

Well Name: BETONNIE TSOSIE WASH UNIT	Well Location: T23N / R8W / SEC 35 / NENE / 36.18873 / -107.64483	County or Parish/State: SAN JUAN / NM
Well Number: 501H	Type of Well: OIL WELL	Allottee or Tribe Name: NAVAJO NATION
Lease Number: NMNM76842	Unit or CA Name:	Unit or CA Number: NMNM135219A
US Well Number: 3004538237	Well Status: Drilling Well	Operator: DJR OPERATING LLC

Notice of Intent

Sundry ID: 2669813

Type of Submission: Notice of Intent

Date Sundry Submitted: 05/03/2022

Date proposed operation will begin: 05/03/2022

Type of Action: APD Change

Time Sundry Submitted: 01:39

Procedure Description: DJR Operating, LLC has an approved APD for the subject well which is part of DJRs undivided Betonnie Tsosie Wash Unit. In order to avoid well communication with existing laterals on an offset DJR pad, DJR requests approval to extend the lateral by 2000' resulting in new first and last take points. The first take point will be moved 100' towards the toe to optimize the directional plan. The 7" casing will be set 125' TVD above the top of the pay zone. This change will also alter the 4.5" liner plans. Revised Directional Drilling plans, WBD with cement slurries, Well Location and Acreage Dedication Plat are attached.

NOI Attachments

- Procedure Description**
- 501H_C102_Well_Plat_20220503133912.pdf
 - 501H_Directional_Drilling_Plan_20220503133913.pdf
 - 501H_Drilling_Casing_Plan_20220503133912.pdf

Received by OCD: 5/5/2022 9:39:03 AM

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Well Name: BETONNIE TSOSIE WASH UNIT	Well Location: T23N / R8W / SEC 35 / NENE / 36.18873 / -107.64483	County or Parish/State: SAN JUAN / NM
Well Number: 501H	Type of Well: OIL WELL	Allottee or Tribe Name: NAVAJO NATION
Lease Number: NMNM76842	Unit or CA Name:	Unit or CA Number: NMNM135219A
US Well Number: 3004538237	Well Status: Drilling Well	Operator: DJR OPERATING LLC

Operator

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: SHAW-MARIE FORD	Signed on: MAY 03, 2022 01:39 PM
Name: DJR OPERATING LLC	
Title: Regulatory Specialist	
Street Address: 1 Road 3263	
City: Aztec	State: NM
Phone: (505) 632-3476	
Email address: sford@djrlc.com	

Field

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

BLM Point of Contact

BLM POC Name: KENNETH G RENNICK	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5055647742	BLM POC Email Address: krennick@blm.gov
Disposition: Approved	Disposition Date: 05/05/2022
Signature: Kenneth Rennick	

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

Form C-102
Revised August 1, 2011

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

Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-38237	² Pool Code 98175	³ Pool Name BETONNIE TSOSIE WASH UNIT MANCOS OIL POOL
⁴ Property Code 325179	⁵ Property Name BETONNIE TSOSIE WASH UNIT	⁶ Well Number 501H
⁷ OGRID No. 371838	⁸ Operator Name DJR OPERATING, LLC	⁹ Elevation 6974'

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	35	23N	8W		703'	NORTH	834'	EAST	SAN JUAN

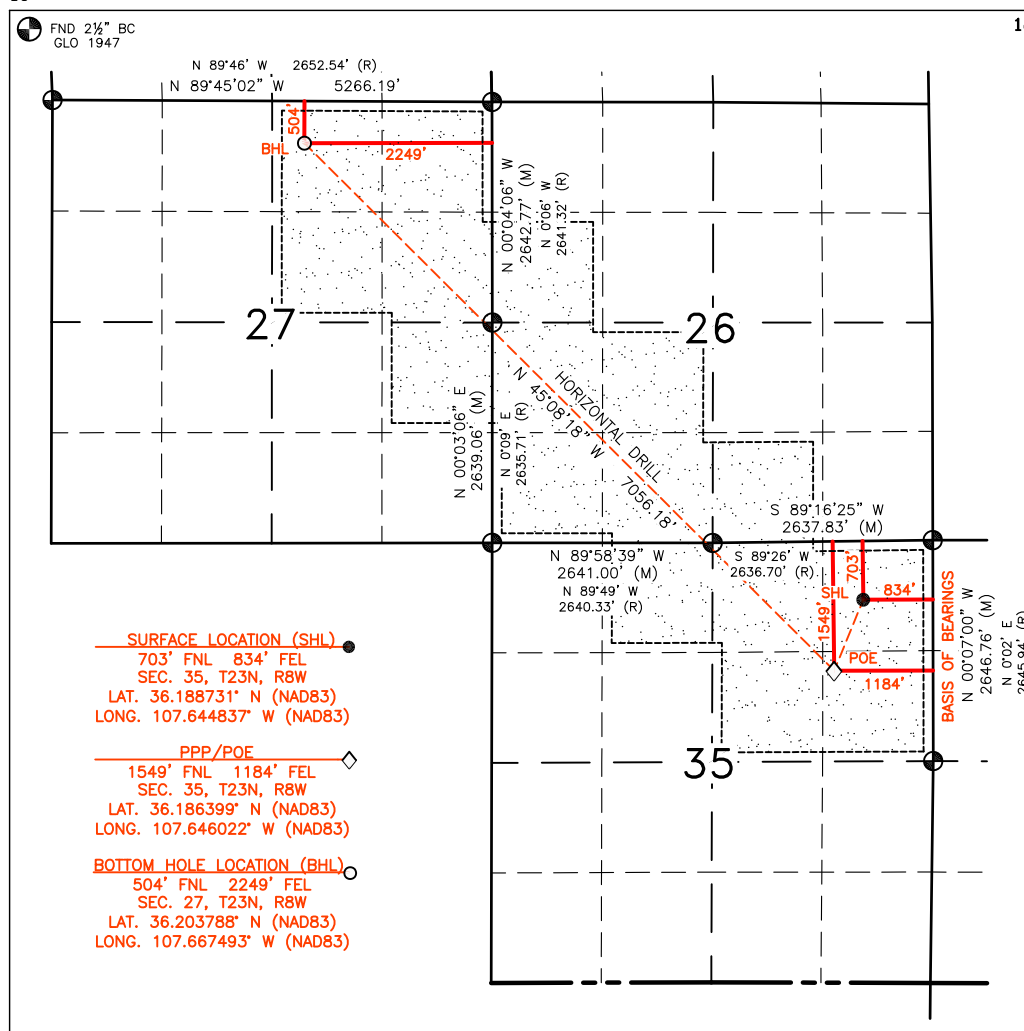
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	27	23N	8W		504'	NORTH	2249'	EAST	SAN JUAN

¹² Dedicated Acres SEC 35: NE/4 & NE/NW (200 AC.); SEC 26: SW/SE, SW/4 & SW/NW (240 AC.); SEC 27: NE/SE & NE/4 (200 AC.) = 640 ACRES	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-13930 R-13930A
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

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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.

Shaw-Marie Ford 05/03/22
Signature Date

Shaw-Marie Ford
Printed Name
sford@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.

MAY 2, 2022

Date of Survey
Signature and Seal of Professional Surveyor:



Certificate Number 11393

Rev 1



DRILLING PLAN

Bettonie Tsosie Wash Unit 501H

San Juan County, New Mexico

Surface Location

834-ft FEL & 703-ft FNL
 Sec 35 T23N R08W
 Graded Elevation 6974' MSL
 RKB Elevation 7000' (26' KB)

SHL Geographical Coordinates (NAD-83)

Latitude 36.1887310° N
 Longitude 107.6448370° W

Kick Off Point for Horizontal Build Curve

4360-ft MD
 4141-ft TVD

Local Coordinates (from SHL)

1190-ft South
 266-ft East

Heel Location (Pay zone entry)

1184-ft FEL & 1549-ft FNL
 Sec 35 T23N R08W

Heel Geographical Coordinates (NAD-83)

Latitude 36.18639894° N
 Longitude 107.64602166° W

Bottom Hole Location (TD)

2249-ft FEL & 504-ft FNL
 Sec 27 T23N R08W

BHL Geographical Coordinates (NAD-83)

Latitude 36.20378839° N
 Longitude 107.6674926° W

Well objectives

This well is planned as a 8960-ft lateral in the Gallup C sand.

Bottom Hole temperature and pressure

The temperature in the Gallup C horizontal objective is 139°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	782	782	Sd	W	8.3	8.4 – 8.8
Kirtland	915	914	Sh	-	8.3	8.4 – 8.8
Fruitland	1194	1188	C	G	8.3	9.0 - 9.5
Pictured Cliffs	1479	1461	Sd	W	8.3	9.0 - 9.5
Lewis	1638	1609	Sh	-		9.0 - 9.5
Chacra	2228	2158	Sd	-	8.3	9.0 - 9.5
Menefee	3026	2900	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	4026	3830	Sd	-	8.3	9.0 - 9.5
Mancos	4194	3986	Sh	-		9.0 - 9.5
Mancos Silt	4489	4263	Slt	O/G	6.6	9.0 - 9.5
Gallup A	5031	4766	Slt	O/G	6.6	9.0 - 9.5
Gallup B	5100	4819	Sd	O/G	6.6	8.8 - 9.0
Gallup C	5260	4925	Sd	O/G	6.6	8.8 - 9.0
Target	5710	5060	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	380	surf	380	surface
7"	8-3/4"	26	K-55	LTC	surf	5573	surf	4919	surface
4-1/2"	6-1/8"	11.6	P-110	BTC	5328	14666	4819	5115	5328

Note: all casing will be new

Rev 1



Casing Design Load Cases

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

Note

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

Casing Design Factors

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

Cement Design

9-5/8" Surface Casing

	<u>Lead</u>
Name	Redi-Mix
Type	I-II
Planned top	Surface
Density (ppg)	14.50
Yield (cf/sx)	1.61
Mix water (gal/sx)	7.41
Volume (sx)	114
Volume (bbls)	33
Volume (cu. ft.)	185
Excess %	50

7" Intermediate Casing

	<u>Lead</u>	<u>Tail</u>
Type	American	American
Planned top	I/II	Poz/G
Density (ppg)	Surface	4194-ft
Yield (cf/sx)	12.30	13.50
Mix water (gal/sx)	2.32	1.51
Volume (sx)	13.22	7.13
Volume (bbls)	467	143
Volume (cu.ft.)	193	39
Excess %	1084	216
	78	0



Rev 1

4-1/2" Production Liner

Type	American
Planned top	Poz/G
Density (ppg)	5328-ft
Yield (cf/sx)	13.3
Mix water (gal/sx)	1.52
Volume (sx)	7.52
Volume (bbls)	808
Volume (cu.ft)	219
Excess %	1228
	40

Wellhead & Pressure Control

The well head will be an 11" 5M multi-bowl system. A 3M BOPE conforming to Onshore Order #2 will be installed on the surface casing. The BOP and accumulator will meet API 16D and 16E respectively.

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

Mud Program

Surface hole will be drilled with a fresh water, native mud system. In intermediate hole, a low weight 7% KCl LSND drilling fluid will be used, with KCl providing chemical stability for the young shales and clays present in the interval. In production hole a LSND system with polymer and lubricant additives is programmed. Sufficient drill water and mud additives will be on hand 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 – 380	8.4 – 8.8	32 – 44	2 – 12	NC
Intermediate	7% KCl Low solids, non-dispersed	380 – 5573	9.0 – 9.5	38 – 45	8 – 14	<20
Production	Low solids, non-dispersed	5573 – 14666	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.

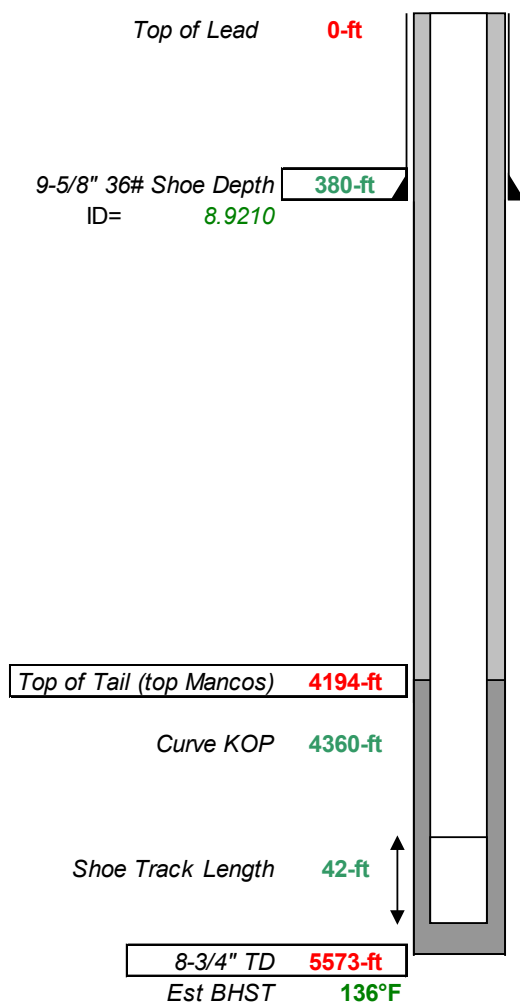
Completion

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.

Rev 1



7" Intermediate Casing & Cementing Bettonie Tsosie Wash Unit 501H



Assumed Hole Size Lead	8.7500	in
Assumed Hole Size Tail	8.7500	in
Casing OD	7.0000	in
Casing ID	6.2760	in

% OH Excess Lead	78%
% OH Excess Tail	0%

Capacity CH Ann	0.0297	bbl/ft
Capacity OH Ann Lead	0.0268	bbl/ft
Capacity OH Ann Tail	0.0268	bbl/ft
Capacity Pipe	0.0383	bbl/ft

7" 26# K-55 LT&C

Pipe OD	7.000	in
Weight	26	lbs/ft
Grade	K-55	
Coupling	LTC	
Coupling OD	7.656	in
ID	6.276	in
Drift	6.151	in
Burst	4980	psi
Collapse	4320	psi
Tensile (body)	415	kips
Tensile (joint)	401	kips
Min Torque	3008	ft-lbs
Opt Torque	4010	ft-lbs
Max Torque	5013	ft-lbs

Lead Slurry - American Cementing		Properties
ASTM Type I/II		Density 12.30 ppg
KCI 3% BWOW		Yield 2.32 cf/sk
GW-86 0.1% BWOB		Water required 13.22 gal/sk
FL-66 0.2% BWOB		Thickening Time 5:02 hr:min
R-3 0.3% BWOB		Time to 50 psi (95°F) 5:26 hr:min
FP-24 0.3% BWOB		12-hr UCA (95°F) 468 psi
POLI 0.25 lb/sx		24-hr UCA (95°F) 829 psi
BA-90 5.0 lb/sx		
Tail Slurry - American Cementing		Properties
G+Pozz 50:50		Density 13.50 ppg
FL-66 0.4% BWOB		Yield 1.51 cf/sk
FP-24 0.3% BWOB		Water required 7.13 gal/sk
A-2 0.5% BWOB		Thickening Time 4:02 hr:min
A-10 3% BWOB		Time to 50 psi (130°F) 3:25 hr:min
BA-90 3 lb/sx		Time to 500 psi (130°F) 7:05 hr:min
POLI 0.25 lb/sx		24-hr UCA (130°F) 2162 psi

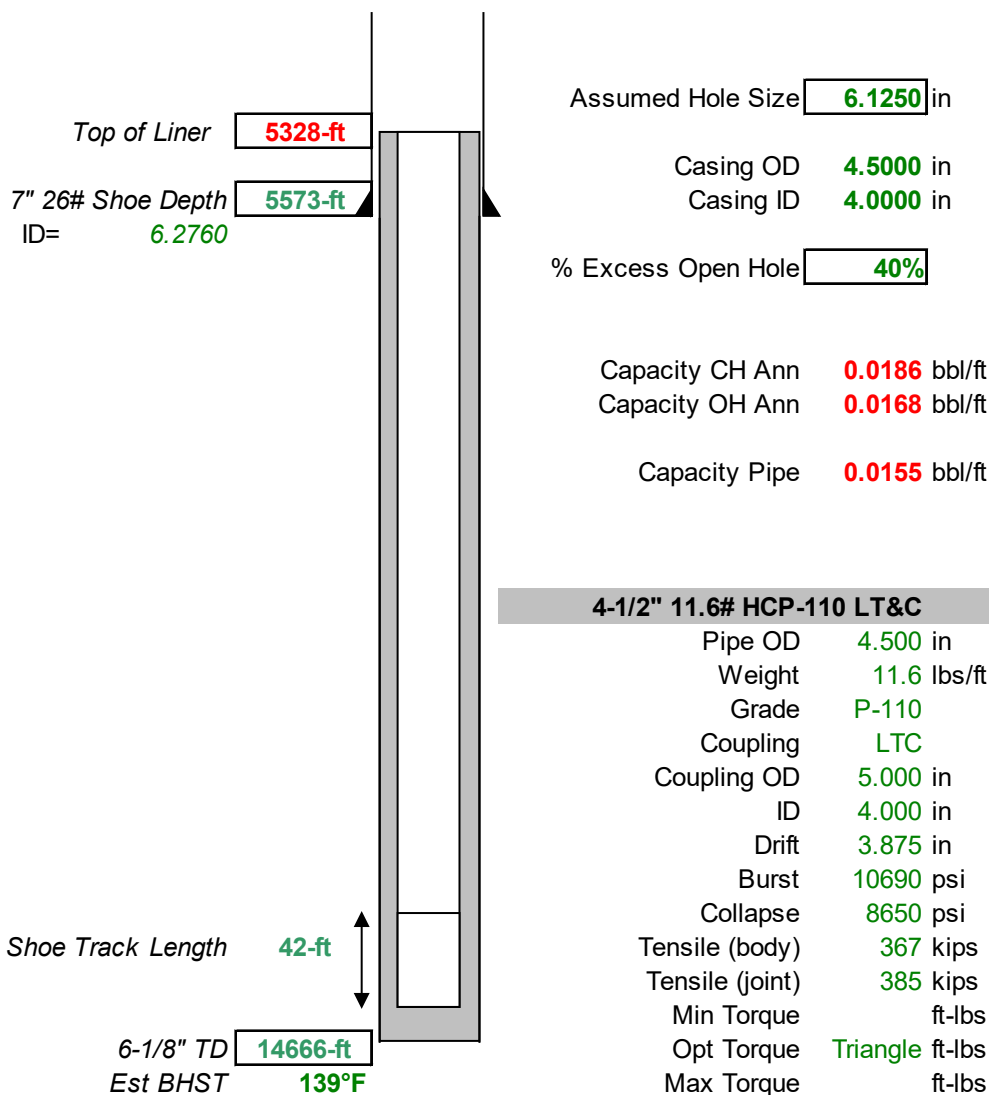
Volumes

Lead Volume	193	bbls	467	sx
Tail Volume	39	bbls	143	sx
Approx Displacement	212	bbls		
Total Volume	443	bbls		

Rev 1



4-1/2" Liner Cementing
Betonne Tsoie Wash Unit 501H



Slurry - American Cementing		Properties	
G+Pozz	50:50	Density	13.3 ppg
GW-86	0.1% BWOB	Yield	1.52 cf/sk
R-3	0.3% BWOB	Total Mix Fluid	7.53 gal/sk
FP-24	0.3% BWOB	Thickening Time	6:39 hr:min
FL-24	0.4% BWOB	Time to 50 psi (130°F)	6:34 hr:min
Gel	4% BWOB	24-hr UCA (130°F)	546 psi
		72-hr UCA (130°F)	2038 psi
Volumes			
Lead Volume	219 bbls	808	sx
Approx Displacement	158 bbls		
Total Volume	377 bbls		



Company: DJR Operating
Project: Bettonnie Tsosie Unit
Site: A35 2308 Pad
Well: # 501H
Wellbore: Original Drilling
Design: Pre-Drill Rev 2

WELL DETAILS: # 501H

GL 6974' & RKB 26' @ 7000ft (H&P 443)		
+N/-S	+E/-W	Longitude
0	0	-107.64483700

PROJECT DETAILS: Bettonnie Tsosie Unit

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

Plan: Pre-Drill Rev 2 (# 501H/Original Drilling)
Created By: Janie Collins Date: 17:19, April 29 2022

DESIGN TARGET DETAILS

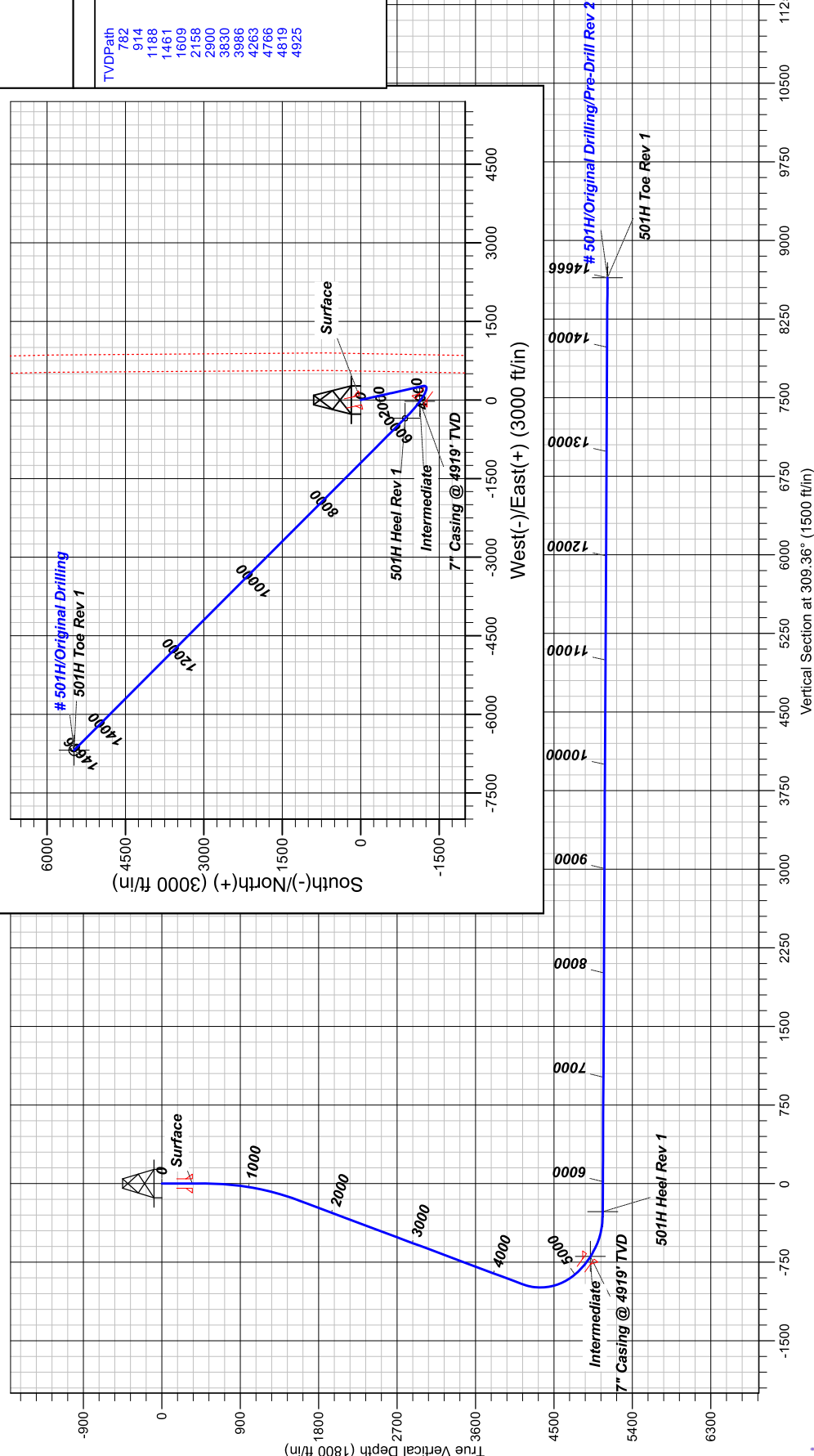
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
7" Casing @ 4919' TVD	4919	-1129	-849	1886919.94	2778687.87	36.1852255407	64493090
501H Heel Rev 1	5060	-350	-849	1887199.74	2778365.45	36.1863999407	64602166
501H Toe Rev 1	5115	5482	-6684	1893518.32	2772018.77	36.203788339107	66749259

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSet
0	0.00	0.00	0	0	0.00	0.00	0.00	0
510	0.00	0.00	510	0	0.00	0.00	0.00	0
1588	21.57	167.42	1583	-196	44	2.00	167.42	-158
4360	21.57	167.42	4141	-1190	266	0.00	0.00	-960
5250	53.96	306.22	4919	-1129	-28	7.99	145.75	-695
5290	53.96	306.22	4943	-1110	-54	0.00	0.00	-662
5664	89.08	314.87	5059	-882	-317	9.65	14.80	-314
5710	89.08	314.87	5080	-849	-350	0.00	0.00	-268
5739	89.65	314.98	5060	-828	-370	2.00	11.52	-239
14666	89.65	314.98	5115	5482	-6684	0.00	0.00	8645

TVD	MD	Name
350	350	Surface
4919	5250	Intermediate

TVDPath	MDPath	Formation
782	782	Ojo Alamo
914	915	Kirtland
1188	1194	Fruitland
1461	1479	Pictured Cliffs
1609	1638	Lewis
2158	2228	Chacra
2900	3026	Menefee
3830	4026	Point Lookout
3986	4194	Mancos
4263	4489	Mancos Silt
4766	5031	Gallup A
4819	5100	Gallup B
4925	5260	Gallup C





DJR Operating

Bettonie Tsosie Unit

A35 2308 Pad

501H - Slot 1

Original Drilling

Plan: Pre-Drill Rev 2

Standard Planning Report

29 April, 2022





Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 501H - Slot 1
Company:	DJR Operating	TVD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Project:	Betonne Tsoie Unit	MD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Site:	A35 2308 Pad	North Reference:	True
Well:	# 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	Pre-Drill Rev 2		

Project	Betonne Tsoie 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	A35 2308 Pad				
Site Position:		Northing:	1,888,089.74 usft	Latitude:	36.18884200
From:	Lat/Long	Easting:	2,778,713.01 usft	Longitude:	-107.64483800
Position Uncertainty:	0 ft	Slot Radius:	13.20 in		

Well	# 501H - Slot 1					
Well Position	+N/-S	0 ft	Northing:	1,888,049.33 usft	Latitude:	36.18873100
	+E/-W	0 ft	Easting:	2,778,713.39 usft	Longitude:	-107.64483700
Position Uncertainty		0 ft	Wellhead Elevation:	ft	Ground Level:	6974 ft
Grid Convergence:		0.11 °				

Wellbore	Original Drilling				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2022	4/21/2022	8.52	62.67	49,082.50000000

Design	Pre-Drill Rev 2				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0	0	0	309.36	

Plan Survey Tool Program	Date	4/29/2022			
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks	
1	0	14,666	Pre-Drill Rev 2 (Original Drilling)	MWD+HDGM	
			OWSG MWD + HDGM		



Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 501H - Slot 1
Company:	DJR Operating	TVD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Project:	Betonnies Tsosie Unit	MD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Site:	A35 2308 Pad	North Reference:	True
Well:	# 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	Pre-Drill Rev 2		

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0	0.00	0.00	0	0	0	0.00	0.00	0.00	0.00	
510	0.00	0.00	510	0	0	0.00	0.00	0.00	0.00	
1588	21.57	167.42	1563	-196	44	2.00	2.00	0.00	167.42	
4360	21.57	167.42	4141	-1190	266	0.00	0.00	0.00	0.00	
5250	53.96	306.22	4919	-1129	-28	7.99	3.64	15.59	145.75	7" Casing @ 4919' TV
5290	53.96	306.22	4943	-1110	-54	0.00	0.00	0.00	0.00	
5664	89.08	314.87	5059	-882	-317	9.65	9.41	2.32	14.80	
5710	89.08	314.87	5060	-849	-350	0.00	0.00	0.00	0.00	501H Heel Rev 1
5739	89.65	314.98	5060	-828	-370	2.00	1.96	0.40	11.52	
14,666	89.65	314.98	5115	5482	-6684	0.00	0.00	0.00	0.00	501H Toe Rev 1



Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 501H - Slot 1
Company:	DJR Operating	TVD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Project:	Betonne Tsoie Unit	MD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Site:	A35 2308 Pad	North Reference:	True
Well:	# 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	Pre-Drill Rev 2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0	0.00	0.00	0	0	0	0	0.00	0.00	0.00
100	0.00	0.00	100	0	0	0	0.00	0.00	0.00
200	0.00	0.00	200	0	0	0	0.00	0.00	0.00
300	0.00	0.00	300	0	0	0	0.00	0.00	0.00
400	0.00	0.00	400	0	0	0	0.00	0.00	0.00
500	0.00	0.00	500	0	0	0	0.00	0.00	0.00
510	0.00	0.00	510	0	0	0	0.00	0.00	0.00
600	1.80	167.42	600	-1	0	-1	2.00	2.00	0.00
700	3.80	167.42	700	-6	1	-5	2.00	2.00	0.00
800	5.80	167.42	800	-14	3	-12	2.00	2.00	0.00
900	7.80	167.42	899	-26	6	-21	2.00	2.00	0.00
1000	9.80	167.42	998	-41	9	-33	2.00	2.00	0.00
1100	11.81	167.42	1096	-59	13	-48	2.00	2.00	0.00
1200	13.81	167.42	1193	-81	18	-65	2.00	2.00	0.00
1300	15.81	167.42	1290	-106	24	-85	2.00	2.00	0.00
1400	17.81	167.42	1386	-134	30	-108	2.00	2.00	0.00
1500	19.81	167.42	1480	-165	37	-133	2.00	2.00	0.00
1588	21.57	167.42	1563	-196	44	-158	2.00	2.00	0.00
1600	21.57	167.42	1574	-200	45	-161	0.00	0.00	0.00
1700	21.57	167.42	1667	-236	53	-190	0.00	0.00	0.00
1800	21.57	167.42	1760	-272	61	-219	0.00	0.00	0.00
1900	21.57	167.42	1853	-308	69	-248	0.00	0.00	0.00
2000	21.57	167.42	1946	-344	77	-277	0.00	0.00	0.00
2100	21.57	167.42	2039	-379	85	-306	0.00	0.00	0.00
2200	21.57	167.42	2132	-415	93	-335	0.00	0.00	0.00
2300	21.57	167.42	2225	-451	101	-364	0.00	0.00	0.00
2400	21.57	167.42	2318	-487	109	-393	0.00	0.00	0.00
2500	21.57	167.42	2411	-523	117	-422	0.00	0.00	0.00
2600	21.57	167.42	2504	-559	125	-451	0.00	0.00	0.00
2700	21.57	167.42	2597	-595	133	-480	0.00	0.00	0.00
2800	21.57	167.42	2690	-631	141	-509	0.00	0.00	0.00
2900	21.57	167.42	2783	-666	149	-538	0.00	0.00	0.00
3000	21.57	167.42	2876	-702	157	-567	0.00	0.00	0.00
3100	21.57	167.42	2969	-738	165	-596	0.00	0.00	0.00
3200	21.57	167.42	3062	-774	173	-624	0.00	0.00	0.00
3300	21.57	167.42	3155	-810	181	-653	0.00	0.00	0.00
3400	21.57	167.42	3248	-846	189	-682	0.00	0.00	0.00
3500	21.57	167.42	3341	-882	197	-711	0.00	0.00	0.00
3600	21.57	167.42	3434	-918	205	-740	0.00	0.00	0.00
3700	21.57	167.42	3527	-954	213	-769	0.00	0.00	0.00
3800	21.57	167.42	3620	-989	221	-798	0.00	0.00	0.00
3900	21.57	167.42	3713	-1025	229	-827	0.00	0.00	0.00
4000	21.57	167.42	3806	-1061	237	-856	0.00	0.00	0.00
4100	21.57	167.42	3899	-1097	245	-885	0.00	0.00	0.00
4200	21.57	167.42	3992	-1133	253	-914	0.00	0.00	0.00
4300	21.57	167.42	4085	-1169	261	-943	0.00	0.00	0.00
4360	21.57	167.42	4141	-1190	266	-960	0.00	0.00	0.00
4400	19.01	172.95	4178	-1204	268	-971	7.99	-6.40	13.82
4500	13.77	194.72	4274	-1232	267	-988	7.99	-5.24	21.77
4600	11.99	230.29	4372	-1250	256	-991	7.99	-1.78	35.56
4700	14.96	262.73	4469	-1258	235	-980	7.99	2.97	32.44
4800	20.72	281.09	4564	-1256	205	-955	7.99	5.77	18.36
4900	27.58	291.20	4656	-1245	166	-918	7.99	6.86	10.11
5000	34.90	297.43	4741	-1223	119	-868	7.99	7.32	6.23



Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 501H - Slot 1
Company:	DJR Operating	TVD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Project:	Betonnies Tsosie Unit	MD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Site:	A35 2308 Pad	North Reference:	True
Well:	# 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	Pre-Drill Rev 2		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5100	42.44	301.70	4819	-1192	65	-806	7.99	7.53	4.27	
5200	50.09	304.89	4888	-1152	4	-734	7.99	7.65	3.19	
5250	53.96	306.22	4919	-1129	-28	-695	7.99	7.71	2.66	
5290	53.96	306.22	4943	-1110	-54	-662	0.00	0.00	0.00	
5300	54.88	306.52	4948	-1105	-60	-654	9.65	9.33	3.01	
5400	64.24	309.21	4999	-1053	-128	-568	9.65	9.37	2.69	
5500	73.65	311.51	5035	-992	-199	-475	9.65	9.41	2.30	
5600	83.08	313.60	5055	-926	-271	-378	9.65	9.43	2.08	
5664	89.08	314.87	5059	-882	-317	-314	9.65	9.44	2.00	
5700	89.08	314.87	5060	-856	-342	-278	0.00	0.00	0.00	
5710	89.08	314.87	5060	-849	-350	-268	0.00	0.00	0.00	
5739	89.65	314.98	5060	-828	-370	-239	2.00	1.96	0.40	
5800	89.65	314.98	5061	-785	-413	-179	0.00	0.00	0.00	
5900	89.65	314.98	5061	-715	-484	-79	0.00	0.00	0.00	
6000	89.65	314.98	5062	-644	-555	20	0.00	0.00	0.00	
6100	89.65	314.98	5063	-573	-625	120	0.00	0.00	0.00	
6200	89.65	314.98	5063	-503	-696	220	0.00	0.00	0.00	
6300	89.65	314.98	5064	-432	-767	319	0.00	0.00	0.00	
6400	89.65	314.98	5064	-361	-838	419	0.00	0.00	0.00	
6500	89.65	314.98	5065	-291	-908	518	0.00	0.00	0.00	
6600	89.65	314.98	5066	-220	-979	618	0.00	0.00	0.00	
6700	89.65	314.98	5066	-149	-1050	717	0.00	0.00	0.00	
6800	89.65	314.98	5067	-78	-1120	817	0.00	0.00	0.00	
6900	89.65	314.98	5067	-8	-1191	916	0.00	0.00	0.00	
7000	89.65	314.98	5068	63	-1262	1016	0.00	0.00	0.00	
7100	89.65	314.98	5069	134	-1333	1115	0.00	0.00	0.00	
7200	89.65	314.98	5069	204	-1403	1215	0.00	0.00	0.00	
7300	89.65	314.98	5070	275	-1474	1314	0.00	0.00	0.00	
7400	89.65	314.98	5070	346	-1545	1414	0.00	0.00	0.00	
7500	89.65	314.98	5071	416	-1616	1513	0.00	0.00	0.00	
7600	89.65	314.98	5072	487	-1686	1613	0.00	0.00	0.00	
7700	89.65	314.98	5072	558	-1757	1712	0.00	0.00	0.00	
7800	89.65	314.98	5073	628	-1828	1812	0.00	0.00	0.00	
7900	89.65	314.98	5074	699	-1899	1911	0.00	0.00	0.00	
8000	89.65	314.98	5074	770	-1969	2011	0.00	0.00	0.00	
8100	89.65	314.98	5075	840	-2040	2110	0.00	0.00	0.00	
8200	89.65	314.98	5075	911	-2111	2210	0.00	0.00	0.00	
8300	89.65	314.98	5076	982	-2181	2309	0.00	0.00	0.00	
8400	89.65	314.98	5077	1053	-2252	2409	0.00	0.00	0.00	
8500	89.65	314.98	5077	1123	-2323	2508	0.00	0.00	0.00	
8600	89.65	314.98	5078	1194	-2394	2608	0.00	0.00	0.00	
8700	89.65	314.98	5078	1265	-2464	2707	0.00	0.00	0.00	
8800	89.65	314.98	5079	1335	-2535	2807	0.00	0.00	0.00	
8900	89.65	314.98	5080	1406	-2606	2906	0.00	0.00	0.00	
9000	89.65	314.98	5080	1477	-2677	3006	0.00	0.00	0.00	
9100	89.65	314.98	5081	1547	-2747	3105	0.00	0.00	0.00	
9200	89.65	314.98	5082	1618	-2818	3205	0.00	0.00	0.00	
9300	89.65	314.98	5082	1689	-2889	3305	0.00	0.00	0.00	
9400	89.65	314.98	5083	1759	-2959	3404	0.00	0.00	0.00	
9500	89.65	314.98	5083	1830	-3030	3504	0.00	0.00	0.00	
9600	89.65	314.98	5084	1901	-3101	3603	0.00	0.00	0.00	
9700	89.65	314.98	5085	1972	-3172	3703	0.00	0.00	0.00	
9800	89.65	314.98	5085	2042	-3242	3802	0.00	0.00	0.00	
9900	89.65	314.98	5086	2113	-3313	3902	0.00	0.00	0.00	



Lonestar Consulting, LLC

Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 501H - Slot 1
Company:	DJR Operating	TVD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Project:	Betonne Tsose Unit	MD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Site:	A35 2308 Pad	North Reference:	True
Well:	# 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	Pre-Drill Rev 2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,000	89.65	314.98	5086	2184	-3384	4001	0.00	0.00	0.00
10,100	89.65	314.98	5087	2254	-3455	4101	0.00	0.00	0.00
10,200	89.65	314.98	5088	2325	-3525	4200	0.00	0.00	0.00
10,300	89.65	314.98	5088	2396	-3596	4300	0.00	0.00	0.00
10,400	89.65	314.98	5089	2466	-3667	4399	0.00	0.00	0.00
10,500	89.65	314.98	5089	2537	-3737	4499	0.00	0.00	0.00
10,600	89.65	314.98	5090	2608	-3808	4598	0.00	0.00	0.00
10,700	89.65	314.98	5091	2678	-3879	4698	0.00	0.00	0.00
10,800	89.65	314.98	5091	2749	-3950	4797	0.00	0.00	0.00
10,900	89.65	314.98	5092	2820	-4020	4897	0.00	0.00	0.00
11,000	89.65	314.98	5093	2891	-4091	4996	0.00	0.00	0.00
11,100	89.65	314.98	5093	2961	-4162	5096	0.00	0.00	0.00
11,200	89.65	314.98	5094	3032	-4233	5195	0.00	0.00	0.00
11,300	89.65	314.98	5094	3103	-4303	5295	0.00	0.00	0.00
11,400	89.65	314.98	5095	3173	-4374	5394	0.00	0.00	0.00
11,500	89.65	314.98	5096	3244	-4445	5494	0.00	0.00	0.00
11,600	89.65	314.98	5096	3315	-4515	5593	0.00	0.00	0.00
11,700	89.65	314.98	5097	3385	-4586	5693	0.00	0.00	0.00
11,800	89.65	314.98	5097	3456	-4657	5792	0.00	0.00	0.00
11,900	89.65	314.98	5098	3527	-4728	5892	0.00	0.00	0.00
12,000	89.65	314.98	5099	3597	-4798	5991	0.00	0.00	0.00
12,100	89.65	314.98	5099	3668	-4869	6091	0.00	0.00	0.00
12,200	89.65	314.98	5100	3739	-4940	6190	0.00	0.00	0.00
12,300	89.65	314.98	5101	3809	-5011	6290	0.00	0.00	0.00
12,400	89.65	314.98	5101	3880	-5081	6390	0.00	0.00	0.00
12,500	89.65	314.98	5102	3951	-5152	6489	0.00	0.00	0.00
12,600	89.65	314.98	5102	4022	-5223	6589	0.00	0.00	0.00
12,700	89.65	314.98	5103	4092	-5293	6688	0.00	0.00	0.00
12,800	89.65	314.98	5104	4163	-5364	6788	0.00	0.00	0.00
12,900	89.65	314.98	5104	4234	-5435	6887	0.00	0.00	0.00
13,000	89.65	314.98	5105	4304	-5506	6987	0.00	0.00	0.00
13,100	89.65	314.98	5105	4375	-5576	7086	0.00	0.00	0.00
13,200	89.65	314.98	5106	4446	-5647	7186	0.00	0.00	0.00
13,300	89.65	314.98	5107	4516	-5718	7285	0.00	0.00	0.00
13,400	89.65	314.98	5107	4587	-5789	7385	0.00	0.00	0.00
13,500	89.65	314.98	5108	4658	-5859	7484	0.00	0.00	0.00
13,600	89.65	314.98	5108	4728	-5930	7584	0.00	0.00	0.00
13,700	89.65	314.98	5109	4799	-6001	7683	0.00	0.00	0.00
13,800	89.65	314.98	5110	4870	-6071	7783	0.00	0.00	0.00
13,900	89.65	314.98	5110	4941	-6142	7882	0.00	0.00	0.00
14,000	89.65	314.98	5111	5011	-6213	7982	0.00	0.00	0.00
14,100	89.65	314.98	5112	5082	-6284	8081	0.00	0.00	0.00
14,200	89.65	314.98	5112	5153	-6354	8181	0.00	0.00	0.00
14,300	89.65	314.98	5113	5223	-6425	8280	0.00	0.00	0.00
14,400	89.65	314.98	5113	5294	-6496	8380	0.00	0.00	0.00
14,500	89.65	314.98	5114	5365	-6567	8479	0.00	0.00	0.00
14,600	89.65	314.98	5115	5435	-6637	8579	0.00	0.00	0.00
14,666	89.65	314.98	5115	5482	-6684	8645	0.00	0.00	0.00



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 501H - Slot 1
Company:	DJR Operating	TVD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Project:	Betonne Tsoosie Unit	MD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Site:	A35 2308 Pad	North Reference:	True
Well:	# 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	Pre-Drill Rev 2		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
7" Casing @ 4919' TVD	0.00	0.00	4919	-1129	-28	1,886,919.94	2,778,687.87	36.18562859	-107.64493090
- plan hits target center									
- Point									
501H Heel Rev 1	0.00	0.00	5060	-849	-350	1,887,199.74	2,778,365.45	36.18639894	-107.64602166
- plan hits target center									
- Circle (radius 50)									
501H Toe Rev 1	0.00	0.00	5115	5482	-6684	1,893,518.32	2,772,018.77	36.20378839	-107.66749259
- plan hits target center									
- Circle (radius 100)									

Casing Points					
Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter	
(ft)	(ft)		(in)	(in)	
350	350	Surface	9.62	12.25	
5250	4919	Intermediate	7.00	8.75	

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
782	782	Ojo Alamo		0.00	0.00
915	914	Kirtland		0.00	0.00
1194	1188	Fruitland		0.00	0.00
1479	1461	Pictured Cliffs		0.00	0.00
1638	1609	Lewis		0.00	0.00
2228	2158	Chacra		0.00	0.00
3026	2900	Menefee		0.00	0.00
4026	3830	Point Lookout		0.00	0.00
4194	3986	Mancos		0.00	0.00
4489	4263	Mancos Silt		0.00	0.00
5031	4766	Gallup A		0.00	0.00
5100	4819	Gallup B		0.00	0.00
5260	4925	Gallup C		0.00	0.00



DJR Operating

Betonnies Tsosie Unit

A35 2308 Pad

501H

Original Drilling

Pre-Drill Rev 2

Anticollision Report

29 April, 2022





Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 501H - Slot 1
Project:	Betonnies Tsois Unit	TVD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Reference Site:	A35 2308 Pad	MD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Site Error:	0 ft	North Reference:	True
Reference Well:	# 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	Pre-Drill Rev 2	Offset TVD Reference:	Offset Datum

Reference	Pre-Drill Rev 2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 2500ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date 4/29/2022			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0	14,666	Pre-Drill Rev 2 (Original Drilling)	MWD+HDGM	OWSG MWD + HDGM

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
A35 2308 Pad						
# 213H - Original Drilling - Original Drilling	0	0	40			
# 213H - Original Drilling - Original Drilling	500	500	41	38	15.443	ES
# 213H - Original Drilling - Original Drilling	10,300	9152	2499	2265	10.672	SF
# 214H - Original Drilling - Pre-Drill Rev 3	500	500	20	17	5.998	CC, ES
# 214H - Original Drilling - Pre-Drill Rev 3	14,666	14,309	1236	748	2.534	SF

Offset Design:	A35 2308 Pad - # 213H - Original Drilling - Original Drilling											Offset Site Error:	0 ft
Survey Program:	450-MWD+HDGM, 4562-MWD+HDGM, 5361-MWD+HDGM											Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre	Distance	Rule Assigned:	Offset	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0	0	0	0	0	0	-0.42	40	0	40				
100	100	100	100	0	0	-0.44	40	0	40	0.43	93.055		
200	200	200	200	1	0	-0.49	40	0	40	0.96	42.029		
300	300	300	300	1	1	-0.59	40	0	40	1.49	27.150		
400	400	400	400	1	1	-0.72	40	-1	40	2.02	20.057		
404	404	404	404	1	1	-0.73	40	-1	40	2.04	19.826		
500	500	500	500	2	1	-0.45	41	0	41	2.63	15.443	ES	
600	600	599	599	2	1	-165.33	42	2	44	3.32	13.117		
700	700	697	697	2	2	-162.70	46	6	52	4.00	13.022		
800	800	794	793	3	2	-160.74	52	11	68	4.69	14.409		
900	899	889	888	3	2	-158.92	62	18	89	5.37	16.631		
1000	998	983	980	3	3	-156.84	73	29	117	6.06	19.310		
1100	1096	1072	1068	4	3	-155.14	86	41	151	6.74	22.343		
1200	1193	1158	1151	4	3	-154.34	101	54	190	7.40	25.720		
1300	1290	1244	1234	5	4	-154.03	119	67	235	8.07	29.156		
1400	1386	1328	1315	5	4	-153.84	137	80	284	8.74	32.537		
1500	1480	1404	1388	6	5	-153.63	154	93	337	9.37	36.007		
1600	1574	1476	1456	6	5	-153.31	173	107	396	9.98	39.642		
1700	1667	1550	1526	7	5	-153.37	192	123	456	10.61	43.015		
1800	1760	1633	1604	7	6	-153.40	215	141	517	11.35	45.577		
1900	1853	1708	1674	8	6	-153.48	235	157	578	12.01	48.129		
2000	1946	1781	1743	9	7	-153.53	256	172	640	12.67	50.496		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 501H - Slot 1
Project:	Betonnies Tsois Unit	TVD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Reference Site:	A35 2308 Pad	MD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Site Error:	0 ft	North Reference:	True
Reference Well:	# 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	Pre-Drill Rev 2	Offset TVD Reference:	Offset Datum

Offset Design: A35 2308 Pad - # 213H - Original Drilling - Original Drilling												Offset Site Error:	0 ft
Survey Program: 450-MWD+HDGM, 4562-MWD+HDGM, 5361-MWD+HDGM												Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
2100	2039	1858	1815	9	7	-153.57	277	189	702	688	13.37	52.511	
2200	2132	1940	1891	10	8	-153.69	301	206	764	750	14.11	54.115	
2300	2225	2019	1965	10	8	-153.84	323	221	825	811	14.84	55.615	
2400	2318	2086	2028	11	8	-153.89	342	235	888	872	15.45	57.438	
2500	2411	2194	2130	12	9	-153.96	373	258	949	933	16.48	57.618	
2600	2504	2263	2194	12	10	-153.98	391	272	1010	993	17.12	59.017	
2700	2597	2324	2251	13	10	-153.88	408	287	1072	1054	17.69	60.587	
2800	2690	2379	2302	14	10	-153.74	424	301	1135	1117	18.21	62.322	
2900	2783	2450	2367	14	11	-153.56	445	319	1199	1180	18.91	63.431	
3000	2876	2515	2426	15	11	-153.41	465	336	1264	1244	19.54	64.697	
3100	2969	2569	2475	15	12	-153.29	482	351	1329	1309	20.06	66.282	
3200	3062	2636	2536	16	12	-153.13	504	369	1396	1375	20.72	67.368	
3300	3155	2687	2582	17	12	-152.99	521	383	1463	1442	21.22	68.945	
3400	3248	2730	2620	17	13	-152.88	536	396	1532	1510	21.63	70.815	
3500	3341	2816	2697	18	13	-152.67	567	421	1602	1579	22.53	71.094	
3600	3434	2930	2800	19	14	-152.59	607	449	1669	1645	23.70	70.412	
3700	3527	3118	2974	19	15	-152.75	665	490	1732	1707	25.55	67.801	
3800	3620	3285	3132	20	16	-153.14	708	517	1791	1764	27.06	66.197	
3900	3713	3384	3228	21	17	-153.37	733	533	1849	1821	27.96	66.119	
4000	3806	3482	3321	21	17	-153.57	755	548	1906	1877	28.85	66.056	
4100	3899	3587	3422	22	18	-153.67	778	567	1962	1932	29.81	65.818	
4200	3992	3660	3492	22	18	-153.73	794	581	2017	1987	30.51	66.131	
4300	4085	3709	3539	23	19	-153.74	805	590	2074	2043	31.00	66.901	
4400	4178	3766	3593	24	19	-160.80	818	603	2131	2100	31.57	67.510	
4500	4274	3826	3649	24	19	174.35	832	617	2185	2153	32.09	68.077	
4600	4372	3993	3807	25	20	137.65	870	656	2230	2197	33.49	66.587	
4700	4469	4042	3854	25	20	104.04	881	667	2267	2233	33.79	67.086	
4800	4564	4088	3897	25	21	85.13	891	679	2298	2264	34.02	67.562	
4900	4656	4119	3926	25	21	74.80	899	687	2324	2290	34.10	68.141	
5000	4741	4161	3964	25	21	69.02	910	698	2343	2308	34.31	68.277	
5100	4819	4228	4027	25	22	66.17	928	716	2355	2320	34.85	67.582	
5200	4888	4304	4097	25	22	65.10	948	734	2360	2325	35.61	66.273	
5279	4937	4341	4132	25	22	65.02	959	742	2361	2325	36.16	65.298	
5300	4948	4350	4141	25	22	65.03	961	744	2360	2324	36.30	65.014	
5392	4995	4505	4288	26	23	67.39	1003	773	2355	2317	38.08	61.847	
5400	4999	4509	4291	26	23	67.43	1003	774	2354	2316	38.15	61.712	
5494	5033	4538	4319	26	23	68.28	1011	779	2342	2303	39.13	59.853	
5500	5035	4540	4320	26	23	68.35	1011	779	2341	2302	39.19	59.742	
5596	5054	4562	4342	27	24	69.92	1017	783	2324	2283	40.41	57.506	
5600	5055	4562	4342	27	24	69.98	1017	783	2323	2282	40.46	57.411	
5695	5062	4562	4342	28	24	70.99	1017	783	2302	2261	41.74	55.163	
5700	5060	4562	4342	28	24	71.09	1017	783	2300	2258	41.81	55.014	
5793	5061	4562	4342	29	24	71.19	1017	783	2281	2238	43.23	52.770	
5800	5061	4562	4342	29	24	71.20	1017	783	2280	2236	43.34	52.599	
5890	5061	4562	4342	30	24	71.20	1017	783	2265	2220	44.85	50.491	
5900	5061	4562	4342	31	24	71.20	1017	783	2263	2218	45.02	50.271	
5987	5062	4562	4342	32	24	71.20	1017	783	2252	2206	46.59	48.346	
6000	5062	4562	4342	32	24	71.20	1017	783	2251	2204	46.82	48.077	
6084	5062	4562	4342	34	24	71.20	1017	783	2244	2196	48.41	46.357	
6100	5063	4562	4342	34	24	71.20	1017	783	2243	2195	48.72	46.048	
6181	5063	4584	4362	36	24	71.75	1022	787	2240	2190	50.43	44.424	
6200	5063	4584	4363	36	24	71.77	1023	787	2240	2189	50.81	44.088	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 501H - Slot 1
Project:	Betonnies Tsoie Unit	TVD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Reference Site:	A35 2308 Pad	MD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Site Error:	0 ft	North Reference:	True
Reference Well:	# 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	Pre-Drill Rev 2	Offset TVD Reference:	Offset Datum

Offset Design: A35 2308 Pad - # 213H - Original Drilling - Original Drilling												Offset Site Error:	0 ft
Survey Program: 450-MWD+HDGM, 4562-MWD+HDGM, 5361-MWD+HDGM												Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis	Rule Assigned:										
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning
							+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
6225	5063	4585	4364	36	24	71.80	1023	787	2240	2189	51.31	43.651	
6300	5064	4588	4366	38	24	71.86	1024	788	2241	2188	52.83	42.419	
6400	5064	4592	4370	40	24	71.96	1025	789	2247	2192	54.87	40.942	
6500	5065	4595	4373	42	24	72.05	1025	789	2257	2200	56.91	39.653	
6600	5066	4599	4376	44	24	72.14	1026	790	2271	2212	58.92	38.543	
6700	5066	4602	4380	46	24	72.23	1027	791	2290	2229	60.89	37.603	
6800	5067	4606	4383	49	24	72.33	1028	791	2312	2250	62.80	36.822	
6900	5067	4610	4387	51	24	72.42	1029	792	2339	2275	64.64	36.189	
7000	5068	4613	4390	53	24	72.51	1030	793	2370	2303	66.40	35.693	
7100	5069	4617	4394	55	24	72.61	1031	793	2404	2336	68.07	35.323	
7200	5069	4621	4397	58	24	72.70	1032	794	2442	2373	69.65	35.069	
7300	5070	4624	4401	60	24	72.79	1033	795	2484	2413	71.13	34.920	
8700	5078	7667	5125	95	63	91.08	3044	-709	2500	2344	156.15	16.009	
8731	5079	7682	5125	95	63	91.07	3054	-719	2500	2342	157.35	15.886	
8900	5080	7872	5127	100	68	91.08	3189	-854	2500	2333	166.26	15.035	
9000	5080	7953	5127	102	70	91.08	3245	-911	2499	2328	170.85	14.627	
9100	5081	8072	5128	105	73	91.07	3329	-996	2499	2322	176.30	14.173	
9200	5082	8212	5128	107	76	91.07	3426	-1098	2496	2314	182.21	13.700	
9300	5082	8328	5128	110	79	91.04	3506	-1181	2494	2306	187.60	13.293	
9400	5083	8452	5130	112	82	91.07	3590	-1273	2490	2297	193.18	12.888	
9500	5083	8543	5131	115	85	91.09	3652	-1339	2486	2288	198.10	12.548	
9600	5084	8577	5131	117	85	91.09	3675	-1364	2484	2282	201.80	12.307	
9642	5084	8592	5131	118	86	91.09	3686	-1375	2483	2280	203.33	12.213	
9700	5085	8634	5131	120	87	91.06	3716	-1404	2484	2278	205.91	12.063	
9704	5085	8634	5131	120	87	91.06	3716	-1404	2484	2278	206.03	12.056	
9800	5085	8690	5129	122	88	91.02	3757	-1443	2486	2276	209.93	11.843	
9900	5086	8790	5127	125	91	90.96	3829	-1511	2488	2273	214.96	11.576	
10,000	5086	8913	5124	127	94	90.88	3918	-1596	2491	2270	220.55	11.293	
10,100	5087	8997	5123	130	96	90.82	3978	-1655	2492	2267	225.24	11.065	
10,200	5088	9056	5122	132	97	90.80	4021	-1696	2495	2266	229.28	10.882	
10,300	5088	9152	5123	135	100	90.80	4092	-1760	2499	2265	234.21	10.672 SF	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 501H - Slot 1
Project:	Betonnies Tsois Unit	TVD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Reference Site:	A35 2308 Pad	MD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Site Error:	0 ft	North Reference:	True
Reference Well:	# 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	Pre-Drill Rev 2	Offset TVD Reference:	Offset Datum

Offset Design: A35 2308 Pad - # 214H - Original Drilling - Pre-Drill Rev 3													Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis			Offset Wellbore Centre		Distance			Rule Assigned:		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0	0	0	0	0	0	0.00	20	0	20					
100	100	100	100	0	0	0.00	20	0	20	20	0.53	38.410		
200	200	200	200	1	1	0.00	20	0	20	19	1.25	16.339		
300	300	300	300	1	1	0.00	20	0	20	18	1.96	10.376		
400	400	400	400	1	1	0.00	20	0	20	18	2.68	7.602		
500	500	500	500	2	2	0.00	20	0	20	17	3.40	5.998 CC, ES		
600	600	600	600	2	2	-165.15	20	1	21	17	4.09	5.193		
700	700	700	700	2	2	-157.80	18	5	24	20	4.77	5.104		
800	800	800	800	3	3	-148.71	14	13	30	25	5.46	5.540		
900	899	900	899	3	3	-140.66	9	23	39	33	6.17	6.386		
1000	998	999	997	3	3	-134.51	3	37	52	45	6.91	7.514		
1100	1096	1097	1093	4	4	-130.04	-5	53	68	60	7.68	8.817		
1200	1193	1195	1188	4	4	-126.78	-14	73	87	78	8.48	10.214		
1300	1290	1292	1282	5	5	-124.54	-24	94	108	99	9.32	11.634		
1400	1386	1389	1376	5	5	-123.99	-34	117	132	122	10.19	12.975		
1500	1480	1485	1470	6	6	-124.53	-45	139	158	147	11.10	14.238		
1600	1574	1581	1563	6	6	-125.72	-55	160	186	174	12.04	15.441		
1700	1667	1677	1655	7	7	-127.21	-65	182	215	202	12.98	16.525		
1800	1760	1773	1748	7	7	-128.35	-76	204	243	229	13.94	17.455		
1900	1853	1868	1840	8	8	-129.25	-86	226	272	257	14.91	18.258		
2000	1946	1964	1933	9	8	-129.98	-96	248	301	285	15.88	18.957		
2100	2039	2060	2026	9	8	-130.58	-106	270	330	313	16.87	19.569		
2200	2132	2155	2118	10	9	-131.08	-117	291	359	341	17.85	20.109		
2300	2225	2251	2211	10	9	-131.51	-127	313	388	369	18.85	20.588		
2400	2318	2347	2303	11	10	-131.88	-137	335	417	397	19.84	21.015		
2500	2411	2442	2396	12	10	-132.20	-147	357	446	425	20.84	21.399		
2600	2504	2538	2488	12	11	-132.48	-158	379	475	453	21.85	21.745		
2700	2597	2634	2581	13	11	-132.73	-168	401	504	481	22.85	22.058		
2800	2690	2729	2674	14	12	-132.95	-178	422	533	509	23.86	22.343		
2900	2783	2825	2766	14	12	-133.15	-188	444	562	537	24.87	22.603		
3000	2876	2921	2859	15	13	-133.33	-199	466	591	565	25.89	22.842		
3100	2969	3016	2951	15	13	-133.50	-209	488	620	593	26.90	23.061		
3200	3062	3112	3044	16	14	-133.64	-219	510	649	621	27.92	23.264		
3300	3155	3208	3136	17	14	-133.78	-229	531	678	650	28.93	23.451		
3400	3248	3303	3229	17	15	-133.90	-240	553	708	678	29.95	23.625		
3500	3341	3399	3322	18	15	-134.02	-250	575	737	706	30.97	23.786		
3600	3434	3495	3414	19	16	-134.12	-260	597	766	734	31.99	23.937		
3700	3527	3590	3507	19	16	-134.22	-271	619	795	762	33.01	24.077		
3800	3620	3686	3599	20	17	-134.31	-281	641	824	790	34.03	24.209		
3900	3713	3782	3692	21	17	-134.40	-291	662	853	818	35.05	24.333		
4000	3806	3877	3785	21	18	-134.48	-301	684	882	846	36.08	24.449		
4100	3899	3973	3877	22	18	-134.55	-312	706	911	874	37.10	24.558		
4200	3992	4069	3970	22	19	-134.62	-322	728	940	902	38.13	24.661		
4300	4085	4164	4062	23	19	-134.69	-332	750	969	930	39.15	24.759		
4400	4178	4260	4155	24	20	-140.81	-342	772	998	958	40.17	24.848		
4500	4274	4342	4235	24	20	-163.45	-350	790	1025	984	40.99	25.011		
4600	4372	4413	4304	25	21	160.33	-353	801	1052	1010	41.53	25.320		
4700	4469	4483	4374	25	21	127.48	-351	807	1077	1035	41.93	25.683		
4800	4564	4550	4441	25	21	108.89	-344	809	1101	1059	42.22	26.084		
4900	4656	4628	4517	25	21	98.96	-330	805	1124	1081	42.55	26.415		
5000	4741	4700	4587	25	21	93.10	-313	796	1145	1102	42.86	26.713		
5100	4819	4778	4659	25	21	89.56	-289	781	1164	1121	43.27	26.895		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 501H - Slot 1
Project:	Betonnies Tsois Unit	TVD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Reference Site:	A35 2308 Pad	MD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Site Error:	0 ft	North Reference:	True
Reference Well:	# 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	Pre-Drill Rev 2	Offset TVD Reference:	Offset Datum

Offset Design: A35 2308 Pad - # 214H - Original Drilling - Pre-Drill Rev 3													Offset Site Error:	0 ft	
Survey Program:		0-MWD+HDGM		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Well Error:	0 ft
Measured Depth (ft)	Reference Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
5200	4888	4856	4728	25	22	87.39	-259	760	1181	1137	43.83	26.940			
5300	4948	4938	4796	25	22	87.06	-223	732	1196	1151	44.58	26.821			
5400	4999	5023	4861	26	22	85.88	-180	697	1209	1163	45.59	26.516			
5500	5035	5112	4921	26	22	85.73	-130	654	1219	1172	46.94	25.960			
5600	5055	5203	4975	27	23	86.56	-75	606	1225	1176	48.64	25.184			
5700	5060	5301	5024	28	23	88.35	-12	549	1228	1178	50.69	24.234			
5800	5061	5414	5062	29	24	90.07	65	477	1231	1178	53.21	23.134			
5900	5061	5538	5080	31	26	90.87	153	391	1232	1176	56.28	21.900			
5904	5061	5544	5080	31	26	90.88	157	387	1232	1176	56.42	21.843			
6000	5062	5643	5081	32	27	90.90	227	317	1233	1173	59.44	20.737			
6004	5062	5647	5081	32	27	90.90	230	314	1233	1173	59.59	20.686			
6100	5063	5743	5082	34	29	90.90	298	246	1233	1170	62.81	19.624			
6104	5063	5747	5082	34	29	90.90	301	243	1233	1170	62.97	19.575			
6200	5063	5843	5083	36	31	90.90	369	176	1233	1166	66.41	18.560			
6204	5063	5847	5083	36	31	90.90	372	172	1233	1166	66.58	18.514			
6300	5064	5943	5083	38	32	90.90	439	105	1233	1162	70.22	17.556			
6304	5064	5947	5083	38	32	90.90	443	102	1233	1162	70.39	17.512			
6400	5064	6043	5084	40	34	90.90	510	34	1233	1159	74.19	16.617			
6404	5064	6047	5084	40	34	90.90	513	31	1233	1158	74.37	16.576			
6500	5065	6143	5084	42	36	90.91	581	-36	1233	1155	78.30	15.745			
6504	5065	6147	5085	42	36	90.91	584	-40	1233	1154	78.49	15.707			
6600	5066	6243	5085	44	38	90.91	652	-107	1233	1150	82.53	14.938			
6604	5066	6247	5085	44	39	90.91	655	-110	1233	1150	82.72	14.903			
6700	5066	6343	5086	46	41	90.91	722	-178	1233	1146	86.87	14.193			
6704	5066	6347	5086	46	41	90.91	725	-181	1233	1146	87.06	14.161			
6800	5067	6443	5086	49	43	90.91	793	-249	1233	1142	91.29	13.505			
6804	5067	6447	5086	49	43	90.91	796	-252	1233	1141	91.49	13.476			
6900	5067	6543	5087	51	45	90.91	864	-319	1233	1137	95.79	12.871			
6904	5067	6547	5087	51	45	90.91	867	-322	1233	1137	96.00	12.844			
7000	5068	6643	5088	53	47	90.91	934	-390	1233	1133	100.36	12.286			
7004	5068	6647	5088	53	47	90.91	938	-393	1233	1132	100.56	12.261			
7100	5069	6743	5088	55	50	90.91	1005	-461	1233	1128	104.98	11.745			
7104	5069	6747	5088	56	50	90.91	1008	-464	1233	1128	105.19	11.722			
7200	5069	6843	5089	58	52	90.92	1076	-531	1233	1123	109.65	11.245			
7204	5069	6847	5089	58	52	90.92	1079	-534	1233	1123	109.86	11.224			
7300	5070	6943	5090	60	54	90.92	1147	-602	1233	1119	114.37	10.782			
7304	5070	6947	5090	60	54	90.92	1150	-605	1233	1119	114.58	10.762			
7400	5070	7043	5090	63	57	90.92	1217	-673	1233	1114	119.12	10.352			
7404	5071	7047	5090	63	57	90.92	1220	-676	1233	1114	119.34	10.334			
7500	5071	7143	5091	65	59	90.92	1288	-743	1233	1109	123.91	9.953			
7504	5071	7147	5091	65	59	90.92	1291	-747	1233	1109	124.13	9.935			
7600	5072	7243	5092	67	61	90.92	1359	-814	1233	1105	128.73	9.580			
7604	5072	7247	5092	67	62	90.92	1362	-817	1233	1104	128.95	9.564			
7700	5072	7343	5092	70	64	90.92	1429	-885	1233	1100	133.58	9.233			
7704	5072	7347	5092	70	64	90.92	1433	-888	1233	1100	133.79	9.218			
7800	5073	7443	5093	72	66	90.92	1500	-956	1233	1095	138.44	8.909			
7804	5073	7447	5093	72	66	90.92	1503	-959	1233	1095	138.66	8.895			
7900	5074	7543	5093	75	69	90.93	1571	-1026	1233	1090	143.33	8.605			
7904	5074	7547	5094	75	69	90.93	1574	-1029	1233	1090	143.55	8.592			
8000	5074	7643	5094	77	71	90.93	1642	-1097	1233	1085	148.24	8.321			
8004	5074	7647	5094	77	71	90.93	1645	-1100	1233	1085	148.46	8.308			
8100	5075	7743	5095	80	74	90.93	1712	-1168	1234	1080	153.17	8.053			



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 501H - Slot 1
Project:	Betonnies Tsois Unit	TVD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Reference Site:	A35 2308 Pad	MD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Site Error:	0 ft	North Reference:	True
Reference Well:	# 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	Pre-Drill Rev 2	Offset TVD Reference:	Offset Datum

Offset Design: A35 2308 Pad - # 214H - Original Drilling - Pre-Drill Rev 3												Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM												Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
8104	5075	7747	5095	80	74	90.93	1716	-1171	1234	1080	153.39	8.042	
8200	5075	7843	5095	82	76	90.93	1783	-1238	1234	1075	158.11	7.802	
8204	5075	7847	5095	82	76	90.93	1786	-1241	1234	1075	158.33	7.791	
8300	5076	7943	5096	85	79	90.93	1854	-1309	1234	1071	163.07	7.565	
8304	5076	7947	5096	85	79	90.93	1857	-1312	1234	1070	163.29	7.555	
8400	5077	8043	5097	87	81	90.93	1925	-1380	1234	1066	168.04	7.341	
8404	5077	8047	5097	87	81	90.93	1928	-1383	1234	1065	168.26	7.332	
8500	5077	8143	5097	90	84	90.93	1995	-1450	1234	1061	173.02	7.130	
8504	5077	8147	5097	90	84	90.93	1998	-1454	1234	1060	173.25	7.121	
8600	5078	8243	5098	92	86	90.94	2066	-1521	1234	1056	178.02	6.930	
8604	5078	8247	5098	92	86	90.94	2069	-1524	1234	1056	178.24	6.922	
8700	5078	8343	5099	95	89	90.94	2137	-1592	1234	1051	183.02	6.741	
8704	5078	8347	5099	95	89	90.94	2140	-1595	1234	1051	183.24	6.733	
8800	5079	8443	5099	97	91	90.94	2207	-1662	1234	1046	188.03	6.562	
8804	5079	8447	5099	97	91	90.94	2211	-1666	1234	1046	188.26	6.554	
8900	5080	8543	5100	100	94	90.94	2278	-1733	1234	1041	193.06	6.391	
8904	5080	8547	5100	100	94	90.94	2281	-1736	1234	1041	193.28	6.384	
9000	5080	8643	5101	102	96	90.94	2349	-1804	1234	1036	198.09	6.229	
9004	5080	8647	5101	102	96	90.94	2352	-1807	1234	1036	198.31	6.222	
9100	5081	8743	5101	105	99	90.94	2420	-1875	1234	1031	203.12	6.075	
9104	5081	8747	5101	105	99	90.94	2423	-1878	1234	1031	203.35	6.068	
9200	5082	8843	5102	107	101	90.94	2490	-1945	1234	1026	208.17	5.928	
9204	5082	8847	5102	107	101	90.94	2493	-1948	1234	1026	208.39	5.922	
9300	5082	8943	5103	110	104	90.95	2561	-2016	1234	1021	213.22	5.788	
9304	5082	8947	5103	110	104	90.95	2564	-2019	1234	1021	213.44	5.782	
9400	5083	9043	5103	112	106	90.95	2632	-2087	1234	1016	218.27	5.654	
9404	5083	9047	5103	112	106	90.95	2635	-2090	1234	1016	218.50	5.648	
9500	5083	9143	5104	115	109	90.95	2702	-2157	1234	1011	223.33	5.526	
9504	5083	9147	5104	115	109	90.95	2706	-2161	1234	1011	223.56	5.520	
9600	5084	9243	5104	117	111	90.95	2773	-2228	1234	1006	228.40	5.404	
9604	5084	9247	5104	117	111	90.95	2776	-2231	1234	1006	228.62	5.398	
9700	5085	9343	5105	120	114	90.95	2844	-2299	1234	1001	233.47	5.286	
9704	5085	9347	5105	120	114	90.95	2847	-2302	1234	1001	233.70	5.281	
9800	5085	9443	5106	122	116	90.95	2915	-2369	1234	996	238.55	5.174	
9804	5085	9447	5106	122	116	90.95	2918	-2373	1234	996	238.77	5.169	
9900	5086	9543	5106	125	119	90.95	2985	-2440	1234	991	243.62	5.067	
9904	5086	9547	5106	125	119	90.95	2988	-2443	1234	990	243.85	5.062	
10,000	5086	9643	5107	127	121	90.96	3056	-2511	1234	986	248.71	4.963	
10,004	5086	9647	5107	127	122	90.96	3059	-2514	1234	985	248.93	4.959	
10,100	5087	9743	5108	130	124	90.96	3127	-2582	1234	981	253.80	4.864	
10,104	5087	9747	5108	130	124	90.96	3130	-2585	1234	980	254.02	4.859	
10,200	5088	9843	5108	132	127	90.96	3198	-2652	1234	976	258.89	4.768	
10,204	5088	9847	5108	133	127	90.96	3201	-2655	1234	975	259.11	4.764	
10,300	5088	9943	5109	135	129	90.96	3268	-2723	1235	971	263.98	4.677	
10,304	5088	9947	5109	135	129	90.96	3271	-2726	1235	970	264.21	4.673	
10,400	5089	10,043	5110	138	132	90.96	3339	-2794	1235	965	269.08	4.588	
10,404	5089	10,047	5110	138	132	90.96	3342	-2797	1235	965	269.30	4.584	
10,500	5089	10,143	5110	140	134	90.96	3410	-2864	1235	960	274.18	4.503	
10,504	5090	10,147	5110	140	134	90.96	3413	-2867	1235	960	274.40	4.499	
10,600	5090	10,243	5111	143	137	90.96	3480	-2935	1235	955	279.28	4.421	
10,604	5090	10,247	5111	143	137	90.96	3484	-2938	1235	955	279.51	4.417	
10,700	5091	10,343	5112	145	139	90.97	3551	-3006	1235	950	284.39	4.342	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 501H - Slot 1
Project:	Betonnies Tsois Unit	TVD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Reference Site:	A35 2308 Pad	MD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Site Error:	0 ft	North Reference:	True
Reference Well:	# 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	Pre-Drill Rev 2	Offset TVD Reference:	Offset Datum

Offset Design: A35 2308 Pad - # 214H - Original Drilling - Pre-Drill Rev 3													Offset Site Error:	0 ft	
Survey Program:		0-MWD+HDGM						Rule Assigned:						Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)					
10,704	5091	10,347	5112	145	139	90.97	3554	-3009	1235	950	284.61	4.338			
10,800	5091	10,443	5112	148	142	90.97	3622	-3076	1235	945	289.49	4.265			
10,804	5091	10,447	5112	148	142	90.97	3625	-3080	1235	945	289.72	4.262			
10,900	5092	10,543	5113	150	144	90.97	3693	-3147	1235	940	294.60	4.191			
10,904	5092	10,547	5113	150	144	90.97	3696	-3150	1235	940	294.83	4.188			
11,000	5093	10,643	5113	153	147	90.97	3763	-3218	1235	935	299.72	4.120			
11,004	5093	10,647	5113	153	147	90.97	3766	-3221	1235	935	299.94	4.117			
11,100	5093	10,743	5114	155	150	90.97	3834	-3289	1235	930	304.83	4.051			
11,104	5093	10,747	5114	156	150	90.97	3837	-3292	1235	930	305.06	4.048			
11,200	5094	10,843	5115	158	152	90.97	3905	-3359	1235	925	309.95	3.984			
11,204	5094	10,847	5115	158	152	90.97	3908	-3362	1235	925	310.17	3.981			
11,300	5094	10,943	5115	161	155	90.97	3975	-3430	1235	920	315.06	3.920			
11,304	5094	10,947	5115	161	155	90.97	3979	-3433	1235	920	315.29	3.917			
11,400	5095	11,043	5116	163	157	90.98	4046	-3501	1235	915	320.18	3.857			
11,404	5095	11,047	5116	163	157	90.98	4049	-3504	1235	915	320.41	3.854			
11,500	5096	11,143	5117	166	160	90.98	4117	-3571	1235	910	325.31	3.797			
11,504	5096	11,147	5117	166	160	90.98	4120	-3574	1235	910	325.53	3.794			
11,600	5096	11,243	5117	168	162	90.98	4188	-3642	1235	905	330.43	3.738			
11,604	5096	11,247	5117	168	162	90.98	4191	-3645	1235	904	330.66	3.735			
11,700	5097	11,343	5118	171	165	90.98	4258	-3713	1235	900	335.56	3.681			
11,704	5097	11,347	5118	171	165	90.98	4261	-3716	1235	899	335.78	3.678			
11,800	5097	11,443	5119	173	167	90.98	4329	-3783	1235	894	340.68	3.626			
11,804	5097	11,447	5119	173	168	90.98	4332	-3787	1235	894	340.91	3.623			
11,900	5098	11,543	5119	176	170	90.98	4400	-3854	1235	889	345.81	3.572			
11,904	5098	11,547	5119	176	170	90.98	4403	-3857	1235	889	346.04	3.570			
12,000	5099	11,643	5120	178	173	90.98	4470	-3925	1235	884	350.94	3.520			
12,004	5099	11,647	5120	179	173	90.98	4474	-3928	1235	884	351.17	3.518			
12,100	5099	11,743	5121	181	175	90.99	4541	-3995	1235	879	356.07	3.469			
12,104	5099	11,747	5121	181	175	90.99	4544	-3999	1235	879	356.30	3.467			
12,200	5100	11,843	5121	184	178	90.99	4612	-4066	1235	874	361.20	3.420			
12,204	5100	11,847	5121	184	178	90.99	4615	-4069	1235	874	361.43	3.418			
12,300	5101	11,943	5122	186	180	90.99	4683	-4137	1235	869	366.34	3.372			
12,304	5101	11,947	5122	186	180	90.99	4686	-4140	1235	869	366.56	3.370			
12,400	5101	12,043	5122	189	183	90.99	4753	-4208	1235	864	371.47	3.326			
12,404	5101	12,047	5122	189	183	90.99	4757	-4211	1235	864	371.70	3.324			
12,500	5102	12,143	5123	191	185	90.99	4824	-4278	1235	859	376.61	3.281			
12,504	5102	12,147	5123	191	186	90.99	4827	-4281	1235	859	376.83	3.279			
12,600	5102	12,243	5124	194	188	90.99	4895	-4349	1236	854	381.74	3.237			
12,604	5102	12,247	5124	194	188	90.99	4898	-4352	1236	854	381.97	3.235			
12,700	5103	12,343	5124	196	191	90.99	4966	-4420	1236	849	386.88	3.194			
12,704	5103	12,347	5124	197	191	90.99	4969	-4423	1236	848	387.11	3.192			
12,800	5104	12,443	5125	199	193	91.00	5036	-4490	1236	844	392.02	3.152			
12,804	5104	12,447	5125	199	193	91.00	5039	-4494	1236	843	392.25	3.150			
12,900	5104	12,543	5126	202	196	91.00	5107	-4561	1236	839	397.16	3.111			
12,904	5104	12,547	5126	202	196	91.00	5110	-4564	1236	838	397.39	3.110			
13,000	5105	12,643	5126	204	198	91.00	5178	-4632	1236	833	402.30	3.072			
13,004	5105	12,647	5126	204	198	91.00	5181	-4635	1236	833	402.53	3.070			
13,100	5105	12,743	5127	207	201	91.00	5248	-4702	1236	828	407.44	3.033			
13,104	5105	12,747	5127	207	201	91.00	5252	-4706	1236	828	407.67	3.031			
13,200	5106	12,843	5128	209	203	91.00	5319	-4773	1236	823	412.58	2.995			
13,204	5106	12,847	5128	209	204	91.00	5322	-4776	1236	823	412.81	2.994			
13,300	5107	12,943	5128	212	206	91.00	5390	-4844	1236	818	417.72	2.959			



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 501H - Slot 1
Project:	Betonnies Tsoie Unit	TVD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Reference Site:	A35 2308 Pad	MD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Site Error:	0 ft	North Reference:	True
Reference Well:	# 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	Pre-Drill Rev 2	Offset TVD Reference:	Offset Datum

Offset Design: A35 2308 Pad - # 214H - Original Drilling - Pre-Drill Rev 3													Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
13,304	5107	12,947	5128	212	206	91.00	5393	-4847	1236	818	417.95	2.957		
13,400	5107	13,043	5129	214	209	91.00	5461	-4915	1236	813	422.87	2.923		
13,404	5107	13,047	5129	215	209	91.00	5464	-4918	1236	813	423.10	2.921		
13,500	5108	13,143	5130	217	211	91.01	5531	-4985	1236	808	428.01	2.888		
13,504	5108	13,147	5130	217	211	91.01	5534	-4988	1236	808	428.24	2.886		
13,600	5108	13,243	5130	220	214	91.01	5602	-5056	1236	803	433.16	2.853		
13,604	5108	13,247	5130	220	214	91.01	5605	-5059	1236	803	433.39	2.852		
13,700	5109	13,343	5131	222	216	91.01	5673	-5127	1236	798	438.30	2.820		
13,704	5109	13,347	5131	222	216	91.01	5676	-5130	1236	798	438.53	2.819		
13,800	5110	13,443	5131	225	219	91.01	5743	-5197	1236	793	443.45	2.787		
13,804	5110	13,447	5132	225	219	91.01	5747	-5200	1236	792	443.68	2.786		
13,900	5110	13,543	5132	227	221	91.01	5814	-5268	1236	788	448.60	2.756		
13,904	5110	13,547	5132	227	222	91.01	5817	-5271	1236	787	448.83	2.754		
14,000	5111	13,643	5133	230	224	91.01	5885	-5339	1236	782	453.74	2.724		
14,004	5111	13,647	5133	230	224	91.01	5888	-5342	1236	782	453.97	2.723		
14,100	5112	13,743	5133	232	227	91.01	5956	-5409	1236	777	458.89	2.694		
14,104	5112	13,747	5133	233	227	91.01	5959	-5413	1236	777	459.12	2.693		
14,200	5112	13,843	5134	235	229	91.02	6026	-5480	1236	772	464.04	2.664		
14,204	5112	13,847	5134	235	229	91.02	6030	-5483	1236	772	464.27	2.663		
14,300	5113	13,943	5135	238	232	91.02	6097	-5551	1236	767	469.19	2.635		
14,304	5113	13,947	5135	238	232	91.02	6100	-5554	1236	767	469.42	2.634		
14,400	5113	14,043	5135	240	234	91.02	6168	-5622	1236	762	474.34	2.606		
14,404	5113	14,047	5135	240	234	91.02	6171	-5625	1236	762	474.57	2.605		
14,500	5114	14,143	5136	243	237	91.02	6239	-5692	1236	757	479.49	2.579		
14,504	5114	14,147	5136	243	237	91.02	6242	-5695	1236	757	479.72	2.577		
14,600	5115	14,243	5137	245	239	91.02	6309	-5763	1236	752	484.64	2.551		
14,603	5115	14,246	5137	245	240	91.02	6311	-5765	1236	752	484.80	2.550		
14,666	5115	14,309	5137	247	241	91.02	6356	-5810	1236	748	488.04	2.534 SF		



Lonestar Consulting, LLC
Anticollision Report

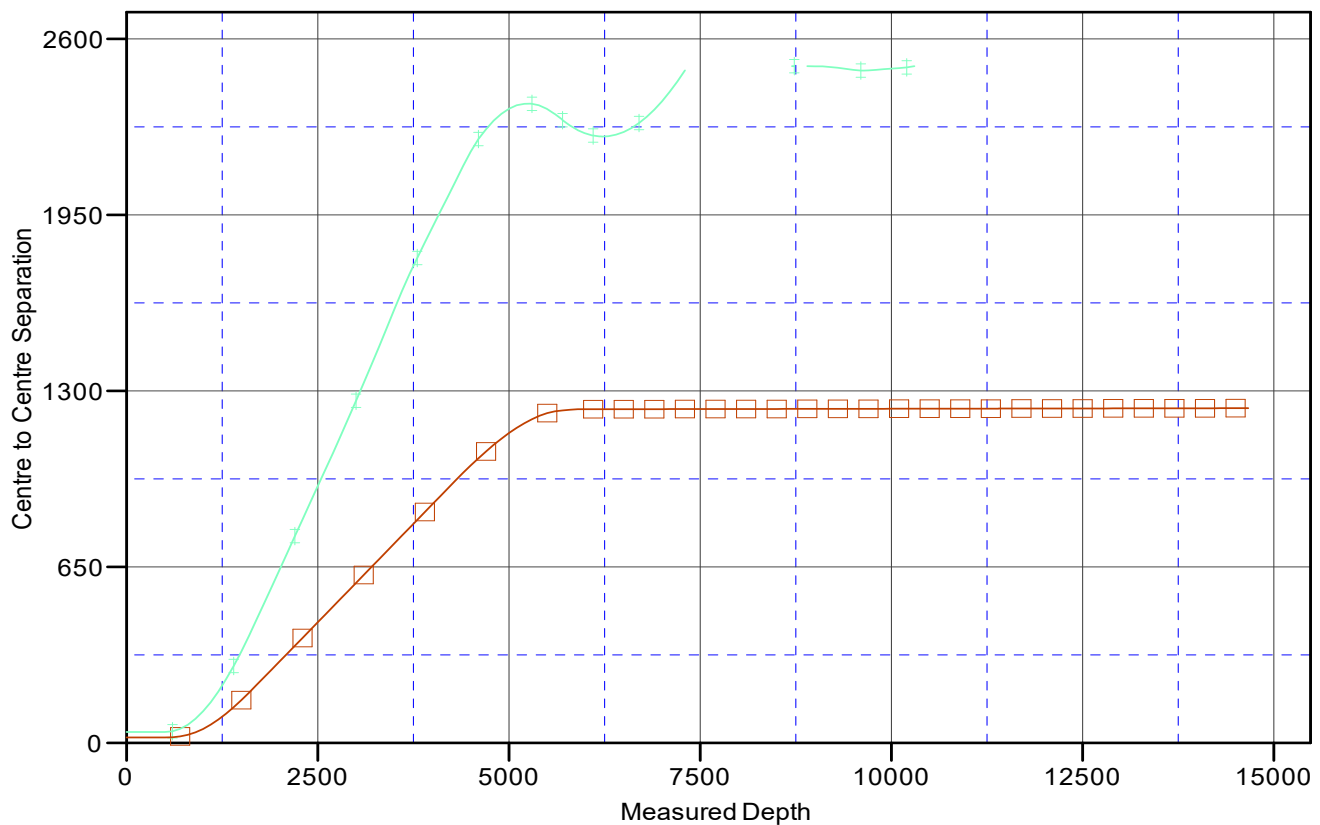


Company:	DJR Operating	Local Co-ordinate Reference:	Well # 501H - Slot 1
Project:	Betonne Tsoie Unit	TVD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Reference Site:	A35 2308 Pad	MD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Site Error:	0 ft	North Reference:	True
Reference Well:	# 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	Pre-Drill Rev 2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to GL 6974' & RKB 26' @ 7000ft (H&P 4
Offset Depths are relative to Offset Datum
Central Meridian is -107.8333333

Coordinates are relative to: # 501H - Slot 1
Coordinate System is US State Plane 1983, New Mexico Western Zone
Grid Convergence at Surface is: 0.11°

Ladder Plot



LEGEND

—■— # 214H, Original Drilling, Pre-Drill Rev 3 V0
 —●— # 213H, Original Drilling, Original Drilling V0



Lonestar Consulting, LLC
Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 501H - Slot 1
Project:	Betonne Tsoie Unit	TVD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Reference Site:	A35 2308 Pad	MD Reference:	GL 6974' & RKB 26' @ 7000ft (H&P 443)
Site Error:	0 ft	North Reference:	True
Reference Well:	# 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	Pre-Drill Rev 2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to GL 6974' & RKB 26' @ 7000ft (H&P 4

Offset Depths are relative to Offset Datum

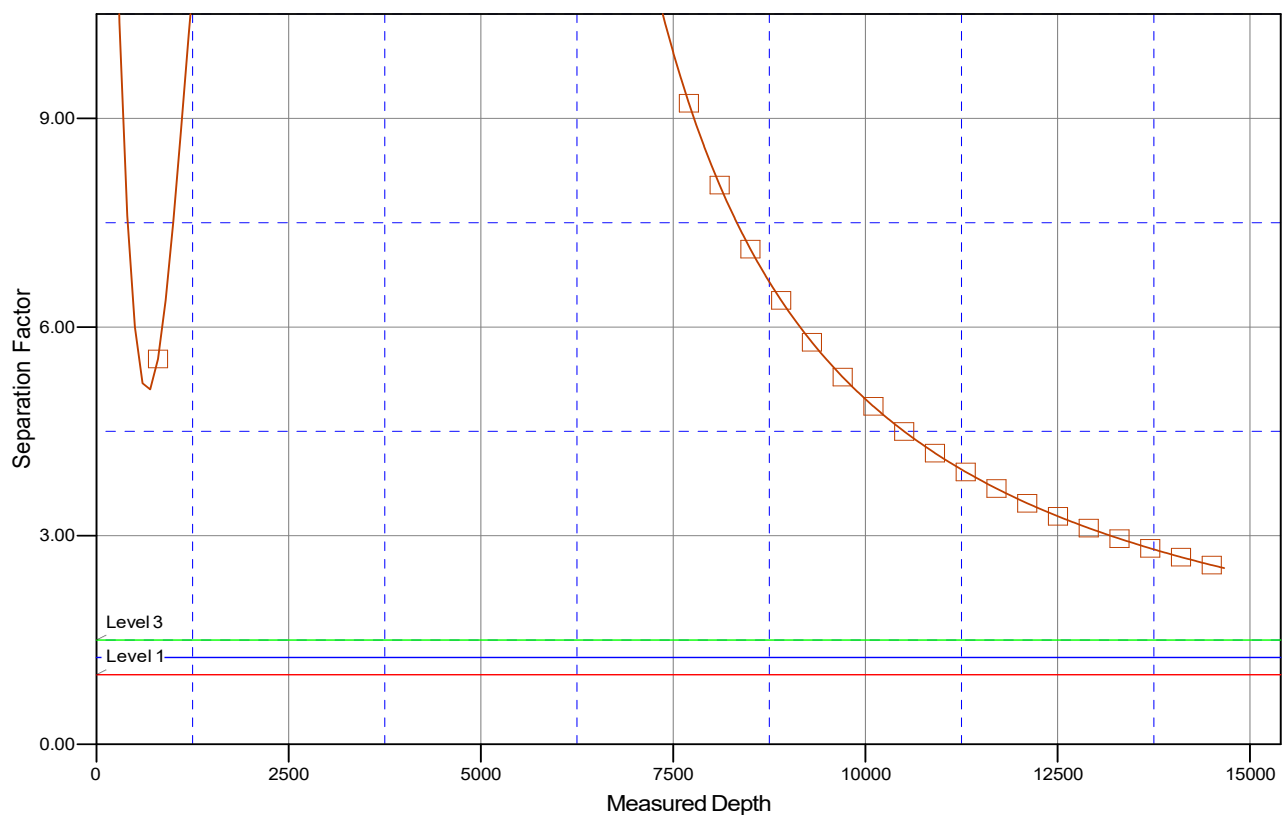
Central Meridian is -107.83333333

Coordinates are relative to: # 501H - Slot 1

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

Grid Convergence at Surface is: 0.11°

Separation Factor Plot



LEGEND

■ # 214H, Original Drilling, Pre-Drill Rev 3 V0
 ● # 213H, Original Drilling, Original Drilling V0

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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811 S. First St., Artesia, NM 88210
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District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 104402

CONDITIONS

Operator: DJR OPERATING, LLC 1 Road 3263 Aztec, NM 87410	OGRID: 371838
	Action Number: 104402
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Adhere to previous NMOCD conditions of approval	5/9/2022