RECEIVED

Form 3160-5
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MAR 12 2019

Farmington Field Office
Bureau of Land Management

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2014

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE *– Other instructions on page 2.*

5. Lease Serial No.
NM 54981, ~~NM 54980~~

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit of CA/Agreement, Name and/or No.
~~NMNM 014580A~~ NMNM135203X

1. Type of Well
☑ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
CROW CANYON UNIT #124H

2. Name of Operator
DJR Operating LLC.

9. API Well No.
30-045-35651

3a. Address
1 Road 3263
Aztec, New Mexico 87410

3b. Phone No. *(include area code)*
505-632-3476

10. Field and Pool or Exploratory Area
CROW CANYON MANCOS OIL POOL

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
SHL: 1085' FSL and 2065' FWL Section 19, T24N, R8W BHL: 1305' FSL and 330' FEL Section 30, T24N, R8W

11. County or Parish, State
San Juan County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☑ Other Name Change, BHL Change & New Drilling Plan
☐ Final Abandonment Notice	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

BF

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

DJR Operating LLC. has an approved APD for the proposed well, Escrito N19-2408 02H well (API 30-045-35651) which will now be a part of the CROW CANYON UNIT. DJR Operating is submitting this sundry to change the well name from the Escrito N19-2408 02H to the CROW CANYON UNIT #124H (API 30-045-35651).

Please find attached an updated C-102 package reflecting the Name change, BHL change and a new drilling plan.

ADHERE TO PREVIOUS NMOCD CONDITIONS OF APPROVAL

NMOCD
APR 06 2019
DISTRICT III

Property Code Changed: 325183

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*
Steven Merrell

Title Regulatory Specialist

Signature Steven Merrell

Date 03/11/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by Dave Mankiewicz

Title AFM

Date 4/5/19

Conditions of approval, if any, are attached. Approval of this notice 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.

Office FFO

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.

(Instructions on page 2)

NMOCD

25

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011

Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-35651	98194	CROW CANYON MANCOS OIL POOL

[4] Property Code	[5] Property Name	[6] Well Number
~~39945~~ 325183	CROW CANYON UNIT	124H

[7] OGRID No.	[8] Operator Name	[9] Elevation
371838	DJR OPERATING, LLC	6793'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	19	24N	8W		1085'	SOUTH	2064'	WEST	SAN JUAN

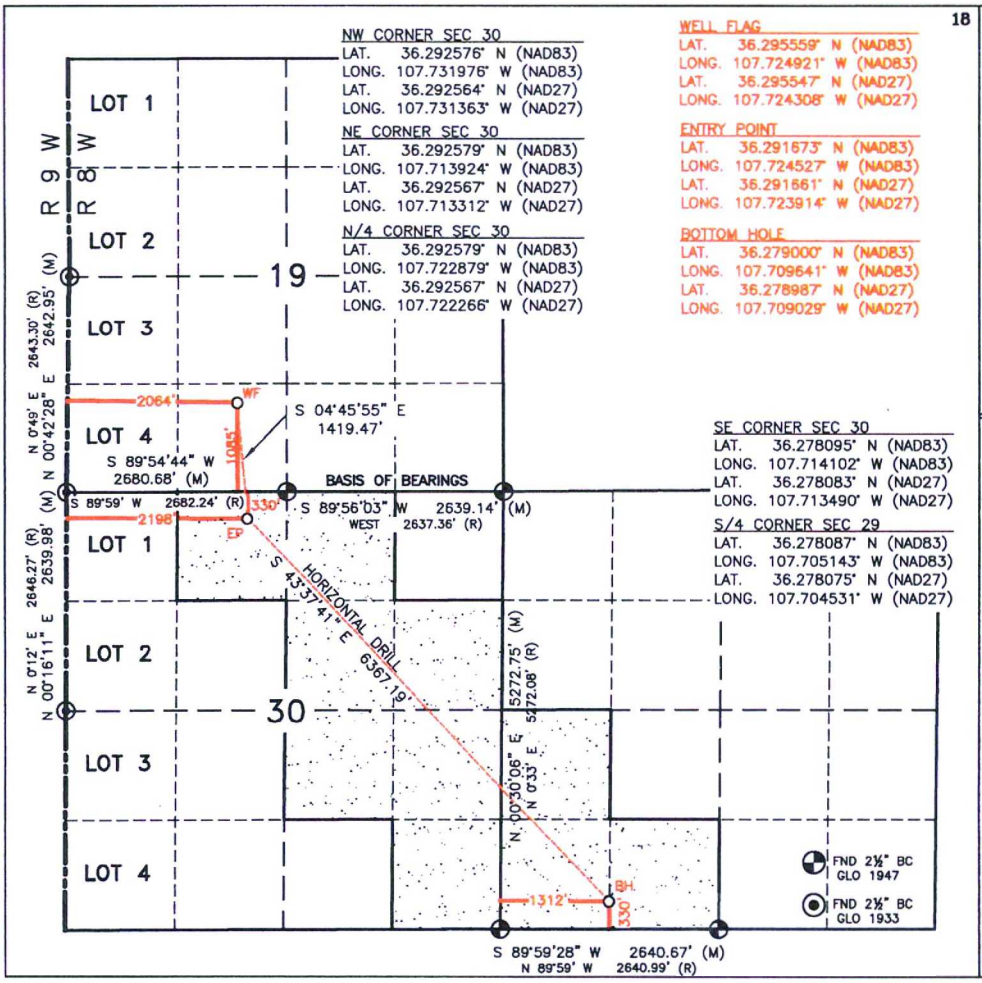
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	29	24N	8W		330'	SOUTH	1312'	WEST	SAN JUAN

[12] Dedicated Acres PENETRATED SPACING UNIT:	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
NE/NW, NW/NE, SW/NE, SE/NE, NE/SE, NW/SE & SE/SE SEC. 30 (280 AC.); NW/SW, SW/SW & SE/SW SEC. 29 (120 AC.) = 400 ACRES TOTAL			R-14090A - 13,604.06 ACRES (COMMITTED)

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



18

[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.

Steven Merrell — 3/11/19
Signature — Date

Steven Merrell
Printed Name

smerrell@djrllc.com
E-mail Address

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.

FEBRUARY 15, 2019
Date of Survey

Signature and Seal of Professional Surveyor:

HENRY P. BROADHURST JR. NEW MEXICO 11393 PROFESSIONAL SURVEYOR 03/11/2019

Certificate Number 11393

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011

Submit one copy to appropriate District Office

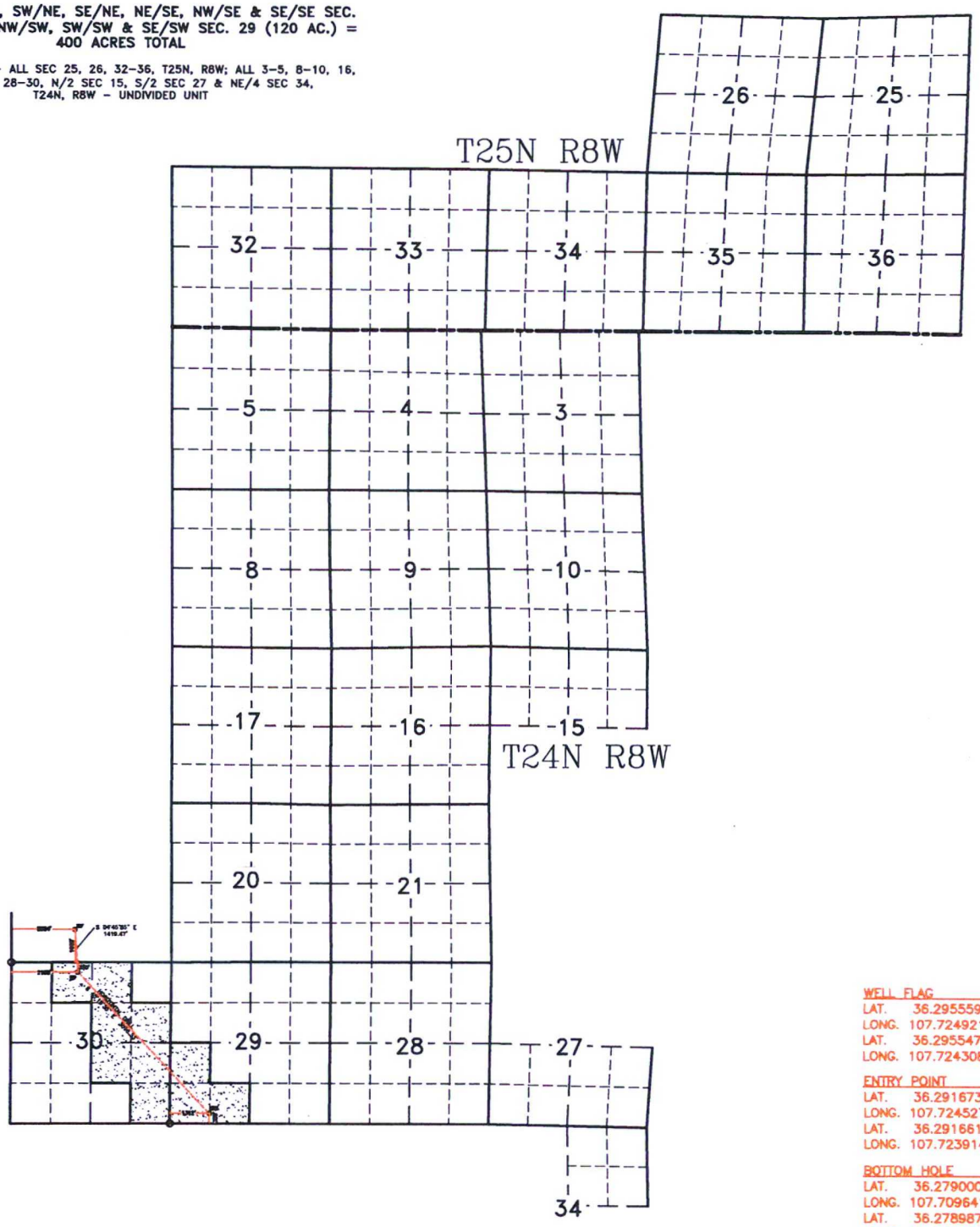
☐ AMENDED REPORT

DJR OPERATING, LLC
CROW CANYON UNIT #124H

PENETRATED SPACING UNIT;

NE/NW, NW/NE, SW/NE, SE/NE, NE/SE, NW/SE & SE/SE SEC. 30 (280 AC.); NW/SW, SW/SW & SE/SW SEC. 29 (120 AC.) = 400 ACRES TOTAL

13,604.06 ACRES - ALL SEC 25, 26, 32-36, T25N, R8W; ALL 3-5, 8-10, 16, 17, 20, 21, 28-30, N/2 SEC 15, S/2 SEC 27 & NE/4 SEC 34, T24N, R8W - UNDIVIDED UNIT



WELL FLAG
LAT. 36.295559° N (NAD83)
LONG. 107.724921° W (NAD83)
LAT. 36.295547° N (NAD27)
LONG. 107.724308° W (NAD27)

ENTRY POINT
LAT. 36.291673° N (NAD83)
LONG. 107.724527° W (NAD83)
LAT. 36.291661° N (NAD27)
LONG. 107.723914° W (NAD27)

BOTTOM HOLE
LAT. 36.279000° N (NAD83)
LONG. 107.709641° W (NAD83)
LAT. 36.278987° N (NAD27)
LONG. 107.709029° W (NAD27)

DJR Operating

Pad name : N19 2408 Pad
Well name : Crow Canyon Unit #124H

SHL Latitude : 36.29555900
SHL Longitude : -107.72492100

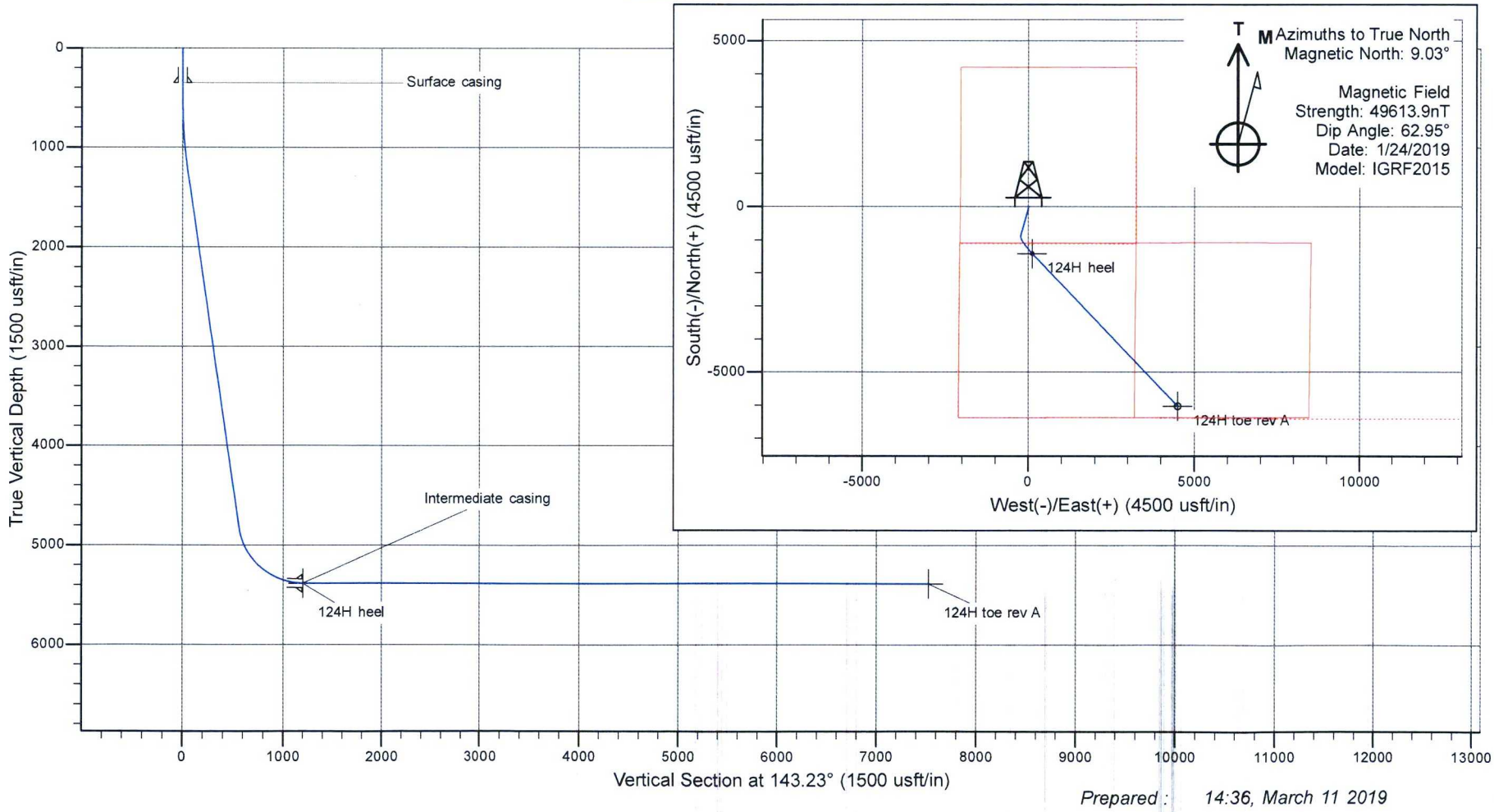
US State Plane 1983
North American Datum 1983
New Mexico Western Zone

TRAJECTORY DETAILS
Pad elevation : 6792.0 RKB @ 6806.0usft (AD 920)

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
550.0	0.00	0.00	550.0	0.0	0.0	0.00	0.00	0.0	
1199.9	13.00	195.27	1194.3	-70.8	-19.3	2.00	195.27	45.2	
4935.4	13.00	195.27	4834.1	-881.3	-240.7	0.00	0.00	562.0	
5861.1	90.00	136.43	5386.0	-1414.6	116.1	9.00	-59.49	1202.7	124H heel
12227.5	90.00	136.43	5386.0	-6027.5	4503.7	0.00	0.00	7524.2	124H toe rev A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
124H heel	5386.0	-1414.6	116.1	1925487	2755156	36.29167300	-107.72452700
124H toe rev A	5386.0	-6027.5	4503.7	1920878	2759549	36.27900000	-107.70964100



Prepared : 14:36, March 11 2019

DJR Operating

DRILLING PLAN
Crow Canyon Unit 124H
San Juan County, New Mexico

Surface Location
2065-ft FWL & 1085-ft FSL
Sec 19 T24N R8W
Graded Elevation 6792' MSL
RKB Elevation 6806' (14' KB)

SHL Geographical Coordinates (NAD-83)
Latitude 36.2955590° N
Longitude 107.7249210° W

Kick Off Point for Horizontal Build Curve
4935-ft MD
4834-ft TVD

Local Coordinates (from SHL)
881-ft South
241-ft West

Heel Location (Pay zone entry)
2198-ft FWL & 330-ft FNL
Sec 30 T24N R8W

Heel Geographical Coordinates (NAD-83)
Latitude 36.291673° N
Longitude 107.72452700° W

Bottom Hole Location (TD)
1312-ft FWL & 330-ft FSL
Sec 29 T24N R8W

BHL Geographical Coordinates (NAD-83)
Latitude 36.279° N
Longitude 107.7096410° W

First Take Point (FTP)
5921-ft MD
Gallup C Sand

FTP Geographical Coordinates (NAD-83)
Latitude 36.2915537° N
Longitude 107.7243868° W

Last Take Point (LTP)
12167-ft MD
Gallup C Sand

LTP Geographical Coordinates (NAD-83)
Latitude 36.2791194° N
Longitude 107.7097812° W

Well objectives
This well is planned as a 6370-ft lateral in the Gallup C sand.

Bottom Hole temperature and pressure
The temperature in the Gallup C horizontal objective is 143°F. Bottom hole pressure in the Gallup C is forecast to be 1985 psi.

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

Name	MD (ft)	TVD (ft)	Lithology	Pore fluid	Expected Pore Pressure (ppg)	Planned Mud Weight (ppg)
Ojo Alamo	927	925	Sd	W	8.3	8.4 – 8.8
Kirtland	1080	1077	Sh	-	8.3	8.4 – 8.8
Fruitland	1480	1467	C	G	8.3	9.0 - 9.5
Picture Cliffs	1708	1689	Sd	W	8.3	9.0 - 9.5
Lewis	1805	1784	Sh	-		9.0 - 9.5
Chacra	2572	2531	Sd	-	8.3	9.0 - 9.5
Menefee	3245	3187	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	4180	4098	Sd	-	8.3	9.0 - 9.5
Mancos	4402	4314	Sh	-		9.0 - 9.5
Mancos Silt	4789	4692	Slt	O/G	6.6	9.0 - 9.5
Gallup A	5238	5110	Slt	O/G	6.6	9.0 - 9.5
Gallup B	5287	5149	Sd	O/G	6.6	8.8 -9.0
Gallup C	5426	5246	Sd	O/G	6.6	8.8 -9.0
Target	5861	5386	Sd	O/G	6.6	8.8 -9.0

Casing Program

Casing OD	Hole Size	Weight (#/ft)	Grade	Coupling	MD Top	MD Bottom	TVD Top	TVD Bottom	Top of Cement
9-5/8"	12-1/4"	36	K-55	STC	surf	350	surf	350	surface
7"	8-3/4"	23	K-55	LTC	surf	5851	surf	5386	surface
4-1/2"	6-1/8"	11.6	P-110	LTC	5661	12227	5355	5386	5661

Note: all casing will be new

Casing Design Load Cases

	Description	Casing String 9-5/8" Surface	7" Intermediate	4-1/2" Production Liner
Collapse	Full internal evacuation[1]	✓	✓	✓
	Cementing	✓	✓	✓
Burst	Pressure test	✓[2]	✓[2]	✓
	Gas kick		✓[3]	
	Fracture at shoe, 1/3 BHP at surface		✓[4]	
	Injection down casing			✓[5]
Axial	Dynamic load on casing coupling[6]	✓	✓	✓
Axial	Overpull[7]	✓	✓	✓

Note #

1 *Fluid level at shoe, air column to surface, pore pressure outside*
2 *Tested to 80% of minimum internal yield with freshwater inside, pore pressure outside*
3 *50 bbl kick at TD, 0.50 ppg intensity, 4" drill pipe, 9.0 ppg mud, fracture gradient at shoe*
4 *2060 psi BHP, 687 psi surface pressure, 12.5 ppg EMW shoe integrity*
5 *Surface stimulation pressure of 8000 psi on 8.3 ppg fluid column. Stimulation will be down frac string, so load does not apply to 7" intermediate casing.*
6 *Shock load from abrupt pipe deceleration, evaluated against coupling rating*
7 *Overpull values as follows: Surface casing 20,000 lbs, Intermediate & Production 100,000 lbs*

Casing Design Factors

Casing string	Casing OD	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; Fl=Fluid Loss L=Lost Circulation; R=Retarder; SA=Suspending Agent; THX=Thixotropic Additive; V=Viscosifier

9-5/8" Surface Casing	Lead
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	Lead	Tail
Halliburton Name	HALCEM	VARICEM
Type	Poz/G	Poz/G
Additives	Ex, L, SA	Ex, Fl, SA, L, THX
Planned top	Surface	3902-ft
Density (ppg)	12.30	13.50
Yield (cf/sx)	1.95	1.30
Mix water (gal/sx)	10.14	5.64
Volume (sx)	494	389
Volume (bbls)	172	90

4-1/2" Production Liner	Lead
Halliburton Name	EXTENDACEM
Type	Poz/G
Additives	B, De, Di, Fl, Re, V
Planned top	5661-ft
Density (ppg)	13.3
Yield (cf/sx)	1.36
Mix water (gal/sx)	5.94
Volume (sx)	680
Volume (bbls)	165

Wellhead & Pressure Control
The well head will be an 11" 5M multi-bowl system. A 2M BOPE conforming to Onshore Order #2 will be installed on the surface casing. The BOP and accumulator will meet API 16D and 16E respectively.

A PVT mud monitoring system and a trip tank will be rigged up and operational for all hole intervals. An electronic geolograph will be employed to monitor and record drilling data (ROP, WOB, SPM, Pressure, RPM and torque).

Mud Program
Surface hole will be drilled with a fresh water, native mud system. In intermediate hole, a low weight 7% KCl LSND drilling fluid will be used, with KCl providing chemical stability for the young shales and clays present in the interval. In production hole a LSND system with polymer and lubricant additives is programmed. Sufficient drill water and mud additives will be on hand to maintain adequate pit volumes and maintain well control.

Hole Section	Fluid type	Interval (MD)	Density (ppg)	Funnel Viscosity	Yield Point	Fluid Loss (cc/30 min)
Surface	Fresh water spud mud	0 – 350	8.4 – 8.8	32 – 44	2 – 12	NC
Intermediate	7% KCl Low solids, non-dispersed	350 – 5851	9.0 – 9.5	38 – 45	8 – 14	<20
Production	Low solids, non-dispersed	5851 – 12227	8.8 – 9.2	34 – 38	6 – 8	6 – 8

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

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

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

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

Cuttings and drilling fluids management
A closed loop, steel tank-based circulating system will be used. In addition to the rig solids control equipment, a dewatering centrifuge and chemical flocculation system will be operational to strip solids from the whole mud. All solids will be collected in 3-sided bins and will then be put into transports with a bucket loader. Drying agents will be used if

necessary. The solids will be taken to a licensed commercial disposal facility. Whole mud will be dewatered back to drill water and used as make up for subsequent wells or hauled off for disposal. A diagram of the closed loop system is included.

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

DJR Operating

Crow Canyon Unit
N19 2408 Pad
 # 124H

Original drilling

Plan: APD

Standard Planning Report

11 March, 2019

Planning Report

Database:	EDM	**Local Co-ordinate Reference:**	Well # 124H
Company:	DJR Operating	**TVD Reference:**	RKB @ 6806.0usft (AD 920)
Project:	Crow Canyon Unit	**MD Reference:**	RKB @ 6806.0usft (AD 920)
Site:	N19 2408 Pad	**North Reference:**	True
Well:	# 124H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original drilling		
Design:	APD		

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

Site	N19 2408 Pad				
Site Position:		**Northing:**	1,926,901 usft	**Latitude:**	36.29555900
From:	Lat/Long	**Easting:**	2,755,068 usft	**Longitude:**	-107.72482000
Position Uncertainty:	0.0 usft	**Slot Radius:**	16.000 in	**Grid Convergence:**	0.06 °

Well	# 124H, FKA 02H					
Well Position	**+N/-S**	0.0 usft	**Northing:**	1,926,901 usft	**Latitude:**	36.29555900
	+E/-W	-29.8 usft	**Easting:**	2,755,039 usft	**Longitude:**	-107.72492100
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	6,792.0 usft

Wellbore	Original drilling				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2015	1/24/2019	9.03	62.95	49,613.86635058

Design	APD				
Audit Notes:					
Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.0	0.0	0.0	143.23	

Plan Survey Tool Program **Date** 3/11/2019

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	12,227.5	APD (Original drilling)	MWD+IGRF	
				OWSG MWD + IGRF or WMM	

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	
550.0	0.00	0.00	550.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,199.9	13.00	195.27	1,194.3	-70.8	-19.3	2.00	2.00	0.00	195.27	
4,935.4	13.00	195.27	4,834.1	-881.3	-240.7	0.00	0.00	0.00	0.00	
5,861.1	90.00	136.43	5,386.0	-1,414.6	116.1	9.00	8.32	-6.36	-59.49	124H heel
12,227.5	90.00	136.43	5,386.0	-6,027.5	4,503.7	0.00	0.00	0.00	0.00	124H toe rev A

Database:	EDM	**Local Co-ordinate Reference:**	Well # 124H
Company:	DJR Operating	**TVD Reference:**	RKB @ 6806.0usft (AD 920)
Project:	Crow Canyon Unit	**MD Reference:**	RKB @ 6806.0usft (AD 920)
Site:	N19 2408 Pad	**North Reference:**	True
Well:	# 124H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original drilling		
Design:	APD		

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
550.0	0.00	0.00	550.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	1.00	195.27	600.0	-0.4	-0.1	0.3	2.00	2.00	0.00
700.0	3.00	195.27	699.9	-3.8	-1.0	2.4	2.00	2.00	0.00
800.0	5.00	195.27	799.7	-10.5	-2.9	6.7	2.00	2.00	0.00
900.0	7.00	195.27	899.1	-20.6	-5.6	13.1	2.00	2.00	0.00
926.1	7.52	195.27	925.0	-23.8	-6.5	15.2	2.00	2.00	0.00
Ojo Alamo									
1,000.0	9.00	195.27	998.2	-34.0	-9.3	21.7	2.00	2.00	0.00
1,080.0	10.60	195.27	1,077.0	-47.2	-12.9	30.1	2.00	2.00	0.00
Kirtland									
1,100.0	11.00	195.27	1,096.6	-50.8	-13.9	32.4	2.00	2.00	0.00
1,199.9	13.00	195.27	1,194.3	-70.8	-19.3	45.2	2.00	2.00	0.00
1,300.0	13.00	195.27	1,291.9	-92.5	-25.3	59.0	0.00	0.00	0.00
1,400.0	13.00	195.27	1,389.3	-114.2	-31.2	72.8	0.00	0.00	0.00
1,479.7	13.00	195.27	1,467.0	-131.5	-35.9	83.9	0.00	0.00	0.00
Fruitland									
1,500.0	13.00	195.27	1,486.8	-135.9	-37.1	86.7	0.00	0.00	0.00
1,600.0	13.00	195.27	1,584.2	-157.6	-43.0	100.5	0.00	0.00	0.00
1,700.0	13.00	195.27	1,681.6	-179.3	-49.0	114.3	0.00	0.00	0.00
1,707.6	13.00	195.27	1,689.0	-181.0	-49.4	115.4	0.00	0.00	0.00
Picture Cliffs									
1,800.0	13.00	195.27	1,779.1	-201.0	-54.9	128.2	0.00	0.00	0.00
1,805.1	13.00	195.27	1,784.0	-202.1	-55.2	128.9	0.00	0.00	0.00
Lewis									
1,900.0	13.00	195.27	1,876.5	-222.7	-60.8	142.0	0.00	0.00	0.00
2,000.0	13.00	195.27	1,973.9	-244.4	-66.7	155.8	0.00	0.00	0.00
2,100.0	13.00	195.27	2,071.4	-266.1	-72.7	169.7	0.00	0.00	0.00
2,200.0	13.00	195.27	2,168.8	-287.8	-78.6	183.5	0.00	0.00	0.00
2,300.0	13.00	195.27	2,266.3	-309.5	-84.5	197.4	0.00	0.00	0.00
2,400.0	13.00	195.27	2,363.7	-331.2	-90.4	211.2	0.00	0.00	0.00
2,500.0	13.00	195.27	2,461.1	-352.9	-96.4	225.0	0.00	0.00	0.00
2,571.7	13.00	195.27	2,531.0	-368.5	-100.6	234.9	0.00	0.00	0.00
Chacra									
2,600.0	13.00	195.27	2,558.6	-374.6	-102.3	238.9	0.00	0.00	0.00
2,700.0	13.00	195.27	2,656.0	-396.3	-108.2	252.7	0.00	0.00	0.00
2,800.0	13.00	195.27	2,753.4	-418.0	-114.1	266.5	0.00	0.00	0.00
2,900.0	13.00	195.27	2,850.9	-439.7	-120.1	280.4	0.00	0.00	0.00
3,000.0	13.00	195.27	2,948.3	-461.4	-126.0	294.2	0.00	0.00	0.00
3,100.0	13.00	195.27	3,045.8	-483.1	-131.9	308.0	0.00	0.00	0.00
3,200.0	13.00	195.27	3,143.2	-504.8	-137.8	321.9	0.00	0.00	0.00
3,221.4	13.00	195.27	3,164.0	-509.4	-139.1	324.8	0.00	0.00	0.00
Cliffhouse									
3,245.0	13.00	195.27	3,187.0	-514.5	-140.5	328.1	0.00	0.00	0.00
Menefee									
3,300.0	13.00	195.27	3,240.6	-526.5	-143.8	335.7	0.00	0.00	0.00

Database:	EDM	**Local Co-ordinate Reference:**	Well # 124H
Company:	DJR Operating	**TVD Reference:**	RKB @ 6806.0usft (AD 920)
Project:	Crow Canyon Unit	**MD Reference:**	RKB @ 6806.0usft (AD 920)
Site:	N19 2408 Pad	**North Reference:**	True
Well:	# 124H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original drilling		
Design:	APD		

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)
3,400.0	13.00	195.27	3,338.1	-548.2	-149.7	349.5	0.00	0.00	0.00
3,500.0	13.00	195.27	3,435.5	-569.9	-155.6	363.4	0.00	0.00	0.00
3,600.0	13.00	195.27	3,532.9	-591.6	-161.5	377.2	0.00	0.00	0.00
3,700.0	13.00	195.27	3,630.4	-613.3	-167.5	391.0	0.00	0.00	0.00
3,800.0	13.00	195.27	3,727.8	-635.0	-173.4	404.9	0.00	0.00	0.00
3,900.0	13.00	195.27	3,825.3	-656.7	-179.3	418.7	0.00	0.00	0.00
4,000.0	13.00	195.27	3,922.7	-678.4	-185.2	432.5	0.00	0.00	0.00
4,100.0	13.00	195.27	4,020.1	-700.1	-191.2	446.4	0.00	0.00	0.00
4,179.9	13.00	195.27	4,098.0	-717.4	-195.9	457.4	0.00	0.00	0.00
Point Lookout									
4,200.0	13.00	195.27	4,117.6	-721.8	-197.1	460.2	0.00	0.00	0.00
4,300.0	13.00	195.27	4,215.0	-743.5	-203.0	474.1	0.00	0.00	0.00
4,400.0	13.00	195.27	4,312.4	-765.2	-208.9	487.9	0.00	0.00	0.00
4,401.6	13.00	195.27	4,314.0	-765.5	-209.0	488.1	0.00	0.00	0.00
Mancos									
4,500.0	13.00	195.27	4,409.9	-786.9	-214.9	501.7	0.00	0.00	0.00
4,600.0	13.00	195.27	4,507.3	-808.6	-220.8	515.6	0.00	0.00	0.00
4,700.0	13.00	195.27	4,604.8	-830.2	-226.7	529.4	0.00	0.00	0.00
4,789.5	13.00	195.27	4,692.0	-849.7	-232.0	541.8	0.00	0.00	0.00
Mancos Silt									
4,800.0	13.00	195.27	4,702.2	-851.9	-232.6	543.2	0.00	0.00	0.00
4,900.0	13.00	195.27	4,799.6	-873.6	-238.6	557.1	0.00	0.00	0.00
4,935.4	13.00	195.27	4,834.1	-881.3	-240.7	562.0	0.00	0.00	0.00
KOP									
4,950.0	13.71	190.50	4,848.3	-884.6	-241.4	564.1	8.99	4.88	-32.72
5,000.0	16.70	177.60	4,896.6	-897.6	-242.2	574.1	9.00	5.99	-25.79
5,050.0	20.25	168.81	4,944.0	-913.3	-240.2	587.8	9.00	7.09	-17.58
5,100.0	24.10	162.63	4,990.3	-931.5	-235.5	605.3	9.00	7.71	-12.35
5,150.0	28.14	158.11	5,035.2	-952.2	-228.0	626.3	9.00	8.07	-9.05
5,200.0	32.29	154.65	5,078.4	-975.3	-217.9	650.8	9.00	8.30	-6.92
5,238.1	35.51	152.51	5,110.0	-994.3	-208.5	671.7	9.00	8.44	-5.62
Gallup A									
5,250.0	36.52	151.91	5,119.6	-1,000.5	-205.2	678.6	9.00	8.50	-5.05
5,287.3	39.71	150.20	5,149.0	-1,020.6	-194.0	701.5	9.00	8.54	-4.59
Gallup B									
5,300.0	40.80	149.67	5,158.7	-1,027.7	-189.9	709.6	9.00	8.59	-4.18
5,350.0	45.11	147.78	5,195.3	-1,056.8	-172.2	743.5	9.00	8.63	-3.76
5,400.0	49.45	146.16	5,229.2	-1,087.6	-152.2	780.1	9.00	8.68	-3.24
5,426.5	51.76	145.39	5,246.0	-1,104.5	-140.7	800.6	9.00	8.71	-2.92
Gallup C									
5,450.0	53.81	144.74	5,260.2	-1,119.8	-130.0	819.3	9.00	8.73	-2.75
5,500.0	58.19	143.47	5,288.2	-1,153.4	-105.6	860.7	9.00	8.75	-2.54
5,550.0	62.57	142.32	5,312.9	-1,188.1	-79.4	904.2	9.00	8.77	-2.31
5,600.0	66.97	141.25	5,334.2	-1,223.6	-51.4	949.4	9.00	8.79	-2.13
5,650.0	71.37	140.25	5,352.0	-1,259.8	-21.9	996.1	9.00	8.80	-2.00
5,651.1	71.47	140.23	5,352.3	-1,260.6	-21.2	997.1	9.00	8.81	-1.94
Top of liner									
5,700.0	75.78	139.30	5,366.1	-1,296.4	9.1	1,043.9	9.00	8.81	-1.90
5,750.0	80.19	138.39	5,376.5	-1,333.2	41.3	1,092.7	9.00	8.82	-1.82
5,800.0	84.60	137.50	5,383.1	-1,370.0	74.4	1,142.0	9.00	8.83	-1.78
5,850.0	89.02	136.63	5,385.9	-1,406.5	108.4	1,191.6	9.00	8.83	-1.75
5,851.1	89.11	136.61	5,385.9	-1,407.3	109.2	1,192.7	9.00	8.83	-1.74
Intermediate casing									

Database:	EDM	**Local Co-ordinate Reference:**	Well # 124H
Company:	DJR Operating	**TVD Reference:**	RKB @ 6806.0usft (AD 920)
Project:	Crow Canyon Unit	**MD Reference:**	RKB @ 6806.0usft (AD 920)
Site:	N19 2408 Pad	**North Reference:**	True
Well:	# 124H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original drilling		
Design:	APD		

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)
5,861.1	90.00	136.43	5,386.0	-1,414.6	116.1	1,202.7	9.00	8.83	-1.74
Target									
5,900.0	90.00	136.43	5,386.0	-1,442.8	142.9	1,241.3	0.00	0.00	0.00
5,921.1	90.00	136.43	5,386.0	-1,458.0	157.4	1,262.2	0.00	0.00	0.00
First take point									
6,000.0	90.00	136.43	5,386.0	-1,515.2	211.8	1,340.6	0.00	0.00	0.00
6,100.0	90.00	136.43	5,386.0	-1,587.7	280.7	1,439.9	0.00	0.00	0.00
6,200.0	90.00	136.43	5,386.0	-1,660.1	349.6	1,539.2	0.00	0.00	0.00
6,300.0	90.00	136.43	5,386.0	-1,732.6	418.6	1,638.5	0.00	0.00	0.00
6,400.0	90.00	136.43	5,386.0	-1,805.0	487.5	1,737.8	0.00	0.00	0.00
6,500.0	90.00	136.43	5,386.0	-1,877.5	556.4	1,837.1	0.00	0.00	0.00
6,600.0	90.00	136.43	5,386.0	-1,950.0	625.3	1,936.4	0.00	0.00	0.00
6,700.0	90.00	136.43	5,386.0	-2,022.4	694.2	2,035.7	0.00	0.00	0.00
6,800.0	90.00	136.43	5,386.0	-2,094.9	763.1	2,135.0	0.00	0.00	0.00
6,900.0	90.00	136.43	5,386.0	-2,167.3	832.1	2,234.3	0.00	0.00	0.00
7,000.0	90.00	136.43	5,386.0	-2,239.8	901.0	2,333.6	0.00	0.00	0.00
7,100.0	90.00	136.43	5,386.0	-2,312.3	969.9	2,432.9	0.00	0.00	0.00
7,200.0	90.00	136.43	5,386.0	-2,384.7	1,038.8	2,532.1	0.00	0.00	0.00
7,300.0	90.00	136.43	5,386.0	-2,457.2	1,107.7	2,631.4	0.00	0.00	0.00
7,400.0	90.00	136.43	5,386.0	-2,529.6	1,176.7	2,730.7	0.00	0.00	0.00
7,500.0	90.00	136.43	5,386.0	-2,602.1	1,245.6	2,830.0	0.00	0.00	0.00
7,600.0	90.00	136.43	5,386.0	-2,674.6	1,314.5	2,929.3	0.00	0.00	0.00
7,700.0	90.00	136.43	5,386.0	-2,747.0	1,383.4	3,028.6	0.00	0.00	0.00
7,800.0	90.00	136.43	5,386.0	-2,819.5	1,452.3	3,127.9	0.00	0.00	0.00
7,900.0	90.00	136.43	5,386.0	-2,891.9	1,521.3	3,227.2	0.00	0.00	0.00
8,000.0	90.00	136.43	5,386.0	-2,964.4	1,590.2	3,326.5	0.00	0.00	0.00
8,100.0	90.00	136.43	5,386.0	-3,036.8	1,659.1	3,425.8	0.00	0.00	0.00
8,200.0	90.00	136.43	5,386.0	-3,109.3	1,728.0	3,525.1	0.00	0.00	0.00
8,300.0	90.00	136.43	5,386.0	-3,181.8	1,796.9	3,624.4	0.00	0.00	0.00
8,400.0	90.00	136.43	5,386.0	-3,254.2	1,865.8	3,723.7	0.00	0.00	0.00
8,500.0	90.00	136.43	5,386.0	-3,326.7	1,934.8	3,823.0	0.00	0.00	0.00
8,600.0	90.00	136.43	5,386.0	-3,399.1	2,003.7	3,922.3	0.00	0.00	0.00
8,700.0	90.00	136.43	5,386.0	-3,471.6	2,072.6	4,021.6	0.00	0.00	0.00
8,800.0	90.00	136.43	5,386.0	-3,544.1	2,141.5	4,120.9	0.00	0.00	0.00
8,900.0	90.00	136.43	5,386.0	-3,616.5	2,210.4	4,220.2	0.00	0.00	0.00
9,000.0	90.00	136.43	5,386.0	-3,689.0	2,279.4	4,319.5	0.00	0.00	0.00
9,100.0	90.00	136.43	5,386.0	-3,761.4	2,348.3	4,418.8	0.00	0.00	0.00
9,200.0	90.00	136.43	5,386.0	-3,833.9	2,417.2	4,518.1	0.00	0.00	0.00
9,300.0	90.00	136.43	5,386.0	-3,906.4	2,486.1	4,617.4	0.00	0.00	0.00
9,400.0	90.00	136.43	5,386.0	-3,978.8	2,555.0	4,716.7	0.00	0.00	0.00
9,500.0	90.00	136.43	5,386.0	-4,051.3	2,623.9	4,816.0	0.00	0.00	0.00
9,600.0	90.00	136.43	5,386.0	-4,123.7	2,692.9	4,915.3	0.00	0.00	0.00
9,700.0	90.00	136.43	5,386.0	-4,196.2	2,761.8	5,014.6	0.00	0.00	0.00
9,800.0	90.00	136.43	5,386.0	-4,268.6	2,830.7	5,113.9	0.00	0.00	0.00
9,900.0	90.00	136.43	5,386.0	-4,341.1	2,899.6	5,213.2	0.00	0.00	0.00
10,000.0	90.00	136.43	5,386.0	-4,413.6	2,968.5	5,312.5	0.00	0.00	0.00
10,100.0	90.00	136.43	5,386.0	-4,486.0	3,037.5	5,411.8	0.00	0.00	0.00
10,200.0	90.00	136.43	5,386.0	-4,558.5	3,106.4	5,511.0	0.00	0.00	0.00
10,300.0	90.00	136.43	5,386.0	-4,630.9	3,175.3	5,610.3	0.00	0.00	0.00
10,400.0	90.00	136.43	5,386.0	-4,703.4	3,244.2	5,709.6	0.00	0.00	0.00
10,500.0	90.00	136.43	5,386.0	-4,775.9	3,313.1	5,808.9	0.00	0.00	0.00
10,600.0	90.00	136.43	5,386.0	-4,848.3	3,382.0	5,908.2	0.00	0.00	0.00
10,700.0	90.00	136.43	5,386.0	-4,920.8	3,451.0	6,007.5	0.00	0.00	0.00
10,800.0	90.00	136.43	5,386.0	-4,993.2	3,519.9	6,106.8	0.00	0.00	0.00

Database:	EDM	**Local Co-ordinate Reference:**	Well # 124H
Company:	DJR Operating	**TVD Reference:**	RKB @ 6806.0usft (AD 920)
Project:	Crow Canyon Unit	**MD Reference:**	RKB @ 6806.0usft (AD 920)
Site:	N19 2408 Pad	**North Reference:**	True
Well:	# 124H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original drilling		
Design:	APD		

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)
10,900.0	90.00	136.43	5,386.0	-5,065.7	3,588.8	6,206.1	0.00	0.00	0.00
11,000.0	90.00	136.43	5,386.0	-5,138.1	3,657.7	6,305.4	0.00	0.00	0.00
11,100.0	90.00	136.43	5,386.0	-5,210.6	3,726.6	6,404.7	0.00	0.00	0.00
11,200.0	90.00	136.43	5,386.0	-5,283.1	3,795.6	6,504.0	0.00	0.00	0.00
11,300.0	90.00	136.43	5,386.0	-5,355.5	3,864.5	6,603.3	0.00	0.00	0.00
11,400.0	90.00	136.43	5,386.0	-5,428.0	3,933.4	6,702.6	0.00	0.00	0.00
11,500.0	90.00	136.43	5,386.0	-5,500.4	4,002.3	6,801.9	0.00	0.00	0.00
11,600.0	90.00	136.43	5,386.0	-5,572.9	4,071.2	6,901.2	0.00	0.00	0.00
11,700.0	90.00	136.43	5,386.0	-5,645.4	4,140.1	7,000.5	0.00	0.00	0.00
11,800.0	90.00	136.43	5,386.0	-5,717.8	4,209.1	7,099.8	0.00	0.00	0.00
11,900.0	90.00	136.43	5,386.0	-5,790.3	4,278.0	7,199.1	0.00	0.00	0.00
12,000.0	90.00	136.43	5,386.0	-5,862.7	4,346.9	7,298.4	0.00	0.00	0.00
12,100.0	90.00	136.43	5,386.0	-5,935.2	4,415.8	7,397.7	0.00	0.00	0.00
12,167.5	90.00	136.43	5,386.0	-5,984.1	4,462.3	7,464.7	0.00	0.00	0.00
Last take point									
12,200.0	90.00	136.43	5,386.0	-6,007.7	4,484.7	7,497.0	0.00	0.00	0.00
12,227.5	90.00	136.43	5,386.0	-6,027.5	4,503.7	7,524.2	0.00	0.00	0.00

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
124H heel - plan hits target center - Circle (radius 50.0)	0.00	0.00	5,386.0	-1,414.6	116.1	1,925,487	2,755,156	36.29167300	-107.72452700
124H toe rev A - plan hits target center - Circle (radius 100.0)	0.00	0.00	5,386.0	-6,027.5	4,503.7	1,920,878	2,759,549	36.27900000	-107.70964100

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
5,851.1	5,385.9	Intermediate casing	7.000	8.750

Database:	EDM	**Local Co-ordinate Reference:**	Well # 124H
Company:	DJR Operating	**TVD Reference:**	RKB @ 6806.0usft (AD 920)
Project:	Crow Canyon Unit	**MD Reference:**	RKB @ 6806.0usft (AD 920)
Site:	N19 2408 Pad	**North Reference:**	True
Well:	# 124H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original drilling		
Design:	APD		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
926.1	925.0	Ojo Alamo		0.00	
1,080.0	1,077.0	Kirtland		0.00	
1,479.7	1,467.0	Fruitland		0.00	
1,707.6	1,689.0	Picture Cliffs		0.00	
1,805.1	1,784.0	Lewis		0.00	
2,571.7	2,531.0	Chacra		0.00	
3,221.4	3,164.0	Cliffhouse		0.00	
3,245.0	3,187.0	Menefee		0.00	
4,179.9	4,098.0	Point Lookout		0.00	
4,401.6	4,314.0	Mancos		0.00	
4,789.5	4,692.0	Mancos Silt		0.00	
5,238.1	5,110.0	Gallup A		0.00	
5,287.3	5,149.0	Gallup B		0.00	
5,426.5	5,246.0	Gallup C		0.00	
5,861.1	5,386.0	Target		0.00	

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
4,935.4	4,834.1	-881.3	-240.7	KOP
5,651.1	5,352.3	-1,260.6	-21.2	Top of liner
5,921.1	5,386.0	-1,458.0	157.4	First take point
12,167.5	5,386.0	-5,984.1	4,462.3	Last take point

DJR Operating

Crow Canyon Unit
N19 2408 Pad
 # 124H

Original drilling
APD

Anticollision Report

11 March, 2019

Anticollision Report

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well # 124H
Project:	Crow Canyon Unit	**TVD Reference:**	RKB @ 6806.0usft (AD 920)
Reference Site:	N19 2408 Pad	**MD Reference:**	RKB @ 6806.0usft (AD 920)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	# 124H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original drilling	**Database:**	EDM
Reference Design:	APD	**Offset TVD Reference:**	Offset Datum

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

Survey Tool Program **Date** 3/11/2019

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	12,227.5	APD (Original drilling)	MWD+IGRF	OWSG MWD + IGRF or WMM

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Escrito D30-2408 (DJR)						
01H - Original drilling - As drilled	10,590.1	11,065.0	1,188.9	903.7	4.169	CC
01H - Original drilling - As drilled	10,600.0	11,065.0	1,188.9	903.4	4.165	ES
01H - Original drilling - As drilled	10,700.0	11,065.0	1,193.9	906.5	4.154	SF
N19 2408 Pad						
# 123H - Original drilling - APD	403.5	403.5	29.8	27.3	11.979	CC
# 123H - Original drilling - APD	500.0	499.6	30.1	26.9	9.505	ES
# 123H - Original drilling - APD	12,227.5	11,257.4	1,268.5	914.7	3.585	SF

Offset Design Escrito D30-2408 (DJR) - 01H - Original drilling - As drilled — **Offset Site Error:** 0.0 usft

Survey Program: 556-MWD+IGRF — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	58.4	58.4	0.0	0.1	-132.29	-1,529.3	-1,681.2	2,272.7				
100.0	100.0	157.3	157.3	0.2	0.3	-132.30	-1,529.6	-1,681.0	2,272.7	2,272.3	0.43	5,284.143	
200.0	200.0	256.2	256.2	0.5	0.4	-132.32	-1,530.2	-1,680.5	2,272.8	2,271.9	0.96	2,362.326	
300.0	300.0	355.1	355.1	0.9	0.6	-132.35	-1,531.2	-1,679.9	2,273.0	2,271.5	1.49	1,521.286	
400.0	400.0	454.0	454.0	1.2	0.8	-132.39	-1,532.4	-1,679.0	2,273.2	2,271.2	2.03	1,121.947	
500.0	500.0	552.9	552.9	1.6	1.0	-132.43	-1,533.9	-1,677.9	2,273.4	2,270.9	2.56	888.729	
550.0	550.0	591.4	591.4	1.8	1.1	-132.45	-1,534.6	-1,677.6	2,273.7	2,270.8	2.87	792.264	
600.0	600.0	631.7	631.7	1.9	1.2	32.26	-1,535.3	-1,677.5	2,273.8	2,270.6	3.18	714.067	
700.0	699.9	738.6	738.5	2.3	1.6	32.30	-1,537.0	-1,677.6	2,271.9	2,268.1	3.90	583.016	
800.0	799.7	828.8	828.8	2.6	1.9	32.43	-1,538.0	-1,678.1	2,267.2	2,262.7	4.56	497.692	
900.0	899.1	948.2	948.1	3.0	2.4	32.69	-1,538.3	-1,678.8	2,259.0	2,253.6	5.32	424.922	
1,000.0	998.2	1,066.0	1,065.9	3.4	2.8	33.08	-1,537.6	-1,679.8	2,247.5	2,241.5	6.08	369.885	
1,100.0	1,096.6	1,158.3	1,158.2	3.8	3.1	33.49	-1,537.0	-1,680.1	2,232.8	2,226.0	6.76	330.162	
1,199.9	1,194.3	1,259.6	1,259.5	4.2	3.4	34.02	-1,536.0	-1,680.8	2,215.3	2,207.8	7.50	295.482	
1,300.0	1,291.9	1,359.2	1,359.1	4.7	3.8	34.39	-1,534.9	-1,681.2	2,196.1	2,187.8	8.24	266.519	
1,400.0	1,389.3	1,436.6	1,436.5	5.2	4.0	34.68	-1,534.2	-1,681.8	2,177.4	2,168.5	8.92	244.205	
1,500.0	1,486.8	1,516.7	1,516.6	5.7	4.3	34.98	-1,534.0	-1,683.2	2,159.9	2,150.2	9.61	224.658	
1,600.0	1,584.2	1,611.4	1,611.3	6.2	4.6	35.33	-1,534.3	-1,684.8	2,142.9	2,132.5	10.37	206.609	
1,700.0	1,681.6	1,755.1	1,755.0	6.8	5.1	35.89	-1,532.9	-1,685.6	2,123.9	2,112.6	11.30	188.017	
1,800.0	1,779.1	1,845.6	1,845.4	7.3	5.5	36.25	-1,531.8	-1,685.9	2,105.0	2,093.0	12.05	174.719	

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

Anticollision Report

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well # 124H
Project:	Crow Canyon Unit	**TVD Reference:**	RKB @ 6806.0usft (AD 920)
Reference Site:	N19 2408 Pad	**MD Reference:**	RKB @ 6806.0usft (AD 920)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	# 124H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original drilling	**Database:**	EDM
Reference Design:	APD	**Offset TVD Reference:**	Offset Datum

Offset Design Escrito D30-2408 (DJR) - 01H - Original drilling - As drilled — **Offset Site Error:** 0.0 usft

Survey Program: 556-MWD+IGRF — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,900.0	1,876.5	1,955.8	1,955.6	7.8	5.8	36.69	-1,530.4	-1,686.0	2,086.0	2,073.1	12.87	162.084	
2,000.0	1,973.9	2,050.7	2,050.5	8.4	6.2	37.08	-1,528.9	-1,686.1	2,067.0	2,053.3	13.65	151.463	
2,100.0	2,071.4	2,141.1	2,140.9	8.9	6.5	37.43	-1,528.4	-1,685.3	2,048.0	2,033.6	14.41	142.123	
2,200.0	2,168.8	2,230.4	2,230.2	9.4	6.8	37.77	-1,528.7	-1,685.0	2,029.8	2,014.7	15.17	133.784	
2,300.0	2,266.3	2,321.5	2,321.3	10.0	7.1	38.11	-1,529.1	-1,684.6	2,011.9	1,995.9	15.95	126.173	
2,400.0	2,363.7	2,400.5	2,400.3	10.5	7.4	38.41	-1,530.1	-1,684.5	1,994.7	1,978.0	16.69	119.547	
2,500.0	2,461.1	2,493.0	2,492.8	11.1	7.7	38.77	-1,531.4	-1,685.0	1,978.3	1,960.8	17.47	113.217	
2,600.0	2,558.6	2,599.7	2,599.5	11.6	8.1	39.19	-1,532.8	-1,685.7	1,961.8	1,943.5	18.31	107.142	
2,700.0	2,656.0	2,689.0	2,688.8	12.2	8.4	39.56	-1,533.8	-1,686.4	1,945.5	1,926.4	19.10	101.870	
2,800.0	2,753.4	2,797.0	2,796.8	12.7	8.8	40.01	-1,534.7	-1,686.8	1,928.9	1,909.0	19.95	96.699	
2,900.0	2,850.9	2,875.7	2,875.4	13.3	9.1	40.35	-1,535.7	-1,687.7	1,913.1	1,892.4	20.71	92.374	
3,000.0	2,948.3	2,995.4	2,995.2	13.8	9.5	40.88	-1,536.3	-1,688.7	1,896.7	1,875.1	21.60	87.792	
3,100.0	3,045.8	3,088.4	3,088.2	14.4	9.8	41.31	-1,536.7	-1,689.6	1,880.6	1,858.2	22.42	83.877	
3,200.0	3,143.2	3,238.0	3,237.7	15.0	10.3	42.02	-1,535.6	-1,688.5	1,862.4	1,839.0	23.40	79.606	
3,300.0	3,240.6	3,328.5	3,328.2	15.5	10.6	42.46	-1,534.5	-1,687.3	1,843.8	1,819.6	24.21	76.173	
3,400.0	3,338.1	3,420.6	3,420.3	16.1	11.0	42.89	-1,534.2	-1,686.2	1,825.8	1,800.8	25.02	72.964	
3,500.0	3,435.5	3,510.1	3,509.8	16.6	11.3	43.33	-1,533.7	-1,685.4	1,808.2	1,782.3	25.84	69.976	
3,600.0	3,532.9	3,607.4	3,607.1	17.2	11.6	43.79	-1,533.9	-1,684.2	1,790.7	1,764.1	26.68	67.120	
3,700.0	3,630.4	3,723.1	3,722.8	17.7	12.0	44.34	-1,534.3	-1,682.0	1,772.9	1,745.3	27.57	64.306	
3,800.0	3,727.8	3,806.0	3,805.7	18.3	12.3	44.73	-1,534.5	-1,680.4	1,755.2	1,726.8	28.38	61.844	
3,900.0	3,825.3	3,895.8	3,895.4	18.9	12.6	45.19	-1,534.8	-1,679.5	1,738.3	1,709.1	29.22	59.499	
4,000.0	3,922.7	3,981.2	3,980.9	19.4	12.9	45.63	-1,535.0	-1,679.1	1,722.0	1,692.0	30.04	57.319	
4,100.0	4,020.1	4,076.4	4,076.1	20.0	13.2	46.15	-1,535.1	-1,679.3	1,706.4	1,675.5	30.90	55.219	
4,200.0	4,117.6	4,195.6	4,195.3	20.5	13.7	46.80	-1,535.4	-1,678.7	1,690.4	1,658.6	31.83	53.115	
4,300.0	4,215.0	4,266.5	4,266.1	21.1	13.9	47.19	-1,535.7	-1,678.4	1,674.6	1,642.0	32.63	51.323	
4,400.0	4,312.4	4,364.9	4,364.5	21.6	14.2	47.76	-1,535.9	-1,679.3	1,660.1	1,626.6	33.51	49.541	
4,500.0	4,409.9	4,472.8	4,472.4	22.2	14.6	48.38	-1,536.2	-1,679.1	1,644.9	1,610.5	34.42	47.792	
4,600.0	4,507.3	4,548.9	4,548.6	22.8	14.9	48.82	-1,536.7	-1,679.0	1,630.0	1,594.8	35.25	46.247	
4,700.0	4,604.8	4,625.0	4,624.6	23.3	15.2	49.26	-1,538.0	-1,680.1	1,617.0	1,580.9	36.07	44.824	
4,800.0	4,702.2	4,752.0	4,751.6	23.9	15.6	50.02	-1,539.3	-1,681.3	1,603.5	1,566.4	37.05	43.278	
4,900.0	4,799.6	5,782.0	5,418.7	24.4	22.8	30.95	-1,940.5	-1,233.7	1,562.8	1,523.7	39.08	39.987	
4,935.4	4,834.1	5,782.0	5,418.7	24.6	22.8	30.95	-1,940.5	-1,233.7	1,544.1	1,504.6	39.52	39.071	
4,950.0	4,848.3	5,782.0	5,418.7	24.7	22.8	36.39	-1,940.5	-1,233.7	1,536.6	1,496.9	39.70	38.703	
5,000.0	4,896.6	5,790.6	5,419.1	25.0	22.9	51.06	-1,946.3	-1,227.4	1,511.6	1,471.2	40.43	37.388	
5,050.0	4,944.0	5,797.4	5,419.3	25.3	23.0	61.51	-1,950.9	-1,222.3	1,488.1	1,447.0	41.17	36.143	
5,100.0	4,990.3	5,813.0	5,419.7	25.7	23.3	68.80	-1,961.6	-1,211.0	1,466.2	1,424.2	42.03	34.883	
5,150.0	5,035.2	5,817.6	5,419.7	26.0	23.3	74.67	-1,964.8	-1,207.7	1,446.0	1,403.2	42.81	33.782	
5,200.0	5,078.4	5,836.0	5,419.7	26.4	23.6	78.73	-1,977.6	-1,194.5	1,427.6	1,383.9	43.75	32.633	
5,250.0	5,119.6	5,857.3	5,419.3	26.8	24.0	81.79	-1,992.6	-1,179.3	1,411.1	1,366.3	44.76	31.529	
5,300.0	5,158.7	5,882.1	5,418.6	27.2	24.4	84.06	-2,010.0	-1,161.8	1,396.4	1,350.5	45.83	30.468	
5,350.0	5,195.3	5,907.0	5,417.7	27.7	24.8	85.81	-2,027.7	-1,144.2	1,383.5	1,336.5	46.93	29.478	
5,400.0	5,229.2	5,937.0	5,416.6	28.1	25.3	87.01	-2,049.0	-1,123.1	1,372.4	1,324.3	48.14	28.511	
5,450.0	5,260.2	5,970.0	5,415.9	28.6	25.9	87.84	-2,072.5	-1,100.0	1,363.1	1,313.7	49.40	27.590	
5,500.0	5,288.2	6,014.2	5,415.2	29.2	26.7	88.18	-2,104.1	-1,069.0	1,355.2	1,304.4	50.86	26.648	
5,550.0	5,312.9	6,072.9	5,414.3	29.7	27.8	88.09	-2,145.7	-1,027.7	1,348.3	1,295.8	52.53	25.669	
5,600.0	5,334.2	6,125.2	5,413.4	30.3	28.8	88.11	-2,182.4	-990.4	1,342.1	1,288.0	54.18	24.770	
5,650.0	5,352.0	6,161.4	5,412.7	30.9	29.5	88.34	-2,207.8	-964.6	1,337.0	1,281.3	55.70	24.006	
5,700.0	5,366.1	6,202.7	5,411.6	31.5	30.3	88.41	-2,237.1	-935.4	1,333.1	1,275.8	57.32	23.258	
5,750.0	5,376.5	6,252.0	5,410.3	32.1	31.3	88.37	-2,271.8	-900.6	1,329.9	1,270.8	59.09	22.507	
5,800.0	5,383.1	6,291.3	5,409.3	32.8	32.2	88.40	-2,299.7	-872.8	1,327.7	1,266.9	60.78	21.843	
5,850.0	5,385.9	6,327.1	5,408.5	33.5	32.9	88.42	-2,325.3	-847.9	1,326.7	1,264.2	62.46	21.240	
5,861.1	5,386.0	6,336.2	5,408.2	33.7	33.1	88.41	-2,331.9	-841.6	1,326.6	1,263.8	62.86	21.106	

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

Anticollision Report

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well # 124H
Project:	Crow Canyon Unit	**TVD Reference:**	RKB @ 6806.0usft (AD 920)
Reference Site:	N19 2408 Pad	**MD Reference:**	RKB @ 6806.0usft (AD 920)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	# 124H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original drilling	**Database:**	EDM
Reference Design:	APD	**Offset TVD Reference:**	Offset Datum

Offset Design Escrito D30-2408 (DJR) - 01H - Original drilling - As drilled — **Offset Site Error:** 0.0 usft

Survey Program: 556-MWD+IGRF — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,886.6	5,386.0	6,357.0	5,407.7	34.0	33.5	88.39	-2,346.9	-827.2	1,326.6	1,262.8	63.76	20.807	
5,900.0	5,386.0	6,368.0	5,407.5	34.2	33.7	88.38	-2,354.9	-819.7	1,326.6	1,262.4	64.24	20.651	
6,000.0	5,386.0	6,442.0	5,405.6	35.8	35.3	88.30	-2,409.2	-769.4	1,328.0	1,260.2	67.78	19.593	
6,100.0	5,386.0	6,565.8	5,404.3	37.4	37.9	88.25	-2,500.2	-685.5	1,329.7	1,257.6	72.13	18.436	
6,200.0	5,386.0	6,704.5	5,401.5	39.1	41.0	88.12	-2,599.6	-588.8	1,328.6	1,251.8	76.79	17.301	
6,300.0	5,386.0	6,815.5	5,398.4	41.0	43.5	87.98	-2,677.8	-510.2	1,325.9	1,244.7	81.19	16.331	
6,400.0	5,386.0	6,964.7	5,394.7	42.8	46.9	87.81	-2,780.8	-402.3	1,321.5	1,235.4	86.13	15.343	
6,500.0	5,386.0	7,063.1	5,393.2	44.8	49.2	87.74	-2,846.7	-329.2	1,313.9	1,223.4	90.53	14.513	
6,600.0	5,386.0	7,147.5	5,391.9	46.8	51.2	87.67	-2,903.9	-267.2	1,307.5	1,212.7	94.83	13.788	
6,700.0	5,386.0	7,241.5	5,390.2	48.8	53.4	87.58	-2,968.5	-198.9	1,302.2	1,203.0	99.28	13.117	
6,800.0	5,386.0	7,337.8	5,388.5	50.9	55.7	87.50	-3,034.5	-128.8	1,296.8	1,193.0	103.79	12.494	
6,900.0	5,386.0	7,422.0	5,386.9	53.0	57.7	87.42	-3,092.8	-68.1	1,292.3	1,184.1	108.20	11.944	
7,000.0	5,386.0	7,506.3	5,386.3	55.2	59.7	87.39	-3,151.9	-8.0	1,289.0	1,176.4	112.61	11.447	
7,100.0	5,386.0	7,576.0	5,384.5	57.4	61.4	87.31	-3,201.8	40.6	1,287.8	1,171.0	116.82	11.024	
7,104.1	5,386.0	7,576.0	5,384.5	57.4	61.4	87.31	-3,201.8	40.6	1,287.8	1,170.9	116.95	11.012	
7,200.0	5,386.0	7,653.4	5,382.6	59.6	63.2	87.22	-3,258.4	93.3	1,288.9	1,167.8	121.11	10.642	
7,300.0	5,386.0	7,775.8	5,381.5	61.8	66.1	87.18	-3,347.9	177.0	1,289.8	1,163.7	126.13	10.226	
7,326.7	5,386.0	7,798.6	5,381.3	62.4	66.7	87.17	-3,364.3	192.6	1,289.8	1,162.5	127.32	10.131	
7,400.0	5,386.0	7,874.2	5,379.7	64.0	68.5	87.10	-3,419.1	244.8	1,289.8	1,159.0	130.80	9.861	
7,500.0	5,386.0	7,998.4	5,378.4	66.3	71.4	87.03	-3,507.4	332.1	1,287.8	1,151.9	135.87	9.478	
7,600.0	5,386.0	8,111.0	5,378.3	68.6	74.2	87.02	-3,587.2	411.6	1,285.6	1,144.8	140.78	9.132	
7,700.0	5,386.0	8,210.9	5,378.0	70.9	76.6	87.00	-3,657.3	482.7	1,282.4	1,136.8	145.54	8.811	
7,800.0	5,386.0	8,308.6	5,375.9	73.2	79.0	86.90	-3,725.7	552.5	1,279.0	1,128.7	150.28	8.510	
7,900.0	5,386.0	8,395.0	5,374.4	75.5	81.1	86.83	-3,786.9	613.4	1,276.8	1,121.9	154.88	8.243	
8,000.0	5,386.0	8,489.2	5,374.7	77.8	83.3	86.84	-3,854.1	679.4	1,275.2	1,115.6	159.59	7.991	
8,100.0	5,386.0	8,590.7	5,375.2	80.1	85.8	86.86	-3,926.8	750.3	1,273.9	1,109.5	164.42	7.748	
8,200.0	5,386.0	8,727.0	5,374.2	82.5	89.1	86.80	-4,022.5	847.3	1,270.7	1,101.0	169.68	7.489	
8,300.0	5,386.0	8,846.7	5,371.5	84.8	92.1	86.67	-4,105.1	933.8	1,266.1	1,091.4	174.69	7.247	
8,400.0	5,386.0	8,944.7	5,367.6	87.2	94.5	86.47	-4,171.8	1,005.6	1,260.2	1,080.7	179.50	7.020	
8,500.0	5,386.0	9,040.0	5,363.6	89.6	96.9	86.27	-4,236.8	1,075.1	1,254.6	1,070.3	184.29	6.808	
8,600.0	5,386.0	9,135.3	5,359.9	91.9	99.2	86.09	-4,302.5	1,144.1	1,249.8	1,060.7	189.07	6.610	
8,700.0	5,386.0	9,237.1	5,355.6	94.3	101.7	85.88	-4,371.9	1,218.5	1,244.2	1,050.3	193.92	6.416	
8,800.0	5,386.0	9,304.8	5,352.7	96.7	103.4	85.73	-4,419.0	1,266.9	1,240.5	1,042.1	198.40	6.253	
8,900.0	5,386.0	9,378.2	5,350.8	99.1	105.2	85.64	-4,471.3	1,318.5	1,239.0	1,036.2	202.85	6.108	
9,000.0	5,386.0	9,495.4	5,350.6	101.5	108.1	85.63	-4,555.6	1,399.8	1,238.3	1,030.4	207.95	5.955	
9,100.0	5,386.0	9,599.7	5,349.2	103.9	110.6	85.55	-4,629.7	1,473.2	1,236.4	1,023.6	212.86	5.809	
9,200.0	5,386.0	9,700.3	5,348.7	106.3	113.1	85.52	-4,701.2	1,544.0	1,234.5	1,016.7	217.72	5.670	
9,300.0	5,386.0	9,805.7	5,347.5	108.7	115.7	85.46	-4,775.4	1,618.8	1,231.7	1,009.0	222.65	5.532	
9,400.0	5,386.0	9,888.4	5,346.3	111.1	117.7	85.40	-4,834.3	1,676.8	1,230.0	1,002.8	227.28	5.412	
9,500.0	5,386.0	9,991.5	5,346.1	113.5	120.3	85.38	-4,908.1	1,748.8	1,228.7	996.5	232.19	5.292	
9,600.0	5,386.0	10,088.4	5,347.2	115.9	122.6	85.43	-4,977.5	1,816.4	1,227.4	990.4	237.03	5.178	
9,700.0	5,386.0	10,204.3	5,347.9	118.3	125.5	85.45	-5,060.1	1,897.9	1,225.6	983.4	242.13	5.062	
9,800.0	5,386.0	10,292.4	5,349.0	120.7	127.7	85.50	-5,122.6	1,959.8	1,223.5	976.6	246.87	4.956	
9,900.0	5,386.0	10,405.2	5,348.3	123.2	130.5	85.46	-5,202.2	2,039.7	1,220.7	968.8	251.92	4.846	
10,000.0	5,386.0	10,527.0	5,347.3	125.6	133.5	85.39	-5,287.2	2,127.0	1,217.0	960.0	257.02	4.735	
10,100.0	5,386.0	10,623.5	5,346.8	128.0	135.9	85.35	-5,354.3	2,196.4	1,212.8	950.9	261.88	4.631	
10,200.0	5,386.0	10,719.4	5,346.8	130.4	138.3	85.34	-5,421.0	2,265.2	1,208.7	942.0	266.75	4.531	
10,300.0	5,386.0	10,834.4	5,345.0	132.9	141.1	85.23	-5,500.5	2,348.3	1,204.1	932.4	271.75	4.431	
10,400.0	5,386.0	10,951.8	5,342.6	135.3	144.0	85.09	-5,580.7	2,434.1	1,198.5	921.8	276.70	4.331	
10,500.0	5,386.0	11,047.1	5,338.7	137.7	146.4	84.88	-5,645.0	2,504.2	1,192.1	910.6	281.53	4.234	
10,590.1	5,386.0	11,065.0	5,337.9	139.9	146.9	84.83	-5,657.2	2,517.3	1,188.9	903.7	285.18	4.169	CC
10,600.0	5,386.0	11,065.0	5,337.9	140.2	146.9	84.83	-5,657.2	2,517.3	1,188.9	903.4	285.48	4.165	ES

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

Anticollision Report

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well # 124H
Project:	Crow Canyon Unit	**TVD Reference:**	RKB @ 6806.0usft (AD 920)
Reference Site:	N19 2408 Pad	**MD Reference:**	RKB @ 6806.0usft (AD 920)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	# 124H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original drilling	**Database:**	EDM
Reference Design:	APD	**Offset TVD Reference:**	Offset Datum

Offset Design Escrito D30-2408 (DJR) - 01H - Original drilling - As drilled — **Offset Site Error:** 0.0 usft

Survey Program: 556-MWD+IGRF — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,700.0	5,386.0	11,065.0	5,337.9	142.6	146.9	84.83	-5,657.2	2,517.3	1,193.9	906.5	287.43	4.154	SF
10,800.0	5,386.0	11,065.0	5,337.9	145.0	146.9	84.83	-5,657.2	2,517.3	1,207.2	919.8	287.43	4.200	
10,900.0	5,386.0	11,065.0	5,337.9	147.5	146.9	84.83	-5,657.2	2,517.3	1,228.6	943.0	285.60	4.302	
11,000.0	5,386.0	11,065.0	5,337.9	149.9	146.9	84.83	-5,657.2	2,517.3	1,257.5	975.4	282.15	4.457	
11,100.0	5,386.0	11,065.0	5,337.9	152.3	146.9	84.83	-5,657.2	2,517.3	1,293.6	1,016.2	277.37	4.664	
11,200.0	5,386.0	11,065.0	5,337.9	154.8	146.9	84.83	-5,657.2	2,517.3	1,336.2	1,064.6	271.55	4.921	
11,300.0	5,386.0	11,065.0	5,337.9	157.2	146.9	84.83	-5,657.2	2,517.3	1,384.7	1,119.7	264.98	5.226	
11,400.0	5,386.0	11,065.0	5,337.9	159.7	146.9	84.83	-5,657.2	2,517.3	1,438.5	1,180.6	257.93	5.577	
11,500.0	5,386.0	11,065.0	5,337.9	162.1	146.9	84.83	-5,657.2	2,517.3	1,497.1	1,246.4	250.63	5.973	
11,600.0	5,386.0	11,065.0	5,337.9	164.6	146.9	84.83	-5,657.2	2,517.3	1,559.9	1,316.6	243.24	6.413	
11,700.0	5,386.0	11,065.0	5,337.9	167.0	146.9	84.83	-5,657.2	2,517.3	1,626.4	1,390.5	235.91	6.894	
11,800.0	5,386.0	11,065.0	5,337.9	169.5	146.9	84.83	-5,657.2	2,517.3	1,696.2	1,467.5	228.74	7.415	
11,900.0	5,386.0	11,065.0	5,337.9	171.9	146.9	84.83	-5,657.2	2,517.3	1,768.9	1,547.1	221.79	7.976	
12,000.0	5,386.0	11,065.0	5,337.9	174.4	146.9	84.83	-5,657.2	2,517.3	1,844.2	1,629.1	215.12	8.573	
12,100.0	5,386.0	11,065.0	5,337.9	176.8	146.9	84.83	-5,657.2	2,517.3	1,921.7	1,713.0	208.75	9.206	
12,200.0	5,386.0	11,065.0	5,337.9	179.3	146.9	84.83	-5,657.2	2,517.3	2,001.3	1,798.6	202.69	9.874	
12,227.5	5,386.0	11,065.0	5,337.9	179.9	146.9	84.83	-5,657.2	2,517.3	2,023.4	1,822.3	201.08	10.063	

Anticollision Report

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well # 124H
Project:	Crow Canyon Unit	**TVD Reference:**	RKB @ 6806.0usft (AD 920)
Reference Site:	N19 2408 Pad	**MD Reference:**	RKB @ 6806.0usft (AD 920)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	# 124H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original drilling	**Database:**	EDM
Reference Design:	APD	**Offset TVD Reference:**	Offset Datum

Offset Design N19 2408 Pad - # 123H - Original drilling - APD — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD+IGRF — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	29.8	29.8				
100.0	100.0	100.0	100.0	0.2	0.2	90.00	0.0	29.8	29.8	29.5	0.31	96.542	
200.0	200.0	200.0	200.0	0.5	0.5	90.00	0.0	29.8	29.8	28.7	1.03	29.030	
300.0	300.0	300.0	300.0	0.9	0.9	90.00	0.0	29.8	29.8	28.0	1.74	17.084	
400.0	400.0	400.0	400.0	1.2	1.2	90.00	0.0	29.8	29.8	27.3	2.46	12.103	
403.5	403.5	403.5	403.5	1.2	1.2	90.00	0.0	29.8	29.8	27.3	2.48	11.979	CC
500.0	500.0	499.6	499.6	1.6	1.6	90.49	-0.3	30.1	30.1	26.9	3.17	9.505	ES
550.0	550.0	549.1	549.1	1.8	1.7	91.89	-1.0	31.1	31.2	27.7	3.51	8.867	
600.0	600.0	598.6	598.6	1.9	1.9	-101.95	-2.3	32.9	33.1	29.2	3.85	8.580	
700.0	699.9	697.4	697.1	2.3	2.3	-101.26	-6.4	38.3	39.5	35.0	4.52	8.741	
800.0	799.7	795.6	794.8	2.6	2.6	-102.48	-12.5	46.4	49.6	44.4	5.21	9.516	
900.0	899.1	893.1	891.3	3.0	3.0	-104.44	-20.5	57.2	63.3	57.3	5.92	10.679	
1,000.0	998.2	989.6	986.4	3.4	3.4	-106.46	-30.3	70.4	80.6	73.9	6.67	12.086	
1,100.0	1,096.6	1,085.0	1,079.8	3.8	3.9	-108.24	-42.0	85.9	101.6	94.1	7.45	13.632	
1,199.9	1,194.3	1,179.0	1,171.1	4.2	4.3	-109.70	-55.2	103.7	126.1	117.9	8.28	15.239	
1,300.0	1,291.9	1,271.9	1,260.7	4.7	4.8	-110.79	-70.1	123.6	153.7	144.6	9.14	16.816	
1,400.0	1,389.3	1,363.5	1,348.1	5.2	5.4	-110.87	-86.4	145.4	183.5	173.5	10.02	18.306	
1,500.0	1,486.8	1,453.7	1,433.3	5.7	6.0	-110.37	-104.2	169.2	215.5	204.5	10.92	19.727	
1,600.0	1,584.2	1,542.4	1,516.1	6.2	6.6	-109.52	-123.2	194.6	249.6	237.8	11.83	21.098	
1,700.0	1,681.6	1,631.2	1,598.1	6.8	7.3	-108.49	-143.6	222.0	285.8	273.0	12.76	22.396	
1,800.0	1,779.1	1,724.1	1,683.5	7.3	8.0	-107.56	-165.5	251.2	322.7	308.9	13.78	23.422	
1,900.0	1,876.5	1,816.9	1,768.8	7.8	8.8	-106.82	-187.3	280.4	359.6	344.8	14.80	24.291	
2,000.0	1,973.9	1,909.8	1,854.2	8.4	9.5	-106.21	-209.1	309.6	396.5	380.7	15.84	25.033	
2,100.0	2,071.4	2,002.6	1,939.6	8.9	10.3	-105.71	-230.9	338.8	433.5	416.6	16.88	25.674	
2,200.0	2,168.8	2,095.4	2,025.0	9.4	11.0	-105.29	-252.8	368.0	470.5	452.6	17.94	26.232	
2,300.0	2,266.3	2,188.3	2,110.4	10.0	11.8	-104.93	-274.6	397.2	507.5	488.5	18.99	26.721	
2,400.0	2,363.7	2,281.1	2,195.8	10.5	12.6	-104.61	-296.4	426.4	544.6	524.5	20.06	27.153	
2,500.0	2,461.1	2,374.0	2,281.2	11.1	13.4	-104.34	-318.2	455.6	581.6	560.5	21.12	27.538	
2,600.0	2,558.6	2,466.8	2,366.6	11.6	14.2	-104.10	-340.1	484.8	618.7	596.5	22.19	27.881	
2,700.0	2,656.0	2,559.7	2,452.0	12.2	15.0	-103.89	-361.9	514.1	655.8	632.5	23.26	28.190	
2,800.0	2,753.4	2,652.5	2,537.4	12.7	15.8	-103.70	-383.7	543.3	692.9	668.5	24.34	28.469	
2,900.0	2,850.9	2,745.4	2,622.8	13.3	16.6	-103.53	-405.5	572.5	729.9	704.5	25.41	28.723	
3,000.0	2,948.3	2,838.2	2,708.1	13.8	17.4	-103.37	-427.3	601.7	767.0	740.5	26.49	28.953	
3,100.0	3,045.8	2,931.1	2,793.5	14.4	18.2	-103.23	-449.2	630.9	804.1	776.6	27.57	29.164	
3,200.0	3,143.2	3,023.9	2,878.9	15.0	19.0	-103.11	-471.0	660.1	841.2	812.6	28.65	29.358	
3,300.0	3,240.6	3,116.8	2,964.3	15.5	19.8	-102.99	-492.8	689.3	878.3	848.6	29.74	29.537	
3,400.0	3,338.1	3,209.6	3,049.7	16.1	20.6	-102.88	-514.6	718.5	915.4	884.6	30.82	29.702	
3,500.0	3,435.5	3,302.5	3,135.1	16.6	21.4	-102.78	-536.5	747.7	952.5	920.6	31.91	29.854	
3,600.0	3,532.9	3,395.3	3,220.5	17.2	22.2	-102.69	-558.3	776.9	989.7	956.7	32.99	29.996	
3,700.0	3,630.4	3,488.2	3,305.9	17.7	23.0	-102.61	-580.1	806.1	1,026.8	992.7	34.08	30.128	
3,800.0	3,727.8	3,581.0	3,391.3	18.3	23.8	-102.53	-601.9	835.3	1,063.9	1,028.7	35.17	30.251	
3,900.0	3,825.3	3,673.9	3,476.7	18.9	24.6	-102.45	-623.7	864.5	1,101.0	1,064.7	36.26	30.367	
4,000.0	3,922.7	3,766.7	3,562.1	19.4	25.4	-102.38	-645.6	893.7	1,138.1	1,100.8	37.35	30.475	
4,100.0	4,020.1	3,859.6	3,647.4	20.0	26.2	-102.32	-667.4	922.9	1,175.2	1,136.8	38.44	30.576	
4,200.0	4,117.6	3,952.4	3,732.8	20.5	27.0	-102.26	-689.2	952.1	1,212.3	1,172.8	39.53	30.671	
4,300.0	4,215.0	4,045.3	3,818.2	21.1	27.8	-102.20	-711.0	981.3	1,249.5	1,208.9	40.62	30.761	
4,400.0	4,312.4	4,138.1	3,903.6	21.6	28.6	-102.15	-732.9	1,010.5	1,286.6	1,244.9	41.71	30.846	
4,500.0	4,409.9	4,231.0	3,989.0	22.2	29.4	-102.10	-754.7	1,039.7	1,323.7	1,280.9	42.80	30.926	
4,600.0	4,507.3	4,323.8	4,074.4	22.8	30.2	-102.05	-776.5	1,068.9	1,360.8	1,316.9	43.90	31.002	
4,700.0	4,604.8	4,416.6	4,159.8	23.3	31.0	-102.00	-798.3	1,098.2	1,398.0	1,353.0	44.99	31.074	
4,800.0	4,702.2	4,509.5	4,245.2	23.9	31.8	-101.96	-820.2	1,127.4	1,435.1	1,389.0	46.08	31.142	
4,900.0	4,799.6	4,602.3	4,330.6	24.4	32.6	-101.92	-842.0	1,156.6	1,472.2	1,425.0	47.18	31.206	

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

Anticollision Report

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well # 124H
Project:	Crow Canyon Unit	**TVD Reference:**	RKB @ 6806.0usft (AD 920)
Reference Site:	N19 2408 Pad	**MD Reference:**	RKB @ 6806.0usft (AD 920)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	# 124H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original drilling	**Database:**	EDM
Reference Design:	APD	**Offset TVD Reference:**	Offset Datum

Offset Design N19 2408 Pad - # 123H - Original drilling - APD — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD+IGRF — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,935.4	4,834.1	4,635.2	4,360.8	24.6	32.9	-101.91	-849.7	1,166.9	1,485.4	1,437.8	47.56	31.229	
4,950.0	4,848.3	4,648.8	4,373.3	24.7	33.0	-96.91	-852.9	1,171.2	1,490.7	1,442.9	47.73	31.234	
5,000.0	4,896.6	4,696.0	4,416.7	25.0	33.4	-83.49	-864.0	1,186.0	1,507.1	1,458.7	48.32	31.190	
5,050.0	4,944.0	4,743.9	4,460.8	25.3	33.9	-74.48	-875.3	1,201.1	1,520.6	1,471.7	48.97	31.053	
5,100.0	4,990.3	4,792.3	4,505.3	25.7	34.3	-68.38	-886.6	1,216.3	1,531.3	1,481.7	49.68	30.827	
5,150.0	5,035.2	4,840.8	4,549.9	26.0	34.7	-64.20	-898.0	1,231.6	1,539.1	1,488.7	50.43	30.518	
5,200.0	5,078.4	4,889.1	4,594.3	26.4	35.1	-61.35	-909.4	1,246.8	1,544.0	1,492.8	51.24	30.131	
5,250.0	5,119.6	4,937.0	4,638.3	26.8	35.5	-59.48	-920.6	1,261.8	1,546.0	1,493.9	52.10	29.674	
5,300.0	5,158.7	4,984.1	4,681.6	27.2	36.0	-58.36	-931.7	1,276.6	1,545.2	1,492.2	53.01	29.151	
5,350.0	5,195.3	5,030.1	4,724.0	27.7	36.4	-57.86	-942.5	1,291.1	1,541.6	1,487.6	53.96	28.570	
5,400.0	5,229.2	5,074.8	4,765.1	28.1	36.7	-57.86	-953.0	1,305.2	1,535.4	1,480.4	54.96	27.938	
5,450.0	5,260.2	5,118.0	4,804.8	28.6	37.1	-58.32	-963.2	1,318.7	1,526.7	1,470.7	56.00	27.262	
5,500.0	5,288.2	5,159.2	4,842.7	29.2	37.5	-59.19	-972.9	1,331.7	1,515.6	1,458.5	57.09	26.548	
5,550.0	5,312.9	5,198.3	4,878.7	29.7	37.8	-60.41	-982.1	1,344.0	1,502.4	1,444.2	58.22	25.805	
5,600.0	5,334.2	5,235.1	4,912.5	30.3	38.1	-61.98	-990.7	1,355.6	1,487.2	1,427.8	59.39	25.039	
5,650.0	5,352.0	5,269.2	4,943.9	30.9	38.4	-63.85	-998.7	1,366.3	1,470.3	1,409.7	60.61	24.259	
5,700.0	5,366.1	5,300.6	4,972.7	31.5	38.7	-65.98	-1,006.1	1,376.2	1,451.9	1,390.0	61.86	23.472	
5,750.0	5,376.5	5,321.6	4,992.0	32.1	38.9	-68.09	-1,011.0	1,382.8	1,432.2	1,369.2	63.03	22.723	
5,800.0	5,383.1	5,336.8	5,006.0	32.8	39.0	-70.23	-1,014.7	1,387.7	1,411.8	1,347.6	64.19	21.994	
5,850.0	5,385.9	5,350.0	5,017.9	33.5	39.2	-72.50	-1,018.1	1,392.1	1,390.7	1,325.3	65.37	21.274	
5,861.1	5,386.0	5,350.0	5,017.9	33.7	39.2	-72.92	-1,018.1	1,392.1	1,386.0	1,320.4	65.60	21.128	
5,900.0	5,386.0	5,350.0	5,017.9	34.2	39.2	-72.92	-1,018.1	1,392.1	1,369.8	1,303.4	66.39	20.633	
6,000.0	5,386.0	5,382.4	5,046.8	35.8	39.5	-74.21	-1,027.3	1,403.7	1,331.8	1,262.8	69.02	19.295	
6,100.0	5,386.0	5,400.0	5,062.1	37.4	39.7	-74.91	-1,032.7	1,410.4	1,299.6	1,228.2	71.44	18.193	
6,200.0	5,386.0	5,450.0	5,104.4	39.1	40.2	-76.84	-1,049.8	1,430.9	1,273.2	1,198.7	74.52	17.086	
6,300.0	5,386.0	5,480.5	5,129.0	41.0	40.6	-77.97	-1,061.4	1,444.5	1,252.6	1,175.4	77.20	16.226	
6,400.0	5,386.0	5,525.8	5,164.1	42.8	41.2	-79.60	-1,080.3	1,466.1	1,237.8	1,157.7	80.15	15.443	
6,500.0	5,386.0	5,579.9	5,203.2	44.8	42.0	-81.42	-1,105.3	1,494.0	1,228.3	1,145.1	83.26	14.754	
6,600.0	5,386.0	5,644.6	5,245.5	46.8	43.1	-83.40	-1,138.4	1,529.9	1,223.4	1,136.9	86.57	14.132	
6,695.0	5,386.0	5,717.4	5,287.0	48.7	44.4	-85.35	-1,179.3	1,573.5	1,222.2	1,132.1	90.01	13.578	
6,700.0	5,386.0	5,721.5	5,289.1	48.8	44.4	-85.45	-1,181.7	1,576.0	1,222.2	1,132.0	90.20	13.549	
6,800.0	5,386.0	5,811.5	5,330.1	50.9	46.1	-87.38	-1,237.3	1,633.6	1,223.2	1,129.0	94.20	12.985	
6,900.0	5,386.0	5,913.8	5,362.4	53.0	48.2	-88.90	-1,305.5	1,702.6	1,225.2	1,126.6	98.60	12.425	
7,000.0	5,386.0	6,024.8	5,379.5	55.2	50.5	-89.70	-1,383.5	1,779.5	1,226.9	1,123.6	103.30	11.876	
7,100.0	5,386.0	6,130.1	5,381.0	57.4	52.7	-89.77	-1,459.1	1,852.8	1,227.7	1,119.9	107.85	11.384	
7,200.0	5,386.0	6,230.1	5,381.0	59.6	54.9	-89.77	-1,531.0	1,922.3	1,228.5	1,116.2	112.29	10.941	
7,300.0	5,386.0	6,330.1	5,381.0	61.8	57.0	-89.77	-1,602.9	1,991.7	1,229.3	1,112.6	116.77	10.528	
7,400.0	5,386.0	6,430.1	5,381.0	64.0	59.2	-89.77	-1,674.8	2,061.2	1,230.1	1,108.8	121.29	10.142	
7,500.0	5,386.0	6,530.1	5,381.0	66.3	61.5	-89.77	-1,746.7	2,130.7	1,230.9	1,105.1	125.84	9.781	
7,600.0	5,386.0	6,630.1	5,381.0	68.6	63.7	-89.77	-1,818.6	2,200.2	1,231.7	1,101.3	130.43	9.444	
7,700.0	5,386.0	6,730.1	5,381.0	70.9	65.9	-89.77	-1,890.5	2,269.7	1,232.5	1,097.5	135.03	9.127	
7,800.0	5,386.0	6,830.1	5,381.0	73.2	68.2	-89.77	-1,962.4	2,339.2	1,233.3	1,093.6	139.67	8.830	
7,900.0	5,386.0	6,930.1	5,381.0	75.5	70.5	-89.77	-2,034.3	2,408.7	1,234.1	1,089.8	144.32	8.551	
8,000.0	5,386.0	7,030.1	5,381.0	77.8	72.8	-89.77	-2,106.2	2,478.2	1,234.9	1,085.9	149.00	8.288	
8,100.0	5,386.0	7,130.1	5,381.0	80.1	75.1	-89.77	-2,178.2	2,547.7	1,235.7	1,082.0	153.69	8.040	
8,200.0	5,386.0	7,230.1	5,381.0	82.5	77.4	-89.77	-2,250.1	2,617.1	1,236.5	1,078.1	158.40	7.806	
8,300.0	5,386.0	7,330.1	5,381.0	84.8	79.7	-89.77	-2,322.0	2,686.6	1,237.3	1,074.2	163.12	7.585	
8,400.0	5,386.0	7,430.1	5,381.0	87.2	82.1	-89.77	-2,393.9	2,756.1	1,238.1	1,070.2	167.86	7.376	
8,500.0	5,386.0	7,530.1	5,381.0	89.6	84.4	-89.77	-2,465.8	2,825.6	1,238.9	1,066.3	172.61	7.177	
8,600.0	5,386.0	7,630.1	5,381.0	91.9	86.8	-89.77	-2,537.7	2,895.1	1,239.7	1,062.3	177.37	6.989	
8,700.0	5,386.0	7,730.1	5,381.0	94.3	89.1	-89.77	-2,609.6	2,964.6	1,240.5	1,058.3	182.14	6.810	
8,800.0	5,386.0	7,830.1	5,381.0	96.7	91.5	-89.77	-2,681.5	3,034.1	1,241.2	1,054.3	186.93	6.640	

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

Anticollision Report

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well # 124H
Project:	Crow Canyon Unit	**TVD Reference:**	RKB @ 6806.0usft (AD 920)
Reference Site:	N19 2408 Pad	**MD Reference:**	RKB @ 6806.0usft (AD 920)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	# 124H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original drilling	**Database:**	EDM
Reference Design:	APD	**Offset TVD Reference:**	Offset Datum

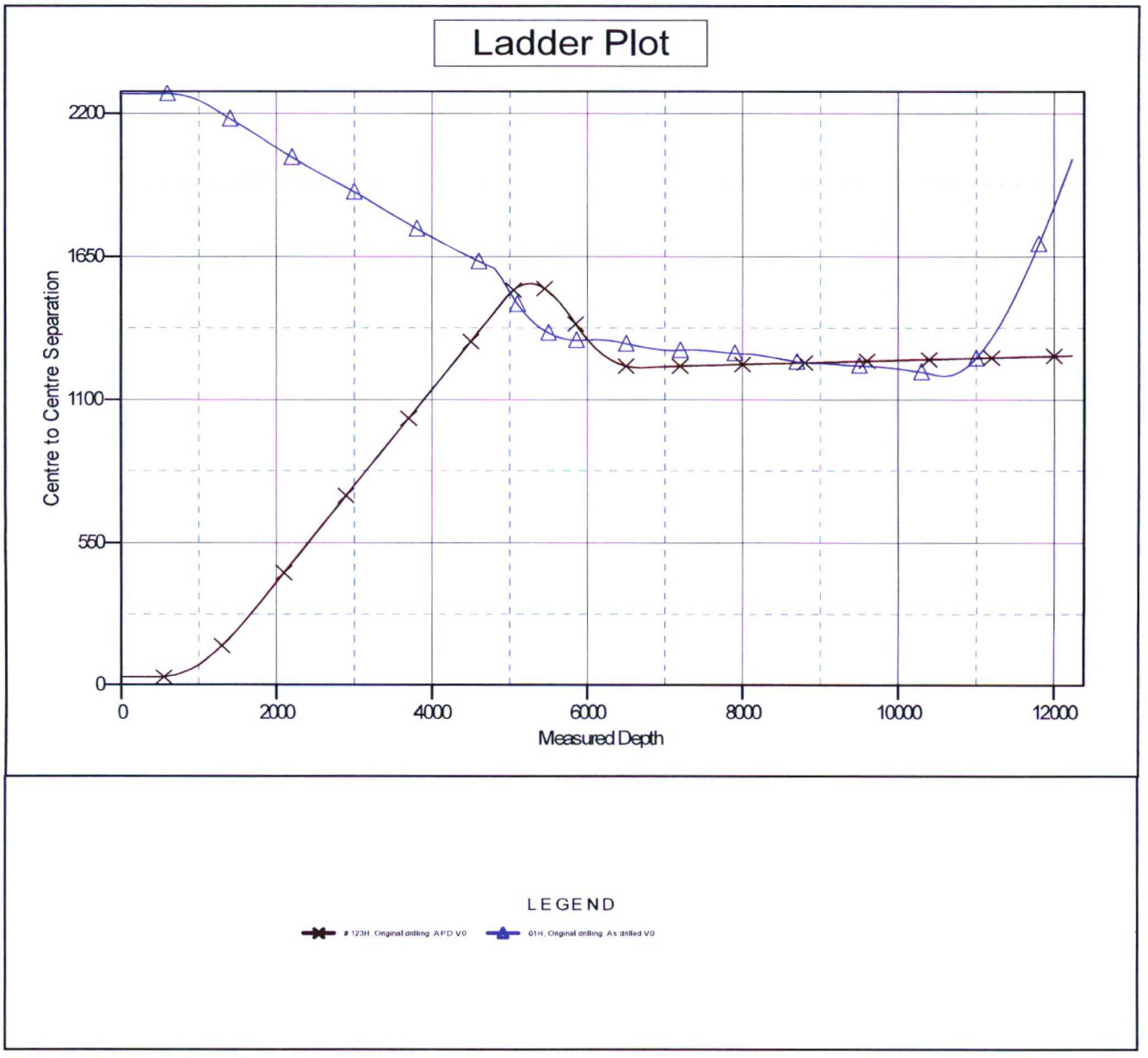
Offset Design N19 2408 Pad - # 123H - Original drilling - APD — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD+IGRF — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,900.0	5,386.0	7,930.1	5,381.0	99.1	93.9	-89.77	-2,753.4	3,103.6	1,242.0	1,050.3	191.72	6.478	
9,000.0	5,386.0	8,030.1	5,381.0	101.5	96.3	-89.77	-2,825.3	3,173.1	1,242.8	1,046.3	196.52	6.324	
9,100.0	5,386.0	8,130.1	5,381.0	103.9	98.6	-89.77	-2,897.2	3,242.5	1,243.6	1,042.3	201.32	6.177	
9,200.0	5,386.0	8,230.1	5,381.0	106.3	101.0	-89.77	-2,969.1	3,312.0	1,244.4	1,038.3	206.14	6.037	
9,300.0	5,386.0	8,330.1	5,381.0	108.7	103.4	-89.77	-3,041.0	3,381.5	1,245.2	1,034.3	210.96	5.903	
9,400.0	5,386.0	8,430.0	5,381.0	111.1	105.8	-89.77	-3,112.9	3,451.0	1,246.0	1,030.2	215.79	5.774	
9,500.0	5,386.0	8,530.0	5,381.0	113.5	108.2	-89.77	-3,184.9	3,520.5	1,246.8	1,026.2	220.62	5.651	
9,600.0	5,386.0	8,630.0	5,381.0	115.9	110.6	-89.77	-3,256.8	3,590.0	1,247.6	1,022.1	225.46	5.534	
9,700.0	5,386.0	8,730.0	5,381.0	118.3	113.0	-89.77	-3,328.7	3,659.5	1,248.4	1,018.1	230.30	5.421	
9,800.0	5,386.0	8,830.0	5,381.0	120.7	115.4	-89.77	-3,400.6	3,729.0	1,249.2	1,014.0	235.15	5.312	
9,900.0	5,386.0	8,930.0	5,381.0	123.2	117.8	-89.77	-3,472.5	3,798.5	1,250.0	1,010.0	240.01	5.208	
10,000.0	5,386.0	9,030.0	5,381.0	125.6	120.3	-89.77	-3,544.4	3,868.0	1,250.8	1,005.9	244.86	5.108	
10,100.0	5,386.0	9,130.0	5,381.0	128.0	122.7	-89.77	-3,616.3	3,937.4	1,251.6	1,001.8	249.73	5.012	
10,200.0	5,386.0	9,230.0	5,381.0	130.4	125.1	-89.77	-3,688.2	4,006.9	1,252.4	997.8	254.59	4.919	
10,300.0	5,386.0	9,330.0	5,381.0	132.9	127.5	-89.77	-3,760.1	4,076.4	1,253.2	993.7	259.46	4.830	
10,400.0	5,386.0	9,430.0	5,381.0	135.3	130.0	-89.77	-3,832.0	4,145.9	1,253.9	989.6	264.33	4.744	
10,500.0	5,386.0	9,530.0	5,381.0	137.7	132.4	-89.77	-3,903.9	4,215.4	1,254.7	985.5	269.21	4.661	
10,600.0	5,386.0	9,630.0	5,381.0	140.2	134.8	-89.77	-3,975.8	4,284.9	1,255.5	981.4	274.09	4.581	
10,700.0	5,386.0	9,730.0	5,381.0	142.6	137.2	-89.77	-4,047.7	4,354.4	1,256.3	977.4	278.97	4.503	
10,800.0	5,386.0	9,830.0	5,381.0	145.0	139.7	-89.77	-4,119.6	4,423.9	1,257.1	973.3	283.85	4.429	
10,900.0	5,386.0	9,930.0	5,381.0	147.5	142.1	-89.77	-4,191.6	4,493.4	1,257.9	969.2	288.74	4.357	
11,000.0	5,386.0	10,030.0	5,381.0	149.9	144.6	-89.77	-4,263.5	4,562.8	1,258.7	965.1	293.63	4.287	
11,100.0	5,386.0	10,130.0	5,381.0	152.3	147.0	-89.77	-4,335.4	4,632.3	1,259.5	961.0	298.52	4.219	
11,200.0	5,386.0	10,230.0	5,381.0	154.8	149.4	-89.77	-4,407.3	4,701.8	1,260.3	956.9	303.42	4.154	
11,300.0	5,386.0	10,330.0	5,381.0	157.2	151.9	-89.77	-4,479.2	4,771.3	1,261.1	952.8	308.31	4.090	
11,400.0	5,386.0	10,430.0	5,381.0	159.7	154.3	-89.77	-4,551.1	4,840.8	1,261.9	948.7	313.21	4.029	
11,500.0	5,386.0	10,530.0	5,381.0	162.1	156.8	-89.77	-4,623.0	4,910.3	1,262.7	944.6	318.11	3.969	
11,600.0	5,386.0	10,630.0	5,381.0	164.6	159.2	-89.77	-4,694.9	4,979.8	1,263.5	940.5	323.01	3.912	
11,700.0	5,386.0	10,730.0	5,381.0	167.0	161.7	-89.77	-4,766.8	5,049.3	1,264.3	936.4	327.92	3.855	
11,800.0	5,386.0	10,830.0	5,381.0	169.5	164.1	-89.77	-4,838.7	5,118.8	1,265.1	932.2	332.82	3.801	
11,900.0	5,386.0	10,930.0	5,381.0	171.9	166.6	-89.77	-4,910.6	5,188.2	1,265.9	928.1	337.73	3.748	
12,000.0	5,386.0	11,030.0	5,381.0	174.4	169.0	-89.77	-4,982.5	5,257.7	1,266.7	924.0	342.64	3.697	
12,100.0	5,386.0	11,130.0	5,381.0	176.8	171.5	-89.77	-5,054.4	5,327.2	1,267.4	919.9	347.55	3.647	
12,200.0	5,386.0	11,230.0	5,381.0	179.3	173.9	-89.77	-5,126.3	5,396.7	1,268.2	915.8	352.46	3.598	
12,227.5	5,386.0	11,257.4	5,381.0	179.9	174.6	-89.77	-5,146.1	5,415.8	1,268.5	914.7	353.80	3.585 SF	

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well # 124H
Project:	Crow Canyon Unit	**TVD Reference:**	RKB @ 6806.0usft (AD 920)
Reference Site:	N19 2408 Pad	**MD Reference:**	RKB @ 6806.0usft (AD 920)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	# 124H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original drilling	**Database:**	EDM
Reference Design:	APD	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to RKB @ 6806.0usft (AD 920)	Coordinates are relative to: # 124H
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, New Mexico Western Zone
Central Meridian is -107.83333333	Grid Convergence at Surface is: 0.06°



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

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well # 124H
Project:	Crow Canyon Unit	**TVD Reference:**	RKB @ 6806.0usft (AD 920)
Reference Site:	N19 2408 Pad	**MD Reference:**	RKB @ 6806.0usft (AD 920)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	# 124H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original drilling	**Database:**	EDM
Reference Design:	APD	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to RKB @ 6806.0usft (AD 920)	Coordinates are relative to: # 124H
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, New Mexico Western Zone
Central Meridian is -107.83333333	Grid Convergence at Surface is: 0.06°