

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. 9. API Well No. 30-043-21540
2. Name of Operator 3a. Address 3b. Phone No. (include area code)		10. Field and Pool, or Exploratory 11. Sec., T. R. M. or Blk. and Survey or Area 12. County or Parish 13. State
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		14. Distance in miles and direction from nearest town or post office* 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 Title		Name (Printed/Typed) Date
Approved by (Signature) Title		Name (Printed/Typed) Office

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 Title	Name (Printed/Typed) Office	Date Date
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Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
 Conditions of approval, if any, are attached.

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

(Continued on page 2)

*(Instructions on page 2)



Approval Date: 07/25/2025

Additional Operator Remarks

Location of Well

0. SHL: NENE / 1172 FNL / 873 FEL / TWSP: 23N / RANGE: 7W / SECTION: 26 / LAT: 36.201088 / LONG: -107.538766 (TVD: 0 feet, MD: 0 feet)
PPP: SESW / 1 FSL / 1515 FWL / TWSP: 23N / RANGE: 7W / SECTION: 23 / LAT: 36.204453 / LONG: -107.548411 (TVD: 5483 feet, MD: 5858 feet)
PPP: SESE / 1288 FSL / 1 FEL / TWSP: 23N / RANGE: 7W / SECTION: 22 / LAT: 36.208069 / LONG: -107.553595 (TVD: 5531 feet, MD: 15884 feet)
PPP: NWNW / 1245 FNL / 2241 FEL / TWSP: 23N / RANGE: 7W / SECTION: 26 / LAT: 36.200956 / LONG: -107.543399 (TVD: 5709 feet, MD: 6020 feet)
BHL: NWNW / 330 FNL / 689 FWL / TWSP: 23N / RANGE: 7W / SECTION: 22 / LAT: 36.218839 / LONG: -107.569039 (TVD: 5531 feet, MD: 15884 feet)

BLM Point of Contact

Name: CHRISTOPHER P WENMAN
Title: Natural Resource Specialist
Phone: (505) 564-7727
Email: cwenman@blm.gov

CONFIDENTIAL

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 30-043-21540	Pool Code 98174	Pool Name ALAMITO N; MANCOS (OIL)
Property Code 325267	Property Name NORTH ALAMITO UNIT	Well Number 543H
OGRID No. 371838	Operator Name DJR OPERATING, LLC	Ground Level Elevation 7307'
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
A	26	23N	7W		1172' NORTH	873' EAST	36.201088° N	107.538766° W	SANDOVAL

Bottom Hole Location (BHL)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
D	22	23N	7W		330' NORTH	689' WEST	36.218839° N	107.569039° W	SANDOVAL

Dedicated Acres SEC 26: SW/NE, NW/NE, NE/NW & SE/NW (160 AC.); SEC 23: SE/SW, SW/SW & NW/SW (120 AC.); SEC 22: SE/SE, NE/SE, NW/SE, SE/NE, SW/NE, SE/NW, NE/NW & NW/NW (320 AC.) = 600 ACRES	PENETRATED SPACING UNIT: INFILL	Infill or Defining Well INFILL	Defining Well API N	Overlapping Spacing Unit (Y/N) N	Consolidation Code UNITIZATION
Order Numbers: R-13457		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
B	26	23N	7W		1245' NORTH	2241' EAST	36.200956° N	107.543399° W	SANDOVAL

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
B	26	23N	7W		1245' NORTH	2241' EAST	36.200956° N	107.543399° W	SANDOVAL

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
D	22	23N	7W		330' NORTH	689' WEST	36.218839° N	107.569039° W	SANDOVAL

Unitized Area or Area of Uniform Interest NORTH ALAMITO	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

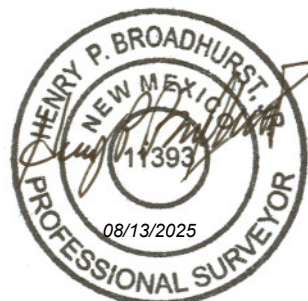
8/13/2025
Date

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

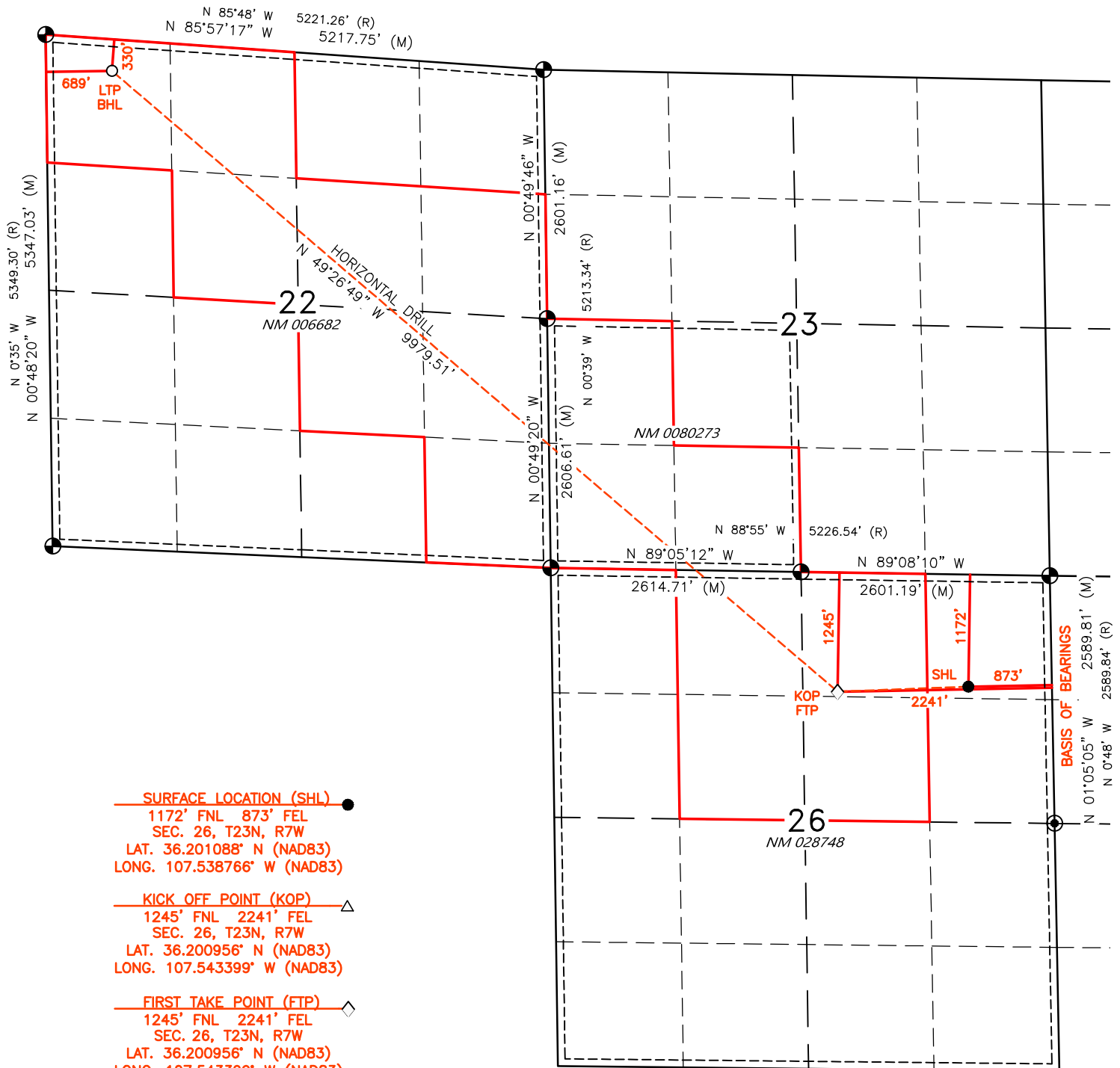
11393

Date of Survey

AUGUST 10, 2023

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 1948
 FND 1.5" AC
 2010



- SURFACE LOCATION (SHL) ●
 1172' FNL 873' FEL
 SEC. 26, T23N, R7W
 LAT. 36.201088° N (NAD83)
 LONG. 107.538766° W (NAD83)
- KICK OFF POINT (KOP) △
 1245' FNL 2241' FEL
 SEC. 26, T23N, R7W
 LAT. 36.200956° N (NAD83)
 LONG. 107.543399° W (NAD83)
- FIRST TAKE POINT (FTP) ◇
 1245' FNL 2241' FEL
 SEC. 26, T23N, R7W
 LAT. 36.200956° N (NAD83)
 LONG. 107.543399° W (NAD83)
- LAST TAKE POINT (LTP) □
 330' FNL 689' FWL
 SEC. 22, T23N, R7W
 LAT. 36.218839° N (NAD83)
 LONG. 107.569039° W (NAD83)
- BOTTOM HOLE LOCATION (BHL) ○
 330' FNL 689' FWL
 SEC. 22, T23N, R7W
 LAT. 36.218839° N (NAD83)
 LONG. 107.569039° W (NAD83)

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:** 08 / 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
N. Alamito Unit 206H	TBD	A-26-23N-7W	1151 FNL x 906 FEL	434	1278	173
N. Alamito Unit 542H	TBD	A-26-23N-7W	1162 FNL x 890 FEL	374	675	150
N. Alamito Unit 543H	TBD	A-26-23N-7W	1172 FNL x 873 FEL	268	1331	107
N. Alamito Unit 544H	TBD	A-26-23N-7W	1141 FNL x 923 FEL	459	540	184
				3-yr Decline	3-yr Decline	3-yr Decline
N. Alamito Unit 206H	TBD	A-26-23N-7W	1151 FNL x 906 FEL	98	392	39
N. Alamito Unit 542H	TBD	A-26-23N-7W	1162 FNL x 890 FEL	85	338	34
N. Alamito Unit 543H	TBD	A-26-23N-7W	1172 FNL x 873 FEL	61	242	24
N. Alamito Unit 544H	TBD	A-26-23N-7W	1141 FNL x 923 FEL	104	415	41

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 Start Date	Initial Flow Back Date	First Production Date
N. Alamito Unit 206H	TBD	11/1/2026	3/4/2026	4/22/2026	6/1/2026	6/3/2026
N. Alamito Unit 542H	TBD	11/2/2026	3/14/2026	4/22/2026	6/1/2026	6/3/2026
N. Alamito Unit 543H	TBD	11/3/2026	3/22/2026	4/22/2026	6/1/2026	6/3/2026
N. Alamito Unit 544H	TBD	11/4/2026	3/30/2026	4/22/2026	6/1/2026	6/3/2026

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: 8/14/2025
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
N. Alamito Unit 206H 542H 543H 544H

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
N. Alamito Unit 206H 542H 543H 544H

VENTING and FLARING

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

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

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

DJR will only flare gas during the following times:

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



DJR Operating LLC.
OGRID No: 371838
NATURAL GAS MANAGEMENT PLAN
N. Alamito Unit 206H 542H 543H 544H

OPERATIONAL PRACTICES

19.15.27.8 A. Venting and Flaring of Natural Gas

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.



DJR Operating LLC.
OGRID No: 371838
NATURAL GAS MANAGEMENT PLAN
N. Alamito Unit 206H 542H 543H 544H

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 its designed with an auto ignition system.
3. Flare stacks will appropriately sized and designed to ensure proper combustion efficiency.



DJR Operating LLC.
OGRID No: 371838
NATURAL GAS MANAGEMENT PLAN
N. Alamito Unit 206H 542H 543H 544H

- 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
N. Alamito Unit 206H 542H 543H 544H

BEST MANAGEMENT PRACTICES

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

North Alamito Unit #543H

Sandoval County, New Mexico

Surface Location

873-ft FEL & 1172-ft FNL
 Sec 26 T23N R7W
 Graded Elevation 7307' MSL
 RKB Elevation 7321' (14' KB)

SHL Geographical Coordinates (NAD-83)

Latitude 36.2010880° N
 Longitude 107.5387660° W

Kick Off Point for Horizontal Build Curve

5107-ft MD
 5005-ft TVD

Local Coordinates (from SHL)

331-ft South
 897-ft West

Heel Location (Pay zone entry)

2241-ft FEL & 1245-ft FNL
 Sec 26 T23N R7W

Heel Geographical Coordinates (NAD-83)

Latitude 36.20095554° N
 Longitude 107.54339873° W

Bottom Hole Location (TD)

689-ft FWL & 330-ft FNL
 Sec 22 T23N R7W

BHL Geographical Coordinates (NAD-83)

Latitude 36.218839° N
 Longitude 107.5690390° W

Well objectives

This well is planned as a 9980-ft lateral in the Gallup B sand.

Bottom Hole temperature and pressure

The temperature in the Gallup B horizontal objective is 145°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	1512	1494	Sd	W	8.3	8.4 – 8.8
Kirtland	1691	1669	Sh	-	8.3	8.4 – 8.8
Fruitland	1900	1873	C	G	8.3	9.0 - 9.5
Pictured Cliffs	2145	2113	Sd	W	8.3	9.0 - 9.5
Lewis	2261	2226	Sh	-		9.0 - 9.5
Chacra	3005	2953	Sd	-	8.3	9.0 - 9.5
Menefee	3704	3635	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	4529	4441	Sd	-	8.3	9.0 - 9.5
Mancos	4678	4586	Sh	-		9.0 - 9.5
Mancos Silt	5055	4955	Slt	O/G	6.6	9.0 - 9.5
Gallup A	5695	5445	Slt	O/G	6.6	9.0 - 9.5
Gallup B	5840	5481	Sd	O/G	6.6	8.8 -9.0
Gallup C	NP	NP	Sd	O/G	6.6	8.8 -9.0
Target	5904	5485	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	5858	surf	5483	surface
4-1/2"	6-1/8"	11.6	P-110	BTC	5615	15884	5410	5531	5615

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
	American	American
Type	I/II	Poz/G
Planned top	Surface	4678-ft
Density (ppg)	12.30	13.50
Yield (cf/sx)	2.34	1.51
Mix water (gal/sx)	13.22	7.13
Volume (sx)	520	123
Volume (bbls)	217	33
Volume (cu.ft.)	1217	186
Excess %	78	0



Rev 0

4-1/2" Production Liner

Type	American
Planned top	Poz/G
Density (ppg)	5615-ft
Yield (cf/sx)	13.3
Mix water (gal/sx)	1.52
Volume (sx)	7.52
Volume (bbls)	889
Volume (cu.ft)	241
Excess %	1351
	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 – 5858	9.0 – 9.5	38 – 45	8 – 14	<20
Production	Low solids, non-dispersed	5858 – 15884	8.8 – 9.2	34 – 38	6 – 8	6 – 8

Cores, tests and logs

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

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

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

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

Cuttings and drilling fluids management

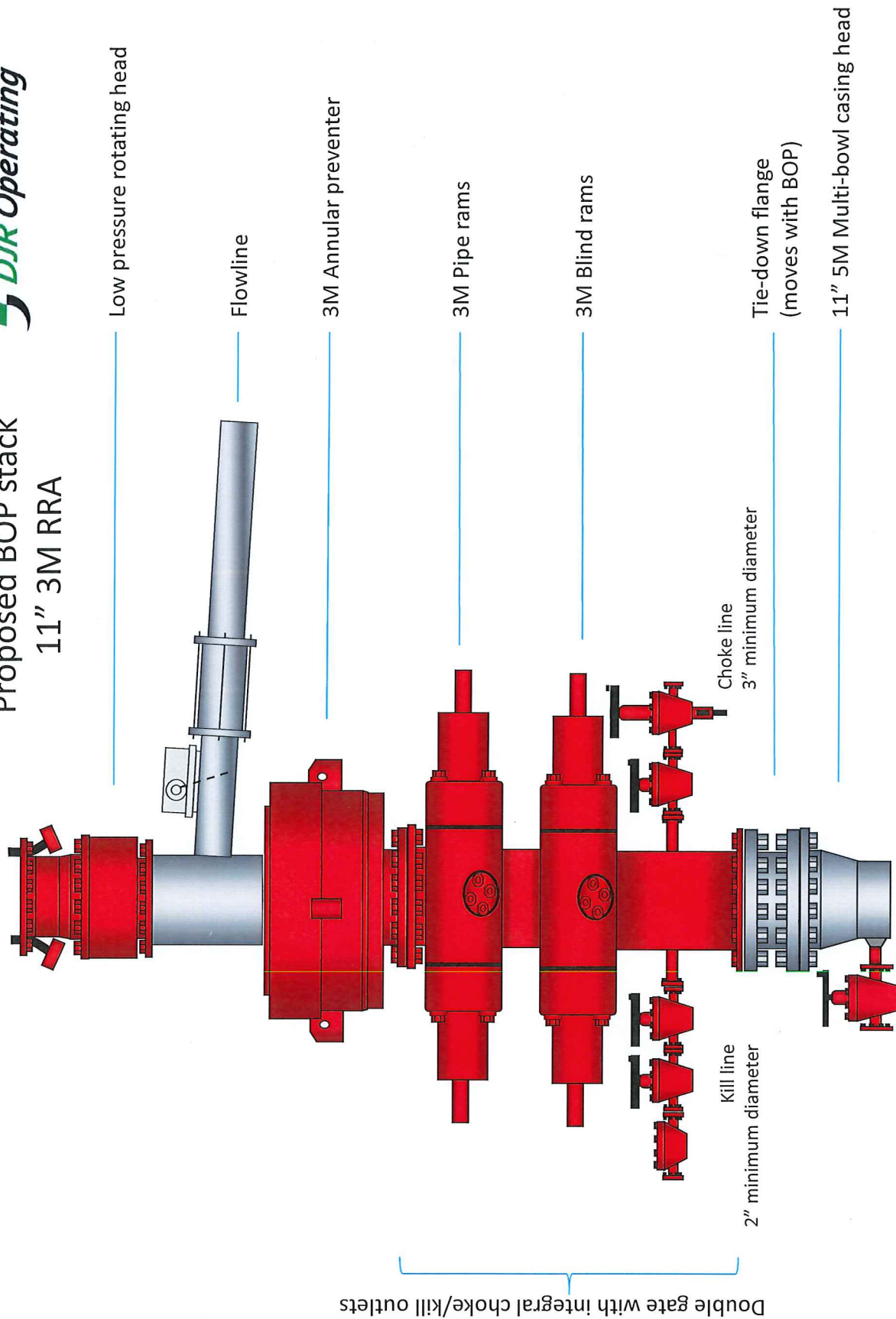
A closed loop, steel tank-based circulating system will be used. In addition to the rig solids control equipment, a dewatering centrifuge and chemical flocculation system will be operational to strip solids from the whole mud. All solids will be collected in 3-sided bins and will then be put into transports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

Completion

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



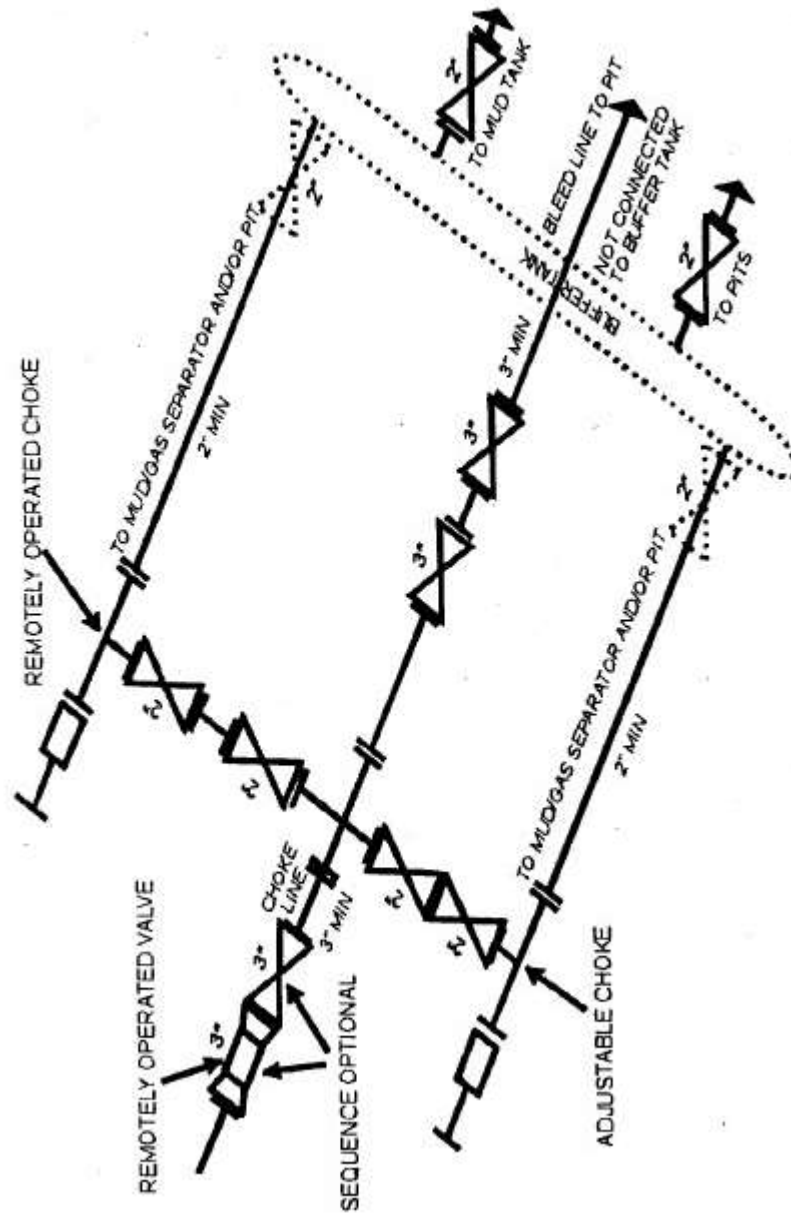
Proposed BOP stack 11" 3M RRA





Choke Manifold

Actual system to conform with Onshore Order 2





Company: DJR Operating
Project: North Alamito Unit
Site: A26 2307 Pad
Well: # 543H
Wellbore: Original Drilling
Design: APD Rev 1

PROJECT DETAILS: North Alamito Unit

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Western Zone
System Datum: Mean Sea Level
Local North: True



WELL DETAILS: # 543H

GL 5307' & RKB 14' @ 7321ft

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0	0	1892625.45	2809999.35	36.20108800	-107.53876600

Plan: APD Rev 1 (# 543H/Original Drilling)

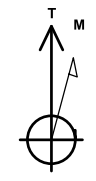
Created By: Janie Collins Date: 14:26, August 23 2023

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
543H Heel rev 1	5485	-48	-1367	1892573.11	2808632.67	36.20095554	-107.54339873
543H Toe	5531	6463	-8930	1899061.47	2801050.13	36.21883900	-107.56903900

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec
0	0.00	0.00	0	0	0	0.00	0.00	0
350	0.00	0.00	350	0	0	0.00	0.00	0
971	12.42	249.76	966	-23	-63	2.00	249.76	37
5107	12.42	249.76	5005	-331	-897	0.00	0.00	533
5904	89.74	310.73	5485	-48	-1367	10.50	61.59	1079
15884	89.74	310.73	5531	6463	-8930	0.00	0.00	11023



Azimuths to True North
Magnetic North: 10.5°

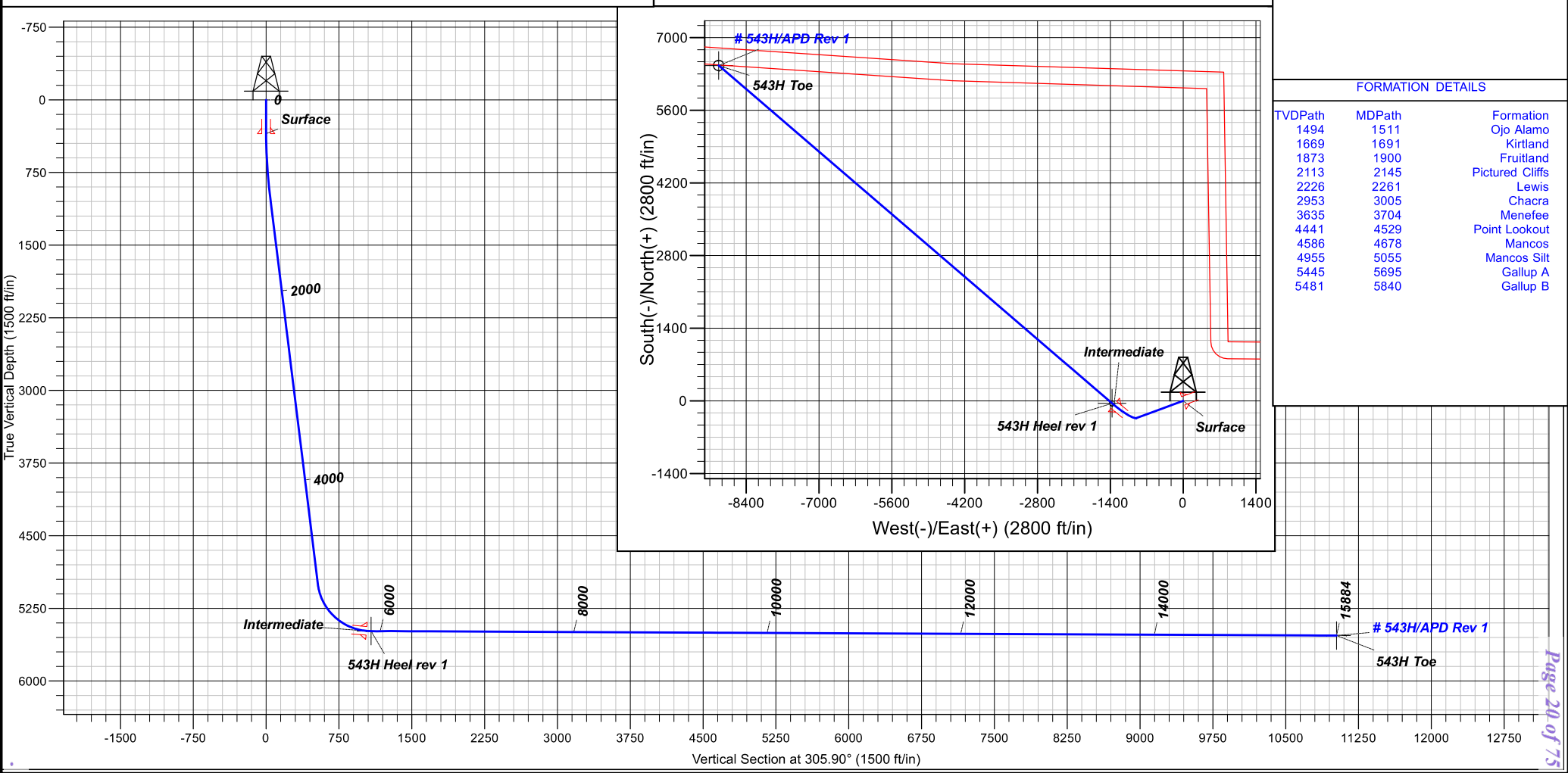
Magnetic Field
Strength: 51236.8 nT
Dip Angle: 63.8°
Date: 12/31/2024
Model: IGRF2020

CASING DETAILS

TVD	MD	Name
350	350	Surface
5483	5858	Intermediate

FORMATION DETAILS

TVDPath	MDPath	Formation
1494	1511	Ojo Alamo
1669	1691	Kirtland
1873	1900	Fruitland
2113	2145	Pictured Cliffs
2226	2261	Lewis
2953	3005	Chacra
3635	3704	Menefee
4441	4529	Point Lookout
4586	4678	Mancos
4955	5055	Mancos Silt
5445	5695	Gallup A
5481	5840	Gallup B





DJR Operating

North Alamito Unit

A26 2307 Pad

543H - Slot 1

Original Drilling

Plan: APD Rev 1

Standard Planning Report

23 August, 2023





Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 543H - Slot 1
Company:	DJR Operating	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Project:	North Alamito Unit	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site:	A26 2307 Pad	North Reference:	True
Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD Rev 1		

Project	North Alamito 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	A26 2307 Pad				
Site Position:		Northing:	1,892,625.45 usft	Latitude:	36.20108800
From:	Lat/Long	Easting:	2,809,999.35 usft	Longitude:	-107.53876600
Position Uncertainty:	0 ft	Slot Radius:	13.20 in		

Well	# 543H - Slot 1					
Well Position	+N/-S	0 ft	Northing:	1,892,625.45 usft	Latitude:	36.20108800
	+E/-W	0 ft	Easting:	2,809,999.35 usft	Longitude:	-107.53876600
Position Uncertainty		0 ft	Wellhead Elevation:	ft	Ground Level:	7307 ft
Grid Convergence:		0.17 °				

Wellbore	Original Drilling				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2000	12/31/2004	10.76	63.25	51,236.84832949

Design	APD Rev 1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0	0	0	305.90

Plan Survey Tool Program	Date	8/23/2023		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0	15,884	APD Rev 1 (Original Drilling)	MWD+IGRF
				OWSG MWD + IGRF or WMM

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0	0.00	0.00	0	0	0	0.00	0.00	0.00	0.00	
350	0.00	0.00	350	0	0	0.00	0.00	0.00	0.00	
971	12.42	249.76	966	-23	-63	2.00	2.00	0.00	249.76	
5107	12.42	249.76	5005	-331	-897	0.00	0.00	0.00	0.00	
5904	89.74	310.73	5485	-48	-1367	10.50	9.69	7.64	61.59	543H Heel rev 1
15,884	89.74	310.73	5531	6463	-8930	0.00	0.00	0.00	0.00	543H Toe



Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 543H - Slot 1
Company:	DJR Operating	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Project:	North Alamito Unit	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site:	A26 2307 Pad	North Reference:	True
Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD Rev 1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0	0.00	0.00	0	0	0	0	0.00	0.00	0.00
100	0.00	0.00	100	0	0	0	0.00	0.00	0.00
200	0.00	0.00	200	0	0	0	0.00	0.00	0.00
300	0.00	0.00	300	0	0	0	0.00	0.00	0.00
350	0.00	0.00	350	0	0	0	0.00	0.00	0.00
400	1.00	249.76	400	0	0	0	2.00	2.00	0.00
500	3.00	249.76	500	-1	-4	2	2.00	2.00	0.00
600	5.00	249.76	600	-4	-10	6	2.00	2.00	0.00
700	7.00	249.76	699	-7	-20	12	2.00	2.00	0.00
800	9.00	249.76	798	-12	-33	20	2.00	2.00	0.00
900	11.00	249.76	897	-18	-49	29	2.00	2.00	0.00
971	12.42	249.76	966	-23	-63	37	2.00	2.00	0.00
1000	12.42	249.76	994	-25	-69	41	0.00	0.00	0.00
1100	12.42	249.76	1092	-33	-89	53	0.00	0.00	0.00
1200	12.42	249.76	1190	-40	-109	65	0.00	0.00	0.00
1300	12.42	249.76	1287	-48	-129	77	0.00	0.00	0.00
1400	12.42	249.76	1385	-55	-149	89	0.00	0.00	0.00
1500	12.42	249.76	1483	-63	-170	101	0.00	0.00	0.00
1600	12.42	249.76	1580	-70	-190	113	0.00	0.00	0.00
1700	12.42	249.76	1678	-77	-210	125	0.00	0.00	0.00
1800	12.42	249.76	1776	-85	-230	137	0.00	0.00	0.00
1900	12.42	249.76	1873	-92	-250	149	0.00	0.00	0.00
2000	12.42	249.76	1971	-100	-271	161	0.00	0.00	0.00
2100	12.42	249.76	2069	-107	-291	173	0.00	0.00	0.00
2200	12.42	249.76	2166	-115	-311	185	0.00	0.00	0.00
2300	12.42	249.76	2264	-122	-331	197	0.00	0.00	0.00
2400	12.42	249.76	2362	-130	-351	209	0.00	0.00	0.00
2500	12.42	249.76	2459	-137	-371	221	0.00	0.00	0.00
2600	12.42	249.76	2557	-144	-392	233	0.00	0.00	0.00
2700	12.42	249.76	2655	-152	-412	245	0.00	0.00	0.00
2800	12.42	249.76	2752	-159	-432	257	0.00	0.00	0.00
2900	12.42	249.76	2850	-167	-452	269	0.00	0.00	0.00
3000	12.42	249.76	2948	-174	-472	280	0.00	0.00	0.00
3100	12.42	249.76	3045	-182	-493	292	0.00	0.00	0.00
3200	12.42	249.76	3143	-189	-513	304	0.00	0.00	0.00
3300	12.42	249.76	3241	-197	-533	316	0.00	0.00	0.00
3400	12.42	249.76	3338	-204	-553	328	0.00	0.00	0.00
3500	12.42	249.76	3436	-211	-573	340	0.00	0.00	0.00
3600	12.42	249.76	3534	-219	-593	352	0.00	0.00	0.00
3700	12.42	249.76	3631	-226	-614	364	0.00	0.00	0.00
3800	12.42	249.76	3729	-234	-634	376	0.00	0.00	0.00
3900	12.42	249.76	3827	-241	-654	388	0.00	0.00	0.00
4000	12.42	249.76	3924	-249	-674	400	0.00	0.00	0.00
4100	12.42	249.76	4022	-256	-694	412	0.00	0.00	0.00
4200	12.42	249.76	4120	-263	-714	424	0.00	0.00	0.00
4300	12.42	249.76	4217	-271	-735	436	0.00	0.00	0.00
4400	12.42	249.76	4315	-278	-755	448	0.00	0.00	0.00
4500	12.42	249.76	4413	-286	-775	460	0.00	0.00	0.00
4600	12.42	249.76	4510	-293	-795	472	0.00	0.00	0.00
4700	12.42	249.76	4608	-301	-815	484	0.00	0.00	0.00
4800	12.42	249.76	4706	-308	-836	496	0.00	0.00	0.00
4900	12.42	249.76	4803	-316	-856	508	0.00	0.00	0.00
5000	12.42	249.76	4901	-323	-876	520	0.00	0.00	0.00
5100	12.42	249.76	4999	-330	-896	532	0.00	0.00	0.00



Lonestar Consulting, LLC

Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 543H - Slot 1
Company:	DJR Operating	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Project:	North Alamito Unit	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site:	A26 2307 Pad	North Reference:	True
Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD Rev 1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5107	12.42	249.76	5005	-331	-897	533	0.00	0.00	0.00
5200	19.11	276.99	5095	-333	-922	552	10.50	7.16	29.17
5300	28.31	289.82	5186	-323	-961	589	10.50	9.20	12.83
5400	38.15	296.58	5270	-301	-1011	643	10.50	9.84	6.76
5500	48.23	300.87	5343	-268	-1071	710	10.50	10.09	4.29
5600	58.43	303.98	5403	-224	-1138	790	10.50	10.20	3.11
5700	68.70	306.47	5447	-173	-1211	880	10.50	10.26	2.49
5800	78.99	308.63	5475	-114	-1287	976	10.50	10.29	2.16
5900	89.30	310.64	5485	-51	-1364	1075	10.50	10.31	2.01
5904	89.74	310.73	5485	-48	-1367	1079	10.50	10.31	1.99
6000	89.74	310.73	5485	14	-1439	1174	0.00	0.00	0.00
6100	89.74	310.73	5486	80	-1515	1274	0.00	0.00	0.00
6200	89.74	310.73	5486	145	-1591	1374	0.00	0.00	0.00
6300	89.74	310.73	5487	210	-1667	1473	0.00	0.00	0.00
6400	89.74	310.73	5487	275	-1743	1573	0.00	0.00	0.00
6500	89.74	310.73	5488	341	-1818	1673	0.00	0.00	0.00
6600	89.74	310.73	5488	406	-1894	1772	0.00	0.00	0.00
6700	89.74	310.73	5489	471	-1970	1872	0.00	0.00	0.00
6800	89.74	310.73	5489	536	-2046	1972	0.00	0.00	0.00
6900	89.74	310.73	5490	601	-2121	2071	0.00	0.00	0.00
7000	89.74	310.73	5490	667	-2197	2171	0.00	0.00	0.00
7100	89.74	310.73	5491	732	-2273	2270	0.00	0.00	0.00
7200	89.74	310.73	5491	797	-2349	2370	0.00	0.00	0.00
7300	89.74	310.73	5491	862	-2425	2470	0.00	0.00	0.00
7400	89.74	310.73	5492	928	-2500	2569	0.00	0.00	0.00
7500	89.74	310.73	5492	993	-2576	2669	0.00	0.00	0.00
7600	89.74	310.73	5493	1058	-2652	2769	0.00	0.00	0.00
7700	89.74	310.73	5493	1123	-2728	2868	0.00	0.00	0.00
7800	89.74	310.73	5494	1189	-2803	2968	0.00	0.00	0.00
7900	89.74	310.73	5494	1254	-2879	3068	0.00	0.00	0.00
8000	89.74	310.73	5495	1319	-2955	3167	0.00	0.00	0.00
8100	89.74	310.73	5495	1384	-3031	3267	0.00	0.00	0.00
8200	89.74	310.73	5496	1450	-3107	3367	0.00	0.00	0.00
8300	89.74	310.73	5496	1515	-3182	3466	0.00	0.00	0.00
8400	89.74	310.73	5496	1580	-3258	3566	0.00	0.00	0.00
8500	89.74	310.73	5497	1645	-3334	3665	0.00	0.00	0.00
8600	89.74	310.73	5497	1711	-3410	3765	0.00	0.00	0.00
8700	89.74	310.73	5498	1776	-3485	3865	0.00	0.00	0.00
8800	89.74	310.73	5498	1841	-3561	3964	0.00	0.00	0.00
8900	89.74	310.73	5499	1906	-3637	4064	0.00	0.00	0.00
9000	89.74	310.73	5499	1972	-3713	4164	0.00	0.00	0.00
9100	89.74	310.73	5500	2037	-3789	4263	0.00	0.00	0.00
9200	89.74	310.73	5500	2102	-3864	4363	0.00	0.00	0.00
9300	89.74	310.73	5501	2167	-3940	4463	0.00	0.00	0.00
9400	89.74	310.73	5501	2233	-4016	4562	0.00	0.00	0.00
9500	89.74	310.73	5502	2298	-4092	4662	0.00	0.00	0.00
9600	89.74	310.73	5502	2363	-4168	4762	0.00	0.00	0.00
9700	89.74	310.73	5502	2428	-4243	4861	0.00	0.00	0.00
9800	89.74	310.73	5503	2494	-4319	4961	0.00	0.00	0.00
9900	89.74	310.73	5503	2559	-4395	5060	0.00	0.00	0.00
10,000	89.74	310.73	5504	2624	-4471	5160	0.00	0.00	0.00
10,100	89.74	310.73	5504	2689	-4546	5260	0.00	0.00	0.00
10,200	89.74	310.73	5505	2755	-4622	5359	0.00	0.00	0.00
10,300	89.74	310.73	5505	2820	-4698	5459	0.00	0.00	0.00



Lonestar Consulting, LLC

Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 543H - Slot 1
Company:	DJR Operating	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Project:	North Alamito Unit	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site:	A26 2307 Pad	North Reference:	True
Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD Rev 1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,400	89.74	310.73	5506	2885	-4774	5559	0.00	0.00	0.00	
10,500	89.74	310.73	5506	2950	-4850	5658	0.00	0.00	0.00	
10,600	89.74	310.73	5507	3016	-4925	5758	0.00	0.00	0.00	
10,700	89.74	310.73	5507	3081	-5001	5858	0.00	0.00	0.00	
10,800	89.74	310.73	5508	3146	-5077	5957	0.00	0.00	0.00	
10,900	89.74	310.73	5508	3211	-5153	6057	0.00	0.00	0.00	
11,000	89.74	310.73	5508	3277	-5228	6157	0.00	0.00	0.00	
11,100	89.74	310.73	5509	3342	-5304	6256	0.00	0.00	0.00	
11,200	89.74	310.73	5509	3407	-5380	6356	0.00	0.00	0.00	
11,300	89.74	310.73	5510	3472	-5456	6456	0.00	0.00	0.00	
11,400	89.74	310.73	5510	3538	-5532	6555	0.00	0.00	0.00	
11,500	89.74	310.73	5511	3603	-5607	6655	0.00	0.00	0.00	
11,600	89.74	310.73	5511	3668	-5683	6754	0.00	0.00	0.00	
11,700	89.74	310.73	5512	3733	-5759	6854	0.00	0.00	0.00	
11,800	89.74	310.73	5512	3799	-5835	6954	0.00	0.00	0.00	
11,900	89.74	310.73	5513	3864	-5910	7053	0.00	0.00	0.00	
12,000	89.74	310.73	5513	3929	-5986	7153	0.00	0.00	0.00	
12,100	89.74	310.73	5514	3994	-6062	7253	0.00	0.00	0.00	
12,200	89.74	310.73	5514	4060	-6138	7352	0.00	0.00	0.00	
12,300	89.74	310.73	5514	4125	-6214	7452	0.00	0.00	0.00	
12,400	89.74	310.73	5515	4190	-6289	7552	0.00	0.00	0.00	
12,500	89.74	310.73	5515	4255	-6365	7651	0.00	0.00	0.00	
12,600	89.74	310.73	5516	4320	-6441	7751	0.00	0.00	0.00	
12,700	89.74	310.73	5516	4386	-6517	7851	0.00	0.00	0.00	
12,800	89.74	310.73	5517	4451	-6593	7950	0.00	0.00	0.00	
12,900	89.74	310.73	5517	4516	-6668	8050	0.00	0.00	0.00	
13,000	89.74	310.73	5518	4581	-6744	8149	0.00	0.00	0.00	
13,100	89.74	310.73	5518	4647	-6820	8249	0.00	0.00	0.00	
13,200	89.74	310.73	5519	4712	-6896	8349	0.00	0.00	0.00	
13,300	89.74	310.73	5519	4777	-6971	8448	0.00	0.00	0.00	
13,400	89.74	310.73	5520	4842	-7047	8548	0.00	0.00	0.00	
13,500	89.74	310.73	5520	4908	-7123	8648	0.00	0.00	0.00	
13,600	89.74	310.73	5520	4973	-7199	8747	0.00	0.00	0.00	
13,700	89.74	310.73	5521	5038	-7275	8847	0.00	0.00	0.00	
13,800	89.74	310.73	5521	5103	-7350	8947	0.00	0.00	0.00	
13,900	89.74	310.73	5522	5169	-7426	9046	0.00	0.00	0.00	
14,000	89.74	310.73	5522	5234	-7502	9146	0.00	0.00	0.00	
14,100	89.74	310.73	5523	5299	-7578	9246	0.00	0.00	0.00	
14,200	89.74	310.73	5523	5364	-7653	9345	0.00	0.00	0.00	
14,300	89.74	310.73	5524	5430	-7729	9445	0.00	0.00	0.00	
14,400	89.74	310.73	5524	5495	-7805	9544	0.00	0.00	0.00	
14,500	89.74	310.73	5525	5560	-7881	9644	0.00	0.00	0.00	
14,600	89.74	310.73	5525	5625	-7957	9744	0.00	0.00	0.00	
14,700	89.74	310.73	5526	5691	-8032	9843	0.00	0.00	0.00	
14,800	89.74	310.73	5526	5756	-8108	9943	0.00	0.00	0.00	
14,900	89.74	310.73	5526	5821	-8184	10,043	0.00	0.00	0.00	
15,000	89.74	310.73	5527	5886	-8260	10,142	0.00	0.00	0.00	
15,100	89.74	310.73	5527	5952	-8335	10,242	0.00	0.00	0.00	
15,200	89.74	310.73	5528	6017	-8411	10,342	0.00	0.00	0.00	
15,300	89.74	310.73	5528	6082	-8487	10,441	0.00	0.00	0.00	
15,400	89.74	310.73	5529	6147	-8563	10,541	0.00	0.00	0.00	
15,500	89.74	310.73	5529	6213	-8639	10,641	0.00	0.00	0.00	
15,600	89.74	310.73	5530	6278	-8714	10,740	0.00	0.00	0.00	
15,700	89.74	310.73	5530	6343	-8790	10,840	0.00	0.00	0.00	



Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 543H - Slot 1
Company:	DJR Operating	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Project:	North Alamito Unit	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site:	A26 2307 Pad	North Reference:	True
Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD Rev 1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,800	89.74	310.73	5531	6408	-8866	10,939	0.00	0.00	0.00
15,884	89.74	310.73	5531	6463	-8930	11,023	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
543H Heel rev 1	0.00	0.00	5485	-48	-1367	1,892,573.11	2,808,632.68	36.20095554	-107.54339874
- plan hits target center									
- Circle (radius 50)									
543H Toe	0.00	0.00	5531	6463	-8930	1,899,061.47	2,801,050.13	36.21883900	-107.56903900
- plan hits target center									
- Circle (radius 100)									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
350	350	Surface	9.63	12.25	
5858	5483	Intermediate	7.00	8.75	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1511	1494	Ojo Alamo		0.00	0.00
1691	1669	Kirtland		0.00	0.00
1900	1873	Fruitland		0.00	0.00
2145	2113	Pictured Cliffs		0.00	0.00
2261	2226	Lewis		0.00	0.00
3005	2953	Chacra		0.00	0.00
3704	3635	Menefee		0.00	0.00
4529	4441	Point Lookout		0.00	0.00
4678	4586	Mancos		0.00	0.00
5055	4955	Mancos Silt		0.00	0.00
5695	5445	Gallup A		0.00	0.00
5840	5481	Gallup B		0.00	0.00



DJR Operating

North Alamito Unit

A26 2307 Pad

543H

Original Drilling

APD Rev 1

Anticollision Report

23 August, 2023





Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Reference	APD Rev 1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 15,000ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	8/23/2023		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0	15,884	APD Rev 1 (Original Drilling)	MWD+IGRF	OWSG MWD + IGRF or WMM	

Summary						
Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
A26 2307 Pad						
# 206H - Original Drilling - APD Rev 1	884	882	33	27	5.328	CC
# 206H - Original Drilling - APD Rev 1	900	897	33	27	5.233	ES
# 206H - Original Drilling - APD Rev 1	14,900	15,274	774	296	1.619	SF
# 542H - Original Drilling - APD Rev 1	430	430	20	17	7.080	CC, ES
# 542H - Original Drilling - APD Rev 1	500	499	21	17	6.206	SF
# 544H - Original Drilling - APD Rev 1	443	442	60	57	20.704	CC
# 544H - Original Drilling - APD Rev 1	500	498	60	57	18.245	ES
# 544H - Original Drilling - APD Rev 1	13,904	13,873	1477	1033	3.331	SF
Federal B-11 - OH - OH	12,126	5416	603	260	1.759	CC, ES, SF
Federal B-13 - OH - OH	10,168	5369	345	53	1.180	Level 3, CC
Federal B-13 - OH - OH	10,200	5369	346	52	1.178	Level 3, ES, SF
Federal B-22 - OH - OH	10,900	5364	173	-138	0.556	Level 3, ES, SF
Federal B-22 - OH - OH	10,908	5364	173	-138	0.556	Level 3, CC
Federal B-8 - OH - OH	14,814	5595	230	-186	0.553	Level 3, CC, ES, SF
NAU 243H - OH - OH	5371	6651	385	318	5.750	CC
NAU 243H - OH - OH	5400	6665	387	318	5.634	ES
NAU 243H - OH - OH	5450	6696	395	324	5.557	SF
NAU 243H - ST1 - ST1	5587	6965	166	106	2.770	CC
NAU 243H - ST1 - ST1	5602	6976	167	104	2.650	ES
NAU 243H - ST1 - ST1	5650	7010	175	104	2.477	SF

Offset Design: A26 2307 Pad - # 206H - Original Drilling - APD Rev 1													Offset Site Error: 0 ft	
Survey Program: 0-MWD+IGRF		Offset		Semi Major Axis		Offset Wellbore Centre			Rule Assigned: Distance				Offset Well Error: 0 ft	
Measured Reference	Vertical	Measured	Vertical	Reference	Offset	Highside				Between	Between	Minimum	Separation	Warning
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)		Centres (ft)	Ellipses (ft)	Separation (ft)	Factor	
0	0	0	0	0	0	-57.44	21	-34		40				
100	100	100	100	0	0	-57.44	21	-34		40	39	0.46	86.298	
200	200	200	200	1	1	-57.44	21	-34		40	39	1.18	33.837	
300	300	300	300	1	1	-57.44	21	-34		40	38	1.90	21.044	
350	350	350	350	1	1	-57.44	21	-34		40	38	2.25	17.699	
400	400	400	400	1	1	52.82	21	-34		40	37	2.60	15.351	
500	500	499	499	2	2	52.98	20	-37		40	37	3.28	12.188	
600	600	598	598	2	2	54.59	19	-43		39	36	3.99	9.901	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - # 206H - Original Drilling - APD Rev 1													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		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		
700	699	698	698	2	2	60.65	17	-48	37	33	4.72	7.884		
800	798	798	797	3	3	72.78	15	-54	34	29	5.49	6.233		
884	881	882	881	3	3	88.90	13	-59	33	27	6.17	5.328 CC		
900	897	897	897	3	3	92.42	13	-59	33	27	6.30	5.233 ES		
971	966	968	967	4	3	109.28	12	-63	35	28	6.86	5.120		
1000	994	996	995	4	3	115.89	11	-65	37	30	7.07	5.224		
1100	1092	1095	1094	4	4	133.47	10	-70	46	39	7.78	5.950		
1200	1190	1194	1193	5	4	144.54	8	-76	58	50	8.47	6.902		
1300	1287	1293	1291	5	4	151.65	6	-81	72	63	9.17	7.859		
1400	1385	1391	1390	6	5	156.47	4	-87	86	77	9.87	8.749		
1500	1483	1490	1488	6	5	159.91	3	-92	101	91	10.59	9.554		
1600	1580	1589	1587	7	6	162.46	1	-98	116	105	11.30	10.276		
1700	1678	1688	1685	7	6	164.43	-1	-103	131	119	12.02	10.923		
1800	1776	1786	1784	8	6	165.99	-3	-109	147	134	12.75	11.504		
1900	1873	1885	1883	8	7	167.26	-5	-114	162	149	13.48	12.026		
2000	1971	1984	1981	9	7	168.30	-6	-120	178	163	14.21	12.497		
2100	2069	2082	2080	10	7	169.18	-8	-125	193	178	14.94	12.925		
2200	2166	2181	2178	10	8	169.93	-10	-131	209	193	15.67	13.314		
2300	2264	2280	2277	11	8	170.57	-12	-136	224	208	16.40	13.669		
2400	2362	2379	2375	11	9	171.13	-13	-142	240	223	17.13	13.994		
2500	2459	2477	2474	12	9	171.62	-15	-147	255	238	17.87	14.293		
2600	2557	2576	2573	12	9	172.06	-17	-153	271	252	18.60	14.569		
2700	2655	2675	2671	13	10	172.44	-19	-158	287	267	19.34	14.824		
2800	2752	2774	2770	13	10	172.79	-21	-164	302	282	20.08	15.061		
2900	2850	2872	2868	14	10	173.10	-22	-169	318	297	20.81	15.281		
3000	2948	2971	2967	14	11	173.39	-24	-175	334	312	21.55	15.486		
3100	3045	3070	3066	15	11	173.65	-26	-180	349	327	22.29	15.677		
3200	3143	3169	3164	15	12	173.88	-28	-186	365	342	23.03	15.857		
3300	3241	3267	3263	16	12	174.10	-29	-191	381	357	23.76	16.025		
3400	3338	3366	3361	17	12	174.30	-31	-197	397	372	24.50	16.183		
3500	3436	3465	3460	17	13	174.48	-33	-202	412	387	25.24	16.332		
3600	3534	3564	3558	18	13	174.65	-35	-208	428	402	25.98	16.473		
3700	3631	3662	3657	18	13	174.81	-36	-213	444	417	26.72	16.605		
3800	3729	3761	3756	19	14	174.96	-38	-219	459	432	27.46	16.731		
3900	3827	3860	3854	19	14	175.10	-40	-224	475	447	28.20	16.850		
4000	3924	3959	3953	20	14	175.22	-42	-230	491	462	28.94	16.963		
4100	4022	4057	4051	20	15	175.35	-44	-235	507	477	29.68	17.070		
4200	4120	4156	4150	21	15	175.46	-45	-241	522	492	30.42	17.172		
4300	4217	4255	4248	21	16	175.57	-47	-246	538	507	31.16	17.270		
4400	4315	4354	4347	22	16	175.67	-49	-252	554	522	31.90	17.362		
4500	4413	4452	4446	23	16	175.76	-51	-257	570	537	32.64	17.451		
4600	4510	4551	4544	23	17	175.85	-52	-263	585	552	33.38	17.535		
4700	4608	4650	4643	24	17	175.94	-54	-268	601	567	34.12	17.616		
4800	4706	4749	4741	24	17	176.02	-56	-274	617	582	34.86	17.694		
4900	4803	4847	4840	25	18	176.10	-58	-279	632	597	35.60	17.768		
5000	4901	4946	4939	25	18	176.17	-59	-285	648	612	36.34	17.839		
5107	5005	5052	5044	26	19	176.24	-61	-291	665	628	37.13	17.912		
5150	5047	5094	5086	26	19	160.59	-62	-293	673	635	37.45	17.959		
5200	5095	5143	5135	26	19	148.88	-63	-296	683	645	37.82	18.059		
5250	5141	5203	5194	27	19	141.64	-64	-299	695	657	38.26	18.169		
5300	5186	5316	5306	27	20	137.32	-55	-318	706	667	38.89	18.161		
5350	5229	5437	5417	28	20	133.70	-29	-356	715	675	39.32	18.174		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - # 206H - Original Drilling - APD Rev 1												Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF												Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		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	
5400	5270	5560	5517	28	21	130.17	14	-412	720	680	39.73	18.113	
5402	5272	5565	5521	28	21	130.01	16	-415	720	680	39.78	18.095	
5450	5308	5679	5598	28	22	126.51	69	-482	722	681	40.51	17.814	
5500	5343	5791	5653	29	23	122.76	130	-556	721	679	41.92	17.192	
5550	5374	5893	5686	29	24	119.04	192	-629	718	674	43.98	16.318	
5600	5402	5983	5700	30	25	115.49	251	-697	713	667	46.47	15.347	
5650	5427	6044	5701	30	26	113.05	291	-743	708	660	48.55	14.590	
5700	5447	6090	5701	31	26	111.44	321	-777	705	655	50.22	14.034	
5750	5463	6137	5702	32	27	110.09	352	-813	702	651	51.92	13.530	
5762	5466	6149	5702	32	27	109.80	360	-822	702	650	52.34	13.413	
5800	5475	6185	5702	32	28	109.05	384	-849	701	648	53.62	13.077	
5811	5477	6196	5702	32	28	108.87	391	-857	701	647	54.00	12.979	
5850	5482	6235	5702	33	29	108.37	417	-886	701	645	55.32	12.663	
5870	5484	6254	5702	33	29	108.21	429	-901	701	644	56.07	12.492	
5904	5485	6289	5702	34	30	108.08	452	-927	701	643	57.15	12.261	
5909	5485	6293	5702	34	30	108.08	455	-930	701	643	57.28	12.233	
6000	5485	6385	5703	35	31	108.06	515	-999	701	641	60.43	11.607	
6004	5485	6389	5703	35	32	108.06	518	-1003	701	641	60.58	11.578	
6100	5486	6485	5703	37	33	108.04	581	-1074	702	638	64.04	10.966	
6104	5486	6489	5703	37	33	108.04	584	-1078	702	638	64.20	10.938	
6200	5486	6585	5704	38	35	108.03	647	-1150	703	635	67.80	10.370	
6204	5486	6589	5704	38	35	108.02	650	-1153	703	635	67.97	10.344	
6300	5487	6685	5704	40	37	108.01	713	-1225	704	632	71.69	9.818	
6304	5487	6689	5704	40	38	108.01	716	-1228	704	632	71.86	9.795	
6400	5487	6785	5705	42	40	107.99	779	-1300	705	629	75.68	9.310	
6404	5487	6789	5705	42	40	107.99	782	-1304	705	629	75.87	9.289	
6500	5488	6885	5705	44	42	107.97	845	-1375	705	626	79.77	8.843	
6504	5488	6889	5705	44	42	107.97	848	-1379	705	626	79.96	8.823	
6600	5488	6985	5706	46	44	107.96	911	-1451	706	622	83.95	8.413	
6604	5488	6989	5706	46	44	107.95	913	-1454	706	622	84.13	8.395	
6700	5489	7085	5706	48	46	107.94	976	-1526	707	619	88.19	8.018	
6704	5489	7089	5706	48	46	107.94	979	-1529	707	619	88.38	8.001	
6800	5489	7185	5707	50	48	107.92	1042	-1601	708	615	92.48	7.654	
6804	5489	7189	5707	50	49	107.92	1045	-1604	708	615	92.68	7.638	
6900	5490	7285	5707	52	51	107.90	1108	-1676	709	612	96.83	7.319	
6904	5490	7289	5707	52	51	107.90	1111	-1680	709	612	97.03	7.304	
7000	5490	7385	5708	54	53	107.89	1174	-1752	709	608	101.23	7.009	
7004	5490	7389	5708	54	53	107.89	1177	-1755	710	608	101.43	6.995	
7100	5491	7485	5708	56	55	107.87	1240	-1827	710	605	105.66	6.722	
7104	5491	7489	5708	57	55	107.87	1243	-1830	710	604	105.86	6.710	
7200	5491	7585	5709	59	58	107.85	1306	-1902	711	601	110.13	6.457	
7204	5491	7589	5709	59	58	107.85	1309	-1905	711	601	110.33	6.445	
7300	5491	7685	5709	61	60	107.84	1372	-1977	712	597	114.63	6.210	
7304	5491	7689	5709	61	60	107.83	1375	-1981	712	597	114.84	6.200	
7400	5492	7785	5710	63	62	107.82	1437	-2052	713	594	119.16	5.981	
7404	5492	7789	5710	63	63	107.82	1440	-2056	713	593	119.36	5.971	
7500	5492	7885	5710	65	65	107.80	1503	-2128	714	590	123.71	5.768	
7504	5492	7889	5710	66	65	107.80	1506	-2131	714	590	123.92	5.758	
7600	5493	7985	5711	68	67	107.78	1569	-2203	714	586	128.28	5.568	
7604	5493	7989	5711	68	67	107.78	1572	-2206	714	586	128.49	5.560	
7700	5493	8085	5711	70	70	107.77	1635	-2278	715	582	132.88	5.382	
7704	5493	8089	5711	70	70	107.77	1638	-2282	715	582	133.09	5.374	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - # 206H - Original Drilling - APD Rev 1													Offset Site Error:	0 ft	
Survey Program:		0-MWD+IGRF						Rule Assigned:						Offset Well Error:	0 ft
Measured Depth	Vertical Reference	Measured Depth	Vertical Offset	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Distance		Minimum Separation	Separation Factor	Warning		
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	(ft)				
7800	5494	8185	5712	72	72	107.75	1701	-2353	716	578	137.49	5.207			
7804	5494	8189	5712	73	72	107.75	1704	-2357	716	578	137.70	5.200			
7900	5494	8285	5712	75	74	107.73	1767	-2429	717	575	142.12	5.043			
7904	5494	8289	5712	75	75	107.73	1770	-2432	717	574	142.33	5.036			
8000	5495	8385	5713	77	77	107.72	1833	-2504	718	571	146.76	4.889			
8004	5495	8389	5713	77	77	107.72	1836	-2507	718	571	146.97	4.883			
8100	5495	8485	5713	80	79	107.70	1899	-2579	718	567	151.42	4.744			
8104	5495	8489	5714	80	79	107.70	1902	-2582	718	567	151.63	4.738			
8200	5496	8585	5714	82	82	107.68	1964	-2654	719	563	156.08	4.608			
8204	5496	8589	5714	82	82	107.68	1967	-2658	719	563	156.29	4.602			
8300	5496	8685	5715	84	84	107.67	2030	-2730	720	559	160.76	4.479			
8304	5496	8689	5715	84	84	107.67	2033	-2733	720	559	160.97	4.473			
8400	5496	8785	5715	87	87	107.65	2096	-2805	721	555	165.45	4.357			
8404	5497	8789	5715	87	87	107.65	2099	-2808	721	555	165.66	4.351			
8500	5497	8885	5716	89	89	107.63	2162	-2880	722	551	170.15	4.241			
8504	5497	8889	5716	89	89	107.63	2165	-2883	722	551	170.36	4.236			
8600	5497	8985	5716	92	92	107.62	2228	-2955	722	548	174.86	4.131			
8604	5497	8989	5716	92	92	107.62	2231	-2959	722	547	175.07	4.127			
8700	5498	9085	5717	94	94	107.60	2294	-3031	723	544	179.58	4.027			
8704	5498	9089	5717	94	94	107.60	2297	-3034	723	543	179.79	4.023			
8800	5498	9185	5717	96	96	107.58	2360	-3106	724	540	184.30	3.929			
8804	5498	9189	5717	96	97	107.58	2363	-3109	724	540	184.52	3.924			
8900	5499	9285	5718	99	99	107.57	2426	-3181	725	536	189.03	3.834			
8904	5499	9289	5718	99	99	107.57	2429	-3184	725	536	189.25	3.830			
9000	5499	9385	5718	101	101	107.55	2491	-3256	726	532	193.77	3.745			
9004	5499	9389	5718	101	102	107.55	2494	-3260	726	532	193.99	3.741			
9100	5500	9485	5719	104	104	107.53	2557	-3331	726	528	198.52	3.659			
9104	5500	9489	5719	104	104	107.53	2560	-3335	727	528	198.73	3.656			
9200	5500	9585	5719	106	106	107.52	2623	-3407	727	524	203.27	3.578			
9204	5500	9589	5719	106	106	107.52	2626	-3410	727	524	203.48	3.574			
9300	5501	9685	5720	109	109	107.50	2689	-3482	728	520	208.02	3.500			
9304	5501	9689	5720	109	109	107.50	2692	-3485	728	520	208.24	3.497			
9400	5501	9785	5720	111	111	107.49	2755	-3557	729	516	212.78	3.426			
9404	5501	9789	5720	111	111	107.49	2758	-3561	729	516	213.00	3.422			
9500	5502	9885	5721	113	114	107.47	2821	-3632	730	512	217.55	3.354			
9504	5502	9889	5721	114	114	107.47	2824	-3636	730	512	217.76	3.351			
9600	5502	9985	5721	116	116	107.45	2887	-3708	731	508	222.32	3.286			
9604	5502	9989	5721	116	116	107.45	2890	-3711	731	508	222.54	3.283			
9700	5502	10,085	5722	118	119	107.44	2953	-3783	731	504	227.10	3.220			
9704	5503	10,089	5722	119	119	107.44	2956	-3786	731	504	227.31	3.217			
9800	5503	10,185	5722	121	121	107.42	3018	-3858	732	500	231.87	3.157			
9804	5503	10,189	5722	121	121	107.42	3021	-3861	732	500	232.09	3.155			
9900	5503	10,285	5723	123	124	107.41	3084	-3933	733	496	236.66	3.097			
9904	5503	10,289	5723	123	124	107.40	3087	-3937	733	496	236.87	3.094			
10,000	5504	10,385	5723	126	126	107.39	3150	-4009	734	492	241.45	3.039			
10,004	5504	10,389	5723	126	126	107.39	3153	-4012	734	492	241.66	3.036			
10,100	5504	10,485	5724	128	129	107.37	3216	-4084	735	488	246.24	2.983			
10,104	5504	10,489	5724	128	129	107.37	3219	-4087	735	488	246.45	2.981			
10,200	5505	10,585	5724	131	131	107.36	3282	-4159	735	484	251.03	2.929			
10,204	5505	10,589	5724	131	131	107.36	3285	-4162	735	484	251.25	2.927			
10,300	5505	10,685	5725	133	134	107.34	3348	-4234	736	480	255.83	2.878			
10,304	5505	10,689	5725	133	134	107.34	3351	-4238	736	480	256.04	2.875			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - # 206H - Original Drilling - APD Rev 1													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		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		
10,400	5506	10,785	5725	136	136	107.33	3414	-4309	737	476	260.63	2.828		
10,404	5506	10,789	5725	136	136	107.32	3417	-4313	737	476	260.84	2.826		
10,500	5506	10,885	5726	138	139	107.31	3480	-4385	738	472	265.43	2.780		
10,504	5506	10,889	5726	138	139	107.31	3483	-4388	738	472	265.65	2.778		
10,600	5507	10,985	5726	141	141	107.29	3545	-4460	739	468	270.24	2.733		
10,604	5507	10,989	5726	141	141	107.29	3548	-4463	739	468	270.45	2.731		
10,700	5507	11,085	5727	143	144	107.28	3611	-4535	739	464	275.04	2.688		
10,704	5507	11,089	5727	143	144	107.28	3614	-4539	739	464	275.26	2.686		
10,800	5508	11,185	5727	146	146	107.26	3677	-4610	740	460	279.86	2.645		
10,804	5508	11,189	5727	146	146	107.26	3680	-4614	740	460	280.07	2.643		
10,900	5508	11,285	5728	148	149	107.25	3743	-4686	741	456	284.67	2.603		
10,904	5508	11,289	5728	148	149	107.25	3746	-4689	741	456	284.89	2.601		
11,000	5508	11,385	5728	151	151	107.23	3809	-4761	742	452	289.49	2.563		
11,004	5508	11,389	5728	151	151	107.23	3812	-4764	742	452	289.70	2.561		
11,100	5509	11,485	5729	153	154	107.21	3875	-4836	743	448	294.30	2.523		
11,104	5509	11,489	5729	153	154	107.21	3878	-4839	743	448	294.52	2.522		
11,200	5509	11,585	5729	156	156	107.20	3941	-4911	743	444	299.13	2.485		
11,204	5509	11,589	5729	156	156	107.20	3944	-4915	744	444	299.34	2.484		
11,300	5510	11,685	5730	158	159	107.18	4007	-4987	744	440	303.95	2.449		
11,304	5510	11,689	5730	158	159	107.18	4009	-4990	744	440	304.17	2.447		
11,400	5510	11,785	5730	161	161	107.17	4072	-5062	745	436	308.77	2.413		
11,404	5510	11,789	5730	161	161	107.17	4075	-5065	745	436	308.99	2.411		
11,500	5511	11,885	5731	163	164	107.15	4138	-5137	746	432	313.60	2.378		
11,504	5511	11,889	5731	163	164	107.15	4141	-5140	746	432	313.82	2.377		
11,600	5511	11,985	5731	166	166	107.14	4204	-5212	747	428	318.43	2.345		
11,604	5511	11,989	5731	166	166	107.14	4207	-5216	747	428	318.65	2.343		
11,700	5512	12,085	5732	168	169	107.12	4270	-5287	748	424	323.26	2.312		
11,704	5512	12,089	5732	168	169	107.12	4273	-5291	748	424	323.48	2.311		
11,800	5512	12,185	5732	171	171	107.11	4336	-5363	748	420	328.09	2.281		
11,804	5512	12,189	5732	171	171	107.11	4339	-5366	748	420	328.31	2.279		
11,900	5513	12,285	5733	173	174	107.09	4402	-5438	749	416	332.93	2.250		
11,904	5513	12,289	5733	173	174	107.09	4405	-5441	749	416	333.15	2.249		
12,000	5513	12,385	5733	176	176	107.08	4468	-5513	750	412	337.77	2.220		
12,004	5513	12,389	5733	176	176	107.07	4471	-5517	750	412	337.98	2.219		
12,100	5514	12,485	5734	178	179	107.06	4534	-5588	751	408	342.60	2.191		
12,104	5514	12,489	5734	178	179	107.06	4536	-5592	751	408	342.82	2.190		
12,200	5514	12,585	5734	181	181	107.04	4599	-5664	752	404	347.44	2.163		
12,204	5514	12,589	5734	181	181	107.04	4602	-5667	752	404	347.66	2.162		
12,300	5514	12,685	5735	183	184	107.03	4665	-5739	752	400	352.29	2.136		
12,304	5514	12,689	5735	183	184	107.03	4668	-5742	752	400	352.50	2.135		
12,400	5515	12,785	5735	186	186	107.01	4731	-5814	753	396	357.13	2.109		
12,404	5515	12,789	5735	186	186	107.01	4734	-5817	753	396	357.35	2.108		
12,500	5515	12,885	5736	188	189	107.00	4797	-5889	754	392	361.97	2.083		
12,504	5515	12,889	5736	188	189	107.00	4800	-5893	754	392	362.19	2.082		
12,600	5516	12,985	5736	191	191	106.98	4863	-5965	755	388	366.82	2.058		
12,604	5516	12,989	5736	191	191	106.98	4866	-5968	755	388	367.04	2.057		
12,700	5516	13,085	5737	193	194	106.97	4929	-6040	756	384	371.67	2.033		
12,704	5516	13,089	5737	193	194	106.97	4932	-6043	756	384	371.89	2.032		
12,800	5517	13,185	5737	196	196	106.95	4995	-6115	756	380	376.52	2.009		
12,804	5517	13,189	5737	196	196	106.95	4998	-6118	756	380	376.73	2.008		
12,900	5517	13,285	5738	198	199	106.94	5060	-6190	757	376	381.37	1.986		
12,904	5517	13,289	5738	198	199	106.94	5063	-6194	757	376	381.58	1.985		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - # 206H - Original Drilling - APD Rev 1													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		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		
13,000	5518	13,385	5738	201	201	106.92	5126	-6265	758	372	386.22	1.963		
13,004	5518	13,389	5738	201	201	106.92	5129	-6269	758	372	386.44	1.962		
13,100	5518	13,485	5739	203	204	106.91	5192	-6341	759	368	391.07	1.941		
13,104	5518	13,489	5739	203	204	106.91	5195	-6344	759	368	391.29	1.940		
13,200	5519	13,585	5739	206	206	106.89	5258	-6416	760	364	395.92	1.919		
13,204	5519	13,589	5739	206	206	106.89	5261	-6419	760	364	396.14	1.918		
13,300	5519	13,685	5740	208	209	106.88	5324	-6491	760	360	400.78	1.898		
13,304	5519	13,689	5740	208	209	106.88	5327	-6495	761	360	401.00	1.897		
13,400	5520	13,785	5740	211	211	106.86	5390	-6566	761	356	405.64	1.877		
13,404	5520	13,789	5740	211	211	106.86	5393	-6570	761	355	405.86	1.876		
13,500	5520	13,885	5741	213	214	106.85	5456	-6642	762	352	410.50	1.857		
13,504	5520	13,889	5741	213	214	106.85	5459	-6645	762	351	410.71	1.856		
13,600	5520	13,985	5741	216	216	106.83	5522	-6717	763	348	415.35	1.837		
13,604	5520	13,989	5741	216	216	106.83	5525	-6720	763	347	415.57	1.836		
13,700	5521	14,085	5742	218	219	106.82	5587	-6792	764	344	420.21	1.818		
13,704	5521	14,089	5742	218	219	106.82	5590	-6795	764	343	420.43	1.817		
13,800	5521	14,185	5742	221	221	106.80	5653	-6867	765	339	425.08	1.799		
13,804	5521	14,189	5742	221	222	106.80	5656	-6871	765	339	425.29	1.798		
13,900	5522	14,285	5743	223	224	106.79	5719	-6943	765	335	429.94	1.780		
13,904	5522	14,289	5743	223	224	106.79	5722	-6946	765	335	430.16	1.779		
14,000	5522	14,385	5743	226	226	106.77	5785	-7018	766	331	434.80	1.762		
14,004	5522	14,389	5743	226	227	106.77	5788	-7021	766	331	435.02	1.761		
14,100	5523	14,485	5744	228	229	106.76	5851	-7093	767	327	439.67	1.744		
14,104	5523	14,489	5744	228	229	106.76	5854	-7096	767	327	439.89	1.744		
14,200	5523	14,585	5744	231	231	106.75	5917	-7168	768	323	444.53	1.727		
14,204	5523	14,589	5744	231	232	106.74	5920	-7172	768	323	444.75	1.726		
14,300	5524	14,685	5745	233	234	106.73	5983	-7243	769	319	449.40	1.710		
14,304	5524	14,689	5745	233	234	106.73	5986	-7247	769	319	449.62	1.710		
14,400	5524	14,785	5745	236	236	106.72	6049	-7319	769	315	454.27	1.694		
14,404	5524	14,789	5745	236	237	106.72	6052	-7322	769	315	454.49	1.693		
14,500	5525	14,885	5746	238	239	106.70	6114	-7394	770	311	459.14	1.678		
14,504	5525	14,889	5746	238	239	106.70	6117	-7397	770	311	459.36	1.677		
14,600	5525	14,985	5746	241	242	106.69	6180	-7469	771	307	464.01	1.662		
14,604	5525	14,989	5746	241	242	106.69	6183	-7473	771	307	464.23	1.661		
14,700	5526	15,085	5747	243	244	106.67	6246	-7544	772	303	468.88	1.646		
14,704	5526	15,089	5747	243	244	106.67	6249	-7548	772	303	469.10	1.646		
14,800	5526	15,185	5747	246	247	106.66	6312	-7620	773	299	473.75	1.631		
14,804	5526	15,189	5747	246	247	106.66	6315	-7623	773	299	473.97	1.630		
14,900	5526	15,274	5748	248	249	106.64	6371	-7687	774	296	478.08	1.619 SF		
14,904	5526	15,274	5748	248	249	106.64	6371	-7687	774	296	478.04	1.619		
15,000	5527	15,274	5748	251	249	106.64	6371	-7687	782	309	473.39	1.653		
15,004	5527	15,274	5748	251	249	106.64	6371	-7687	783	310	473.01	1.656		
15,100	5527	15,274	5748	253	249	106.64	6371	-7687	803	342	461.63	1.740		
15,104	5527	15,274	5748	254	249	106.64	6371	-7687	805	344	460.96	1.746		
15,200	5528	15,274	5748	256	249	106.64	6371	-7687	836	392	444.36	1.881		
15,300	5528	15,274	5748	258	249	106.64	6371	-7687	879	455	423.47	2.075		
15,400	5529	15,274	5748	261	249	106.64	6371	-7687	930	530	400.77	2.321		
15,500	5529	15,274	5748	263	249	106.64	6371	-7687	989	612	377.66	2.620		
15,600	5530	15,274	5748	266	249	106.64	6371	-7687	1055	699	355.13	2.969		
15,700	5530	15,274	5748	268	249	106.64	6371	-7687	1125	791	333.76	3.370		
15,800	5531	15,274	5748	271	249	106.64	6371	-7687	1199	886	313.87	3.821		
15,884	5531	15,274	5748	273	249	106.64	6371	-7687	1265	966	298.36	4.239		

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Lonestar Consulting, LLC
Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - # 542H - Original Drilling - APD Rev 1													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		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	-57.00	11	-17	20					
100	100	100	100	0	0	-57.00	11	-17	20	20	0.46	43.362		
200	200	200	200	1	1	-57.00	11	-17	20	19	1.18	17.002		
300	300	300	300	1	1	-57.00	11	-17	20	18	1.90	10.574		
350	350	350	350	1	1	-57.00	11	-17	20	18	2.25	8.893		
400	400	400	400	1	1	55.36	11	-17	20	17	2.61	7.670		
430	430	430	430	1	1	58.71	12	-17	20	17	2.82	7.080 CC, ES		
500	500	499	499	2	2	72.06	15	-16	21	17	3.31	6.206 SF		
600	600	598	598	2	2	98.06	22	-15	26	22	4.02	6.456		
700	699	695	694	2	2	117.76	32	-14	40	35	4.74	8.360		
800	798	792	790	3	3	128.85	44	-13	61	55	5.47	11.064		
900	897	888	886	3	3	135.66	57	-11	85	79	6.21	13.728		
971	966	956	953	4	3	139.17	66	-10	105	98	6.75	15.540		
1000	994	984	981	4	3	140.46	70	-9	113	106	6.96	16.252		
1100	1092	1079	1075	4	4	143.73	83	-8	142	135	7.71	18.457		
1200	1190	1175	1170	5	4	145.90	96	-6	172	163	8.46	20.288		
1300	1287	1270	1264	5	5	147.43	109	-5	201	192	9.22	21.830		
1400	1385	1366	1359	6	5	148.57	121	-3	231	221	9.97	23.140		
1500	1483	1461	1453	6	5	149.45	134	-1	261	250	10.74	24.264		
1600	1580	1556	1548	7	6	150.15	147	0	290	279	11.50	25.238		
1700	1678	1652	1642	7	6	150.72	160	2	320	308	12.27	26.090		
1800	1776	1747	1737	8	7	151.20	173	3	350	337	13.03	26.839		
1900	1873	1843	1831	8	7	151.59	186	5	380	366	13.80	27.504		
2000	1971	1938	1926	9	8	151.94	198	6	409	395	14.57	28.098		
2100	2069	2034	2020	10	8	152.23	211	8	439	424	15.34	28.631		
2200	2166	2129	2115	10	8	152.49	224	10	469	453	16.12	29.111		
2300	2264	2224	2210	11	9	152.71	237	11	499	482	16.89	29.547		
2400	2362	2320	2304	11	9	152.91	250	13	529	511	17.66	29.944		
2500	2459	2415	2399	12	10	153.09	263	14	559	540	18.44	30.307		
2600	2557	2511	2493	12	10	153.25	275	16	589	569	19.21	30.641		
2700	2655	2606	2588	13	10	153.40	288	18	619	599	19.99	30.947		
2800	2752	2702	2682	13	11	153.53	301	19	648	628	20.76	31.231		
2900	2850	2797	2777	14	11	153.65	314	21	678	657	21.54	31.494		
3000	2948	2892	2871	14	12	153.76	327	22	708	686	22.31	31.738		
3100	3045	2988	2966	15	12	153.87	340	24	738	715	23.09	31.965		
3200	3143	3083	3060	15	12	153.96	352	26	768	744	23.87	32.177		
3300	3241	3179	3155	16	13	154.05	365	27	798	773	24.64	32.375		
3400	3338	3274	3249	17	13	154.13	378	29	828	802	25.42	32.561		
3500	3436	3369	3344	17	14	154.20	391	30	858	831	26.20	32.736		
3600	3534	3465	3439	18	14	154.27	404	32	888	861	26.98	32.901		
3700	3631	3560	3533	18	15	154.33	417	34	917	890	27.75	33.056		
3800	3729	3656	3628	19	15	154.40	429	35	947	919	28.53	33.202		
3900	3827	3751	3722	19	15	154.45	442	37	977	948	29.31	33.340		
4000	3924	3847	3817	20	16	154.51	455	38	1007	977	30.09	33.472		
4100	4022	3942	3911	20	16	154.56	468	40	1037	1006	30.87	33.596		
4200	4120	4037	4006	21	17	154.61	481	42	1067	1035	31.65	33.714		
4300	4217	4133	4100	21	17	154.65	494	43	1097	1064	32.43	33.826		
4400	4315	4228	4195	22	17	154.69	506	45	1127	1094	33.21	33.933		
4500	4413	4324	4289	23	18	154.73	519	46	1157	1123	33.98	34.035		
4600	4510	4419	4384	23	18	154.77	532	48	1187	1152	34.76	34.132		
4700	4608	4515	4478	24	19	154.81	545	50	1216	1181	35.54	34.225		
4800	4706	4610	4573	24	19	154.85	558	51	1246	1210	36.32	34.313		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - # 542H - Original Drilling - APD Rev 1													Offset Site Error:	0 ft	
Survey Program:		0-MWD+IGRF		Offset			Semi Major Axis			Offset Wellbore Centre		Rule Assigned:		Offset Well Error:	0 ft
Measured Depth Depth (ft)	Vertical Depth (ft)	Measured Depth 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		
4900	4803	4705	4668	25	20	154.88	571	53	1276	1239	37.10	34.398			
5000	4901	4801	4762	25	20	154.91	583	54	1306	1268	37.88	34.479			
5107	5005	4903	4863	26	20	154.94	597	56	1338	1299	38.72	34.562			
5150	5047	4944	4904	26	21	138.51	603	57	1351	1312	39.06	34.590			
5200	5095	4991	4951	26	21	125.92	609	58	1366	1327	39.48	34.611			
5250	5141	5037	4996	27	21	117.61	615	58	1382	1342	39.91	34.621			
5300	5186	5082	5041	27	21	111.83	621	59	1397	1357	40.35	34.623			
5350	5229	5126	5084	28	21	107.58	627	60	1413	1372	40.80	34.618			
5400	5270	5165	5123	28	22	104.28	632	60	1428	1387	41.25	34.624			
5450	5308	5200	5158	28	22	101.61	636	62	1444	1402	41.67	34.655			
5500	5343	5226	5183	29	22	99.19	638	64	1460	1418	42.02	34.751			
5550	5374	5250	5207	29	22	97.06	639	67	1477	1435	42.39	34.850			
5600	5402	5264	5221	30	22	94.79	639	68	1495	1452	42.69	35.015			
5650	5427	5276	5233	30	22	92.59	639	70	1513	1470	43.01	35.184			
5700	5447	5285	5242	31	22	90.34	639	72	1532	1489	43.31	35.369			
5750	5463	5300	5257	32	22	88.43	639	74	1551	1508	43.69	35.511			
5800	5475	5300	5257	32	22	86.00	639	74	1571	1527	43.98	35.727			
5850	5482	5300	5257	33	22	83.65	639	74	1591	1547	44.28	35.933			
5904	5485	5300	5257	34	22	81.23	639	74	1613	1568	44.62	36.143			
6000	5485	5283	5240	35	22	80.57	639	71	1653	1608	45.12	36.644			
6100	5486	5277	5234	37	22	80.35	639	70	1700	1655	45.72	37.191			
6200	5486	5272	5229	38	22	80.16	639	70	1752	1705	46.30	37.832			
6300	5487	5268	5225	40	22	80.00	639	69	1807	1760	46.86	38.563			
6400	5487	5250	5207	42	22	79.32	639	67	1866	1819	47.28	39.479			
6500	5488	5250	5207	44	22	79.32	639	67	1929	1881	47.80	40.353			
6600	5488	5250	5207	46	22	79.32	639	67	1994	1946	48.28	41.306			
6700	5489	5250	5207	48	22	79.32	639	67	2063	2014	48.73	42.329			
6800	5489	5250	5207	50	22	79.32	639	67	2133	2084	49.14	43.417			
6900	5490	5250	5207	52	22	79.32	639	67	2206	2157	49.51	44.564			
7000	5490	5250	5207	54	22	79.32	639	67	2281	2232	49.85	45.765			
7100	5491	5250	5207	56	22	79.32	639	67	2358	2308	50.16	47.013			
7200	5491	5250	5207	59	22	79.32	639	67	2437	2387	50.45	48.305			
7300	5491	5250	5207	61	22	79.32	639	67	2517	2466	50.71	49.636			
7400	5492	5250	5207	63	22	79.32	639	67	2599	2548	50.95	51.003			
7500	5492	5250	5207	65	22	79.32	639	67	2681	2630	51.17	52.402			
7600	5493	5250	5207	68	22	79.32	639	67	2765	2714	51.37	53.829			
7700	5493	5250	5207	70	22	79.32	639	67	2850	2799	51.56	55.284			
7800	5494	5250	5207	72	22	79.32	639	67	2936	2884	51.73	56.762			
7900	5494	5250	5207	75	22	79.32	639	67	3023	2971	51.88	58.261			
8000	5495	5250	5207	77	22	79.32	639	67	3110	3058	52.03	59.780			
8100	5495	5250	5207	80	22	79.32	639	67	3199	3147	52.17	61.316			
8200	5496	5250	5207	82	22	79.32	639	67	3288	3235	52.29	62.869			
8300	5496	5250	5207	84	22	79.32	639	67	3377	3325	52.41	64.436			
8400	5496	5250	5207	87	22	79.32	639	67	3467	3415	52.52	66.016			
8500	5497	5250	5207	89	22	79.32	639	67	3558	3505	52.63	67.609			
8600	5497	5250	5207	92	22	79.32	639	67	3649	3596	52.72	69.212			
8700	5498	5250	5207	94	22	79.32	639	67	3741	3688	52.82	70.825			
8800	5498	5250	5207	96	22	79.32	639	67	3833	3780	52.91	72.447			
8900	5499	5250	5207	99	22	79.32	639	67	3925	3872	52.99	74.077			
9000	5499	5250	5207	101	22	79.32	639	67	4018	3965	53.07	75.714			
9100	5500	5250	5207	104	22	79.32	639	67	4111	4058	53.14	77.357			
9200	5500	5250	5207	106	22	79.32	639	67	4205	4151	53.22	79.007			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - # 542H - Original Drilling - APD Rev 1												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
9300	5501	5250	5207	109	22	79.32	639	67	4298	4245	53.29	80.662	
9400	5501	5228	5185	111	22	78.46	638	64	4392	4339	53.19	82.562	
9500	5502	5227	5185	113	22	78.45	638	64	4486	4433	53.26	84.234	
9600	5502	5227	5185	116	22	78.43	638	64	4581	4527	53.32	85.910	
9700	5502	5227	5184	118	22	78.42	638	64	4675	4622	53.38	87.589	
9800	5503	5226	5184	121	22	78.41	638	64	4770	4717	53.44	89.270	
9900	5503	5226	5183	123	22	78.39	638	64	4865	4812	53.49	90.955	
10,000	5504	5226	5183	126	22	78.38	638	64	4961	4907	53.55	92.641	
10,100	5504	5225	5183	128	22	78.37	638	64	5056	5003	53.60	94.329	
10,200	5505	5225	5183	131	22	78.36	638	64	5152	5098	53.65	96.018	
10,300	5505	5225	5182	133	22	78.35	638	64	5248	5194	53.71	97.709	
10,400	5506	5224	5182	136	22	78.33	638	64	5344	5290	53.76	99.400	
10,500	5506	5224	5182	138	22	78.32	638	64	5440	5386	53.81	101.092	
10,600	5507	5224	5181	141	22	78.31	638	64	5536	5482	53.86	102.784	
10,700	5507	5224	5181	143	22	78.30	638	64	5632	5579	53.91	104.477	
10,800	5508	5223	5181	146	22	78.29	638	64	5729	5675	53.96	106.169	
10,900	5508	5223	5181	148	22	78.28	638	64	5826	5772	54.01	107.861	
11,000	5508	5223	5180	151	22	78.28	638	64	5922	5868	54.06	109.553	
11,100	5509	5200	5158	153	22	77.40	636	62	6020	5966	53.95	111.586	
11,200	5509	5200	5158	156	22	77.40	636	62	6117	6063	54.00	113.276	
11,300	5510	5200	5158	158	22	77.40	636	62	6214	6160	54.05	114.966	
11,400	5510	5200	5158	161	22	77.40	636	62	6311	6257	54.10	116.654	
11,500	5511	5200	5158	163	22	77.40	636	62	6408	6354	54.15	118.341	
11,600	5511	5200	5158	166	22	77.40	636	62	6505	6451	54.20	120.026	
11,700	5512	5200	5158	168	22	77.40	636	62	6603	6549	54.25	121.710	
11,800	5512	5200	5158	171	22	77.40	636	62	6700	6646	54.30	123.392	
11,900	5513	5200	5158	173	22	77.40	636	62	6798	6744	54.35	125.073	
12,000	5513	5200	5158	176	22	77.40	636	62	6895	6841	54.40	126.751	
12,100	5514	5200	5158	178	22	77.40	636	62	6993	6939	54.45	128.427	
12,200	5514	5200	5158	181	22	77.40	636	62	7091	7036	54.50	130.101	
12,300	5514	5200	5158	183	22	77.40	636	62	7189	7134	54.55	131.773	
12,400	5515	5200	5158	186	22	77.40	636	62	7287	7232	54.60	133.442	
12,500	5515	5200	5158	188	22	77.40	636	62	7384	7330	54.66	135.109	
12,600	5516	5200	5158	191	22	77.40	636	62	7482	7428	54.71	136.773	
12,700	5516	5200	5158	193	22	77.40	636	62	7581	7526	54.76	138.434	
12,800	5517	5200	5158	196	22	77.40	636	62	7679	7624	54.81	140.093	
12,900	5517	5200	5158	198	22	77.40	636	62	7777	7722	54.86	141.748	
13,000	5518	5200	5158	201	22	77.40	636	62	7875	7820	54.92	143.401	
13,100	5518	5200	5158	203	22	77.40	636	62	7973	7918	54.97	145.051	
13,200	5519	5200	5158	206	22	77.40	636	62	8071	8016	55.02	146.697	
13,300	5519	5200	5158	208	22	77.40	636	62	8170	8115	55.07	148.341	
13,400	5520	5200	5158	211	22	77.40	636	62	8268	8213	55.13	149.981	
13,500	5520	5200	5158	213	22	77.40	636	62	8366	8311	55.18	151.617	
13,600	5520	5200	5158	216	22	77.40	636	62	8465	8410	55.24	153.251	
13,700	5521	5200	5158	218	22	77.40	636	62	8563	8508	55.29	154.881	
13,800	5521	5200	5158	221	22	77.40	636	62	8662	8606	55.34	156.507	
13,900	5522	5200	5158	223	22	77.40	636	62	8760	8705	55.40	158.130	
14,000	5522	5200	5158	226	22	77.40	636	62	8859	8803	55.46	159.749	
14,100	5523	5200	5158	228	22	77.40	636	62	8958	8902	55.51	161.365	
14,200	5523	5200	5158	231	22	77.40	636	62	9056	9001	55.57	162.976	
14,300	5524	5200	5158	233	22	77.40	636	62	9155	9099	55.62	164.584	
14,400	5524	5200	5158	236	22	77.40	636	62	9253	9198	55.68	166.188	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - # 542H - Original Drilling - APD Rev 1													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned:		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
14,500	5525	5200	5158	238	22	77.40	636	62	9352	9296	55.74	167.789		
14,600	5525	5200	5158	241	22	77.40	636	62	9451	9395	55.80	169.385		
14,700	5526	5200	5158	243	22	77.40	636	62	9550	9494	55.85	170.977		
14,800	5526	5200	5158	246	22	77.40	636	62	9649	9593	55.91	172.566		
14,900	5526	5200	5158	248	22	77.40	636	62	9747	9691	55.97	174.150		
15,000	5527	5200	5158	251	22	77.40	636	62	9846	9790	56.03	175.730		
15,100	5527	5200	5158	253	22	77.40	636	62	9945	9889	56.09	177.306		
15,200	5528	5200	5158	256	22	77.40	636	62	10,044	9988	56.15	178.878		
15,300	5528	5200	5158	258	22	77.40	636	62	10,143	10,087	56.21	180.445		
15,400	5529	5200	5158	261	22	77.40	636	62	10,242	10,185	56.27	182.009		
15,500	5529	5200	5158	263	22	77.40	636	62	10,341	10,284	56.33	183.568		
15,600	5530	5200	5158	266	22	77.40	636	62	10,440	10,383	56.39	185.123		
15,700	5530	5200	5158	268	22	77.40	636	62	10,539	10,482	56.46	186.673		
15,800	5531	5200	5158	271	22	77.40	636	62	10,638	10,581	56.52	188.219		
15,884	5531	5200	5158	273	22	77.40	636	62	10,721	10,664	56.57	189.516		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - # 544H - Original Drilling - APD Rev 1														Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF														Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis	Reference	Offset	Highside	Offset Wellbore Centre	Distance	Rule Assigned:							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
0	0	0	0	0	0	-57.00	33	-50	60						
100	100	100	100	0	0	-57.00	33	-50	60	60	0.46	130.086			
200	200	200	200	1	1	-57.00	33	-50	60	59	1.18	51.007			
300	300	300	300	1	1	-57.00	33	-50	60	58	1.90	31.722			
350	350	350	350	1	1	-57.00	33	-50	60	58	2.25	26.679			
400	400	399	399	1	1	53.91	33	-50	60	58	2.61	23.080			
443	443	442	442	2	1	55.55	34	-50	60	57	2.90	20.704 CC			
500	500	498	498	2	2	59.26	37	-50	60	57	3.30	18.245 ES			
600	600	596	596	2	2	69.56	43	-50	62	58	4.01	15.466			
700	699	693	692	2	2	83.01	53	-50	68	63	4.73	14.401			
800	798	790	788	3	3	96.60	65	-50	80	75	5.48	14.605			
900	897	887	885	3	3	108.15	77	-50	96	90	6.24	15.446			
971	966	955	952	4	3	115.00	86	-50	111	104	6.80	16.305			
1000	994	983	980	4	3	117.55	89	-50	117	110	7.02	16.699			
1100	1092	1079	1075	4	4	124.54	101	-50	141	133	7.79	18.074			
1200	1190	1175	1170	5	4	129.52	113	-50	166	157	8.56	19.367			
1300	1287	1271	1266	5	5	133.19	125	-50	192	182	9.34	20.542			
1400	1385	1367	1361	6	5	135.98	137	-50	218	208	10.11	21.593			
1500	1483	1463	1456	6	5	138.17	149	-50	245	234	10.88	22.527			
1600	1580	1559	1551	7	6	139.93	161	-50	272	261	11.65	23.358			
1700	1678	1655	1646	7	6	141.38	173	-49	300	287	12.43	24.100			
1800	1776	1751	1742	8	7	142.58	185	-49	327	314	13.21	24.764			
1900	1873	1847	1837	8	7	143.59	197	-49	355	341	13.98	25.360			
2000	1971	1943	1932	9	7	144.46	209	-49	382	368	14.76	25.898			
2100	2069	2038	2027	10	8	145.21	221	-49	410	394	15.54	26.386			
2200	2166	2134	2122	10	8	145.87	233	-49	438	421	16.32	26.830			
2300	2264	2230	2217	11	9	146.45	245	-49	466	449	17.10	27.235			
2400	2362	2326	2313	11	9	146.96	257	-49	494	476	17.88	27.606			
2500	2459	2422	2408	12	9	147.42	269	-49	521	503	18.66	27.947			
2600	2557	2518	2503	12	10	147.83	281	-49	549	530	19.44	28.261			
2700	2655	2614	2598	13	10	148.21	293	-49	577	557	20.22	28.552			
2800	2752	2710	2693	13	11	148.54	305	-48	605	584	21.00	28.822			
2900	2850	2806	2789	14	11	148.85	317	-48	633	612	21.78	29.072			
3000	2948	2902	2884	14	12	149.13	329	-48	661	639	22.57	29.306			
3100	3045	2998	2979	15	12	149.39	341	-48	689	666	23.35	29.524			
3200	3143	3094	3074	15	12	149.63	353	-48	717	693	24.13	29.728			
3300	3241	3190	3169	16	13	149.85	365	-48	745	721	24.92	29.920			
3400	3338	3286	3265	17	13	150.06	377	-48	774	748	25.70	30.100			
3500	3436	3382	3360	17	14	150.25	389	-48	802	775	26.48	30.269			
3600	3534	3478	3455	18	14	150.42	401	-48	830	802	27.27	30.429			
3700	3631	3574	3550	18	14	150.59	413	-48	858	830	28.05	30.580			
3800	3729	3670	3645	19	15	150.75	425	-48	886	857	28.84	30.723			
3900	3827	3765	3741	19	15	150.89	437	-48	914	884	29.62	30.858			
4000	3924	3861	3836	20	16	151.03	449	-47	942	912	30.40	30.986			
4100	4022	3957	3931	20	16	151.16	461	-47	970	939	31.19	31.108			
4200	4120	4053	4026	21	16	151.28	473	-47	998	966	31.97	31.223			
4300	4217	4149	4121	21	17	151.40	485	-47	1026	994	32.76	31.334			
4400	4315	4245	4217	22	17	151.50	497	-47	1055	1021	33.54	31.439			
4500	4413	4341	4312	23	18	151.61	509	-47	1083	1048	34.33	31.539			
4600	4510	4437	4407	23	18	151.71	521	-47	1111	1076	35.11	31.635			
4700	4608	4533	4502	24	18	151.80	533	-47	1139	1103	35.90	31.726			
4800	4706	4629	4597	24	19	151.89	545	-47	1167	1130	36.68	31.814			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - # 544H - Original Drilling - APD Rev 1													Offset Site Error:	0 ft
Survey Program:		0-MWD+IGRF						Rule Assigned:					Offset Well Error:	0 ft
Measured Depth	Vertical	Measured	Vertical	Semi Major Axis		Highside Toolface	Offset Wellbore Centre		Distance		Minimum Separation	Separation Factor	Warning	
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	Reference	Offset		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
4900	4803	4725	4693	25	19	151.97	557	-47	1195	1158	37.47	31.897		
5000	4901	4821	4788	25	20	152.05	569	-47	1223	1185	38.26	31.978		
5107	5005	4923	4889	26	20	152.14	582	-46	1253	1214	39.09	32.060		
5150	5047	4965	4930	26	20	135.82	587	-46	1266	1226	39.44	32.086		
5200	5095	5012	4978	26	20	123.42	593	-46	1280	1240	39.86	32.102		
5250	5141	5061	5026	27	21	115.33	599	-47	1294	1253	40.31	32.087		
5300	5186	5114	5078	27	21	109.73	609	-50	1307	1266	40.86	31.994		
5350	5229	5169	5131	28	21	105.59	622	-57	1320	1279	41.49	31.828		
5400	5270	5225	5183	28	22	102.42	639	-69	1333	1291	42.21	31.584		
5450	5308	5284	5235	28	22	99.91	660	-86	1345	1302	43.03	31.259		
5500	5343	5344	5285	29	22	97.88	686	-108	1356	1312	43.97	30.847		
5550	5374	5406	5333	29	23	96.23	715	-135	1366	1321	45.03	30.344		
5600	5402	5471	5377	30	23	94.87	749	-167	1376	1329	46.24	29.748		
5650	5427	5537	5416	30	24	93.76	787	-204	1384	1336	47.61	29.063		
5700	5447	5604	5450	31	25	92.85	828	-246	1390	1341	49.13	28.295		
5750	5463	5673	5476	32	26	92.12	872	-292	1396	1345	50.83	27.457		
5800	5475	5743	5495	32	26	91.54	917	-341	1400	1347	52.67	26.573		
5850	5482	5813	5504	33	28	91.12	963	-393	1402	1347	54.62	25.666		
5904	5485	5878	5506	34	28	90.87	1006	-442	1403	1346	56.62	24.781		
5909	5485	5882	5506	34	29	90.87	1009	-445	1403	1346	56.75	24.724		
6000	5485	5974	5507	35	30	90.87	1070	-514	1404	1344	59.92	23.432		
6004	5485	5978	5507	35	30	90.87	1073	-517	1404	1344	60.07	23.371		
6100	5486	6074	5507	37	32	90.87	1136	-589	1405	1341	63.57	22.101		
6104	5486	6078	5507	37	32	90.87	1138	-592	1405	1341	63.73	22.043		
6200	5486	6174	5508	38	34	90.87	1201	-664	1406	1338	67.40	20.858		
6204	5486	6178	5508	38	34	90.87	1204	-667	1406	1338	67.57	20.804		
6300	5487	6274	5508	40	36	90.88	1267	-739	1407	1335	71.38	19.706		
6304	5487	6278	5508	40	36	90.88	1270	-743	1407	1335	71.56	19.657		
6400	5487	6374	5509	42	38	90.88	1333	-814	1408	1332	75.49	18.645		
6404	5487	6378	5509	42	38	90.88	1336	-818	1408	1332	75.68	18.600		
6500	5488	6474	5509	44	40	90.88	1399	-890	1408	1329	79.71	17.670		
6504	5488	6478	5509	44	40	90.88	1402	-893	1409	1329	79.90	17.628		
6600	5488	6574	5510	46	42	90.88	1465	-965	1409	1325	84.02	16.774		
6604	5488	6578	5510	46	42	90.88	1468	-968	1409	1325	84.22	16.735		
6700	5489	6674	5510	48	44	90.89	1531	-1040	1410	1322	88.42	15.951		
6704	5489	6678	5510	48	44	90.89	1534	-1043	1410	1322	88.61	15.916		
6800	5489	6774	5511	50	46	90.89	1597	-1115	1411	1318	92.87	15.195		
6804	5489	6778	5511	50	46	90.89	1600	-1119	1411	1318	93.08	15.163		
6900	5490	6874	5511	52	48	90.89	1663	-1190	1412	1315	97.39	14.500		
6904	5490	6878	5511	52	48	90.89	1666	-1194	1412	1315	97.59	14.470		
7000	5490	6974	5512	54	51	90.89	1729	-1265	1413	1311	101.96	13.860		
7004	5490	6978	5512	54	51	90.89	1732	-1269	1413	1311	102.16	13.832		
7100	5491	7074	5513	56	53	90.90	1795	-1341	1414	1307	106.57	13.269		
7104	5491	7078	5513	57	53	90.90	1798	-1344	1414	1307	106.77	13.243		
7200	5491	7174	5513	59	55	90.90	1861	-1416	1415	1304	111.21	12.722		
7204	5491	7178	5513	59	55	90.90	1864	-1419	1415	1304	111.42	12.699		
7300	5491	7274	5514	61	58	90.90	1927	-1491	1416	1300	115.90	12.216		
7304	5491	7278	5514	61	58	90.90	1930	-1494	1416	1300	116.11	12.194		
7400	5492	7374	5514	63	60	90.90	1993	-1566	1417	1296	120.61	11.747		
7404	5492	7378	5514	63	60	90.90	1996	-1570	1417	1296	120.82	11.726		
7500	5492	7474	5515	65	62	90.90	2059	-1641	1418	1292	125.35	11.310		
7504	5492	7478	5515	66	62	90.90	2062	-1645	1418	1292	125.56	11.291		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - # 544H - Original Drilling - APD Rev 1												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)	Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
7600	5493	7574	5515	68	65	90.91	2125	-1717	1419	1288	130.11	10.903	
7604	5493	7578	5515	68	65	90.91	2127	-1720	1419	1288	130.32	10.885	
7700	5493	7674	5516	70	67	90.91	2190	-1792	1419	1285	134.89	10.523	
7704	5493	7678	5516	70	67	90.91	2193	-1795	1420	1284	135.11	10.507	
7800	5494	7774	5516	72	69	90.91	2256	-1867	1420	1281	139.69	10.168	
7804	5494	7778	5516	73	69	90.91	2259	-1870	1420	1281	139.91	10.152	
7900	5494	7874	5517	75	72	90.91	2322	-1942	1421	1277	144.51	9.835	
7904	5494	7878	5517	75	72	90.91	2325	-1945	1421	1277	144.73	9.821	
8000	5495	7974	5517	77	74	90.92	2388	-2017	1422	1273	149.35	9.523	
8004	5495	7978	5517	77	74	90.92	2391	-2021	1422	1273	149.57	9.509	
8100	5495	8074	5518	80	77	90.92	2454	-2092	1423	1269	154.20	9.229	
8104	5495	8078	5518	80	77	90.92	2457	-2096	1423	1269	154.42	9.217	
8200	5496	8174	5518	82	79	90.92	2520	-2168	1424	1265	159.06	8.953	
8204	5496	8178	5518	82	79	90.92	2523	-2171	1424	1265	159.28	8.941	
8300	5496	8274	5519	84	81	90.92	2586	-2243	1425	1261	163.93	8.693	
8304	5496	8278	5519	84	82	90.92	2589	-2246	1425	1261	164.15	8.681	
8400	5496	8374	5519	87	84	90.93	2652	-2318	1426	1257	168.81	8.447	
8404	5497	8378	5520	87	84	90.93	2655	-2321	1426	1257	169.03	8.436	
8500	5497	8474	5520	89	86	90.93	2718	-2393	1427	1253	173.71	8.214	
8504	5497	8478	5520	89	86	90.93	2721	-2397	1427	1253	173.93	8.204	
8600	5497	8574	5521	92	89	90.93	2784	-2468	1428	1249	178.61	7.994	
8604	5497	8578	5521	92	89	90.93	2787	-2472	1428	1249	178.83	7.984	
8700	5498	8674	5521	94	91	90.93	2850	-2544	1429	1245	183.52	7.785	
8704	5498	8678	5521	94	91	90.93	2853	-2547	1429	1245	183.74	7.776	
8800	5498	8774	5522	96	94	90.94	2916	-2619	1430	1241	188.44	7.586	
8804	5498	8778	5522	96	94	90.94	2919	-2622	1430	1241	188.66	7.578	
8900	5499	8874	5522	99	96	90.94	2982	-2694	1430	1237	193.36	7.398	
8904	5499	8878	5522	99	96	90.94	2985	-2697	1431	1237	193.58	7.390	
9000	5499	8974	5523	101	99	90.94	3048	-2769	1431	1233	198.29	7.219	
9004	5499	8978	5523	101	99	90.94	3051	-2772	1431	1233	198.51	7.211	
9100	5500	9074	5523	104	101	90.94	3113	-2844	1432	1229	203.23	7.048	
9104	5500	9078	5523	104	101	90.94	3116	-2848	1432	1229	203.45	7.040	
9200	5500	9174	5524	106	103	90.95	3179	-2919	1433	1225	208.17	6.885	
9204	5500	9178	5524	106	104	90.95	3182	-2923	1433	1225	208.39	6.878	
9300	5501	9274	5524	109	106	90.95	3245	-2995	1434	1221	213.12	6.729	
9304	5501	9278	5524	109	106	90.95	3248	-2998	1434	1221	213.34	6.723	
9400	5501	9374	5525	111	108	90.95	3311	-3070	1435	1217	218.07	6.581	
9404	5501	9378	5525	111	108	90.95	3314	-3073	1435	1217	218.29	6.574	
9500	5502	9474	5525	113	111	90.95	3377	-3145	1436	1213	223.03	6.439	
9504	5502	9478	5525	114	111	90.95	3380	-3148	1436	1213	223.25	6.432	
9600	5502	9574	5526	116	113	90.95	3443	-3220	1437	1209	227.99	6.303	
9604	5502	9578	5526	116	113	90.96	3446	-3223	1437	1209	228.21	6.297	
9700	5502	9674	5526	118	116	90.96	3509	-3295	1438	1205	232.95	6.172	
9704	5503	9678	5526	119	116	90.96	3512	-3299	1438	1205	233.17	6.166	
9800	5503	9774	5527	121	118	90.96	3575	-3370	1439	1201	237.92	6.047	
9804	5503	9778	5527	121	118	90.96	3578	-3374	1439	1201	238.14	6.042	
9900	5503	9874	5528	123	121	90.96	3641	-3446	1440	1197	242.89	5.927	
9904	5503	9878	5528	123	121	90.96	3644	-3449	1440	1197	243.12	5.922	
10,000	5504	9974	5528	126	123	90.96	3707	-3521	1441	1193	247.87	5.812	
10,004	5504	9978	5528	126	123	90.96	3710	-3524	1441	1193	248.09	5.807	
10,100	5504	10,074	5529	128	126	90.97	3773	-3596	1441	1189	252.84	5.701	
10,104	5504	10,078	5529	128	126	90.97	3776	-3599	1442	1188	253.07	5.696	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - # 544H - Original Drilling - APD Rev 1													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	
10,200	5505	10,174	5529	131	128	90.97	3839	-3671	1442	1185	257.83	5.594		
10,204	5505	10,178	5529	131	128	90.97	3842	-3675	1442	1184	258.05	5.590		
10,300	5505	10,274	5530	133	131	90.97	3905	-3746	1443	1180	262.81	5.492		
10,304	5505	10,278	5530	133	131	90.97	3908	-3750	1443	1180	263.03	5.487		
10,400	5506	10,374	5530	136	133	90.97	3971	-3822	1444	1176	267.80	5.393		
10,404	5506	10,378	5530	136	133	90.97	3974	-3825	1444	1176	268.02	5.389		
10,500	5506	10,474	5531	138	136	90.98	4037	-3897	1445	1172	272.78	5.298		
10,504	5506	10,478	5531	138	136	90.98	4040	-3900	1445	1172	273.01	5.294		
10,600	5507	10,574	5531	141	138	90.98	4102	-3972	1446	1168	277.77	5.206		
10,604	5507	10,578	5531	141	138	90.98	4105	-3975	1446	1168	278.00	5.202		
10,700	5507	10,674	5532	143	141	90.98	4168	-4047	1447	1164	282.77	5.117		
10,704	5507	10,678	5532	143	141	90.98	4171	-4050	1447	1164	282.99	5.113		
10,800	5508	10,774	5532	146	143	90.98	4234	-4122	1448	1160	287.76	5.031		
10,804	5508	10,778	5532	146	143	90.98	4237	-4126	1448	1160	287.99	5.028		
10,900	5508	10,874	5533	148	146	90.99	4300	-4197	1449	1156	292.76	4.949		
10,904	5508	10,878	5533	148	146	90.99	4303	-4201	1449	1156	292.98	4.945		
11,000	5508	10,974	5533	151	148	90.99	4366	-4273	1450	1152	297.76	4.869		
11,004	5508	10,978	5533	151	148	90.99	4369	-4276	1450	1152	297.98	4.865		
11,100	5509	11,074	5534	153	151	90.99	4432	-4348	1451	1148	302.76	4.791		
11,104	5509	11,078	5534	153	151	90.99	4435	-4351	1451	1148	302.98	4.788		
11,200	5509	11,174	5534	156	153	90.99	4498	-4423	1452	1144	307.76	4.716		
11,204	5509	11,178	5534	156	153	90.99	4501	-4426	1452	1144	307.99	4.713		
11,300	5510	11,274	5535	158	156	90.99	4564	-4498	1452	1140	312.76	4.644		
11,304	5510	11,278	5535	158	156	90.99	4567	-4502	1452	1140	312.99	4.641		
11,400	5510	11,374	5536	161	158	91.00	4630	-4573	1453	1136	317.77	4.574		
11,404	5510	11,378	5536	161	158	91.00	4633	-4577	1453	1135	318.00	4.571		
11,500	5511	11,474	5536	163	161	91.00	4696	-4648	1454	1132	322.78	4.506		
11,504	5511	11,478	5536	163	161	91.00	4699	-4652	1454	1131	323.00	4.503		
11,600	5511	11,574	5537	166	163	91.00	4762	-4724	1455	1127	327.79	4.439		
11,604	5511	11,578	5537	166	163	91.00	4765	-4727	1455	1127	328.01	4.437		
11,700	5512	11,674	5537	168	166	91.00	4828	-4799	1456	1123	332.79	4.375		
11,704	5512	11,678	5537	168	166	91.00	4831	-4802	1456	1123	333.02	4.373		
11,800	5512	11,774	5538	171	168	91.01	4894	-4874	1457	1119	337.81	4.313		
11,804	5512	11,778	5538	171	168	91.01	4897	-4877	1457	1119	338.03	4.310		
11,900	5513	11,874	5538	173	171	91.01	4960	-4949	1458	1115	342.82	4.253		
11,904	5513	11,878	5538	173	171	91.01	4963	-4953	1458	1115	343.04	4.250		
12,000	5513	11,974	5539	176	173	91.01	5026	-5024	1459	1111	347.83	4.194		
12,004	5513	11,978	5539	176	173	91.01	5029	-5028	1459	1111	348.06	4.192		
12,100	5514	12,074	5539	178	176	91.01	5091	-5100	1460	1107	352.84	4.137		
12,104	5514	12,078	5539	178	176	91.01	5094	-5103	1460	1107	353.07	4.135		
12,200	5514	12,174	5540	181	178	91.02	5157	-5175	1461	1103	357.86	4.082		
12,204	5514	12,178	5540	181	178	91.02	5160	-5178	1461	1103	358.09	4.079		
12,300	5514	12,274	5540	183	181	91.02	5223	-5250	1462	1099	362.88	4.028		
12,304	5514	12,278	5540	183	181	91.02	5226	-5253	1462	1099	363.10	4.025		
12,400	5515	12,374	5541	186	183	91.02	5289	-5325	1463	1095	367.89	3.975		
12,404	5515	12,378	5541	186	183	91.02	5292	-5328	1463	1094	368.12	3.973		
12,500	5515	12,474	5541	188	186	91.02	5355	-5400	1463	1091	372.91	3.924		
12,504	5515	12,478	5541	188	186	91.02	5358	-5404	1463	1090	373.14	3.922		
12,600	5516	12,574	5542	191	188	91.02	5421	-5475	1464	1086	377.93	3.875		
12,604	5516	12,578	5542	191	188	91.02	5424	-5479	1464	1086	378.16	3.872		
12,700	5516	12,673	5543	193	191	91.03	5487	-5551	1465	1082	382.95	3.826		
12,704	5516	12,678	5543	193	191	91.03	5490	-5554	1465	1082	383.18	3.824		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - # 544H - Original Drilling - APD Rev 1													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		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		
12,800	5517	12,773	5543	196	193	91.03	5553	-5626	1466	1078	387.97	3.779		
12,804	5517	12,778	5543	196	193	91.03	5556	-5629	1466	1078	388.20	3.777		
12,900	5517	12,873	5544	198	196	91.03	5619	-5701	1467	1074	392.99	3.733		
12,904	5517	12,878	5544	198	196	91.03	5622	-5704	1467	1074	393.22	3.731		
13,000	5518	12,973	5544	201	198	91.03	5685	-5776	1468	1070	398.01	3.688		
13,004	5518	12,978	5544	201	198	91.03	5688	-5780	1468	1070	398.24	3.686		
13,100	5518	13,073	5545	203	201	91.04	5751	-5851	1469	1066	403.04	3.645		
13,104	5518	13,078	5545	203	201	91.04	5754	-5855	1469	1066	403.26	3.643		
13,200	5519	13,173	5545	206	203	91.04	5817	-5927	1470	1062	408.06	3.602		
13,204	5519	13,178	5545	206	203	91.04	5820	-5930	1470	1062	408.29	3.600		
13,300	5519	13,273	5546	208	206	91.04	5883	-6002	1471	1058	413.08	3.560		
13,304	5519	13,278	5546	208	206	91.04	5886	-6005	1471	1058	413.31	3.559		
13,400	5520	13,373	5546	211	208	91.04	5949	-6077	1472	1054	418.11	3.520		
13,404	5520	13,378	5546	211	208	91.04	5952	-6080	1472	1053	418.34	3.518		
13,500	5520	13,473	5547	213	211	91.04	6015	-6152	1473	1049	423.14	3.480		
13,504	5520	13,478	5547	213	211	91.04	6018	-6155	1473	1049	423.36	3.478		
13,600	5520	13,573	5547	216	213	91.05	6080	-6227	1474	1045	428.16	3.442		
13,604	5520	13,578	5547	216	213	91.05	6083	-6231	1474	1045	428.39	3.440		
13,700	5521	13,673	5548	218	216	91.05	6146	-6302	1474	1041	433.19	3.404		
13,704	5521	13,678	5548	218	216	91.05	6149	-6306	1474	1041	433.41	3.402		
13,800	5521	13,773	5548	221	218	91.05	6212	-6378	1475	1037	438.22	3.367		
13,804	5521	13,778	5548	221	218	91.05	6215	-6381	1475	1037	438.44	3.365		
13,900	5522	13,868	5549	223	221	91.05	6275	-6449	1477	1033	443.07	3.332		
13,904	5522	13,873	5549	223	221	91.06	6278	-6452	1477	1033	443.30	3.331 SF		
14,000	5522	13,877	5549	226	221	91.06	6281	-6455	1481	1036	444.26	3.333		
14,100	5523	13,877	5549	228	221	91.06	6281	-6455	1491	1048	443.20	3.365		
14,200	5523	13,877	5549	231	221	91.06	6281	-6455	1509	1069	440.26	3.427		
14,300	5524	13,877	5549	233	221	91.06	6281	-6455	1532	1097	435.60	3.518		
14,400	5524	13,877	5549	236	221	91.06	6281	-6455	1562	1133	429.44	3.638		
14,500	5525	13,877	5549	238	221	91.06	6281	-6455	1598	1176	422.02	3.786		
14,600	5525	13,877	5549	241	221	91.06	6281	-6455	1639	1225	413.59	3.962		
14,700	5526	13,877	5549	243	221	91.06	6281	-6455	1684	1280	404.40	4.165		
14,800	5526	13,877	5549	246	221	91.06	6281	-6455	1735	1340	394.67	4.395		
14,900	5526	13,877	5549	248	221	91.06	6281	-6455	1789	1405	384.62	4.652		
15,000	5527	13,877	5549	251	221	91.06	6281	-6455	1847	1473	374.41	4.934		
15,100	5527	13,877	5549	253	221	91.06	6281	-6455	1909	1545	364.18	5.243		
15,200	5528	13,877	5549	256	221	91.06	6281	-6455	1974	1620	354.04	5.576		
15,300	5528	13,877	5549	258	221	91.06	6281	-6455	2042	1698	344.09	5.934		
15,400	5529	13,877	5549	261	221	91.06	6281	-6455	2112	1778	334.40	6.317		
15,500	5529	13,877	5549	263	221	91.06	6281	-6455	2185	1860	325.00	6.723		
15,600	5530	13,877	5549	266	221	91.06	6281	-6455	2260	1944	315.92	7.152		
15,700	5530	13,877	5549	268	221	91.06	6281	-6455	2336	2029	307.20	7.605		
15,800	5531	13,877	5549	271	221	91.06	6281	-6455	2415	2116	298.83	8.080		
15,884	5531	13,877	5549	273	221	91.06	6281	-6455	2482	2189	292.07	8.496		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - Federal B-11 - OH - OH													Offset Site Error:	0 ft
Survey Program: 105-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		
0	0	0	0	0	0	-61.24	3554	-6475	7387					
100	100	1	1	0	0	-61.24	3554	-6475	7386	7386	0.34	N/A		
200	200	101	101	1	3	-61.24	3554	-6475	7386	7383	3.73	1,978.111		
300	300	201	201	1	6	-61.24	3554	-6475	7386	7379	7.13	1,036.084		
350	350	252	252	1	8	-61.24	3554	-6475	7386	7377	8.85	834.421		
400	400	305	305	1	9	49.01	3554	-6475	7386	7375	10.64	694.298		
500	500	401	401	2	12	49.07	3554	-6475	7384	7370	13.90	531.303		
600	600	501	501	2	15	49.18	3554	-6475	7379	7362	17.28	426.964		
700	699	604	604	2	18	49.35	3555	-6475	7373	7352	20.79	354.653		
800	798	699	699	3	21	49.56	3554	-6475	7363	7339	24.06	306.006		
900	897	802	802	3	24	49.85	3555	-6475	7352	7325	27.58	266.572		
971	966	867	867	4	26	50.07	3554	-6475	7342	7313	29.87	245.781		
1000	994	896	895	4	27	50.11	3554	-6475	7338	7308	30.86	237.772		
1100	1092	993	993	4	30	50.23	3554	-6475	7324	7290	34.27	213.728		
1200	1190	1091	1091	5	33	50.36	3554	-6475	7311	7273	37.69	193.976		
1300	1287	1189	1188	5	36	50.49	3554	-6475	7297	7256	41.11	177.474		
1400	1385	1286	1286	6	39	50.62	3554	-6475	7283	7238	44.54	163.494		
1500	1483	1403	1403	6	43	50.78	3555	-6475	7269	7221	48.56	149.699		
1600	1580	1525	1525	7	46	50.93	3554	-6475	7255	7202	52.73	137.600		
1700	1678	1580	1579	7	48	51.01	3554	-6475	7241	7187	54.87	131.986		
1800	1776	1677	1677	8	51	51.14	3554	-6475	7228	7169	58.31	123.952		
1900	1873	1780	1780	8	54	51.29	3556	-6475	7215	7153	61.91	116.529		
2000	1971	1901	1901	9	58	51.45	3555	-6475	7201	7135	66.08	108.976		
2100	2069	2023	2022	10	61	51.60	3554	-6475	7187	7117	70.25	102.308		
2200	2166	2068	2067	10	63	51.67	3554	-6475	7173	7101	72.12	99.468		
2300	2264	2166	2165	11	66	51.80	3554	-6475	7160	7084	75.57	94.742		
2400	2362	2265	2265	11	69	51.94	3555	-6475	7147	7068	79.09	90.361		
2500	2459	2378	2377	12	72	52.10	3555	-6475	7133	7050	82.99	85.954		
2600	2557	2490	2489	12	76	52.25	3554	-6475	7120	7033	86.89	81.938		
2700	2655	2556	2556	13	78	52.34	3554	-6475	7106	7017	89.41	79.481		
2800	2752	2654	2653	13	81	52.47	3554	-6475	7093	7000	92.87	76.375		
2900	2850	2752	2752	14	84	52.62	3555	-6475	7080	6984	96.35	73.485		
3000	2948	2865	2864	14	87	52.77	3555	-6475	7067	6966	100.25	70.489		
3100	3045	2977	2976	15	90	52.93	3554	-6475	7053	6949	104.16	67.715		
3200	3143	3045	3044	15	92	53.02	3554	-6475	7040	6933	106.72	65.964		
3300	3241	3142	3142	16	95	53.16	3554	-6475	7027	6917	110.19	63.770		
3400	3338	3240	3239	17	98	53.30	3554	-6475	7014	6900	113.66	61.709		
3500	3436	3344	3344	17	102	53.45	3555	-6475	7001	6884	117.32	59.672		
3600	3534	3449	3448	18	105	53.59	3554	-6475	6988	6867	121.00	57.749		
3700	3631	3556	3555	18	108	53.75	3554	-6475	6975	6850	124.76	55.906		
3800	3729	3631	3630	19	110	53.85	3554	-6475	6962	6834	127.54	54.587		
3900	3827	3728	3728	19	113	54.00	3554	-6475	6949	6818	131.01	53.042		
4000	3924	3835	3835	20	116	54.16	3555	-6475	6937	6802	134.77	51.472		
4100	4022	3951	3950	20	120	54.32	3555	-6475	6924	6785	138.77	49.893		
4200	4120	4021	4021	21	122	54.42	3554	-6475	6911	6769	141.43	48.862		
4300	4217	4119	4118	21	125	54.56	3554	-6475	6898	6753	144.91	47.602		
4400	4315	4217	4216	22	128	54.71	3554	-6475	6885	6737	148.39	46.402		
4500	4413	4325	4325	23	131	54.88	3555	-6475	6873	6721	152.20	45.161		
4600	4510	4438	4437	23	135	55.04	3555	-6475	6860	6704	156.13	43.941		
4700	4608	4510	4509	24	137	55.14	3554	-6475	6848	6689	158.82	43.115		
4800	4706	4607	4607	24	140	55.29	3554	-6475	6835	6673	162.30	42.114		
4900	4803	4705	4704	25	143	55.43	3554	-6475	6823	6657	165.78	41.155		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - Federal B-11 - OH - OH											Offset Site Error:	0 ft
Survey Program: 105-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
5000	4901	4816	4815	25	146	55.61	3555	-6475	6811	6641	169.67	40.143
5107	5005	4942	4941	26	150	55.79	3555	-6475	6798	6624	174.04	39.057
5150	5047	4993	4992	26	152	40.70	3554	-6475	6790	6615	175.81	38.623
5200	5095	4997	4996	26	152	29.37	3554	-6475	6778	6602	176.19	38.470
5250	5141	5044	5042	27	153	22.16	3554	-6475	6761	6584	177.85	38.017
5300	5186	5088	5087	27	155	17.25	3554	-6475	6741	6561	179.45	37.562
5350	5229	5131	5130	28	156	13.68	3554	-6475	6716	6535	180.98	37.107
5400	5270	5185	5184	28	157	10.94	3555	-6475	6687	6505	182.80	36.583
5450	5308	5237	5236	28	159	8.66	3555	-6475	6655	6471	184.56	36.059
5500	5343	5284	5283	29	160	6.63	3554	-6475	6619	6433	186.17	35.556
5550	5374	5327	5326	29	162	4.66	3554	-6475	6580	6393	187.60	35.077
5600	5402	5305	5303	30	161	2.52	3554	-6475	6539	6352	187.05	34.959
5650	5427	5329	5328	30	162	0.06	3554	-6475	6495	6308	187.87	34.573
5700	5447	5349	5348	31	162	-3.21	3554	-6475	6450	6261	188.55	34.207
5750	5463	5365	5364	32	163	-8.17	3554	-6475	6402	6213	189.07	33.863
5800	5475	5377	5376	32	163	-17.10	3554	-6475	6354	6164	189.43	33.543
5850	5482	5384	5383	33	164	-37.07	3554	-6475	6305	6115	189.63	33.247
5904	5485	5387	5386	34	164	-87.28	3554	-6475	6251	6061	189.66	32.957
6000	5485	5388	5386	35	164	-87.32	3554	-6475	6155	5966	189.56	32.472
6100	5486	5388	5387	37	164	-87.36	3554	-6475	6056	5866	189.44	31.966
6200	5486	5388	5387	38	164	-87.41	3554	-6475	5956	5767	189.33	31.460
6300	5487	5389	5388	40	164	-87.45	3554	-6475	5857	5668	189.22	30.953
6400	5487	5389	5388	42	164	-87.49	3554	-6475	5757	5568	189.10	30.445
6500	5488	5390	5389	44	164	-87.54	3554	-6475	5658	5469	188.99	29.938
6600	5488	5390	5389	46	164	-87.58	3554	-6475	5559	5370	188.87	29.430
6700	5489	5391	5390	48	164	-87.62	3554	-6475	5459	5270	188.76	28.921
6800	5489	5391	5390	50	164	-87.67	3554	-6475	5360	5171	188.64	28.412
6900	5490	5392	5391	52	164	-87.71	3554	-6475	5260	5072	188.53	27.902
7000	5490	5392	5391	54	164	-87.76	3554	-6475	5161	4973	188.41	27.392
7100	5491	5393	5392	56	164	-87.80	3554	-6475	5062	4873	188.30	26.881
7200	5491	5393	5392	59	164	-87.84	3554	-6475	4962	4774	188.19	26.370
7300	5491	5394	5392	61	164	-87.89	3554	-6475	4863	4675	188.08	25.858
7400	5492	5394	5393	63	164	-87.93	3554	-6475	4764	4576	187.97	25.344
7500	5492	5394	5393	65	164	-87.97	3554	-6475	4665	4477	187.87	24.830
7600	5493	5395	5394	68	164	-88.02	3554	-6475	4566	4378	187.77	24.315
7700	5493	5395	5394	70	164	-88.06	3554	-6475	4467	4279	187.68	23.799
7800	5494	5396	5395	72	164	-88.11	3554	-6475	4368	4180	187.59	23.282
7900	5494	5396	5395	75	164	-88.15	3554	-6475	4269	4081	187.51	22.764
8000	5495	5397	5396	77	164	-88.19	3554	-6475	4170	3982	187.45	22.244
8100	5495	5397	5396	80	164	-88.24	3554	-6475	4071	3883	187.39	21.723
8200	5496	5398	5397	82	164	-88.28	3554	-6475	3972	3784	187.35	21.200
8300	5496	5398	5397	84	164	-88.32	3554	-6475	3873	3686	187.33	20.675
8400	5496	5399	5397	87	164	-88.37	3554	-6475	3774	3587	187.32	20.148
8500	5497	5399	5398	89	164	-88.41	3554	-6475	3676	3488	187.34	19.619
8600	5497	5400	5398	92	164	-88.46	3554	-6475	3577	3390	187.39	19.088
8700	5498	5400	5399	94	164	-88.50	3554	-6475	3478	3291	187.47	18.555
8800	5498	5400	5399	96	164	-88.54	3554	-6475	3380	3192	187.58	18.018
8900	5499	5401	5400	99	164	-88.59	3554	-6475	3282	3094	187.74	17.479
9000	5499	5401	5400	101	164	-88.63	3554	-6475	3183	2995	187.95	16.937
9100	5500	5402	5401	104	164	-88.67	3554	-6475	3085	2897	188.22	16.392
9200	5500	5402	5401	106	164	-88.72	3554	-6475	2987	2799	188.55	15.843
9300	5501	5403	5402	109	164	-88.76	3554	-6475	2889	2700	188.96	15.291

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - Federal B-11 - OH - OH											Offset Site Error:	0 ft
Survey Program: 105-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
9400	5501	5403	5402	111	164	-88.81	3554	-6475	2792	2602	189.45	14.735
9500	5502	5404	5403	113	164	-88.85	3554	-6475	2694	2504	190.05	14.176
9600	5502	5404	5403	116	164	-88.89	3554	-6475	2597	2406	190.76	13.613
9700	5502	5405	5403	118	164	-88.94	3554	-6475	2500	2308	191.60	13.046
9800	5503	5405	5404	121	164	-88.98	3554	-6475	2403	2210	192.58	12.476
9900	5503	5406	5404	123	164	-89.02	3554	-6475	2306	2112	193.73	11.903
10,000	5504	5406	5405	126	164	-89.07	3554	-6475	2210	2015	195.06	11.328
10,100	5504	5406	5405	128	164	-89.11	3554	-6475	2114	1917	196.60	10.750
10,200	5505	5407	5406	131	164	-89.16	3554	-6475	2018	1820	198.39	10.172
10,300	5505	5407	5406	133	164	-89.20	3554	-6475	1923	1722	200.44	9.593
10,400	5506	5408	5407	136	164	-89.24	3554	-6475	1828	1625	202.80	9.014
10,500	5506	5408	5407	138	164	-89.29	3554	-6475	1734	1528	205.50	8.438
10,600	5507	5409	5408	141	164	-89.33	3554	-6475	1641	1432	208.61	7.864
10,700	5507	5409	5408	143	164	-89.38	3554	-6475	1548	1336	212.17	7.296
10,800	5508	5410	5409	146	164	-89.42	3554	-6475	1456	1240	216.26	6.734
10,900	5508	5410	5409	148	164	-89.46	3554	-6475	1366	1145	220.96	6.182
11,000	5508	5411	5409	151	164	-89.51	3554	-6475	1277	1051	226.36	5.641
11,100	5509	5411	5410	153	164	-89.55	3554	-6475	1190	957	232.59	5.115
11,200	5509	5412	5410	156	164	-89.59	3554	-6475	1105	865	239.76	4.608
11,300	5510	5412	5411	158	164	-89.64	3554	-6475	1022	774	248.02	4.122
11,400	5510	5412	5411	161	164	-89.68	3554	-6475	943	686	257.50	3.664
11,500	5511	5413	5412	163	164	-89.73	3554	-6475	869	601	268.31	3.238
11,600	5511	5413	5412	166	164	-89.77	3554	-6475	800	519	280.44	2.852
11,700	5512	5414	5413	168	164	-89.81	3554	-6475	738	444	293.72	2.513
11,800	5512	5414	5413	171	164	-89.86	3554	-6475	685	378	307.63	2.227
11,900	5513	5415	5414	173	164	-89.90	3554	-6475	644	323	321.17	2.004
12,000	5513	5415	5414	176	164	-89.94	3554	-6475	616	283	332.90	1.850
12,100	5514	5416	5415	178	164	-89.99	3554	-6475	603	262	341.20	1.768
12,126	5514	5416	5415	179	164	-90.00	3554	-6475	603	260	342.62	1.759 CC, ES, SF
12,200	5514	5416	5415	181	164	-90.03	3554	-6475	607	262	344.92	1.761
12,300	5514	5417	5415	183	164	-90.08	3554	-6475	627	283	343.97	1.824
12,400	5515	5417	5416	186	165	-90.12	3554	-6475	662	323	339.20	1.952
12,500	5515	5418	5416	188	165	-90.16	3554	-6475	710	378	331.98	2.137
12,600	5516	5418	5417	191	165	-90.21	3554	-6475	767	443	323.58	2.370
12,700	5516	5418	5417	193	165	-90.25	3554	-6475	833	518	314.93	2.643
12,800	5517	5419	5418	196	165	-90.30	3554	-6475	904	598	306.59	2.950
12,900	5517	5419	5418	198	165	-90.34	3554	-6475	981	682	298.84	3.283
13,000	5518	5420	5419	201	165	-90.38	3554	-6475	1062	770	291.79	3.639
13,100	5518	5420	5419	203	165	-90.43	3554	-6475	1146	860	285.45	4.013
13,200	5519	5421	5420	206	165	-90.47	3554	-6475	1232	952	279.77	4.403
13,300	5519	5421	5420	208	165	-90.51	3554	-6475	1320	1045	274.70	4.805
13,400	5520	5422	5421	211	165	-90.56	3554	-6475	1410	1139	270.16	5.217
13,500	5520	5422	5421	213	165	-90.60	3554	-6475	1501	1234	266.11	5.639
13,600	5520	5423	5421	216	165	-90.65	3554	-6475	1593	1330	262.46	6.068
13,700	5521	5423	5422	218	165	-90.69	3554	-6475	1686	1426	259.19	6.504
13,800	5521	5424	5422	221	165	-90.73	3554	-6475	1779	1523	256.23	6.944
13,900	5522	5424	5423	223	165	-90.78	3554	-6475	1874	1620	253.55	7.390
14,000	5522	5424	5423	226	165	-90.82	3554	-6475	1969	1718	251.12	7.840
14,100	5523	5425	5424	228	165	-90.86	3554	-6475	2064	1815	248.91	8.293
14,200	5523	5425	5424	231	165	-90.91	3554	-6475	2160	1913	246.89	8.749
14,300	5524	5426	5425	233	165	-90.95	3554	-6475	2256	2011	245.03	9.208
14,400	5524	5426	5425	236	165	-91.00	3554	-6475	2353	2109	243.33	9.669

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - Federal B-11 - OH - OH													Offset Site Error:	0 ft
Survey Program:		105-INCLINOMETER						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		
14,500	5525	5427	5426	238	165	-91.04	3554	-6475	2450	2208	241.77	10.132		
14,600	5525	5427	5426	241	165	-91.08	3554	-6475	2547	2306	240.32	10.596		
14,700	5526	5428	5427	243	165	-91.13	3554	-6475	2644	2405	238.99	11.063		
14,800	5526	5428	5427	246	165	-91.17	3554	-6475	2741	2504	237.75	11.530		
14,900	5526	5429	5427	248	165	-91.22	3554	-6475	2839	2602	236.60	11.999		
15,000	5527	5429	5428	251	165	-91.26	3554	-6475	2937	2701	235.53	12.469		
15,100	5527	5429	5428	253	165	-91.30	3554	-6475	3035	2800	234.53	12.939		
15,200	5528	5430	5429	256	165	-91.35	3554	-6475	3133	2899	233.60	13.411		
15,300	5528	5430	5429	258	165	-91.39	3554	-6475	3231	2998	232.72	13.883		
15,400	5529	5431	5430	261	165	-91.43	3554	-6475	3329	3097	231.91	14.356		
15,500	5529	5431	5430	263	165	-91.48	3554	-6475	3428	3196	231.14	14.829		
15,600	5530	5432	5431	266	165	-91.52	3554	-6475	3526	3296	230.43	15.302		
15,700	5530	5432	5431	268	165	-91.57	3554	-6475	3625	3395	229.75	15.776		
15,800	5531	5433	5432	271	165	-91.61	3554	-6475	3723	3494	229.12	16.251		
15,884	5531	5433	5432	273	165	-91.65	3554	-6475	3806	3578	228.61	16.650		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - Federal B-13 - OH - OH													Offset Site Error:	0 ft
Survey Program: 376-INCLINOMETER													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0	0	0	0	0	0	-62.86	2472	-4823	5421					
100	100	0	0	0	0	-62.86	2472	-4823	5420	5420	0.31	N/A		
151	151	16	16	0	0	-62.86	2472	-4823	5420	5419	0.99	5,492.371		
200	200	65	65	1	2	-62.86	2472	-4823	5420	5417	2.64	2,052.242		
300	300	165	165	1	5	-62.86	2472	-4823	5420	5414	6.04	897.877		
350	350	215	215	1	7	-62.86	2472	-4823	5420	5412	7.73	700.785		
400	400	265	265	1	8	47.39	2472	-4823	5419	5410	9.43	574.967		
500	500	365	365	2	11	47.45	2472	-4823	5417	5404	12.80	423.091		
600	600	465	465	2	14	47.57	2472	-4823	5412	5396	16.19	334.347		
700	699	564	564	2	17	47.76	2472	-4823	5405	5386	19.58	276.132		
800	798	666	666	3	20	48.02	2473	-4823	5396	5373	23.04	234.174		
900	897	771	771	3	23	48.34	2473	-4823	5384	5358	26.65	202.070		
971	966	846	845	4	26	48.61	2472	-4823	5375	5345	29.21	184.021		
1000	994	876	876	4	27	48.66	2472	-4823	5370	5340	30.25	177.509		
1100	1092	957	957	4	29	48.80	2472	-4823	5356	5323	33.16	161.509		
1200	1190	1055	1055	5	32	48.97	2472	-4823	5342	5305	36.58	146.042		
1300	1287	1153	1153	5	35	49.15	2473	-4823	5328	5288	40.03	133.106		
1400	1385	1258	1258	6	38	49.34	2473	-4823	5313	5270	43.65	121.718		
1500	1483	1362	1362	6	41	49.52	2472	-4823	5299	5252	47.29	112.061		
1600	1580	1446	1445	7	44	49.67	2472	-4823	5285	5235	50.30	105.072		
1700	1678	1543	1543	7	47	49.84	2472	-4823	5271	5217	53.74	98.083		
1800	1776	1641	1641	8	50	50.02	2472	-4823	5257	5200	57.18	91.931		
1900	1873	1747	1747	8	53	50.22	2473	-4823	5243	5182	60.89	86.108		
2000	1971	1855	1854	9	56	50.41	2473	-4823	5229	5164	64.63	80.904		
2100	2069	1934	1934	10	59	50.55	2472	-4823	5215	5147	67.53	77.226		
2200	2166	2032	2031	10	62	50.73	2472	-4823	5201	5130	70.98	73.275		
2300	2264	2129	2129	11	65	50.92	2472	-4823	5187	5113	74.43	69.690		
2400	2362	2233	2232	11	68	51.12	2473	-4823	5174	5096	78.06	66.281		
2500	2459	2337	2337	12	71	51.31	2473	-4823	5160	5078	81.74	63.132		
2600	2557	2422	2422	12	74	51.47	2472	-4823	5146	5061	84.81	60.682		
2700	2655	2520	2520	13	77	51.65	2472	-4823	5133	5044	88.27	58.149		
2800	2752	2618	2617	13	79	51.84	2472	-4823	5119	5027	91.73	55.807		
2900	2850	2719	2718	14	83	52.04	2473	-4823	5106	5011	95.30	53.582		
3000	2948	2823	2823	14	86	52.24	2473	-4823	5093	4994	98.97	51.458		
3100	3045	2928	2927	15	89	52.43	2472	-4823	5079	4976	102.64	49.485		
3200	3143	3008	3008	15	91	52.59	2472	-4823	5066	4960	105.59	47.973		
3300	3241	3106	3106	16	94	52.78	2472	-4823	5052	4943	109.06	46.326		
3400	3338	3206	3206	17	97	52.99	2473	-4823	5040	4927	112.60	44.759		
3500	3436	3314	3313	17	101	53.20	2473	-4823	5027	4910	116.38	43.192		
3600	3534	3422	3421	18	104	53.41	2472	-4823	5013	4893	120.16	41.722		
3700	3631	3497	3496	18	106	53.55	2472	-4823	5000	4877	122.95	40.667		
3800	3729	3594	3594	19	109	53.75	2472	-4823	4987	4861	126.43	39.447		
3900	3827	3693	3692	19	112	53.96	2473	-4823	4975	4845	129.93	38.288		
4000	3924	3798	3798	20	115	54.17	2473	-4823	4962	4828	133.63	37.130		
4100	4022	3903	3903	20	119	54.38	2472	-4823	4949	4812	137.34	36.034		
4200	4120	3985	3985	21	121	54.54	2472	-4823	4936	4796	140.34	35.172		
4300	4217	4083	4082	21	124	54.74	2472	-4823	4923	4780	143.82	34.233		
4400	4315	4180	4180	22	127	54.95	2473	-4823	4911	4764	147.31	33.340		
4500	4413	4283	4283	23	130	55.16	2473	-4823	4899	4748	150.94	32.454		
4600	4510	4386	4385	23	133	55.37	2472	-4823	4886	4731	154.57	31.609		
4700	4608	4473	4473	24	136	55.56	2472	-4823	4873	4716	157.76	30.892		
4800	4706	4571	4571	24	139	55.76	2472	-4823	4861	4700	161.24	30.148		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - Federal B-13 - OH - OH													Offset Site Error:	0 ft
Survey Program:		376-INCLINOMETER					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	
4900	4803	4669	4668	25	142	55.97	2472	-4823	4849	4684	164.73	29.435		
5000	4901	4774	4773	25	145	56.20	2473	-4823	4837	4669	168.44	28.716		
5107	5005	4886	4886	26	148	56.44	2472	-4823	4824	4651	172.41	27.978		
5150	5047	4932	4931	26	150	41.37	2472	-4823	4817	4643	174.02	27.679		
5200	5095	4960	4960	26	151	30.12	2472	-4823	4805	4629	175.16	27.430		
5250	5141	5007	5006	27	152	22.96	2472	-4823	4788	4611	176.83	27.078		
5300	5186	5052	5051	27	153	18.12	2472	-4823	4767	4589	178.43	26.718		
5350	5229	5095	5094	28	155	14.62	2472	-4823	4743	4563	179.97	26.353		
5400	5270	5135	5135	28	156	11.95	2472	-4823	4714	4533	181.41	25.985		
5450	5308	5173	5173	28	157	9.77	2472	-4823	4682	4499	182.76	25.617		
5500	5343	5210	5210	29	158	7.89	2473	-4823	4647	4463	184.05	25.247		
5550	5374	5244	5243	29	159	6.10	2473	-4823	4608	4423	185.22	24.878		
5600	5402	5274	5273	30	160	4.25	2473	-4823	4567	4380	186.26	24.518		
5650	5427	5300	5299	30	161	2.11	2473	-4823	4523	4336	187.14	24.169		
5700	5447	5321	5321	31	162	-0.69	2473	-4823	4477	4289	187.86	23.832		
5750	5463	5338	5338	32	162	-4.93	2473	-4823	4430	4241	188.42	23.510		
5800	5475	5351	5350	32	162	-12.73	2473	-4823	4381	4192	188.81	23.205		
5850	5482	5359	5358	33	163	-31.49	2473	-4823	4332	4143	189.03	22.917		
5904	5485	5362	5361	34	163	-88.58	2473	-4823	4278	4089	189.07	22.626		
6000	5485	5362	5361	35	163	-88.61	2473	-4823	4182	3993	188.97	22.133		
6100	5486	5362	5361	37	163	-88.64	2473	-4823	4083	3894	188.86	21.618		
6200	5486	5362	5362	38	163	-88.67	2473	-4823	3983	3794	188.75	21.103		
6300	5487	5362	5362	40	163	-88.70	2473	-4823	3884	3695	188.63	20.588		
6400	5487	5362	5362	42	163	-88.73	2473	-4823	3784	3595	188.51	20.073		
6500	5488	5363	5362	44	163	-88.76	2473	-4823	3684	3496	188.38	19.558		
6600	5488	5363	5362	46	163	-88.79	2473	-4823	3585	3397	188.25	19.043		
6700	5489	5363	5363	48	163	-88.82	2473	-4823	3485	3297	188.12	18.527		
6800	5489	5363	5363	50	163	-88.85	2473	-4823	3386	3198	187.99	18.011		
6900	5490	5363	5363	52	163	-88.88	2473	-4823	3286	3099	187.85	17.495		
7000	5490	5364	5363	54	163	-88.91	2473	-4823	3187	2999	187.71	16.978		
7100	5491	5364	5363	56	163	-88.94	2473	-4823	3088	2900	187.56	16.462		
7200	5491	5364	5363	59	163	-88.97	2473	-4823	2988	2801	187.41	15.944		
7300	5491	5364	5364	61	163	-89.00	2473	-4823	2889	2702	187.26	15.427		
7400	5492	5364	5364	63	163	-89.03	2473	-4823	2790	2603	187.11	14.909		
7500	5492	5364	5364	65	163	-89.06	2473	-4823	2690	2503	186.96	14.390		
7600	5493	5365	5364	68	163	-89.09	2473	-4823	2591	2404	186.82	13.871		
7700	5493	5365	5364	70	163	-89.12	2473	-4823	2492	2306	186.68	13.350		
7800	5494	5365	5364	72	163	-89.14	2473	-4823	2393	2207	186.54	12.829		
7900	5494	5365	5365	75	163	-89.17	2473	-4823	2294	2108	186.42	12.307		
8000	5495	5365	5365	77	163	-89.20	2473	-4823	2195	2009	186.32	11.783		
8100	5495	5365	5365	80	163	-89.23	2473	-4823	2097	1911	186.24	11.258		
8200	5496	5366	5365	82	163	-89.26	2473	-4823	1998	1812	186.20	10.731		
8300	5496	5366	5365	84	163	-89.29	2473	-4823	1900	1714	186.21	10.202		
8400	5496	5366	5366	87	163	-89.32	2473	-4823	1802	1615	186.29	9.671		
8500	5497	5366	5366	89	163	-89.34	2473	-4823	1703	1517	186.45	9.136		
8600	5497	5366	5366	92	163	-89.37	2473	-4823	1606	1419	186.74	8.599		
8700	5498	5366	5366	94	163	-89.40	2473	-4823	1508	1321	187.19	8.057		
8800	5498	5367	5366	96	163	-89.43	2473	-4823	1411	1223	187.85	7.511		
8900	5499	5367	5366	99	163	-89.46	2473	-4823	1314	1125	188.79	6.962		
9000	5499	5367	5367	101	163	-89.48	2473	-4823	1218	1028	190.09	6.408		
9100	5500	5367	5367	104	163	-89.51	2473	-4823	1122	931	191.88	5.850		
9200	5500	5367	5367	106	163	-89.54	2473	-4823	1028	834	194.28	5.290		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - Federal B-13 - OH - OH												Offset Site Error:	0 ft
Survey Program: 376-INCLINOMETER												Offset Well Error:	0 ft
Reference	Offset	Rule Assigned:											
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)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
9300	5501	5367	5367	109	163	-89.57	2473	-4823	934	737	197.48	4.730	
9400	5501	5368	5367	111	163	-89.59	2473	-4823	842	640	201.72	4.174	
9500	5502	5368	5367	113	163	-89.62	2473	-4823	752	545	207.31	3.627	
9600	5502	5368	5368	116	163	-89.65	2473	-4823	665	450	214.66	3.096	
9700	5502	5368	5368	118	163	-89.68	2473	-4823	581	357	224.27	2.593	
9800	5503	5368	5368	121	163	-89.70	2473	-4823	504	268	236.68	2.131	
9900	5503	5368	5368	123	163	-89.73	2473	-4823	437	185	252.11	1.733	
10,000	5504	5369	5368	126	163	-89.76	2473	-4823	384	114	269.57	1.423	Level 3
10,100	5504	5369	5368	128	163	-89.78	2473	-4823	351	66	285.38	1.232	Level 3
10,168	5505	5369	5368	130	163	-89.80	2473	-4823	345	53	292.21	1.180	Level 3, CC
10,200	5505	5369	5369	131	163	-89.81	2473	-4823	346	52	293.79	1.178	Level 3, ES, SF
10,300	5505	5369	5369	133	163	-89.84	2473	-4823	369	77	292.20	1.263	Level 3
10,400	5506	5369	5369	136	163	-89.86	2473	-4823	415	132	283.84	1.464	Level 3
10,500	5506	5369	5369	138	163	-89.89	2473	-4823	478	205	273.37	1.750	
10,600	5507	5370	5369	141	163	-89.92	2473	-4823	553	289	263.46	2.097	
10,700	5507	5370	5369	143	163	-89.94	2473	-4823	634	379	254.96	2.486	
10,800	5508	5370	5369	146	163	-89.97	2473	-4823	720	472	247.91	2.903	
10,900	5508	5370	5370	148	163	-90.00	2473	-4823	809	567	242.13	3.341	
11,000	5508	5370	5370	151	163	-90.02	2473	-4823	900	663	237.36	3.793	
11,100	5509	5370	5370	153	163	-90.05	2473	-4823	993	760	233.40	4.257	
11,200	5509	5371	5370	156	163	-90.07	2473	-4823	1088	858	230.09	4.728	
11,300	5510	5371	5370	158	163	-90.10	2473	-4823	1183	956	227.28	5.205	
11,400	5510	5371	5370	161	163	-90.13	2473	-4823	1279	1054	224.89	5.688	
11,500	5511	5371	5371	163	163	-90.15	2473	-4823	1376	1153	222.83	6.174	
11,600	5511	5371	5371	166	163	-90.18	2473	-4823	1473	1252	221.04	6.662	
11,700	5512	5371	5371	168	163	-90.20	2473	-4823	1570	1351	219.48	7.154	
11,800	5512	5371	5371	171	163	-90.23	2473	-4823	1668	1450	218.11	7.647	
11,900	5513	5372	5371	173	163	-90.25	2473	-4823	1766	1549	216.89	8.141	
12,000	5513	5372	5371	176	163	-90.28	2473	-4823	1864	1648	215.81	8.637	
12,100	5514	5372	5371	178	163	-90.30	2473	-4823	1962	1747	214.84	9.134	
12,200	5514	5372	5372	181	163	-90.33	2473	-4823	2061	1847	213.97	9.631	
12,300	5514	5372	5372	183	163	-90.35	2473	-4823	2159	1946	213.19	10.129	
12,400	5515	5372	5372	186	163	-90.38	2473	-4823	2258	2046	212.48	10.628	
12,500	5515	5373	5372	188	163	-90.40	2473	-4823	2357	2145	211.84	11.127	
12,600	5516	5373	5372	191	163	-90.43	2473	-4823	2456	2245	211.26	11.626	
12,700	5516	5373	5372	193	163	-90.45	2473	-4823	2555	2344	210.72	12.126	
12,800	5517	5373	5373	196	163	-90.48	2473	-4823	2654	2444	210.23	12.625	
12,900	5517	5373	5373	198	163	-90.50	2473	-4823	2753	2544	209.78	13.125	
13,000	5518	5373	5373	201	163	-90.53	2473	-4823	2853	2643	209.37	13.625	
13,100	5518	5373	5373	203	163	-90.55	2473	-4823	2952	2743	208.99	14.125	
13,200	5519	5374	5373	206	163	-90.58	2473	-4823	3051	2843	208.64	14.625	
13,300	5519	5374	5373	208	163	-90.60	2473	-4823	3151	2942	208.32	15.124	
13,400	5520	5374	5373	211	163	-90.62	2473	-4823	3250	3042	208.02	15.624	
13,500	5520	5374	5374	213	163	-90.65	2473	-4823	3350	3142	207.74	16.124	
13,600	5520	5374	5374	216	163	-90.67	2473	-4823	3449	3242	207.48	16.623	
13,700	5521	5374	5374	218	163	-90.70	2473	-4823	3549	3341	207.25	17.122	
13,800	5521	5374	5374	221	163	-90.72	2473	-4823	3648	3441	207.02	17.622	
13,900	5522	5375	5374	223	163	-90.74	2473	-4823	3748	3541	206.82	18.120	
14,000	5522	5375	5374	226	163	-90.77	2473	-4823	3847	3641	206.63	18.619	
14,100	5523	5375	5374	228	163	-90.79	2473	-4823	3947	3740	206.45	19.118	
14,200	5523	5375	5375	231	163	-90.82	2473	-4823	4046	3840	206.28	19.616	
14,300	5524	5375	5375	233	163	-90.84	2473	-4823	4146	3940	206.13	20.114	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC
Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - Federal B-13 - OH - OH												Offset Site Error:	0 ft
Survey Program: 376-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)			
14,400	5524	5375	5375	236	163	-90.86	2473	-4823	4246	4040	205.98	20.612	
14,500	5525	5375	5375	238	163	-90.89	2473	-4823	4345	4140	205.85	21.110	
14,600	5525	5376	5375	241	163	-90.91	2473	-4823	4445	4239	205.73	21.607	
14,700	5526	5376	5375	243	163	-90.93	2473	-4823	4545	4339	205.61	22.104	
14,800	5526	5376	5375	246	163	-90.96	2473	-4823	4645	4439	205.50	22.601	
14,900	5526	5376	5376	248	163	-90.98	2473	-4823	4744	4539	205.40	23.097	
15,000	5527	5376	5376	251	163	-91.00	2473	-4823	4844	4639	205.31	23.593	
15,100	5527	5376	5376	253	163	-91.03	2473	-4823	4944	4739	205.23	24.089	
15,200	5528	5376	5376	256	163	-91.05	2473	-4823	5044	4838	205.15	24.585	
15,300	5528	5377	5376	258	163	-91.07	2473	-4823	5143	4938	205.08	25.080	
15,400	5529	5377	5376	261	163	-91.09	2473	-4823	5243	5038	205.01	25.575	
15,500	5529	5377	5376	263	163	-91.12	2473	-4823	5343	5138	204.95	26.070	
15,600	5530	5377	5377	266	163	-91.14	2473	-4823	5443	5238	204.89	26.564	
15,700	5530	5377	5377	268	163	-91.16	2473	-4823	5542	5338	204.84	27.058	
15,800	5531	5377	5377	271	163	-91.18	2473	-4823	5642	5437	204.79	27.551	
15,884	5531	5377	5377	273	163	-91.20	2473	-4823	5726	5521	204.75	27.966	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - Federal B-22 - OH - OH													Offset Site Error:	0 ft
Survey Program: 202-INCLINOMETER													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Reference		Offset	Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Toolface (°)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation (ft)	Factor	
0	0	0	0	0	0	-56.44		3347	-5046	6057				
100	100	0	0	0	0	-56.44		3347	-5046	6055	6055	0.31	N/A	
162	162	16	16	1	0	-56.44		3347	-5046	6055	6054	1.01	6,010.440	
200	200	54	54	1	2	-56.44		3347	-5046	6055	6053	2.31	2,624.818	
300	300	154	154	1	5	-56.44		3347	-5046	6055	6049	5.70	1,061.892	
350	350	204	204	1	6	-56.44		3347	-5046	6055	6048	7.40	818.240	
400	400	254	254	1	8	53.81		3347	-5046	6055	6046	9.09	665.950	
500	500	354	354	2	11	53.87		3347	-5046	6053	6040	12.47	485.385	
600	600	454	454	2	14	53.99		3347	-5046	6049	6033	15.85	381.509	
700	699	563	563	2	17	54.19		3348	-5046	6043	6023	19.53	309.357	
800	798	674	674	3	20	54.44		3348	-5046	6035	6011	23.29	259.072	
900	897	751	751	3	23	54.71		3347	-5046	6024	5998	26.04	231.334	
971	966	820	820	4	25	54.96		3347	-5046	6016	5987	28.46	211.377	
1000	994	849	848	4	26	55.00		3347	-5046	6012	5983	29.45	204.147	
1100	1092	946	946	4	29	55.17		3347	-5046	5999	5967	32.87	182.538	
1200	1190	1049	1049	5	32	55.35		3348	-5046	5987	5951	36.47	164.197	
1300	1287	1157	1157	5	35	55.53		3347	-5046	5975	5935	40.20	148.622	
1400	1385	1239	1239	6	38	55.67		3347	-5046	5962	5919	43.18	138.087	
1500	1483	1337	1337	6	41	55.84		3347	-5046	5950	5903	46.63	127.610	
1600	1580	1446	1446	7	44	56.03		3348	-5046	5938	5888	50.44	117.737	
1700	1678	1567	1567	7	48	56.24		3347	-5046	5925	5871	54.60	108.521	
1800	1776	1630	1630	8	49	56.35		3347	-5046	5913	5856	57.00	103.753	
1900	1873	1728	1727	8	52	56.52		3347	-5046	5901	5841	60.46	97.612	
2000	1971	1825	1825	9	55	56.69		3347	-5046	5889	5825	63.92	92.135	
2100	2069	1934	1934	10	59	56.89		3348	-5046	5878	5810	67.71	86.806	
2200	2166	2043	2043	10	62	57.08		3348	-5046	5866	5794	71.53	82.008	
2300	2264	2152	2152	11	65	57.27		3347	-5046	5853	5778	75.34	77.691	
2400	2362	2216	2216	11	67	57.38		3347	-5046	5842	5764	77.80	75.086	
2500	2459	2314	2313	12	70	57.56		3347	-5046	5830	5749	81.27	71.733	
2600	2557	2411	2411	12	73	57.74		3347	-5046	5818	5733	84.75	68.655	
2700	2655	2519	2519	13	77	57.95		3350	-5046	5808	5720	88.53	65.608	
2800	2752	2638	2638	13	80	58.16		3349	-5046	5796	5704	92.65	62.560	
2900	2850	2757	2757	14	84	58.37		3348	-5046	5784	5687	96.78	59.767	
3000	2948	2877	2876	14	87	58.57		3346	-5046	5772	5671	100.91	57.197	
3100	3045	2900	2899	15	88	58.62		3347	-5046	5761	5658	102.14	56.396	
3200	3143	3009	3009	15	91	58.83		3348	-5046	5750	5644	105.98	54.256	
3300	3241	3146	3145	16	96	59.08		3347	-5046	5738	5627	110.63	51.868	
3400	3338	3193	3192	17	97	59.17		3347	-5046	5727	5614	112.59	50.861	
3500	3436	3291	3290	17	100	59.35		3347	-5046	5715	5599	116.08	49.237	
3600	3534	3388	3388	18	103	59.53		3347	-5046	5704	5585	119.56	47.709	
3700	3631	3492	3491	18	106	59.74		3349	-5046	5694	5571	123.23	46.209	
3800	3729	3604	3603	19	109	59.94		3348	-5046	5683	5556	127.14	44.700	
3900	3827	3715	3714	19	113	60.15		3347	-5046	5672	5541	131.05	43.279	
4000	3924	3779	3778	20	115	60.27		3347	-5046	5660	5527	133.52	42.392	
4100	4022	3877	3876	20	118	60.45		3347	-5046	5650	5513	137.01	41.233	
4200	4120	3975	3974	21	121	60.64		3347	-5046	5639	5498	140.51	40.132	
4300	4217	4107	4106	21	125	60.91		3348	-5046	5629	5484	145.05	38.807	
4400	4315	4244	4242	22	129	61.15		3346	-5046	5618	5468	149.70	37.526	
4500	4413	4268	4267	23	130	61.20		3347	-5046	5607	5456	150.99	37.133	
4600	4510	4366	4364	23	133	61.39		3347	-5046	5596	5442	154.49	36.225	
4700	4608	4487	4486	24	136	61.64		3349	-5046	5587	5428	158.70	35.205	
4800	4706	4629	4628	24	141	61.91		3347	-5046	5576	5412	163.54	34.095	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - Federal B-22 - OH - OH												Offset Site Error:	0 ft
Survey Program: 202-INCLINOMETER												Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Reference		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)			
4900	4803	4659	4657	25	141	61.97	3347	-5046	5565	5400	164.99	33.731	
5000	4901	4757	4755	25	144	62.16	3347	-5046	5555	5386	168.49	32.970	
5107	5005	4861	4859	26	148	62.37	3347	-5046	5544	5372	172.22	32.192	
5150	5047	4905	4903	26	149	47.40	3350	-5046	5540	5366	173.79	31.878	
5200	5095	4971	4970	26	151	36.36	3350	-5046	5529	5353	176.08	31.398	
5250	5141	5036	5035	27	153	29.44	3349	-5046	5513	5334	178.32	30.915	
5300	5186	5099	5097	27	155	24.92	3349	-5046	5493	5312	180.48	30.433	
5350	5229	5159	5157	28	157	21.84	3348	-5046	5468	5285	182.54	29.955	
5400	5270	5215	5213	28	158	19.70	3346	-5046	5440	5255	184.49	29.485	
5450	5308	5267	5265	28	160	18.21	3345	-5046	5407	5221	186.30	29.026	
5500	5343	5199	5197	29	158	16.85	3347	-5046	5373	5188	184.51	29.120	
5550	5374	5231	5228	29	159	16.17	3347	-5046	5335	5149	185.67	28.732	
5600	5402	5259	5256	30	160	15.84	3347	-5046	5294	5107	186.71	28.354	
5650	5427	5283	5281	30	160	15.86	3347	-5046	5251	5063	187.61	27.987	
5700	5447	5303	5301	31	161	16.34	3347	-5046	5205	5017	188.37	27.634	
5750	5463	5319	5317	32	162	17.52	3347	-5046	5158	4969	188.97	27.296	
5800	5475	5331	5329	32	162	20.17	3347	-5046	5110	4920	189.42	26.975	
5850	5482	5338	5336	33	162	27.42	3347	-5046	5060	4871	189.72	26.673	
5904	5485	5341	5339	34	162	82.39	3347	-5046	5006	4816	189.85	26.369	
6000	5485	5342	5339	35	162	82.53	3347	-5046	4911	4721	189.93	25.855	
6100	5486	5342	5340	37	162	82.69	3347	-5046	4811	4621	190.01	25.318	
6200	5486	5342	5340	38	162	82.84	3347	-5046	4711	4521	190.10	24.780	
6300	5487	5343	5341	40	162	82.99	3347	-5046	4611	4421	190.19	24.243	
6400	5487	5343	5341	42	162	83.14	3347	-5046	4511	4321	190.28	23.706	
6500	5488	5344	5342	44	162	83.29	3347	-5046	4411	4221	190.38	23.169	
6600	5488	5344	5342	46	162	83.44	3347	-5046	4311	4120	190.48	22.632	
6700	5489	5345	5343	48	162	83.59	3347	-5046	4211	4020	190.58	22.096	
6800	5489	5345	5343	50	162	83.74	3347	-5046	4111	3920	190.70	21.559	
6900	5490	5346	5344	52	162	83.89	3347	-5046	4011	3820	190.81	21.022	
7000	5490	5346	5344	54	162	84.04	3347	-5046	3911	3720	190.93	20.485	
7100	5491	5347	5345	56	162	84.20	3347	-5046	3811	3620	191.06	19.949	
7200	5491	5347	5345	59	162	84.35	3347	-5046	3712	3520	191.20	19.412	
7300	5491	5348	5345	61	162	84.50	3347	-5046	3612	3420	191.34	18.876	
7400	5492	5348	5346	63	162	84.65	3347	-5046	3512	3320	191.49	18.340	
7500	5492	5348	5346	65	162	84.80	3347	-5046	3412	3220	191.64	17.803	
7600	5493	5349	5347	68	162	84.95	3347	-5046	3312	3120	191.81	17.267	
7700	5493	5349	5347	70	162	85.10	3347	-5046	3212	3020	191.99	16.731	
7800	5494	5350	5348	72	162	85.26	3347	-5046	3112	2920	192.17	16.195	
7900	5494	5350	5348	75	162	85.41	3347	-5046	3012	2820	192.37	15.660	
8000	5495	5351	5349	77	162	85.56	3347	-5046	2913	2720	192.59	15.124	
8100	5495	5351	5349	80	163	85.71	3347	-5046	2813	2620	192.81	14.588	
8200	5496	5352	5350	82	163	85.87	3347	-5046	2713	2520	193.06	14.053	
8300	5496	5352	5350	84	163	86.02	3347	-5046	2613	2420	193.32	13.518	
8400	5496	5353	5350	87	163	86.17	3347	-5046	2513	2320	193.60	12.983	
8500	5497	5353	5351	89	163	86.32	3347	-5046	2414	2220	193.91	12.448	
8600	5497	5354	5351	92	163	86.47	3347	-5046	2314	2120	194.24	11.913	
8700	5498	5354	5352	94	163	86.63	3347	-5046	2214	2020	194.60	11.378	
8800	5498	5354	5352	96	163	86.78	3347	-5046	2115	1920	195.00	10.844	
8900	5499	5355	5353	99	163	86.93	3347	-5046	2015	1820	195.44	10.310	
9000	5499	5355	5353	101	163	87.08	3347	-5046	1915	1719	195.93	9.776	
9100	5500	5356	5354	104	163	87.24	3347	-5046	1816	1619	196.47	9.242	
9200	5500	5356	5354	106	163	87.39	3347	-5046	1716	1519	197.08	8.708	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - Federal B-22 - OH - OH												Offset Site Error:	0 ft
Survey Program: 202-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)			
9300	5501	5357	5355	109	163	87.54	3347	-5046	1617	1419	197.77	8.175	
9400	5501	5357	5355	111	163	87.69	3347	-5046	1517	1319	198.56	7.642	
9500	5502	5358	5356	113	163	87.85	3347	-5046	1418	1219	199.46	7.110	
9600	5502	5358	5356	116	163	88.00	3347	-5046	1319	1118	200.51	6.578	
9700	5502	5359	5356	118	163	88.15	3347	-5046	1220	1018	201.74	6.046	
9800	5503	5359	5357	121	163	88.31	3347	-5046	1121	918	203.21	5.516	
9900	5503	5359	5357	123	163	88.46	3347	-5046	1022	817	204.99	4.987	
10,000	5504	5360	5358	126	163	88.61	3347	-5046	924	717	207.17	4.459	
10,100	5504	5360	5358	128	163	88.76	3347	-5046	826	616	209.91	3.934	
10,200	5505	5361	5359	131	163	88.92	3347	-5046	728	515	213.42	3.413	
10,300	5505	5361	5359	133	163	89.07	3347	-5046	632	414	218.06	2.897	
10,400	5506	5362	5360	136	163	89.22	3347	-5046	536	312	224.39	2.389	
10,500	5506	5362	5360	138	163	89.38	3347	-5046	443	209	233.37	1.897	
10,600	5507	5363	5361	141	163	89.53	3347	-5046	353	106	246.65	1.430 Level 3	
10,700	5507	5363	5361	143	163	89.68	3347	-5046	270	3	266.72	1.012 Level 3	
10,800	5508	5364	5362	146	163	89.84	3347	-5046	203	-91	294.13	0.692 Level 3	
10,900	5508	5364	5362	148	163	89.99	3347	-5046	173	-138	310.82	0.556 Level 3, ES, SF	
10,908	5508	5364	5362	148	163	90.00	3347	-5046	173	-138	310.51	0.556 Level 3, CC	
11,000	5508	5365	5362	151	163	90.14	3347	-5046	196	-93	288.85	0.678 Level 3	
11,100	5509	5365	5363	153	163	90.29	3347	-5046	259	3	255.86	1.010 Level 3	
11,200	5509	5365	5363	156	163	90.45	3347	-5046	340	107	232.68	1.459 Level 3	
11,300	5510	5366	5364	158	163	90.60	3347	-5046	429	211	218.11	1.966	
11,400	5510	5366	5364	161	163	90.75	3347	-5046	522	313	208.81	2.499	
11,500	5511	5367	5365	163	163	90.91	3347	-5046	617	414	202.69	3.044	
11,600	5511	5367	5365	166	163	91.06	3347	-5046	714	515	198.55	3.594	
11,700	5512	5368	5366	168	163	91.21	3347	-5046	811	615	195.68	4.144	
11,800	5512	5368	5366	171	163	91.36	3347	-5046	909	715	193.68	4.693	
11,900	5513	5369	5367	173	163	91.52	3347	-5046	1007	815	192.25	5.240	
12,000	5513	5369	5367	176	163	91.67	3347	-5046	1106	915	191.24	5.783	
12,100	5514	5370	5368	178	163	91.82	3347	-5046	1205	1014	190.51	6.324	
12,200	5514	5370	5368	181	163	91.98	3347	-5046	1304	1114	190.00	6.863	
12,300	5514	5371	5368	183	163	92.13	3347	-5046	1403	1213	189.63	7.399	
12,400	5515	5371	5369	186	163	92.28	3347	-5046	1502	1313	189.38	7.933	
12,500	5515	5371	5369	188	163	92.43	3347	-5046	1602	1413	189.21	8.466	
12,600	5516	5372	5370	191	163	92.59	3347	-5046	1701	1512	189.10	8.996	
12,700	5516	5372	5370	193	163	92.74	3347	-5046	1801	1612	189.04	9.525	
12,800	5517	5373	5371	196	163	92.89	3347	-5046	1900	1711	189.02	10.053	
12,900	5517	5373	5371	198	163	93.05	3347	-5046	2000	1811	189.03	10.580	
13,000	5518	5374	5372	201	163	93.20	3347	-5046	2100	1910	189.05	11.105	
13,100	5518	5374	5372	203	163	93.35	3347	-5046	2199	2010	189.10	11.630	
13,200	5519	5375	5373	206	163	93.50	3347	-5046	2299	2110	189.16	12.153	
13,300	5519	5375	5373	208	163	93.65	3347	-5046	2399	2209	189.23	12.676	
13,400	5520	5376	5374	211	163	93.81	3347	-5046	2498	2309	189.31	13.197	
13,500	5520	5376	5374	213	163	93.96	3347	-5046	2598	2409	189.39	13.718	
13,600	5520	5377	5374	216	163	94.11	3347	-5046	2698	2508	189.48	14.238	
13,700	5521	5377	5375	218	163	94.26	3347	-5046	2798	2608	189.58	14.758	
13,800	5521	5377	5375	221	163	94.42	3347	-5046	2898	2708	189.68	15.276	
13,900	5522	5378	5376	223	163	94.57	3347	-5046	2997	2808	189.78	15.794	
14,000	5522	5378	5376	226	163	94.72	3347	-5046	3097	2907	189.88	16.311	
14,100	5523	5379	5377	228	163	94.87	3347	-5046	3197	3007	189.98	16.828	
14,200	5523	5379	5377	231	163	95.02	3347	-5046	3297	3107	190.09	17.344	
14,300	5524	5380	5378	233	163	95.18	3347	-5046	3397	3207	190.20	17.859	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - Federal B-22 - OH - OH												Offset Site Error:	0 ft
Survey Program: 202-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)			
14,400	5524	5380	5378	236	163	95.33	3347	-5046	3497	3306	190.30	18.374	
14,500	5525	5381	5379	238	163	95.48	3347	-5046	3597	3406	190.41	18.888	
14,600	5525	5381	5379	241	163	95.63	3347	-5046	3696	3506	190.52	19.402	
14,700	5526	5382	5380	243	163	95.78	3347	-5046	3796	3606	190.63	19.914	
14,800	5526	5382	5380	246	163	95.93	3347	-5046	3896	3705	190.74	20.427	
14,900	5526	5383	5380	248	163	96.08	3347	-5046	3996	3805	190.85	20.938	
15,000	5527	5383	5381	251	163	96.24	3347	-5046	4096	3905	190.96	21.449	
15,100	5527	5383	5381	253	163	96.39	3347	-5046	4196	4005	191.07	21.960	
15,200	5528	5384	5382	256	163	96.54	3347	-5046	4296	4105	191.18	22.470	
15,300	5528	5384	5382	258	164	96.69	3347	-5046	4396	4204	191.29	22.979	
15,400	5529	5385	5383	261	164	96.84	3347	-5046	4496	4304	191.40	23.488	
15,500	5529	5385	5383	263	164	96.99	3347	-5046	4596	4404	191.51	23.996	
15,600	5530	5386	5384	266	164	97.14	3347	-5046	4696	4504	191.62	24.504	
15,700	5530	5386	5384	268	164	97.29	3347	-5046	4795	4604	191.73	25.011	
15,800	5531	5387	5385	271	164	97.44	3347	-5046	4895	4704	191.85	25.518	
15,884	5531	5387	5385	273	164	97.57	3347	-5046	4979	4788	191.94	25.943	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - Federal B-8 - OH - OH													Offset Site Error:	0 ft
Survey Program: 238-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		
0	0	68	68	0	2	-53.30	5939	-7969	9938					
100	100	168	168	0	5	-53.30	5939	-7969	9938	9933	5.41	1,836.934		
200	200	268	268	1	8	-53.30	5939	-7969	9938	9930	8.81	1,128.646		
300	300	368	368	1	11	-53.30	5939	-7969	9938	9926	12.20	814.565		
350	350	418	418	1	13	-53.30	5939	-7969	9938	9924	13.90	715.070		
400	400	468	468	1	14	56.95	5939	-7969	9938	9923	15.59	637.457		
500	500	568	568	2	17	56.99	5939	-7969	9936	9917	18.97	523.837		
600	600	668	668	2	20	57.09	5939	-7969	9932	9910	22.35	444.349		
700	699	767	767	2	23	57.24	5939	-7969	9927	9901	25.74	385.607		
800	798	866	866	3	26	57.43	5939	-7969	9919	9890	29.14	340.406		
900	897	965	965	3	29	57.68	5939	-7969	9910	9877	32.54	304.513		
971	966	1043	1043	4	32	57.89	5940	-7969	9902	9867	35.24	280.997		
1000	994	1077	1077	4	33	57.93	5940	-7969	9899	9863	36.39	272.009		
1100	1092	1193	1193	4	36	58.05	5939	-7969	9887	9847	40.37	244.916		
1200	1190	1258	1258	5	38	58.12	5939	-7969	9875	9833	42.82	230.650		
1300	1287	1356	1355	5	41	58.22	5939	-7969	9864	9818	46.26	213.237		
1400	1385	1453	1453	6	44	58.33	5939	-7969	9852	9803	49.71	198.211		
1500	1483	1569	1569	6	48	58.45	5940	-7969	9841	9788	53.71	183.237		
1600	1580	1693	1693	7	51	58.58	5939	-7969	9830	9772	57.96	169.601		
1700	1678	1746	1746	7	53	58.64	5939	-7969	9818	9758	60.08	163.413		
1800	1776	1844	1844	8	56	58.75	5939	-7969	9807	9743	63.54	154.328		
1900	1873	1984	1984	8	60	58.90	5940	-7969	9796	9728	68.30	143.434		
2000	1971	2039	2039	9	62	58.96	5939	-7969	9784	9714	70.48	138.823		
2100	2069	2137	2137	10	65	59.06	5939	-7969	9773	9699	73.95	132.156		
2200	2166	2235	2234	10	68	59.17	5939	-7969	9762	9684	77.42	126.087		
2300	2264	2336	2336	11	71	59.28	5940	-7969	9751	9670	81.01	120.371		
2400	2362	2452	2452	11	74	59.41	5939	-7969	9740	9655	85.03	114.537		
2500	2459	2568	2568	12	78	59.54	5939	-7969	9728	9639	89.06	109.226		
2600	2557	2625	2625	12	80	59.60	5939	-7969	9717	9626	91.32	106.410		
2700	2655	2723	2723	13	83	59.71	5939	-7969	9706	9611	94.79	102.390		
2800	2752	2822	2822	13	86	59.82	5940	-7969	9695	9597	98.31	98.624		
2900	2850	2938	2938	14	89	59.95	5940	-7969	9684	9582	102.35	94.623		
3000	2948	3054	3054	14	93	60.07	5939	-7969	9673	9567	106.39	90.922		
3100	3045	3123	3123	15	95	60.15	5939	-7969	9662	9553	109.00	88.641		
3200	3143	3211	3211	15	98	60.25	5939	-7969	9651	9539	112.19	86.024		
3300	3241	3309	3309	16	100	60.36	5939	-7969	9640	9525	115.67	83.341		
3400	3338	3407	3406	17	103	60.47	5939	-7969	9629	9510	119.15	80.815		
3500	3436	3523	3523	17	107	60.60	5940	-7969	9619	9496	123.20	78.077		
3600	3534	3639	3639	18	111	60.73	5939	-7969	9608	9481	127.26	75.502		
3700	3631	3700	3699	18	112	60.79	5939	-7969	9597	9468	129.61	74.049		
3800	3729	3797	3797	19	115	60.90	5939	-7969	9587	9453	133.09	72.030		
3900	3827	3895	3895	19	118	61.02	5939	-7969	9576	9439	136.58	70.114		
4000	3924	4009	4009	20	122	61.15	5940	-7969	9566	9425	140.57	68.052		
4100	4022	4126	4125	20	125	61.28	5939	-7969	9555	9410	144.62	66.068		
4200	4120	4188	4188	21	127	61.35	5939	-7969	9544	9397	147.04	64.910		
4300	4217	4286	4285	21	130	61.46	5939	-7969	9534	9383	150.53	63.336		
4400	4315	4383	4383	22	133	61.57	5939	-7969	9523	9369	154.02	61.834		
4500	4413	4496	4495	23	137	61.70	5940	-7969	9513	9355	157.95	60.231		
4600	4510	4613	4612	23	140	61.84	5939	-7969	9503	9341	162.02	58.653		
4700	4608	4676	4676	24	142	61.91	5939	-7969	9492	9328	164.49	57.708		
4800	4706	4872	4871	24	148	62.13	5939	-7969	9482	9312	170.93	55.476		
4900	4803	4872	4871	25	148	62.13	5939	-7969	9472	9300	171.48	55.236		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - Federal B-8 - OH - OH													Offset Site Error: 0 ft	
Survey Program: 238-INCLINOMETER		Offset		Semi Major Axis		Offset Wellbore Centre			Rule Assigned: Distance				Offset Well Error: 0 ft	
Measured Depth (ft)	Reference 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	
5000	4901	4970	4969	25	151	62.25	5939	-7969	9461	9286	174.96	54.076		
5107	5005	5074	5073	26	154	62.37	5939	-7969	9451	9272	178.69	52.888		
5150	5047	5116	5115	26	155	47.34	5939	-7969	9444	9264	180.20	52.411		
5200	5095	5185	5185	26	157	36.25	5940	-7969	9434	9252	182.57	51.674		
5250	5141	5255	5254	27	160	29.28	5940	-7969	9418	9234	184.95	50.925		
5300	5186	5322	5321	27	162	24.70	5939	-7969	9398	9211	187.24	50.193		
5350	5229	5386	5385	28	164	21.56	5939	-7969	9374	9185	189.44	49.483		
5400	5270	5446	5446	28	165	19.35	5938	-7969	9346	9154	191.51	48.800		
5450	5308	5377	5376	28	163	17.57	5939	-7969	9314	9125	189.65	49.112		
5500	5343	5412	5411	29	164	16.42	5939	-7969	9279	9088	190.93	48.600		
5550	5374	5443	5442	29	165	15.64	5939	-7969	9241	9049	192.09	48.108		
5600	5402	5471	5470	30	166	15.17	5939	-7969	9200	9007	193.12	47.640		
5650	5427	5496	5495	30	167	15.02	5939	-7969	9157	8963	194.01	47.198		
5700	5447	5516	5515	31	168	15.25	5939	-7969	9111	8917	194.76	46.783		
5750	5463	5532	5531	32	168	16.04	5939	-7969	9064	8869	195.36	46.399		
5800	5475	5544	5543	32	168	17.97	5939	-7969	9016	8820	195.80	46.047		
5850	5482	5551	5550	33	169	23.54	5939	-7969	8966	8770	196.08	45.728		
5904	5485	5554	5553	34	169	79.86	5939	-7969	8912	8716	196.21	45.423		
6000	5485	5554	5553	35	169	79.97	5939	-7969	8817	8620	196.27	44.921		
6100	5486	5555	5554	37	169	80.08	5939	-7969	8717	8520	196.33	44.398		
6200	5486	5555	5554	38	169	80.19	5939	-7969	8617	8420	196.40	43.874		
6300	5487	5556	5555	40	169	80.31	5939	-7969	8517	8320	196.46	43.350		
6400	5487	5556	5555	42	169	80.42	5939	-7969	8417	8220	196.53	42.827		
6500	5488	5557	5556	44	169	80.53	5939	-7969	8317	8120	196.60	42.303		
6600	5488	5557	5556	46	169	80.64	5939	-7969	8217	8020	196.67	41.779		
6700	5489	5557	5557	48	169	80.75	5939	-7969	8117	7920	196.75	41.255		
6800	5489	5558	5557	50	169	80.87	5939	-7969	8017	7820	196.82	40.731		
6900	5490	5558	5558	52	169	80.98	5939	-7969	7917	7720	196.90	40.208		
7000	5490	5559	5558	54	169	81.09	5939	-7969	7817	7620	196.98	39.684		
7100	5491	5559	5559	56	169	81.20	5939	-7969	7717	7520	197.07	39.160		
7200	5491	5560	5559	59	169	81.31	5939	-7969	7617	7420	197.15	38.636		
7300	5491	5560	5559	61	169	81.43	5939	-7969	7517	7320	197.24	38.112		
7400	5492	5561	5560	63	169	81.54	5939	-7969	7417	7220	197.33	37.589		
7500	5492	5561	5560	65	169	81.65	5939	-7969	7317	7120	197.42	37.065		
7600	5493	5562	5561	68	169	81.76	5939	-7969	7217	7020	197.51	36.541		
7700	5493	5562	5561	70	169	81.88	5939	-7969	7117	6920	197.61	36.017		
7800	5494	5563	5562	72	169	81.99	5939	-7969	7017	6820	197.71	35.494		
7900	5494	5563	5562	75	169	82.10	5939	-7969	6917	6720	197.81	34.970		
8000	5495	5563	5563	77	169	82.21	5939	-7969	6818	6620	197.92	34.447		
8100	5495	5564	5563	80	169	82.33	5939	-7969	6718	6520	198.02	33.923		
8200	5496	5564	5564	82	169	82.44	5939	-7969	6618	6420	198.13	33.400		
8300	5496	5565	5564	84	169	82.55	5939	-7969	6518	6319	198.25	32.877		
8400	5496	5565	5564	87	169	82.67	5939	-7969	6418	6219	198.37	32.353		
8500	5497	5566	5565	89	169	82.78	5939	-7969	6318	6119	198.49	31.830		
8600	5497	5566	5565	92	169	82.89	5939	-7969	6218	6019	198.61	31.307		
8700	5498	5567	5566	94	169	83.01	5939	-7969	6118	5919	198.74	30.784		
8800	5498	5567	5566	96	169	83.12	5939	-7969	6018	5819	198.87	30.261		
8900	5499	5568	5567	99	169	83.23	5939	-7969	5918	5719	199.01	29.738		
9000	5499	5568	5567	101	169	83.35	5939	-7969	5818	5619	199.15	29.216		
9100	5500	5569	5568	104	169	83.46	5939	-7969	5718	5519	199.29	28.693		
9200	5500	5569	5568	106	169	83.57	5939	-7969	5618	5419	199.44	28.171		
9300	5501	5569	5569	109	169	83.69	5939	-7969	5518	5319	199.60	27.648		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - Federal B-8 - OH - OH											Offset Site Error:	0 ft
Survey Program: 238-INCLINOMETER											Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis	Reference	Offset	Highside	Offset Wellbore Centre	Distance	Rule Assigned:	Minimum	Separation	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation Factor	
9400	5501	5570	5569	111	169	83.80	5939	-7969	5419	5219	199.76	27.126
9500	5502	5570	5570	113	169	83.91	5939	-7969	5319	5119	199.92	26.604
9600	5502	5571	5570	116	169	84.03	5939	-7969	5219	5019	200.09	26.082
9700	5502	5571	5570	118	169	84.14	5939	-7969	5119	4919	200.27	25.560
9800	5503	5572	5571	121	169	84.26	5939	-7969	5019	4818	200.45	25.038
9900	5503	5572	5571	123	169	84.37	5939	-7969	4919	4718	200.64	24.517
10,000	5504	5573	5572	126	169	84.48	5939	-7969	4819	4618	200.84	23.995
10,100	5504	5573	5572	128	169	84.60	5939	-7969	4719	4518	201.04	23.474
10,200	5505	5574	5573	131	169	84.71	5939	-7969	4619	4418	201.26	22.953
10,300	5505	5574	5573	133	169	84.82	5939	-7969	4520	4318	201.48	22.432
10,400	5506	5575	5574	136	169	84.94	5939	-7969	4420	4218	201.71	21.911
10,500	5506	5575	5574	138	169	85.05	5939	-7969	4320	4118	201.95	21.390
10,600	5507	5575	5575	141	169	85.17	5939	-7969	4220	4018	202.21	20.870
10,700	5507	5576	5575	143	169	85.28	5939	-7969	4120	3918	202.47	20.349
10,800	5508	5576	5576	146	169	85.40	5939	-7969	4020	3818	202.75	19.829
10,900	5508	5577	5576	148	169	85.51	5939	-7969	3920	3717	203.04	19.309
11,000	5508	5577	5576	151	169	85.62	5939	-7969	3821	3617	203.34	18.789
11,100	5509	5578	5577	153	169	85.74	5939	-7969	3721	3517	203.66	18.269
11,200	5509	5578	5577	156	169	85.85	5939	-7969	3621	3417	204.00	17.750
11,300	5510	5579	5578	158	169	85.97	5939	-7969	3521	3317	204.36	17.230
11,400	5510	5579	5578	161	169	86.08	5939	-7969	3421	3217	204.74	16.711
11,500	5511	5580	5579	163	169	86.20	5939	-7969	3322	3117	205.14	16.192
11,600	5511	5580	5579	166	169	86.31	5939	-7969	3222	3016	205.56	15.674
11,700	5512	5581	5580	168	169	86.42	5939	-7969	3122	2916	206.02	15.155
11,800	5512	5581	5580	171	169	86.54	5939	-7969	3022	2816	206.50	14.637
11,900	5513	5581	5581	173	169	86.65	5939	-7969	2923	2716	207.02	14.118
12,000	5513	5582	5581	176	170	86.77	5939	-7969	2823	2616	207.57	13.600
12,100	5514	5582	5582	178	170	86.88	5939	-7969	2723	2515	208.17	13.083
12,200	5514	5583	5582	181	170	87.00	5939	-7969	2624	2415	208.81	12.565
12,300	5514	5583	5582	183	170	87.11	5939	-7969	2524	2315	209.51	12.048
12,400	5515	5584	5583	186	170	87.23	5939	-7969	2425	2214	210.27	11.531
12,500	5515	5584	5583	188	170	87.34	5939	-7969	2325	2114	211.09	11.015
12,600	5516	5585	5584	191	170	87.46	5939	-7969	2226	2014	211.99	10.499
12,700	5516	5585	5584	193	170	87.57	5939	-7969	2126	1913	212.98	9.983
12,800	5517	5586	5585	196	170	87.69	5939	-7969	2027	1813	214.08	9.467
12,900	5517	5586	5585	198	170	87.80	5939	-7969	1927	1712	215.29	8.953
13,000	5518	5587	5586	201	170	87.92	5939	-7969	1828	1612	216.65	8.439
13,100	5518	5587	5586	203	170	88.03	5939	-7969	1729	1511	218.17	7.925
13,200	5519	5587	5587	206	170	88.15	5939	-7969	1630	1410	219.88	7.413
13,300	5519	5588	5587	208	170	88.26	5939	-7969	1531	1309	221.84	6.902
13,400	5520	5588	5588	211	170	88.38	5939	-7969	1432	1208	224.07	6.392
13,500	5520	5589	5588	213	170	88.49	5939	-7969	1334	1107	226.66	5.884
13,600	5520	5589	5588	216	170	88.60	5939	-7969	1235	1006	229.68	5.378
13,700	5521	5590	5589	218	170	88.72	5939	-7969	1137	904	233.24	4.876
13,800	5521	5590	5589	221	170	88.83	5939	-7969	1039	802	237.50	4.377
13,900	5522	5591	5590	223	170	88.95	5939	-7969	942	700	242.66	3.883
14,000	5522	5591	5590	226	170	89.06	5939	-7969	846	597	249.01	3.396
14,100	5523	5592	5591	228	170	89.18	5939	-7969	750	493	256.99	2.918
14,200	5523	5592	5591	231	170	89.29	5939	-7969	655	388	267.23	2.452
14,300	5524	5593	5592	233	170	89.41	5939	-7969	563	282	280.67	2.005
14,400	5524	5593	5592	236	170	89.52	5939	-7969	473	174	298.76	1.584
14,500	5525	5593	5593	238	170	89.64	5939	-7969	389	65	323.47	1.202 Level 3

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - Federal B-8 - OH - OH												Offset Site Error:	0 ft
Survey Program: 238-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)			
14,600	5525	5594	5593	241	170	89.75	5939	-7969	314	-43	356.52	0.880	Level 3
14,700	5526	5594	5594	243	170	89.87	5939	-7969	256	-138	394.24	0.650	Level 3
14,800	5526	5595	5594	246	170	89.98	5939	-7969	230	-186	415.74	0.554	Level 3
14,814	5526	5595	5594	246	170	90.00	5939	-7969	230	-186	415.67	0.553	Level 3, CC, ES, SF
14,900	5526	5595	5594	248	170	90.10	5939	-7969	245	-152	397.20	0.618	Level 3
15,000	5527	5596	5595	251	170	90.21	5939	-7969	296	-61	356.25	0.830	Level 3
15,100	5527	5596	5595	253	170	90.33	5939	-7969	367	48	318.65	1.152	Level 3
15,200	5528	5597	5596	256	170	90.44	5939	-7969	449	159	290.58	1.547	
15,300	5528	5597	5596	258	170	90.56	5939	-7969	538	267	270.37	1.989	
15,400	5529	5598	5597	261	170	90.67	5939	-7969	630	374	255.65	2.463	
15,500	5529	5598	5597	263	170	90.79	5939	-7969	724	479	244.68	2.958	
15,600	5530	5598	5598	266	170	90.90	5939	-7969	819	583	236.33	3.466	
15,700	5530	5599	5598	268	170	91.02	5939	-7969	916	686	229.84	3.983	
15,800	5531	5599	5599	271	170	91.13	5939	-7969	1013	788	224.71	4.506	
15,884	5531	5600	5599	273	170	91.23	5939	-7969	1095	873	221.20	4.949	

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Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - NAU 243H - OH - OH														Offset Site Error:	0 ft
Survey Program: 528-MWD														Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Warning					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0	0	0	0	0	0	153.36	-1062	533	1191						
100	100	26	26	0	0	153.36	-1062	533	1188	1188	0.34	3,525.088			
200	200	127	127	1	0	153.36	-1062	533	1188	1187	0.81	1,473.437			
300	300	229	229	1	0	153.35	-1062	533	1188	1187	1.28	931.258			
350	350	279	279	1	0	153.34	-1062	533	1188	1187	1.51	786.498			
400	400	330	330	1	0	-96.44	-1062	533	1188	1186	1.74	682.941			
438	438	368	368	2	0	-96.50	-1061	533	1188	1186	1.91	621.012			
500	500	431	431	2	0	-96.63	-1061	533	1188	1186	2.19	541.625			
600	600	531	531	2	1	-96.98	-1060	533	1188	1186	2.66	446.339			
700	699	630	630	2	1	-97.49	-1060	534	1189	1186	3.24	367.031			
800	798	731	731	3	1	-98.19	-1059	535	1191	1187	3.85	309.025			
900	897	831	831	3	1	-99.04	-1058	536	1193	1188	4.48	266.065			
971	966	900	900	4	1	-99.70	-1057	536	1195	1190	4.95	241.227			
1000	994	926	926	4	1	-99.98	-1057	536	1196	1190	5.15	232.373			
1100	1092	1027	1027	4	2	-101.06	-1055	537	1199	1193	5.84	205.232			
1200	1190	1125	1124	5	2	-102.06	-1054	537	1203	1196	6.54	183.951			
1300	1287	1225	1225	5	2	-103.05	-1054	536	1206	1199	7.25	166.387			
1400	1385	1322	1321	6	2	-103.99	-1053	535	1211	1203	7.96	152.099			
1500	1483	1424	1424	6	2	-104.98	-1053	534	1215	1206	8.69	139.890			
1600	1580	1506	1506	7	3	-105.74	-1053	533	1220	1211	9.36	130.313			
1700	1678	1593	1593	7	3	-106.54	-1054	533	1227	1217	10.05	122.088			
1800	1776	1695	1695	8	3	-107.48	-1055	533	1234	1223	10.78	114.516			
1900	1873	1795	1794	8	3	-108.42	-1055	533	1241	1230	11.50	107.961			
2000	1971	1896	1896	9	3	-109.38	-1055	533	1249	1236	12.22	102.154			
2100	2069	1990	1990	10	4	-110.25	-1056	533	1256	1243	12.92	97.221			
2200	2166	2081	2081	10	4	-111.08	-1056	534	1265	1251	13.61	92.927			
2300	2264	2193	2193	11	4	-112.07	-1057	534	1273	1259	14.35	88.749			
2400	2362	2288	2288	11	4	-112.91	-1057	533	1282	1267	15.04	85.201			
2500	2459	2386	2385	12	4	-113.76	-1057	533	1290	1275	15.74	81.965			
2600	2557	2479	2478	12	5	-114.55	-1058	533	1299	1283	16.43	79.098			
2700	2655	2577	2577	13	5	-115.40	-1058	533	1309	1292	17.13	76.438			
2800	2752	2678	2678	13	5	-116.30	-1057	534	1319	1301	17.82	73.990			
2900	2850	2771	2770	14	5	-117.11	-1057	535	1329	1310	18.49	71.852			
3000	2948	2878	2878	14	5	-118.03	-1056	535	1339	1320	19.20	69.745			
3100	3045	2970	2970	15	6	-118.79	-1056	536	1350	1330	19.87	67.936			
3200	3143	3071	3071	15	6	-119.63	-1055	536	1360	1340	20.55	66.200			
3300	3241	3168	3168	16	6	-120.41	-1055	536	1371	1350	21.22	64.623			
3400	3338	3272	3271	17	6	-121.23	-1054	536	1382	1360	21.90	63.102			
3500	3436	3368	3368	17	6	-121.96	-1054	536	1393	1370	22.56	61.736			
3600	3534	3463	3463	18	7	-122.65	-1054	535	1404	1381	23.22	60.481			
3700	3631	3556	3556	18	7	-123.31	-1055	535	1416	1392	23.87	59.328			
3800	3729	3658	3657	19	7	-124.02	-1055	534	1428	1404	24.54	58.204			
3900	3827	3751	3751	19	7	-124.71	-1055	535	1440	1415	25.18	57.214			
4000	3924	3840	3840	20	7	-125.37	-1054	535	1453	1428	25.80	56.338			
4100	4022	6416	5280	20	37	-100.88	-688	-768	1402	1379	23.68	59.216			
4200	4120	6434	5279	21	37	-98.64	-687	-786	1306	1282	24.70	52.891			
4300	4217	6445	5279	21	38	-97.27	-687	-797	1211	1185	25.79	46.945			
4400	4315	6456	5278	22	38	-95.78	-686	-808	1116	1089	27.07	41.236			
4500	4413	6468	5278	23	38	-94.14	-685	-820	1022	993	28.56	35.784			
4600	4510	6479	5278	23	38	-92.60	-685	-831	929	899	30.33	30.631			
4700	4608	6492	5278	24	39	-90.79	-684	-843	837	805	32.48	25.782			
4800	4706	6504	5278	24	39	-88.99	-684	-855	748	712	35.10	21.295			

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Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - NAU 243H - OH - OH												Offset Site Error:	0 ft
Survey Program: 528-MWD												Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation (ft)		
4900	4803	6517	5278	25	39	-86.96	-683	-869	660	622	38.38	17.205	
5000	4901	6532	5278	25	40	-84.65	-682	-883	577	534	42.49	13.572	
5107	5005	6552	5278	26	40	-81.46	-681	-903	493	445	48.06	10.267	
5150	5047	6563	5279	26	41	-97.45	-681	-915	463	412	50.81	9.113	
5200	5095	6579	5279	26	41	-108.64	-680	-930	433	379	54.39	7.962	
5250	5141	6597	5279	27	42	-114.80	-680	-949	410	351	58.26	7.032	
5300	5186	6618	5279	27	42	-117.82	-679	-969	394	332	62.12	6.339	
5350	5229	6640	5279	28	43	-118.67	-679	-992	386	320	65.66	5.880	
5371	5247	6651	5279	28	43	-118.51	-678	-1002	385	318	67.01	5.750 CC	
5400	5270	6665	5279	28	43	-117.86	-678	-1017	387	318	68.63	5.634 ES	
5450	5308	6696	5279	28	44	-115.30	-678	-1048	395	324	71.05	5.557 SF	
5500	5343	6730	5279	29	45	-111.57	-677	-1082	409	337	72.94	5.614	
5550	5374	6766	5279	29	46	-107.03	-676	-1118	429	355	74.45	5.765	
5600	5402	6804	5279	30	47	-102.05	-674	-1155	453	377	75.75	5.977	
5650	5427	6838	5279	30	48	-97.17	-673	-1190	479	402	76.87	6.236	
5700	5447	6875	5279	31	49	-92.13	-672	-1227	508	430	78.12	6.503	
5750	5463	6916	5278	32	50	-87.15	-670	-1267	538	458	79.59	6.758	
5800	5475	6952	5278	32	51	-82.64	-669	-1304	568	487	81.03	7.015	
5850	5482	6987	5277	33	52	-78.51	-668	-1338	600	517	82.57	7.261	
5904	5485	7022	5277	34	53	-74.39	-667	-1374	634	549	84.29	7.517	
6000	5485	7086	5277	35	55	-75.55	-667	-1438	695	607	87.48	7.940	
6100	5486	7157	5276	37	56	-76.65	-667	-1508	759	668	90.94	8.349	
6200	5486	7244	5276	38	59	-77.82	-668	-1595	824	729	95.07	8.667	
6300	5487	7354	5275	40	62	-78.88	-664	-1705	886	786	100.12	8.850	
6400	5487	7432	5274	42	64	-79.51	-661	-1783	947	843	103.94	9.114	
6500	5488	7496	5274	44	66	-80.01	-659	-1847	1010	902	107.23	9.416	
6600	5488	7555	5274	46	67	-80.45	-658	-1907	1073	963	110.29	9.729	
6700	5489	7635	5274	48	69	-80.98	-657	-1986	1137	1023	114.23	9.953	
6800	5489	7728	5273	50	72	-81.49	-655	-2079	1200	1081	118.75	10.107	
6900	5490	7811	5272	52	74	-81.86	-652	-2162	1263	1140	122.84	10.278	
7000	5490	7876	5272	54	76	-82.15	-651	-2227	1326	1199	126.20	10.504	
7100	5491	7930	5272	56	77	-82.40	-650	-2281	1390	1261	129.05	10.767	
7200	5491	8022	5271	59	80	-82.75	-649	-2373	1454	1320	133.59	10.883	
7300	5491	8117	5270	61	82	-83.06	-647	-2468	1517	1379	138.31	10.968	
7400	5492	8186	5270	63	84	-83.27	-645	-2537	1580	1438	141.85	11.138	
7500	5492	8274	5269	65	87	-83.53	-642	-2625	1643	1496	146.28	11.231	
7600	5493	8340	5269	68	89	-83.72	-641	-2691	1706	1556	149.70	11.395	
7700	5493	8417	5270	70	91	-83.95	-639	-2768	1769	1615	153.65	11.513	
7800	5494	8473	5270	72	92	-84.10	-638	-2824	1833	1676	156.62	11.701	
7900	5494	8545	5269	75	94	-84.24	-637	-2896	1897	1737	160.28	11.837	
8000	5495	8650	5268	77	97	-84.43	-635	-3000	1961	1796	165.55	11.846	
8100	5495	8727	5266	80	99	-84.55	-633	-3078	2024	1855	169.54	11.939	
8200	5496	8788	5266	82	101	-84.66	-632	-3139	2088	1915	172.75	12.086	
8300	5496	8876	5264	84	103	-84.76	-630	-3227	2151	1974	177.24	12.138	
8400	5496	8955	5262	87	105	-84.85	-628	-3306	2215	2034	181.27	12.219	
8500	5497	9003	5262	89	107	-84.92	-628	-3353	2279	2095	183.84	12.395	
8600	5497	9065	5262	92	108	-85.03	-627	-3415	2344	2157	187.07	12.528	
8700	5498	9233	5260	94	113	-85.22	-623	-3583	2406	2211	195.44	12.313	
8800	5498	9274	5259	96	114	-85.25	-622	-3625	2469	2271	197.74	12.486	
8900	5499	9322	5258	99	115	-85.30	-620	-3672	2533	2332	200.32	12.643	
9000	5499	9420	5257	101	118	-85.40	-619	-3770	2596	2391	205.33	12.645	
9100	5500	9481	5256	104	120	-85.47	-618	-3831	2660	2452	208.55	12.755	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - NAU 243H - OH - OH												Offset Site Error:	0 ft
Survey Program: 528-MWD												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)			
9200	5500	9553	5256	106	122	-85.54	-616	-3903	2724	2512	212.31	12.830	
9300	5501	9613	5255	109	123	-85.61	-616	-3963	2788	2573	215.48	12.941	
9400	5501	9640	5255	111	124	-85.64	-615	-3991	2853	2636	216.96	13.151	
9500	5502	9640	5255	113	124	-85.64	-615	-3991	2920	2703	216.96	13.459	
9600	5502	9640	5255	116	124	-85.64	-615	-3991	2989	2772	216.82	13.784	
9700	5502	9640	5255	118	124	-85.64	-615	-3991	3059	2843	216.58	14.125	
9800	5503	9640	5255	121	124	-85.64	-615	-3991	3131	2915	216.24	14.480	
9900	5503	9640	5255	123	124	-85.64	-615	-3991	3205	2989	215.81	14.849	
10,000	5504	9640	5255	126	124	-85.64	-615	-3991	3280	3064	215.32	15.231	
10,100	5504	9640	5255	128	124	-85.64	-615	-3991	3356	3141	214.77	15.625	
10,200	5505	9640	5255	131	124	-85.64	-615	-3991	3433	3219	214.17	16.030	
10,300	5505	9640	5255	133	124	-85.64	-615	-3991	3512	3298	213.53	16.446	
10,400	5506	9640	5255	136	124	-85.64	-615	-3991	3591	3379	212.86	16.872	
10,500	5506	9640	5255	138	124	-85.64	-615	-3991	3672	3460	212.16	17.308	
10,600	5507	9640	5255	141	124	-85.64	-615	-3991	3754	3542	211.44	17.752	
10,700	5507	9640	5255	143	124	-85.64	-615	-3991	3836	3625	210.71	18.205	
10,800	5508	9640	5255	146	124	-85.64	-615	-3991	3919	3709	209.96	18.666	
10,900	5508	9640	5255	148	124	-85.64	-615	-3991	4003	3794	209.21	19.135	
11,000	5508	9640	5255	151	124	-85.64	-615	-3991	4088	3880	208.46	19.611	
11,100	5509	9640	5255	153	124	-85.64	-615	-3991	4173	3966	207.70	20.093	
11,200	5509	9640	5255	156	124	-85.64	-615	-3991	4259	4053	206.95	20.582	
11,300	5510	9640	5255	158	124	-85.64	-615	-3991	4346	4140	206.20	21.077	
11,400	5510	9640	5255	161	124	-85.64	-615	-3991	4433	4228	205.45	21.578	
11,500	5511	9640	5255	163	124	-85.64	-615	-3991	4521	4316	204.71	22.085	
11,600	5511	9640	5255	166	124	-85.64	-615	-3991	4609	4405	203.98	22.597	
11,700	5512	9640	5255	168	124	-85.64	-615	-3991	4698	4495	203.26	23.114	
11,800	5512	9640	5255	171	124	-85.64	-615	-3991	4787	4585	202.54	23.635	
11,900	5513	9640	5255	173	124	-85.64	-615	-3991	4877	4675	201.84	24.161	
12,000	5513	9640	5255	176	124	-85.64	-615	-3991	4967	4766	201.15	24.692	
12,100	5514	9640	5255	178	124	-85.64	-615	-3991	5057	4857	200.47	25.226	
12,200	5514	9640	5255	181	124	-85.64	-615	-3991	5148	4948	199.80	25.765	
12,300	5514	9640	5255	183	124	-85.64	-615	-3991	5239	5040	199.14	26.307	
12,400	5515	9640	5255	186	124	-85.64	-615	-3991	5330	5132	198.49	26.853	
12,500	5515	9640	5255	188	124	-85.64	-615	-3991	5422	5224	197.86	27.403	
12,600	5516	9640	5255	191	124	-85.64	-615	-3991	5514	5317	197.24	27.955	
12,700	5516	9640	5255	193	124	-85.64	-615	-3991	5606	5409	196.63	28.511	
12,800	5517	9640	5255	196	124	-85.64	-615	-3991	5699	5503	196.03	29.070	
12,900	5517	9640	5255	198	124	-85.64	-615	-3991	5791	5596	195.44	29.632	
13,000	5518	9640	5255	201	124	-85.64	-615	-3991	5884	5689	194.87	30.196	
13,100	5518	9640	5255	203	124	-85.64	-615	-3991	5977	5783	194.30	30.764	
13,200	5519	9640	5255	206	124	-85.64	-615	-3991	6071	5877	193.75	31.333	
13,300	5519	9640	5255	208	124	-85.64	-615	-3991	6165	5971	193.21	31.905	
13,400	5520	9640	5255	211	124	-85.64	-615	-3991	6258	6066	192.68	32.480	
13,500	5520	9640	5255	213	124	-85.64	-615	-3991	6352	6160	192.17	33.057	
13,600	5520	9640	5255	216	124	-85.64	-615	-3991	6447	6255	191.66	33.635	
13,700	5521	9640	5255	218	124	-85.64	-615	-3991	6541	6350	191.16	34.216	
13,800	5521	9640	5255	221	124	-85.64	-615	-3991	6635	6445	190.68	34.799	
13,900	5522	9640	5255	223	124	-85.64	-615	-3991	6730	6540	190.20	35.384	
14,000	5522	9640	5255	226	124	-85.64	-615	-3991	6825	6635	189.74	35.971	
14,100	5523	9640	5255	228	124	-85.64	-615	-3991	6920	6731	189.28	36.559	
14,200	5523	9640	5255	231	124	-85.64	-615	-3991	7015	6826	188.84	37.149	
14,300	5524	9640	5255	233	124	-85.64	-615	-3991	7110	6922	188.40	37.741	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - NAU 243H - OH - OH												Offset Site Error:	0 ft
Survey Program: 528-MWD												Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance			Rule Assigned:		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
14,400	5524	9640	5255	236	124	-85.64	-615	-3991	7206	7018	187.98	38.334	
14,500	5525	9640	5255	238	124	-85.64	-615	-3991	7301	7114	187.56	38.928	
14,600	5525	9640	5255	241	124	-85.64	-615	-3991	7397	7210	187.15	39.525	
14,700	5526	9640	5255	243	124	-85.64	-615	-3991	7493	7306	186.75	40.122	
14,800	5526	9640	5255	246	124	-85.64	-615	-3991	7589	7402	186.36	40.721	
14,900	5526	9640	5255	248	124	-85.64	-615	-3991	7685	7499	185.97	41.321	
15,000	5527	9640	5255	251	124	-85.64	-615	-3991	7781	7595	185.60	41.922	
15,100	5527	9640	5255	253	124	-85.64	-615	-3991	7877	7692	185.23	42.524	
15,200	5528	9640	5255	256	124	-85.64	-615	-3991	7973	7788	184.87	43.128	
15,300	5528	9640	5255	258	124	-85.64	-615	-3991	8069	7885	184.52	43.733	
15,400	5529	9640	5255	261	124	-85.64	-615	-3991	8166	7982	184.17	44.338	
15,500	5529	9640	5255	263	124	-85.64	-615	-3991	8262	8078	183.83	44.945	
15,600	5530	9640	5255	266	124	-85.64	-615	-3991	8359	8175	183.50	45.552	
15,700	5530	9640	5255	268	124	-85.64	-615	-3991	8456	8272	183.18	46.161	
15,800	5531	9640	5255	271	124	-85.64	-615	-3991	8552	8369	182.86	46.770	
15,884	5531	9640	5255	273	124	-85.64	-615	-3991	8634	8451	182.60	47.283	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - NAU 243H - ST1 - ST1													Offset Site Error: 0 ft	
Survey Program: 530-MWD		Offset		Semi Major Axis		Offset Wellbore Centre			Rule Assigned: Distance				Offset Well Error: 0 ft	
Measured Depth	Reference Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	+N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)			
0	0	0	0	0	0	153.36	-1062	533	1191					
100	100	26	26	0	0	153.36	-1062	533	1188	1188	0.34	3,525.073		
200	200	127	127	1	0	153.36	-1062	533	1188	1187	0.81	1,473.424		
300	300	229	229	1	0	153.35	-1062	533	1188	1187	1.28	931.250		
350	350	279	279	1	0	153.34	-1062	533	1188	1187	1.51	786.491		
400	400	330	330	1	0	-96.44	-1062	533	1188	1186	1.74	682.935		
438	438	368	368	2	0	-96.50	-1061	533	1188	1186	1.91	621.596		
500	500	431	431	2	0	-96.63	-1061	533	1188	1186	2.19	541.620		
600	600	532	532	2	1	-96.98	-1060	533	1188	1186	2.66	446.664		
700	699	630	630	2	1	-97.49	-1060	534	1189	1186	3.24	367.358		
800	798	731	731	3	1	-98.19	-1059	535	1191	1187	3.85	309.145		
900	897	831	831	3	1	-99.03	-1058	536	1193	1188	4.48	266.207		
971	966	900	900	4	1	-99.70	-1057	536	1195	1190	4.95	241.303		
1000	994	928	928	4	1	-100.00	-1057	536	1196	1190	5.15	232.276		
1100	1092	1027	1027	4	2	-101.06	-1055	537	1199	1193	5.84	205.287		
1200	1190	1124	1124	5	2	-102.06	-1054	537	1203	1196	6.54	184.014		
1300	1287	1225	1225	5	2	-103.05	-1054	536	1206	1199	7.25	166.436		
1400	1385	1321	1321	6	2	-103.99	-1053	535	1211	1203	7.96	152.147		
1500	1483	1424	1424	6	2	-104.99	-1053	535	1215	1206	8.68	139.913		
1600	1580	1507	1507	7	3	-105.75	-1053	533	1220	1211	9.36	130.328		
1700	1678	1593	1593	7	3	-106.54	-1054	533	1227	1217	10.05	122.106		
1800	1776	1695	1695	8	3	-107.48	-1055	533	1234	1223	10.77	114.537		
1900	1873	1795	1794	8	3	-108.42	-1055	533	1241	1230	11.50	107.981		
2000	1971	1896	1896	9	3	-109.38	-1055	533	1249	1236	12.22	102.169		
2100	2069	1989	1989	10	4	-110.24	-1056	533	1256	1243	12.92	97.258		
2200	2166	2081	2081	10	4	-111.08	-1056	534	1265	1251	13.61	92.938		
2300	2264	2195	2195	11	4	-112.09	-1057	534	1273	1259	14.35	88.731		
2400	2362	2290	2290	11	4	-112.92	-1057	533	1281	1266	15.05	85.142		
2500	2459	2386	2386	12	4	-113.75	-1057	533	1290	1274	15.74	81.948		
2600	2557	2479	2479	12	5	-114.54	-1058	532	1299	1283	16.43	79.085		
2700	2655	2577	2577	13	5	-115.38	-1058	533	1309	1292	17.12	76.434		
2800	2752	2678	2678	13	5	-116.28	-1057	533	1318	1300	17.82	73.982		
2900	2850	2770	2770	14	5	-117.09	-1057	534	1328	1310	18.49	71.847		
3000	2948	2878	2878	14	5	-118.01	-1056	535	1339	1319	19.20	69.735		
3100	3045	2970	2970	15	6	-118.78	-1056	535	1349	1329	19.86	67.925		
3200	3143	3071	3071	15	6	-119.61	-1055	535	1360	1339	20.54	66.184		
3300	3241	3168	3168	16	6	-120.40	-1055	536	1371	1349	21.21	64.607		
3400	3338	3272	3271	17	6	-121.22	-1054	536	1381	1360	21.90	63.085		
3500	3436	3368	3368	17	6	-121.95	-1054	535	1392	1370	22.56	61.719		
3600	3534	3463	3463	18	7	-122.64	-1054	535	1404	1381	23.22	60.465		
3700	3631	3556	3556	18	7	-123.31	-1055	534	1416	1392	23.87	59.310		
3800	3729	3658	3658	19	7	-124.01	-1055	534	1428	1403	24.54	58.187		
3900	3827	3751	3751	19	7	-124.70	-1055	534	1440	1415	25.18	57.198		
4000	3924	3840	3840	20	7	-125.36	-1054	535	1453	1427	25.80	56.323		
4100	4022	3935	3935	20	8	-126.05	-1054	536	1467	1440	26.43	55.479		
4200	4120	4027	4027	21	37	-126.74	-373	-732	1389	1371	18.38	75.553		
4300	4217	4119	4119	21	37	-127.43	-373	-747	1291	1272	18.67	69.142		
4400	4315	4217	4217	22	38	-128.12	-372	-765	1193	1174	18.96	62.901		
4500	4413	4319	4319	23	38	-128.81	-371	-785	1095	1075	19.26	56.837		
4600	4510	4417	4417	23	39	-129.50	-370	-805	996	977	19.55	50.963		
4700	4608	4515	4515	24	39	-130.19	-369	-825	898	878	19.84	45.270		
4800	4706	4613	4613	24	40	-130.88	-368	-845	800	780	20.13	39.746		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - NAU 243H - ST1 - ST1													Offset Site Error: 0 ft	
Survey Program: 530-MWD				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 (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
							+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
4900	4803	6697	5429	25	40	-160.38	-366	-865	702	682	20.41	34.383		
5000	4901	6717	5429	25	41	-161.03	-365	-884	604	583	20.69	29.174		
5107	5005	6736	5429	26	41	-161.86	-365	-903	499	478	21.00	23.766		
5150	5047	6745	5429	26	42	-164.60	-364	-912	457	436	21.16	21.588		
5200	5095	6759	5429	26	42	-166.72	-364	-926	409	387	21.47	19.050		
5250	5141	6776	5429	27	42	-167.25	-363	-943	363	341	22.00	16.488		
5300	5186	6796	5428	27	43	-166.41	-363	-963	319	296	22.94	13.888		
5350	5229	6819	5428	28	43	-164.43	-362	-986	277	253	24.68	11.238		
5400	5270	6845	5428	28	44	-161.33	-362	-1012	240	212	27.91	8.610		
5450	5308	6875	5428	28	45	-156.65	-361	-1043	209	175	33.45	6.236		
5500	5343	6908	5428	29	46	-150.85	-360	-1075	184	142	41.83	4.405		
5550	5374	6940	5428	29	47	-144.60	-360	-1107	170	117	52.26	3.247		
5587	5396	6965	5428	30	47	-139.27	-359	-1132	166	106	60.08	2.770 CC		
5600	5402	6974	5428	30	47	-137.27	-359	-1141	167	104	62.57	2.665		
5602	5404	6976	5428	30	47	-136.91	-359	-1143	167	104	63.00	2.650 ES		
5650	5427	7010	5428	30	48	-129.03	-358	-1178	175	104	70.65	2.477 SF		
5700	5447	7049	5427	31	49	-120.50	-357	-1216	192	116	76.05	2.525		
5750	5463	7090	5427	32	50	-112.19	-356	-1257	215	135	79.64	2.698		
5800	5475	7124	5426	32	51	-105.48	-355	-1292	242	160	81.79	2.956		
5850	5482	7159	5426	33	52	-99.62	-355	-1326	272	189	83.46	3.259		
5904	5485	7201	5426	34	53	-93.91	-355	-1368	307	221	85.44	3.590		
6000	5485	7268	5425	35	55	-93.03	-354	-1436	369	281	88.39	4.174		
6100	5486	7337	5425	37	57	-92.52	-356	-1504	436	344	91.41	4.766		
6200	5486	7415	5424	38	59	-92.03	-358	-1582	503	407	95.11	5.284		
6300	5487	7488	5424	40	61	-91.69	-359	-1655	569	471	98.51	5.778		
6400	5487	7577	5423	42	63	-91.36	-361	-1744	636	533	102.91	6.180		
6500	5488	7680	5422	44	66	-91.09	-358	-1847	699	591	108.02	6.470		
6600	5488	7773	5421	46	68	-90.86	-353	-1940	760	648	112.56	6.756		
6700	5489	7855	5419	48	71	-90.54	-348	-2022	821	704	116.57	7.040		
6800	5489	7942	5417	50	73	-90.35	-342	-2109	881	760	120.88	7.286		
6900	5490	8013	5417	52	75	-90.28	-337	-2179	941	816	124.37	7.562		
7000	5490	8072	5417	54	76	-90.25	-334	-2238	1002	875	127.26	7.873		
7100	5491	8150	5417	56	79	-90.22	-332	-2316	1064	933	131.18	8.114		
7200	5491	8230	5417	59	81	-90.18	-328	-2396	1126	991	135.19	8.331		
7300	5491	8289	5416	61	82	-90.13	-326	-2455	1189	1051	138.08	8.610		
7400	5492	8352	5416	63	84	-90.12	-325	-2518	1253	1111	141.18	8.873		
7500	5492	8441	5415	65	86	-90.05	-323	-2607	1316	1171	145.74	9.032		
7600	5493	8505	5415	68	88	-90.01	-322	-2671	1380	1231	148.94	9.267		
7700	5493	8577	5415	70	90	-90.00	-321	-2743	1445	1292	152.60	9.467		
7800	5494	8658	5414	72	92	-89.94	-320	-2824	1509	1352	156.74	9.627		
7900	5494	8720	5414	75	94	-89.93	-319	-2886	1573	1414	159.82	9.844		
8000	5495	8789	5414	77	96	-89.93	-319	-2955	1639	1475	163.30	10.034		
8100	5495	8860	5414	80	98	-89.90	-319	-3026	1704	1537	166.88	10.210		
8200	5496	8997	5412	82	101	-89.83	-317	-3163	1768	1594	174.12	10.152		
8300	5496	9056	5411	84	103	-89.78	-315	-3222	1831	1653	177.13	10.335		
8400	5496	9119	5411	87	105	-89.77	-314	-3285	1894	1714	180.33	10.505		
8500	5497	9191	5413	89	107	-89.82	-313	-3357	1959	1775	184.00	10.647		
8600	5497	9245	5414	92	108	-89.87	-313	-3411	2024	1837	186.72	10.839		
8700	5498	9361	5415	94	111	-89.89	-312	-3527	2088	1895	192.85	10.828		
8800	5498	9413	5414	96	113	-89.85	-311	-3579	2152	1957	195.47	11.011		
8900	5499	9473	5413	99	114	-89.83	-311	-3638	2217	2019	198.48	11.171		
9000	5499	9554	5413	101	117	-89.81	-311	-3720	2282	2080	202.71	11.260		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - NAU 243H - ST1 - ST1													Offset Site Error:	0 ft
Survey Program: 530-MWD													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)				
9100	5500	9656	5413	104	119	-89.82	-310	-3821	2347	2139	208.04	11.281		
9200	5500	9748	5414	106	122	-89.84	-308	-3914	2411	2198	212.89	11.324		
9300	5501	9826	5414	109	124	-89.83	-307	-3992	2475	2258	216.93	11.407		
9400	5501	9830	5414	111	124	-89.83	-307	-3996	2539	2322	216.92	11.706		
9500	5502	9830	5414	113	124	-89.83	-307	-3996	2606	2390	216.53	12.036		
9600	5502	9830	5414	116	124	-89.83	-307	-3996	2675	2459	216.01	12.385		
9700	5502	9830	5414	118	124	-89.83	-307	-3996	2746	2531	215.36	12.751		
9800	5503	9830	5414	121	124	-89.83	-307	-3996	2819	2604	214.62	13.134		
9900	5503	9830	5414	123	124	-89.83	-307	-3996	2893	2679	213.80	13.532		
10,000	5504	9830	5414	126	124	-89.83	-307	-3996	2969	2756	212.92	13.944		
10,100	5504	9830	5414	128	124	-89.83	-307	-3996	3046	2834	211.98	14.369		
10,200	5505	9830	5414	131	124	-89.83	-307	-3996	3125	2914	211.01	14.807		
10,300	5505	9830	5414	133	124	-89.83	-307	-3996	3204	2994	210.02	15.257		
10,400	5506	9830	5414	136	124	-89.83	-307	-3996	3285	3076	209.00	15.718		
10,500	5506	9830	5414	138	124	-89.83	-307	-3996	3367	3159	207.97	16.189		
10,600	5507	9830	5414	141	124	-89.83	-307	-3996	3450	3243	206.94	16.670		
10,700	5507	9830	5414	143	124	-89.83	-307	-3996	3533	3328	205.91	17.160		
10,800	5508	9830	5414	146	124	-89.83	-307	-3996	3618	3413	204.87	17.659		
10,900	5508	9830	5414	148	124	-89.83	-307	-3996	3703	3499	203.85	18.166		
11,000	5508	9830	5414	151	124	-89.83	-307	-3996	3789	3586	202.84	18.681		
11,100	5509	9830	5414	153	124	-89.83	-307	-3996	3876	3674	201.84	19.203		
11,200	5509	9830	5414	156	124	-89.83	-307	-3996	3963	3762	200.85	19.732		
11,300	5510	9830	5414	158	124	-89.83	-307	-3996	4051	3851	199.88	20.268		
11,400	5510	9830	5414	161	124	-89.83	-307	-3996	4140	3941	198.92	20.810		
11,500	5511	9830	5414	163	124	-89.83	-307	-3996	4229	4031	197.99	21.357		
11,600	5511	9830	5414	166	124	-89.83	-307	-3996	4318	4121	197.07	21.911		
11,700	5512	9830	5414	168	124	-89.83	-307	-3996	4408	4212	196.17	22.469		
11,800	5512	9830	5414	171	124	-89.83	-307	-3996	4498	4303	195.29	23.033		
11,900	5513	9830	5414	173	124	-89.83	-307	-3996	4589	4394	194.43	23.602		
12,000	5513	9830	5414	176	124	-89.83	-307	-3996	4680	4486	193.59	24.175		
12,100	5514	9830	5414	178	124	-89.83	-307	-3996	4771	4579	192.77	24.752		
12,200	5514	9830	5414	181	124	-89.83	-307	-3996	4863	4671	191.96	25.334		
12,300	5514	9830	5414	183	124	-89.83	-307	-3996	4955	4764	191.18	25.920		
12,400	5515	9830	5414	186	124	-89.83	-307	-3996	5048	4857	190.42	26.509		
12,500	5515	9830	5414	188	124	-89.83	-307	-3996	5140	4951	189.67	27.102		
12,600	5516	9830	5414	191	124	-89.83	-307	-3996	5233	5044	188.94	27.699		
12,700	5516	9830	5414	193	124	-89.83	-307	-3996	5327	5138	188.23	28.298		
12,800	5517	9830	5414	196	124	-89.83	-307	-3996	5420	5233	187.54	28.901		
12,900	5517	9830	5414	198	124	-89.83	-307	-3996	5514	5327	186.86	29.507		
13,000	5518	9830	5414	201	124	-89.83	-307	-3996	5608	5421	186.20	30.116		
13,100	5518	9830	5414	203	124	-89.83	-307	-3996	5702	5516	185.56	30.727		
13,200	5519	9830	5414	206	124	-89.83	-307	-3996	5796	5611	184.94	31.341		
13,300	5519	9830	5414	208	124	-89.83	-307	-3996	5891	5706	184.32	31.958		
13,400	5520	9830	5414	211	124	-89.83	-307	-3996	5985	5802	183.73	32.577		
13,500	5520	9830	5414	213	124	-89.83	-307	-3996	6080	5897	183.15	33.198		
13,600	5520	9830	5414	216	124	-89.83	-307	-3996	6175	5993	182.58	33.822		
13,700	5521	9830	5414	218	124	-89.83	-307	-3996	6270	6088	182.03	34.447		
13,800	5521	9830	5414	221	124	-89.83	-307	-3996	6366	6184	181.49	35.075		
13,900	5522	9830	5414	223	124	-89.83	-307	-3996	6461	6280	180.96	35.704		
14,000	5522	9830	5414	226	124	-89.83	-307	-3996	6557	6376	180.45	36.336		
14,100	5523	9830	5414	228	124	-89.83	-307	-3996	6652	6472	179.95	36.969		
14,200	5523	9830	5414	231	124	-89.83	-307	-3996	6748	6569	179.46	37.604		

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Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Offset Design: A26 2307 Pad - NAU 243H - ST1 - ST1												Offset Site Error:	0 ft
Survey Program: 530-MWD												Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		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)			
14,300	5524	9830	5414	233	124	-89.83	-307	-3996	6844	6665	178.98	38.240	
14,400	5524	9830	5414	236	124	-89.83	-307	-3996	6940	6762	178.52	38.878	
14,500	5525	9830	5414	238	124	-89.83	-307	-3996	7036	6858	178.06	39.517	
14,600	5525	9830	5414	241	124	-89.83	-307	-3996	7133	6955	177.62	40.158	
14,700	5526	9830	5414	243	124	-89.83	-307	-3996	7229	7052	177.18	40.801	
14,800	5526	9830	5414	246	124	-89.83	-307	-3996	7326	7149	176.76	41.444	
14,900	5526	9830	5414	248	124	-89.83	-307	-3996	7422	7246	176.35	42.089	
15,000	5527	9830	5414	251	124	-89.83	-307	-3996	7519	7343	175.94	42.735	
15,100	5527	9830	5414	253	124	-89.83	-307	-3996	7616	7440	175.55	43.382	
15,200	5528	9830	5414	256	124	-89.83	-307	-3996	7713	7537	175.16	44.030	
15,300	5528	9830	5414	258	124	-89.83	-307	-3996	7809	7635	174.79	44.680	
15,400	5529	9830	5414	261	124	-89.83	-307	-3996	7906	7732	174.42	45.330	
15,500	5529	9830	5414	263	124	-89.83	-307	-3996	8004	7829	174.06	45.981	
15,600	5530	9830	5414	266	124	-89.83	-307	-3996	8101	7927	173.71	46.633	
15,700	5530	9830	5414	268	124	-89.83	-307	-3996	8198	8025	173.37	47.286	
15,800	5531	9830	5414	271	124	-89.83	-307	-3996	8295	8122	173.03	47.940	
15,884	5531	9830	5414	273	124	-89.83	-307	-3996	8377	8204	172.76	48.490	

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Lonestar Consulting, LLC

Anticollision Report

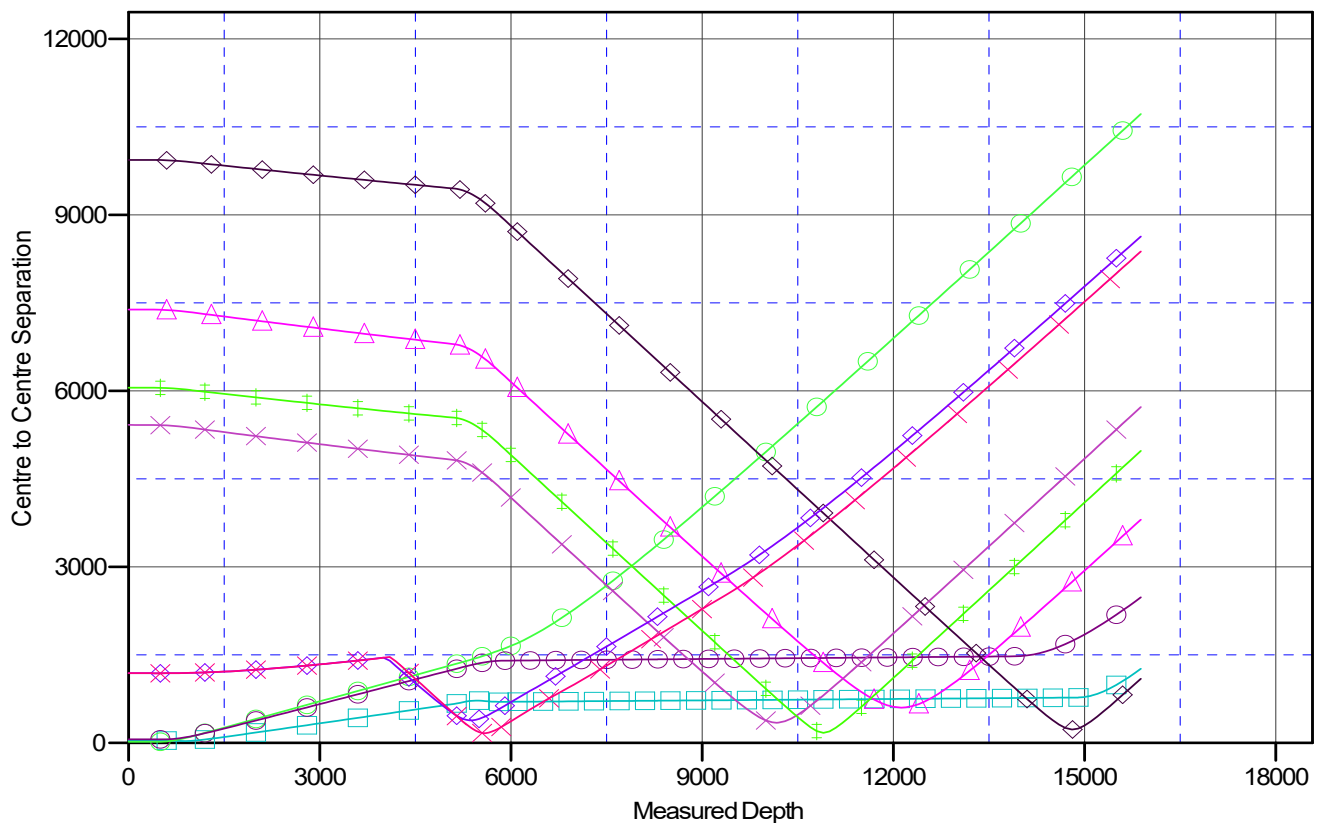


Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to GL 5307' & RKB 14' @ 7321ft
 Offset Depths are relative to Offset Datum
 Central Meridian is -107.83333333

Coordinates are relative to: # 543H - Slot 1
 Coordinate System is US State Plane 1983, New Mexico Western Zone
 Grid Convergence at Surface is: 0.17°

Ladder Plot



LEGEND

# 206H Original Drilling.g, APD Rev1 V0	Federal B-11.OH.OH.V0	Federal B-22.OH.OH.V0
# 542H Original Drilling.g, APD Rev1 V0	Federal B-13.OH.OH.V0	NAU243HST1.ST1 V0
# 544H Original Drilling.g, APD Rev1 V0	Federal B-22.OH.OH.V0	

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Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 543H - Slot 1
Project:	North Alamito Unit	TVD Reference:	GL 5307' & RKB 14' @ 7321ft
Reference Site:	A26 2307 Pad	MD Reference:	GL 5307' & RKB 14' @ 7321ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 543H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD Rev 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to GL 5307' & RKB 14' @ 7321ft

Offset Depths are relative to Offset Datum

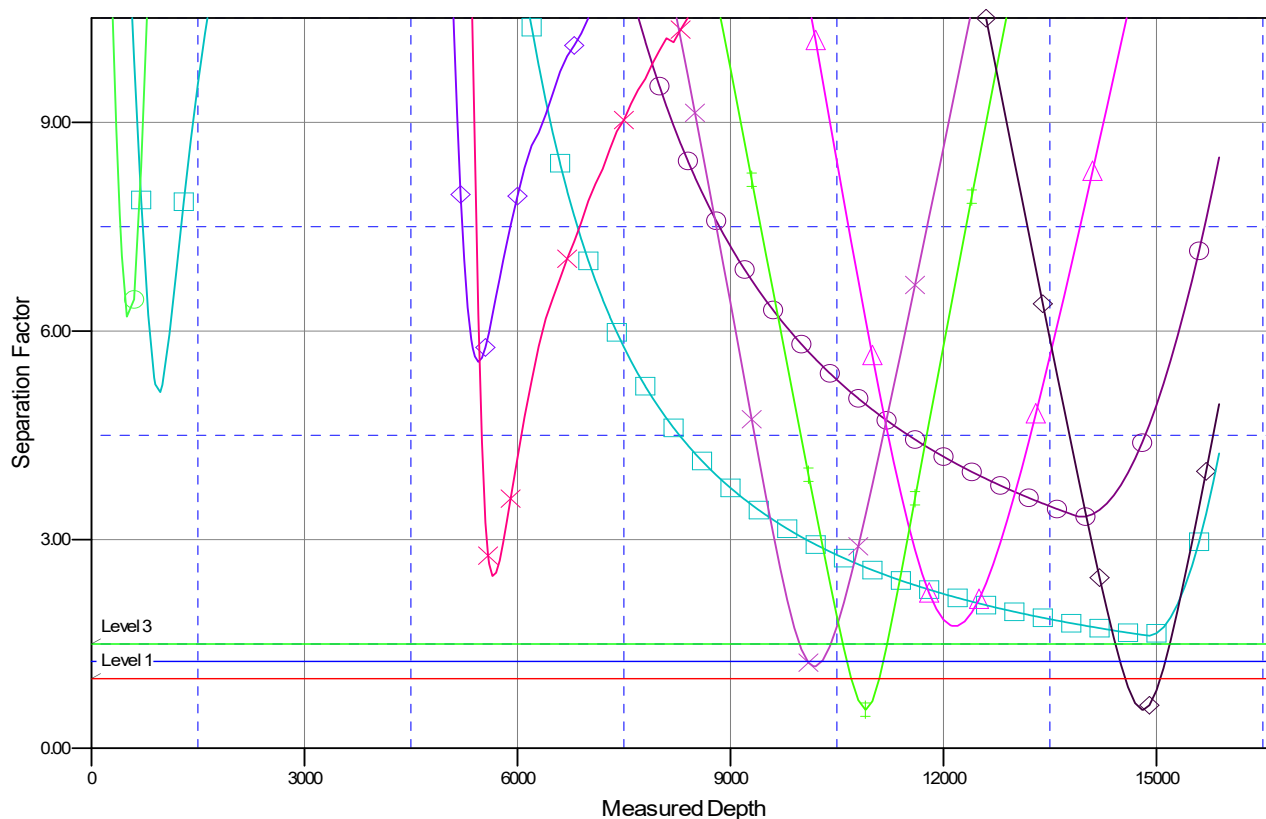
Central Meridian is -107.8333333

Coordinates are relative to: # 543H - Slot 1

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

Grid Convergence at Surface is: 0.17°

Separation Factor Plot



LEGEND

#206H(Original Drilling, APD Rev 1 V0)	Federal B-11(OH/OH V0)	Federal B-8(OH/OH V0)
#542H(Original Drilling, APD Rev 1 V0)	Federal B-13(OH/OH V0)	NAU243H(OH/OH V0)
#544H(Original Drilling, APD Rev 1 V0)	Federal B-22(OH/OH V0)	NAU243H/ST1(OH/OH V0)

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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
#543H NORTH ALAMITO UNIT
Lease: NMNM 028748 Agreement: NMNM 135229A
SH: NE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 26, T. 23N., R. 7W.
Sandoval County, New Mexico
BH: NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 22, T. 23N., R. 7W.
Sandoval 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. 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.
- L. 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.
- M. **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.

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

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

ACKNOWLEDGMENTS

Action 504758

ACKNOWLEDGMENTS

Operator: DJR OPERATING, LLC 200 Energy Court Farmington, NM 87401	OGRID: 371838
	Action Number: 504758
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

ACKNOWLEDGMENTS

☒	I hereby certify that no additives containing PFAS chemicals will be added to the completion or recompletion of this well.
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Santa Fe, NM 87505

CONDITIONS

Action 504758

CONDITIONS

Operator: DJR OPERATING, LLC 200 Energy Court Farmington, NM 87401	OGRID: 371838
	Action Number: 504758
	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.	9/10/2025
scrues76	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	9/10/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	9/18/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	9/18/2025
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.	9/18/2025
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.	9/18/2025