

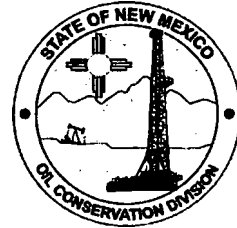
State of New Mexico
Energy, Minerals and Natural Resources Department

Michelle Lujan Grisham
Governor

Sarah Cottrell Propst
Cabinet Secretary

Todd E. Leahy, JD, PhD
Deputy Secretary

Adrienne Sandoval, Division Director
Oil Conservation Division



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 3160-5 form.

Operator Signature Date: **Original APD 9/20/2016**
Sundry Date 3/20/2019

WELL INFORMATION:
DJR OPERATING, LLC
30-043-21293 VENADO CANYON UNIT #207H

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 recompletions operations.
- ☒ Regarding Hydraulic Fracturing, review EPA Underground Injection Control Guidance 84

May 1, 2019

Page 2

- ✓ 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.
- ✓ Comply with current regulations at time of spud
Prior to production operator needs to be in compliance with RULE 19.15.5.9



NMOCD Approved by Signature

4/3/19

Date

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

MAR 20 2019

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.

5. Lease Serial No.
NMNM 109385

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

SUBMIT IN TRIPLICATE – Other instructions on page 2.

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator
DJR Operating LLC.

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

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

7. If Unit of CA/Agreement, Name and/or No.
VENADO CANYON UNIT / NMNM 135367A

8. Well Name and No.
VENADO CANYON UNIT #207H

9. API Well No.
30-043-21293

10. Field and Pool or Exploratory Area
LYBROOK GALLUP

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SHL: 263' FNL and 1151' FEL Section 11, T22N, R6W
BHL: 330' FNL and 330' FEL Section 13, T22N, R6W

11. County or Parish, State
Sandoval 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
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other <u>New Drilling Plan</u>
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

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 recomple 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 recomple 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, Venado Canyon Unit 207H (API 30-043-21293) which is part of the VENADO CANYON UNIT. DJR Operating is submitting this sundry to change the Drilling Plan.

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

NMOC

APR 03 2019

DISTRICT III

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

Steven Merrell

Title Regulatory Specialist

Signature

Steven Merrell

Date 03/20/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Dave Mankiewicz

Title

AFM

Date

3/29/19

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)

NMOC *BP*
AV

DISTRICT I

1825 N. French Dr., Hobbs, N.M. 88240
Phone: (505) 393-6161 Fax: (505) 393-0720

DISTRICT II

811 S. First St., Artesia, N.M. 88210
Phone: (505) 748-1283 Fax: (505) 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) 478-3480 Fax: (505) 478-3482

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-043-21293		² Pool Code 42289	³ Pool Name LYBROOK GALLUP
⁴ Property Code 325271	⁵ Property Name VENADO CANYON UNIT		⁶ Well Number 207H
⁷ GRID No. 371838	⁸ Operator Name DJR OPERATING, LLC		⁹ Elevation 6962'

¹⁰ Surface Location

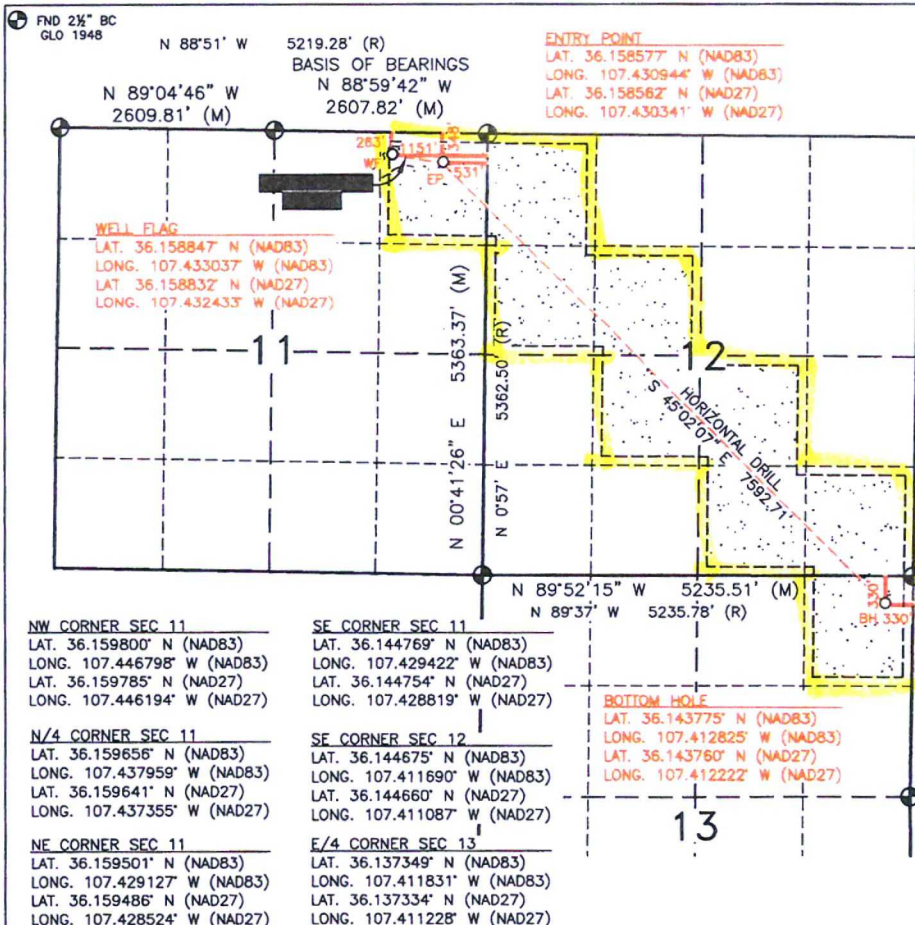
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	11	22N	6W		263'	NORTH	1151'	EAST	SANDOVAL

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
A	13	22N	6W		330'	NORTH	330'	EAST	SANDOVAL

¹² Dedicated Acres NE/NE SEC 11 (40 ACRES), NW/NW, S2/NW, NE/SW, NW/SE & S2/SE SEC 12 (280 ACRES), & NE/NE SEC 13 (40 ACRES) = 5280.00 ACRES - S/2 SEC 1, S/2 & NE/4 SEC 10, ALL SEC 11-14, ALL SEC 15, N/2 SEC 22, ALL SEC 23, N/2 SEC 24, T22N 6W - UNDIVIDED UNIT.	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-14067 (4,320 ACRES)
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
HSA = 360 acres OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

**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 3/13/19
Signature Date

Steven Merrell
Printed Name
Smerrell@djrlc.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.
MARCH 29, 2016

Date of Survey
Signature and Seal of Professional Surveyor:



Certificate Number 11393

DISTRICT I
1626 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

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State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

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

Submit one copy to appropriate
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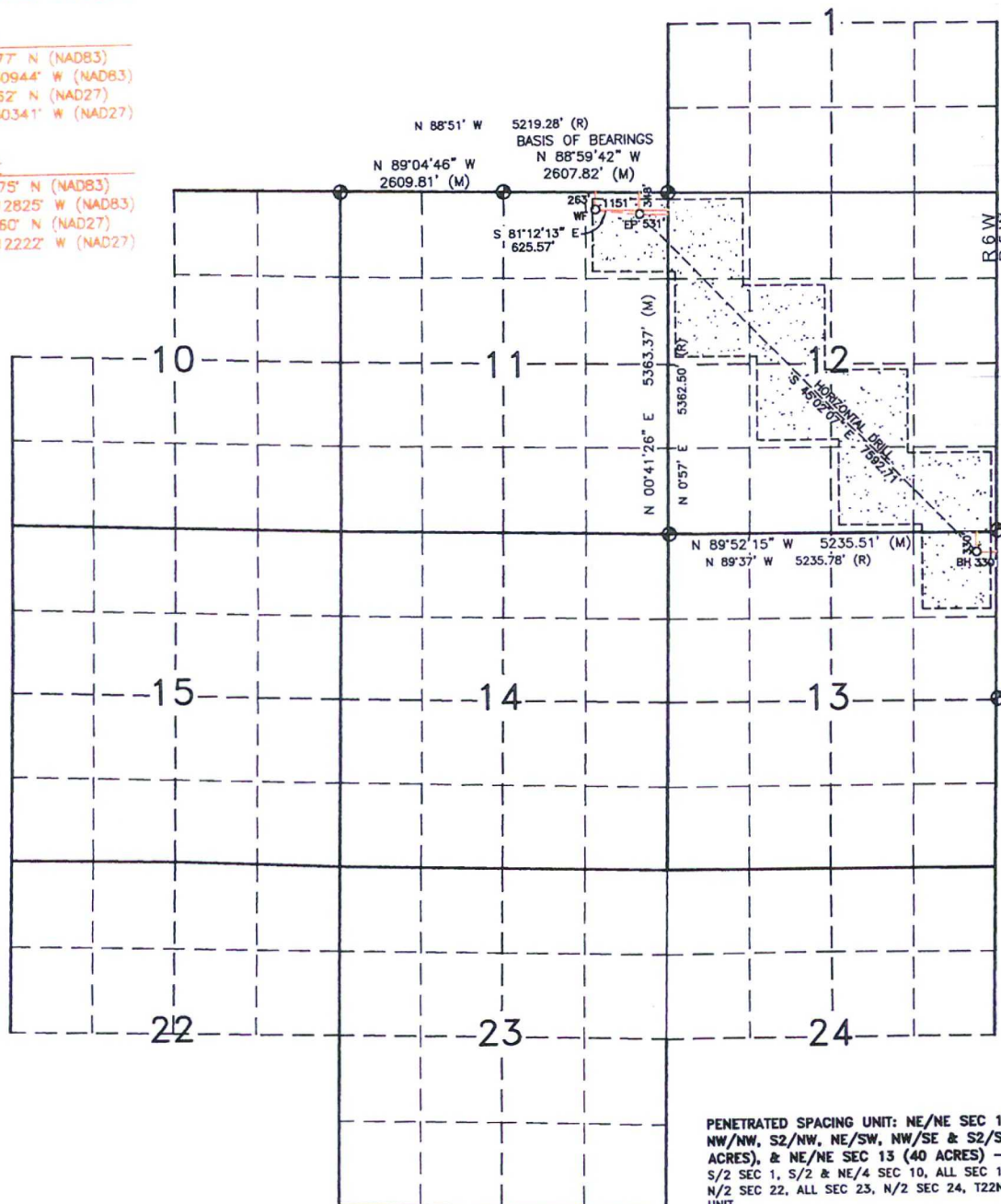
☐ AMENDED REPORT

DJR OPERATING, LLC
VENADO CANYON UNIT #207H

WELL FLAG
LAT. 36.158847° N (NAD83)
LONG. 107.433037° W (NAD83)
LAT. 36.158832° N (NAD27)
LONG. 107.432433° W (NAD27)

ENTRY POINT
LAT. 36.158577° N (NAD83)
LONG. 107.430944° W (NAD83)
LAT. 36.158562° N (NAD27)
LONG. 107.430341° W (NAD27)

BOTTOM HOLE
LAT. 36.143775° N (NAD83)
LONG. 107.412825° W (NAD83)
LAT. 36.143760° N (NAD27)
LONG. 107.412222° W (NAD27)



PENETRATED SPACING UNIT: NE/NE SEC 11 (40 ACRES),
NW/NW, S2/NW, NE/SW, NW/SE & S2/SE SEC 12 (280
ACRES), & NE/NE SEC 13 (40 ACRES) - 5280.00 ACRES -
S/2 SEC 1, S/2 & NE/4 SEC 10, ALL SEC 11-14, ALL SEC 15,
N/2 SEC 22, ALL SEC 23, N/2 SEC 24, T22N R6W - UNDIVIDED
UNIT

DRILLING PLAN **Vendado Canyon Unit 207H** **Sandoval County, New Mexico**

Surface Location
 1151-ft FEL & 263-ft FNL
 Sec 11 T22N R06W
 Graded Elevation 6963' MSL
 RKB Elevation 6777' (14' KB)

SHL Geographical Coordinates (NAD-83)

Latitude 36.1588470° N
 Longitude 107.4330370° W

Kick Off Point for Horizontal Build Curve
 4714-ft MD
 4700-ft TVD

Local Coordinates (from SHL)

318-ft North
 134-ft East

Heel Location (Pay zone entry)
 531-ft FEL & 348-ft FNL
 Sec 11 T22N R06W

Heel Geographical Coordinates (NAD-83)

Latitude 36.1585769° N
 Longitude 107.43094430° W

Bottom Hole Location (TD)
 330-ft FNL & 330-ft FEL
 Sec 13 T22N R06W

BHL Geographical Coordinates (NAD-83)

Latitude 36.143775° N
 Longitude 107.4128250° W

First Take Point (FTP)
 5794-ft MD
 Gallup C Sand

FTP Geographical Coordinates (NAD-83)

Latitude 36.1584600° N
 Longitude 107.4308012° W

Last Take Point (LTP)
 13267-ft MD
 Gallup C Sand

LTP Geographical Coordinates (NAD-83)

Latitude 36.1438919° N
 Longitude 107.4129681° W

Well objectives

This well is planned as a 7590-ft lateral in the Gallup C sand.

Bottom Hole temperature and pressure

The temperature in the Gallup C horizontal objective is 142°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	1435	1432	Sh	-	8.3	8.4 - 8.8
Fruitland	1645	1641	C	G	8.3	9.0 - 9.5
Picture Cliffs	1834	1830	Sd	W	8.3	9.0 - 9.5
Lewis	1929	1924	Sh	-		9.0 - 9.5
Chacra	2674	2667	Sd	-	8.3	9.0 - 9.5
Menefee	3369	3359	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	4113	4101	Sd	-	8.3	9.0 - 9.5
Mancos	4254	4241	Sh	-		9.0 - 9.5
Mancos Silt	4652	4638	Slt	O/G	6.6	9.0 - 9.5
Gallup A	5159	5113	Slt	O/G	6.6	9.0 - 9.5
Gallup B	5218	5157	Sd	O/G	6.6	8.8 - 9.0
Gallup C	5352	5244	Sd	O/G	6.6	8.8 - 9.0
Target	5735	5355	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	5724	surf	5355	surface
4-1/2"	6-1/8"	11.6	P-110	LTC	5524	13327	5321	5355	5524

Note: all casing will be new

Casing Design Load Cases

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

Note #

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

Casing Design Factors

		Design Factors			
Casing string	Casing OD	Burst	Collapse	Axial	Triaxial
Surface	9-5/8"	1.25	13.38	8.16	1.56
Intermediate	7"	1.25	1.50	1.68	1.34
Production liner	4-1/2"	1.37	3.68	1.88	1.69

Cement Design

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	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

<u>7" Intermediate Casing</u>		<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	3754-ft
Density (ppg)		12.30	13.50
Yield (cf/sx)		1.95	1.30
Mix water (gal/sx)		10.14	5.64
Volume (sx)		475	393
Volume (bbls)		165	91

<u>4-1/2" Production Liner</u>		<u>Lead</u>
Halliburton Name		EXTENDACEM
Type		Poz/G
Additives		B, De, Di, FI, Re, V
Planned top		5524-ft
Density (ppg)		13.3
Yield (cf/sx)		1.36
Mix water (gal/sx)		5.94
Volume (sx)		801
Volume (bbls)		194

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 – 5724	9.0 – 9.5	38 – 45	8 – 14	<20
Production	Low solids, non-dispersed	5724 – 13327	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.

Approved
Dave Mankiewicz 
3/29/2019



Pad name : A11 2206 Pad
Well name : Venado Canyon Unit # 207H

SHL Latitude : 36.15884700
SHL Longitude : -107.43303700

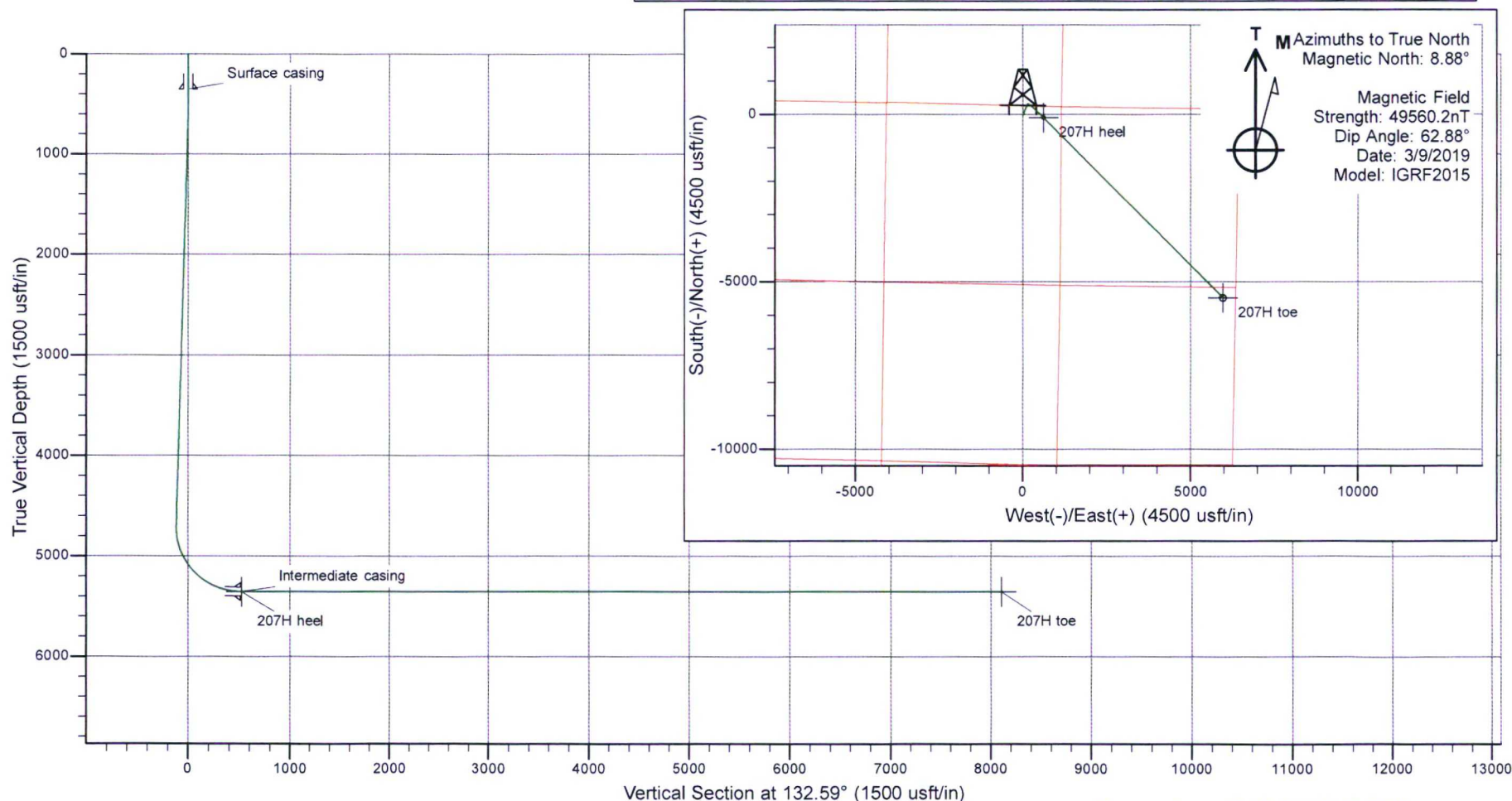
US State Plane 1983
North American Datum 1983
New Mexico Western Zone

TRAJECTORY DETAILS Pad elevation : 6963.0 RKB @ 6977.0usft (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	
450.0	0.00	0.00	450.0	0.0	0.0	0.00	0.00	0.0	
688.4	4.77	22.81	688.1	9.1	3.8	2.00	22.81	-3.4	
4714.4	4.77	22.81	4700.2	317.6	133.6	0.00	0.00	-116.6	
5734.5	90.00	135.20	5355.0	-98.3	617.8	9.00	112.32	521.3	207H heel
13327.2	90.00	135.20	5355.0	-5485.9	5967.7	0.00	0.00	8106.1	207H toe

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
207H heel	5355.0	-98.3	617.8	1877265	2841875	36.15857690	-107.43094430
207H toe	5355.0	-5485.9	5967.7	1871899	2847247	36.14377500	-107.41282500



Prepared : 17:48, March 12 2019

DJR Operating

Venado Canyon Unit

A11 2206 Pad

207H

Original drilling

Plan: APD

Standard Planning Report

12 March, 2019

Planning Report

Database: EDM
Company: DJR Operating
Project: Venado Canyon Unit
Site: A11 2206 Pad
Well: # 207H
Wellbore: Original drilling
Design: APD

Local Co-ordinate Reference: Well # 207H
TVD Reference: RKB @ 6977.0usft (AD 920)
MD Reference: RKB @ 6977.0usft (AD 920)
North Reference: True
Survey Calculation Method: Minimum Curvature

Project	Venado 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	A11 2206 Pad		
Site Position:		Northing:	1,877,361 usft
From:	Lat/Long	Easting:	2,841,257 usft
Position Uncertainty:	0.0 usft	Slot Radius:	16.000 in
		Latitude:	36.15884700
		Longitude:	-107.43303700
		Grid Convergence:	0.24 °

Well	# 207H		
Well Position	+N/-S	0.0 usft	Northing: 1,877,361 usft
	+E/-W	0.0 usft	Easting: 2,841,257 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Latitude: 36.15884700
			Longitude: -107.43303700
			Ground Level: 6,963.0 usft

Wellbore	Original drilling				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	3/9/2019	8.88	62.88	49,560.15776486

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	132.59	

Plan Survey Tool Program	Date	3/12/2019			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	13,327.2	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	
450.0	0.00	0.00	450.0	0.0	0.0	0.00	0.00	0.00	0.00	
688.4	4.77	22.81	688.1	9.1	3.8	2.00	2.00	0.00	22.81	
4,714.4	4.77	22.81	4,700.2	317.6	133.6	0.00	0.00	0.00	0.00	
5,734.5	90.00	135.20	5,355.0	-98.3	617.8	9.00	8.35	11.02	112.32	207H heel
13,327.2	90.00	135.20	5,355.0	-5,485.9	5,967.7	0.00	0.00	0.00	0.00	207H toe

Planning Report

Database: EDM
Company: DJR Operating
Project: Venado Canyon Unit
Site: A11 2206 Pad
Well: # 207H
Wellbore: Original drilling
Design: APD

Local Co-ordinate Reference: Well # 207H
TVD Reference: RKB @ 6977.0usft (AD 920)
MD Reference: RKB @ 6977.0usft (AD 920)
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
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
450.0	0.00	0.00	450.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	1.00	22.81	500.0	0.4	0.2	-0.1	2.00	2.00	0.00
600.0	3.00	22.81	599.9	3.6	1.5	-1.3	2.00	2.00	0.00
688.4	4.77	22.81	688.1	9.1	3.8	-3.4	2.00	2.00	0.00
700.0	4.77	22.81	699.7	10.0	4.2	-3.7	0.00	0.00	0.00
800.0	4.77	22.81	799.3	17.7	7.4	-6.5	0.00	0.00	0.00
900.0	4.77	22.81	899.0	25.4	10.7	-9.3	0.00	0.00	0.00
1,000.0	4.77	22.81	998.6	33.0	13.9	-12.1	0.00	0.00	0.00
1,100.0	4.77	22.81	1,098.3	40.7	17.1	-14.9	0.00	0.00	0.00
1,200.0	4.77	22.81	1,198.0	48.3	20.3	-17.7	0.00	0.00	0.00
1,300.0	4.77	22.81	1,297.6	56.0	23.6	-20.6	0.00	0.00	0.00
1,335.5	4.77	22.81	1,333.0	58.7	24.7	-21.6	0.00	0.00	0.00
Ojo Alamo									
1,400.0	4.77	22.81	1,397.3	63.7	26.8	-23.4	0.00	0.00	0.00
1,434.9	4.77	22.81	1,432.0	66.3	27.9	-24.4	0.00	0.00	0.00
Kirtland									
1,500.0	4.77	22.81	1,496.9	71.3	30.0	-26.2	0.00	0.00	0.00
1,600.0	4.77	22.81	1,596.6	79.0	33.2	-29.0	0.00	0.00	0.00
1,644.6	4.77	22.81	1,641.0	82.4	34.7	-30.3	0.00	0.00	0.00
Fruitland									
1,700.0	4.77	22.81	1,696.2	86.6	36.4	-31.8	0.00	0.00	0.00
1,800.0	4.77	22.81	1,795.9	94.3	39.7	-34.6	0.00	0.00	0.00
1,834.2	4.77	22.81	1,830.0	96.9	40.8	-35.6	0.00	0.00	0.00
Pictured Cliffs									
1,900.0	4.77	22.81	1,895.5	102.0	42.9	-37.4	0.00	0.00	0.00
1,928.6	4.77	22.81	1,924.0	104.2	43.8	-38.2	0.00	0.00	0.00
Lewis									
2,000.0	4.77	22.81	1,995.2	109.6	46.1	-40.3	0.00	0.00	0.00
2,100.0	4.77	22.81	2,094.8	117.3	49.3	-43.1	0.00	0.00	0.00
2,200.0	4.77	22.81	2,194.5	125.0	52.6	-45.9	0.00	0.00	0.00
2,300.0	4.77	22.81	2,294.1	132.6	55.8	-48.7	0.00	0.00	0.00
2,400.0	4.77	22.81	2,393.8	140.3	59.0	-51.5	0.00	0.00	0.00
2,500.0	4.77	22.81	2,493.5	147.9	62.2	-54.3	0.00	0.00	0.00
2,600.0	4.77	22.81	2,593.1	155.6	65.4	-57.1	0.00	0.00	0.00
2,674.1	4.77	22.81	2,667.0	161.3	67.8	-59.2	0.00	0.00	0.00
Chacra									
2,700.0	4.77	22.81	2,692.8	163.3	68.7	-59.9	0.00	0.00	0.00
2,800.0	4.77	22.81	2,792.4	170.9	71.9	-62.8	0.00	0.00	0.00
2,900.0	4.77	22.81	2,892.1	178.6	75.1	-65.6	0.00	0.00	0.00
3,000.0	4.77	22.81	2,991.7	186.3	78.3	-68.4	0.00	0.00	0.00
3,100.0	4.77	22.81	3,091.4	193.9	81.6	-71.2	0.00	0.00	0.00
3,200.0	4.77	22.81	3,191.0	201.6	84.8	-74.0	0.00	0.00	0.00
3,300.0	4.77	22.81	3,290.7	209.2	88.0	-76.8	0.00	0.00	0.00
3,308.3	4.77	22.81	3,299.0	209.9	88.3	-77.1	0.00	0.00	0.00
Cliff House									
3,368.5	4.77	22.81	3,359.0	214.5	90.2	-78.7	0.00	0.00	0.00

Planning Report

Database: EDM
Company: DJR Operating
Project: Venado Canyon Unit
Site: A11 2206 Pad
Well: # 207H
Wellbore: Original drilling
Design: APD

Local Co-ordinate Reference: Well # 207H
TVD Reference: RKB @ 6977.0usft (AD 920)
MD Reference: RKB @ 6977.0usft (AD 920)
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)
Menefee									
3,400.0	4.77	22.81	3,390.3	216.9	91.2	-79.6	0.00	0.00	0.00
3,500.0	4.77	22.81	3,490.0	224.6	94.4	-82.4	0.00	0.00	0.00
3,600.0	4.77	22.81	3,589.6	232.2	97.7	-85.3	0.00	0.00	0.00
3,700.0	4.77	22.81	3,689.3	239.9	100.9	-88.1	0.00	0.00	0.00
3,800.0	4.77	22.81	3,789.0	247.5	104.1	-90.9	0.00	0.00	0.00
3,900.0	4.77	22.81	3,888.6	255.2	107.3	-93.7	0.00	0.00	0.00
4,000.0	4.77	22.81	3,988.3	262.9	110.6	-96.5	0.00	0.00	0.00
4,100.0	4.77	22.81	4,087.9	270.5	113.8	-99.3	0.00	0.00	0.00
4,113.1	4.77	22.81	4,101.0	271.5	114.2	-99.7	0.00	0.00	0.00
Point Lookout									
4,200.0	4.77	22.81	4,187.6	278.2	117.0	-102.1	0.00	0.00	0.00
4,253.6	4.77	22.81	4,241.0	282.3	118.7	-103.6	0.00	0.00	0.00
Mancos									
4,300.0	4.77	22.81	4,287.2	285.9	120.2	-105.0	0.00	0.00	0.00
4,400.0	4.77	22.81	4,386.9	293.5	123.4	-107.8	0.00	0.00	0.00
4,500.0	4.77	22.81	4,486.5	301.2	126.7	-110.6	0.00	0.00	0.00
4,600.0	4.77	22.81	4,586.2	308.8	129.9	-113.4	0.00	0.00	0.00
4,652.0	4.77	22.81	4,638.0	312.8	131.6	-114.9	0.00	0.00	0.00
Mancos Silt									
4,700.0	4.77	22.81	4,685.8	316.5	133.1	-116.2	0.00	0.00	0.00
4,714.4	4.77	22.81	4,700.2	317.6	133.6	-116.6	0.00	0.00	0.00
KOP									
4,750.0	4.62	62.74	4,735.7	319.6	135.4	-116.6	9.01	-0.40	112.15
4,800.0	7.35	98.51	4,785.4	320.1	140.4	-113.3	9.00	5.46	71.55
4,850.0	11.28	112.45	4,834.8	317.7	148.1	-106.0	9.00	7.85	27.89
4,900.0	15.52	119.07	4,883.4	312.6	158.4	-94.9	9.00	8.48	13.24
4,950.0	19.87	122.88	4,931.0	304.8	171.4	-80.0	9.00	8.70	7.61
5,000.0	24.27	125.35	4,977.3	294.2	187.0	-61.5	9.00	8.81	4.95
5,050.0	28.70	127.10	5,022.1	281.0	204.9	-39.3	9.00	8.86	3.50
5,100.0	33.15	128.42	5,065.0	265.2	225.2	-13.7	9.00	8.90	2.63
5,150.0	37.61	129.46	5,105.7	247.0	247.7	15.2	9.00	8.92	2.07
5,159.2	38.44	129.63	5,113.0	243.4	252.1	20.9	9.00	8.93	1.82
Gallup A									
5,200.0	42.08	130.30	5,144.1	226.5	272.3	47.2	9.00	8.94	1.66
5,217.6	43.66	130.56	5,157.0	218.7	281.4	59.2	9.00	8.94	1.50
Gallup B									
5,250.0	46.55	131.01	5,179.9	203.7	298.8	82.1	9.00	8.95	1.38
5,300.0	51.03	131.62	5,212.8	178.9	327.0	119.7	9.00	8.95	1.22
5,350.0	55.51	132.16	5,242.7	152.1	356.8	159.7	9.00	8.96	1.08
5,352.3	55.72	132.19	5,244.0	150.9	358.3	161.7	9.00	8.96	1.02
Gallup C									
5,400.0	59.99	132.65	5,269.4	123.6	388.1	202.0	9.00	8.96	0.97
5,450.0	64.47	133.09	5,292.7	93.5	420.5	246.2	9.00	8.97	0.88
5,500.0	68.96	133.50	5,312.4	62.1	453.9	292.2	9.00	8.97	0.82
5,524.5	71.15	133.69	5,320.8	46.2	470.6	315.2	9.00	8.97	0.78
Top of liner									
5,550.0	73.44	133.89	5,328.5	29.4	488.1	339.5	9.00	8.97	0.76
5,600.0	77.93	134.26	5,340.9	-4.3	522.9	387.9	9.00	8.97	0.74
5,650.0	82.41	134.61	5,349.4	-38.8	558.1	437.1	9.00	8.97	0.71
5,700.0	86.90	134.96	5,354.1	-73.9	593.4	486.8	9.00	8.97	0.70
5,724.5	89.10	135.13	5,354.9	-91.2	610.7	511.3	9.00	8.97	0.69

Planning Report

Database: EDM
Company: DJR Operating
Project: Venado Canyon Unit
Site: A11 2206 Pad
Well: # 207H
Wellbore: Original drilling
Design: APD

Local Co-ordinate Reference: Well # 207H
TVD Reference: RKB @ 6977.0usft (AD 920)
MD Reference: RKB @ 6977.0usft (AD 920)
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)
Intermediate casing									
5,734.5	90.00	135.20	5,355.0	-98.3	617.8	521.3	9.00	8.97	0.69
Target									
5,794.5	90.00	135.20	5,355.0	-140.9	660.0	581.2	0.00	0.00	0.00
First take point									
5,800.0	90.00	135.20	5,355.0	-144.8	663.9	586.7	0.00	0.00	0.00
5,900.0	90.00	135.20	5,355.0	-215.7	734.4	686.6	0.00	0.00	0.00
6,000.0	90.00	135.20	5,355.0	-286.7	804.8	786.5	0.00	0.00	0.00
6,100.0	90.00	135.20	5,355.0	-357.6	875.3	886.4	0.00	0.00	0.00
6,200.0	90.00	135.20	5,355.0	-428.6	945.7	986.3	0.00	0.00	0.00
6,300.0	90.00	135.20	5,355.0	-499.6	1,016.2	1,086.2	0.00	0.00	0.00
6,400.0	90.00	135.20	5,355.0	-570.5	1,086.7	1,186.1	0.00	0.00	0.00
6,500.0	90.00	135.20	5,355.0	-641.5	1,157.1	1,286.0	0.00	0.00	0.00
6,600.0	90.00	135.20	5,355.0	-712.4	1,227.6	1,385.9	0.00	0.00	0.00
6,700.0	90.00	135.20	5,355.0	-783.4	1,298.0	1,485.8	0.00	0.00	0.00
6,800.0	90.00	135.20	5,355.0	-854.4	1,368.5	1,585.7	0.00	0.00	0.00
6,900.0	90.00	135.20	5,355.0	-925.3	1,439.0	1,685.6	0.00	0.00	0.00
7,000.0	90.00	135.20	5,355.0	-996.3	1,509.4	1,785.5	0.00	0.00	0.00
7,100.0	90.00	135.20	5,355.0	-1,067.2	1,579.9	1,885.4	0.00	0.00	0.00
7,200.0	90.00	135.20	5,355.0	-1,138.2	1,650.4	1,985.3	0.00	0.00	0.00
7,300.0	90.00	135.20	5,355.0	-1,209.1	1,720.8	2,085.2	0.00	0.00	0.00
7,400.0	90.00	135.20	5,355.0	-1,280.1	1,791.3	2,185.1	0.00	0.00	0.00
7,500.0	90.00	135.20	5,355.0	-1,351.1	1,861.7	2,285.0	0.00	0.00	0.00
7,600.0	90.00	135.20	5,355.0	-1,422.0	1,932.2	2,384.9	0.00	0.00	0.00
7,700.0	90.00	135.20	5,355.0	-1,493.0	2,002.7	2,484.8	0.00	0.00	0.00
7,800.0	90.00	135.20	5,355.0	-1,563.9	2,073.1	2,584.7	0.00	0.00	0.00
7,900.0	90.00	135.20	5,355.0	-1,634.9	2,143.6	2,684.6	0.00	0.00	0.00
8,000.0	90.00	135.20	5,355.0	-1,705.9	2,214.1	2,784.4	0.00	0.00	0.00
8,100.0	90.00	135.20	5,355.0	-1,776.8	2,284.5	2,884.3	0.00	0.00	0.00
8,200.0	90.00	135.20	5,355.0	-1,847.8	2,355.0	2,984.2	0.00	0.00	0.00
8,300.0	90.00	135.20	5,355.0	-1,918.7	2,425.4	3,084.1	0.00	0.00	0.00
8,400.0	90.00	135.20	5,355.0	-1,989.7	2,495.9	3,184.0	0.00	0.00	0.00
8,500.0	90.00	135.20	5,355.0	-2,060.7	2,566.4	3,283.9	0.00	0.00	0.00
8,600.0	90.00	135.20	5,355.0	-2,131.6	2,636.8	3,383.8	0.00	0.00	0.00
8,700.0	90.00	135.20	5,355.0	-2,202.6	2,707.3	3,483.7	0.00	0.00	0.00
8,800.0	90.00	135.20	5,355.0	-2,273.5	2,777.7	3,583.6	0.00	0.00	0.00
8,900.0	90.00	135.20	5,355.0	-2,344.5	2,848.2	3,683.5	0.00	0.00	0.00
9,000.0	90.00	135.20	5,355.0	-2,415.4	2,918.7	3,783.4	0.00	0.00	0.00
9,100.0	90.00	135.20	5,355.0	-2,486.4	2,989.1	3,883.3	0.00	0.00	0.00
9,200.0	90.00	135.20	5,355.0	-2,557.4	3,059.6	3,983.2	0.00	0.00	0.00
9,300.0	90.00	135.20	5,355.0	-2,628.3	3,130.1	4,083.1	0.00	0.00	0.00
9,400.0	90.00	135.20	5,355.0	-2,699.3	3,200.5	4,183.0	0.00	0.00	0.00
9,500.0	90.00	135.20	5,355.0	-2,770.2	3,271.0	4,282.9	0.00	0.00	0.00
9,600.0	90.00	135.20	5,355.0	-2,841.2	3,341.4	4,382.8	0.00	0.00	0.00
9,700.0	90.00	135.20	5,355.0	-2,912.2	3,411.9	4,482.7	0.00	0.00	0.00
9,800.0	90.00	135.20	5,355.0	-2,983.1	3,482.4	4,582.6	0.00	0.00	0.00
9,900.0	90.00	135.20	5,355.0	-3,054.1	3,552.8	4,682.5	0.00	0.00	0.00
10,000.0	90.00	135.20	5,355.0	-3,125.0	3,623.3	4,782.4	0.00	0.00	0.00
10,100.0	90.00	135.20	5,355.0	-3,196.0	3,693.8	4,882.3	0.00	0.00	0.00
10,200.0	90.00	135.20	5,355.0	-3,266.9	3,764.2	4,982.2	0.00	0.00	0.00
10,300.0	90.00	135.20	5,355.0	-3,337.9	3,834.7	5,082.1	0.00	0.00	0.00
10,400.0	90.00	135.20	5,355.0	-3,408.9	3,905.1	5,182.0	0.00	0.00	0.00
10,500.0	90.00	135.20	5,355.0	-3,479.8	3,975.6	5,281.9	0.00	0.00	0.00

Planning Report

Database: EDM	Local Co-ordinate Reference: Well # 207H
Company: DJR Operating	TVD Reference: RKB @ 6977.0usft (AD 920)
Project: Venado Canyon Unit	MD Reference: RKB @ 6977.0usft (AD 920)
Site: A11 2206 Pad	North Reference: True
Well: # 207H	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)
10,600.0	90.00	135.20	5,355.0	-3,550.8	4,046.1	5,381.8	0.00	0.00	0.00
10,700.0	90.00	135.20	5,355.0	-3,621.7	4,116.5	5,481.6	0.00	0.00	0.00
10,800.0	90.00	135.20	5,355.0	-3,692.7	4,187.0	5,581.5	0.00	0.00	0.00
10,900.0	90.00	135.20	5,355.0	-3,763.7	4,257.4	5,681.4	0.00	0.00	0.00
11,000.0	90.00	135.20	5,355.0	-3,834.6	4,327.9	5,781.3	0.00	0.00	0.00
11,100.0	90.00	135.20	5,355.0	-3,905.6	4,398.4	5,881.2	0.00	0.00	0.00
11,200.0	90.00	135.20	5,355.0	-3,976.5	4,468.8	5,981.1	0.00	0.00	0.00
11,300.0	90.00	135.20	5,355.0	-4,047.5	4,539.3	6,081.0	0.00	0.00	0.00
11,400.0	90.00	135.20	5,355.0	-4,118.4	4,609.8	6,180.9	0.00	0.00	0.00
11,500.0	90.00	135.20	5,355.0	-4,189.4	4,680.2	6,280.8	0.00	0.00	0.00
11,600.0	90.00	135.20	5,355.0	-4,260.4	4,750.7	6,380.7	0.00	0.00	0.00
11,700.0	90.00	135.20	5,355.0	-4,331.3	4,821.1	6,480.6	0.00	0.00	0.00
11,800.0	90.00	135.20	5,355.0	-4,402.3	4,891.6	6,580.5	0.00	0.00	0.00
11,900.0	90.00	135.20	5,355.0	-4,473.2	4,962.1	6,680.4	0.00	0.00	0.00
12,000.0	90.00	135.20	5,355.0	-4,544.2	5,032.5	6,780.3	0.00	0.00	0.00
12,100.0	90.00	135.20	5,355.0	-4,615.2	5,103.0	6,880.2	0.00	0.00	0.00
12,200.0	90.00	135.20	5,355.0	-4,686.1	5,173.5	6,980.1	0.00	0.00	0.00
12,300.0	90.00	135.20	5,355.0	-4,757.1	5,243.9	7,080.0	0.00	0.00	0.00
12,400.0	90.00	135.20	5,355.0	-4,828.0	5,314.4	7,179.9	0.00	0.00	0.00
12,500.0	90.00	135.20	5,355.0	-4,899.0	5,384.8	7,279.8	0.00	0.00	0.00
12,600.0	90.00	135.20	5,355.0	-4,970.0	5,455.3	7,379.7	0.00	0.00	0.00
12,700.0	90.00	135.20	5,355.0	-5,040.9	5,525.8	7,479.6	0.00	0.00	0.00
12,800.0	90.00	135.20	5,355.0	-5,111.9	5,596.2	7,579.5	0.00	0.00	0.00
12,900.0	90.00	135.20	5,355.0	-5,182.8	5,666.7	7,679.4	0.00	0.00	0.00
13,000.0	90.00	135.20	5,355.0	-5,253.8	5,737.1	7,779.3	0.00	0.00	0.00
13,100.0	90.00	135.20	5,355.0	-5,324.7	5,807.6	7,879.2	0.00	0.00	0.00
13,200.0	90.00	135.20	5,355.0	-5,395.7	5,878.1	7,979.1	0.00	0.00	0.00
13,267.2	90.00	135.20	5,355.0	-5,443.4	5,925.4	8,046.2	0.00	0.00	0.00
Last take point									
13,300.0	90.00	135.20	5,355.0	-5,466.7	5,948.5	8,079.0	0.00	0.00	0.00
13,327.2	90.00	135.20	5,355.0	-5,485.9	5,967.7	8,106.1	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
207H heel - plan hits target center - Circle (radius 50.0)	0.00	0.00	5,355.0	-98.3	617.8	1,877,265	2,841,875	36.15857690	-107.43094430
207H toe - plan hits target center - Circle (radius 100.0)	0.00	0.00	5,355.0	-5,485.9	5,967.7	1,871,899	2,847,247	36.14377500	-107.41282500

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
5,724.5	5,354.9	Intermediate casing	7.000	8.750

Planning Report

Database: EDM
Company: DJR Operating
Project: Venado Canyon Unit
Site: A11 2206 Pad
Well: # 207H
Wellbore: Original drilling
Design: APD

Local Co-ordinate Reference: Well # 207H
TVD Reference: RKB @ 6977.0usft (AD 920)
MD Reference: RKB @ 6977.0usft (AD 920)
North Reference: True
Survey Calculation Method: Minimum Curvature

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,335.5	1,333.0	Ojo Alamo			
1,434.9	1,432.0	Kirtland			
1,644.6	1,641.0	Fruitland			
1,834.2	1,830.0	Pictured Cliffs			
1,928.6	1,924.0	Lewis			
2,674.1	2,667.0	Chacra			
3,308.3	3,299.0	Cliff House			
3,368.5	3,359.0	Menefee			
4,113.1	4,101.0	Point Lookout			
4,253.6	4,241.0	Mancos			
4,652.0	4,638.0	Mancos Silt			
5,159.2	5,113.0	Gallup A			
5,217.6	5,157.0	Gallup B			
5,352.3	5,244.0	Gallup C			
5,734.5	5,355.0	Target			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
4,714.4	4,700.2	317.6	133.6	KOP
5,524.5	5,320.8	46.2	470.6	Top of liner
5,794.5	5,355.0	-140.9	660.0	First take point
13,267.2	5,355.0	-5,443.4	5,925.4	Last take point

DJR Operating

Venado Canyon Unit

A11 2206 Pad

207H

Original drilling

APD

Anticollision Report

12 March, 2019

Anticollision Report

Company:	DJR Operating	Local Co-ordinate Reference:	Well # 207H
Project:	Venado Canyon Unit	TVD Reference:	RKB @ 6977.0usft (AD 920)
Reference Site:	A11 2206 Pad	MD Reference:	RKB @ 6977.0usft (AD 920)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	# 207H	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	3/12/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	13,327.2	APD (Original drilling)	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							
A11 2206 Pad							
# 206H - Original drilling - APD	658.9	659.3	14.2	9.9	3.318	CC, ES	
# 206H - Original drilling - APD	688.4	688.5	14.9	10.4	3.299	SF	

Offset Design		A11 2206 Pad - # 206H - Original drilling - APD										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		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	90.00	0.0	20.1	20.1					
100.0	100.0	100.0	100.0	0.2	0.2	90.00	0.0	20.1	20.1	19.8	0.31	65.113		
200.0	200.0	200.0	200.0	0.5	0.5	90.00	0.0	20.1	20.1	19.0	1.03	19.579		
300.0	300.0	300.0	300.0	0.9	0.9	90.00	0.0	20.1	20.1	18.3	1.74	11.522		
400.0	400.0	400.0	400.0	1.2	1.2	90.00	0.0	20.1	20.1	17.6	2.46	8.163		
450.0	450.0	450.0	450.0	1.4	1.4	90.00	0.0	20.1	20.1	17.3	2.82	7.124		
500.0	500.0	500.3	500.3	1.6	1.6	88.90	-0.2	19.7	19.5	16.3	3.17	6.152		
600.0	599.9	600.6	600.5	1.9	1.9	86.46	-1.6	16.4	15.8	11.9	3.87	4.082		
658.9	658.8	659.3	659.2	2.2	2.1	112.07	-3.0	13.0	14.2	9.9	4.29	3.318 CC, ES		
688.4	688.1	688.5	688.2	2.3	2.2	128.54	-3.9	11.0	14.9	10.4	4.50	3.299 SF		
700.0	699.7	700.0	699.7	2.3	2.3	134.91	-4.3	10.1	15.5	10.9	4.59	3.370		
800.0	799.3	798.2	797.3	2.7	2.6	171.74	-8.3	0.6	27.0	21.7	5.30	5.082		
900.0	899.0	895.2	893.4	3.1	3.0	-172.90	-13.6	-11.7	45.2	39.2	6.00	7.542		
1,000.0	998.6	990.7	987.5	3.4	3.4	-165.15	-20.0	-26.7	67.7	61.0	6.68	10.135		
1,100.0	1,098.3	1,084.7	1,079.5	3.8	3.9	-160.45	-27.6	-44.3	93.7	86.4	7.35	12.741		
1,200.0	1,198.0	1,179.0	1,171.3	4.2	4.3	-157.28	-36.1	-64.3	122.5	114.5	8.04	15.234		
1,300.0	1,297.6	1,274.5	1,264.1	4.6	4.8	-155.25	-44.9	-84.8	151.8	143.1	8.75	17.351		
1,400.0	1,397.3	1,370.0	1,357.0	5.0	5.3	-153.88	-53.7	-105.3	181.3	171.8	9.47	19.147		
1,500.0	1,496.9	1,465.5	1,449.8	5.3	5.8	-152.89	-62.5	-125.8	210.8	200.6	10.19	20.691		
1,600.0	1,596.6	1,561.0	1,542.7	5.7	6.4	-152.14	-71.3	-146.4	240.3	229.4	10.91	22.030		
1,700.0	1,696.2	1,656.5	1,635.5	6.1	6.9	-151.56	-80.1	-166.9	269.9	258.2	11.63	23.201		
1,800.0	1,795.9	1,752.0	1,728.4	6.5	7.4	-151.09	-88.9	-187.4	299.5	287.1	12.36	24.232		
1,900.0	1,895.5	1,847.5	1,821.2	6.9	8.0	-150.71	-97.7	-207.9	329.1	316.0	13.09	25.147		
2,000.0	1,995.2	1,942.9	1,914.1	7.3	8.5	-150.39	-106.5	-228.4	358.7	344.9	13.81	25.963		
2,100.0	2,094.8	2,038.4	2,006.9	7.7	9.0	-150.12	-115.3	-248.9	388.3	373.8	14.55	26.697		

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

Anticollision Report

Company: DJR Operating
 Project: Venado Canyon Unit
 Reference Site: A11 2206 Pad
 Site Error: 0.0 usft
 Reference Well: # 207H
 Well Error: 0.0 usft
 Reference Wellbore: Original drilling
 Reference Design: APD

Local Co-ordinate Reference: Well # 207H
 TVD Reference: RKB @ 6977.0usft (AD 920)
 MD Reference: RKB @ 6977.0usft (AD 920)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM
 Offset TVD Reference: Offset Datum

Offset Design A11 2206 Pad - # 206H - Original drilling - APD													Offset Site Error: 0.0 usft
Survey Program: 0-MWD+IGRF													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis			Distance						
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
2,200.0	2,194.5	2,133.9	2,099.8	8.0	9.6	-149.88	-124.1	-269.5	417.9	402.7	15.28	27.358	
2,300.0	2,294.1	2,229.4	2,192.6	8.4	10.1	-149.68	-132.8	-290.0	447.6	431.6	16.01	27.959	
2,400.0	2,393.8	2,324.9	2,285.5	8.8	10.7	-149.50	-141.6	-310.5	477.2	460.5	16.74	28.505	
2,500.0	2,493.5	2,420.4	2,378.3	9.2	11.2	-149.35	-150.4	-331.0	506.9	489.4	17.48	29.005	
2,600.0	2,593.1	2,515.9	2,471.2	9.6	11.7	-149.21	-159.2	-351.5	536.5	518.3	18.21	29.464	
2,700.0	2,692.8	2,611.4	2,564.0	10.0	12.3	-149.08	-168.0	-372.1	566.2	547.2	18.94	29.887	
2,800.0	2,792.4	2,706.9	2,656.9	10.4	12.8	-148.97	-176.8	-392.6	595.8	576.1	19.68	30.277	
2,900.0	2,892.1	2,802.4	2,749.7	10.8	13.4	-148.87	-185.6	-413.1	625.5	605.1	20.41	30.639	
3,000.0	2,991.7	2,897.9	2,842.6	11.1	13.9	-148.78	-194.4	-433.6	655.1	634.0	21.15	30.975	
3,100.0	3,091.4	2,993.4	2,935.4	11.5	14.5	-148.69	-203.2	-454.1	684.8	662.9	21.89	31.288	
3,200.0	3,191.0	3,088.9	3,028.3	11.9	15.0	-148.61	-212.0	-474.6	714.5	691.8	22.62	31.581	
3,300.0	3,290.7	3,184.4	3,121.1	12.3	15.6	-148.54	-220.8	-495.2	744.1	720.8	23.36	31.854	
3,400.0	3,390.3	3,279.9	3,214.0	12.7	16.1	-148.48	-229.5	-515.7	773.8	749.7	24.10	32.111	
3,500.0	3,490.0	3,375.4	3,306.8	13.1	16.7	-148.42	-238.3	-536.2	803.5	778.6	24.84	32.352	
3,600.0	3,589.6	3,470.9	3,399.7	13.5	17.2	-148.36	-247.1	-556.7	833.1	807.5	25.57	32.578	
3,700.0	3,689.3	3,566.4	3,492.5	13.9	17.8	-148.31	-255.9	-577.2	862.8	836.5	26.31	32.792	
3,800.0	3,789.0	3,661.9	3,585.4	14.2	18.3	-148.26	-264.7	-597.7	892.5	865.4	27.05	32.994	
3,900.0	3,888.6	3,757.4	3,678.2	14.6	18.9	-148.21	-273.5	-618.3	922.1	894.3	27.79	33.185	
4,000.0	3,988.3	3,852.9	3,771.1	15.0	19.4	-148.17	-282.3	-638.8	951.8	923.3	28.53	33.366	
4,100.0	4,087.9	3,948.4	3,863.9	15.4	20.0	-148.13	-291.1	-659.3	981.5	952.2	29.26	33.537	
4,200.0	4,187.6	4,043.8	3,956.8	15.8	20.5	-148.09	-299.9	-679.8	1,011.1	981.1	30.00	33.700	
4,300.0	4,287.2	4,139.3	4,049.6	16.2	21.1	-148.05	-308.7	-700.3	1,040.8	1,010.0	30.74	33.855	
4,400.0	4,386.9	4,234.8	4,142.5	16.6	21.6	-148.02	-317.5	-720.9	1,070.5	1,039.0	31.48	34.002	
4,500.0	4,486.5	4,330.3	4,235.3	17.0	22.2	-147.99	-326.2	-741.4	1,100.1	1,067.9	32.22	34.143	
4,600.0	4,586.2	4,425.8	4,328.2	17.3	22.7	-147.96	-335.0	-761.9	1,129.8	1,096.8	32.96	34.277	
4,700.0	4,685.8	4,521.3	4,421.0	17.7	23.3	-147.93	-343.8	-782.4	1,159.5	1,125.8	33.70	34.405	
4,714.4	4,700.2	4,535.1	4,434.4	17.8	23.4	-147.92	-345.1	-785.4	1,163.7	1,129.9	33.81	34.423	
4,750.0	4,735.7	4,569.0	4,467.4	17.9	23.5	171.33	-348.2	-792.7	1,174.5	1,140.4	34.06	34.477	
4,800.0	4,785.4	4,616.3	4,513.3	18.1	23.8	134.52	-352.6	-802.8	1,190.0	1,155.6	34.41	34.587	
4,850.0	4,834.8	4,662.8	4,558.6	18.3	24.1	119.67	-356.9	-812.8	1,206.1	1,171.4	34.72	34.735	
4,900.0	4,883.4	4,708.3	4,602.8	18.4	24.4	112.24	-361.0	-822.6	1,222.7	1,187.7	35.02	34.918	
4,950.0	4,931.0	4,752.6	4,645.8	18.6	24.6	107.71	-365.1	-832.1	1,239.8	1,204.5	35.29	35.133	
5,000.0	4,977.3	4,808.3	4,700.1	18.7	24.9	104.82	-370.9	-843.5	1,257.4	1,221.7	35.64	35.277	
5,050.0	5,022.1	4,881.2	4,771.1	18.8	25.3	102.94	-383.4	-853.5	1,274.6	1,238.5	36.10	35.312	
5,100.0	5,065.0	4,959.7	4,846.9	19.0	25.6	101.49	-403.3	-857.7	1,291.2	1,254.7	36.55	35.331	
5,150.0	5,105.7	5,044.3	4,926.4	19.1	25.9	100.31	-432.0	-854.5	1,307.0	1,270.0	36.99	35.336	
5,200.0	5,144.1	5,135.2	5,007.6	19.2	26.2	99.28	-470.7	-842.2	1,321.6	1,284.2	37.42	35.316	
5,250.0	5,179.9	5,232.0	5,087.7	19.4	26.4	98.30	-519.8	-819.1	1,334.8	1,296.9	37.87	35.246	
5,300.0	5,212.8	5,333.9	5,162.8	19.6	26.6	97.29	-579.1	-784.5	1,346.3	1,308.0	38.38	35.083	
5,350.0	5,242.7	5,439.0	5,228.3	19.8	26.7	96.20	-647.1	-738.5	1,356.0	1,317.0	39.00	34.768	
5,400.0	5,269.4	5,545.3	5,280.6	20.1	26.8	94.99	-720.7	-682.7	1,363.7	1,323.8	39.82	34.244	
5,450.0	5,292.7	5,650.3	5,316.8	20.5	27.0	93.67	-796.5	-619.8	1,369.3	1,328.4	40.88	33.491	
5,500.0	5,312.4	5,751.8	5,336.5	20.9	27.1	92.27	-870.5	-553.4	1,372.9	1,330.7	42.19	32.540	
5,550.0	5,328.5	5,838.4	5,341.0	21.4	27.4	90.98	-932.9	-493.6	1,374.8	1,331.2	43.59	31.536	
5,600.0	5,340.9	5,886.9	5,341.0	21.9	27.6	90.28	-967.5	-459.7	1,376.0	1,331.2	44.73	30.759	
5,650.0	5,349.4	5,936.1	5,341.0	22.5	27.9	89.78	-1,002.7	-425.3	1,377.0	1,331.0	46.00	29.934	
5,700.0	5,354.1	5,985.9	5,341.0	23.1	28.3	89.49	-1,038.2	-390.4	1,377.7	1,330.4	47.30	29.124	
5,734.5	5,355.0	6,020.4	5,341.0	23.6	28.6	89.42	-1,062.9	-366.3	1,378.0	1,329.7	48.29	28.536	
5,800.0	5,355.0	6,085.8	5,341.0	24.5	29.2	89.42	-1,109.6	-320.5	1,378.4	1,328.2	50.20	27.459	
5,900.0	5,355.0	6,185.8	5,341.0	26.1	30.5	89.42	-1,181.0	-250.5	1,379.1	1,325.8	53.28	25.882	
6,000.0	5,355.0	6,285.8	5,341.0	27.7	31.9	89.42	-1,252.4	-180.5	1,379.7	1,322.9	56.78	24.298	
6,100.0	5,355.0	6,385.8	5,341.0	29.5	33.5	89.42	-1,323.9	-110.5	1,380.4	1,319.9	60.46	22.832	

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

Anticollision Report

Company: DJR Operating
Project: Venado Canyon Unit
Reference Site: A11 2206 Pad
Site Error: 0.0 usft
Reference Well: # 207H
Well Error: 0.0 usft
Reference Wellbore: Original drilling
Reference Design: APD

Local Co-ordinate Reference: Well # 207H
TVD Reference: RKB @ 6977.0usft (AD 920)
MD Reference: RKB @ 6977.0usft (AD 920)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM
Offset TVD Reference: Offset Datum

Offset Design A11 2206 Pad - # 206H - Original drilling - APD												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)					
6,200.0	5,355.0	6,485.8	5,341.0	31.4	35.3	89.42	-1,395.3	-40.5	1,381.0	1,316.7	64.30	21.478	
6,300.0	5,355.0	6,585.8	5,341.0	33.4	37.2	89.42	-1,466.7	29.5	1,381.7	1,313.4	68.28	20.234	
6,400.0	5,355.0	6,685.8	5,341.0	35.4	39.1	89.42	-1,538.1	99.5	1,382.3	1,309.9	72.39	19.095	
6,500.0	5,355.0	6,785.8	5,341.0	37.5	41.1	89.42	-1,609.5	169.5	1,383.0	1,306.4	76.60	18.054	
6,600.0	5,355.0	6,885.8	5,341.0	39.6	43.2	89.42	-1,680.9	239.5	1,383.6	1,302.7	80.90	17.103	
6,700.0	5,355.0	6,985.8	5,341.0	41.8	45.3	89.42	-1,752.3	309.5	1,384.3	1,299.0	85.27	16.235	
6,800.0	5,355.0	7,085.8	5,341.0	44.0	47.4	89.42	-1,823.7	379.5	1,384.9	1,295.2	89.70	15.440	
6,900.0	5,355.0	7,185.8	5,341.0	46.2	49.6	89.42	-1,895.2	449.5	1,385.6	1,291.4	94.19	14.711	
7,000.0	5,355.0	7,285.8	5,341.0	48.5	51.8	89.42	-1,966.6	519.5	1,386.2	1,287.5	98.72	14.042	
7,100.0	5,355.0	7,385.8	5,341.0	50.8	54.0	89.42	-2,038.0	589.5	1,386.9	1,283.6	103.29	13.427	
7,200.0	5,355.0	7,485.8	5,341.0	53.1	56.3	89.42	-2,109.4	659.5	1,387.5	1,279.6	107.90	12.859	
7,300.0	5,355.0	7,585.8	5,341.0	55.4	58.5	89.42	-2,180.8	729.5	1,388.2	1,275.6	112.54	12.335	
7,400.0	5,355.0	7,685.8	5,341.0	57.7	60.8	89.42	-2,252.2	799.5	1,388.8	1,271.6	117.21	11.849	
7,500.0	5,355.0	7,785.8	5,341.0	60.1	63.1	89.42	-2,323.6	869.5	1,389.5	1,267.6	121.90	11.399	
7,600.0	5,355.0	7,885.8	5,341.0	62.4	65.4	89.42	-2,395.1	939.5	1,390.1	1,263.5	126.61	10.979	
7,700.0	5,355.0	7,985.8	5,341.0	64.8	67.8	89.42	-2,466.5	1,009.5	1,390.8	1,259.4	131.34	10.589	
7,800.0	5,355.0	8,085.8	5,341.0	67.2	70.1	89.42	-2,537.9	1,079.5	1,391.4	1,255.3	136.09	10.224	
7,900.0	5,355.0	8,185.8	5,341.0	69.5	72.5	89.42	-2,609.3	1,149.5	1,392.1	1,251.2	140.85	9.883	
8,000.0	5,355.0	8,285.8	5,341.0	71.9	74.8	89.42	-2,680.7	1,219.5	1,392.7	1,247.1	145.63	9.563	
8,100.0	5,355.0	8,385.8	5,341.0	74.3	77.2	89.42	-2,752.1	1,289.5	1,393.4	1,242.9	150.42	9.263	
8,200.0	5,355.0	8,485.8	5,341.0	76.7	79.5	89.42	-2,823.5	1,359.5	1,394.0	1,238.8	155.22	8.981	
8,300.0	5,355.0	8,585.8	5,341.0	79.1	81.9	89.42	-2,894.9	1,429.5	1,394.6	1,234.6	160.04	8.715	
8,400.0	5,355.0	8,685.8	5,341.0	81.5	84.3	89.43	-2,966.4	1,499.5	1,395.3	1,230.4	164.86	8.464	
8,500.0	5,355.0	8,785.8	5,341.0	84.0	86.7	89.43	-3,037.8	1,569.5	1,395.9	1,226.3	169.69	8.226	
8,600.0	5,355.0	8,885.8	5,341.0	86.4	89.1	89.43	-3,109.2	1,639.5	1,396.6	1,222.1	174.53	8.002	
8,700.0	5,355.0	8,985.8	5,341.0	88.8	91.5	89.43	-3,180.6	1,709.5	1,397.2	1,217.9	179.37	7.790	
8,800.0	5,355.0	9,085.8	5,341.0	91.2	93.9	89.43	-3,252.0	1,779.5	1,397.9	1,213.7	184.23	7.588	
8,900.0	5,355.0	9,185.8	5,341.0	93.7	96.3	89.43	-3,323.4	1,849.5	1,398.5	1,209.5	189.08	7.396	
9,000.0	5,355.0	9,285.8	5,341.0	96.1	98.7	89.43	-3,394.8	1,919.5	1,399.2	1,205.2	193.95	7.214	
9,100.0	5,355.0	9,385.8	5,341.0	98.5	101.1	89.43	-3,466.2	1,989.5	1,399.8	1,201.0	198.82	7.041	
9,200.0	5,355.0	9,485.8	5,341.0	101.0	103.6	89.43	-3,537.7	2,059.5	1,400.5	1,196.8	203.69	6.875	
9,300.0	5,355.0	9,585.8	5,341.0	103.4	106.0	89.43	-3,609.1	2,129.5	1,401.1	1,192.6	208.57	6.718	
9,400.0	5,355.0	9,685.8	5,341.0	105.9	108.4	89.43	-3,680.5	2,199.5	1,401.8	1,188.3	213.46	6.567	
9,500.0	5,355.0	9,785.8	5,341.0	108.3	110.8	89.43	-3,751.9	2,269.5	1,402.4	1,184.1	218.34	6.423	
9,600.0	5,355.0	9,885.8	5,341.0	110.7	113.3	89.43	-3,823.3	2,339.5	1,403.1	1,179.8	223.24	6.285	
9,700.0	5,355.0	9,985.8	5,341.0	113.2	115.7	89.43	-3,894.7	2,409.5	1,403.7	1,175.6	228.13	6.153	
9,800.0	5,355.0	10,085.8	5,341.0	115.6	118.1	89.43	-3,966.1	2,479.5	1,404.4	1,171.4	233.03	6.027	
9,900.0	5,355.0	10,185.8	5,341.0	118.1	120.6	89.43	-4,037.5	2,549.5	1,405.0	1,167.1	237.93	5.905	
10,000.0	5,355.0	10,285.8	5,341.0	120.6	123.0	89.43	-4,109.0	2,619.5	1,405.7	1,162.8	242.83	5.789	
10,100.0	5,355.0	10,385.8	5,341.0	123.0	125.4	89.43	-4,180.4	2,689.5	1,406.3	1,158.6	247.74	5.677	
10,200.0	5,355.0	10,485.7	5,341.0	125.5	127.9	89.43	-4,251.8	2,759.5	1,407.0	1,154.3	252.65	5.569	
10,300.0	5,355.0	10,585.7	5,341.0	127.9	130.3	89.43	-4,323.2	2,829.5	1,407.6	1,150.1	257.56	5.465	
10,400.0	5,355.0	10,685.7	5,341.0	130.4	132.8	89.43	-4,394.6	2,899.5	1,408.3	1,145.8	262.47	5.365	
10,500.0	5,355.0	10,785.7	5,341.0	132.8	135.2	89.43	-4,466.0	2,969.5	1,408.9	1,141.5	267.39	5.269	
10,600.0	5,355.0	10,885.7	5,341.0	135.3	137.7	89.43	-4,537.4	3,039.5	1,409.6	1,137.3	272.31	5.176	
10,700.0	5,355.0	10,985.7	5,341.0	137.8	140.1	89.43	-4,608.8	3,109.5	1,410.2	1,133.0	277.23	5.087	
10,800.0	5,355.0	11,085.7	5,341.0	140.2	142.5	89.43	-4,680.3	3,179.5	1,410.9	1,128.7	282.15	5.000	
10,900.0	5,355.0	11,185.7	5,341.0	142.7	145.0	89.43	-4,751.7	3,249.5	1,411.5	1,124.4	287.07	4.917	
11,000.0	5,355.0	11,285.7	5,341.0	145.2	147.5	89.43	-4,823.1	3,319.5	1,412.2	1,120.2	292.00	4.836	
11,100.0	5,355.0	11,385.7	5,341.0	147.6	149.9	89.43	-4,894.5	3,389.5	1,412.8	1,115.9	296.93	4.758	
11,200.0	5,355.0	11,485.7	5,341.0	150.1	152.4	89.43	-4,965.9	3,459.5	1,413.5	1,111.6	301.85	4.683	
11,300.0	5,355.0	11,585.7	5,341.0	152.6	154.8	89.43	-5,037.3	3,529.5	1,414.1	1,107.3	306.78	4.609	

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

Anticollision Report

Company: DJR Operating
 Project: Venado Canyon Unit
 Reference Site: A11 2206 Pad
 Site Error: 0.0 usft
 Reference Well: # 207H
 Well Error: 0.0 usft
 Reference Wellbore: Original drilling
 Reference Design: APD

Local Co-ordinate Reference: Well # 207H
 TVD Reference: RKB @ 6977.0usft (AD 920)
 MD Reference: RKB @ 6977.0usft (AD 920)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM
 Offset TVD Reference: Offset Datum

Offset Design A11 2206 Pad - # 206H - Original drilling - APD													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	
11,400.0	5,355.0	11,685.7	5,341.0	155.0	157.3	89.43	-5,108.7	3,599.5	1,414.8	1,103.0	311.72	4.539	
11,500.0	5,355.0	11,785.7	5,341.0	157.5	159.7	89.43	-5,180.1	3,669.5	1,415.4	1,098.8	316.65	4.470	
11,600.0	5,355.0	11,885.7	5,341.0	160.0	162.2	89.43	-5,251.6	3,739.5	1,416.1	1,094.5	321.58	4.403	
11,700.0	5,355.0	11,985.7	5,341.0	162.4	164.6	89.43	-5,323.0	3,809.5	1,416.7	1,090.2	326.52	4.339	
11,800.0	5,355.0	12,085.7	5,341.0	164.9	167.1	89.43	-5,394.4	3,879.5	1,417.4	1,085.9	331.45	4.276	
11,900.0	5,355.0	12,185.7	5,341.0	167.4	169.6	89.43	-5,465.8	3,949.5	1,418.0	1,081.6	336.39	4.215	
12,000.0	5,355.0	12,285.7	5,341.0	169.8	172.0	89.43	-5,537.2	4,019.5	1,418.7	1,077.3	341.33	4.156	
12,100.0	5,355.0	12,385.7	5,341.0	172.3	174.5	89.43	-5,608.6	4,089.5	1,419.3	1,073.0	346.27	4.099	
12,200.0	5,355.0	12,485.7	5,341.0	174.8	176.9	89.44	-5,680.0	4,159.5	1,419.9	1,068.7	351.21	4.043	
12,300.0	5,355.0	12,585.7	5,341.0	177.3	179.4	89.44	-5,751.4	4,229.5	1,420.6	1,064.5	356.15	3.989	
12,400.0	5,355.0	12,685.7	5,341.0	179.7	181.9	89.44	-5,822.9	4,299.5	1,421.2	1,060.2	361.09	3.936	
12,500.0	5,355.0	12,785.7	5,341.0	182.2	184.3	89.44	-5,894.3	4,369.5	1,421.9	1,055.9	366.03	3.885	
12,600.0	5,355.0	12,885.7	5,341.0	184.7	186.8	89.44	-5,965.7	4,439.5	1,422.5	1,051.6	370.97	3.835	
12,700.0	5,355.0	12,985.7	5,341.0	187.1	189.3	89.44	-6,037.1	4,509.5	1,423.2	1,047.3	375.92	3.786	
12,800.0	5,355.0	13,085.7	5,341.0	189.6	191.7	89.44	-6,108.5	4,579.5	1,423.8	1,043.0	380.86	3.738	
12,900.0	5,355.0	13,185.7	5,341.0	192.1	194.2	89.44	-6,179.9	4,649.4	1,424.5	1,038.7	385.81	3.692	
13,000.0	5,355.0	13,285.7	5,341.0	194.6	196.7	89.44	-6,251.3	4,719.4	1,425.1	1,034.4	390.75	3.647	
13,100.0	5,355.0	13,385.7	5,341.0	197.0	199.1	89.44	-6,322.7	4,789.4	1,425.8	1,030.1	395.70	3.603	
13,200.0	5,355.0	13,485.7	5,341.0	199.5	201.6	89.44	-6,394.2	4,859.4	1,426.4	1,025.8	400.65	3.560	
13,300.0	5,355.0	13,585.7	5,341.0	202.0	204.1	89.44	-6,465.6	4,929.4	1,427.1	1,021.5	405.60	3.518	
13,327.2	5,355.0	13,612.9	5,341.0	202.7	204.7	89.44	-6,485.0	4,948.5	1,427.3	1,020.3	406.94	3.507	

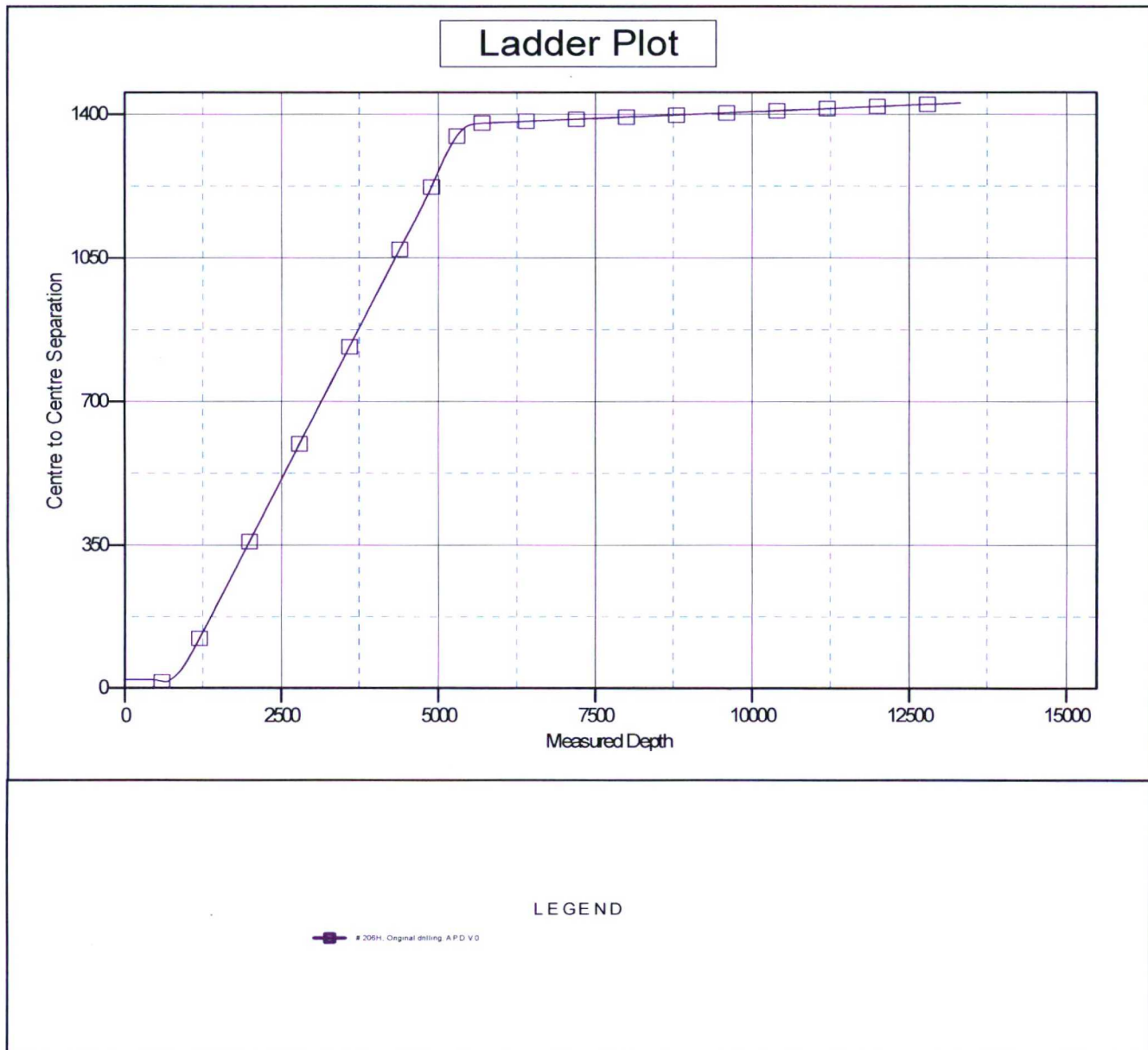
Anticollision Report

Company: DJR Operating
Project: Venado Canyon Unit
Reference Site: A11 2206 Pad
Site Error: 0.0 usft
Reference Well: # 207H
Well Error: 0.0 usft
Reference Wellbore: Original drilling
Reference Design: APD

Local Co-ordinate Reference: Well # 207H
TVD Reference: RKB @ 6977.0usft (AD 920)
MD Reference: RKB @ 6977.0usft (AD 920)
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 RKB @ 6977.0usft (AD 920)
Offset Depths are relative to Offset Datum
Central Meridian is -107.8333333

Coordinates are relative to: # 207H
Coordinate System is US State Plane 1983, New Mexico Western Zone
Grid Convergence at Surface is: 0.24°



Anticollision Report

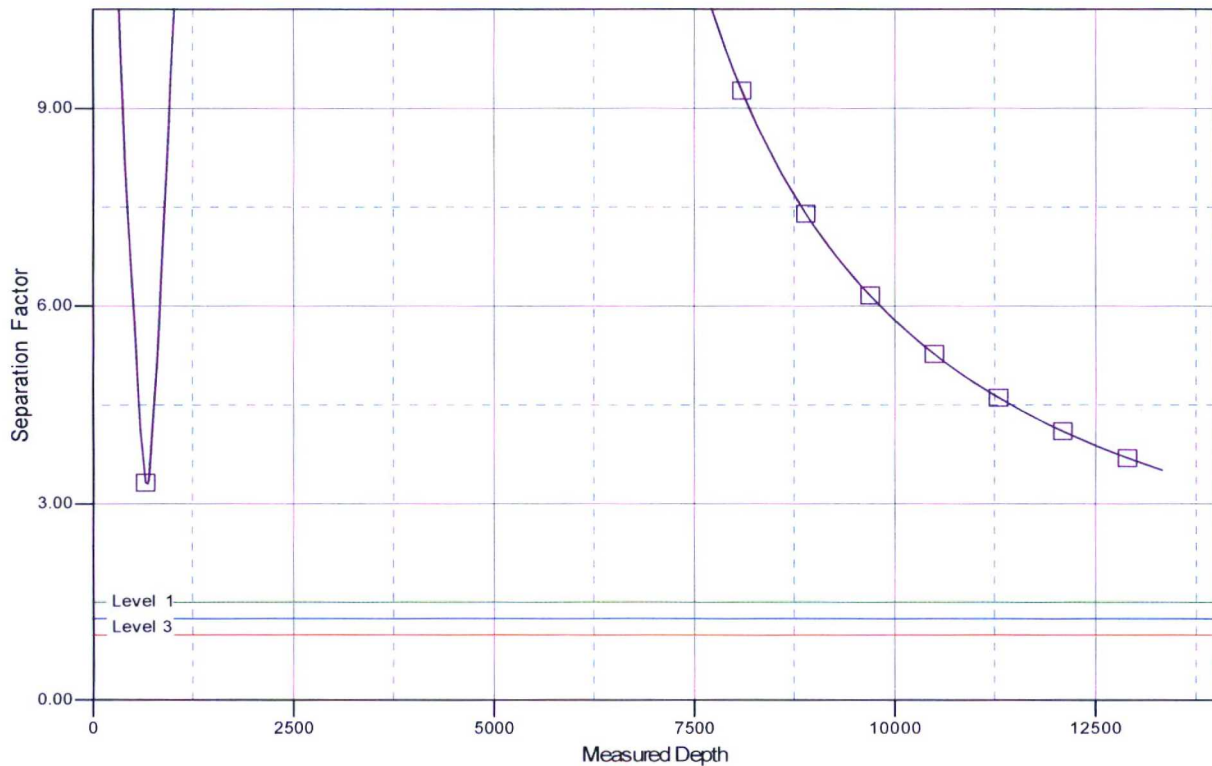
Company: DJR Operating
Project: Venado Canyon Unit
Reference Site: A11 2206 Pad
Site Error: 0.0 usft
Reference Well: # 207H
Well Error: 0.0 usft
Reference Wellbore: Original drilling
Reference Design: APD

Local Co-ordinate Reference: Well # 207H
TVD Reference: RKB @ 6977.0usft (AD 920)
MD Reference: RKB @ 6977.0usft (AD 920)
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 RKB @ 6977.0usft (AD 920)
Offset Depths are relative to Offset Datum
Central Meridian is -107.8333333

Coordinates are relative to: # 207H
Coordinate System is US State Plane 1983, New Mexico Western Zone
Grid Convergence at Surface is: 0.24°

Separation Factor Plot



LEGEND

■ # 206H: Original drilling, APD V0