

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Ken McQueen
Cabinet Secretary

Heather Riley, Division Director
Oil Conservation Division



Matthias Sayer
Deputy Cabinet Secretary

New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-3 APD form.

Operator Signature Date: 5/14/18

Well information;

Operator DJR, Well Name and Number Carson 615H

API# 30-045-35878, Section 21, Township 25N, Range 12 EAW

Conditions of Approval: (See the below checked and handwritten conditions)

- ☒ Notify Aztec OCD 24hrs prior to casing & cement.
- ☒ Hold C-104 for directional survey & "As Drilled" Plat
- ☒ Hold C-104 for NSL, NSP, DHC
- ☐ Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- ☐ Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
 - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
 - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
 - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
- ☐ 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
- ☐ Submit Gas Capture Plan form prior to spudding or initiating recompletion operations
- ☒ Regarding Hydraulic Fracturing, review EPA Underground Injection Control Guidance 84
- ☒ 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.
- ☒ Well-bore communication is regulated under 19.15.29 NMAC. This requires well-bore Communication to be reported in accordance with 19.15.29.8.

Charlie
NMOCD Approved by Signature

9-6-2018
Date

AUG 20 2018

Form 3160-3
(March 2012)

DISTRICT III

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NMNM051013
1b. Type of Well: ☐ Oil Well ☐ Gas Well ☒ Other CBNG ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator DJR OPERATING LLC		7. If Unit or CA Agreement, Name and No.
3a. Address 1600 Broadway #1960 Denver CO 80202	3b. Phone No. (include area code) (303)407-7397	8. Lease Name and Well No. CARSON 615H
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SWSW / 671 FSL / 691 FWL / LAT 36.3812697 / LONG -108.1234262 At proposed prod. zone SWSW / 383 FSL / 231 FWL / LAT 36.394994 / LONG -108.1429132		9. API Well No. 30-045-35878
14. Distance in miles and direction from nearest town or post office* 23 miles		10. Field and Pool, or Exploratory BASIN / BISTI LOWER GALLUP
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 940 feet	16. No. of acres in lease 680	11. Sec., T. R. M. or Blk. and Survey or Area SEC 21 / T25N / R12W / NMP
18. Distance from proposed location* to nearest well, drilling, completed, 30 feet applied for, on this lease, ft.	19. Proposed Depth 4667 feet / 11975 feet	12. County or Parish SAN JUAN
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6370 feet	22. Approximate date work will start* 07/01/2018	13. State NM
17. Spacing Unit dedicated to this well 960		
20. BLM/BIA Bond No. on file FED: NMB001464		
23. Estimated duration 60 days		

24. Attachments

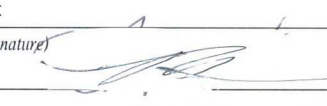
The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 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). | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature (Electronic Submission)	Name (Printed/Typed) Brian Wood / Ph: (505)466-8120	Date 05/14/2018
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Title

President

Approved by (Signature) 	Name (Printed/Typed) Richard A. Field	Date 8-29-18
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Title

Field Manager

Office
FARMINGTON

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)

DRILLING OPERATIONS
AUTHORIZED ARE SUBJECT TO
COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS"

BLM'S APPROVAL OR ACCEPTANCE OF
THIS ACTION DOES NOT RELIEVE THE
LESSEE AND OPERATOR FROM
OBTAINING ANY OTHER AUTHORIZATION
REQUIRED FOR OPERATIONS ON
FEDERAL AND INDIAN LANDS

This action is subject to technical
and procedural review pursuant to
43 CFR 3165.3 and appeal
pursuant to 43 CFR 3165.4

NMOCB

DISTRICT I
1825 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

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

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

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

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, N.M. 87505

NMOCD

AUG 28 2018

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35878	² Pool Code 97232 / 5890	³ Pool Name Basin Mancos / Bisti Lower Gallup
⁴ Property Code 322323	⁵ Property Name CARSON	⁶ Well Number 615H
⁷ OGRID No. 371838	⁸ Operator Name DJR OPERATING, LLC	⁹ Elevation 6350

¹⁰ Surface Location

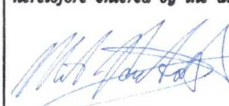
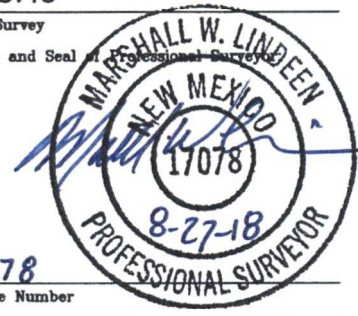
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	21	25 N	12 W		572	SOUTH	790	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	17	25 N	12 W		383	SOUTH	231	WEST	SAN JUAN

¹² Dedicated Acres Basin Mancos 400 ac. Bisti 400 ac.	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

¹⁶ BHL 383' FSL, 231' FWL SEC. 17, T25N, R12W LAT: 36.3949940° N LONG: 108.1429132° W NAD 83 LAT: 36.3949858° N LONG: 108.1422867° W NAD 27 LTP 330' FSL, 257' FWL SEC. 17, T25N, R12W LAT: 36.3948491° N LONG: 108.1428239° W NAD 83 LAT: 36.3948410° N LONG: 108.1421974° W NAD 27 LEGEND: ● = SURFACE LOCATION ○ = BOTTOM HOLE LOCATION + = LANDING POINT ■ = FTP □ = LTP ● = FOUND 1911 U.S.G.L.O. BRASS CAP ◎ = FOUND 1" CAP/REBAR #LS 8466 FTP 1229' FSL, 47' FWL SEC. 21, T25N, R12W LAT: 36.3828051° N LONG: 108.1256117° W NAD 83 LAT: 36.3827966° N LONG: 108.1249858° W NAD 27 LANDING POINT 1128' FSL, 165' FWL SEC. 21, T25N, R12W LAT: 36.382527° N LONG: 108.125211° W NAD 83 LAT: 36.382519° N LONG: 108.124585° W NAD 27 SURFACE LOCATION 572' FSL, 790' FWL SEC. 21, T25N, R12W LAT: 36.3809971° N LONG: 108.1230907° W NAD 83 LAT: 36.3809886° N LONG: 108.1224648° W NAD 27	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature  Date 8/27/2018 Printed Name Mike Deutsch E-mail Address mike@permitswest.com ¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Date of Survey 8/16/18 Signature and Seal of Professional Surveyor  Certificate Number 17078
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DRILLING PLAN

Carson 615H

San Juan County, New Mexico

Surface Location
 691-ft FWL & 671-ft FSL
 Sec 21 T25N R12W
 Graded Elevation 6350' MSL
 RKB Elevation 6370' (20' KB)

SHL Geographical Coordinates (NAD-83)
 Slot A-8
 Latitude 36.3812697° N
 Longitude 108.1234262° W

Heel Location (Pay zone entry)
 172-ft FWL & 1127-ft FSL
 Sec 21 T25N R12W

Heel Geographical Coordinates (NAD-83)
 Latitude 36.38252673° N
 Longitude 108.12521057° W

Bottom Hole Location (TD)
 251-ft FWL & 371-ft FSL
 Sec 17 T25N R12W

BHL Geographical Coordinates (NAD-83)
 Latitude 36.39499397° N
 Longitude 108.1429132° W

First Take Point (LTP)
 5125-ft MD
 Gallup B Sand

FTP Geographical Coordinates (NAD-83)
 Latitude 36.3826350° N
 Longitude 108.1253642° W

Last Take Point (FTP)
 11914-ft MD
 Gallup B Sand

LTP Geographical Coordinates (NAD-83)
 Latitude 36.3948857° N
 Longitude 108.1427594° W

Well objectives

A vertical pilot well will be drilled to 4999-ft TVD, reaching TD 100-ft into the Lower Mancos. Approximately 330-ft of core will be cut in the Mancos formation, and a suite of wireline logs will be run. The well will be plugged back with cement to about 3950-ft TVD, and then 7" casing will be run and cemented back to surface. After securing the wellbore, the rig will move off for approximately 60-days. During this period the core and wireline logs will be analyzed. A rig will then return to the well, drill out the 7" casing, land a build curve and drill a planned 6910-ft lateral in the Gallup B sand.

Pilot Hole 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)
Kirtland	-	G.L.	Sh	W	8.3	8.4 - 8.8
Fruitland	943	943	C	G	8.3	9.0 - 9.5
Picture Cliffs	1190	1190	Sd	G	8.3	9.0 - 9.5
Lewis	1289	1289	Sh	-		9.0 - 9.5
Chacra	1952	1952	Sd	-	8.3	9.0 - 9.5
Menefee	2518	2518	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	3576	3576	Sd	-	8.3	9.0 - 9.5
Mancos	3745	3745	Sh	-		9.0 - 9.5
Mancos Silt	4360	4360	Slt	O/G	8.5	9.0 - 9.5
Gallup A	4602	4602	Slt	O/G	8.5	9.0 - 9.5
Gallup B	4667	4667	Sd	O/G	8.5	8.8 - 9.0
Gallup C	4764	4764	Sd	O/G	8.5	8.8 - 9.0
Lower Mancos	4899	4899	Sh	-	8.5	8.8 - 9.0
TD	4999	4999		-	8.5	8.8 - 9.0

Horizontal Well Formation Tops (Note: "NP" = no penetration)

Name	MD (ft)	TVD (ft)	Lithology	Pore fluid	Expected Pore Pressure (ppg)	Planned Mud Weight (ppg)
Kirtland	-	G.L.	Sh	W	8.3	8.4 - 8.8
Fruitland	943	943	C	G	8.3	9.0 - 9.5
Picture Cliffs	1190	1190	Sd	G	8.3	9.0 - 9.5
Lewis	1289	1289	Sh	-		9.0 - 9.5
Chacra	1952	1952	Sd	-	8.3	9.0 - 9.5
Menefee	2518	2518	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	3576	3576	Sd	-	8.3	9.0 - 9.5
Mancos	3745	3745	Sh	-		9.0 - 9.5
Mancos Silt	4384	4360	Slt	O/G	8.5	9.0 - 9.5
Gallup A	4761	4602	Slt	O/G	8.5	9.0 - 9.5
Gallup B	5065	4667	Sd	O/G	8.5	8.8 - 9.0
Gallup C	NP	NP	Sd	O/G	8.5	8.8 - 9.0
Lower Mancos	NP	NP	Sh	-	8.5	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"	23	K-55	LTC	surf	3950	surf	3950	surface
4-1/2"	6-1/8"	11.6	P-110	LTC	3750	11974	3750	4667	3750

Note: all casing will be new

Casing 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

Additives: A=Accelerator; B=Bond Enhancer; De=Defoamer; Di=Dispersant; Ex=Extender; FI=Fluid Loss L=Lost Circulation; R=Retarder; SA=Suspending Agent; THX=Thixotropic Additive; V=Viscosifier

9-5/8" Surface Casing

	<u>Lead</u>
Halliburton Name	HALCEM
Type	Class G
Additives	A
Planned top	Surface
Density (ppg)	15.80
Yield (cf/sx)	1.17
Mix water (gal/sx)	5.15
Volume (sx)	205
Volume (bbls)	42

7" Intermediate Casing

	<u>Lead</u>	<u>Tail</u>
Halliburton Name	HALCEM	VARICEM
Type	Poz/G	Poz/G
Additives	Ex, L, SA	Ex, FI, SA, L, THX
Planned top	Surface	3245-ft
Density (ppg)	12.30	13.50
Yield (cf/sx)	1.95	1.30
Mix water (gal/sx)	10.14	5.64
Volume (sx)	409	145
Volume (bbls)	142	34

4-1/2" Production Liner

	<u>Lead</u>
Halliburton Name	EXTENDACEM
Type	Poz/G
Additives	B, De, Di, FI, Re, V
Planned top	3750-ft
Density (ppg)	13.3
Yield (cf/sx)	1.36
Mix water (gal/sx)	5.94
Volume (sx)	842
Volume (bbls)	204

Wellhead & Pressure Control

The well head will be an 11" 5M multi-bowl system. The BOP will consist of, at a minimum, two 5M pipe rams, a 5M annular preventer, a low pressure rotating head, a 3" 5M choke manifold plumbed to a gas buster and a flare stack and a 2" 5M kill line. Diagrams of the wellhead, BOP equipment and choke manifold are provided. All systems will conform to Onshore Order #2 and 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 geograph 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 at all times to maintain adequate pit volumes.

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 – 3950	9.0 – 9.5	38 – 45	8 – 14	<20
Production	Low solids, non-dispersed	3950 – 11974	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.

Coring: Approximately 330-ft of 8-3/4" x 4" core will be cut in the pilot hole, in the Mancos interval.

Electric logging: A triple combo wireline run will be made in the vertical pilot hole, from TD to the base of surface casing. A cased hole CBL will be run in the 7" casing from the 4-1/2" liner top to surface.

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" gas lift tubing string with packer. The stimulation and completion plan will be sundried at a later date.

PLUGBACK PLAN **Carson 615 Pilot Hole** **San Juan County, New Mexico**

Surface Location
 691-ft FWL & 671-ft FSL
 Sec 21 T25N R12W
 Graded Elevation 6350' MSL
 RKB Elevation 6370' (20' KB)

SHL Geographical Coordinates (NAD-83)

Slot A-8
 Latitude 36.3812697° N
 Longitude 108.1234262° W

Bottom Hole Location (TD)

691-ft FWL & 671-ft FSL
 Sec 17 T25N R12W
 4999-ft MD / 4999-ft TVD

BHL Geographical Coordinates (NAD-83)

Latitude 36.3812697° N
 Longitude 108.1234262° W

Plugback Objectives

Abandon the lower pilot hole from 4999-ft to 3950-ft with two balanced cement plugs.

Pilot Hole 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)
Kirtland	-	G.L.	Sh	W	8.3	8.4 - 8.8
Fruitland	943	943	C	G	8.3	9.0 - 9.5
Picture Cliffs	1190	1190	Sd	G	8.3	9.0 - 9.5
Lewis	1289	1289	Sh	-		9.0 - 9.5
Chacra	1952	1952	Sd	-	8.3	9.0 - 9.5
Menefee	2518	2518	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	3576	3576	Sd	-	8.3	9.0 - 9.5
Mancos	3745	3745	Sh	-		9.0 - 9.5
Mancos Silt	4360	4360	Slt	O/G	8.5	9.0 - 9.5
Gallup A	4602	4602	Slt	O/G	8.5	9.0 - 9.5
Gallup B	4667	4667	Sd	O/G	8.5	8.8 - 9.0
Gallup C	4764	4764	Sd	O/G	8.5	8.8 - 9.0
Lower Mancos	4899	4899	Sh	-	8.5	8.8 - 9.0
TD	4999	4999		-	8.5	8.8 - 9.0

Well Status

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
	8.75"				350	4999		4999	-

Plugback Cement Design

Slurry : Halliburton Class "G" + 0.10% HR-5 retarder
 Density : 15.8 ppg
 Yield : 1.15 cf/sx
 Water : 4.98 gal/sx
 Hole size : 8-3/4"
 OH Capacity : 0.0744 bbl/ft
 Est % Excess : 40% (actual excess to be determined after reviewing open hole logs)

	Plug #1	Plug #2
Bottom of plug	4999-ft	4450-ft
Top of plug	4450-ft	3950-ft
Fill	549-ft	500-ft
Planned volume	57 bbls	52 bbls
Planned sack	279 sacks	254 sacks

Snapshot Procedure

1. After rigging down wireline loggers, pick up and run in hole with 650-ft of 2-7/8" tubing stinger on drill pipe.
2. Trip in hole, tag bottom. Circulate and condition mud until mud weight in = mud weight out and gas readings reach background levels.
3. Space out drill string to put cementing head at rig floor, rig up cementers.
4. Plug #1: Pump 15 bbls of freshwater, following by 279 sacks (57 bbls) of 15.8 ppg slurry. Displace with water and mud to balance cement.
5. Rig down cement head, pull out of hole slowly to 4450-ft. Pipe should pull dry. Circulate out cement while working pipe, treat out cement contamination and condition mud.
6. Space out drill string to put cementing head at rig floor, rig up cementers.
7. Plug #2: Pump 15 bbls of freshwater, following by 254 sacks (52 bbls) of 15.8 ppg slurry. Displace with water and mud to balance cement.
8. Rig down cement head, pull out of hole slowly to 3950-ft. Pipe should pull dry. Circulate out cement while working pipe, treat out cement contamination and condition mud.
9. Pull out of hole and lay down tubing stinger.
10. Rig up to run 7" casing to 3950-ft.

DJR Operating, LLC
Carson 615H
671' FSL & 691' FWL
Sec. 21, T. 25 N., R. 12 W.
San Juan County, New Mexico

PAGE 1

Surface Use Plan

1. DIRECTIONS & EXISTING ROADS (See Maps 1 & 2)

From the Hilltop Store at the junction of US 550 and CR 7150...
Go South 7.25 miles on paved CR 7150 to the intersection with CR 7250
Continue south and west on CR 7250 for 9.25 miles
Then turn right and go north on unmarked dirt road for 500'
Then turn right on well access road and continue northeast for 850' to the proposed pad

Roads will be maintained to Gold Book standards. For short and long term maintenance, the existing well access road from the pad to CR 7250 will be maintained by DJR Operating. For County Road 7250 or roads considered as collector roads, the operator will defer to San Juan County or the Roads Committee for maintenance determinations. If existing roads require reconstruction due to activity associated with this project, or if required by the BLM-FFO, the operator will upgrade existing non-county road(s) following the most recent *Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development (The Gold Book)* and BLM Handbook 9113 (et al). Water will be used for dust control.

Well location is approximately 23 air miles southwest of Bloomfield, New Mexico.

2. ROAD TO BE UPGRADED (See Map 2)

Approximately 1,402' of existing road will be upgraded between CR 7250 and DJR's existing Bisti Coal 21 Com #2 well pad. This road will be reused when the existing pad is expanded to become the Carson WC 21-1 pad. Approximately 1,250' of the existing access road is on BLM land (lease NMNM 051013) while the remaining 153' is on Navajo Tribal Trust lands. All roads will be built or upgraded to BLM Gold Book standards. Topsoil and brush will be windowed beside the road. Road will be crowned (≈ 0.04 ft/ft), ditched, and have a $\approx 14'$ wide running surface. Maximum disturbed road width will be 30'. Maximum cut or fill = 3'. Maximum grade = 4%. No surfacing is planned.

3. EXISTING WELLS (See Map 3)

State records show 13 active gas wells, 5 plugged and abandoned gas wells, 12 active oil wells, 4 new oil wells, and 4 plugged wells within a one mile radius of the proposed well bore. The closest existing well is a gas well (also operated by DJR) and is located approximately 150' to the northeast. There are no fresh water wells within one mile.

DJR Operating, LLC
Carson 615H
671' FSL & 691' FWL
Sec. 21, T. 25 N., R. 12 W.
San Juan County, New Mexico

PAGE 3

The pad will be leveled with heavy equipment (e.g., bulldozer) to provide space and a level surface for vehicles and equipment. Only native excavated material will be used on the pad. Excavated materials from the cuts will be used for fill in order to level the pad. A maximum cut of 9.0' and a maximum fill of 13.0' will be needed to create a level pad. No additional materials will be required for construction of the pad.

Construction and maintenance activities will stop when the ground is frozen or soil is highly saturated. Activity will stop when construction equipment cause ruts in the soil 6" in depth.

Trees ≥ 3 " DBH will be cut into 4 to 5 foot lengths and stacked on the pad for the public. Limbs and trees ≤ 3 " DBH will be mulched and spread on bare dirt. The top 6" of soil will be bladed and piled around the northern perimeter of the pad. A silt trap will be built east of the topsoil pile.

7. WASTE DISPOSAL

No reserve pit will be used. No blow pit will be used.

All trash will be placed in a portable metal trash cage. It will be hauled to an approved landfill. Human waste will be disposed of in chemical toilets. Toilets will be provided and maintained during all construction, drilling, and completion operations. Toilet contents will be hauled to a state approved dump station.

8. ANCILLARY FACILITIES (See Figure 3 – Rig Layout)

There will be no airstrip, camp, or staging area. Camper trailers will be on location for the company man, tool pusher, and mud logger.

9. WELL SITE LAYOUT

See Figures 1, 2, & 3 for depictions of the well pad, cross section, cut and fill diagram, taccess onto the location, parking, living facilities, and rig orientation.



Pad name : WC 21-2
Well name : Carson 615H
Sec 21 T25N R12W

SHL Latitude : 36.38126970
SHL Longitude : -108.12342620

US State Plane 1983
North American Datum 1983
New Mexico Western Zone

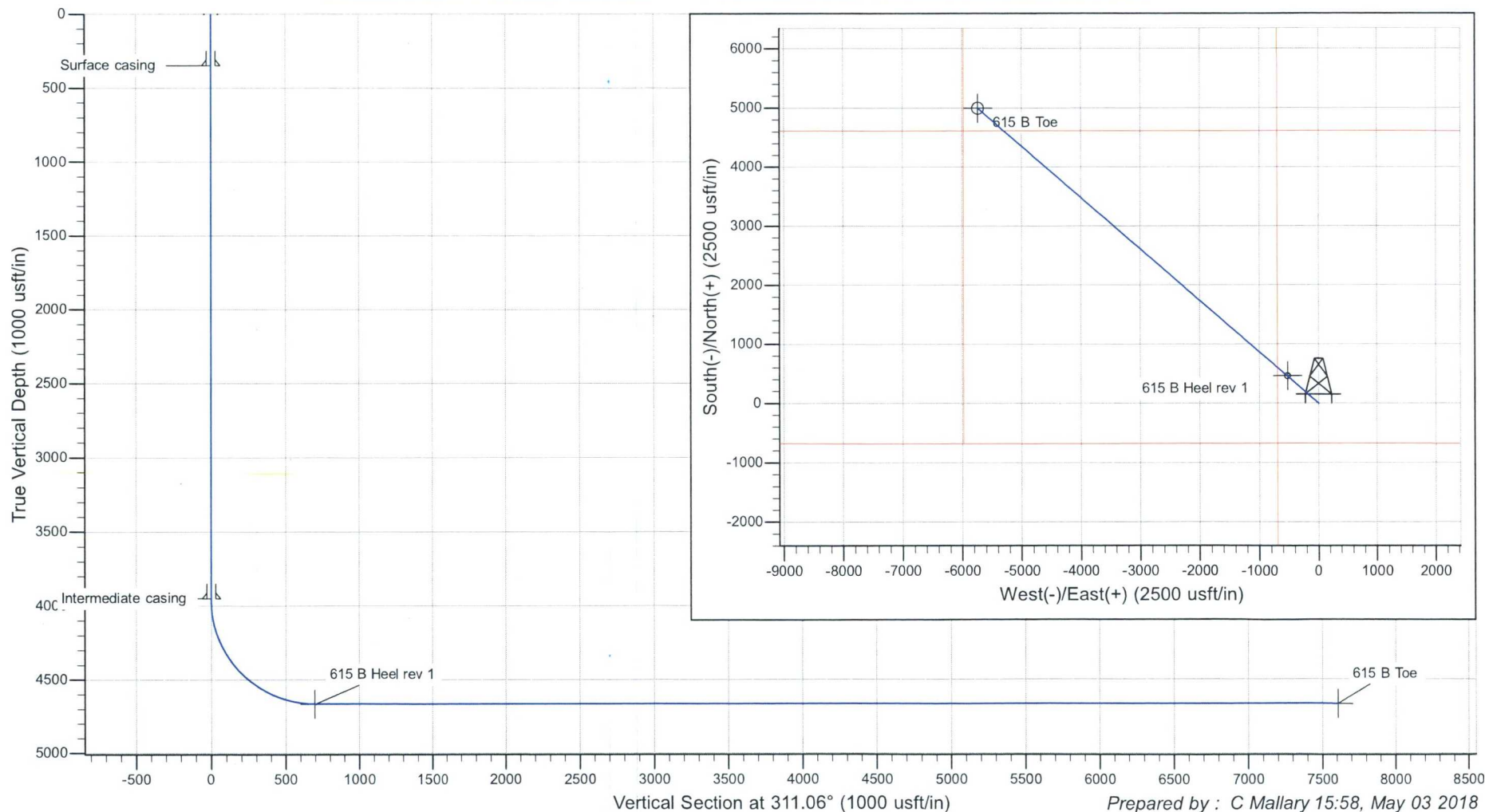
TRAJECTORY DETAILS									
Pad elevation : 6350.0 Rig @ 6370.0usft (Rig TBD 20' KB)									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
3970.4	0.00	0.00	3970.4	0.0	0.0	0.00	0.00	0.0	
5064.6	90.00	311.06	4667.0	457.6	-525.2	8.22	311.06	696.6	615 B Heel rev 1
11974.5	90.00	311.06	4667.0	4996.7	-5735.2	0.00	0.00	7606.5	615 B Toe

TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
615 B Heel rev 1	4667.0	457.6	-525.2	1958672	2637177	36.38252673	-108.12521057
615 B Toe	4667.0	4996.7	-5735.2	1963226	2631981	36.39499397	-108.14291320



Azimuths to True North
Magnetic North: 9.29°

Magnetic Field
Strength: 49699.0nT
Dip Angle: 62.96°
Date: 4/5/2018
Model: IGRF2015



Prepared by : C Mallary 15:58, May 03 2018

DJR Operating

Proposed Carson Unit

WC 21-2

Slot 8

Carson 615H

Plan: Lateral plan

Standard Planning Report

10 May, 2018

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well Slot 8
Company:	DJR Operating	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Project:	Proposed Carson Unit	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site:	WC 21-2	North Reference:	True
Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Carson 615H		
Design:	Lateral plan		

Project	Proposed Carson 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		WC 21-2, C Mallary			
Site Position:		Northing:	1,958,212 usft	Latitude:	36.38126970
From:	Lat/Long	Easting:	2,637,701 usft	Longitude:	-108.12342620
Position Uncertainty:	0.0 usft	Slot Radius:	16.000 in	Grid Convergence:	-0.17 °

Well	Slot 8					
Well Position	+N/-S	0.0 usft	Northing:	1,958,212 usft	Latitude:	36.38126970
	+E/-W	0.0 usft	Easting:	2,637,701 usft	Longitude:	-108.12342620
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	6,350.0 usft

Wellbore	Carson 615H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	4/5/2018	9.29	62.96	49,698.97110758

Design	Lateral plan				
Audit Notes:					
Version:		Phase:	PLAN	Tie On Depth:	3,970.4
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	311.06	

Plan Survey Tool Program	Date 5/10/2018				
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	3,970.4	11,974.5	Lateral plan (Carson 615H)	MWD+IGRF	
				OWSG MWD + IGRF or WI	

Plan Sections											
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target	
3,970.4	0.00	0.00	3,970.4	0.0	0.0	0.00	0.00	0.00	0.00		
5,064.6	90.00	311.06	4,667.0	457.6	-525.2	8.22	8.22	-4.47	311.06	615 B Heel rev 1	
11,974.5	90.00	311.06	4,667.0	4,996.7	-5,735.2	0.00	0.00	0.00	0.00	615 B Toe	

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well Slot 8
Company:	DJR Operating	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Project:	Proposed Carson Unit	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site:	WC 21-2	North Reference:	True
Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Carson 615H		
Design:	Lateral plan		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
350.0	0.00	0.00	350.0	0.0	0.0	0.0	0.00	0.00	0.00
Surface casing									
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,950.0	0.00	0.00	3,950.0	0.0	0.0	0.0	0.00	0.00	0.00
Intermediate casing									
3,970.4	0.00	311.06	3,970.4	0.0	0.0	0.0	0.00	0.00	0.00
Kick off Point									
4,000.0	2.44	311.06	4,000.0	0.4	-0.5	0.6	8.23	8.23	0.00
4,050.0	6.55	311.06	4,049.8	3.0	-3.4	4.5	8.22	8.22	0.00
4,100.0	10.66	311.06	4,099.3	7.9	-9.1	12.0	8.22	8.22	0.00
4,150.0	14.77	311.06	4,148.0	15.1	-17.4	23.0	8.22	8.22	0.00
4,200.0	18.89	311.06	4,195.9	24.6	-28.3	37.5	8.22	8.22	0.00
4,250.0	23.00	311.06	4,242.6	36.4	-41.7	55.4	8.22	8.22	0.00
4,300.0	27.11	311.06	4,287.8	50.3	-57.7	76.5	8.22	8.22	0.00

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well Slot 8
Company:	DJR Operating	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Project:	Proposed Carson Unit	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site:	WC 21-2	North Reference:	True
Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Carson 615H		
Design:	Lateral plan		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,350.0	31.22	311.06	4,331.5	66.3	-76.1	100.9	8.22	8.22	0.00
4,383.9	34.01	311.06	4,360.0	78.3	-89.8	119.1	8.22	8.22	0.00
Mancos Silt									
4,400.0	35.34	311.06	4,373.3	84.3	-96.8	128.3	8.22	8.22	0.00
4,450.0	39.45	311.06	4,413.0	104.2	-119.6	158.7	8.22	8.22	0.00
4,500.0	43.56	311.06	4,450.4	126.0	-144.6	191.8	8.22	8.22	0.00
4,550.0	47.67	311.06	4,485.4	149.5	-171.6	227.5	8.22	8.22	0.00
4,600.0	51.79	311.06	4,517.7	174.5	-200.3	265.7	8.22	8.22	0.00
4,650.0	55.90	311.06	4,547.2	201.0	-230.8	306.0	8.22	8.22	0.00
4,700.0	60.01	311.06	4,573.7	228.9	-262.7	348.4	8.22	8.22	0.00
4,750.0	64.12	311.06	4,597.1	257.9	-296.0	392.6	8.22	8.22	0.00
4,761.3	65.05	311.06	4,602.0	264.6	-303.7	402.8	8.22	8.22	0.00
Gallup A									
4,800.0	68.23	311.06	4,617.3	287.9	-330.5	438.3	8.22	8.22	0.00
4,850.0	72.35	311.06	4,634.2	318.8	-366.0	485.4	8.22	8.22	0.00
4,900.0	76.46	311.06	4,647.6	350.5	-402.3	533.5	8.22	8.22	0.00
4,950.0	80.57	311.06	4,657.6	382.6	-439.2	582.5	8.22	8.22	0.00
5,000.0	84.68	311.06	4,664.0	415.2	-476.6	632.1	8.22	8.22	0.00
5,050.0	88.80	311.06	4,666.8	448.0	-514.2	682.0	8.22	8.22	0.00
5,064.6	90.00	311.06	4,667.0	457.6	-525.2	696.6	8.22	8.22	0.00
Gallup B									
5,100.0	90.00	311.06	4,667.0	480.8	-551.9	732.0	0.00	0.00	0.00
5,124.6	90.00	311.06	4,667.0	497.0	-570.5	756.6	0.00	0.00	0.00
Last take point									
5,200.0	90.00	311.06	4,667.0	546.5	-627.3	832.0	0.00	0.00	0.00
5,300.0	90.00	311.06	4,667.0	612.2	-702.7	932.0	0.00	0.00	0.00
5,400.0	90.00	311.06	4,667.0	677.9	-778.1	1,032.0	0.00	0.00	0.00
5,500.0	90.00	311.06	4,667.0	743.6	-853.5	1,132.0	0.00	0.00	0.00
5,600.0	90.00	311.06	4,667.0	809.3	-928.9	1,232.0	0.00	0.00	0.00
5,700.0	90.00	311.06	4,667.0	875.0	-1,004.3	1,332.0	0.00	0.00	0.00
5,800.0	90.00	311.06	4,667.0	940.7	-1,079.7	1,432.0	0.00	0.00	0.00
5,900.0	90.00	311.06	4,667.0	1,006.4	-1,155.1	1,532.0	0.00	0.00	0.00
6,000.0	90.00	311.06	4,667.0	1,072.0	-1,230.5	1,632.0	0.00	0.00	0.00
6,100.0	90.00	311.06	4,667.0	1,137.7	-1,305.9	1,732.0	0.00	0.00	0.00
6,200.0	90.00	311.06	4,667.0	1,203.4	-1,381.3	1,832.0	0.00	0.00	0.00
6,300.0	90.00	311.06	4,667.0	1,269.1	-1,456.7	1,932.0	0.00	0.00	0.00
6,400.0	90.00	311.06	4,667.0	1,334.8	-1,532.1	2,032.0	0.00	0.00	0.00
6,500.0	90.00	311.06	4,667.0	1,400.5	-1,607.5	2,132.0	0.00	0.00	0.00
6,600.0	90.00	311.06	4,667.0	1,466.2	-1,682.9	2,232.0	0.00	0.00	0.00
6,700.0	90.00	311.06	4,667.0	1,531.9	-1,758.3	2,332.0	0.00	0.00	0.00
6,800.0	90.00	311.06	4,667.0	1,597.6	-1,833.7	2,432.0	0.00	0.00	0.00
6,900.0	90.00	311.06	4,667.0	1,663.3	-1,909.1	2,532.0	0.00	0.00	0.00
7,000.0	90.00	311.06	4,667.0	1,728.9	-1,984.5	2,632.0	0.00	0.00	0.00
7,100.0	90.00	311.06	4,667.0	1,794.6	-2,059.9	2,732.0	0.00	0.00	0.00
7,200.0	90.00	311.06	4,667.0	1,860.3	-2,135.3	2,832.0	0.00	0.00	0.00
7,300.0	90.00	311.06	4,667.0	1,926.0	-2,210.7	2,932.0	0.00	0.00	0.00
7,400.0	90.00	311.06	4,667.0	1,991.7	-2,286.1	3,032.0	0.00	0.00	0.00
7,500.0	90.00	311.06	4,667.0	2,057.4	-2,361.5	3,132.0	0.00	0.00	0.00
7,600.0	90.00	311.06	4,667.0	2,123.1	-2,436.9	3,232.0	0.00	0.00	0.00
7,700.0	90.00	311.06	4,667.0	2,188.8	-2,512.3	3,332.0	0.00	0.00	0.00
7,800.0	90.00	311.06	4,667.0	2,254.5	-2,587.7	3,432.0	0.00	0.00	0.00
7,900.0	90.00	311.06	4,667.0	2,320.1	-2,663.1	3,532.0	0.00	0.00	0.00
8,000.0	90.00	311.06	4,667.0	2,385.8	-2,738.5	3,632.0	0.00	0.00	0.00
8,100.0	90.00	311.06	4,667.0	2,451.5	-2,813.9	3,732.0	0.00	0.00	0.00

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well Slot 8
Company:	DJR Operating	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Project:	Proposed Carson Unit	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site:	WC 21-2	North Reference:	True
Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Carson 615H		
Design:	Lateral plan		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,200.0	90.00	311.06	4,667.0	2,517.2	-2,889.3	3,832.0	0.00	0.00	0.00
8,300.0	90.00	311.06	4,667.0	2,582.9	-2,964.6	3,932.0	0.00	0.00	0.00
8,400.0	90.00	311.06	4,667.0	2,648.6	-3,040.0	4,032.0	0.00	0.00	0.00
8,500.0	90.00	311.06	4,667.0	2,714.3	-3,115.4	4,132.0	0.00	0.00	0.00
8,600.0	90.00	311.06	4,667.0	2,780.0	-3,190.8	4,232.0	0.00	0.00	0.00
8,700.0	90.00	311.06	4,667.0	2,845.7	-3,266.2	4,332.0	0.00	0.00	0.00
8,800.0	90.00	311.06	4,667.0	2,911.4	-3,341.6	4,432.0	0.00	0.00	0.00
8,900.0	90.00	311.06	4,667.0	2,977.0	-3,417.0	4,532.0	0.00	0.00	0.00
9,000.0	90.00	311.06	4,667.0	3,042.7	-3,492.4	4,632.0	0.00	0.00	0.00
9,100.0	90.00	311.06	4,667.0	3,108.4	-3,567.8	4,732.0	0.00	0.00	0.00
9,200.0	90.00	311.06	4,667.0	3,174.1	-3,643.2	4,832.0	0.00	0.00	0.00
9,300.0	90.00	311.06	4,667.0	3,239.8	-3,718.6	4,932.0	0.00	0.00	0.00
9,400.0	90.00	311.06	4,667.0	3,305.5	-3,794.0	5,032.0	0.00	0.00	0.00
9,500.0	90.00	311.06	4,667.0	3,371.2	-3,869.4	5,132.0	0.00	0.00	0.00
9,600.0	90.00	311.06	4,667.0	3,436.9	-3,944.8	5,232.0	0.00	0.00	0.00
9,700.0	90.00	311.06	4,667.0	3,502.6	-4,020.2	5,332.0	0.00	0.00	0.00
9,800.0	90.00	311.06	4,667.0	3,568.3	-4,095.6	5,432.0	0.00	0.00	0.00
9,900.0	90.00	311.06	4,667.0	3,633.9	-4,171.0	5,532.0	0.00	0.00	0.00
10,000.0	90.00	311.06	4,667.0	3,699.6	-4,246.4	5,632.0	0.00	0.00	0.00
10,100.0	90.00	311.06	4,667.0	3,765.3	-4,321.8	5,732.0	0.00	0.00	0.00
10,200.0	90.00	311.06	4,667.0	3,831.0	-4,397.2	5,832.0	0.00	0.00	0.00
10,300.0	90.00	311.06	4,667.0	3,896.7	-4,472.6	5,932.0	0.00	0.00	0.00
10,400.0	90.00	311.06	4,667.0	3,962.4	-4,548.0	6,032.0	0.00	0.00	0.00
10,500.0	90.00	311.06	4,667.0	4,028.1	-4,623.4	6,132.0	0.00	0.00	0.00
10,600.0	90.00	311.06	4,667.0	4,093.8	-4,698.8	6,232.0	0.00	0.00	0.00
10,700.0	90.00	311.06	4,667.0	4,159.5	-4,774.2	6,332.0	0.00	0.00	0.00
10,800.0	90.00	311.06	4,667.0	4,225.1	-4,849.6	6,432.0	0.00	0.00	0.00
10,900.0	90.00	311.06	4,667.0	4,290.8	-4,925.0	6,532.0	0.00	0.00	0.00
11,000.0	90.00	311.06	4,667.0	4,356.5	-5,000.4	6,632.0	0.00	0.00	0.00
11,100.0	90.00	311.06	4,667.0	4,422.2	-5,075.8	6,732.0	0.00	0.00	0.00
11,200.0	90.00	311.06	4,667.0	4,487.9	-5,151.2	6,832.0	0.00	0.00	0.00
11,300.0	90.00	311.06	4,667.0	4,553.6	-5,226.6	6,932.0	0.00	0.00	0.00
11,400.0	90.00	311.06	4,667.0	4,619.3	-5,302.0	7,032.0	0.00	0.00	0.00
11,500.0	90.00	311.06	4,667.0	4,685.0	-5,377.4	7,132.0	0.00	0.00	0.00
11,600.0	90.00	311.06	4,667.0	4,750.7	-5,452.8	7,232.0	0.00	0.00	0.00
11,700.0	90.00	311.06	4,667.0	4,816.4	-5,528.2	7,332.0	0.00	0.00	0.00
11,800.0	90.00	311.06	4,667.0	4,882.0	-5,603.6	7,432.0	0.00	0.00	0.00
11,900.0	90.00	311.06	4,667.0	4,947.7	-5,679.0	7,532.0	0.00	0.00	0.00
11,914.5	90.00	311.06	4,667.0	4,957.3	-5,689.9	7,546.5	0.00	0.00	0.00
First take point									
11,974.5	90.00	311.06	4,667.0	4,996.7	-5,735.2	7,606.5	0.00	0.00	0.00

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well Slot 8
Company:	DJR Operating	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Project:	Proposed Carson Unit	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site:	WC 21-2	North Reference:	True
Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Carson 615H		
Design:	Lateral plan		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
615 B Heel rev 1 - plan hits target center - Circle (radius 50.0)	0.00	0.00	4,667.0	457.6	-525.2	1,958,672	2,637,177	36.38252673	-108.12521057
615 B Toe - plan hits target center - Circle (radius 100.0)	0.00	0.00	4,667.0	4,996.7	-5,735.2	1,963,226	2,631,981	36.39499397	-108.14291320

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
350.0	350.0	Surface casing	9.625	12.250
3,950.0	3,950.0	Intermediate casing	7.000	8.750

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
25.0	25.0	Kirtland			
943.0	943.0	Fruitland			
1,190.0	1,190.0	Picture Cliffs			
1,289.0	1,289.0	Lewis			
1,952.0	1,952.0	Chacra			
2,518.0	2,518.0	Menefee			
3,576.0	3,576.0	Point Lookout			
3,745.0	3,745.0	Mancos			
4,383.9	4,360.0	Mancos Silt			
4,761.3	4,602.0	Gallup A			
5,064.6	4,667.0	Gallup B			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
3,970.4	3,970.4	0.0	0.0	Kick off Point
5,124.6	4,667.0	497.0	-570.5	Last take point
11,914.5	4,667.0	4,957.3	-5,689.9	First take point

DJR Operating

**Proposed Carson Unit
WC 21-2
Slot 8**

**Carson 615H
Lateral plan**

Anticollision Report

03 May, 2018



Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615H	Database:	EDM
Reference Design:	Lateral plan	Offset TVD Reference:	Offset Datum

Reference	Lateral plan
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	Stations
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 10,000.0 us
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Survey Tool Program Date 5/3/2018

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	3,970.4	Pilot hole (Carson 615)	MWD+IGRF	OWSG MWD + IGRF or WMM
3,970.4	11,974.5	Lateral plan (Carson 615H)	MWD+IGRF	OWSG MWD + IGRF or WMM

Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
WC 21-2						
Bisti Coal 21 Com 2 - Original drilling - Original drilling	1,329.3	1,304.3	154.8	145.8	17.136	CC, ES, SF
Slot 4 - Carson 584H - Lateral plan	952.5	954.4	71.5	65.0	11.062	CC, ES
Slot 4 - Carson 584H - Lateral plan	1,100.0	1,098.8	76.4	68.8	10.086	SF
Slot 5 - Carson 611H - Lateral plan	400.0	400.0	60.0	57.5	24.602	CC
Slot 5 - Carson 611H - Lateral plan	500.0	499.4	60.3	57.2	19.160	ES
Slot 5 - Carson 611H - Lateral plan	11,974.5	12,561.7	1,193.0	802.9	3.058	SF
Slot 6 - Carson 613H - Lateral plan	800.0	800.0	40.0	34.7	7.542	CC, ES
Slot 6 - Carson 613H - Lateral plan	11,900.0	12,484.6	628.1	246.3	1.645	SF
Slot 7 - Carson 617H - Lateral plan	500.0	500.0	19.9	16.8	6.323	CC, ES
Slot 7 - Carson 617H - Lateral plan	11,974.5	12,685.5	582.5	196.4	1.509	SF
Slot 8 - Carson 615 - Pilot hole	4,300.0	4,287.8	76.5	74.7	42.522	CC, ES, SF

Offset Design WC 21-2 - Bisti Coal 21 Com 2 - Original drilling - Original drilling													Offset Site Error: 0.0 usft	
Survey Program: 103-MWD+IGRF													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	39.76	119.0	99.0	156.8					
100.0	100.0	75.0	75.0	0.1	0.1	39.76	119.0	99.0	154.8	154.5	0.28	557.027		
200.0	200.0	175.0	175.0	0.5	0.4	39.76	119.0	99.0	154.8	153.9	0.94	163.874		
300.0	300.0	275.0	275.0	0.9	0.8	39.76	119.0	99.0	154.8	153.1	1.66	93.164		
400.0	400.0	375.0	375.0	1.2	1.2	39.76	119.0	99.0	154.8	152.4	2.38	65.082		
500.0	500.0	475.1	475.1	1.6	1.5	39.69	119.3	99.0	155.0	151.9	3.10	50.073		
600.0	600.0	575.2	575.2	1.9	1.9	39.72	119.2	99.0	154.9	151.1	3.81	40.632		
700.0	700.0	675.0	675.0	2.3	2.2	39.76	119.0	99.0	154.8	150.3	4.53	34.177		
800.0	800.0	775.0	775.0	2.7	2.6	39.76	119.0	99.0	154.8	149.6	5.25	29.506		
900.0	900.0	875.0	875.0	3.0	3.0	39.76	119.0	99.0	154.8	148.8	5.96	25.959		
1,000.0	1,000.0	975.0	975.0	3.4	3.3	39.76	119.0	99.0	154.8	148.1	6.68	23.173		
1,100.0	1,100.0	1,075.1	1,075.1	3.7	3.7	39.68	119.3	99.0	155.0	147.6	7.40	20.959		
1,200.0	1,200.0	1,175.2	1,175.2	4.1	4.0	39.71	119.2	99.0	155.0	146.9	8.11	19.097		
1,300.0	1,300.0	1,275.2	1,275.2	4.4	4.4	39.75	119.1	99.0	154.8	146.0	8.83	17.532		
1,329.3	1,329.3	1,304.3	1,304.3	4.5	4.5	39.76	119.0	99.0	154.8	145.8	9.03	17.136	CC, ES, SF	
1,400.0	1,400.0	1,330.0	1,330.0	4.8	4.5	39.76	119.0	99.0	161.2	152.1	9.10	17.717		

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

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615H	Database:	EDM
Reference Design:	Lateral plan	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Bisti Coal 21 Com 2 - Original drilling - Original drilling													Offset Site Error:	0.0 usft
Survey Program: 103-MWD+IGRF													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
1,500.0	1,500.0	1,330.0	1,330.0	5.2	4.5	39.76	119.0	99.0	212.1	204.1	8.06	26.325		
1,600.0	1,600.0	1,330.0	1,330.0	5.5	4.5	39.76	119.0	99.0	289.8	282.6	7.22	40.143		
1,700.0	1,700.0	1,330.0	1,330.0	5.9	4.5	39.76	119.0	99.0	378.1	371.4	6.78	55.753		
1,800.0	1,800.0	1,330.0	1,330.0	6.2	4.5	39.76	119.0	99.0	471.2	464.6	6.57	71.711		
1,900.0	1,900.0	1,330.0	1,330.0	6.6	4.5	39.76	119.0	99.0	566.6	560.1	6.48	87.491		
2,000.0	2,000.0	1,330.0	1,330.0	7.0	4.5	39.76	119.0	99.0	663.3	656.9	6.45	102.896		
2,100.0	2,100.0	1,330.0	1,330.0	7.3	4.5	39.76	119.0	99.0	760.9	754.5	6.46	117.851		
2,200.0	2,200.0	1,330.0	1,330.0	7.7	4.5	39.76	119.0	99.0	859.1	852.6	6.49	132.324		
2,300.0	2,300.0	1,330.0	1,330.0	8.0	4.5	39.76	119.0	99.0	957.6	951.1	6.55	146.306		
2,400.0	2,400.0	1,330.0	1,330.0	8.4	4.5	39.76	119.0	99.0	1,056.4	1,049.8	6.61	159.795		
2,500.0	2,500.0	1,330.0	1,330.0	8.7	4.5	39.76	119.0	99.0	1,155.4	1,148.7	6.69	172.795		
2,600.0	2,600.0	1,330.0	1,330.0	9.1	4.5	39.76	119.0	99.0	1,254.6	1,247.8	6.77	185.311		
2,700.0	2,700.0	1,330.0	1,330.0	9.5	4.5	39.76	119.0	99.0	1,353.9	1,347.0	6.86	197.352		
2,800.0	2,800.0	1,330.0	1,330.0	9.8	4.5	39.76	119.0	99.0	1,453.3	1,446.3	6.96	208.927		
2,900.0	2,900.0	1,330.0	1,330.0	10.2	4.5	39.76	119.0	99.0	1,552.7	1,545.7	7.06	220.044		
3,000.0	3,000.0	1,330.0	1,330.0	10.5	4.5	39.76	119.0	99.0	1,652.3	1,645.1	7.16	230.715		
3,100.0	3,100.0	1,330.0	1,330.0	10.9	4.5	39.76	119.0	99.0	1,751.9	1,744.6	7.27	240.949		
3,200.0	3,200.0	1,330.0	1,330.0	11.3	4.5	39.76	119.0	99.0	1,851.5	1,844.1	7.38	250.757		
3,300.0	3,300.0	1,330.0	1,330.0	11.6	4.5	39.76	119.0	99.0	1,951.2	1,943.7	7.50	260.151		
3,400.0	3,400.0	1,330.0	1,330.0	12.0	4.5	39.76	119.0	99.0	2,050.9	2,043.2	7.62	269.142		
3,500.0	3,500.0	1,330.0	1,330.0	12.3	4.5	39.76	119.0	99.0	2,150.6	2,142.8	7.74	277.741		
3,600.0	3,600.0	1,330.0	1,330.0	12.7	4.5	39.76	119.0	99.0	2,250.3	2,242.5	7.87	285.959		
3,700.0	3,700.0	1,330.0	1,330.0	13.0	4.5	39.76	119.0	99.0	2,350.1	2,342.1	8.00	293.807		
3,800.0	3,800.0	1,330.0	1,330.0	13.4	4.5	39.76	119.0	99.0	2,449.9	2,441.8	8.13	301.296		
3,900.0	3,900.0	1,330.0	1,330.0	13.8	4.5	39.76	119.0	99.0	2,549.7	2,541.4	8.27	308.438		
3,970.4	3,970.4	1,330.0	1,330.0	14.0	4.5	39.76	119.0	99.0	2,620.0	2,611.6	8.36	313.261		
4,000.0	4,000.0	1,330.0	1,330.0	14.1	4.5	53.31	119.0	99.0	2,649.5	2,641.1	8.40	315.339		
4,050.0	4,049.8	1,330.0	1,330.0	14.1	4.5	26.80	119.0	99.0	2,699.3	2,690.8	8.47	318.771		
4,100.0	4,099.3	1,330.0	1,330.0	14.1	4.5	17.22	119.0	99.0	2,748.6	2,740.1	8.53	322.233		
4,150.0	4,148.0	1,330.0	1,330.0	14.1	4.5	12.58	119.0	99.0	2,797.4	2,788.8	8.59	325.687		
4,200.0	4,195.9	1,330.0	1,330.0	14.1	4.5	9.89	119.0	99.0	2,845.3	2,836.6	8.65	329.079		
4,250.0	4,242.6	1,330.0	1,330.0	14.1	4.5	8.15	119.0	99.0	2,892.2	2,883.5	8.70	332.351		
4,300.0	4,287.8	1,330.0	1,330.0	14.2	4.5	6.94	119.0	99.0	2,937.8	2,929.1	8.76	335.437		
4,350.0	4,331.5	1,330.0	1,330.0	14.3	4.5	6.05	119.0	99.0	2,982.1	2,973.3	8.82	338.266		
4,400.0	4,373.3	1,330.0	1,330.0	14.4	4.5	5.38	119.0	99.0	3,024.8	3,016.0	8.88	340.762		
4,450.0	4,413.0	1,330.0	1,330.0	14.5	4.5	4.85	119.0	99.0	3,065.8	3,056.9	8.94	342.844		
4,500.0	4,450.4	1,330.0	1,330.0	14.7	4.5	4.43	119.0	99.0	3,105.0	3,096.0	9.01	344.431		
4,550.0	4,485.4	1,330.0	1,330.0	15.0	4.5	4.09	119.0	99.0	3,142.2	3,133.1	9.10	345.444		
4,600.0	4,517.7	1,330.0	1,330.0	15.3	4.5	3.81	119.0	99.0	3,177.3	3,168.2	9.19	345.812		
4,650.0	4,547.2	1,330.0	1,330.0	15.7	4.5	3.58	119.0	99.0	3,210.3	3,201.0	9.29	345.472		
4,700.0	4,573.7	1,330.0	1,330.0	16.2	4.5	3.39	119.0	99.0	3,240.9	3,231.5	9.41	344.381		
4,750.0	4,597.1	1,330.0	1,330.0	16.7	4.5	3.22	119.0	99.0	3,269.1	3,259.5	9.54	342.513		
4,800.0	4,617.3	1,330.0	1,330.0	17.3	4.5	3.09	119.0	99.0	3,294.8	3,285.1	9.69	339.867		
4,850.0	4,634.2	1,330.0	1,330.0	18.0	4.5	2.97	119.0	99.0	3,318.0	3,308.2	9.86	336.465		
4,900.0	4,647.6	1,330.0	1,330.0	18.8	4.5	2.88	119.0	99.0	3,338.6	3,328.6	10.05	332.353		
4,950.0	4,657.6	1,330.0	1,330.0	19.6	4.5	2.80	119.0	99.0	3,356.5	3,346.3	10.25	327.596		
5,000.0	4,664.0	1,330.0	1,330.0	20.5	4.5	2.74	119.0	99.0	3,371.7	3,361.3	10.46	322.274		
5,050.0	4,666.8	1,330.0	1,330.0	21.4	4.5	2.69	119.0	99.0	3,384.2	3,373.5	10.69	316.480		
5,064.6	4,667.0	1,330.0	1,330.0	21.6	4.5	2.68	119.0	99.0	3,387.3	3,376.5	10.76	314.812		
5,100.0	4,667.0	1,330.0	1,330.0	22.3	4.5	2.68	119.0	99.0	3,394.7	3,383.8	10.94	310.343		
5,200.0	4,667.0	1,330.0	1,330.0	24.3	4.5	2.68	119.0	99.0	3,417.6	3,406.1	11.47	297.827		
5,300.0	4,667.0	1,330.0	1,330.0	26.4	4.5	2.68	119.0	99.0	3,443.2	3,431.1	12.04	285.922		

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

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615H	Database:	EDM
Reference Design:	Lateral plan	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Bisti Coal 21 Com 2 - Original drilling - Original drilling												Offset Site Error:	0.0 usft
Survey Program: 103-MWD+IGRF												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
5,400.0	4,667.0	1,330.0	1,330.0	28.5	4.5	2.68	119.0	99.0	3,471.5	3,458.8	12.63	274.839	
5,500.0	4,667.0	1,330.0	1,330.0	30.7	4.5	2.68	119.0	99.0	3,502.4	3,489.2	13.23	264.676	
5,600.0	4,667.0	1,330.0	1,330.0	33.0	4.5	2.68	119.0	99.0	3,535.9	3,522.0	13.84	255.458	
5,700.0	4,667.0	1,330.0	1,330.0	35.3	4.5	2.68	119.0	99.0	3,571.9	3,557.4	14.45	247.163	
5,800.0	4,667.0	1,330.0	1,330.0	37.6	4.5	2.68	119.0	99.0	3,610.2	3,595.2	15.06	239.744	
5,900.0	4,667.0	1,330.0	1,330.0	40.0	4.5	2.68	119.0	99.0	3,651.0	3,635.3	15.66	233.140	
6,000.0	4,667.0	1,330.0	1,330.0	42.4	4.5	2.68	119.0	99.0	3,694.0	3,677.7	16.25	227.289	
6,100.0	4,667.0	1,330.0	1,330.0	44.8	4.5	2.68	119.0	99.0	3,739.1	3,722.3	16.83	222.123	
6,200.0	4,667.0	1,330.0	1,330.0	47.2	4.5	2.68	119.0	99.0	3,786.4	3,769.0	17.40	217.581	
6,300.0	4,667.0	1,330.0	1,330.0	49.6	4.5	2.68	119.0	99.0	3,835.7	3,817.7	17.96	213.604	
6,400.0	4,667.0	1,330.0	1,330.0	52.0	4.5	2.68	119.0	99.0	3,886.9	3,868.4	18.50	210.140	
6,500.0	4,667.0	1,330.0	1,330.0	54.5	4.5	2.68	119.0	99.0	3,940.0	3,921.0	19.02	207.139	
6,600.0	4,667.0	1,330.0	1,330.0	56.9	4.5	2.68	119.0	99.0	3,994.9	3,975.4	19.53	204.558	
6,700.0	4,667.0	1,330.0	1,330.0	59.4	4.5	2.68	119.0	99.0	4,051.6	4,031.5	20.02	202.356	
6,800.0	4,667.0	1,330.0	1,330.0	61.9	4.5	2.68	119.0	99.0	4,109.8	4,089.3	20.50	200.500	
6,900.0	4,667.0	1,330.0	1,330.0	64.3	4.5	2.68	119.0	99.0	4,169.7	4,148.8	20.96	198.956	
7,000.0	4,667.0	1,330.0	1,330.0	66.8	4.5	2.68	119.0	99.0	4,231.1	4,209.7	21.40	197.696	
7,100.0	4,667.0	1,330.0	1,330.0	69.3	4.5	2.68	119.0	99.0	4,293.9	4,272.1	21.83	196.696	
7,200.0	4,667.0	1,330.0	1,330.0	71.8	4.5	2.68	119.0	99.0	4,358.2	4,335.9	22.24	195.932	
7,300.0	4,667.0	1,330.0	1,330.0	74.3	4.5	2.68	119.0	99.0	4,423.7	4,401.1	22.64	195.384	
7,400.0	4,667.0	1,330.0	1,330.0	76.8	4.5	2.68	119.0	99.0	4,490.5	4,467.5	23.02	195.033	
7,500.0	4,667.0	1,330.0	1,330.0	79.3	4.5	2.68	119.0	99.0	4,558.6	4,535.2	23.39	194.863	
7,600.0	4,667.0	1,330.0	1,330.0	81.8	4.5	2.68	119.0	99.0	4,627.8	4,604.0	23.75	194.859	
7,700.0	4,667.0	1,330.0	1,330.0	84.3	4.5	2.68	119.0	99.0	4,698.1	4,674.0	24.09	195.007	
7,800.0	4,667.0	1,330.0	1,330.0	86.8	4.5	2.68	119.0	99.0	4,769.5	4,745.0	24.42	195.296	
7,900.0	4,667.0	1,330.0	1,330.0	89.3	4.5	2.68	119.0	99.0	4,841.8	4,817.1	24.74	195.714	
8,000.0	4,667.0	1,330.0	1,330.0	91.8	4.5	2.68	119.0	99.0	4,915.2	4,890.1	25.05	196.252	
8,100.0	4,667.0	1,330.0	1,330.0	94.3	4.5	2.68	119.0	99.0	4,989.5	4,964.1	25.34	196.899	
8,200.0	4,667.0	1,330.0	1,330.0	96.8	4.5	2.68	119.0	99.0	5,064.6	5,039.0	25.62	197.649	
8,300.0	4,667.0	1,330.0	1,330.0	99.3	4.5	2.68	119.0	99.0	5,140.6	5,114.7	25.90	198.492	
8,400.0	4,667.0	1,330.0	1,330.0	101.8	4.5	2.68	119.0	99.0	5,217.5	5,191.3	26.16	199.423	
8,500.0	4,667.0	1,330.0	1,330.0	104.3	4.5	2.68	119.0	99.0	5,295.1	5,268.6	26.42	200.436	
8,600.0	4,667.0	1,330.0	1,330.0	106.9	4.5	2.68	119.0	99.0	5,373.4	5,346.7	26.66	201.523	
8,700.0	4,667.0	1,330.0	1,330.0	109.4	4.5	2.68	119.0	99.0	5,452.4	5,425.5	26.90	202.680	
8,800.0	4,667.0	1,330.0	1,330.0	111.9	4.5	2.68	119.0	99.0	5,532.1	5,505.0	27.13	203.902	
8,900.0	4,667.0	1,330.0	1,330.0	114.4	4.5	2.68	119.0	99.0	5,612.5	5,585.2	27.35	205.185	
9,000.0	4,667.0	1,330.0	1,330.0	116.9	4.5	2.68	119.0	99.0	5,693.5	5,665.9	27.57	206.524	
9,100.0	4,667.0	1,330.0	1,330.0	119.5	4.5	2.68	119.0	99.0	5,775.1	5,747.3	27.78	207.915	
9,200.0	4,667.0	1,330.0	1,330.0	122.0	4.5	2.68	119.0	99.0	5,857.3	5,829.3	27.98	209.355	
9,300.0	4,667.0	1,330.0	1,330.0	124.5	4.5	2.68	119.0	99.0	5,940.0	5,911.8	28.17	210.840	
9,400.0	4,667.0	1,330.0	1,330.0	127.0	4.5	2.68	119.0	99.0	6,023.2	5,994.8	28.36	212.368	
9,500.0	4,667.0	1,330.0	1,330.0	129.6	4.5	2.68	119.0	99.0	6,106.9	6,078.4	28.55	213.935	
9,600.0	4,667.0	1,330.0	1,330.0	132.1	4.5	2.68	119.0	99.0	6,191.1	6,162.4	28.72	215.539	
9,700.0	4,667.0	1,330.0	1,330.0	134.6	4.5	2.68	119.0	99.0	6,275.8	6,246.9	28.90	217.178	
9,800.0	4,667.0	1,330.0	1,330.0	137.1	4.5	2.68	119.0	99.0	6,360.9	6,331.9	29.07	218.848	
9,900.0	4,667.0	1,330.0	1,330.0	139.7	4.5	2.68	119.0	99.0	6,446.5	6,417.3	29.23	220.549	
10,000.0	4,667.0	1,330.0	1,330.0	142.2	4.5	2.68	119.0	99.0	6,532.5	6,503.1	29.39	222.277	
10,100.0	4,667.0	1,330.0	1,330.0	144.7	4.5	2.68	119.0	99.0	6,618.8	6,589.3	29.54	224.031	
10,200.0	4,667.0	1,330.0	1,330.0	147.2	4.5	2.68	119.0	99.0	6,705.5	6,675.9	29.70	225.809	
10,300.0	4,667.0	1,330.0	1,330.0	149.8	4.5	2.68	119.0	99.0	6,792.6	6,762.8	29.84	227.610	
10,400.0	4,667.0	1,330.0	1,330.0	152.3	4.5	2.68	119.0	99.0	6,880.1	6,850.1	29.99	229.431	
10,500.0	4,667.0	1,330.0	1,330.0	154.8	4.5	2.68	119.0	99.0	6,967.9	6,937.8	30.13	231.272	

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

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615H	Database:	EDM
Reference Design:	Lateral plan	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Bisti Coal 21 Com 2 - Original drilling - Original drilling													Offset Site Error:	0.0 usft
Survey Program: 103-MWD+IGRF													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Separation Factor		Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,600.0	4,667.0	1,330.0	1,330.0	157.4	4.5	2.68	119.0	99.0	7,056.0	7,025.7	30.27	233.132		
10,700.0	4,667.0	1,330.0	1,330.0	159.9	4.5	2.68	119.0	99.0	7,144.4	7,114.0	30.40	235.007		
10,800.0	4,667.0	1,330.0	1,330.0	162.4	4.5	2.68	119.0	99.0	7,233.2	7,202.6	30.53	236.898		
10,900.0	4,667.0	1,330.0	1,330.0	165.0	4.5	2.68	119.0	99.0	7,322.2	7,291.5	30.66	238.804		
11,000.0	4,667.0	1,330.0	1,330.0	167.5	4.5	2.68	119.0	99.0	7,411.5	7,380.7	30.79	240.723		
11,100.0	4,667.0	1,330.0	1,330.0	170.0	4.5	2.68	119.0	99.0	7,501.0	7,470.1	30.91	242.654		
11,200.0	4,667.0	1,330.0	1,330.0	172.6	4.5	2.68	119.0	99.0	7,590.9	7,559.8	31.03	244.596		
11,300.0	4,667.0	1,330.0	1,330.0	175.1	4.5	2.68	119.0	99.0	7,681.0	7,649.8	31.15	246.548		
11,400.0	4,667.0	1,330.0	1,330.0	177.6	4.5	2.68	119.0	99.0	7,771.3	7,740.0	31.27	248.510		
11,500.0	4,667.0	1,330.0	1,330.0	180.1	4.5	2.68	119.0	99.0	7,861.8	7,830.4	31.39	250.480		
11,600.0	4,667.0	1,330.0	1,330.0	182.7	4.5	2.68	119.0	99.0	7,952.6	7,921.1	31.50	252.458		
11,700.0	4,667.0	1,330.0	1,330.0	185.2	4.5	2.68	119.0	99.0	8,043.6	8,012.0	31.61	254.443		
11,800.0	4,667.0	1,330.0	1,330.0	187.7	4.5	2.68	119.0	99.0	8,134.8	8,103.1	31.72	256.435		
11,900.0	4,667.0	1,330.0	1,330.0	190.3	4.5	2.68	119.0	99.0	8,226.2	8,194.4	31.83	258.431		
11,974.5	4,667.0	1,330.0	1,330.0	192.2	4.5	2.68	119.0	99.0	8,294.5	8,262.6	31.91	259.923		

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615H	Database:	EDM
Reference Design:	Lateral plan	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Slot 4 - Carson 584H - Lateral plan												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	135.13	-56.7	56.5	80.0				
100.0	100.0	100.0	100.0	0.1	0.1	135.13	-56.7	56.5	80.0	79.7	0.29	279.055	
200.0	200.0	200.0	200.0	0.5	0.5	135.13	-56.7	56.5	80.0	79.0	1.00	79.730	
300.0	300.0	300.0	300.0	0.9	0.9	135.13	-56.7	56.5	80.0	78.3	1.72	46.509	
400.0	400.0	400.0	400.0	1.2	1.2	135.13	-56.7	56.5	80.0	77.6	2.44	32.830	
500.0	500.0	500.0	500.0	1.6	1.6	135.13	-56.7	56.5	80.0	76.9	3.15	25.369	
600.0	600.0	601.2	601.2	1.9	1.9	133.98	-55.0	57.0	79.2	75.4	3.88	20.449	
700.0	700.0	702.2	702.0	2.3	2.3	130.39	-49.9	58.7	77.1	72.5	4.60	16.776	
800.0	800.0	802.7	802.1	2.7	2.7	124.05	-41.6	61.5	74.3	68.9	5.32	13.950	
900.0	900.0	902.4	901.1	3.0	3.1	114.61	-29.9	65.4	71.9	65.9	6.06	11.859	
952.5	952.5	954.4	952.5	3.2	3.3	108.43	-22.6	67.8	71.5	65.0	6.46	11.062 CC, ES	
1,000.0	1,000.0	1,001.2	998.6	3.4	3.5	102.23	-15.2	70.3	71.9	65.1	6.82	10.545	
1,100.0	1,100.0	1,098.8	1,094.4	3.7	3.9	88.17	2.4	76.2	76.4	68.8	7.58	10.086 SF	
1,200.0	1,200.0	1,194.9	1,188.1	4.1	4.3	74.60	22.9	83.0	86.9	78.6	8.30	10.470	
1,300.0	1,300.0	1,290.3	1,280.3	4.4	4.8	63.08	46.1	90.7	103.6	94.6	8.98	11.536	
1,400.0	1,400.0	1,385.8	1,372.2	4.8	5.3	54.44	70.7	98.9	124.7	115.1	9.66	12.917	
1,500.0	1,500.0	1,482.0	1,464.7	5.2	5.9	48.28	95.6	107.2	147.9	137.5	10.35	14.292	
1,600.0	1,600.0	1,578.2	1,557.3	5.5	6.4	43.79	120.4	115.5	172.2	161.2	11.04	15.595	
1,700.0	1,700.0	1,674.4	1,649.9	5.9	7.0	40.42	145.3	123.8	197.3	185.6	11.75	16.800	
1,800.0	1,800.0	1,770.6	1,742.5	6.2	7.5	37.81	170.2	132.0	222.9	210.5	12.45	17.902	
1,900.0	1,900.0	1,866.8	1,835.1	6.6	8.1	35.73	195.0	140.3	248.9	235.7	13.16	18.906	
2,000.0	2,000.0	1,963.1	1,927.6	7.0	8.6	34.05	219.9	148.6	275.1	261.2	13.88	19.820	
2,100.0	2,100.0	2,059.3	2,020.2	7.3	9.2	32.66	244.8	156.9	301.5	286.9	14.60	20.653	
2,200.0	2,200.0	2,155.5	2,112.8	7.7	9.8	31.49	269.6	165.2	328.0	312.7	15.32	21.414	
2,300.0	2,300.0	2,251.7	2,205.4	8.0	10.4	30.50	294.5	173.5	354.6	338.6	16.04	22.110	
2,400.0	2,400.0	2,347.9	2,298.0	8.4	11.0	29.64	319.4	181.7	381.4	364.6	16.76	22.749	
2,500.0	2,500.0	2,444.2	2,390.5	8.7	11.5	28.90	344.2	190.0	408.2	390.7	17.49	23.337	
2,600.0	2,600.0	2,540.4	2,483.1	9.1	12.1	28.25	369.1	198.3	435.0	416.8	18.22	23.880	
2,700.0	2,700.0	2,636.6	2,575.7	9.5	12.7	27.67	394.0	206.6	461.9	442.9	18.94	24.382	
2,800.0	2,800.0	2,732.8	2,668.3	9.8	13.3	27.16	418.8	214.9	488.8	469.1	19.67	24.848	
2,900.0	2,900.0	2,829.0	2,760.9	10.2	13.9	26.70	443.7	223.2	515.8	495.4	20.40	25.281	
3,000.0	3,000.0	2,925.3	2,853.4	10.5	14.5	26.29	468.6	231.5	542.8	521.6	21.13	25.685	
3,100.0	3,100.0	3,021.5	2,946.0	10.9	15.0	25.91	493.4	239.7	569.8	547.9	21.86	26.061	
3,200.0	3,200.0	3,117.7	3,038.6	11.3	15.6	25.57	518.3	248.0	596.8	574.2	22.59	26.414	
3,300.0	3,300.0	3,213.9	3,131.2	11.6	16.2	25.26	543.2	256.3	623.9	600.5	23.33	26.745	
3,400.0	3,400.0	3,310.1	3,223.8	12.0	16.8	24.98	568.0	264.6	650.9	626.9	24.06	27.055	
3,500.0	3,500.0	3,406.3	3,316.4	12.3	17.4	24.71	592.9	272.9	678.0	653.2	24.79	27.348	
3,600.0	3,600.0	3,502.6	3,408.9	12.7	18.0	24.47	617.7	281.2	705.1	679.6	25.53	27.623	
3,700.0	3,700.0	3,598.8	3,501.5	13.0	18.6	24.25	642.6	289.4	732.2	705.9	26.26	27.883	
3,800.0	3,800.0	3,695.0	3,594.1	13.4	19.2	24.04	667.5	297.7	759.3	732.3	26.99	28.129	
3,900.0	3,900.0	3,791.2	3,686.7	13.8	19.8	23.84	692.3	306.0	786.4	758.7	27.73	28.362	
3,970.4	3,970.4	3,858.9	3,751.8	14.0	20.2	23.72	709.8	311.8	805.5	777.3	28.25	28.519	
4,000.0	4,000.0	3,887.5	3,779.3	14.1	20.4	23.01	717.2	314.3	813.4	785.0	28.41	28.630	
4,050.0	4,049.8	3,935.9	3,825.8	14.1	20.7	21.19	729.7	318.5	825.8	797.2	28.61	28.860	
4,100.0	4,099.3	3,984.2	3,872.4	14.1	21.0	20.70	742.2	322.6	837.1	808.3	28.83	29.040	
4,150.0	4,148.0	4,032.3	3,918.6	14.1	21.3	20.51	754.6	326.8	847.3	818.3	29.05	29.169	
4,200.0	4,195.9	4,079.8	3,964.4	14.1	21.5	20.61	766.9	330.8	856.5	827.2	29.29	29.245	
4,250.0	4,242.6	4,137.8	4,020.2	14.1	21.9	21.27	781.3	336.6	864.6	834.9	29.64	29.172	
4,300.0	4,287.8	4,200.7	4,081.1	14.2	22.2	22.71	793.3	347.0	871.0	840.9	30.05	28.983	
4,350.0	4,331.5	4,254.9	4,133.3	14.3	22.5	24.42	800.4	359.7	876.4	845.9	30.43	28.796	
4,400.0	4,373.3	4,299.9	4,176.1	14.4	22.7	26.08	803.9	372.7	881.5	850.7	30.80	28.616	
4,450.0	4,413.0	4,336.0	4,210.2	14.5	22.9	27.50	805.1	384.8	887.1	855.9	31.18	28.450	

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

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615H	Database:	EDM
Reference Design:	Lateral plan	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Slot 4 - Carson 584H - Lateral plan														Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF														Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning		
				Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
4,500.0	4,450.4	4,364.2	4,236.4	14.7	23.0	78.54	805.1	395.3	893.6	862.0	31.58	28.299			
4,550.0	4,485.4	4,385.6	4,256.0	15.0	23.1	79.14	804.5	403.8	901.5	869.5	32.01	28.167			
4,600.0	4,517.7	4,400.0	4,269.1	15.3	23.1	79.23	803.9	409.7	911.1	878.6	32.47	28.061			
4,650.0	4,547.2	4,411.8	4,279.7	15.7	23.2	79.02	803.1	414.8	922.4	889.4	32.99	27.961			
4,700.0	4,573.7	4,418.4	4,285.6	16.2	23.2	78.34	802.7	417.7	935.5	902.0	33.55	27.887			
4,750.0	4,597.1	4,421.6	4,288.5	16.7	23.2	77.29	802.4	419.1	950.4	916.2	34.15	27.830			
4,800.0	4,617.3	4,421.9	4,288.7	17.3	23.2	75.91	802.4	419.2	966.8	932.0	34.79	27.791			
4,850.0	4,634.2	4,419.8	4,286.8	18.0	23.2	74.26	802.6	418.3	984.7	949.3	35.46	27.769			
4,900.0	4,647.6	4,415.6	4,283.1	18.8	23.2	72.36	802.9	416.5	1,003.9	967.8	36.16	27.765			
4,950.0	4,657.6	4,409.7	4,277.8	19.6	23.2	70.28	803.3	413.9	1,024.2	987.3	36.87	27.778			
5,000.0	4,664.0	4,400.0	4,269.1	20.5	23.1	67.92	803.9	409.7	1,045.3	1,007.7	37.56	27.829			
5,050.0	4,666.8	4,400.0	4,269.1	21.4	23.1	66.09	803.9	409.7	1,067.0	1,028.7	38.38	27.805			
5,064.6	4,667.0	4,400.0	4,269.1	21.6	23.1	65.55	803.9	409.7	1,073.5	1,034.9	38.61	27.801			
5,100.0	4,667.0	4,384.5	4,255.0	22.3	23.1	64.70	804.6	403.3	1,089.5	1,050.5	39.00	27.938			
5,200.0	4,667.0	4,367.9	4,239.8	24.3	23.0	63.78	805.0	396.7	1,139.3	1,099.0	40.32	28.258			
5,300.0	4,667.0	4,350.0	4,223.2	26.4	22.9	62.79	805.2	389.9	1,195.0	1,153.5	41.45	28.827			
5,400.0	4,667.0	4,350.0	4,223.2	28.5	22.9	62.79	805.2	389.9	1,256.0	1,213.3	42.64	29.454			
5,500.0	4,667.0	4,330.4	4,204.9	30.7	22.9	61.71	805.0	382.9	1,321.3	1,277.9	43.42	30.434			
5,600.0	4,667.0	4,320.8	4,195.9	33.0	22.8	61.18	804.8	379.6	1,390.7	1,346.5	44.17	31.482			
5,700.0	4,667.0	4,300.0	4,176.3	35.3	22.7	60.03	803.9	372.8	1,463.6	1,419.0	44.66	32.771			
5,800.0	4,667.0	4,300.0	4,176.3	37.6	22.7	60.03	803.9	372.8	1,539.2	1,493.9	45.30	33.975			
5,900.0	4,667.0	4,300.0	4,176.3	40.0	22.7	60.03	803.9	372.8	1,617.5	1,571.6	45.85	35.279			
6,000.0	4,667.0	4,300.0	4,176.3	42.4	22.7	60.03	803.9	372.8	1,698.0	1,651.7	46.31	36.667			
6,100.0	4,667.0	4,300.0	4,176.3	44.8	22.7	60.03	803.9	372.8	1,780.5	1,733.8	46.70	38.126			
6,200.0	4,667.0	4,280.8	4,158.0	47.2	22.6	58.97	802.6	366.9	1,864.4	1,817.6	46.80	39.834			
6,300.0	4,667.0	4,276.0	4,153.5	49.6	22.6	58.71	802.3	365.5	1,949.9	1,902.8	47.04	41.455			
6,400.0	4,667.0	4,271.7	4,149.4	52.0	22.6	58.48	801.9	364.3	2,036.7	1,989.4	47.24	43.118			
6,500.0	4,667.0	4,250.0	4,128.6	54.5	22.5	57.29	799.9	358.4	2,124.9	2,077.7	47.19	45.027			
6,600.0	4,667.0	4,250.0	4,128.6	56.9	22.5	57.29	799.9	358.4	2,213.7	2,166.3	47.38	46.718			
6,700.0	4,667.0	4,250.0	4,128.6	59.4	22.5	57.29	799.9	358.4	2,303.5	2,255.9	47.55	48.441			
6,800.0	4,667.0	4,250.0	4,128.6	61.9	22.5	57.29	799.9	358.4	2,394.0	2,346.3	47.70	50.190			
6,900.0	4,667.0	4,250.0	4,128.6	64.3	22.5	57.29	799.9	358.4	2,485.3	2,437.5	47.83	51.963			
7,000.0	4,667.0	4,250.0	4,128.6	66.8	22.5	57.29	799.9	358.4	2,577.2	2,529.3	47.94	53.756			
7,100.0	4,667.0	4,250.0	4,128.6	69.3	22.5	57.29	799.9	358.4	2,669.7	2,621.7	48.04	55.567			
7,200.0	4,667.0	4,250.0	4,128.6	71.8	22.5	57.29	799.9	358.4	2,762.7	2,714.6	48.14	57.394			
7,300.0	4,667.0	4,250.0	4,128.6	74.3	22.5	57.29	799.9	358.4	2,856.2	2,808.0	48.22	59.235			
7,400.0	4,667.0	4,250.0	4,128.6	76.8	22.5	57.29	799.9	358.4	2,950.2	2,901.9	48.29	61.088			
7,500.0	4,667.0	4,250.0	4,128.6	79.3	22.5	57.29	799.9	358.4	3,044.5	2,996.1	48.36	62.953			
7,600.0	4,667.0	4,250.0	4,128.6	81.8	22.5	57.29	799.9	358.4	3,139.1	3,090.7	48.42	64.826			
7,700.0	4,667.0	4,250.0	4,128.6	84.3	22.5	57.29	799.9	358.4	3,234.1	3,185.6	48.48	66.709			
7,800.0	4,667.0	4,250.0	4,128.6	86.8	22.5	57.29	799.9	358.4	3,329.4	3,280.9	48.53	68.598			
7,900.0	4,667.0	4,250.0	4,128.6	89.3	22.5	57.29	799.9	358.4	3,424.9	3,376.3	48.58	70.494			
8,000.0	4,667.0	4,250.0	4,128.6	91.8	22.5	57.29	799.9	358.4	3,520.7	3,472.1	48.63	72.395			
8,100.0	4,667.0	4,250.0	4,128.6	94.3	22.5	57.29	799.9	358.4	3,616.8	3,568.1	48.68	74.302			
8,200.0	4,667.0	4,228.5	4,107.9	96.8	22.4	56.13	797.3	353.0	3,712.6	3,664.1	48.48	76.575			
8,300.0	4,667.0	4,227.1	4,106.6	99.3	22.4	56.06	797.1	352.7	3,808.9	3,760.4	48.51	78.519			
8,400.0	4,667.0	4,225.8	4,105.3	101.8	22.4	55.99	797.0	352.4	3,905.5	3,857.0	48.54	80.466			
8,500.0	4,667.0	4,224.6	4,104.1	104.3	22.4	55.92	796.8	352.1	4,002.2	3,953.7	48.56	82.415			
8,600.0	4,667.0	4,223.4	4,103.0	106.9	22.4	55.86	796.7	351.9	4,099.1	4,050.5	48.59	84.367			
8,700.0	4,667.0	4,222.3	4,101.9	109.4	22.4	55.80	796.5	351.6	4,196.1	4,147.5	48.61	86.319			
8,800.0	4,667.0	4,200.0	4,080.4	111.9	22.2	54.61	793.2	346.8	4,293.7	4,245.3	48.41	88.703			
8,900.0	4,667.0	4,200.0	4,080.4	114.4	22.2	54.61	793.2	346.8	4,390.9	4,342.5	48.44	90.643			

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

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615H	Database:	EDM
Reference Design:	Lateral plan	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Slot 4 - Carson 584H - Lateral plan												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,000.0	4,667.0	4,200.0	4,080.4	116.9	22.2	54.61	793.2	346.8	4,488.3	4,439.8	48.48	92.583	
9,100.0	4,667.0	4,200.0	4,080.4	119.5	22.2	54.61	793.2	346.8	4,585.7	4,537.2	48.51	94.523	
9,200.0	4,667.0	4,200.0	4,080.4	122.0	22.2	54.61	793.2	346.8	4,683.3	4,634.8	48.55	96.464	
9,300.0	4,667.0	4,200.0	4,080.4	124.5	22.2	54.61	793.2	346.8	4,781.0	4,732.4	48.59	98.404	
9,400.0	4,667.0	4,200.0	4,080.4	127.0	22.2	54.61	793.2	346.8	4,878.8	4,830.1	48.62	100.343	
9,500.0	4,667.0	4,200.0	4,080.4	129.6	22.2	54.61	793.2	346.8	4,976.6	4,928.0	48.66	102.281	
9,600.0	4,667.0	4,200.0	4,080.4	132.1	22.2	54.61	793.2	346.8	5,074.6	5,025.9	48.69	104.218	
9,700.0	4,667.0	4,200.0	4,080.4	134.6	22.2	54.61	793.2	346.8	5,172.6	5,123.9	48.73	106.154	
9,800.0	4,667.0	4,200.0	4,080.4	137.1	22.2	54.61	793.2	346.8	5,270.7	5,221.9	48.76	108.087	
9,900.0	4,667.0	4,200.0	4,080.4	139.7	22.2	54.61	793.2	346.8	5,368.9	5,320.1	48.80	110.019	
10,000.0	4,667.0	4,200.0	4,080.4	142.2	22.2	54.61	793.2	346.8	5,467.1	5,418.3	48.84	111.949	
10,100.0	4,667.0	4,200.0	4,080.4	144.7	22.2	54.61	793.2	346.8	5,565.4	5,516.5	48.87	113.877	
10,200.0	4,667.0	4,200.0	4,080.4	147.2	22.2	54.61	793.2	346.8	5,663.8	5,614.9	48.91	115.802	
10,300.0	4,667.0	4,200.0	4,080.4	149.8	22.2	54.61	793.2	346.8	5,762.2	5,713.2	48.95	117.725	
10,400.0	4,667.0	4,200.0	4,080.4	152.3	22.2	54.61	793.2	346.8	5,860.7	5,811.7	48.98	119.644	
10,500.0	4,667.0	4,200.0	4,080.4	154.8	22.2	54.61	793.2	346.8	5,959.2	5,910.2	49.02	121.561	
10,600.0	4,667.0	4,200.0	4,080.4	157.4	22.2	54.61	793.2	346.8	6,057.7	6,008.7	49.06	123.475	
10,700.0	4,667.0	4,200.0	4,080.4	159.9	22.2	54.61	793.2	346.8	6,156.4	6,107.3	49.10	125.386	
10,800.0	4,667.0	4,200.0	4,080.4	162.4	22.2	54.61	793.2	346.8	6,255.0	6,205.9	49.14	127.294	
10,900.0	4,667.0	4,200.0	4,080.4	165.0	22.2	54.61	793.2	346.8	6,353.7	6,304.5	49.18	129.198	
11,000.0	4,667.0	4,200.0	4,080.4	167.5	22.2	54.61	793.2	346.8	6,452.5	6,403.2	49.22	131.098	
11,100.0	4,667.0	4,200.0	4,080.4	170.0	22.2	54.61	793.2	346.8	6,551.2	6,502.0	49.26	132.995	
11,200.0	4,667.0	4,200.0	4,080.4	172.6	22.2	54.61	793.2	346.8	6,650.1	6,600.8	49.30	134.888	
11,300.0	4,667.0	4,200.0	4,080.4	175.1	22.2	54.61	793.2	346.8	6,748.9	6,699.6	49.34	136.777	
11,400.0	4,667.0	4,200.0	4,080.4	177.6	22.2	54.61	793.2	346.8	6,847.8	6,798.4	49.38	138.663	
11,500.0	4,667.0	4,200.0	4,080.4	180.1	22.2	54.61	793.2	346.8	6,946.7	6,897.3	49.43	140.544	
11,600.0	4,667.0	4,200.0	4,080.4	182.7	22.2	54.61	793.2	346.8	7,045.6	6,996.2	49.47	142.421	
11,700.0	4,667.0	4,200.0	4,080.4	185.2	22.2	54.61	793.2	346.8	7,144.6	7,095.1	49.51	144.294	
11,800.0	4,667.0	4,200.0	4,080.4	187.7	22.2	54.61	793.2	346.8	7,243.6	7,194.1	49.56	146.163	
11,900.0	4,667.0	4,200.0	4,080.4	190.3	22.2	54.61	793.2	346.8	7,342.7	7,293.1	49.60	148.027	
11,974.5	4,667.0	4,200.0	4,080.4	192.2	22.2	54.61	793.2	346.8	7,416.5	7,366.8	49.64	149.414	

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615H	Database:	EDM
Reference Design:	Lateral plan	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Slot 5 - Carson 611H - Lateral plan														Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF														Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	0.0	135.10	-42.5	42.3	60.0					
100.0	100.0	100.0	100.0	0.1	0.1	0.1	135.10	-42.5	42.3	60.0	59.7	0.29	209.120		
200.0	200.0	200.0	200.0	0.5	0.5	0.5	135.10	-42.5	42.3	60.0	59.0	1.00	59.749		
300.0	300.0	300.0	300.0	0.9	0.9	0.9	135.10	-42.5	42.3	60.0	58.3	1.72	34.853		
400.0	400.0	400.0	400.0	1.2	1.2	1.2	135.10	-42.5	42.3	60.0	57.5	2.44	24.602 CC		
500.0	500.0	499.4	499.4	1.6	1.6	1.6	134.11	-42.0	43.3	60.3	57.2	3.15	19.160 ES		
600.0	600.0	598.6	598.5	1.9	1.9	1.9	130.22	-40.0	47.3	62.0	58.1	3.86	16.070		
700.0	700.0	697.3	696.8	2.3	2.3	2.3	123.92	-36.6	54.4	65.6	61.0	4.57	14.345		
800.0	800.0	795.3	794.2	2.7	2.7	2.7	116.18	-31.6	64.3	71.9	66.6	5.29	13.605		
900.0	900.0	892.5	890.3	3.0	3.1	3.1	108.14	-25.3	77.2	81.8	75.8	6.00	13.637		
1,000.0	1,000.0	988.6	984.8	3.4	3.5	3.5	100.76	-17.6	92.8	95.6	88.9	6.70	14.277		
1,100.0	1,100.0	1,083.4	1,077.4	3.7	3.9	3.9	94.48	-8.7	110.9	113.5	106.1	7.38	15.376		
1,200.0	1,200.0	1,176.7	1,167.9	4.1	4.4	4.4	89.37	1.4	131.5	135.3	127.3	8.05	16.813		
1,300.0	1,300.0	1,268.6	1,256.2	4.4	4.9	4.9	85.30	12.7	154.2	160.8	152.1	8.70	18.486		
1,400.0	1,400.0	1,364.3	1,347.8	4.8	5.5	5.5	82.07	25.0	179.2	188.3	178.9	9.41	20.022		
1,500.0	1,500.0	1,459.9	1,439.3	5.2	6.0	6.0	79.65	37.3	204.2	216.2	206.1	10.12	21.374		
1,600.0	1,600.0	1,555.6	1,530.8	5.5	6.6	6.6	77.79	49.6	229.1	244.4	233.6	10.83	22.567		
1,700.0	1,700.0	1,651.3	1,622.4	5.9	7.2	7.2	76.31	61.9	254.1	272.8	261.3	11.55	23.623		
1,800.0	1,800.0	1,747.0	1,713.9	6.2	7.8	7.8	75.11	74.2	279.1	301.3	289.0	12.27	24.560		
1,900.0	1,900.0	1,842.6	1,805.5	6.6	8.4	8.4	74.12	86.5	304.0	329.9	316.9	12.99	25.397		
2,000.0	2,000.0	1,938.3	1,897.0	7.0	9.1	9.1	73.29	98.8	329.0	358.6	344.9	13.71	26.148		
2,100.0	2,100.0	2,034.0	1,988.5	7.3	9.7	9.7	72.58	111.1	354.0	387.4	372.9	14.44	26.824		
2,200.0	2,200.0	2,129.7	2,080.1	7.7	10.3	10.3	71.96	123.4	378.9	416.2	401.0	15.17	27.437		
2,300.0	2,300.0	2,225.3	2,171.6	8.0	10.9	10.9	71.43	135.7	403.9	445.0	429.1	15.90	27.993		
2,400.0	2,400.0	2,321.0	2,263.2	8.4	11.5	11.5	70.96	148.0	428.8	473.9	457.2	16.63	28.500		
2,500.0	2,500.0	2,416.7	2,354.7	8.7	12.2	12.2	70.54	160.3	453.8	502.7	485.4	17.36	28.965		
2,600.0	2,600.0	2,512.4	2,446.2	9.1	12.8	12.8	70.18	172.6	478.8	531.7	513.6	18.09	29.392		
2,700.0	2,700.0	2,608.0	2,537.8	9.5	13.4	13.4	69.84	184.9	503.7	560.6	541.8	18.82	29.785		
2,800.0	2,800.0	2,703.7	2,629.3	9.8	14.0	14.0	69.54	197.2	528.7	589.5	570.0	19.55	30.149		
2,900.0	2,900.0	2,799.4	2,720.8	10.2	14.7	14.7	69.27	209.5	553.7	618.5	598.2	20.29	30.486		
3,000.0	3,000.0	2,895.1	2,812.4	10.5	15.3	15.3	69.03	221.8	578.6	647.5	626.4	21.02	30.800		
3,100.0	3,100.0	2,990.7	2,903.9	10.9	15.9	15.9	68.80	234.1	603.6	676.5	654.7	21.76	31.091		
3,200.0	3,200.0	3,086.4	2,995.5	11.3	16.6	16.6	68.59	246.4	628.6	705.4	683.0	22.49	31.364		
3,300.0	3,300.0	3,182.1	3,087.0	11.6	17.2	17.2	68.40	258.7	653.5	734.4	711.2	23.23	31.619		
3,400.0	3,400.0	3,277.8	3,178.5	12.0	17.8	17.8	68.23	271.0	678.5	763.4	739.5	23.96	31.858		
3,500.0	3,500.0	3,373.5	3,270.1	12.3	18.5	18.5	68.06	283.3	703.5	792.5	767.8	24.70	32.083		
3,600.0	3,600.0	3,469.1	3,361.6	12.7	19.1	19.1	67.91	295.6	728.4	821.5	796.0	25.44	32.294		
3,700.0	3,700.0	3,564.8	3,453.2	13.0	19.7	19.7	67.77	307.9	753.4	850.5	824.3	26.17	32.494		
3,800.0	3,800.0	3,660.5	3,544.7	13.4	20.4	20.4	67.64	320.2	778.3	879.5	852.6	26.91	32.682		
3,900.0	3,900.0	3,756.2	3,636.2	13.8	21.0	21.0	67.51	332.5	803.3	908.6	880.9	27.65	32.860		
3,970.4	3,970.4	3,823.5	3,700.7	14.0	21.4	21.4	67.43	341.2	820.9	929.0	900.8	28.17	32.979		
4,000.0	4,000.0	3,851.8	3,727.7	14.1	21.6	21.6	115.68	344.8	828.3	937.9	909.5	28.34	33.090		
4,050.0	4,049.8	3,899.0	3,772.9	14.1	21.9	21.9	114.58	350.9	840.6	954.0	925.4	28.55	33.418		
4,100.0	4,099.3	3,945.4	3,817.3	14.1	22.3	22.3	113.53	356.9	852.7	971.6	942.8	28.76	33.786		
4,150.0	4,148.0	3,990.9	3,860.8	14.1	22.6	22.6	112.52	362.7	864.6	990.5	961.5	28.97	34.190		
4,200.0	4,195.9	4,035.0	3,903.0	14.1	22.8	22.8	111.53	368.4	876.1	1,010.8	981.6	29.19	34.626		
4,250.0	4,242.6	4,077.7	3,943.8	14.1	23.1	23.1	110.54	373.9	887.2	1,032.5	1,003.1	29.43	35.088		
4,300.0	4,287.8	4,118.6	3,983.0	14.2	23.4	23.4	109.50	379.2	897.9	1,055.6	1,025.9	29.67	35.571		
4,350.0	4,331.5	4,306.9	4,163.5	14.3	24.5	24.5	111.27	421.0	927.6	1,077.6	1,046.8	30.82	34.960		
4,400.0	4,373.3	4,533.5	4,366.5	14.4	25.3	25.3	111.19	516.5	907.0	1,092.9	1,061.4	31.51	34.687		
4,450.0	4,413.0	4,850.4	4,580.5	14.5	25.8	25.8	107.22	709.2	782.9	1,099.4	1,067.4	32.01	34.343		
4,500.0	4,450.4	5,035.0	4,647.9	14.7	26.0	26.0	102.75	837.0	669.2	1,098.6	1,065.3	33.30	32.993		

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

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615H	Database:	EDM
Reference Design:	Lateral plan	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Slot 5 - Carson 611H - Lateral plan													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
4,550.0	4,485.4	5,202.4	4,667.0	15.0	26.3	97.68	951.8	549.6	1,094.0	1,058.7	35.31	30.982		
4,600.0	4,517.7	5,240.5	4,667.0	15.3	26.5	96.74	977.3	521.2	1,089.7	1,053.2	36.44	29.905		
4,650.0	4,547.2	5,280.9	4,667.0	15.7	26.7	95.74	1,004.3	491.2	1,086.6	1,049.0	37.59	28.905		
4,700.0	4,573.7	5,323.3	4,667.0	16.2	26.9	94.72	1,032.6	459.7	1,084.7	1,045.8	38.89	27.890		
4,750.0	4,597.1	5,367.4	4,667.0	16.7	27.3	93.71	1,062.1	426.9	1,083.6	1,043.3	40.28	26.902		
4,800.0	4,617.3	5,413.2	4,667.0	17.3	27.7	92.77	1,092.7	392.8	1,083.2	1,041.4	41.82	25.900		
4,814.2	4,622.5	5,426.4	4,667.0	17.5	27.9	92.52	1,101.5	383.0	1,083.2	1,040.8	42.33	25.591		
4,850.0	4,634.2	5,460.2	4,667.0	18.0	28.3	91.92	1,124.1	357.8	1,083.3	1,040.0	43.32	25.009		
4,900.0	4,647.6	5,508.3	4,667.0	18.8	28.9	91.20	1,156.3	322.0	1,083.7	1,038.8	44.92	24.123		
4,950.0	4,657.6	5,557.3	4,667.0	19.6	29.6	90.64	1,189.1	285.6	1,084.3	1,037.7	46.64	23.248		
5,000.0	4,664.0	5,606.9	4,667.0	20.5	30.4	90.24	1,222.2	248.7	1,085.0	1,036.5	48.51	22.366		
5,050.0	4,666.8	5,656.8	4,667.0	21.4	31.2	90.03	1,255.6	211.6	1,085.8	1,035.4	50.38	21.552		
5,064.6	4,667.0	5,671.4	4,667.0	21.6	31.4	90.00	1,265.3	200.8	1,086.0	1,035.1	50.94	21.319		
5,100.0	4,667.0	5,706.8	4,667.0	22.3	32.1	90.00	1,289.0	174.5	1,086.6	1,034.3	52.32	20.768		
5,200.0	4,667.0	5,806.8	4,667.0	24.3	33.9	90.00	1,355.8	100.1	1,088.1	1,031.8	56.33	19.319		
5,300.0	4,667.0	5,906.8	4,667.0	26.4	35.9	90.00	1,422.7	25.7	1,089.7	1,029.2	60.49	18.013		
5,400.0	4,667.0	6,006.8	4,667.0	28.5	37.9	90.00	1,489.5	-48.6	1,091.2	1,026.4	64.79	16.842		
5,500.0	4,667.0	6,106.7	4,667.0	30.7	40.0	90.00	1,556.3	-123.0	1,092.8	1,023.6	69.20	15.792		
5,600.0	4,667.0	6,206.7	4,667.0	33.0	42.1	90.00	1,623.2	-197.4	1,094.3	1,020.6	73.69	14.850		
5,700.0	4,667.0	6,306.7	4,667.0	35.3	44.3	90.00	1,690.0	-271.7	1,095.9	1,017.6	78.25	14.004		
5,800.0	4,667.0	6,406.7	4,667.0	37.6	46.6	90.00	1,756.9	-346.1	1,097.4	1,014.5	82.88	13.242		
5,900.0	4,667.0	6,506.7	4,667.0	40.0	48.8	90.00	1,823.7	-420.5	1,099.0	1,011.4	87.55	12.553		
6,000.0	4,667.0	6,606.7	4,667.0	42.4	51.1	90.00	1,890.5	-494.8	1,100.5	1,008.2	92.26	11.928		
6,100.0	4,667.0	6,706.7	4,667.0	44.8	53.4	90.00	1,957.4	-569.2	1,102.1	1,005.0	97.01	11.360		
6,200.0	4,667.0	6,806.7	4,667.0	47.2	55.7	90.00	2,024.2	-643.6	1,103.6	1,001.8	101.80	10.841		
6,300.0	4,667.0	6,906.7	4,667.0	49.6	58.1	90.00	2,091.1	-717.9	1,105.1	998.5	106.60	10.367		
6,400.0	4,667.0	7,006.6	4,667.0	52.0	60.5	90.00	2,157.9	-792.3	1,106.7	995.3	111.44	9.931		
6,500.0	4,667.0	7,106.6	4,667.0	54.5	62.8	90.00	2,224.7	-866.7	1,108.2	992.0	116.29	9.530		
6,600.0	4,667.0	7,206.6	4,667.0	56.9	65.2	90.00	2,291.6	-941.0	1,109.8	988.6	121.16	9.160		
6,700.0	4,667.0	7,306.6	4,667.0	59.4	67.6	90.00	2,358.4	-1,015.4	1,111.3	985.3	126.04	8.817		
6,800.0	4,667.0	7,406.6	4,667.0	61.9	70.0	90.00	2,425.2	-1,089.7	1,112.9	981.9	130.94	8.499		
6,900.0	4,667.0	7,506.6	4,667.0	64.3	72.4	90.00	2,492.1	-1,164.1	1,114.4	978.6	135.86	8.203		
7,000.0	4,667.0	7,606.6	4,667.0	66.8	74.8	90.00	2,558.9	-1,238.5	1,116.0	975.2	140.78	7.927		
7,100.0	4,667.0	7,706.6	4,667.0	69.3	77.3	90.00	2,625.8	-1,312.8	1,117.5	971.8	145.72	7.669		
7,200.0	4,667.0	7,806.5	4,667.0	71.8	79.7	90.00	2,692.6	-1,387.2	1,119.1	968.4	150.66	7.428		
7,300.0	4,667.0	7,906.5	4,667.0	74.3	82.1	90.00	2,759.4	-1,461.6	1,120.6	965.0	155.61	7.201		
7,400.0	4,667.0	8,006.5	4,667.0	76.8	84.6	90.00	2,826.3	-1,535.9	1,122.2	961.6	160.57	6.989		
7,500.0	4,667.0	8,106.5	4,667.0	79.3	87.0	90.00	2,893.1	-1,610.3	1,123.7	958.2	165.53	6.788		
7,600.0	4,667.0	8,206.5	4,667.0	81.8	89.5	90.00	2,960.0	-1,684.7	1,125.3	954.7	170.51	6.599		
7,700.0	4,667.0	8,306.5	4,667.0	84.3	91.9	90.00	3,026.8	-1,759.0	1,126.8	951.3	175.48	6.421		
7,800.0	4,667.0	8,406.5	4,667.0	86.8	94.4	90.00	3,093.6	-1,833.4	1,128.3	947.9	180.47	6.252		
7,900.0	4,667.0	8,506.5	4,667.0	89.3	96.9	90.00	3,160.5	-1,907.8	1,129.9	944.4	185.45	6.093		
8,000.0	4,667.0	8,606.4	4,667.0	91.8	99.3	90.00	3,227.3	-1,982.1	1,131.4	941.0	190.45	5.941		
8,100.0	4,667.0	8,706.4	4,667.0	94.3	101.8	90.00	3,294.2	-2,056.5	1,133.0	937.5	195.44	5.797		
8,200.0	4,667.0	8,806.4	4,667.0	96.8	104.3	90.00	3,361.0	-2,130.8	1,134.5	934.1	200.44	5.660		
8,300.0	4,667.0	8,906.4	4,667.0	99.3	106.8	90.00	3,427.8	-2,205.2	1,136.1	930.6	205.45	5.530		
8,400.0	4,667.0	9,006.4	4,667.0	101.8	109.2	90.00	3,494.7	-2,279.6	1,137.6	927.2	210.45	5.406		
8,500.0	4,667.0	9,106.4	4,667.0	104.3	111.7	90.00	3,561.5	-2,353.9	1,139.2	923.7	215.46	5.287		
8,600.0	4,667.0	9,206.4	4,667.0	106.9	114.2	90.00	3,628.4	-2,428.3	1,140.7	920.2	220.48	5.174		
8,700.0	4,667.0	9,306.4	4,667.0	109.4	116.7	90.00	3,695.2	-2,502.7	1,142.3	916.8	225.49	5.066		
8,800.0	4,667.0	9,406.4	4,667.0	111.9	119.2	90.00	3,762.0	-2,577.0	1,143.8	913.3	230.51	4.962		
8,900.0	4,667.0	9,506.3	4,667.0	114.4	121.7	90.00	3,828.9	-2,651.4	1,145.4	909.8	235.53	4.863		

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

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615H	Database:	EDM
Reference Design:	Lateral plan	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Slot 5 - Carson 611H - Lateral plan														Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF														Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
9,000.0	4,667.0	9,606.3	4,667.0	116.9	124.2	90.00	3,895.7	-2,725.8	1,146.9	906.3	240.55	4.768			
9,100.0	4,667.0	9,706.3	4,667.0	119.5	126.7	90.00	3,962.6	-2,800.1	1,148.4	902.9	245.58	4.677			
9,200.0	4,667.0	9,806.3	4,667.0	122.0	129.2	90.00	4,029.4	-2,874.5	1,150.0	899.4	250.60	4.589			
9,300.0	4,667.0	9,906.3	4,667.0	124.5	131.6	90.00	4,096.2	-2,948.9	1,151.5	895.9	255.63	4.505			
9,400.0	4,667.0	10,006.3	4,667.0	127.0	134.1	90.00	4,163.1	-3,023.2	1,153.1	892.4	260.66	4.424			
9,500.0	4,667.0	10,106.3	4,667.0	129.6	136.6	90.00	4,229.9	-3,097.6	1,154.6	888.9	265.69	4.346			
9,600.0	4,667.0	10,206.3	4,667.0	132.1	139.1	90.00	4,296.8	-3,171.9	1,156.2	885.5	270.72	4.271			
9,700.0	4,667.0	10,306.2	4,667.0	134.6	141.6	90.00	4,363.6	-3,246.3	1,157.7	882.0	275.76	4.198			
9,800.0	4,667.0	10,406.2	4,667.0	137.1	144.1	90.00	4,430.4	-3,320.7	1,159.3	878.5	280.79	4.129			
9,900.0	4,667.0	10,506.2	4,667.0	139.7	146.6	90.00	4,497.3	-3,395.0	1,160.8	875.0	285.83	4.061			
10,000.0	4,667.0	10,606.2	4,667.0	142.2	149.2	90.00	4,564.1	-3,469.4	1,162.4	871.5	290.87	3.996			
10,100.0	4,667.0	10,706.2	4,667.0	144.7	151.7	90.00	4,631.0	-3,543.8	1,163.9	868.0	295.91	3.933			
10,200.0	4,667.0	10,806.2	4,667.0	147.2	154.2	90.00	4,697.8	-3,618.1	1,165.5	864.5	300.95	3.873			
10,300.0	4,667.0	10,906.2	4,667.0	149.8	156.7	90.00	4,764.6	-3,692.5	1,167.0	861.0	305.99	3.814			
10,400.0	4,667.0	11,006.2	4,667.0	152.3	159.2	90.00	4,831.5	-3,766.9	1,168.6	857.5	311.03	3.757			
10,500.0	4,667.0	11,106.2	4,667.0	154.8	161.7	90.00	4,898.3	-3,841.2	1,170.1	854.0	316.07	3.702			
10,600.0	4,667.0	11,206.1	4,667.0	157.4	164.2	90.00	4,965.2	-3,915.6	1,171.6	850.5	321.12	3.649			
10,700.0	4,667.0	11,306.1	4,667.0	159.9	166.7	90.00	5,032.0	-3,990.0	1,173.2	847.0	326.16	3.597			
10,800.0	4,667.0	11,406.1	4,667.0	162.4	169.2	90.00	5,098.8	-4,064.3	1,174.7	843.5	331.21	3.547			
10,900.0	4,667.0	11,506.1	4,667.0	165.0	171.7	90.00	5,165.7	-4,138.7	1,176.3	840.0	336.26	3.498			
11,000.0	4,667.0	11,606.1	4,667.0	167.5	174.2	90.00	5,232.5	-4,213.0	1,177.8	836.5	341.30	3.451			
11,100.0	4,667.0	11,706.1	4,667.0	170.0	176.7	90.00	5,299.4	-4,287.4	1,179.4	833.0	346.35	3.405			
11,200.0	4,667.0	11,806.1	4,667.0	172.6	179.3	90.00	5,366.2	-4,361.8	1,180.9	829.5	351.40	3.361			
11,300.0	4,667.0	11,906.1	4,667.0	175.1	181.8	90.00	5,433.0	-4,436.1	1,182.5	826.0	356.45	3.317			
11,400.0	4,667.0	12,006.0	4,667.0	177.6	184.3	90.00	5,499.9	-4,510.5	1,184.0	822.5	361.50	3.275			
11,500.0	4,667.0	12,106.0	4,667.0	180.1	186.8	90.00	5,566.7	-4,584.9	1,185.6	819.0	366.55	3.234			
11,600.0	4,667.0	12,206.0	4,667.0	182.7	189.3	90.00	5,633.6	-4,659.2	1,187.1	815.5	371.60	3.195			
11,700.0	4,667.0	12,306.0	4,667.0	185.2	191.8	90.00	5,700.4	-4,733.6	1,188.7	812.0	376.65	3.156			
11,800.0	4,667.0	12,406.0	4,667.0	187.7	194.3	90.00	5,767.2	-4,808.0	1,190.2	808.5	381.71	3.118			
11,900.0	4,667.0	12,506.0	4,667.0	190.3	196.8	90.00	5,834.1	-4,882.3	1,191.7	805.0	386.76	3.081			
11,974.5	4,667.0	12,561.7	4,667.0	192.2	198.2	90.00	5,871.3	-4,923.8	1,193.0	802.9	390.14	3.058 SF			

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615H	Database:	EDM
Reference Design:	Lateral plan	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Slot 6 - Carson 613H - Lateral plan													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	135.13	-28.4	28.2	40.0					
100.0	100.0	100.0	100.0	0.1	0.1	135.13	-28.4	28.2	40.0	39.7	0.29	139.528		
200.0	200.0	200.0	200.0	0.5	0.5	135.13	-28.4	28.2	40.0	39.0	1.00	39.865		
300.0	300.0	300.0	300.0	0.9	0.9	135.13	-28.4	28.2	40.0	38.3	1.72	23.255		
400.0	400.0	400.0	400.0	1.2	1.2	135.13	-28.4	28.2	40.0	37.6	2.44	16.415		
500.0	500.0	500.0	500.0	1.6	1.6	135.13	-28.4	28.2	40.0	36.9	3.15	12.684		
600.0	600.0	600.0	600.0	1.9	1.9	135.13	-28.4	28.2	40.0	36.1	3.87	10.335		
700.0	700.0	700.0	700.0	2.3	2.3	135.13	-28.4	28.2	40.0	35.4	4.59	8.720		
800.0	800.0	800.0	800.0	2.7	2.7	135.13	-28.4	28.2	40.0	34.7	5.31	7.542 CC, ES		
900.0	900.0	899.3	899.3	3.0	3.0	133.94	-28.3	29.3	40.7	34.7	6.01	6.772		
1,000.0	1,000.0	998.2	998.1	3.4	3.3	129.50	-27.8	33.7	43.8	37.1	6.71	6.523		
1,100.0	1,100.0	1,096.7	1,096.3	3.7	3.7	123.10	-27.1	41.5	49.7	42.3	7.40	6.712		
1,200.0	1,200.0	1,194.5	1,193.5	4.1	4.1	116.30	-26.0	52.6	59.0	50.9	8.09	7.292		
1,300.0	1,300.0	1,291.5	1,289.4	4.4	4.4	110.23	-24.6	66.8	71.9	63.2	8.76	8.208		
1,400.0	1,400.0	1,388.9	1,385.3	4.8	4.8	105.31	-22.9	83.8	88.1	78.6	9.45	9.323		
1,500.0	1,500.0	1,487.3	1,482.1	5.2	5.3	101.84	-21.2	101.3	105.0	94.8	10.15	10.345		
1,600.0	1,600.0	1,585.7	1,578.9	5.5	5.7	99.33	-19.5	118.7	122.2	111.3	10.86	11.252		
1,700.0	1,700.0	1,684.1	1,675.7	5.9	6.1	97.45	-17.8	136.2	139.5	128.0	11.57	12.062		
1,800.0	1,800.0	1,782.5	1,772.5	6.2	6.6	95.98	-16.1	153.7	157.0	144.7	12.28	12.785		
1,900.0	1,900.0	1,880.9	1,869.3	6.6	7.0	94.81	-14.4	171.2	174.5	161.5	12.99	13.433		
2,000.0	2,000.0	1,979.3	1,966.1	7.0	7.5	93.85	-12.7	188.7	192.1	178.4	13.71	14.017		
2,100.0	2,100.0	2,077.6	2,062.9	7.3	7.9	93.05	-11.0	206.2	209.8	195.4	14.42	14.544		
2,200.0	2,200.0	2,176.0	2,159.7	7.7	8.4	92.37	-9.3	223.7	227.5	212.3	15.14	15.023		
2,300.0	2,300.0	2,274.4	2,256.6	8.0	8.9	91.80	-7.6	241.2	245.2	229.3	15.86	15.459		
2,400.0	2,400.0	2,372.8	2,353.4	8.4	9.3	91.30	-5.9	258.7	262.9	246.3	16.58	15.858		
2,500.0	2,500.0	2,471.2	2,450.2	8.7	9.8	90.86	-4.1	276.2	280.7	263.4	17.30	16.224		
2,600.0	2,600.0	2,569.6	2,547.0	9.1	10.3	90.48	-2.4	293.7	298.4	280.4	18.02	16.560		
2,700.0	2,700.0	2,668.0	2,643.8	9.5	10.7	90.13	-0.7	311.2	316.2	297.4	18.74	16.871		
2,800.0	2,800.0	2,766.4	2,740.6	9.8	11.2	89.83	1.0	328.6	334.0	314.5	19.46	17.159		
2,900.0	2,900.0	2,864.8	2,837.4	10.2	11.7	89.55	2.7	346.1	351.8	331.6	20.18	17.427		
3,000.0	3,000.0	2,963.2	2,934.2	10.5	12.2	89.31	4.4	363.6	369.6	348.6	20.91	17.676		
3,100.0	3,100.0	3,061.6	3,031.0	10.9	12.6	89.08	6.1	381.1	387.4	365.7	21.63	17.908		
3,200.0	3,200.0	3,160.0	3,127.8	11.3	13.1	88.88	7.8	398.6	405.2	382.8	22.35	18.126		
3,300.0	3,300.0	3,258.4	3,224.6	11.6	13.6	88.69	9.5	416.1	423.0	399.9	23.08	18.329		
3,400.0	3,400.0	3,356.7	3,321.5	12.0	14.1	88.52	11.2	433.6	440.8	417.0	23.80	18.520		
3,500.0	3,500.0	3,455.1	3,418.3	12.3	14.5	88.36	12.9	451.1	458.6	434.1	24.52	18.700		
3,600.0	3,600.0	3,553.5	3,515.1	12.7	15.0	88.21	14.6	468.6	476.4	451.2	25.25	18.870		
3,700.0	3,700.0	3,651.9	3,611.9	13.0	15.5	88.07	16.4	486.1	494.3	468.3	25.97	19.030		
3,800.0	3,800.0	3,750.3	3,708.7	13.4	16.0	87.95	18.1	503.6	512.1	485.4	26.70	19.181		
3,900.0	3,900.0	3,848.7	3,805.5	13.8	16.5	87.83	19.8	521.1	529.9	502.5	27.42	19.324		
3,970.4	3,970.4	3,917.9	3,873.6	14.0	16.8	87.75	21.0	533.4	542.5	514.5	27.93	19.420		
4,000.0	4,000.0	3,947.0	3,902.2	14.1	16.9	136.37	21.5	538.5	548.2	520.1	28.10	19.508		
4,050.0	4,049.8	3,995.6	3,950.0	14.1	17.2	135.91	22.3	547.2	559.9	531.6	28.29	19.790		
4,100.0	4,099.3	4,043.3	3,997.0	14.1	17.4	135.53	23.2	555.6	574.1	545.6	28.49	20.153		
4,150.0	4,148.0	4,089.9	4,042.8	14.1	17.6	135.21	24.0	563.9	590.8	562.1	28.68	20.597		
4,200.0	4,195.9	4,208.1	4,159.7	14.1	18.1	135.90	31.7	578.7	608.1	578.9	29.27	20.775		
4,250.0	4,242.6	4,375.6	4,322.7	14.1	18.6	135.80	67.3	571.9	619.7	590.3	29.32	21.132		
4,300.0	4,287.8	4,551.0	4,479.3	14.2	18.8	134.01	133.1	530.3	623.9	595.4	28.54	21.861		
4,350.0	4,331.5	4,688.0	4,583.7	14.3	18.8	131.45	201.8	475.0	621.0	593.1	27.91	22.253		
4,400.0	4,373.3	4,838.4	4,674.4	14.4	18.8	127.43	290.4	394.9	612.3	584.9	27.43	22.320		
4,450.0	4,413.0	4,990.6	4,735.9	14.5	18.7	121.82	389.3	297.5	599.7	571.9	27.80	21.568		
4,500.0	4,450.4	5,094.4	4,758.1	14.7	19.9	117.32	459.3	224.4	584.7	555.6	29.17	20.049		

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

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615H	Database:	EDM
Reference Design:	Lateral plan	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Slot 6 - Carson 613H - Lateral plan													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,550.0	4,485.4	5,181.3	4,764.0	15.0	21.0	113.11		517.9	160.6	568.9	538.0	30.95	18.384	
4,600.0	4,517.7	5,219.4	4,764.0	15.3	21.5	111.81		543.4	132.3	554.4	521.9	32.49	17.063	
4,650.0	4,547.2	5,259.7	4,764.0	15.7	22.1	110.33		570.4	102.3	542.6	508.5	34.10	15.913	
4,700.0	4,573.7	5,302.1	4,764.0	16.2	22.8	108.75		598.8	70.8	533.2	497.4	35.75	14.915	
4,750.0	4,597.1	5,346.2	4,764.0	16.7	23.5	107.14		628.4	38.1	526.0	488.5	37.47	14.037	
4,800.0	4,617.3	5,392.0	4,764.0	17.3	24.2	105.59		659.0	4.1	520.7	481.5	39.23	13.273	
4,850.0	4,634.2	5,439.0	4,764.0	18.0	25.0	104.16		690.5	-30.9	517.0	475.9	41.05	12.595	
4,900.0	4,647.6	5,487.2	4,764.0	18.8	25.9	102.94		722.7	-66.6	514.6	471.7	42.89	11.998	
4,950.0	4,657.6	5,536.1	4,764.0	19.6	26.8	101.96		755.5	-103.0	513.2	468.5	44.77	11.463	
5,000.0	4,664.0	5,585.7	4,764.0	20.5	27.7	101.29		788.7	-139.8	512.8	466.1	46.67	10.988	
5,004.7	4,664.4	5,590.4	4,764.0	20.5	27.8	101.24		791.9	-143.3	512.8	465.9	46.85	10.945	
5,050.0	4,666.8	5,635.6	4,764.0	21.4	28.7	100.93		822.1	-176.9	513.1	464.5	48.58	10.562	
5,064.6	4,667.0	5,650.2	4,764.0	21.6	29.0	100.90		831.9	-187.7	513.3	464.1	49.13	10.447	
5,100.0	4,667.0	5,685.6	4,764.0	22.3	29.7	100.88		855.6	-214.0	513.9	463.4	50.48	10.179	
5,200.0	4,667.0	5,785.6	4,764.0	24.3	31.7	100.85		922.6	-288.2	515.5	461.1	54.45	9.468	
5,300.0	4,667.0	5,885.6	4,764.0	26.4	33.8	100.81		989.5	-362.5	517.2	458.6	58.58	8.830	
5,400.0	4,667.0	5,985.6	4,764.0	28.5	36.0	100.78		1,056.5	-436.8	518.9	456.1	62.83	8.258	
5,500.0	4,667.0	6,085.6	4,764.0	30.7	38.2	100.74		1,123.4	-511.0	520.6	453.4	67.19	7.747	
5,600.0	4,667.0	6,185.5	4,764.0	33.0	40.4	100.71		1,190.4	-585.3	522.2	450.6	71.64	7.290	
5,700.0	4,667.0	6,285.5	4,764.0	35.3	42.7	100.67		1,257.3	-659.5	523.9	447.8	76.15	6.880	
5,800.0	4,667.0	6,385.5	4,764.0	37.6	45.0	100.64		1,324.3	-733.8	525.6	444.9	80.72	6.511	
5,900.0	4,667.0	6,485.5	4,764.0	40.0	47.3	100.60		1,391.3	-808.0	527.3	441.9	85.35	6.178	
6,000.0	4,667.0	6,585.5	4,764.0	42.4	49.6	100.57		1,458.2	-882.3	528.9	438.9	90.01	5.877	
6,100.0	4,667.0	6,685.5	4,764.0	44.8	52.0	100.53		1,525.2	-956.5	530.6	435.9	94.71	5.603	
6,200.0	4,667.0	6,785.5	4,764.0	47.2	54.4	100.50		1,592.1	-1,030.8	532.3	432.9	99.44	5.353	
6,300.0	4,667.0	6,885.4	4,764.0	49.6	56.7	100.47		1,659.1	-1,105.1	534.0	429.8	104.19	5.125	
6,400.0	4,667.0	6,985.4	4,764.0	52.0	59.1	100.43		1,726.0	-1,179.3	535.6	426.7	108.97	4.916	
6,500.0	4,667.0	7,085.4	4,764.0	54.5	61.5	100.40		1,793.0	-1,253.6	537.3	423.6	113.77	4.723	
6,600.0	4,667.0	7,185.4	4,764.0	56.9	64.0	100.37		1,860.0	-1,327.8	539.0	420.4	118.58	4.545	
6,700.0	4,667.0	7,285.4	4,764.0	59.4	66.4	100.34		1,926.9	-1,402.1	540.7	417.3	123.42	4.381	
6,800.0	4,667.0	7,385.4	4,764.0	61.9	68.8	100.30		1,993.9	-1,476.3	542.4	414.1	128.26	4.229	
6,900.0	4,667.0	7,485.3	4,764.0	64.3	71.3	100.27		2,060.8	-1,550.6	544.0	410.9	133.12	4.087	
7,000.0	4,667.0	7,585.3	4,764.0	66.8	73.7	100.24		2,127.8	-1,624.9	545.7	407.7	137.99	3.955	
7,100.0	4,667.0	7,685.3	4,764.0	69.3	76.2	100.21		2,194.7	-1,699.1	547.4	404.5	142.87	3.831	
7,200.0	4,667.0	7,785.3	4,764.0	71.8	78.6	100.18		2,261.7	-1,773.4	549.1	401.3	147.76	3.716	
7,300.0	4,667.0	7,885.3	4,764.0	74.3	81.1	100.15		2,328.6	-1,847.6	550.7	398.1	152.66	3.608	
7,400.0	4,667.0	7,985.3	4,764.0	76.8	83.5	100.11		2,395.6	-1,921.9	552.4	394.9	157.57	3.506	
7,500.0	4,667.0	8,085.3	4,764.0	79.3	86.0	100.08		2,462.6	-1,996.1	554.1	391.6	162.48	3.410	
7,600.0	4,667.0	8,185.2	4,764.0	81.8	88.5	100.05		2,529.5	-2,070.4	555.8	388.4	167.40	3.320	
7,700.0	4,667.0	8,285.2	4,764.0	84.3	91.0	100.02		2,596.5	-2,144.6	557.5	385.1	172.33	3.235	
7,800.0	4,667.0	8,385.2	4,764.0	86.8	93.4	99.99		2,663.4	-2,218.9	559.1	381.9	177.26	3.154	
7,900.0	4,667.0	8,485.2	4,764.0	89.3	95.9	99.96		2,730.4	-2,293.2	560.8	378.6	182.20	3.078	
8,000.0	4,667.0	8,585.2	4,764.0	91.8	98.4	99.93		2,797.3	-2,367.4	562.5	375.4	187.14	3.006	
8,100.0	4,667.0	8,685.2	4,764.0	94.3	100.9	99.90		2,864.3	-2,441.7	564.2	372.1	192.08	2.937	
8,200.0	4,667.0	8,785.2	4,764.0	96.8	103.4	99.87		2,931.2	-2,515.9	565.9	368.8	197.04	2.872	
8,300.0	4,667.0	8,885.1	4,764.0	99.3	105.9	99.84		2,998.2	-2,590.2	567.5	365.6	201.99	2.810	
8,400.0	4,667.0	8,985.1	4,764.0	101.8	108.3	99.81		3,065.2	-2,664.4	569.2	362.3	206.95	2.751	
8,500.0	4,667.0	9,085.1	4,764.0	104.3	110.8	99.78		3,132.1	-2,738.7	570.9	359.0	211.91	2.694	
8,600.0	4,667.0	9,185.1	4,764.0	106.9	113.3	99.75		3,199.1	-2,813.0	572.6	355.7	216.88	2.640	
8,700.0	4,667.0	9,285.1	4,764.0	109.4	115.8	99.73		3,266.0	-2,887.2	574.3	352.4	221.84	2.589	
8,800.0	4,667.0	9,385.1	4,764.0	111.9	118.3	99.70		3,333.0	-2,961.5	575.9	349.1	226.81	2.539	
8,900.0	4,667.0	9,485.1	4,764.0	114.4	120.8	99.67		3,399.9	-3,035.7	577.6	345.8	231.79	2.492	

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

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615H	Database:	EDM
Reference Design:	Lateral plan	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Slot 6 - Carson 613H - Lateral plan													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Warning								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,000.0	4,667.0	9,585.0	4,764.0	116.9	123.3	99.64	3,466.9	-3,110.0	579.3	342.5	236.77	2.447		
9,100.0	4,667.0	9,685.0	4,764.0	119.5	125.8	99.61	3,533.8	-3,184.2	581.0	339.2	241.74	2.403		
9,200.0	4,667.0	9,785.0	4,764.0	122.0	128.3	99.58	3,600.8	-3,258.5	582.7	335.9	246.73	2.362		
9,300.0	4,667.0	9,885.0	4,764.0	124.5	130.8	99.56	3,667.8	-3,332.7	584.4	332.6	251.71	2.322		
9,400.0	4,667.0	9,985.0	4,764.0	127.0	133.3	99.53	3,734.7	-3,407.0	586.0	329.3	256.70	2.283		
9,500.0	4,667.0	10,085.0	4,764.0	129.6	135.8	99.50	3,801.7	-3,481.3	587.7	326.0	261.68	2.246		
9,600.0	4,667.0	10,185.0	4,764.0	132.1	138.3	99.47	3,868.6	-3,555.5	589.4	322.7	266.67	2.210		
9,700.0	4,667.0	10,284.9	4,764.0	134.6	140.9	99.45	3,935.6	-3,629.8	591.1	319.4	271.67	2.176		
9,800.0	4,667.0	10,384.9	4,764.0	137.1	143.4	99.42	4,002.5	-3,704.0	592.8	316.1	276.66	2.143		
9,900.0	4,667.0	10,484.9	4,764.0	139.7	145.9	99.39	4,069.5	-3,778.3	594.4	312.8	281.65	2.111		
10,000.0	4,667.0	10,584.9	4,764.0	142.2	148.4	99.37	4,136.5	-3,852.5	596.1	309.5	286.65	2.080		
10,100.0	4,667.0	10,684.9	4,764.0	144.7	150.9	99.34	4,203.4	-3,926.8	597.8	306.2	291.65	2.050		
10,200.0	4,667.0	10,784.9	4,764.0	147.2	153.4	99.31	4,270.4	-4,001.1	599.5	302.8	296.65	2.021		
10,300.0	4,667.0	10,884.9	4,764.0	149.8	155.9	99.29	4,337.3	-4,075.3	601.2	299.5	301.65	1.993		
10,400.0	4,667.0	10,984.8	4,764.0	152.3	158.4	99.26	4,404.3	-4,149.6	602.9	296.2	306.66	1.966		
10,500.0	4,667.0	11,084.8	4,764.0	154.8	160.9	99.23	4,471.2	-4,223.8	604.5	292.9	311.66	1.940		
10,600.0	4,667.0	11,184.8	4,764.0	157.4	163.4	99.21	4,538.2	-4,298.1	606.2	289.6	316.67	1.914		
10,700.0	4,667.0	11,284.8	4,764.0	159.9	166.0	99.18	4,605.1	-4,372.3	607.9	286.2	321.67	1.890		
10,800.0	4,667.0	11,384.8	4,764.0	162.4	168.5	99.16	4,672.1	-4,446.6	609.6	282.9	326.68	1.866		
10,900.0	4,667.0	11,484.8	4,764.0	165.0	171.0	99.13	4,739.1	-4,520.8	611.3	279.6	331.69	1.843		
11,000.0	4,667.0	11,584.8	4,764.0	167.5	173.5	99.11	4,806.0	-4,595.1	613.0	276.3	336.70	1.820		
11,100.0	4,667.0	11,684.7	4,764.0	170.0	176.0	99.08	4,873.0	-4,669.4	614.6	272.9	341.71	1.799		
11,200.0	4,667.0	11,784.7	4,764.0	172.6	178.5	99.06	4,939.9	-4,743.6	616.3	269.6	346.73	1.778		
11,300.0	4,667.0	11,884.7	4,764.0	175.1	181.0	99.03	5,006.9	-4,817.9	618.0	266.3	351.74	1.757		
11,400.0	4,667.0	11,984.7	4,764.0	177.6	183.6	99.01	5,073.8	-4,892.1	619.7	262.9	356.76	1.737		
11,500.0	4,667.0	12,084.7	4,764.0	180.1	186.1	98.98	5,140.8	-4,966.4	621.4	259.6	361.77	1.718		
11,600.0	4,667.0	12,184.7	4,764.0	182.7	188.6	98.96	5,207.7	-5,040.6	623.1	256.3	366.79	1.699		
11,700.0	4,667.0	12,284.7	4,764.0	185.2	191.1	98.93	5,274.7	-5,114.9	624.7	252.9	371.81	1.680		
11,800.0	4,667.0	12,384.6	4,764.0	187.7	193.6	98.91	5,341.7	-5,189.2	626.4	249.6	376.83	1.662		
11,900.0	4,667.0	12,484.6	4,764.0	190.3	196.2	98.89	5,408.6	-5,263.4	628.1	246.3	381.85	1.645 SF		
11,974.5	4,667.0	12,508.3	4,764.0	192.2	196.7	98.88	5,424.5	-5,281.0	631.4	248.1	383.28	1.647		

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615H	Database:	EDM
Reference Design:	Lateral plan	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Slot 7 - Carson 617H - Lateral plan														Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF														Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
0.0	0.0	0.0	0.0	0.0	0.0	135.38	-14.2	14.0	19.9						
100.0	100.0	100.0	100.0	0.1	0.1	135.38	-14.2	14.0	19.9	19.7	0.29	69.556			
200.0	200.0	200.0	200.0	0.5	0.5	135.38	-14.2	14.0	19.9	18.9	1.00	19.873			
300.0	300.0	300.0	300.0	0.9	0.9	135.38	-14.2	14.0	19.9	18.2	1.72	11.593			
400.0	400.0	400.0	400.0	1.2	1.2	135.38	-14.2	14.0	19.9	17.5	2.44	8.183			
500.0	500.0	500.0	500.0	1.6	1.6	135.38	-14.2	14.0	19.9	16.8	3.15	6.323 CC, ES			
600.0	600.0	599.5	599.5	1.9	1.9	138.89	-15.9	13.9	21.1	17.3	3.85	5.486			
700.0	700.0	698.8	698.8	2.3	2.3	147.29	-21.1	13.5	25.1	20.5	4.54	5.524			
800.0	800.0	797.5	797.0	2.7	2.6	156.38	-29.6	12.9	32.4	27.2	5.23	6.201			
900.0	900.0	895.6	894.4	3.0	3.0	163.67	-41.4	12.1	43.5	37.6	5.92	7.351			
1,000.0	1,000.0	992.8	990.4	3.4	3.4	168.87	-56.4	11.1	58.3	51.7	6.60	8.828			
1,100.0	1,100.0	1,088.8	1,084.7	3.7	3.8	172.45	-74.4	9.8	76.6	69.3	7.27	10.530			
1,200.0	1,200.0	1,184.3	1,177.9	4.1	4.2	174.96	-95.2	8.4	98.1	90.2	7.94	12.358			
1,300.0	1,300.0	1,281.7	1,272.7	4.4	4.7	176.65	-117.4	6.9	120.7	112.1	8.64	13.970			
1,400.0	1,400.0	1,379.1	1,367.5	4.8	5.2	177.81	-139.6	5.3	143.4	134.1	9.36	15.328			
1,500.0	1,500.0	1,476.4	1,462.3	5.2	5.7	178.65	-161.7	3.8	166.1	156.1	10.07	16.496			
1,600.0	1,600.0	1,573.8	1,557.0	5.5	6.2	179.29	-183.9	2.3	188.9	178.1	10.79	17.509			
1,700.0	1,700.0	1,671.1	1,651.8	5.9	6.7	179.80	-206.1	0.7	211.6	200.1	11.50	18.393			
1,800.0	1,800.0	1,768.5	1,746.6	6.2	7.3	-179.80	-228.2	-0.8	234.4	222.2	12.23	19.172			
1,900.0	1,900.0	1,865.9	1,841.4	6.6	7.8	-179.47	-250.4	-2.3	257.1	244.2	12.95	19.862			
2,000.0	2,000.0	1,963.2	1,936.2	7.0	8.3	-179.19	-272.5	-3.9	279.9	266.3	13.67	20.478			
2,100.0	2,100.0	2,060.6	2,031.0	7.3	8.8	-178.95	-294.7	-5.4	302.7	288.3	14.39	21.031			
2,200.0	2,200.0	2,158.0	2,125.8	7.7	9.4	-178.75	-316.9	-6.9	325.5	310.4	15.12	21.530			
2,300.0	2,300.0	2,255.3	2,220.6	8.0	9.9	-178.57	-339.0	-8.5	348.3	332.5	15.84	21.983			
2,400.0	2,400.0	2,352.7	2,315.4	8.4	10.5	-178.41	-361.2	-10.0	371.1	354.5	16.57	22.395			
2,500.0	2,500.0	2,450.0	2,410.2	8.7	11.0	-178.28	-383.3	-11.5	393.9	376.6	17.30	22.771			
2,600.0	2,600.0	2,547.4	2,505.0	9.1	11.5	-178.15	-405.5	-13.1	416.7	398.7	18.03	23.117			
2,700.0	2,700.0	2,644.8	2,599.8	9.5	12.1	-178.04	-427.7	-14.6	439.5	420.7	18.75	23.436			
2,800.0	2,800.0	2,742.1	2,694.6	9.8	12.6	-177.95	-449.8	-16.1	462.3	442.8	19.48	23.730			
2,900.0	2,900.0	2,839.5	2,789.4	10.2	13.2	-177.86	-472.0	-17.7	485.1	464.9	20.21	24.002			
3,000.0	3,000.0	2,936.9	2,884.2	10.5	13.7	-177.77	-494.2	-19.2	507.9	487.0	20.94	24.255			
3,100.0	3,100.0	3,034.2	2,979.0	10.9	14.3	-177.70	-516.3	-20.7	530.7	509.1	21.67	24.491			
3,200.0	3,200.0	3,131.6	3,073.7	11.3	14.8	-177.63	-538.5	-22.3	553.5	531.1	22.40	24.712			
3,300.0	3,300.0	3,228.9	3,168.5	11.6	15.3	-177.57	-560.6	-23.8	576.3	553.2	23.13	24.918			
3,400.0	3,400.0	3,326.3	3,263.3	12.0	15.9	-177.51	-582.8	-25.3	599.2	575.3	23.86	25.111			
3,500.0	3,500.0	3,423.7	3,358.1	12.3	16.4	-177.46	-605.0	-26.9	622.0	597.4	24.59	25.292			
3,600.0	3,600.0	3,521.0	3,452.9	12.7	17.0	-177.41	-627.1	-28.4	644.8	619.4	25.32	25.463			
3,700.0	3,700.0	3,618.4	3,547.7	13.0	17.5	-177.36	-649.3	-29.9	667.6	641.5	26.05	25.624			
3,800.0	3,800.0	3,715.8	3,642.5	13.4	18.1	-177.32	-671.5	-31.5	690.4	663.6	26.78	25.776			
3,900.0	3,900.0	3,813.1	3,737.3	13.8	18.6	-177.28	-693.6	-33.0	713.2	685.7	27.52	25.920			
3,970.4	3,970.4	3,881.6	3,804.0	14.0	19.0	-177.25	-709.2	-34.1	729.3	701.2	28.03	26.017			
4,000.0	4,000.0	3,910.4	3,832.0	14.1	19.2	-127.86	-715.8	-34.5	736.4	708.2	28.20	26.113			
4,050.0	4,049.8	3,958.4	3,878.7	14.1	19.4	-127.16	-726.7	-35.3	750.1	721.7	28.40	26.416			
4,100.0	4,099.3	4,005.5	3,924.6	14.1	19.7	-126.49	-737.4	-36.0	766.0	737.4	28.60	26.785			
4,150.0	4,148.0	4,051.4	3,969.3	14.1	20.0	-125.85	-747.9	-36.8	783.9	755.1	28.80	27.219			
4,200.0	4,195.9	4,096.0	4,012.7	14.1	20.2	-125.20	-758.0	-37.5	803.8	774.8	29.01	27.712			
4,250.0	4,242.6	4,171.6	4,086.5	14.1	20.6	-125.24	-774.5	-39.5	825.7	796.3	29.45	28.041			
4,300.0	4,287.8	4,547.8	4,442.8	14.2	21.6	-126.25	-770.4	-141.7	839.4	809.7	29.65	28.307			
4,350.0	4,331.5	4,880.5	4,674.7	14.3	21.5	-119.87	-648.0	-340.2	835.3	806.9	28.46	29.354			
4,400.0	4,373.3	5,144.7	4,759.2	14.4	21.4	-110.04	-493.1	-534.2	820.8	791.1	29.64	27.692			
4,450.0	4,413.0	5,239.1	4,764.0	14.5	21.9	-106.37	-430.5	-604.5	802.7	771.3	31.35	25.602			
4,500.0	4,450.4	5,272.2	4,764.0	14.7	22.2	-105.92	-408.3	-629.1	786.4	753.9	32.52	24.185			

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

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615H	Database:	EDM
Reference Design:	Lateral plan	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Slot 7 - Carson 617H - Lateral plan													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,550.0	4,485.4	5,307.9	4,764.0	15.0	22.7	-105.25	-384.3	-655.5	772.5	738.8	33.68	22.933		
4,600.0	4,517.7	5,346.1	4,764.0	15.3	23.2	-104.39	-358.7	-683.8	760.7	725.7	34.98	21.748		
4,650.0	4,547.2	5,386.4	4,764.0	15.7	23.8	-103.42	-331.6	-713.7	750.9	714.5	36.40	20.627		
4,700.0	4,573.7	5,428.8	4,764.0	16.2	24.4	-102.39	-303.1	-745.0	742.9	705.0	37.90	19.601		
4,750.0	4,597.1	5,472.9	4,764.0	16.7	25.2	-101.35	-273.5	-777.8	736.4	696.9	39.46	18.662		
4,800.0	4,617.3	5,518.7	4,764.0	17.3	25.9	-100.36	-242.7	-811.6	731.2	690.1	41.10	17.790		
4,850.0	4,634.2	5,565.7	4,764.0	18.0	26.8	-99.48	-211.1	-846.5	727.1	684.3	42.81	16.984		
4,900.0	4,647.6	5,613.8	4,764.0	18.8	27.6	-98.74	-178.8	-882.1	723.8	679.3	44.59	16.235		
4,950.0	4,657.6	5,662.8	4,764.0	19.6	28.5	-98.19	-145.9	-918.4	721.4	674.9	46.42	15.540		
5,000.0	4,664.0	5,712.4	4,764.0	20.5	29.5	-97.85	-112.6	-955.2	719.5	671.2	48.30	14.897		
5,050.0	4,666.8	5,762.3	4,764.0	21.4	30.4	-97.75	-79.1	-992.1	718.1	667.9	50.20	14.304		
5,064.6	4,667.0	5,776.9	4,764.0	21.6	30.7	-97.77	-69.3	-1,003.0	717.8	667.0	50.76	14.140		
5,100.0	4,667.0	5,812.3	4,764.0	22.3	31.4	-97.78	-45.5	-1,029.2	717.1	665.0	52.13	13.755		
5,200.0	4,667.0	5,912.3	4,764.0	24.3	33.5	-97.80	21.6	-1,103.2	715.1	659.0	56.14	12.739		
5,300.0	4,667.0	6,012.2	4,764.0	26.4	35.6	-97.82	88.8	-1,177.3	713.2	652.9	60.30	11.828		
5,400.0	4,667.0	6,112.2	4,764.0	28.5	37.7	-97.84	156.0	-1,251.4	711.2	646.6	64.58	11.012		
5,500.0	4,667.0	6,212.2	4,764.0	30.7	39.9	-97.86	223.1	-1,325.4	709.2	640.3	68.97	10.283		
5,600.0	4,667.0	6,312.2	4,764.0	33.0	42.1	-97.88	290.3	-1,399.5	707.3	633.8	73.44	9.631		
5,700.0	4,667.0	6,412.2	4,764.0	35.3	44.4	-97.91	357.4	-1,473.6	705.3	627.3	77.98	9.045		
5,800.0	4,667.0	6,512.1	4,764.0	37.6	46.7	-97.93	424.6	-1,547.6	703.4	620.8	82.57	8.518		
5,900.0	4,667.0	6,612.1	4,764.0	40.0	49.0	-97.95	491.7	-1,621.7	701.4	614.2	87.21	8.042		
6,000.0	4,667.0	6,712.1	4,764.0	42.4	51.3	-97.97	558.9	-1,695.8	699.4	607.5	91.89	7.611		
6,100.0	4,667.0	6,812.1	4,764.0	44.8	53.6	-98.00	626.0	-1,769.8	697.5	600.9	96.61	7.220		
6,200.0	4,667.0	6,912.1	4,764.0	47.2	56.0	-98.02	693.2	-1,843.9	695.5	594.2	101.35	6.862		
6,300.0	4,667.0	7,012.0	4,764.0	49.6	58.4	-98.04	760.4	-1,918.0	693.6	587.4	106.12	6.536		
6,400.0	4,667.0	7,112.0	4,764.0	52.0	60.7	-98.06	827.5	-1,992.0	691.6	580.7	110.91	6.236		
6,500.0	4,667.0	7,212.0	4,764.0	54.5	63.1	-98.09	894.7	-2,066.1	689.6	573.9	115.72	5.960		
6,600.0	4,667.0	7,312.0	4,764.0	56.9	65.5	-98.11	961.8	-2,140.2	687.7	567.1	120.54	5.705		
6,700.0	4,667.0	7,412.0	4,764.0	59.4	67.9	-98.13	1,029.0	-2,214.2	685.7	560.3	125.38	5.469		
6,800.0	4,667.0	7,511.9	4,764.0	61.9	70.4	-98.16	1,096.1	-2,288.3	683.8	553.5	130.24	5.250		
6,900.0	4,667.0	7,611.9	4,764.0	64.3	72.8	-98.18	1,163.3	-2,362.4	681.8	546.7	135.10	5.047		
7,000.0	4,667.0	7,711.9	4,764.0	66.8	75.2	-98.20	1,230.5	-2,436.4	679.8	539.9	139.98	4.857		
7,100.0	4,667.0	7,811.9	4,764.0	69.3	77.7	-98.23	1,297.6	-2,510.5	677.9	533.0	144.86	4.680		
7,200.0	4,667.0	7,911.9	4,764.0	71.8	80.1	-98.25	1,364.8	-2,584.6	675.9	526.2	149.75	4.514		
7,300.0	4,667.0	8,011.9	4,764.0	74.3	82.6	-98.28	1,431.9	-2,658.6	674.0	519.3	154.65	4.358		
7,400.0	4,667.0	8,111.8	4,764.0	76.8	85.0	-98.30	1,499.1	-2,732.7	672.0	512.4	159.55	4.212		
7,500.0	4,667.0	8,211.8	4,764.0	79.3	87.5	-98.33	1,566.2	-2,806.8	670.0	505.6	164.46	4.074		
7,600.0	4,667.0	8,311.8	4,764.0	81.8	89.9	-98.35	1,633.4	-2,880.9	668.1	498.7	169.38	3.944		
7,700.0	4,667.0	8,411.8	4,764.0	84.3	92.4	-98.37	1,700.6	-2,954.9	666.1	491.8	174.30	3.822		
7,800.0	4,667.0	8,511.8	4,764.0	86.8	94.9	-98.40	1,767.7	-3,029.0	664.2	484.9	179.23	3.706		
7,900.0	4,667.0	8,611.7	4,764.0	89.3	97.3	-98.42	1,834.9	-3,103.1	662.2	478.0	184.16	3.596		
8,000.0	4,667.0	8,711.7	4,764.0	91.8	99.8	-98.45	1,902.0	-3,177.1	660.2	471.2	189.09	3.492		
8,100.0	4,667.0	8,811.7	4,764.0	94.3	102.3	-98.48	1,969.2	-3,251.2	658.3	464.3	194.03	3.393		
8,200.0	4,667.0	8,911.7	4,764.0	96.8	104.8	-98.50	2,036.3	-3,325.3	656.3	457.4	198.97	3.299		
8,300.0	4,667.0	9,011.7	4,764.0	99.3	107.3	-98.53	2,103.5	-3,399.3	654.4	450.5	203.91	3.209		
8,400.0	4,667.0	9,111.6	4,764.0	101.8	109.7	-98.55	2,170.6	-3,473.4	652.4	443.6	208.85	3.124		
8,500.0	4,667.0	9,211.6	4,764.0	104.3	112.2	-98.58	2,237.8	-3,547.5	650.4	436.7	213.80	3.042		
8,600.0	4,667.0	9,311.6	4,764.0	106.9	114.7	-98.60	2,305.0	-3,621.5	648.5	429.7	218.75	2.965		
8,700.0	4,667.0	9,411.6	4,764.0	109.4	117.2	-98.63	2,372.1	-3,695.6	646.5	422.8	223.70	2.890		
8,800.0	4,667.0	9,511.6	4,764.0	111.9	119.7	-98.66	2,439.3	-3,769.7	644.6	415.9	228.65	2.819		
8,900.0	4,667.0	9,611.5	4,764.0	114.4	122.2	-98.68	2,506.4	-3,843.7	642.6	409.0	233.60	2.751		
9,000.0	4,667.0	9,711.5	4,764.0	116.9	124.7	-98.71	2,573.6	-3,917.8	640.7	402.1	238.55	2.686		

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

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615H	Database:	EDM
Reference Design:	Lateral plan	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Slot 7 - Carson 617H - Lateral plan													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,100.0	4,667.0	9,811.5	4,764.0	119.5	127.2	-98.74	2,640.7	-3,991.9	638.7	395.2	243.51	2.623		
9,200.0	4,667.0	9,911.5	4,764.0	122.0	129.7	-98.76	2,707.9	-4,065.9	636.7	388.3	248.47	2.563		
9,300.0	4,667.0	10,011.5	4,764.0	124.5	132.2	-98.79	2,775.1	-4,140.0	634.8	381.4	253.42	2.505		
9,400.0	4,667.0	10,111.4	4,764.0	127.0	134.7	-98.82	2,842.2	-4,214.1	632.8	374.5	258.38	2.449		
9,500.0	4,667.0	10,211.4	4,764.0	129.6	137.2	-98.85	2,909.4	-4,288.1	630.9	367.5	263.34	2.396		
9,600.0	4,667.0	10,311.4	4,764.0	132.1	139.7	-98.87	2,976.5	-4,362.2	628.9	360.6	268.30	2.344		
9,700.0	4,667.0	10,411.4	4,764.0	134.6	142.2	-98.90	3,043.7	-4,436.3	627.0	353.7	273.26	2.294		
9,800.0	4,667.0	10,511.4	4,764.0	137.1	144.7	-98.93	3,110.8	-4,510.4	625.0	346.8	278.22	2.246		
9,900.0	4,667.0	10,611.3	4,764.0	139.7	147.2	-98.96	3,178.0	-4,584.4	623.0	339.9	283.18	2.200		
10,000.0	4,667.0	10,711.3	4,764.0	142.2	149.7	-98.99	3,245.2	-4,658.5	621.1	333.0	288.14	2.156		
10,100.0	4,667.0	10,811.3	4,764.0	144.7	152.2	-99.02	3,312.3	-4,732.6	619.1	326.0	293.10	2.112		
10,200.0	4,667.0	10,911.3	4,764.0	147.2	154.7	-99.04	3,379.5	-4,806.6	617.2	319.1	298.07	2.071		
10,300.0	4,667.0	11,011.3	4,764.0	149.8	157.2	-99.07	3,446.6	-4,880.7	615.2	312.2	303.03	2.030		
10,400.0	4,667.0	11,111.2	4,764.0	152.3	159.7	-99.10	3,513.8	-4,954.8	613.3	305.3	307.99	1.991		
10,500.0	4,667.0	11,211.2	4,764.0	154.8	162.2	-99.13	3,580.9	-5,028.8	611.3	298.4	312.95	1.953		
10,600.0	4,667.0	11,311.2	4,764.0	157.4	164.7	-99.16	3,648.1	-5,102.9	609.4	291.4	317.91	1.917		
10,700.0	4,667.0	11,411.2	4,764.0	159.9	167.2	-99.19	3,715.2	-5,177.0	607.4	284.5	322.87	1.881		
10,800.0	4,667.0	11,511.2	4,764.0	162.4	169.7	-99.22	3,782.4	-5,251.0	605.5	277.6	327.83	1.847		
10,900.0	4,667.0	11,611.1	4,764.0	165.0	172.3	-99.25	3,849.6	-5,325.1	603.5	270.7	332.79	1.813		
11,000.0	4,667.0	11,711.1	4,764.0	167.5	174.8	-99.28	3,916.7	-5,399.2	601.5	263.8	337.76	1.781		
11,100.0	4,667.0	11,811.1	4,764.0	170.0	177.3	-99.31	3,983.9	-5,473.2	599.6	256.9	342.72	1.750		
11,200.0	4,667.0	11,911.1	4,764.0	172.6	179.8	-99.34	4,051.0	-5,547.3	597.6	250.0	347.67	1.719		
11,300.0	4,667.0	12,011.1	4,764.0	175.1	182.3	-99.37	4,118.2	-5,621.4	595.7	243.0	352.63	1.689		
11,400.0	4,667.0	12,111.0	4,764.0	177.6	184.8	-99.40	4,185.3	-5,695.4	593.7	236.1	357.59	1.660		
11,500.0	4,667.0	12,211.0	4,764.0	180.1	187.3	-99.44	4,252.5	-5,769.5	591.8	229.2	362.55	1.632		
11,600.0	4,667.0	12,311.0	4,764.0	182.7	189.8	-99.47	4,319.7	-5,843.6	589.8	222.3	367.51	1.605		
11,700.0	4,667.0	12,411.0	4,764.0	185.2	192.4	-99.50	4,386.8	-5,917.6	587.9	215.4	372.47	1.578		
11,800.0	4,667.0	12,511.0	4,764.0	187.7	194.9	-99.53	4,454.0	-5,991.7	585.9	208.5	377.42	1.552		
11,900.0	4,667.0	12,610.9	4,764.0	190.3	197.4	-99.56	4,521.1	-6,065.8	584.0	201.6	382.38	1.527		
11,974.5	4,667.0	12,685.5	4,764.0	192.2	199.3	-99.59	4,571.2	-6,121.0	582.5	196.4	386.07	1.509 SF		

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615H	Database:	EDM
Reference Design:	Lateral plan	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Slot 8 - Carson 615 - Pilot hole														Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF														Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
3,970.4	3,970.4	3,970.4	3,970.4	0.0	0.0	0.00	0.0	0.0	0.0	0.0	0.00	N/A			
3,973.6	3,973.6	3,973.6	3,973.6	0.0	0.0	-180.00	0.0	0.0	0.0	0.0	0.02	0.306	Level 1		
4,000.0	4,000.0	4,000.0	4,000.0	0.1	0.1	180.00	0.0	0.0	0.6	0.4	0.22	2.806			
4,050.0	4,049.8	4,049.8	4,049.8	0.2	0.3	180.00	0.0	0.0	4.5	4.1	0.47	9.654			
4,100.0	4,099.3	4,099.3	4,099.3	0.3	0.5	180.00	0.0	0.0	12.0	11.3	0.73	16.482			
4,150.0	4,148.0	4,148.0	4,148.0	0.3	0.6	180.00	0.0	0.0	23.0	22.1	0.94	24.495			
4,200.0	4,195.9	4,195.9	4,195.9	0.2	0.8	180.00	0.0	0.0	37.5	36.5	1.04	35.994			
4,250.0	4,242.6	4,242.6	4,242.6	0.4	1.0	180.00	0.0	0.0	55.4	54.1	1.29	42.981			
4,300.0	4,287.8	4,287.8	4,287.8	0.7	1.1	180.00	0.0	0.0	76.5	74.7	1.80	42.522	CC, ES, SF		
4,350.0	4,331.5	4,331.5	4,331.5	1.1	1.3	180.00	0.0	0.0	100.9	98.6	2.32	43.439			
4,400.0	4,373.3	4,373.3	4,373.3	1.5	1.4	180.00	0.0	0.0	128.3	125.5	2.88	44.555			
4,450.0	4,413.0	4,413.0	4,413.0	2.0	1.6	180.00	0.0	0.0	158.7	155.2	3.48	45.641			
4,500.0	4,450.4	4,450.4	4,450.4	2.5	1.7	180.00	0.0	0.0	191.8	187.7	4.11	46.639			
4,550.0	4,485.4	4,485.4	4,485.4	3.1	1.8	180.00	0.0	0.0	227.5	222.8	4.79	47.542			
4,600.0	4,517.7	4,517.7	4,517.7	3.7	2.0	180.00	0.0	0.0	265.7	260.2	5.49	48.362			
4,650.0	4,547.2	4,547.2	4,547.2	4.4	2.1	180.00	0.0	0.0	306.0	299.8	6.23	49.115			
4,700.0	4,573.7	4,573.7	4,573.7	5.2	2.2	180.00	0.0	0.0	348.4	341.4	6.99	49.822			
4,750.0	4,597.1	4,597.1	4,597.1	6.0	2.2	180.00	0.0	0.0	392.6	384.8	7.77	50.498			
4,800.0	4,617.3	4,617.3	4,617.3	6.9	2.3	180.00	0.0	0.0	438.3	429.7	8.57	51.161			
4,850.0	4,634.2	4,634.2	4,634.2	7.8	2.4	180.00	0.0	0.0	485.4	476.0	9.37	51.822			
4,900.0	4,647.6	4,647.6	4,647.6	8.7	2.4	180.00	0.0	0.0	533.5	523.4	10.16	52.493			
4,950.0	4,657.6	4,657.6	4,657.6	9.7	2.5	180.00	0.0	0.0	582.5	571.6	10.95	53.181			
5,000.0	4,664.0	4,664.0	4,664.0	10.7	2.5	180.00	0.0	0.0	632.1	620.4	11.73	53.892			
5,050.0	4,666.8	4,666.8	4,666.8	11.7	2.5	180.00	0.0	0.0	682.0	669.5	12.48	54.631			
5,064.6	4,667.0	4,667.0	4,667.0	12.1	2.5	0.00	0.0	0.0	696.6	683.9	12.70	54.855			
5,100.0	4,667.0	4,667.0	4,667.0	12.8	2.5	0.00	0.0	0.0	732.0	718.8	13.22	55.388			
5,200.0	4,667.0	4,667.0	4,667.0	14.9	2.5	0.00	0.0	0.0	832.0	817.4	14.64	56.847			
5,300.0	4,667.0	4,667.0	4,667.0	17.1	2.5	0.00	0.0	0.0	932.0	916.0	15.99	58.276			
5,400.0	4,667.0	4,667.0	4,667.0	19.3	2.5	0.00	0.0	0.0	1,032.0	1,014.7	17.29	59.683			
5,500.0	4,667.0	4,667.0	4,667.0	21.5	2.5	0.00	0.0	0.0	1,132.0	1,113.5	18.53	61.074			
5,600.0	4,667.0	4,667.0	4,667.0	23.8	2.5	0.00	0.0	0.0	1,232.0	1,212.3	19.73	62.450			
5,700.0	4,667.0	4,667.0	4,667.0	26.1	2.5	0.00	0.0	0.0	1,332.0	1,311.1	20.87	63.812			
5,800.0	4,667.0	4,667.0	4,667.0	28.4	2.5	0.00	0.0	0.0	1,432.0	1,410.0	21.98	65.160			
5,900.0	4,667.0	4,667.0	4,667.0	30.8	2.5	0.00	0.0	0.0	1,532.0	1,509.0	23.04	66.494			
6,000.0	4,667.0	4,667.0	4,667.0	33.1	2.5	0.00	0.0	0.0	1,632.0	1,607.9	24.07	67.814			
6,100.0	4,667.0	4,667.0	4,667.0	35.5	2.5	0.00	0.0	0.0	1,732.0	1,706.9	25.06	69.119			
6,200.0	4,667.0	4,667.0	4,667.0	37.9	2.5	0.00	0.0	0.0	1,832.0	1,806.0	26.02	70.410			
6,300.0	4,667.0	4,667.0	4,667.0	40.3	2.5	0.00	0.0	0.0	1,932.0	1,905.0	26.95	71.686			
6,400.0	4,667.0	4,667.0	4,667.0	42.7	2.5	0.00	0.0	0.0	2,032.0	2,004.1	27.86	72.947			
6,500.0	4,667.0	4,667.0	4,667.0	45.2	2.5	0.00	0.0	0.0	2,132.0	2,103.3	28.74	74.195			
6,600.0	4,667.0	4,667.0	4,667.0	47.6	2.5	0.00	0.0	0.0	2,232.0	2,202.4	29.59	75.428			
6,700.0	4,667.0	4,667.0	4,667.0	50.0	2.5	0.00	0.0	0.0	2,332.0	2,301.6	30.42	76.647			
6,800.0	4,667.0	4,667.0	4,667.0	52.5	2.5	0.00	0.0	0.0	2,432.0	2,400.8	31.24	77.853			
6,900.0	4,667.0	4,667.0	4,667.0	54.9	2.5	0.00	0.0	0.0	2,532.0	2,500.0	32.03	79.045			
7,000.0	4,667.0	4,667.0	4,667.0	57.4	2.5	0.00	0.0	0.0	2,632.0	2,599.2	32.81	80.224			
7,100.0	4,667.0	4,667.0	4,667.0	59.9	2.5	0.00	0.0	0.0	2,732.0	2,698.4	33.57	81.390			
7,200.0	4,667.0	4,667.0	4,667.0	62.3	2.5	0.00	0.0	0.0	2,832.0	2,797.7	34.31	82.543			
7,300.0	4,667.0	4,667.0	4,667.0	64.8	2.5	0.00	0.0	0.0	2,932.0	2,897.0	35.04	83.685			
7,400.0	4,667.0	4,667.0	4,667.0	67.3	2.5	0.00	0.0	0.0	3,032.0	2,996.2	35.75	84.814			
7,500.0	4,667.0	4,667.0	4,667.0	69.8	2.5	0.00	0.0	0.0	3,132.0	3,095.5	36.45	85.931			
7,600.0	4,667.0	4,667.0	4,667.0	72.3	2.5	0.00	0.0	0.0	3,232.0	3,194.9	37.13	87.037			
7,700.0	4,667.0	4,667.0	4,667.0	74.8	2.5	0.00	0.0	0.0	3,332.0	3,294.2	37.81	88.132			

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

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615H	Database:	EDM
Reference Design:	Lateral plan	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Slot 8 - Carson 615 - Pilot hole													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Separation Factor		Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
7,800.0	4,667.0	4,667.0	4,667.0	77.2	2.5	0.00	0.0	0.0	3,432.0	3,393.5	38.47	89.217		
7,900.0	4,667.0	4,667.0	4,667.0	79.7	2.5	0.00	0.0	0.0	3,532.0	3,492.9	39.12	90.290		
8,000.0	4,667.0	4,667.0	4,667.0	82.2	2.5	0.00	0.0	0.0	3,632.0	3,592.2	39.76	91.354		
8,100.0	4,667.0	4,667.0	4,667.0	84.7	2.5	0.00	0.0	0.0	3,732.0	3,691.6	40.39	92.407		
8,200.0	4,667.0	4,667.0	4,667.0	87.2	2.5	0.00	0.0	0.0	3,832.0	3,791.0	41.01	93.451		
8,300.0	4,667.0	4,667.0	4,667.0	89.7	2.5	0.00	0.0	0.0	3,932.0	3,890.4	41.62	94.485		
8,400.0	4,667.0	4,667.0	4,667.0	92.3	2.5	0.00	0.0	0.0	4,032.0	3,989.8	42.22	95.510		
8,500.0	4,667.0	4,667.0	4,667.0	94.8	2.5	0.00	0.0	0.0	4,132.0	4,089.2	42.81	96.526		
8,600.0	4,667.0	4,667.0	4,667.0	97.3	2.5	0.00	0.0	0.0	4,232.0	4,188.6	43.39	97.533		
8,700.0	4,667.0	4,667.0	4,667.0	99.8	2.5	0.00	0.0	0.0	4,332.0	4,288.0	43.97	98.531		
8,800.0	4,667.0	4,667.0	4,667.0	102.3	2.5	0.00	0.0	0.0	4,432.0	4,387.5	44.53	99.521		
8,900.0	4,667.0	4,667.0	4,667.0	104.8	2.5	0.00	0.0	0.0	4,532.0	4,486.9	45.09	100.503		
9,000.0	4,667.0	4,667.0	4,667.0	107.3	2.5	0.00	0.0	0.0	4,632.0	4,586.3	45.65	101.477		
9,100.0	4,667.0	4,667.0	4,667.0	109.8	2.5	0.00	0.0	0.0	4,732.0	4,685.8	46.19	102.444		
9,200.0	4,667.0	4,667.0	4,667.0	112.3	2.5	0.00	0.0	0.0	4,832.0	4,785.3	46.73	103.402		
9,300.0	4,667.0	4,667.0	4,667.0	114.9	2.5	0.00	0.0	0.0	4,932.0	4,884.7	47.26	104.354		
9,400.0	4,667.0	4,667.0	4,667.0	117.4	2.5	0.00	0.0	0.0	5,032.0	4,984.2	47.79	105.298		
9,500.0	4,667.0	4,667.0	4,667.0	119.9	2.5	0.00	0.0	0.0	5,132.0	5,083.7	48.31	106.235		
9,600.0	4,667.0	4,667.0	4,667.0	122.4	2.5	0.00	0.0	0.0	5,232.0	5,183.2	48.82	107.165		
9,700.0	4,667.0	4,667.0	4,667.0	124.9	2.5	0.00	0.0	0.0	5,332.0	5,282.7	49.33	108.088		
9,800.0	4,667.0	4,667.0	4,667.0	127.5	2.5	0.00	0.0	0.0	5,432.0	5,382.2	49.83	109.005		
9,900.0	4,667.0	4,667.0	4,667.0	130.0	2.5	0.00	0.0	0.0	5,532.0	5,481.7	50.33	109.915		
10,000.0	4,667.0	4,667.0	4,667.0	132.5	2.5	0.00	0.0	0.0	5,632.0	5,581.2	50.82	110.819		
10,100.0	4,667.0	4,667.0	4,667.0	135.0	2.5	0.00	0.0	0.0	5,732.0	5,680.7	51.31	111.717		
10,200.0	4,667.0	4,667.0	4,667.0	137.6	2.5	0.00	0.0	0.0	5,832.0	5,780.2	51.79	112.608		
10,300.0	4,667.0	4,667.0	4,667.0	140.1	2.5	0.00	0.0	0.0	5,932.0	5,879.7	52.27	113.494		
10,400.0	4,667.0	4,667.0	4,667.0	142.6	2.5	0.00	0.0	0.0	6,032.0	5,979.3	52.74	114.374		
10,500.0	4,667.0	4,667.0	4,667.0	145.1	2.5	0.00	0.0	0.0	6,132.0	6,078.8	53.21	115.249		
10,600.0	4,667.0	4,667.0	4,667.0	147.7	2.5	0.00	0.0	0.0	6,232.0	6,178.3	53.67	116.117		
10,700.0	4,667.0	4,667.0	4,667.0	150.2	2.5	0.00	0.0	0.0	6,332.0	6,277.9	54.13	116.981		
10,800.0	4,667.0	4,667.0	4,667.0	152.7	2.5	0.00	0.0	0.0	6,432.0	6,377.4	54.58	117.839		
10,900.0	4,667.0	4,667.0	4,667.0	155.2	2.5	0.00	0.0	0.0	6,532.0	6,477.0	55.03	118.691		
11,000.0	4,667.0	4,667.0	4,667.0	157.8	2.5	0.00	0.0	0.0	6,632.0	6,576.5	55.48	119.539		
11,100.0	4,667.0	4,667.0	4,667.0	160.3	2.5	0.00	0.0	0.0	6,732.0	6,676.1	55.92	120.382		
11,200.0	4,667.0	4,667.0	4,667.0	162.8	2.5	0.00	0.0	0.0	6,832.0	6,775.6	56.36	121.219		
11,300.0	4,667.0	4,667.0	4,667.0	165.3	2.5	0.00	0.0	0.0	6,932.0	6,875.2	56.80	122.052		
11,400.0	4,667.0	4,667.0	4,667.0	167.9	2.5	0.00	0.0	0.0	7,032.0	6,974.8	57.23	122.880		
11,500.0	4,667.0	4,667.0	4,667.0	170.4	2.5	0.00	0.0	0.0	7,132.0	7,074.3	57.65	123.704		
11,600.0	4,667.0	4,667.0	4,667.0	172.9	2.5	0.00	0.0	0.0	7,232.0	7,173.9	58.08	124.523		
11,700.0	4,667.0	4,667.0	4,667.0	175.5	2.5	0.00	0.0	0.0	7,332.0	7,273.5	58.50	125.337		
11,800.0	4,667.0	4,667.0	4,667.0	178.0	2.5	0.00	0.0	0.0	7,432.0	7,373.1	58.92	126.147		
11,900.0	4,667.0	4,667.0	4,667.0	180.5	2.5	0.00	0.0	0.0	7,532.0	7,472.7	59.33	126.952		
11,974.5	4,667.0	4,667.0	4,667.0	182.4	2.5	0.00	0.0	0.0	7,606.5	7,546.9	59.64	127.550		

Anticollision Report

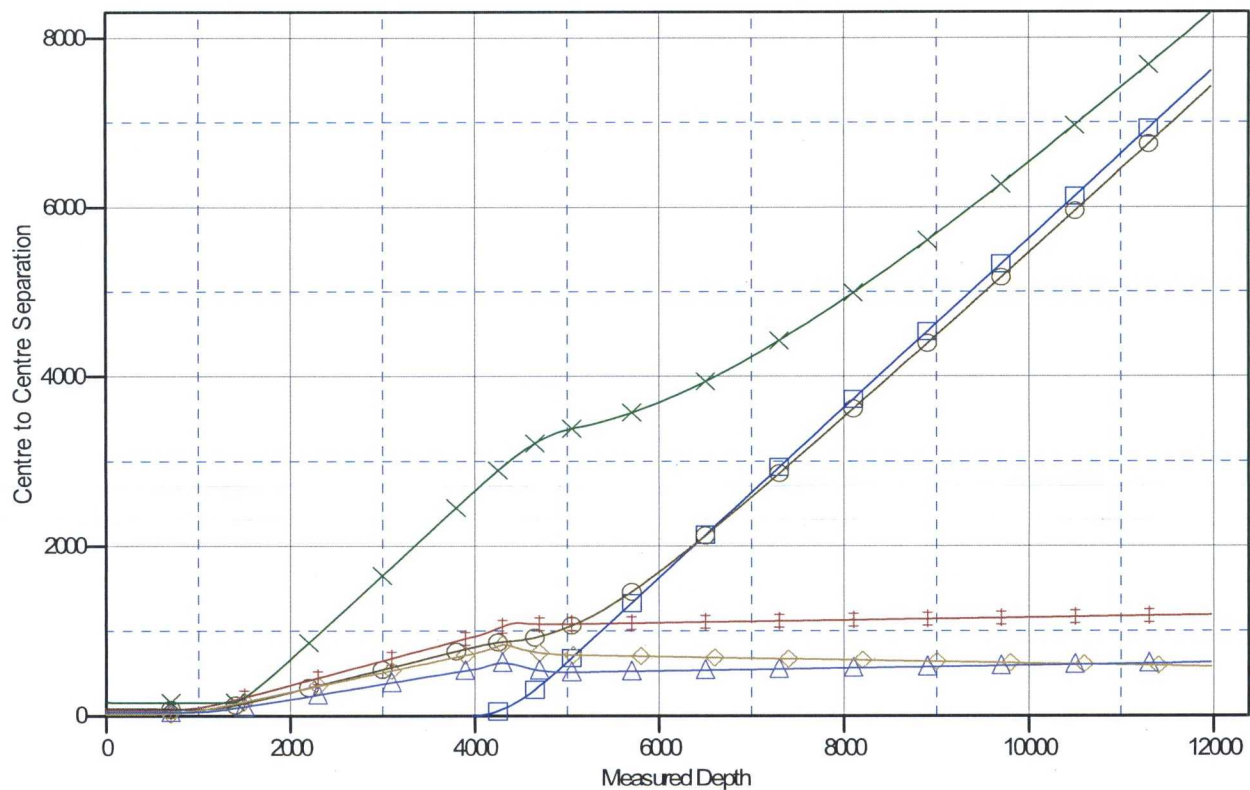
Company: DJR Operating
Project: Proposed Carson Unit
Reference Site: WC 21-2
Site Error: 0.0 usft
Reference Well: Slot 8
Well Error: 0.0 usft
Reference Wellbore: Carson 615H
Reference Design: Lateral plan

Local Co-ordinate Reference: Well Slot 8
TVD Reference: Rig @ 6370.0usft (Rig TBD 20' KB)
MD Reference: Rig @ 6370.0usft (Rig TBD 20' KB)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM
Offset TVD Reference: Offset Datum

Reference Depths are relative to Rig @ 6370.0usft (Rig TBD 20' KB)
 Offset Depths are relative to Offset Datum
 Central Meridian is -107.8333333

Coordinates are relative to: Slot 8
 Coordinate System is US State Plane 1983, New Mexico Western Zone
 Grid Convergence at Surface is: -0.17°

Ladder Plot



LEGEND

Slot 5, Carson 611H, Lateral plan V 0
 Slot 8, Carson 615, Pilot hole V 0

Slot 4, Carson 584H, Lateral plan V 0
 Slot 7, Carson 617H, Lateral plan V 0

Slot 6, Carson 613H, Lateral plan V 0
 Blst Coal 21 Com 2, Original drilling, Original drilling V 0

Anticollision Report

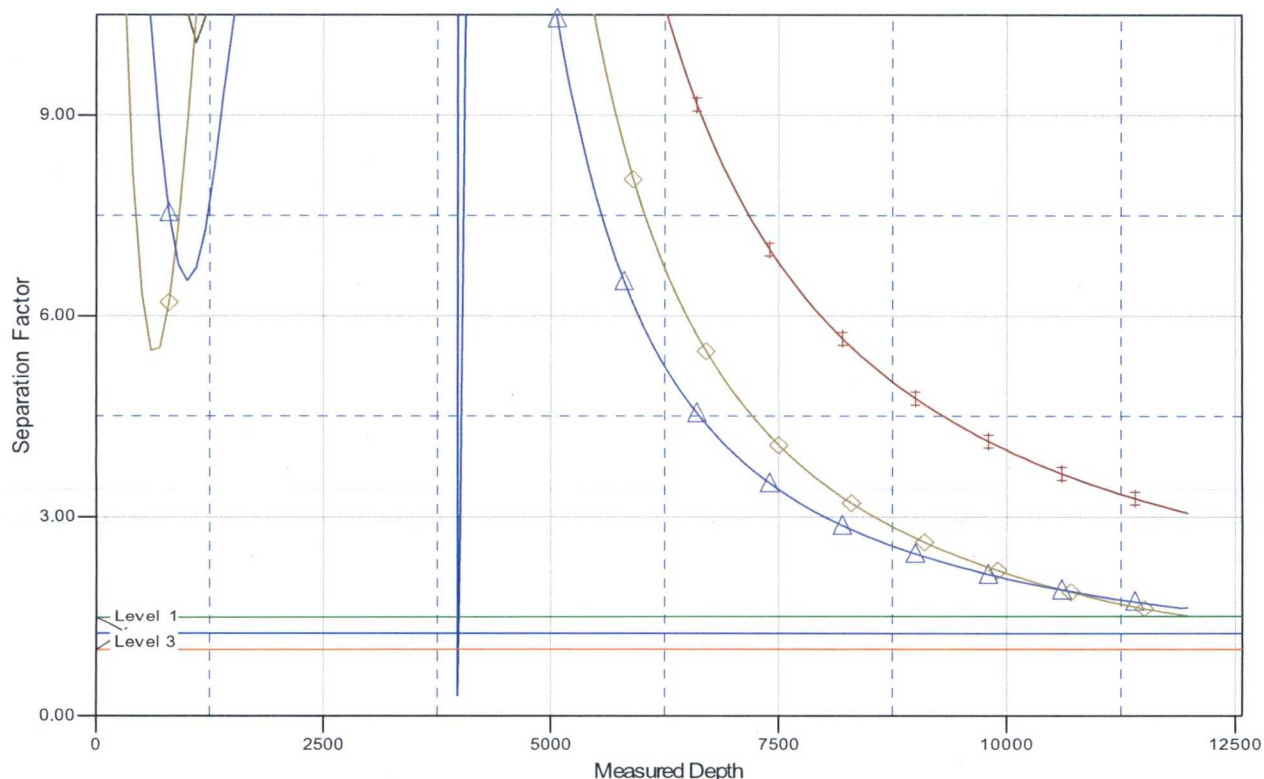
Company: DJR Operating
Project: Proposed Carson Unit
Reference Site: WC 21-2
Site Error: 0.0 usft
Reference Well: Slot 8
Well Error: 0.0 usft
Reference Wellbore: Carson 615H
Reference Design: Lateral plan

Local Co-ordinate Reference: Well Slot 8
TVD Reference: Rig @ 6370.0usft (Rig TBD 20' KB)
MD Reference: Rig @ 6370.0usft (Rig TBD 20' KB)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at
Database: EDM
Offset TVD Reference: Offset Datum

Reference Depths are relative to Rig @ 6370.0usft (Rig TBD 20' KB)
 Offset Depths are relative to Offset Datum
 Central Meridian is -107.8333333

Coordinates are relative to: Slot 8
 Coordinate System is US State Plane 1983, New Mexico Western Zone
 Grid Convergence at Surface is: -0.17°

Separation Factor Plot



LEGEND

Slot 5, Carson 611H, Lateral plan V 0
 Slot 8, Carson 615, Pilot hole V 0

Slot 4, Carson 664H, Lateral plan V 0
 Slot 7, Carson 617H, Lateral plan V 0

Slot 6, Carson 613H, Lateral plan V 0
 Bls Coal 21 Com 2, Original drilling, Original drilling V 0

DJR Operating

**Proposed Carson Unit
WC 21-2
Slot 8**

Carson 615

Plan: Pilot hole

Standard Planning Report

03 May, 2018



Database:	EDM	Local Co-ordinate Reference:	Well Slot 8
Company:	DJR Operating	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Project:	Proposed Carson Unit	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site:	WC 21-2	North Reference:	True
Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Carson 615		
Design:	Pilot hole		

Project	Proposed Carson 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	WC 21-2				
Site Position:		Northing:	1,958,212.44 usft	Latitude:	36.38126970
From:	Lat/Long	Easting:	2,637,700.67 usft	Longitude:	-108.12342620
Position Uncertainty:	0.0 usft	Slot Radius:	16.000 in	Grid Convergence:	-0.17 °

Well	Slot 8					
Well Position	+N/-S	0.0 usft	Northing:	1,958,212.44 usft	Latitude:	36.38126970
	+E/-W	0.0 usft	Easting:	2,637,700.67 usft	Longitude:	-108.12342620
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	6,350.0 usft

Wellbore	Carson 615				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	4/5/2018	9.29	62.96	49,699.12234464

Design	Pilot hole			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	0.00

Plan Survey Tool Program	Date 5/3/2018			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	4,999.0	Pilot hole (Carson 615)	MWD+IGRF OWSG MWD + IGRF or WI

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,999.0	0.00	0.00	4,999.0	0.0	0.0	0.00	0.00	0.00	0.00	

Database: EDM
Company: DJR Operating
Project: Proposed Carson Unit
Site: WC 21-2
Well: Slot 8
Wellbore: Carson 615
Design: Pilot hole

Local Co-ordinate Reference: Well Slot 8
TVD Reference: Rig @ 6370.0usft (Rig TBD 20' KB)
MD Reference: Rig @ 6370.0usft (Rig TBD 20' KB)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
25.0	0.00	0.00	25.0	0.0	0.0	0.0	0.00	0.00	0.00
Kirtland									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
350.0	0.00	0.00	350.0	0.0	0.0	0.0	0.00	0.00	0.00
Surface casing									
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
943.0	0.00	0.00	943.0	0.0	0.0	0.0	0.00	0.00	0.00
Fruitland									
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,190.0	0.00	0.00	1,190.0	0.0	0.0	0.0	0.00	0.00	0.00
Picture Cliffs									
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,289.0	0.00	0.00	1,289.0	0.0	0.0	0.0	0.00	0.00	0.00
Lewis									
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,952.0	0.00	0.00	1,952.0	0.0	0.0	0.0	0.00	0.00	0.00
Chacra									
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,518.0	0.00	0.00	2,518.0	0.0	0.0	0.0	0.00	0.00	0.00
Menefee									
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,576.0	0.00	0.00	3,576.0	0.0	0.0	0.0	0.00	0.00	0.00
Point Lookout									
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00

Database: EDM
Company: DJR Operating
Project: Proposed Carson Unit
Site: WC 21-2
Well: Slot 8
Wellbore: Carson 615
Design: Pilot hole

Local Co-ordinate Reference: Well Slot 8
TVD Reference: Rig @ 6370.0usft (Rig TBD 20' KB)
MD Reference: Rig @ 6370.0usft (Rig TBD 20' KB)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,745.0	0.00	0.00	3,745.0	0.0	0.0	0.0	0.00	0.00	0.00
Mancos									
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,950.0	0.00	0.00	3,950.0	0.0	0.0	0.0	0.00	0.00	0.00
Intermediate casing									
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,360.0	0.00	0.00	4,360.0	0.0	0.0	0.0	0.00	0.00	0.00
Mancos Silt									
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,602.0	0.00	0.00	4,602.0	0.0	0.0	0.0	0.00	0.00	0.00
Gallup A									
4,667.0	0.00	0.00	4,667.0	0.0	0.0	0.0	0.00	0.00	0.00
Gallup B									
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,764.0	0.00	0.00	4,764.0	0.0	0.0	0.0	0.00	0.00	0.00
Gallup C									
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,899.0	0.00	0.00	4,899.0	0.0	0.0	0.0	0.00	0.00	0.00
Lower Mancos									
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,999.0	0.00	0.00	4,999.0	0.0	0.0	0.0	0.00	0.00	0.00
Carson 615 PH BHL									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Carson 615 PH BHL	0.00	0.00	4,999.0	0.0	0.0	1,958,212.44	2,637,700.67	36.38126970	-108.12342620
- plan hits target center									
- Circle (radius 50.0)									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
350.0	350.0	Surface casing	9.625	12.250
3,950.0	3,950.0	Intermediate casing	7.000	8.750

Database: EDM
Company: DJR Operating
Project: Proposed Carson Unit
Site: WC 21-2
Well: Slot 8
Wellbore: Carson 615
Design: Pilot hole

Local Co-ordinate Reference: Well Slot 8
TVD Reference: Rig @ 6370.0usft (Rig TBD 20' KB)
MD Reference: Rig @ 6370.0usft (Rig TBD 20' KB)
North Reference: True
Survey Calculation Method: Minimum Curvature

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
25.0	25.0	Kirtland				
943.0	943.0	Fruitland				
1,190.0	1,190.0	Picture Cliffs				
1,289.0	1,289.0	Lewis				
1,952.0	1,952.0	Chacra				
2,518.0	2,518.0	Menefee				
3,576.0	3,576.0	Point Lookout				
3,745.0	3,745.0	Mancos				
4,360.0	4,360.0	Mancos Silt				
4,602.0	4,602.0	Gallup A				
4,667.0	4,667.0	Gallup B				
4,764.0	4,764.0	Gallup C				
4,899.0	4,899.0	Lower Mancos				

DJR Operating

Proposed Carson Unit
WC 21-2
Slot 8

Carson 615
Pilot hole

Anticollision Report

03 May, 2018



Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615	Database:	EDM
Reference Design:	Pilot hole	Offset TVD Reference:	Offset Datum

Reference	Pilot hole
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	Stations
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 10,000.0 us
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Survey Tool Program		Date	5/3/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	4,999.0	Pilot hole (Carson 615)	MWD+IGRF	OWSG MWD + IGRF or WMM	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
WC 21-2						
Bisti Coal 21 Com 2 - Original drilling - Original drilling	1,329.3	1,304.3	154.8	145.8	17.136	CC, ES, SF
Slot 4 - Carson 584H - Lateral plan	952.5	954.4	71.5	65.0	11.062	CC, ES
Slot 4 - Carson 584H - Lateral plan	1,100.0	1,098.8	76.4	68.8	10.086	SF
Slot 5 - Carson 611H - Lateral plan	400.0	400.0	60.0	57.5	24.602	CC
Slot 5 - Carson 611H - Lateral plan	500.0	499.4	60.3	57.2	19.160	ES
Slot 5 - Carson 611H - Lateral plan	800.0	795.3	71.9	66.6	13.605	SF
Slot 6 - Carson 613H - Lateral plan	800.0	800.0	40.0	34.7	7.542	CC, ES
Slot 6 - Carson 613H - Lateral plan	1,000.0	998.2	43.8	37.1	6.523	SF
Slot 7 - Carson 617H - Lateral plan	500.0	500.0	19.9	16.8	6.323	CC, ES
Slot 7 - Carson 617H - Lateral plan	600.0	599.5	21.1	17.3	5.486	SF
Slot 8 - Carson 615H - Lateral plan	4,300.0	4,278.3	74.0	71.5	28.778	CC, ES, SF

Offset Design WC 21-2 - Bisti Coal 21 Com 2 - Original drilling - Original drilling													Offset Site Error:	0.0 usft
Survey Program: 103-MWD+IGRF													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
							+N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	39.76	119.0	99.0	156.8					
100.0	100.0	75.0	75.0	0.1	0.1	39.76	119.0	99.0	154.8	154.5	0.28	557.027		
200.0	200.0	175.0	175.0	0.5	0.4	39.76	119.0	99.0	154.8	153.9	0.94	163.874		
300.0	300.0	275.0	275.0	0.9	0.8	39.76	119.0	99.0	154.8	153.1	1.66	93.164		
400.0	400.0	375.0	375.0	1.2	1.2	39.76	119.0	99.0	154.8	152.4	2.38	65.082		
500.0	500.0	475.1	475.1	1.6	1.5	39.69	119.3	99.0	155.0	151.9	3.10	50.073		
600.0	600.0	575.2	575.2	1.9	1.9	39.72	119.2	99.0	154.9	151.1	3.81	40.632		
700.0	700.0	675.0	675.0	2.3	2.2	39.76	119.0	99.0	154.8	150.3	4.53	34.177		
800.0	800.0	775.0	775.0	2.7	2.6	39.76	119.0	99.0	154.8	149.6	5.25	29.506		
900.0	900.0	875.0	875.0	3.0	3.0	39.76	119.0	99.0	154.8	148.8	5.96	25.959		
1,000.0	1,000.0	975.0	975.0	3.4	3.3	39.76	119.0	99.0	154.8	148.1	6.68	23.173		
1,100.0	1,100.0	1,075.1	1,075.1	3.7	3.7	39.68	119.3	99.0	155.0	147.6	7.40	20.959		
1,200.0	1,200.0	1,175.2	1,175.2	4.1	4.0	39.71	119.2	99.0	155.0	146.9	8.11	19.097		
1,300.0	1,300.0	1,275.2	1,275.2	4.4	4.4	39.75	119.1	99.0	154.8	146.0	8.83	17.532		
1,329.3	1,329.3	1,304.3	1,304.3	4.5	4.5	39.76	119.0	99.0	154.8	145.8	9.03	17.136	CC, ES, SF	
1,400.0	1,400.0	1,330.0	1,330.0	4.8	4.5	39.76	119.0	99.0	161.2	152.1	9.10	17.717		

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

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615	Database:	EDM
Reference Design:	Pilot hole	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Bisti Coal 21 Com 2 - Original drilling - Original drilling														Offset Site Error:	0.0 usft
Survey Program: 103-MWD+IGRF														Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Separation Factor		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
1,500.0	1,500.0	1,330.0	1,330.0	5.2	4.5	39.76	119.0	99.0	212.1	204.1	8.06	26.325			
1,600.0	1,600.0	1,330.0	1,330.0	5.5	4.5	39.76	119.0	99.0	289.8	282.6	7.22	40.143			
1,700.0	1,700.0	1,330.0	1,330.0	5.9	4.5	39.76	119.0	99.0	378.1	371.4	6.78	55.753			
1,800.0	1,800.0	1,330.0	1,330.0	6.2	4.5	39.76	119.0	99.0	471.2	464.6	6.57	71.711			
1,900.0	1,900.0	1,330.0	1,330.0	6.6	4.5	39.76	119.0	99.0	566.6	560.1	6.48	87.491			
2,000.0	2,000.0	1,330.0	1,330.0	7.0	4.5	39.76	119.0	99.0	663.3	656.9	6.45	102.896			
2,100.0	2,100.0	1,330.0	1,330.0	7.3	4.5	39.76	119.0	99.0	760.9	754.5	6.46	117.851			
2,200.0	2,200.0	1,330.0	1,330.0	7.7	4.5	39.76	119.0	99.0	859.1	852.6	6.49	132.324			
2,300.0	2,300.0	1,330.0	1,330.0	8.0	4.5	39.76	119.0	99.0	957.6	951.1	6.55	146.306			
2,400.0	2,400.0	1,330.0	1,330.0	8.4	4.5	39.76	119.0	99.0	1,056.4	1,049.8	6.61	159.795			
2,500.0	2,500.0	1,330.0	1,330.0	8.7	4.5	39.76	119.0	99.0	1,155.4	1,148.7	6.69	172.795			
2,600.0	2,600.0	1,330.0	1,330.0	9.1	4.5	39.76	119.0	99.0	1,254.6	1,247.8	6.77	185.311			
2,700.0	2,700.0	1,330.0	1,330.0	9.5	4.5	39.76	119.0	99.0	1,353.9	1,347.0	6.86	197.352			
2,800.0	2,800.0	1,330.0	1,330.0	9.8	4.5	39.76	119.0	99.0	1,453.3	1,446.3	6.96	208.927			
2,900.0	2,900.0	1,330.0	1,330.0	10.2	4.5	39.76	119.0	99.0	1,552.7	1,545.7	7.06	220.044			
3,000.0	3,000.0	1,330.0	1,330.0	10.5	4.5	39.76	119.0	99.0	1,652.3	1,645.1	7.16	230.715			
3,100.0	3,100.0	1,330.0	1,330.0	10.9	4.5	39.76	119.0	99.0	1,751.9	1,744.6	7.27	240.949			
3,200.0	3,200.0	1,330.0	1,330.0	11.3	4.5	39.76	119.0	99.0	1,851.5	1,844.1	7.38	250.757			
3,300.0	3,300.0	1,330.0	1,330.0	11.6	4.5	39.76	119.0	99.0	1,951.2	1,943.7	7.50	260.151			
3,400.0	3,400.0	1,330.0	1,330.0	12.0	4.5	39.76	119.0	99.0	2,050.9	2,043.2	7.62	269.142			
3,500.0	3,500.0	1,330.0	1,330.0	12.3	4.5	39.76	119.0	99.0	2,150.6	2,142.8	7.74	277.741			
3,600.0	3,600.0	1,330.0	1,330.0	12.7	4.5	39.76	119.0	99.0	2,250.3	2,242.5	7.87	285.959			
3,700.0	3,700.0	1,330.0	1,330.0	13.0	4.5	39.76	119.0	99.0	2,350.1	2,342.1	8.00	293.807			
3,800.0	3,800.0	1,330.0	1,330.0	13.4	4.5	39.76	119.0	99.0	2,449.9	2,441.8	8.13	301.296			
3,900.0	3,900.0	1,330.0	1,330.0	13.8	4.5	39.76	119.0	99.0	2,549.7	2,541.4	8.27	308.438			
4,000.0	4,000.0	1,330.0	1,330.0	14.1	4.5	39.76	119.0	99.0	2,649.5	2,641.1	8.40	315.243			
4,100.0	4,100.0	1,330.0	1,330.0	14.5	4.5	39.76	119.0	99.0	2,749.4	2,740.8	8.55	321.721			
4,200.0	4,200.0	1,330.0	1,330.0	14.8	4.5	39.76	119.0	99.0	2,849.2	2,840.5	8.69	327.883			
4,300.0	4,300.0	1,330.0	1,330.0	15.2	4.5	39.76	119.0	99.0	2,949.1	2,940.2	8.84	333.740			
4,400.0	4,400.0	1,330.0	1,330.0	15.6	4.5	39.76	119.0	99.0	3,048.9	3,040.0	8.99	339.302			
4,500.0	4,500.0	1,330.0	1,330.0	15.9	4.5	39.76	119.0	99.0	3,148.8	3,139.7	9.14	344.578			
4,600.0	4,600.0	1,330.0	1,330.0	16.3	4.5	39.76	119.0	99.0	3,248.7	3,239.4	9.29	349.578			
4,700.0	4,700.0	1,330.0	1,330.0	16.6	4.5	39.76	119.0	99.0	3,348.6	3,339.1	9.45	354.312			
4,800.0	4,800.0	1,330.0	1,330.0	17.0	4.5	39.76	119.0	99.0	3,448.5	3,438.9	9.61	358.789			
4,900.0	4,900.0	1,330.0	1,330.0	17.4	4.5	39.76	119.0	99.0	3,548.4	3,538.6	9.77	363.018			
4,999.0	4,999.0	1,330.0	1,330.0	17.7	4.5	39.76	119.0	99.0	3,647.3	3,637.4	9.94	366.968			

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615	Database:	EDM
Reference Design:	Pilot hole	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Slot 4 - Carson 584H - Lateral plan													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	135.13	-56.7	56.5	80.0					
100.0	100.0	100.0	100.0	0.1	0.1	135.13	-56.7	56.5	80.0	79.7	0.29	279.055		
133.3	133.3	133.3	133.3	0.3	0.3	135.13	-56.7	56.5	80.0	79.5	0.53	152.212		
200.0	200.0	200.0	200.0	0.5	0.5	135.13	-56.7	56.5	80.0	79.0	1.00	79.730		
300.0	300.0	300.0	300.0	0.9	0.9	135.13	-56.7	56.5	80.0	78.3	1.72	46.509		
333.3	333.3	333.3	333.3	1.0	1.0	135.13	-56.7	56.5	80.0	78.1	1.96	40.837		
400.0	400.0	400.0	400.0	1.2	1.2	135.13	-56.7	56.5	80.0	77.6	2.44	32.830		
500.0	500.0	500.0	500.0	1.6	1.6	135.13	-56.7	56.5	80.0	76.9	3.15	25.369		
600.0	600.0	601.2	601.2	1.9	1.9	133.98	-55.0	57.0	79.2	75.4	3.88	20.449		
700.0	700.0	702.2	702.0	2.3	2.3	130.39	-49.9	58.7	77.1	72.5	4.60	16.776		
800.0	800.0	802.7	802.1	2.7	2.7	124.05	-41.6	61.5	74.3	68.9	5.32	13.950		
900.0	900.0	902.4	901.1	3.0	3.1	114.61	-29.9	65.4	71.9	65.9	6.06	11.859		
952.5	952.5	954.4	952.5	3.2	3.3	108.43	-22.6	67.8	71.5	65.0	6.46	11.062	CC, ES	
1,000.0	1,000.0	1,001.2	998.6	3.4	3.5	102.23	-15.2	70.3	71.9	65.1	6.82	10.545		
1,100.0	1,100.0	1,098.8	1,094.4	3.7	3.9	88.17	2.4	76.2	76.4	68.8	7.58	10.086	SF	
1,200.0	1,200.0	1,194.9	1,188.1	4.1	4.3	74.60	22.9	83.0	86.9	78.6	8.30	10.470		
1,300.0	1,300.0	1,290.3	1,280.3	4.4	4.8	63.08	46.1	90.7	103.6	94.6	8.98	11.536		
1,400.0	1,400.0	1,385.8	1,372.2	4.8	5.3	54.44	70.7	98.9	124.7	115.1	9.66	12.917		
1,500.0	1,500.0	1,482.0	1,464.7	5.2	5.9	48.28	95.6	107.2	147.9	137.5	10.35	14.292		
1,600.0	1,600.0	1,578.2	1,557.3	5.5	6.4	43.79	120.4	115.5	172.2	161.2	11.04	15.595		
1,700.0	1,700.0	1,674.4	1,649.9	5.9	7.0	40.42	145.3	123.8	197.3	185.6	11.75	16.800		
1,800.0	1,800.0	1,770.6	1,742.5	6.2	7.5	37.81	170.2	132.0	222.9	210.5	12.45	17.902		
1,900.0	1,900.0	1,866.8	1,835.1	6.6	8.1	35.73	195.0	140.3	248.9	235.7	13.16	18.906		
2,000.0	2,000.0	1,963.1	1,927.6	7.0	8.6	34.05	219.9	148.6	275.1	261.2	13.88	19.820		
2,100.0	2,100.0	2,059.3	2,020.2	7.3	9.2	32.66	244.8	156.9	301.5	286.9	14.60	20.653		
2,200.0	2,200.0	2,155.5	2,112.8	7.7	9.8	31.49	269.6	165.2	328.0	312.7	15.32	21.414		
2,300.0	2,300.0	2,251.7	2,205.4	8.0	10.4	30.50	294.5	173.5	354.6	338.6	16.04	22.110		
2,400.0	2,400.0	2,347.9	2,298.0	8.4	11.0	29.64	319.4	181.7	381.4	364.6	16.76	22.749		
2,500.0	2,500.0	2,444.2	2,390.5	8.7	11.5	28.90	344.2	190.0	408.2	390.7	17.49	23.337		
2,600.0	2,600.0	2,540.4	2,483.1	9.1	12.1	28.25	369.1	198.3	435.0	416.8	18.22	23.880		
2,700.0	2,700.0	2,636.6	2,575.7	9.5	12.7	27.67	394.0	206.6	461.9	442.9	18.94	24.382		
2,800.0	2,800.0	2,732.8	2,668.3	9.8	13.3	27.16	418.8	214.9	488.8	469.1	19.67	24.848		
2,900.0	2,900.0	2,829.0	2,760.9	10.2	13.9	26.70	443.7	223.2	515.8	495.4	20.40	25.281		
3,000.0	3,000.0	2,925.3	2,853.4	10.5	14.5	26.29	468.6	231.5	542.8	521.6	21.13	25.685		
3,100.0	3,100.0	3,021.5	2,946.0	10.9	15.0	25.91	493.4	239.7	569.8	547.9	21.86	26.061		
3,200.0	3,200.0	3,117.7	3,038.6	11.3	15.6	25.57	518.3	248.0	596.8	574.2	22.59	26.414		
3,300.0	3,300.0	3,213.9	3,131.2	11.6	16.2	25.26	543.2	256.3	623.9	600.5	23.33	26.745		
3,400.0	3,400.0	3,310.1	3,223.8	12.0	16.8	24.98	568.0	264.6	650.9	626.9	24.06	27.055		
3,500.0	3,500.0	3,406.3	3,316.4	12.3	17.4	24.71	592.9	272.9	678.0	653.2	24.79	27.348		
3,600.0	3,600.0	3,502.6	3,408.9	12.7	18.0	24.47	617.7	281.2	705.1	679.6	25.53	27.623		
3,700.0	3,700.0	3,598.8	3,501.5	13.0	18.6	24.25	642.6	289.4	732.2	705.9	26.26	27.883		
3,800.0	3,800.0	3,695.0	3,594.1	13.4	19.2	24.04	667.5	297.7	759.3	732.3	26.99	28.129		
3,900.0	3,900.0	3,791.2	3,686.7	13.8	19.8	23.84	692.3	306.0	786.4	758.7	27.73	28.362		
4,000.0	4,000.0	3,887.4	3,779.3	14.1	20.4	23.66	717.2	314.3	813.6	785.1	28.46	28.583		
4,100.0	4,100.0	3,983.7	3,871.8	14.5	21.0	23.49	742.1	322.6	840.7	811.5	29.20	28.793		
4,200.0	4,200.0	4,079.9	3,964.4	14.8	21.5	23.34	766.9	330.9	867.8	837.9	29.93	28.992		
4,300.0	4,300.0	4,226.7	4,106.2	15.2	22.4	23.86	797.1	352.6	892.9	861.9	31.05	28.755		
4,400.0	4,400.0	4,382.0	4,252.7	15.6	23.1	26.56	804.6	402.3	911.6	879.5	32.08	28.413		
4,500.0	4,500.0	4,515.2	4,369.1	15.9	23.5	30.45	790.6	464.8	926.4	893.5	32.93	28.133		
4,600.0	4,600.0	4,621.7	4,452.6	16.3	23.7	34.48	766.1	526.2	941.0	907.4	33.67	27.947		
4,700.0	4,700.0	4,704.6	4,509.8	16.6	23.9	38.10	739.4	579.8	958.6	924.3	34.30	27.948		
4,800.0	4,800.0	4,768.9	4,548.9	17.0	24.0	41.15	714.3	624.2	981.2	946.5	34.77	28.223		

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

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615	Database:	EDM
Reference Design:	Pilot hole	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Slot 4 - Carson 584H - Lateral plan													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.0	4,900.0	4,819.3	4,576.0	17.4	24.1	43.65	692.2	660.4	1,010.0	975.0	35.03	28.838		
4,999.0	4,999.0	4,859.0	4,595.1	17.7	24.2	45.69	673.3	689.7	1,045.1	1,010.0	35.07	29.802		

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615	Database:	EDM
Reference Design:	Pilot hole	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Slot 5 - Carson 611H - Lateral plan														Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF														Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Separation Factor		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
0.0	0.0	0.0	0.0	0.0	0.0	135.10	-42.5	42.3	60.0						
100.0	100.0	100.0	100.0	0.1	0.1	135.10	-42.5	42.3	60.0	59.7	0.29	209.120			
133.3	133.3	133.3	133.3	0.3	0.3	135.10	-42.5	42.3	60.0	59.4	0.53	114.066			
200.0	200.0	200.0	200.0	0.5	0.5	135.10	-42.5	42.3	60.0	59.0	1.00	59.749			
300.0	300.0	300.0	300.0	0.9	0.9	135.10	-42.5	42.3	60.0	58.3	1.72	34.853			
333.3	333.3	333.3	333.3	1.0	1.0	135.10	-42.5	42.3	60.0	58.0	1.96	30.603			
400.0	400.0	400.0	400.0	1.2	1.2	135.10	-42.5	42.3	60.0	57.5	2.44	24.602 CC			
500.0	500.0	499.4	499.4	1.6	1.6	134.11	-42.0	43.3	60.3	57.2	3.15	19.160 ES			
600.0	600.0	598.6	598.5	1.9	1.9	130.22	-40.0	47.3	62.0	58.1	3.86	16.070			
700.0	700.0	697.3	696.8	2.3	2.3	123.92	-36.6	54.4	65.6	61.0	4.57	14.345			
800.0	800.0	795.3	794.2	2.7	2.7	116.18	-31.6	64.3	71.9	66.6	5.29	13.605 SF			
900.0	900.0	892.5	890.3	3.0	3.1	108.14	-25.3	77.2	81.8	75.8	6.00	13.637			
1,000.0	1,000.0	988.6	984.8	3.4	3.5	100.76	-17.6	92.8	95.6	88.9	6.70	14.277			
1,100.0	1,100.0	1,083.4	1,077.4	3.7	3.9	94.48	-8.7	110.9	113.5	106.1	7.38	15.376			
1,200.0	1,200.0	1,176.7	1,167.9	4.1	4.4	89.37	1.4	131.5	135.3	127.3	8.05	16.813			
1,300.0	1,300.0	1,268.6	1,256.2	4.4	4.9	85.30	12.7	154.2	160.8	152.1	8.70	18.486			
1,400.0	1,400.0	1,364.3	1,347.8	4.8	5.5	82.07	25.0	179.2	188.3	178.9	9.41	20.022			
1,500.0	1,500.0	1,459.9	1,439.3	5.2	6.0	79.65	37.3	204.2	216.2	206.1	10.12	21.374			
1,600.0	1,600.0	1,555.6	1,530.8	5.5	6.6	77.79	49.6	229.1	244.4	233.6	10.83	22.567			
1,700.0	1,700.0	1,651.3	1,622.4	5.9	7.2	76.31	61.9	254.1	272.8	261.3	11.55	23.623			
1,800.0	1,800.0	1,747.0	1,713.9	6.2	7.8	75.11	74.2	279.1	301.3	289.0	12.27	24.560			
1,900.0	1,900.0	1,842.6	1,805.5	6.6	8.4	74.12	86.5	304.0	329.9	316.9	12.99	25.397			
2,000.0	2,000.0	1,938.3	1,897.0	7.0	9.1	73.29	98.8	329.0	358.6	344.9	13.71	26.148			
2,100.0	2,100.0	2,034.0	1,988.5	7.3	9.7	72.58	111.1	354.0	387.4	372.9	14.44	26.824			
2,200.0	2,200.0	2,129.7	2,080.1	7.7	10.3	71.96	123.4	378.9	416.2	401.0	15.17	27.437			
2,300.0	2,300.0	2,225.3	2,171.6	8.0	10.9	71.43	135.7	403.9	445.0	429.1	15.90	27.993			
2,400.0	2,400.0	2,321.0	2,263.2	8.4	11.5	70.96	148.0	428.8	473.9	457.2	16.63	28.500			
2,500.0	2,500.0	2,416.7	2,354.7	8.7	12.2	70.54	160.3	453.8	502.7	485.4	17.36	28.965			
2,600.0	2,600.0	2,512.4	2,446.2	9.1	12.8	70.18	172.6	478.8	531.7	513.6	18.09	29.392			
2,700.0	2,700.0	2,608.0	2,537.8	9.5	13.4	69.84	184.9	503.7	560.6	541.8	18.82	29.785			
2,800.0	2,800.0	2,703.7	2,629.3	9.8	14.0	69.54	197.2	528.7	589.5	570.0	19.55	30.149			
2,900.0	2,900.0	2,799.4	2,720.8	10.2	14.7	69.27	209.5	553.7	618.5	598.2	20.29	30.486			
3,000.0	3,000.0	2,895.1	2,812.4	10.5	15.3	69.03	221.8	578.6	647.5	626.4	21.02	30.800			
3,100.0	3,100.0	2,990.7	2,903.9	10.9	15.9	68.80	234.1	603.6	676.5	654.7	21.76	31.091			
3,200.0	3,200.0	3,086.4	2,995.5	11.3	16.6	68.59	246.4	628.6	705.4	683.0	22.49	31.364			
3,300.0	3,300.0	3,182.1	3,087.0	11.6	17.2	68.40	258.7	653.5	734.4	711.2	23.23	31.619			
3,400.0	3,400.0	3,277.8	3,178.5	12.0	17.8	68.23	271.0	678.5	763.4	739.5	23.96	31.858			
3,500.0	3,500.0	3,373.5	3,270.1	12.3	18.5	68.06	283.3	703.5	792.5	767.8	24.70	32.083			
3,600.0	3,600.0	3,469.1	3,361.6	12.7	19.1	67.91	295.6	728.4	821.5	796.0	25.44	32.294			
3,700.0	3,700.0	3,564.8	3,453.2	13.0	19.7	67.77	307.9	753.4	850.5	824.3	26.17	32.494			
3,800.0	3,800.0	3,660.5	3,544.7	13.4	20.4	67.64	320.2	778.3	879.5	852.6	26.91	32.682			
3,900.0	3,900.0	3,756.2	3,636.2	13.8	21.0	67.51	332.5	803.3	908.6	880.9	27.65	32.860			
4,000.0	4,000.0	3,851.8	3,727.8	14.1	21.6	67.40	344.8	828.3	937.6	909.2	28.39	33.028			
4,100.0	4,100.0	3,947.5	3,819.3	14.5	22.3	67.29	357.1	853.2	966.6	937.5	29.13	33.188			
4,200.0	4,200.0	4,043.2	3,910.8	14.8	22.9	67.18	369.5	878.2	995.7	965.8	29.86	33.340			
4,300.0	4,300.0	4,167.5	4,029.9	15.2	23.7	66.98	386.5	909.6	1,024.5	993.7	30.83	33.230			
4,400.0	4,400.0	4,436.0	4,282.7	15.6	25.0	63.03	469.9	923.5	1,042.8	1,010.4	32.43	32.154			
4,500.0	4,500.0	4,638.8	4,449.3	15.9	25.5	56.79	574.4	877.6	1,050.0	1,016.6	33.42	31.420			
4,600.0	4,600.0	4,771.8	4,537.8	16.3	25.7	51.41	656.9	823.1	1,055.0	1,020.5	34.41	30.660			
4,700.0	4,700.0	4,858.6	4,584.5	16.6	25.8	47.44	714.8	778.4	1,063.1	1,027.8	35.35	30.077			
4,800.0	4,800.0	4,917.7	4,610.7	17.0	25.8	44.58	755.3	744.4	1,077.3	1,041.1	36.12	29.826			
4,900.0	4,900.0	4,959.9	4,626.4	17.4	25.9	42.48	784.6	718.5	1,098.5	1,061.9	36.62	29.997			

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

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615	Database:	EDM
Reference Design:	Pilot hole	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Slot 5 - Carson 611H - Lateral plan													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,999.0	4,999.0	4,990.9	4,636.4	17.7	25.9	40.91	806.3	698.6	1,126.7	1,089.9	36.86	30.571		

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615	Database:	EDM
Reference Design:	Pilot hole	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Slot 6 - Carson 613H - Lateral plan													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	135.13		-28.4	28.2	40.0				
100.0	100.0	100.0	100.0	0.1	0.1	135.13		-28.4	28.2	40.0	39.7	0.29	139.528	
133.3	133.3	133.3	133.3	0.3	0.3	135.13		-28.4	28.2	40.0	39.5	0.53	76.106	
200.0	200.0	200.0	200.0	0.5	0.5	135.13		-28.4	28.2	40.0	39.0	1.00	39.865	
300.0	300.0	300.0	300.0	0.9	0.9	135.13		-28.4	28.2	40.0	38.3	1.72	23.255	
333.3	333.3	333.3	333.3	1.0	1.0	135.13		-28.4	28.2	40.0	38.1	1.96	20.419	
400.0	400.0	400.0	400.0	1.2	1.2	135.13		-28.4	28.2	40.0	37.6	2.44	16.415	
500.0	500.0	500.0	500.0	1.6	1.6	135.13		-28.4	28.2	40.0	36.9	3.15	12.684	
533.3	533.3	533.3	533.3	1.7	1.7	135.13		-28.4	28.2	40.0	36.6	3.39	11.791	
600.0	600.0	600.0	600.0	1.9	1.9	135.13		-28.4	28.2	40.0	36.1	3.87	10.335	
700.0	700.0	700.0	700.0	2.3	2.3	135.13		-28.4	28.2	40.0	35.4	4.59	8.720	
800.0	800.0	800.0	800.0	2.7	2.7	135.13		-28.4	28.2	40.0	34.7	5.31	7.542 CC, ES	
900.0	900.0	899.3	899.3	3.0	3.0	133.94		-28.3	29.3	40.7	34.7	6.01	6.772	
1,000.0	1,000.0	998.2	998.1	3.4	3.3	129.50		-27.8	33.7	43.8	37.1	6.71	6.523 SF	
1,100.0	1,100.0	1,096.7	1,096.3	3.7	3.7	123.10		-27.1	41.5	49.7	42.3	7.40	6.712	
1,200.0	1,200.0	1,194.5	1,193.5	4.1	4.1	116.30		-26.0	52.6	59.0	50.9	8.09	7.292	
1,300.0	1,300.0	1,291.5	1,289.4	4.4	4.4	110.23		-24.6	66.8	71.9	63.2	8.76	8.208	
1,400.0	1,400.0	1,388.9	1,385.3	4.8	4.8	105.31		-22.9	83.8	88.1	78.6	9.45	9.323	
1,500.0	1,500.0	1,487.3	1,482.1	5.2	5.3	101.84		-21.2	101.3	105.0	94.8	10.15	10.345	
1,600.0	1,600.0	1,585.7	1,578.9	5.5	5.7	99.33		-19.5	118.7	122.2	111.3	10.86	11.252	
1,700.0	1,700.0	1,684.1	1,675.7	5.9	6.1	97.45		-17.8	136.2	139.5	128.0	11.57	12.062	
1,800.0	1,800.0	1,782.5	1,772.5	6.2	6.6	95.98		-16.1	153.7	157.0	144.7	12.28	12.785	
1,900.0	1,900.0	1,880.9	1,869.3	6.6	7.0	94.81		-14.4	171.2	174.5	161.5	12.99	13.433	
2,000.0	2,000.0	1,979.3	1,966.1	7.0	7.5	93.85		-12.7	188.7	192.1	178.4	13.71	14.017	
2,100.0	2,100.0	2,077.6	2,062.9	7.3	7.9	93.05		-11.0	206.2	209.8	195.4	14.42	14.544	
2,200.0	2,200.0	2,176.0	2,159.7	7.7	8.4	92.37		-9.3	223.7	227.5	212.3	15.14	15.023	
2,300.0	2,300.0	2,274.4	2,256.6	8.0	8.9	91.80		-7.6	241.2	245.2	229.3	15.86	15.459	
2,400.0	2,400.0	2,372.8	2,353.4	8.4	9.3	91.30		-5.9	258.7	262.9	246.3	16.58	15.858	
2,500.0	2,500.0	2,471.2	2,450.2	8.7	9.8	90.86		-4.1	276.2	280.7	263.4	17.30	16.224	
2,600.0	2,600.0	2,569.6	2,547.0	9.1	10.3	90.48		-2.4	293.7	298.4	280.4	18.02	16.560	
2,700.0	2,700.0	2,668.0	2,643.8	9.5	10.7	90.13		-0.7	311.2	316.2	297.4	18.74	16.871	
2,800.0	2,800.0	2,766.4	2,740.6	9.8	11.2	89.83		1.0	328.6	334.0	314.5	19.46	17.159	
2,900.0	2,900.0	2,864.8	2,837.4	10.2	11.7	89.55		2.7	346.1	351.8	331.6	20.18	17.427	
3,000.0	3,000.0	2,963.2	2,934.2	10.5	12.2	89.31		4.4	363.6	369.6	348.6	20.91	17.676	
3,100.0	3,100.0	3,061.6	3,031.0	10.9	12.6	89.08		6.1	381.1	387.4	365.7	21.63	17.908	
3,200.0	3,200.0	3,160.0	3,127.8	11.3	13.1	88.88		7.8	398.6	405.2	382.8	22.35	18.126	
3,300.0	3,300.0	3,258.4	3,224.6	11.6	13.6	88.69		9.5	416.1	423.0	399.9	23.08	18.329	
3,400.0	3,400.0	3,356.7	3,321.5	12.0	14.1	88.52		11.2	433.6	440.8	417.0	23.80	18.520	
3,500.0	3,500.0	3,455.1	3,418.3	12.3	14.5	88.36		12.9	451.1	458.6	434.1	24.52	18.700	
3,600.0	3,600.0	3,553.5	3,515.1	12.7	15.0	88.21		14.6	468.6	476.4	451.2	25.25	18.870	
3,700.0	3,700.0	3,651.9	3,611.9	13.0	15.5	88.07		16.4	486.1	494.3	468.3	25.97	19.030	
3,800.0	3,800.0	3,750.3	3,708.7	13.4	16.0	87.95		18.1	503.6	512.1	485.4	26.70	19.181	
3,900.0	3,900.0	3,848.7	3,805.5	13.8	16.5	87.83		19.8	521.1	529.9	502.5	27.42	19.324	
4,000.0	4,000.0	3,947.1	3,902.3	14.1	16.9	87.72		21.5	538.5	547.8	519.6	28.15	19.460	
4,100.0	4,100.0	4,045.5	3,999.1	14.5	17.4	87.61		23.2	556.0	565.6	536.7	28.87	19.589	
4,200.0	4,200.0	4,189.4	4,141.2	14.8	18.1	87.05		29.7	577.2	581.0	551.1	29.90	19.429	
4,300.0	4,300.0	4,470.9	4,410.4	15.2	18.7	79.79		99.7	553.5	573.2	542.9	30.27	18.933	
4,400.0	4,400.0	4,656.4	4,561.5	15.6	18.8	69.33		184.7	489.5	547.6	517.2	30.37	18.028	
4,500.0	4,500.0	4,777.8	4,641.5	15.9	18.8	59.49		253.2	429.6	518.3	486.8	31.53	16.439	
4,600.0	4,600.0	4,857.8	4,684.3	16.3	18.8	51.72		302.6	383.4	495.7	462.4	33.25	14.908	
4,700.0	4,700.0	4,913.1	4,708.9	16.6	18.7	45.91		338.0	349.0	485.9	451.2	34.75	13.982	
4,710.8	4,710.8	4,918.0	4,710.8	16.7	18.7	45.38		341.3	345.8	485.8	451.0	34.88	13.931	

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

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615	Database:	EDM
Reference Design:	Pilot hole	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Slot 6 - Carson 613H - Lateral plan													Offset Site Error: 0.0 usft	
Survey Program: 0-MWD+IGRF													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft) +E/-W (usft)		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,800.0	4,800.0	4,952.9	4,723.9	17.0	18.7	41.57	364.2	323.0	492.7	457.3	35.40	13.916		
4,900.0	4,900.0	4,982.8	4,733.6	17.4	18.7	38.26	384.1	302.9	516.7	481.6	35.04	14.746		
4,999.0	4,999.0	5,000.0	4,738.6	17.7	18.8	36.35	395.6	291.1	555.9	522.1	33.85	16.421		

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615	Database:	EDM
Reference Design:	Pilot hole	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Slot 7 - Carson 617H - Lateral plan													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Separation Factor		Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	135.38	-14.2	14.0	19.9					
100.0	100.0	100.0	100.0	0.1	0.1	135.38	-14.2	14.0	19.9	19.7	0.29	69.556		
133.3	133.3	133.3	133.3	0.3	0.3	135.38	-14.2	14.0	19.9	19.4	0.53	37.940		
200.0	200.0	200.0	200.0	0.5	0.5	135.38	-14.2	14.0	19.9	18.9	1.00	19.873		
300.0	300.0	300.0	300.0	0.9	0.9	135.38	-14.2	14.0	19.9	18.2	1.72	11.593		
333.3	333.3	333.3	333.3	1.0	1.0	135.38	-14.2	14.0	19.9	18.0	1.96	10.179		
400.0	400.0	400.0	400.0	1.2	1.2	135.38	-14.2	14.0	19.9	17.5	2.44	8.183		
500.0	500.0	500.0	500.0	1.6	1.6	135.38	-14.2	14.0	19.9	16.8	3.15	6.323 CC, ES		
600.0	600.0	599.5	599.5	1.9	1.9	138.89	-15.9	13.9	21.1	17.3	3.85	5.486 SF		
700.0	700.0	698.8	698.6	2.3	2.3	147.29	-21.1	13.5	25.1	20.5	4.54	5.524		
800.0	800.0	797.5	797.0	2.7	2.6	156.38	-29.6	12.9	32.4	27.2	5.23	6.201		
900.0	900.0	895.6	894.4	3.0	3.0	163.67	-41.4	12.1	43.5	37.6	5.92	7.351		
1,000.0	1,000.0	992.8	990.4	3.4	3.4	168.87	-56.4	11.1	58.3	51.7	6.60	8.828		
1,100.0	1,100.0	1,088.8	1,084.7	3.7	3.8	172.45	-74.4	9.8	76.6	69.3	7.27	10.530		
1,200.0	1,200.0	1,184.3	1,177.9	4.1	4.2	174.96	-95.2	8.4	98.1	90.2	7.94	12.358		
1,300.0	1,300.0	1,281.7	1,272.7	4.4	4.7	176.65	-117.4	6.9	120.7	112.1	8.64	13.970		
1,400.0	1,400.0	1,379.1	1,367.5	4.8	5.2	177.81	-139.6	5.3	143.4	134.1	9.36	15.328		
1,500.0	1,500.0	1,476.4	1,462.3	5.2	5.7	178.65	-161.7	3.8	166.1	156.1	10.07	16.496		
1,600.0	1,600.0	1,573.8	1,557.0	5.5	6.2	179.29	-183.9	2.3	188.9	178.1	10.79	17.509		
1,700.0	1,700.0	1,671.1	1,651.8	5.9	6.7	179.80	-206.1	0.7	211.6	200.1	11.50	18.393		
1,800.0	1,800.0	1,768.5	1,746.6	6.2	7.3	-179.80	-228.2	-0.8	234.4	222.2	12.23	19.172		
1,900.0	1,900.0	1,865.9	1,841.4	6.6	7.8	-179.47	-250.4	-2.3	257.1	244.2	12.95	19.862		
2,000.0	2,000.0	1,963.2	1,936.2	7.0	8.3	-179.19	-272.5	-3.9	279.9	266.3	13.67	20.478		
2,100.0	2,100.0	2,060.6	2,031.0	7.3	8.8	-178.95	-294.7	-5.4	302.7	288.3	14.39	21.031		
2,200.0	2,200.0	2,158.0	2,125.8	7.7	9.4	-178.75	-316.9	-6.9	325.5	310.4	15.12	21.530		
2,300.0	2,300.0	2,255.3	2,220.6	8.0	9.9	-178.57	-339.0	-8.5	348.3	332.5	15.84	21.983		
2,400.0	2,400.0	2,352.7	2,315.4	8.4	10.5	-178.41	-361.2	-10.0	371.1	354.5	16.57	22.395		
2,500.0	2,500.0	2,450.0	2,410.2	8.7	11.0	-178.28	-383.3	-11.5	393.9	376.6	17.30	22.771		
2,600.0	2,600.0	2,547.4	2,505.0	9.1	11.5	-178.15	-405.5	-13.1	416.7	398.7	18.03	23.117		
2,700.0	2,700.0	2,644.8	2,599.8	9.5	12.1	-178.04	-427.7	-14.6	439.5	420.7	18.75	23.436		
2,800.0	2,800.0	2,742.1	2,694.6	9.8	12.6	-177.95	-449.8	-16.1	462.3	442.8	19.48	23.730		
2,900.0	2,900.0	2,839.5	2,789.4	10.2	13.2	-177.86	-472.0	-17.7	485.1	464.9	20.21	24.002		
3,000.0	3,000.0	2,936.9	2,884.2	10.5	13.7	-177.77	-494.2	-19.2	507.9	487.0	20.94	24.255		
3,100.0	3,100.0	3,034.2	2,979.0	10.9	14.3	-177.70	-516.3	-20.7	530.7	509.1	21.67	24.491		
3,200.0	3,200.0	3,131.6	3,073.7	11.3	14.8	-177.63	-538.5	-22.3	553.5	531.1	22.40	24.712		
3,300.0	3,300.0	3,228.9	3,168.5	11.6	15.3	-177.57	-560.6	-23.8	576.3	553.2	23.13	24.918		
3,400.0	3,400.0	3,326.3	3,263.3	12.0	15.9	-177.51	-582.8	-25.3	599.2	575.3	23.86	25.111		
3,500.0	3,500.0	3,423.7	3,358.1	12.3	16.4	-177.46	-605.0	-26.9	622.0	597.4	24.59	25.292		
3,600.0	3,600.0	3,521.0	3,452.9	12.7	17.0	-177.41	-627.1	-28.4	644.8	619.4	25.32	25.463		
3,700.0	3,700.0	3,618.4	3,547.7	13.0	17.5	-177.36	-649.3	-29.9	667.6	641.5	26.05	25.624		
3,800.0	3,800.0	3,715.8	3,642.5	13.4	18.1	-177.32	-671.5	-31.5	690.4	663.6	26.78	25.776		
3,900.0	3,900.0	3,813.1	3,737.3	13.8	18.6	-177.28	-693.6	-33.0	713.2	685.7	27.52	25.920		
4,000.0	4,000.0	3,910.5	3,832.1	14.1	19.2	-177.24	-715.8	-34.5	736.0	707.8	28.25	26.057		
4,100.0	4,100.0	4,007.8	3,926.9	14.5	19.7	-177.20	-737.9	-36.1	758.8	729.8	28.98	26.186		
4,200.0	4,200.0	4,105.2	4,021.7	14.8	20.3	-177.17	-760.1	-37.6	781.6	751.9	29.71	26.309		
4,300.0	4,300.0	4,433.6	4,340.4	15.2	21.5	-173.15	-787.6	-94.6	794.3	763.2	31.11	25.535		
4,400.0	4,400.0	4,732.4	4,586.5	15.6	21.6	-161.27	-714.8	-242.3	777.5	746.4	31.10	24.998		
4,500.0	4,500.0	4,887.4	4,678.6	15.9	21.5	-151.85	-644.7	-344.9	752.6	720.4	32.26	23.330		
4,600.0	4,600.0	4,972.4	4,715.8	16.3	21.4	-145.87	-598.7	-405.8	732.5	698.6	33.91	21.603		
4,700.0	4,700.0	5,024.3	4,733.5	16.6	21.3	-142.01	-568.5	-444.0	722.1	686.7	35.35	20.427		
4,737.7	4,737.7	5,038.8	4,737.7	16.8	21.3	-140.90	-559.7	-454.8	721.2	685.4	35.77	20.161		
4,800.0	4,800.0	5,058.8	4,743.1	17.0	21.3	-139.37	-547.5	-469.7	723.7	687.4	36.30	19.934		

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

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615	Database:	EDM
Reference Design:	Pilot hole	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Slot 7 - Carson 617H - Lateral plan													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Warning								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.0	4,900.0	5,083.3	4,748.8	17.4	21.3	-137.48	-532.3	-488.1	737.9	701.2	36.68	20.117		
4,999.0	4,999.0	5,100.0	4,752.2	17.7	21.3	-136.19	-521.8	-500.6	764.1	727.6	36.49	20.941		

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615	Database:	EDM
Reference Design:	Pilot hole	Offset TVD Reference:	Offset Datum

Offset Design WC 21-2 - Slot 8 - Carson 615H - Lateral plan													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF, 3970-MWD+IGRF													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
3,970.4	3,970.4	3,970.4	3,970.4	0.0	0.0	0.00	0.0	0.0	0.0	0.0	0.00	N/A		
4,000.0	4,000.0	4,000.0	4,000.0	0.1	0.1	-48.94	0.4	-0.5	0.6	0.3	0.28	2.212		
4,100.0	4,100.0	4,098.5	4,097.8	0.5	0.3	-48.94	7.7	-8.9	12.0	10.9	1.08	11.043		
4,200.0	4,200.0	4,192.2	4,188.5	0.8	0.2	-48.94	23.0	-26.4	36.9	35.0	1.86	19.832		
4,300.0	4,300.0	4,278.3	4,268.3	1.2	0.6	-48.94	44.0	-50.5	74.0	71.5	2.57	28.778	CC, ES, SF	
4,400.0	4,400.0	4,355.3	4,336.1	1.5	1.1	-48.94	68.1	-78.2	121.8	118.6	3.20	38.022		
4,500.0	4,500.0	4,423.2	4,392.0	1.9	1.7	-48.94	93.3	-107.1	178.5	174.7	3.73	47.908		
4,600.0	4,600.0	4,482.3	4,437.5	2.3	2.3	-48.94	118.1	-135.6	242.4	238.2	4.14	58.554		
4,700.0	4,700.0	4,533.6	4,474.2	2.6	2.9	-48.94	141.6	-162.5	312.2	307.7	4.46	70.035		
4,800.0	4,800.0	4,578.1	4,503.9	3.0	3.5	-48.94	163.3	-187.5	386.7	382.0	4.70	82.360		
4,900.0	4,900.0	4,616.6	4,527.8	3.3	4.0	-48.94	183.2	-210.3	465.0	460.2	4.87	95.474		
4,999.0	4,999.0	4,650.0	4,547.2	3.7	4.4	-48.94	201.0	-230.8	545.7	540.7	5.00	109.034		

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

Anticollision Report

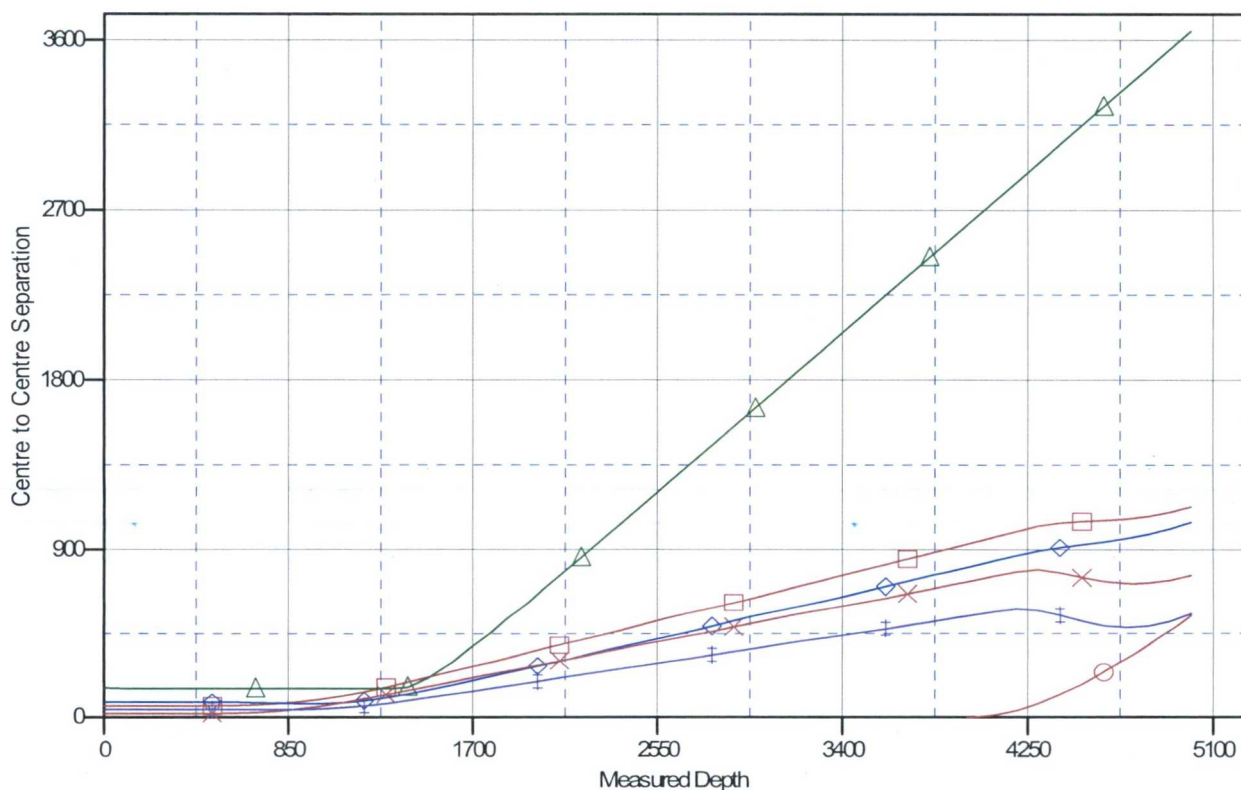
Company: DJR Operating
Project: Proposed Carson Unit
Reference Site: WC 21-2
Site Error: 0.0 usft
Reference Well: Slot 8
Well Error: 0.0 usft
Reference Wellbore: Carson 615
Reference Design: Pilot hole

Local Co-ordinate Reference: Well Slot 8
TVD Reference: Rig @ 6370.0usft (Rig TBD 20' KB)
MD Reference: Rig @ 6370.0usft (Rig TBD 20' KB)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at
Database: EDM
Offset TVD Reference: Offset Datum

Reference Depths are relative to Rig @ 6370.0usft (Rig TBD 20' KB)
 Offset Depths are relative to Offset Datum
 Central Meridian is -107.83333333

Coordinates are relative to: Slot 8
 Coordinate System is US State Plane 1983, New Mexico Western Zone
 Grid Convergence at Surface is: -0.17°

Ladder Plot



LEGEND



Slot 5, Carson 611H, Lateral plan V 0



Slot 4, Carson 584H, Lateral plan V 0



Slot 6, Carson 613H, Lateral plan V 0



Slot 8, Carson 615H, Lateral plan V 0



Slot 7, Carson 617H, Lateral plan V 0



Bliss Coal 21 Com 2, Original drilling g, Original drilling V 0

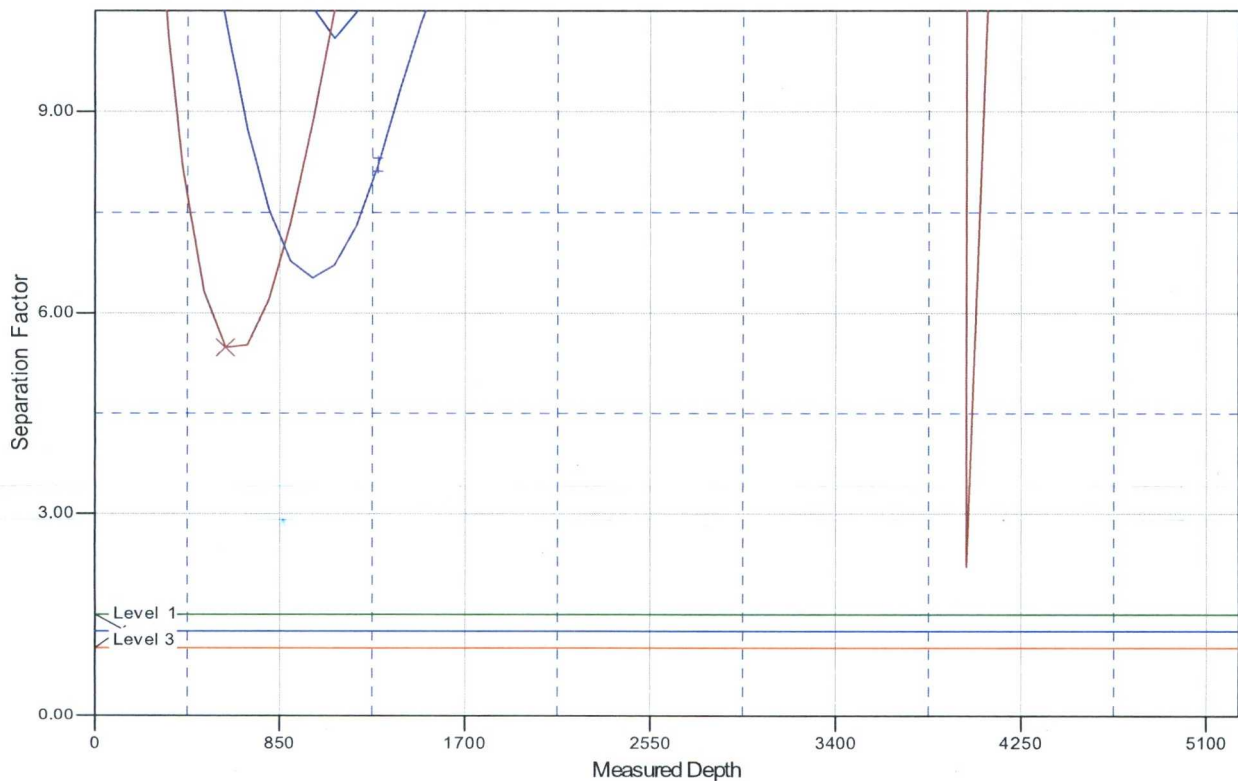
Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well Slot 8
Project:	Proposed Carson Unit	TVD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	MD Reference:	Rig @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Slot 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Carson 615	Database:	EDM
Reference Design:	Pilot hole	Offset TVD Reference:	Offset Datum

Reference Depths are relative to Rig @ 6370.0usft (Rig TBD 20' KB)
Offset Depths are relative to Offset Datum
Central Meridian is -107.83333333

Coordinates are relative to: Slot 8
Coordinate System is US State Plane 1983, New Mexico Western Zone
Grid Convergence at Surface is: -0.17°

Separation Factor Plot



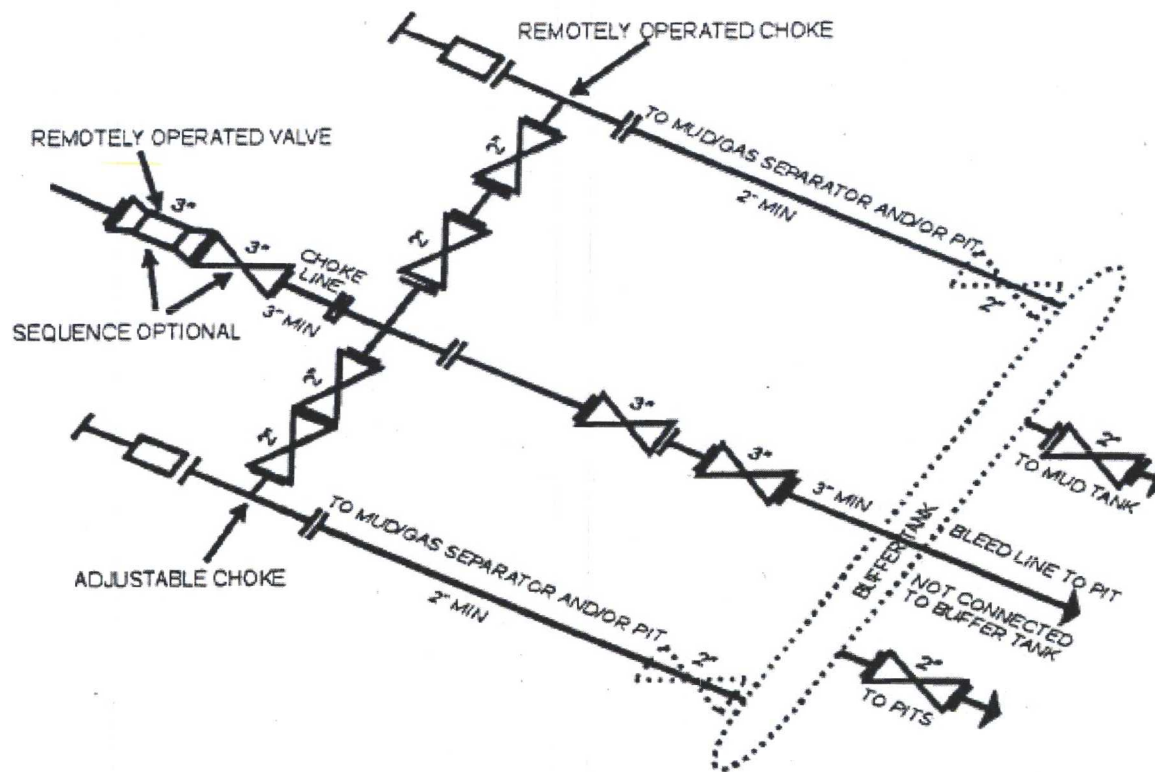
LEGEND

Slot 5, Carson 611H, Lateral plan V 0
Slot 8, Carson 615H, Lateral plan V 0

Slot 4, Carson 584H, Lateral plan V 0
Slot 7, Carson 617H, Lateral plan V 0

Slot 6, Carson 613H, Lateral plan V 0
Blas Coal 21 Com 2, Original drilling g, Original drilling V0

Actual system to conform with Onshore Order 2



Proposed BOP stack 11" 5M RRA

