
6200	5331	5039	4932	29	25	-57.10	807	-474	1792	1753	39.01	45.948	
6300	5331	5016	4909	31	25	-55.66	803	-471	1883	1844	38.95	48.346	
6400	5330	4994	4887	33	25	-54.27	798	-468	1975	1936	38.91	50.748	
6500	5329	4971	4865	35	25	-52.92	794	-465	2067	2028	38.89	53.152	
6600	5328	4948	4842	37	25	-51.62	790	-462	2159	2121	38.87	55.559	
6700	5328	4925	4820	39	25	-50.35	785	-459	2252	2214	38.86	57.968	
6800	5327	4902	4798	42	25	-49.13	781	-457	2346	2307	38.85	60.380	
6900	5326	4879	4775	44	25	-47.94	777	-454	2439	2401	38.85	62.794	
7000	5325	4856	4753	46	24	-46.80	772	-451	2533	2494	38.85	65.210	
7100	5325	4833	4731	48	24	-45.69	768	-448	2627	2589	38.85	67.628	
7200	5324	4810	4708	51	24	-44.62	764	-445	2722	2683	38.86	70.048	
7300	5323	4787	4686	53	24	-43.59	759	-442	2816	2778	38.86	72.468	
7400	5322	4764	4664	55	24	-42.59	755	-439	2911	2872	38.87	74.890	
7500	5322	4741	4641	57	24	-41.62	751	-436	3006	2967	38.88	77.312	
7600	5321	4719	4619	60	24	-40.68	746	-434	3101	3062	38.89	79.735	
7700	5320	4696	4597	62	24	-39.78	742	-431	3196	3157	38.90	82.158	
7800	5319	4673	4574	65	23	-38.91	738	-428	3292	3253	38.92	84.581	
7900	5319	4650	4552	67	23	-38.07	733	-425	3387	3348	38.93	87.003	
8000	5318	4627	4530	69	23	-37.25	729	-422	3483	3444	38.95	89.424	
8100	5317	4604	4507	72	23	-36.46	725	-419	3578	3539	38.96	91.843	
8200	5316	4581	4485	74	23	-35.70	720	-416	3674	3635	38.98	94.262	
8300	5316	4558	4463	76	23	-34.96	716	-414	3770	3731	38.99	96.678	
8400	5315	4535	4440	79	23	-34.25	712	-411	3866	3827	39.01	99.093	
8500	5314	4512	4418	81	23	-33.55	707	-408	3962	3923	39.03	101.505	
8600	5313	4489	4396	84	22	-32.89	703	-405	4058	4019	39.05	103.914	
8700	5313	4466	4373	86	22	-32.24	699	-402	4154	4115	39.07	106.320	
8800	5312	4443	4351	89	22	-31.61	694	-399	4250	4211	39.09	108.723	
8900	5311	4421	4329	91	22	-31.00	690	-396	4346	4307	39.11	111.122	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 136H - Slot 1
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 136H	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: L16 2408 Pad - # 134H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF												Offset Well Error:	0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
9000	5311	4398	4306	93	22	-30.41	686	-393	4442	4403	39.14	113.517	
9100	5310	4375	4284	96	22	-29.84	682	-391	4539	4500	39.16	115.908	
9200	5309	4352	4262	98	22	-29.29	677	-388	4635	4596	39.18	118.295	
9300	5308	4329	4240	101	22	-28.75	673	-385	4732	4692	39.21	120.677	
9400	5308	4306	4217	103	21	-28.23	669	-382	4828	4789	39.23	123.054	
9500	5307	4283	4195	106	21	-27.73	664	-379	4924	4885	39.26	125.425	
9600	5306	4260	4173	108	21	-27.23	660	-376	5021	4982	39.29	127.792	
9700	5305	4237	4150	111	21	-26.76	656	-373	5117	5078	39.32	130.152	
9800	5305	4214	4128	113	21	-26.30	651	-370	5214	5175	39.35	132.507	
9900	5304	4191	4106	116	21	-25.85	647	-368	5311	5271	39.38	134.856	
10,000	5303	4168	4083	118	21	-25.41	643	-365	5407	5368	39.41	137.198	
10,100	5302	4146	4061	120	21	-24.98	638	-362	5504	5464	39.44	139.533	
10,200	5302	4123	4039	123	20	-24.57	634	-359	5600	5561	39.48	141.862	
10,300	5301	4100	4016	125	20	-24.17	630	-356	5697	5658	39.51	144.184	
10,400	5300	4077	3994	128	20	-23.78	625	-353	5794	5754	39.55	146.499	
10,500	5299	4054	3972	130	20	-23.40	621	-350	5891	5851	39.59	148.806	
10,600	5299	4031	3949	133	20	-23.03	617	-347	5987	5948	39.62	151.106	
10,700	5298	4008	3927	135	20	-22.67	612	-345	6084	6044	39.66	153.398	
10,800	5297	3985	3905	138	20	-22.32	608	-342	6181	6141	39.70	155.682	
10,900	5296	3962	3882	140	19	-21.97	604	-339	6278	6238	39.74	157.958	
11,000	5296	3939	3860	143	19	-21.64	599	-336	6374	6335	39.78	160.226	
11,100	5295	3916	3838	145	19	-21.31	595	-333	6471	6431	39.83	162.486	
11,200	5294	3893	3815	148	19	-21.00	591	-330	6568	6528	39.87	164.737	
11,300	5293	3870	3793	150	19	-20.69	586	-327	6665	6625	39.92	166.979	
11,400	5293	3848	3771	153	19	-20.39	582	-325	6762	6722	39.96	169.213	
11,500	5292	3825	3748	155	19	-20.09	578	-322	6859	6819	40.01	171.438	
11,600	5291	3802	3726	157	19	-19.80	573	-319	6956	6916	40.05	173.654	
11,700	5290	3779	3704	160	18	-19.52	569	-316	7053	7012	40.10	175.861	
11,800	5290	3756	3681	162	18	-19.25	565	-313	7149	7109	40.15	178.058	
11,900	5289	3733	3659	165	18	-18.98	561	-310	7246	7206	40.20	180.247	
12,000	5288	3710	3637	167	18	-18.72	556	-307	7343	7303	40.25	182.426	
12,100	5287	3687	3614	170	18	-18.47	552	-304	7440	7400	40.31	184.595	
12,200	5287	3664	3592	172	18	-18.22	548	-302	7537	7497	40.36	186.755	
12,300	5286	3641	3570	175	18	-17.97	543	-299	7634	7594	40.41	188.905	
12,400	5285	3618	3547	177	18	-17.73	539	-296	7731	7691	40.47	191.045	
12,500	5284	3595	3525	180	17	-17.50	535	-293	7828	7788	40.52	193.176	
12,600	5284	3572	3503	182	17	-17.27	530	-290	7925	7885	40.58	195.296	
12,700	5283	3550	3480	185	17	-17.05	526	-287	8022	7982	40.64	197.407	
12,800	5282	3527	3458	187	17	-16.83	522	-284	8119	8079	40.70	199.508	
12,835	5282	3519	3450	188	17	-16.75	520	-283	8153	8113	40.72	200.246	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 136H - Slot 1
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 136H	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: L16 2408 Pad - # 135H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	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	87.29	5	100	100					
100	100	100	100	0	0	87.29	5	100	100	100	0.31	324.328		
200	200	200	200	1	1	87.29	5	100	100	99	1.03	97.525		
300	300	300	300	1	1	87.29	5	100	100	98	1.74	57.392		
400	400	400	400	1	1	87.29	5	100	100	98	2.46	40.659		
450	450	450	450	1	1	87.29	5	100	100	97	2.82	35.486 CC		
500	500	501	501	2	2	174.06	5	100	100	97	3.17	31.562 ES		
600	600	603	603	2	2	172.52	8	98	102	98	3.88	26.233		
700	700	704	704	2	2	169.60	14	94	105	101	4.60	22.911		
800	799	805	804	3	3	165.59	23	88	111	106	5.34	20.843		
814	813	819	818	3	3	164.97	24	87	112	107	5.44	20.618		
900	898	906	904	3	3	160.75	35	80	118	112	6.10	19.428		
1000	998	1006	1003	3	4	154.97	49	70	126	119	6.89	18.226		
1100	1097	1105	1100	4	4	148.85	66	59	134	126	7.73	17.291		
1200	1196	1204	1196	4	4	143.43	82	48	143	134	8.59	16.652		
1300	1295	1302	1293	5	5	138.70	99	36	154	144	9.46	16.224		
1400	1394	1401	1390	5	5	134.59	115	25	165	155	10.34	15.946		
1500	1493	1500	1486	6	6	131.03	132	14	177	166	11.23	15.770		
1600	1593	1599	1583	6	6	127.93	149	3	190	178	12.12	15.668		
1700	1692	1697	1680	6	7	125.22	165	-8	203	190	13.00	15.617		
1800	1791	1796	1776	7	7	122.84	182	-19	217	203	13.89	15.601		
1900	1890	1895	1873	7	8	120.75	198	-30	231	216	14.77	15.610		
2000	1989	1993	1969	8	8	118.90	215	-41	245	229	15.66	15.637		
2100	2089	2092	2066	8	9	117.25	231	-53	259	243	16.54	15.675		
2200	2188	2191	2163	9	9	115.77	248	-64	274	256	17.42	15.722		
2300	2287	2289	2259	9	10	114.45	264	-75	289	270	18.30	15.773		
2400	2386	2388	2356	9	10	113.25	281	-86	304	284	19.18	15.828		
2500	2485	2487	2453	10	11	112.17	297	-97	319	299	20.06	15.885		
2600	2585	2585	2549	10	11	111.18	314	-108	334	313	20.94	15.943		
2700	2684	2684	2646	11	12	110.28	330	-119	349	327	21.82	16.000		
2800	2783	2783	2743	11	12	109.45	347	-130	364	342	22.69	16.057		
2900	2882	2881	2839	12	13	108.69	363	-142	380	356	23.57	16.113		
3000	2981	2980	2936	12	13	107.99	380	-153	395	371	24.44	16.168		
3100	3081	3079	3033	12	14	107.35	397	-164	411	385	25.32	16.222		
3200	3180	3178	3129	13	14	106.75	413	-175	426	400	26.19	16.274		
3300	3279	3276	3226	13	15	106.19	430	-186	442	415	27.07	16.324		
3400	3378	3375	3323	14	16	105.67	446	-197	457	430	27.94	16.373		
3500	3477	3474	3419	14	16	105.18	463	-208	473	444	28.81	16.420		
3600	3577	3572	3516	15	17	104.73	479	-220	489	459	29.69	16.466		
3700	3676	3671	3613	15	17	104.30	496	-231	505	474	30.56	16.510		
3800	3775	3770	3709	15	18	103.90	512	-242	520	489	31.43	16.553		
3900	3874	3868	3806	16	18	103.52	529	-253	536	504	32.30	16.594		
4000	3973	3967	3903	16	19	103.17	545	-264	552	519	33.17	16.634		
4100	4073	4066	3999	17	19	102.83	562	-275	568	534	34.05	16.672		
4200	4172	4164	4096	17	20	102.52	578	-286	583	549	34.92	16.709		
4300	4271	4263	4193	18	20	102.21	595	-297	599	563	35.79	16.745		
4400	4370	4362	4289	18	21	101.93	611	-309	615	578	36.66	16.780		
4500	4469	4461	4386	18	21	101.66	628	-320	631	593	37.53	16.813		
4600	4569	4559	4483	19	22	101.40	645	-331	647	608	38.40	16.845		
4673	4641	4631	4553	19	22	101.22	657	-339	658	619	39.04	16.868		
4700	4668	4658	4579	19	22	118.04	661	-342	663	624	39.27	16.887		
4750	4718	4707	4627	19	22	166.90	669	-347	673	633	39.64	16.980		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 136H - Slot 1
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 136H	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: L16 2408 Pad - # 135H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Rule Assigned:				Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
4800	4767	4754	4674	20	23	-159.40	677	-353	685	645	39.96	17.146		
4850	4817	4801	4719	20	23	-145.13	685	-358	699	659	40.22	17.385		
4900	4865	4846	4764	20	23	-138.11	693	-363	715	675	40.43	17.694		
4950	4913	4926	4843	20	24	-134.99	704	-371	733	692	40.86	17.947		
5000	4959	5038	4954	20	24	-133.62	709	-369	749	708	41.18	18.182		
5050	5004	5225	5136	20	24	-133.04	687	-337	760	719	40.71	18.671		
5100	5046	5393	5284	20	24	-131.09	635	-277	766	726	39.53	19.375		
5150	5087	5559	5405	20	23	-128.08	558	-194	766	728	38.23	20.043		
5200	5125	5710	5486	20	23	-124.32	471	-103	762	724	37.53	20.292		
5250	5161	5841	5531	20	23	-120.29	385	-15	753	716	37.74	19.964		
5300	5194	5952	5548	20	24	-116.37	308	63	743	704	38.64	19.229		
5350	5223	6022	5550	20	24	-113.89	258	112	732	692	39.75	18.410		
5400	5250	6064	5549	20	24	-112.70	228	142	722	682	40.71	17.741		
5450	5273	6108	5549	20	25	-111.52	197	173	715	673	41.67	17.151		
5500	5293	6154	5549	20	25	-110.43	164	205	709	666	42.69	16.603		
5550	5309	6201	5548	20	26	-109.46	131	239	704	661	43.71	16.115		
5600	5321	6250	5548	21	26	-108.67	97	273	701	656	44.81	15.648		
5650	5329	6299	5548	21	27	-108.10	62	308	699	653	45.92	15.225		
5700	5334	6349	5547	22	27	-107.77	26	343	698	651	47.10	14.820		
5738	5335	6386	5547	22	28	-107.70	0	369	698	650	47.98	14.542		
5800	5334	6449	5546	23	29	-107.70	-44	413	698	648	49.55	14.083		
5900	5334	6549	5546	24	30	-107.70	-115	484	698	645	52.30	13.339		
6000	5333	6649	5545	26	32	-107.70	-186	554	698	642	55.34	12.607		
6100	5332	6749	5544	27	34	-107.70	-257	625	698	639	58.62	11.902		
6200	5331	6849	5543	29	35	-107.70	-328	695	698	636	62.09	11.236		
6300	5331	6949	5543	31	37	-107.70	-399	766	698	632	65.72	10.614		
6400	5330	7049	5542	33	39	-107.70	-470	836	698	628	69.50	10.036		
6500	5329	7149	5541	35	41	-107.70	-541	907	698	624	73.40	9.503		
6600	5328	7249	5540	37	44	-107.70	-612	977	697	620	77.39	9.012		
6700	5328	7349	5540	39	46	-107.70	-683	1048	697	616	81.47	8.561		
6800	5327	7449	5539	42	48	-107.70	-753	1118	697	612	85.62	8.145		
6900	5326	7549	5538	44	50	-107.70	-824	1189	697	608	89.84	7.763		
7000	5325	7649	5537	46	52	-107.70	-895	1259	697	603	94.10	7.410		
7100	5325	7749	5537	48	54	-107.71	-966	1330	697	599	98.42	7.085		
7200	5324	7849	5536	51	57	-107.71	-1037	1400	697	594	102.78	6.784		
7300	5323	7949	5535	53	59	-107.71	-1108	1471	697	590	107.17	6.506		
7400	5322	8049	5534	55	61	-107.71	-1179	1541	697	586	111.59	6.248		
7500	5322	8149	5534	57	64	-107.71	-1250	1612	697	581	116.04	6.008		
7600	5321	8249	5533	60	66	-107.71	-1321	1682	697	577	120.52	5.784		
7700	5320	8349	5532	62	68	-107.71	-1392	1753	697	572	125.02	5.576		
7800	5319	8449	5531	65	71	-107.71	-1463	1823	697	568	129.54	5.381		
7900	5319	8549	5531	67	73	-107.71	-1533	1894	697	563	134.08	5.199		
8000	5318	8649	5530	69	75	-107.71	-1604	1964	697	558	138.63	5.028		
8100	5317	8749	5529	72	78	-107.71	-1675	2035	697	554	143.20	4.867		
8200	5316	8849	5528	74	80	-107.71	-1746	2105	697	549	147.78	4.716		
8300	5316	8949	5528	76	83	-107.71	-1817	2176	697	545	152.37	4.574		
8400	5315	9049	5527	79	85	-107.71	-1888	2246	697	540	156.98	4.439		
8500	5314	9149	5526	81	87	-107.71	-1959	2317	697	535	161.59	4.312		
8600	5313	9249	5525	84	90	-107.71	-2030	2387	697	531	166.21	4.192		
8700	5313	9349	5525	86	92	-107.71	-2101	2458	697	526	170.85	4.078		
8800	5312	9449	5524	89	95	-107.71	-2172	2528	697	521	175.49	3.970		
8900	5311	9549	5523	91	97	-107.71	-2243	2599	697	517	180.13	3.868		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 136H - Slot 1
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 136H	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: L16 2408 Pad - # 135H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
9000	5311	9649	5522	93	99	-107.72	-2313	2669	697	512	184.79	3.770		
9100	5310	9749	5522	96	102	-107.72	-2384	2740	697	507	189.44	3.677		
9200	5309	9849	5521	98	104	-107.72	-2455	2810	697	503	194.11	3.589		
9300	5308	9949	5520	101	107	-107.72	-2526	2881	697	498	198.78	3.504		
9400	5308	10,049	5519	103	109	-107.72	-2597	2951	697	493	203.46	3.424		
9500	5307	10,149	5519	106	112	-107.72	-2668	3022	697	488	208.14	3.346		
9600	5306	10,249	5518	108	114	-107.72	-2739	3092	696	484	212.82	3.273		
9700	5305	10,349	5517	111	116	-107.72	-2810	3163	696	479	217.51	3.202		
9800	5305	10,449	5517	113	119	-107.72	-2881	3233	696	474	222.20	3.134		
9900	5304	10,549	5516	116	121	-107.72	-2952	3304	696	469	226.90	3.069		
10,000	5303	10,649	5515	118	124	-107.72	-3023	3374	696	465	231.60	3.007		
10,100	5302	10,749	5514	120	126	-107.72	-3093	3445	696	460	236.30	2.947		
10,200	5302	10,849	5514	123	129	-107.72	-3164	3515	696	455	241.00	2.889		
10,300	5301	10,949	5513	125	131	-107.72	-3235	3586	696	451	245.71	2.834		
10,400	5300	11,049	5512	128	134	-107.72	-3306	3656	696	446	250.42	2.780		
10,500	5299	11,149	5511	130	136	-107.72	-3377	3727	696	441	255.13	2.729		
10,600	5299	11,249	5511	133	139	-107.72	-3448	3797	696	436	259.85	2.679		
10,700	5298	11,349	5510	135	141	-107.72	-3519	3868	696	432	264.57	2.631		
10,800	5297	11,449	5509	138	143	-107.72	-3590	3939	696	427	269.29	2.585		
10,900	5296	11,549	5508	140	146	-107.72	-3661	4009	696	422	274.01	2.540		
11,000	5296	11,649	5508	143	148	-107.73	-3732	4080	696	417	278.73	2.497		
11,100	5295	11,749	5507	145	151	-107.73	-3803	4150	696	413	283.46	2.455		
11,200	5294	11,849	5506	148	153	-107.73	-3873	4221	696	408	288.18	2.415		
11,300	5293	11,949	5505	150	156	-107.73	-3944	4291	696	403	292.91	2.376		
11,400	5293	12,049	5505	153	158	-107.73	-4015	4362	696	398	297.64	2.338		
11,500	5292	12,149	5504	155	161	-107.73	-4086	4432	696	393	302.37	2.301		
11,600	5291	12,249	5503	157	163	-107.73	-4157	4503	696	389	307.10	2.266		
11,700	5290	12,349	5502	160	166	-107.73	-4228	4573	696	384	311.84	2.231		
11,800	5290	12,449	5502	162	168	-107.73	-4299	4644	696	379	316.57	2.198		
11,900	5289	12,549	5501	165	171	-107.73	-4370	4714	696	374	321.31	2.165		
12,000	5288	12,649	5500	167	173	-107.73	-4441	4785	696	370	326.05	2.134		
12,100	5287	12,749	5499	170	176	-107.73	-4512	4855	696	365	330.79	2.103		
12,143	5287	12,791	5499	171	177	-107.73	-4542	4885	696	363	332.81	2.090 SF		
12,200	5287	12,791	5499	172	177	-107.73	-4542	4885	698	365	332.77	2.097		
12,300	5286	12,791	5499	175	177	-107.73	-4542	4885	713	386	327.62	2.177		
12,400	5285	12,791	5499	177	177	-107.73	-4542	4885	742	425	317.00	2.339		
12,500	5284	12,791	5499	180	177	-107.73	-4542	4885	782	479	302.62	2.584		
12,600	5284	12,791	5499	182	177	-107.73	-4542	4885	832	546	286.22	2.908		
12,700	5283	12,791	5499	185	177	-107.73	-4542	4885	891	622	269.22	3.310		
12,800	5282	12,791	5499	187	177	-107.73	-4542	4885	957	704	252.57	3.789		
12,835	5282	12,791	5499	188	177	-107.73	-4542	4885	981	735	246.91	3.975		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 136H - Slot 1
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 136H	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: L16 2408 Pad - # 137H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													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	87.40	2	40	40					
100	100	100	100	0	0	87.40	2	40	40	40	0.31	130.102		
200	200	200	200	1	1	87.40	2	40	40	39	1.03	39.122		
300	300	300	300	1	1	87.40	2	40	40	38	1.74	23.022		
400	400	400	400	1	1	87.40	2	40	40	38	2.46	16.310		
450	450	450	450	1	1	87.40	2	40	40	37	2.82	14.235		
500	500	501	501	2	2	174.30	2	40	40	37	3.17	12.650		
600	600	602	602	2	2	173.79	2	36	40	36	3.87	10.373		
700	700	703	703	2	2	172.78	4	29	40	36	4.57	8.786		
800	799	805	804	3	3	171.27	5	18	40	35	5.27	7.622		
814	813	819	818	3	3	171.02	5	17	40	35	5.37	7.484		
900	898	906	904	3	3	168.92	7	4	39	33	5.98	6.528		
1000	998	1006	1003	3	4	165.80	10	-11	37	30	6.72	5.475		
1100	1097	1106	1102	4	4	162.27	12	-26	35	27	7.46	4.636		
1200	1196	1206	1200	4	4	158.29	14	-41	33	24	8.23	3.959		
1300	1295	1306	1299	5	5	153.81	17	-57	31	22	9.02	3.407		
1400	1394	1406	1398	5	5	148.79	19	-72	29	19	9.84	2.957		
1500	1493	1506	1497	6	6	143.22	21	-87	28	17	10.70	2.590		
1600	1593	1606	1595	6	6	137.14	24	-102	27	15	11.60	2.295		
1700	1692	1706	1694	6	7	130.61	26	-117	26	13	12.54	2.061		
1800	1791	1806	1793	7	7	123.78	28	-133	25	12	13.51	1.882		
1863	1853	1868	1855	7	7	119.43	30	-142	25	11	14.13	1.795 CC		
1900	1890	1906	1892	7	8	116.83	31	-148	25	11	14.50	1.751		
2000	1989	2005	1990	8	8	109.95	33	-163	26	10	15.49	1.660		
2100	2089	2105	2089	8	8	103.33	35	-178	26	10	16.46	1.604 ES		
2200	2188	2205	2188	9	9	97.13	38	-194	27	10	17.40	1.576		
2300	2287	2305	2287	9	9	91.43	40	-209	29	10	18.30	1.570 SF		
2400	2386	2405	2385	9	10	86.27	42	-224	30	11	19.17	1.580		
2500	2485	2505	2484	10	10	81.66	44	-239	32	12	20.02	1.604		
2600	2585	2605	2583	10	11	77.55	47	-254	34	13	20.83	1.636		
2700	2684	2705	2682	11	11	73.92	49	-270	36	15	21.63	1.674		
2800	2783	2805	2781	11	12	70.69	51	-285	38	16	22.42	1.716		
2900	2882	2905	2879	12	12	67.84	54	-300	41	18	23.19	1.761		
3000	2981	3005	2978	12	13	65.30	56	-315	43	19	23.96	1.807		
3100	3081	3105	3077	12	13	63.04	58	-331	46	21	24.73	1.854		
3200	3180	3205	3176	13	13	61.02	61	-346	48	23	25.49	1.900		
3300	3279	3305	3274	13	14	59.21	63	-361	51	25	26.25	1.946		
3400	3378	3405	3373	14	14	57.58	65	-376	54	27	27.01	1.992		
3500	3477	3505	3472	14	15	56.10	68	-391	57	29	27.77	2.036		
3600	3577	3605	3571	15	15	54.76	70	-407	59	31	28.53	2.079		
3700	3676	3705	3669	15	16	53.55	72	-422	62	33	29.29	2.121		
3800	3775	3805	3768	15	16	52.43	75	-437	65	35	30.05	2.161		
3900	3874	3905	3867	16	17	51.42	77	-452	68	37	30.81	2.200		
4000	3973	4005	3966	16	17	50.48	79	-468	71	39	31.57	2.238		
4100	4073	4104	4064	17	18	49.62	82	-483	74	41	32.33	2.275		
4200	4172	4204	4163	17	18	48.82	84	-498	76	43	33.10	2.310		
4300	4271	4304	4262	18	19	48.08	86	-513	79	46	33.86	2.344		
4400	4370	4404	4361	18	19	47.39	89	-528	82	48	34.62	2.377		
4500	4469	4504	4459	18	20	46.75	91	-544	85	50	35.39	2.409		
4600	4569	4604	4558	19	20	46.16	93	-559	88	52	36.16	2.439		
4673	4641	4677	4630	19	20	45.75	95	-570	90	54	36.71	2.461		
4700	4668	4704	4657	19	20	62.16	96	-574	92	55	36.92	2.484		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 136H - Slot 1
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 136H	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: L16 2408 Pad - # 137H - Original Drilling - APD													Offset Site Error:	0 ft	
Survey Program:		0-MWD+IGRF					Rule Assigned:							Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance				Warning					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
4750	4718	4754	4706	19	21	110.28	97	-582	97	60	37.28	2.609			
4800	4767	4803	4755	20	21	143.30	98	-589	107	69	37.62	2.837			
4850	4817	4850	4801	20	21	156.97	99	-596	120	82	37.93	3.165			
4900	4865	4888	4838	20	21	163.50	101	-603	139	101	38.05	3.657			
4950	4913	4923	4872	20	21	167.15	105	-611	164	126	38.07	4.317			
5000	4959	4950	4898	20	22	169.49	108	-618	195	157	37.87	5.148			
5050	5004	4980	4926	20	22	171.04	113	-627	230	192	37.90	6.073			
5100	5046	5000	4945	20	22	172.23	117	-633	269	232	37.67	7.149			
5150	5087	5021	4964	20	22	173.12	121	-639	312	274	37.63	8.282			
5200	5125	5035	4977	20	22	173.88	124	-644	356	319	37.50	9.506			
5250	5161	5050	4991	20	22	174.53	128	-650	403	366	37.53	10.748			
5300	5194	5050	4991	20	22	175.41	128	-650	452	414	37.19	12.141			
5350	5223	5050	4991	20	22	176.84	128	-650	501	464	37.00	13.538			
5400	5250	5050	4991	20	22	-176.02	128	-650	551	514	36.92	14.915			
5450	5273	5050	4991	20	22	-10.99	128	-650	601	564	36.95	16.259			
5500	5293	5050	4991	20	22	-7.31	128	-650	651	613	37.04	17.560			
5550	5309	5050	4991	20	22	-6.34	128	-650	700	663	37.20	18.815			
5600	5321	5050	4991	21	22	-5.87	128	-650	749	711	37.39	20.022			
5650	5329	5050	4991	21	22	-5.60	128	-650	797	759	37.62	21.179			
5700	5334	5050	4991	22	22	-5.43	128	-650	844	806	37.86	22.287			
5738	5335	5032	4974	22	22	-5.35	124	-643	878	840	37.74	23.268			
5800	5334	5021	4964	23	22	-5.35	121	-640	935	897	37.90	24.670			
5900	5334	5000	4945	24	22	-5.35	117	-633	1027	989	38.05	26.993			
6000	5333	5000	4945	26	22	-5.35	117	-633	1120	1082	38.42	29.152			
6100	5332	4979	4926	27	22	-5.35	113	-626	1213	1175	38.48	31.538			
6200	5331	4968	4915	29	22	-5.34	111	-623	1308	1269	38.61	33.868			
6300	5331	4950	4898	31	22	-5.34	108	-618	1403	1364	38.65	36.283			
6400	5330	4950	4898	33	22	-5.34	108	-618	1498	1459	38.84	38.561			
6500	5329	4950	4898	35	22	-5.34	108	-618	1593	1554	38.99	40.866			
6600	5328	4950	4898	37	22	-5.34	108	-618	1690	1651	39.12	43.193			
6700	5328	4925	4874	39	22	-5.34	105	-612	1786	1747	39.06	45.712			
6800	5327	4900	4850	42	21	-5.34	102	-606	1883	1844	39.01	48.263			
6900	5326	4900	4850	44	21	-5.34	102	-606	1979	1940	39.11	50.611			
7000	5325	4900	4850	46	21	-5.34	102	-606	2076	2037	39.20	52.972			
7100	5325	4900	4850	48	21	-5.34	102	-606	2174	2134	39.28	55.343			
7200	5324	4900	4850	51	21	-5.34	102	-606	2271	2232	39.35	57.722			
7300	5323	4900	4850	53	21	-5.34	102	-606	2369	2330	39.41	60.108			
7400	5322	4900	4850	55	21	-5.34	102	-606	2467	2427	39.47	62.500			
7500	5322	4900	4850	57	21	-5.34	102	-606	2565	2525	39.52	64.895			
7600	5321	4880	4830	60	21	-5.34	101	-602	2663	2623	39.49	67.432			
7700	5320	4876	4826	62	21	-5.34	100	-601	2761	2721	39.52	69.855			
7800	5319	4872	4823	65	21	-5.34	100	-600	2859	2820	39.56	72.278			
7900	5319	4850	4801	67	21	-5.33	99	-596	2958	2918	39.52	74.852			
8000	5318	4850	4801	69	21	-5.33	99	-596	3056	3017	39.56	77.249			
8100	5317	4850	4801	72	21	-5.33	99	-596	3155	3115	39.61	79.646			
8200	5316	4850	4801	74	21	-5.33	99	-596	3253	3214	39.65	82.042			
8300	5316	4850	4801	76	21	-5.33	99	-596	3352	3312	39.70	84.438			
8400	5315	4850	4801	79	21	-5.33	99	-596	3451	3411	39.74	86.832			
8500	5314	4850	4801	81	21	-5.33	99	-596	3549	3510	39.78	89.225			
8600	5313	4850	4801	84	21	-5.33	99	-596	3648	3609	39.82	91.616			
8700	5313	4850	4801	86	21	-5.33	99	-596	3747	3707	39.86	94.004			
8800	5312	4850	4801	89	21	-5.33	99	-596	3846	3806	39.90	96.389			



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 136H - Slot 1
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 136H	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: L16 2408 Pad - # 137H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF												Offset Well Error:	0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Semi Major Axis Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
8900	5311	4845	4796	91	21	-5.33	99	-595	3945	3905	39.93	98.810	
9000	5311	4840	4791	93	21	-5.33	99	-595	4044	4004	39.95	101.225	
9100	5310	4840	4791	96	21	-5.33	99	-595	4143	4103	39.99	103.600	
9200	5309	4835	4786	98	21	-5.33	99	-594	4243	4202	40.02	106.010	
9300	5308	4822	4773	101	21	-5.33	98	-592	4342	4302	40.02	108.479	
9400	5308	4809	4760	103	21	-5.33	98	-590	4441	4401	40.03	110.944	
9500	5307	4795	4747	106	21	-5.33	98	-588	4540	4500	40.03	113.406	
9600	5306	4782	4734	108	21	-5.33	97	-586	4639	4599	40.04	115.862	
9700	5305	4769	4721	111	21	-5.33	97	-584	4738	4698	40.05	118.315	
9800	5305	4756	4708	113	21	-5.33	97	-582	4837	4797	40.06	120.762	
9900	5304	4743	4695	116	21	-5.33	97	-580	4936	4896	40.07	123.205	
10,000	5303	4730	4682	118	21	-5.33	96	-578	5036	4996	40.08	125.643	
10,100	5302	4717	4669	120	20	-5.33	96	-576	5135	5095	40.09	128.075	
10,200	5302	4704	4656	123	20	-5.33	96	-574	5234	5194	40.11	130.502	
10,300	5301	4690	4643	125	20	-5.33	95	-572	5333	5293	40.12	132.924	
10,400	5300	4677	4630	128	20	-5.33	95	-570	5432	5392	40.14	135.340	
10,500	5299	4664	4617	130	20	-5.32	95	-568	5531	5491	40.15	137.750	
10,600	5299	4651	4604	133	20	-5.32	94	-566	5630	5590	40.17	140.154	
10,700	5298	4638	4591	135	20	-5.32	94	-564	5730	5689	40.19	142.551	
10,800	5297	4625	4578	138	20	-5.32	94	-562	5829	5788	40.21	144.943	
10,900	5296	4612	4566	140	20	-5.32	93	-560	5928	5888	40.24	147.327	
11,000	5296	4599	4553	143	20	-5.32	93	-558	6027	5987	40.26	149.706	
11,100	5295	4585	4540	145	20	-5.32	93	-556	6126	6086	40.28	152.077	
11,200	5294	4572	4527	148	20	-5.32	93	-554	6225	6185	40.31	154.441	
11,300	5293	4559	4514	150	20	-5.32	92	-552	6324	6284	40.33	156.799	
11,400	5293	4546	4501	153	20	-5.32	92	-550	6423	6383	40.36	159.149	
11,500	5292	4533	4488	155	20	-5.32	92	-548	6523	6482	40.39	161.492	
11,600	5291	4520	4475	157	20	-5.32	91	-546	6622	6581	40.42	163.828	
11,700	5290	4507	4462	160	20	-5.32	91	-544	6721	6680	40.45	166.156	
11,800	5290	4494	4449	162	19	-5.32	91	-542	6820	6780	40.48	168.476	
11,900	5289	4480	4436	165	19	-5.32	90	-540	6919	6879	40.51	170.789	
12,000	5288	4467	4423	167	19	-5.32	90	-538	7018	6978	40.55	173.094	
12,100	5287	4454	4410	170	19	-5.32	90	-536	7117	7077	40.58	175.391	
12,200	5287	4441	4397	172	19	-5.32	90	-534	7217	7176	40.62	177.679	
12,300	5286	4428	4384	175	19	-5.32	89	-532	7316	7275	40.65	179.960	
12,400	5285	4415	4371	177	19	-5.32	89	-530	7415	7374	40.69	182.233	
12,500	5284	4402	4358	180	19	-5.32	89	-528	7514	7473	40.73	184.497	
12,600	5284	4389	4345	182	19	-5.32	88	-526	7613	7572	40.77	186.753	
12,700	5283	4375	4332	185	19	-5.32	88	-524	7712	7671	40.81	189.000	
12,800	5282	4362	4319	187	19	-5.32	88	-522	7811	7771	40.85	191.239	
12,835	5282	4358	4315	188	19	-5.32	88	-521	7846	7805	40.86	192.026	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 136H - Slot 1
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 136H	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: L16 2408 Pad - Mesa #4 SWD - OH - OH													Offset Site Error:	0 ft
Survey Program: 190-INCLINOMETER													Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0	0	11	11	0	0	103.30	-936	3961	4070					
100	100	111	111	0	3	103.30	-936	3961	4070	4067	3.53	1,154.583		
200	200	211	211	1	6	103.30	-936	3961	4070	4063	6.92	588.114		
300	300	311	311	1	9	103.30	-936	3961	4070	4060	10.32	394.548		
349	349	360	360	1	11	103.29	-936	3961	4070	4058	11.99	339.550		
400	400	409	409	1	12	103.29	-936	3961	4070	4056	13.66	298.007		
450	450	457	457	1	14	103.30	-936	3961	4070	4055	15.30	265.974		
500	500	506	506	2	15	-169.74	-936	3961	4070	4054	16.94	240.242		
600	600	611	611	2	19	-169.73	-936	3961	4074	4053	20.49	198.872		
700	700	711	711	2	22	-169.72	-936	3961	4081	4057	23.87	170.966		
800	799	810	810	3	25	-169.71	-936	3961	4091	4064	27.25	150.142		
814	813	824	824	3	25	-169.71	-936	3961	4093	4065	27.72	147.639		
900	898	909	909	3	28	-169.74	-936	3961	4104	4073	30.62	134.015		
1000	998	1009	1009	3	31	-169.77	-936	3961	4116	4082	33.99	121.093		
1100	1097	1108	1108	4	34	-169.80	-936	3961	4128	4091	37.36	110.497		
1200	1196	1207	1207	4	37	-169.83	-936	3961	4141	4100	40.74	101.651		
1300	1295	1304	1304	5	40	-169.88	-935	3961	4153	4109	44.05	94.276		
1400	1394	1400	1400	5	43	-169.90	-936	3961	4166	4118	47.34	88.005		
1500	1493	1505	1504	6	46	-169.92	-936	3961	4178	4128	50.87	82.142		
1600	1593	1604	1604	6	49	-169.95	-936	3961	4191	4137	54.25	77.257		
1700	1692	1703	1703	6	52	-169.98	-936	3961	4203	4146	57.62	72.944		
1800	1791	1800	1800	7	55	-170.03	-935	3961	4216	4155	60.95	69.165		
1900	1890	1896	1896	7	58	-170.05	-936	3961	4228	4164	64.23	65.826		
2000	1989	2001	2000	8	61	-170.07	-936	3961	4241	4173	67.76	62.582		
2100	2089	2100	2100	8	64	-170.10	-936	3961	4253	4182	71.14	59.785		
2200	2188	2199	2199	9	67	-170.13	-936	3961	4266	4191	74.52	57.241		
2300	2287	2296	2296	9	70	-170.17	-936	3961	4278	4200	77.83	54.967		
2400	2386	2392	2392	9	73	-170.19	-936	3961	4291	4210	81.13	52.888		
2500	2485	2497	2496	10	76	-170.22	-936	3961	4303	4219	84.66	50.826		
2600	2585	2596	2596	10	79	-170.25	-936	3961	4316	4228	88.05	49.017		
2700	2684	2695	2694	11	82	-170.29	-935	3961	4328	4237	91.42	47.343		
2800	2783	2791	2791	11	85	-170.32	-935	3961	4340	4246	94.70	45.833		
2900	2882	2887	2887	12	88	-170.34	-936	3961	4353	4255	97.99	44.425		
3000	2981	2993	2992	12	91	-170.36	-936	3961	4366	4264	101.57	42.982		
3100	3081	3092	3092	12	94	-170.39	-936	3961	4378	4273	104.95	41.716		
3200	3180	3190	3190	13	97	-170.43	-935	3961	4390	4282	108.31	40.536		
3300	3279	3286	3286	13	100	-170.45	-936	3961	4403	4291	111.58	39.459		
3400	3378	3382	3382	14	103	-170.47	-936	3961	4416	4301	114.86	38.443		
3500	3477	3489	3488	14	106	-170.50	-936	3961	4428	4310	118.48	37.376		
3600	3577	3588	3588	15	109	-170.52	-936	3961	4441	4319	121.86	36.441		
3700	3676	3686	3685	15	112	-170.56	-935	3961	4453	4328	125.19	35.569		
3800	3775	3781	3781	15	115	-170.59	-936	3961	4465	4337	128.47	34.759		
3900	3874	3886	3885	16	118	-170.60	-936	3961	4478	4346	132.00	33.925		
4000	3973	3985	3984	16	121	-170.63	-936	3961	4491	4355	135.38	33.170		
4100	4073	4084	4084	17	124	-170.66	-936	3961	4503	4364	138.77	32.452		
4200	4172	4182	4181	17	127	-170.69	-936	3961	4515	4373	142.11	31.776		
4300	4271	4279	4278	18	130	-170.71	-936	3961	4528	4383	145.41	31.139		
4400	4370	4382	4381	18	133	-170.73	-936	3961	4541	4392	148.91	30.493		
4500	4469	4481	4480	18	136	-170.76	-936	3961	4553	4401	152.29	29.898		
4600	4569	4580	4580	19	139	-170.79	-936	3961	4566	4410	155.67	29.329		
4673	4641	4650	4649	19	141	-170.80	-936	3961	4575	4417	158.07	28.942		
4700	4668	4650	4649	19	141	-154.08	-936	3961	4578	4420	158.15	28.945		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 136H - Slot 1
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 136H	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: L16 2408 Pad - Mesa #4 SWD - OH - OH												Offset Site Error:	0 ft
Survey Program: 190-INCLINOMETER												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)			
4750	4718	4650	4649	19	141	-105.43	-936	3961	4581	4423	158.30	28.941	
4800	4767	4650	4649	20	141	-71.98	-936	3961	4582	4424	158.41	28.924	
4850	4817	4650	4649	20	141	-58.03	-936	3961	4580	4421	158.50	28.895	
4900	4865	4650	4649	20	141	-51.44	-936	3961	4575	4416	158.57	28.852	
4950	4913	4650	4649	20	141	-47.92	-936	3961	4568	4409	158.61	28.797	
5000	4959	4650	4649	20	141	-45.95	-936	3961	4557	4399	158.64	28.727	
5050	5004	4650	4649	20	141	-44.92	-936	3961	4544	4386	158.66	28.643	
5100	5046	4650	4649	20	141	-44.52	-936	3961	4529	4370	158.66	28.545	
5150	5087	4650	4649	20	141	-44.62	-936	3961	4511	4352	158.65	28.433	
5200	5125	4650	4649	20	141	-45.12	-936	3961	4491	4332	158.65	28.305	
5250	5161	4650	4649	20	141	-46.00	-936	3961	4468	4309	158.65	28.162	
5300	5194	4650	4649	20	141	-47.23	-936	3961	4443	4284	158.65	28.003	
5350	5223	4650	4649	20	141	-48.81	-936	3961	4416	4257	158.67	27.829	
5400	5250	4650	4649	20	141	-50.76	-936	3961	4387	4228	158.72	27.638	
5450	5273	4650	4649	20	141	-53.11	-936	3961	4356	4197	158.79	27.430	
5500	5293	4650	4649	20	141	-55.86	-936	3961	4323	4164	158.89	27.207	
5550	5309	4650	4649	20	141	-59.06	-936	3961	4289	4130	159.04	26.967	
5600	5321	4650	4649	21	141	-62.72	-936	3961	4253	4094	159.22	26.713	
5650	5329	4650	4649	21	141	-66.86	-936	3961	4217	4057	159.45	26.445	
5700	5334	4650	4649	22	141	-71.47	-936	3961	4179	4019	159.72	26.163	
5738	5335	4650	4649	22	141	-75.23	-936	3961	4150	3990	159.96	25.944	
5800	5334	4650	4649	23	141	-75.23	-936	3961	4102	3942	160.40	25.573	
5900	5334	4650	4649	24	141	-75.23	-936	3961	4026	3865	161.21	24.974	
6000	5333	4650	4649	26	141	-75.23	-936	3961	3951	3789	162.14	24.368	
6100	5332	4650	4649	27	141	-75.23	-936	3961	3877	3714	163.18	23.759	
6200	5331	4650	4649	29	141	-75.23	-936	3961	3804	3640	164.35	23.149	
6300	5331	4650	4649	31	141	-75.23	-936	3961	3733	3567	165.63	22.538	
6400	5330	4650	4649	33	141	-75.23	-936	3961	3663	3496	167.02	21.931	
6500	5329	4650	4649	35	141	-75.23	-936	3961	3594	3426	168.53	21.328	
6600	5328	4650	4649	37	141	-75.23	-936	3961	3527	3357	170.14	20.731	
6700	5328	4650	4649	39	141	-75.23	-936	3961	3462	3290	171.85	20.142	
6800	5327	4650	4649	42	141	-75.23	-936	3961	3398	3224	173.67	19.564	
6900	5326	4650	4649	44	141	-75.23	-936	3961	3335	3160	175.58	18.997	
7000	5325	4650	4649	46	141	-75.23	-936	3961	3275	3098	177.59	18.443	
7100	5325	4650	4649	48	141	-75.23	-936	3961	3217	3037	179.68	17.903	
7200	5324	4650	4649	51	141	-75.23	-936	3961	3161	2979	181.87	17.380	
7300	5323	4650	4649	53	141	-75.23	-936	3961	3107	2923	184.13	16.873	
7400	5322	4650	4649	55	141	-75.23	-936	3961	3055	2869	186.47	16.384	
7500	5322	4650	4649	57	141	-75.23	-936	3961	3006	2817	188.88	15.914	
7600	5321	4650	4649	60	141	-75.23	-936	3961	2959	2768	191.36	15.465	
7700	5320	4650	4649	62	141	-75.23	-936	3961	2915	2721	193.88	15.036	
7800	5319	4650	4649	65	141	-75.23	-936	3961	2874	2678	196.46	14.630	
7900	5319	4650	4649	67	141	-75.23	-936	3961	2836	2637	199.07	14.246	
8000	5318	4650	4649	69	141	-75.23	-936	3961	2801	2599	201.71	13.885	
8100	5317	4650	4649	72	141	-75.23	-936	3961	2769	2564	204.37	13.548	
8200	5316	4650	4649	74	141	-75.23	-936	3961	2740	2533	207.02	13.235	
8300	5316	4650	4649	76	141	-75.23	-936	3961	2715	2505	209.67	12.947	
8400	5315	4650	4649	79	141	-75.23	-936	3961	2693	2480	212.30	12.684	
8500	5314	4650	4649	81	141	-75.23	-936	3961	2674	2460	214.88	12.446	
8600	5313	4650	4649	84	141	-75.23	-936	3961	2660	2442	217.42	12.233	
8700	5313	4650	4649	86	141	-75.23	-936	3961	2649	2429	219.89	12.046	
8800	5312	4650	4649	89	141	-75.23	-936	3961	2641	2419	222.28	11.884	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 136H - Slot 1
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 136H	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: L16 2408 Pad - Mesa #4 SWD - OH - OH											Offset Site Error:	0 ft
Survey Program: 190-INCLINOMETER											Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
8900	5311	4650	4649	91	141	-75.23	-936	3961	2638	2413	224.58	11.746
8942	5311	4650	4649	92	141	-75.23	-936	3961	2638	2412	225.51	11.696 CC
9000	5311	4650	4649	93	141	-75.23	-936	3961	2638	2412	226.78	11.634 ES
9100	5310	4650	4649	96	141	-75.23	-936	3961	2642	2414	228.87	11.545
9200	5309	4650	4649	98	141	-75.23	-936	3961	2650	2419	230.84	11.481
9300	5308	4650	4649	101	141	-75.23	-936	3961	2662	2429	232.69	11.440
9400	5308	4650	4649	103	141	-75.23	-936	3961	2677	2443	234.40	11.422 SF
9500	5307	4650	4649	106	141	-75.23	-936	3961	2696	2460	235.97	11.426
9600	5306	4650	4649	108	141	-75.23	-936	3961	2719	2481	237.41	11.451
9700	5305	4650	4649	111	141	-75.23	-936	3961	2745	2506	238.72	11.497
9800	5305	4650	4649	113	141	-75.23	-936	3961	2774	2534	239.88	11.563
9900	5304	4650	4649	116	141	-75.23	-936	3961	2806	2566	240.92	11.649
10,000	5303	4650	4649	118	141	-75.23	-936	3961	2842	2600	241.83	11.753
10,100	5302	4650	4649	120	141	-75.23	-936	3961	2881	2638	242.61	11.874
10,200	5302	4650	4649	123	141	-75.23	-936	3961	2923	2679	243.28	12.013
10,300	5301	4650	4649	125	141	-75.23	-936	3961	2967	2723	243.84	12.168
10,400	5300	4650	4649	128	141	-75.23	-936	3961	3014	2770	244.30	12.338
10,500	5299	4650	4649	130	141	-75.23	-936	3961	3064	2819	244.66	12.522
10,600	5299	4650	4649	133	141	-75.23	-936	3961	3116	2871	244.93	12.721
10,700	5298	4650	4649	135	141	-75.23	-936	3961	3170	2925	245.12	12.933
10,800	5297	4650	4649	138	141	-75.23	-936	3961	3227	2981	245.24	13.157
10,900	5296	4650	4649	140	141	-75.23	-936	3961	3285	3040	245.29	13.393
11,000	5296	4650	4649	143	141	-75.23	-936	3961	3346	3101	245.28	13.641
11,100	5295	4650	4649	145	141	-75.23	-936	3961	3408	3163	245.21	13.899
11,200	5294	4650	4649	148	141	-75.23	-936	3961	3472	3227	245.10	14.167
11,300	5293	4650	4649	150	141	-75.23	-936	3961	3538	3293	244.94	14.445
11,400	5293	4650	4649	153	141	-75.23	-936	3961	3606	3361	244.75	14.732
11,500	5292	4650	4649	155	141	-75.23	-936	3961	3675	3430	244.52	15.028
11,600	5291	4650	4649	157	141	-75.23	-936	3961	3745	3501	244.26	15.332
11,700	5290	4650	4649	160	141	-75.23	-936	3961	3817	3573	243.98	15.643
11,800	5290	4650	4649	162	141	-75.23	-936	3961	3889	3646	243.68	15.962
11,900	5289	4650	4649	165	141	-75.23	-936	3961	3964	3720	243.36	16.287
12,000	5288	4650	4649	167	141	-75.23	-936	3961	4039	3796	243.02	16.619
12,100	5287	4650	4649	170	141	-75.23	-936	3961	4115	3872	242.67	16.957
12,200	5287	4650	4649	172	141	-75.23	-936	3961	4192	3950	242.31	17.301
12,300	5286	4650	4649	175	141	-75.23	-936	3961	4270	4028	241.94	17.651
12,400	5285	4650	4649	177	141	-75.23	-936	3961	4350	4108	241.56	18.006
12,500	5284	4650	4649	180	141	-75.23	-936	3961	4429	4188	241.18	18.366
12,600	5284	4650	4649	182	141	-75.23	-936	3961	4510	4269	240.80	18.730
12,700	5283	4650	4649	185	141	-75.23	-936	3961	4592	4351	240.41	19.099
12,800	5282	4650	4649	187	141	-75.23	-936	3961	4674	4434	240.02	19.473
12,835	5282	4650	4649	188	141	-75.23	-936	3961	4703	4463	239.89	19.605



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 136H - Slot 1
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 136H	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 6794' & RKB 14 @ 6808ft

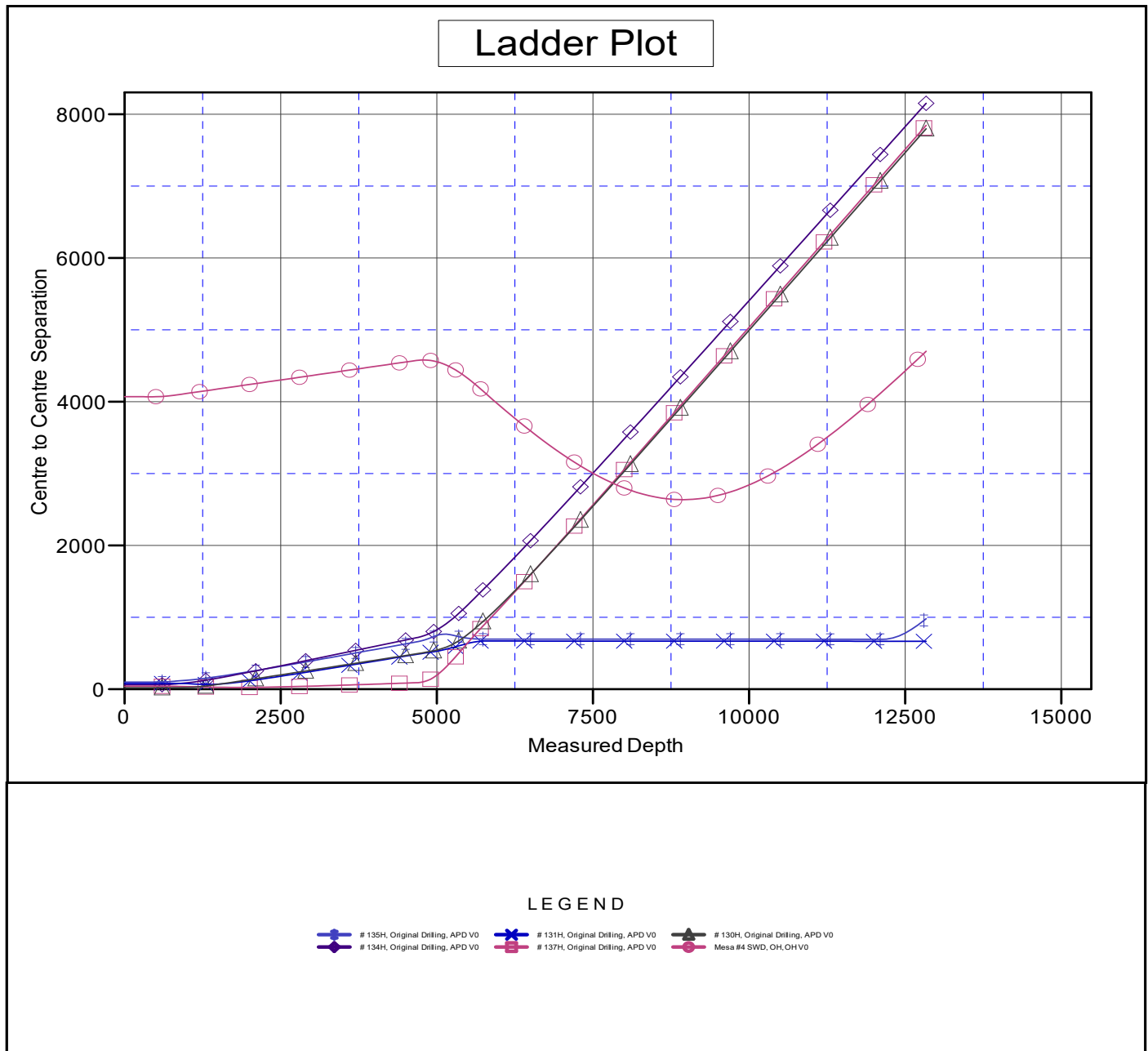
Coordinates are relative to: # 136H - Slot 1

Offset Depths are relative to Offset Datum

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

Central Meridian is -107.83333333

Grid Convergence at Surface is: 0.08°





Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 136H - Slot 1
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 136H	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 6794' & RKB 14 @ 6808ft

Offset Depths are relative to Offset Datum

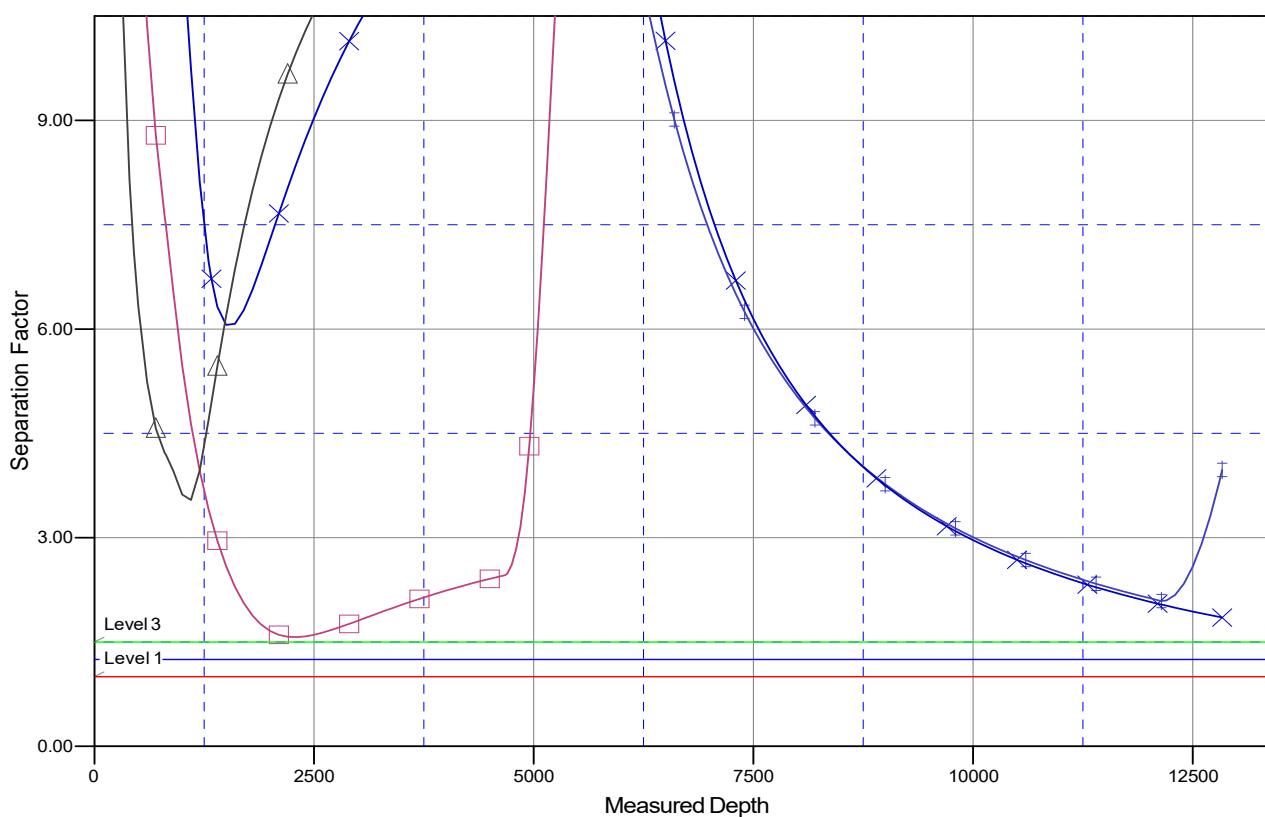
Central Meridian is -107.83333333

Coordinates are relative to: # 136H - Slot 1

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

Grid Convergence at Surface is: 0.08°

Separation Factor Plot



LEGEND

- # 136H, Original Drilling, APD V0
- # 134H, Original Drilling, APD V0
- # 131H, Original Drilling, APD V0
- # 137H, Original Drilling, APD V0
- # 130H, Original Drilling, APD V0
- Mesa #4 SWD, OH, OH V0



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

#136H CROW CANYON UNIT

Lease: NMNM026047 Unit: NMNM135203A
SH: NW¼SW¼ Section 16, T. 24 N., R. 8 W.
San Juan County, New Mexico
BH: NE¼SE¼ Section 21, T.24 N., R. 8 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 all casing strings below the conductor 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. If pressure declines more than 10 percent in 30 minutes, corrective action shall be taken.
- D. ☐ 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.
- E. ☐ The use of co-flex hose is authorized contingent upon the following:
 1. From the BOP to the choke manifold: the co-flex hose must be hobbled on both ends and saddle to prevent whip.
 2. From the choke manifold to the discharge tank: the co-flex hoses must be as straight as practical, hobbled on both ends and anchored to prevent whip.
 3. The co-flex hose pressure rating must be at least commensurate with approved BOPE.

INTERIOR REGION 7 • UPPER COLORADO BASIN

COLORADO, NEW MEXICO, UTAH, WYOMING

I. GENERAL

- A. Full compliance with all applicable laws and regulations, with the approved Permit to drill, and with the approved Surface Use and Operations Plan is required. Lessees and/or operators are fully accountable for the actions of their contractors and subcontractors. Failure to comply with these requirements and the filing of required reports will result in strict enforcement pursuant to 43 CFR 3163.1 or 3163.2.
- B. Each well shall have a well sign in legible condition from spud date to final abandonment. The sign should show the operator's name, lease serial number, or unit name, well number, location of the well, and whether lease is Tribal or Allotted, (See 43 CFR 3162.6(b)).
- C. A complete copy of the approved Application for Permit to Drill, along with any conditions of approval, shall be available to authorized personnel at the drill site whenever active drilling operations are under way.
- D. For Wildcat wells only, a drilling operations progress report is to be submitted, to the BLM-Field Office, weekly from the spud date until the well is completed and the Well Completion Report 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. BOP equipment (except the annular preventer) shall be tested utilizing a test plug to full working pressure for 10 minutes. No bleed-off of pressure is acceptable. (See 43 CFR 3172.6(b)(9)(ii)).
- G. The operator shall have sufficient weighting materials and lost circulation materials on location in the event of a pressure kick or in the event of lost circulation. (See 43 CFR 3172.8(a)).
- H. The flare line(s) discharge shall be located not less than 100 feet from the well head, having straight lines unless turns are targeted with running tees, and shall be positioned downwind of the prevailing wind direction and shall be anchored. The flare system shall have an effective method for ignition. Where noncombustible gas is likely or expected to be vented, the system shall be provided supplemental fuel for ignition and to maintain a continuous flare. (See 43 CFR 3172.8(b)(7)).
- I. 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 sundry within three business days. **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 Virgil Lucero at 505-793-1836.**
- J. **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.**
- K. Unless drilling operations are commenced within three years according to 43 CFR 3171.14, approval of the Application for Permit to Drill will expire. No extensions will be granted.

- L. 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 times, unless the well is secured with blowout preventers or cement plugs.
- M. 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.
- N. **Commingling:** No production (oil, gas, and water) from the subject well should start until Sundry Notices (if necessary) granting variances from applicable regulations as related to commingling and off-lease measurement are approved by this office. (See 43 CFR 3173.14)

II. REPORTING REQUIREMENTS

- A. For reporting purposes, all well Sundry notices, well completion and other well actions shall be referenced by the appropriate lease, communitization agreement and/or unit agreement numbers.
- B. The following reports shall be filed with the BLM-Authorized Officer online through AFMSS 2 within 30 days after the work is completed.
 - 1. Provide 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 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 way 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 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.
- C. Production Startup Notification is required no later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site or resumes production in the case of a well which has been off production for more than 90 days. The operator shall notify the Authorized Officer by letter or Sundry Notice, Form 3160-5, or orally to be followed by a letter or Sundry Notice, of the date on which such production has begun or resumed. CFR 43 3162.4-1(c).

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, 20 MMCF following its (completion)(recompletion), or flowback has been routed to the production separator, whichever first occurs, without the prior, written approval of the authorized officer in accordance with 43 CFR 3179.81. 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 beginning of flowback following completion or recompletion.*

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 to mitigate unanticipated conditions encountered during drilling operations, will require approval as set forth in Section 1.I.
- 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.I. 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.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

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

CONDITIONS

Action 471673

CONDITIONS

Operator: DJR OPERATING, LLC 200 Energy Court Farmington, NM 87401	OGRID: 371838
	Action Number: 471673
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
scrues76	Cement is required to circulate on both surface and intermediate1 strings of casing.	6/6/2025
scrues76	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	6/6/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	7/18/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	7/18/2025
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.	7/18/2025
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.	7/18/2025