

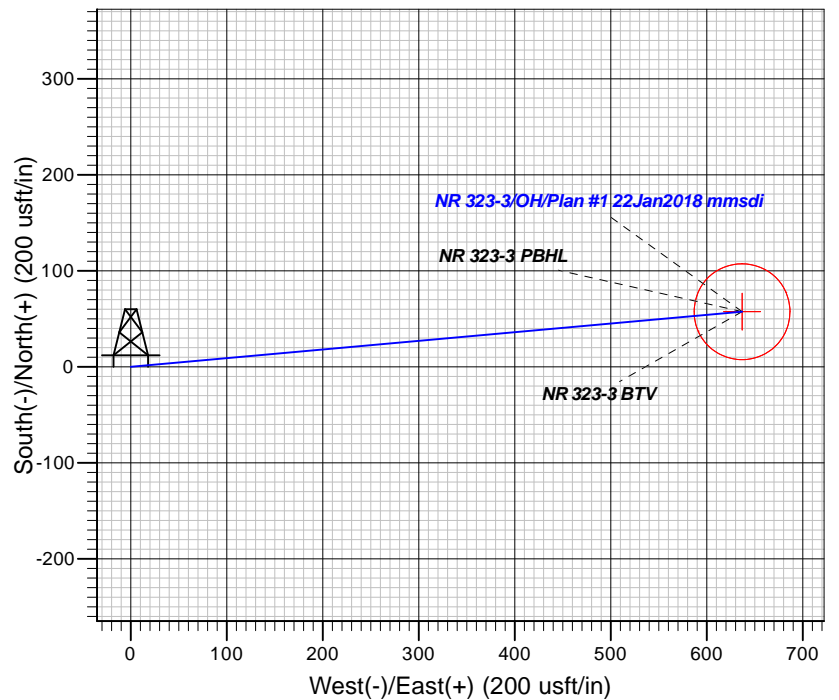
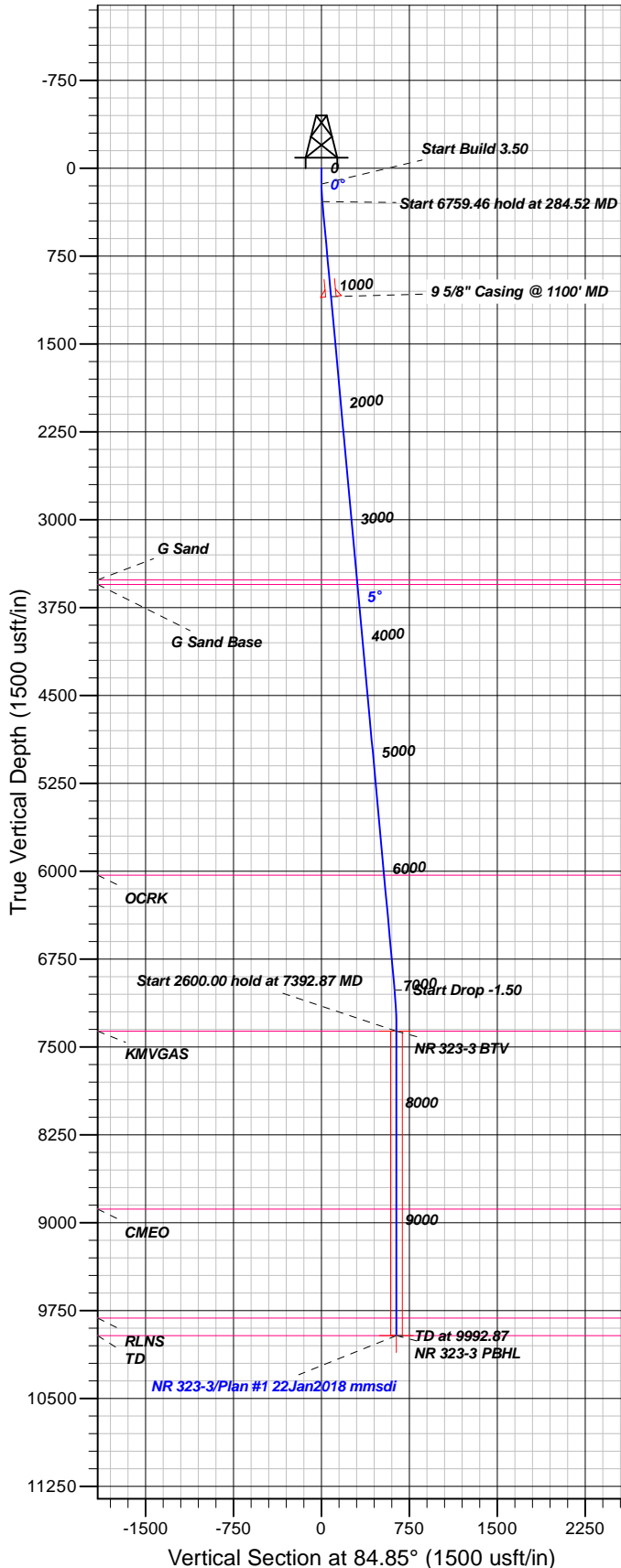


Azimuths to True North
Magnetic North: 9.48°

Magnetic Field
Strength: 51613.0snT
Dip Angle: 65.82°
Date: 1/22/2018
Model: HDGM

Well Details: NR 323-3

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1634922.56	2329756.72	39.5525717	-107.8772426	NR 323-3 (B8)



FORMATION TOP DETAILS

TVDPPath	MDPath	Formation
3514.00	3527.73	G Sand
3554.00	3567.89	G Sand Base
6034.00	6058.27	OCRK
7364.00	7392.87	KMGAS
8884.00	8912.87	CMEO
9814.00	9842.87	RLNS
9963.99	9992.86	TD

Plan: Plan #1 22Jan2018 mmsdi

22:13, February 07 2018
Created By: Mel Mireles

PROJECT DETAILS: Garfield County, CO NAD83

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Central Zone

System Datum: Mean Sea Level

CASING DETAILS

TVD	MD	Name	Size
1096.39	1100.00	5/8" Casing @ 1100' MD	9.62

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	
3	284.52	5.23	84.85	284.31	0.61	6.80	3.50	84.85	6.82	
4	7043.99	5.23	84.85	7015.60	55.99	620.84	0.00	0.00	623.36	
5	7392.87	0.00	0.00	7364.00	57.42	636.70	1.50	180.00	639.28	NR 323-3 BTV
6	9992.87	0.00	0.00	9964.00	57.42	636.70	0.00	0.00	639.28	NR 323-3 PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
NR 323-3 BTV	7364.00	57.42	636.70	1634963.30	2330394.70	39.5527293	-107.8749846	Circle (Radius: 50.00)
- plan hits target center								
NR 323-3 PBHL	9964.00	57.42	636.70	1634963.30	2330394.70	39.5527293	-107.8749846	Point
- plan hits target center								



TEP Rocky Mountain LLC

Garfield County, CO NAD83

NR 23-3 Pad

NR 323-3 - Slot NR 323-3 (B8)

OH

Plan: Plan #1 22Jan2018 mmsdi

Standard Planning Report

07 February, 2018



www.scientificdrilling.com



Database:	Grand Junction District	Local Co-ordinate Reference:	Well NR 323-3 - Slot NR 323-3 (B8)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Site:	NR 23-3 Pad	North Reference:	True
Well:	NR 323-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 22Jan2018 mmsdi		

Project	Garfield County, CO NAD83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	NR 23-3 Pad			
Site Position:		Northing:	1,634,904.55 usft	Latitude: 39.5525224
From: Map		Easting:	2,329,757.66 usft	Longitude: -107.8772377
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence: -1.50 °

Well	NR 323-3 - Slot NR 323-3 (B8)			
Well Position	+N/-S	17.98 usft	Northing:	1,634,922.56 usft
	+E/-W	-1.41 usft	Easting:	2,329,756.72 usft
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft
			Ground Level:	6,720.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	1/22/2018	9.48	65.82	51,613

Design	Plan #1 22Jan2018 mmsdi			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	84.85

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	0.00	
284.52	5.23	84.85	284.31	0.61	6.80	3.50	3.50	0.00	84.85	
7,043.99	5.23	84.85	7,015.60	55.99	620.84	0.00	0.00	0.00	0.00	
7,392.87	0.00	0.00	7,364.00	57.42	636.70	1.50	-1.50	0.00	180.00	NR 323-3 BTV
9,992.87	0.00	0.00	9,964.00	57.42	636.70	0.00	0.00	0.00	0.00	NR 323-3 PBHL

Database:	Grand Junction District	Local Co-ordinate Reference:	Well NR 323-3 - Slot NR 323-3 (B8)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Site:	NR 23-3 Pad	North Reference:	True
Well:	NR 323-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 22Jan2018 mmsdi		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 3.50									
200.00	2.28	84.85	199.98	0.12	1.29	1.29	3.50	3.50	0.00
284.52	5.23	84.85	284.31	0.61	6.80	6.82	3.50	3.50	0.00
Start 6759.46 hold at 284.52 MD									
300.00	5.23	84.85	299.73	0.74	8.20	8.24	0.00	0.00	0.00
400.00	5.23	84.85	399.31	1.56	17.29	17.36	0.00	0.00	0.00
500.00	5.23	84.85	498.89	2.38	26.37	26.48	0.00	0.00	0.00
600.00	5.23	84.85	598.48	3.20	35.45	35.60	0.00	0.00	0.00
700.00	5.23	84.85	698.06	4.02	44.54	44.72	0.00	0.00	0.00
800.00	5.23	84.85	797.64	4.84	53.62	53.84	0.00	0.00	0.00
900.00	5.23	84.85	897.23	5.66	62.71	62.96	0.00	0.00	0.00
1,000.00	5.23	84.85	996.81	6.47	71.79	72.08	0.00	0.00	0.00
1,100.00	5.23	84.85	1,096.39	7.29	80.88	81.20	0.00	0.00	0.00
9 5/8" Casing @ 1100' MD									
1,200.00	5.23	84.85	1,195.98	8.11	89.96	90.32	0.00	0.00	0.00
1,300.00	5.23	84.85	1,295.56	8.93	99.04	99.45	0.00	0.00	0.00
1,400.00	5.23	84.85	1,395.14	9.75	108.13	108.57	0.00	0.00	0.00
1,500.00	5.23	84.85	1,494.73	10.57	117.21	117.69	0.00	0.00	0.00
1,600.00	5.23	84.85	1,594.31	11.39	126.30	126.81	0.00	0.00	0.00
1,700.00	5.23	84.85	1,693.89	12.21	135.38	135.93	0.00	0.00	0.00
1,800.00	5.23	84.85	1,793.48	13.03	144.46	145.05	0.00	0.00	0.00
1,900.00	5.23	84.85	1,893.06	13.85	153.55	154.17	0.00	0.00	0.00
2,000.00	5.23	84.85	1,992.64	14.67	162.63	163.29	0.00	0.00	0.00
2,100.00	5.23	84.85	2,092.22	15.49	171.72	172.41	0.00	0.00	0.00
2,200.00	5.23	84.85	2,191.81	16.31	180.80	181.54	0.00	0.00	0.00
2,300.00	5.23	84.85	2,291.39	17.12	189.89	190.66	0.00	0.00	0.00
2,400.00	5.23	84.85	2,390.97	17.94	198.97	199.78	0.00	0.00	0.00
2,500.00	5.23	84.85	2,490.56	18.76	208.05	208.90	0.00	0.00	0.00
2,600.00	5.23	84.85	2,590.14	19.58	217.14	218.02	0.00	0.00	0.00
2,700.00	5.23	84.85	2,689.72	20.40	226.22	227.14	0.00	0.00	0.00
2,800.00	5.23	84.85	2,789.31	21.22	235.31	236.26	0.00	0.00	0.00
2,900.00	5.23	84.85	2,888.89	22.04	244.39	245.38	0.00	0.00	0.00
3,000.00	5.23	84.85	2,988.47	22.86	253.48	254.50	0.00	0.00	0.00
3,100.00	5.23	84.85	3,088.06	23.68	262.56	263.62	0.00	0.00	0.00
3,200.00	5.23	84.85	3,187.64	24.50	271.64	272.75	0.00	0.00	0.00
3,300.00	5.23	84.85	3,287.22	25.32	280.73	281.87	0.00	0.00	0.00
3,400.00	5.23	84.85	3,386.81	26.14	289.81	290.99	0.00	0.00	0.00
3,500.00	5.23	84.85	3,486.39	26.96	298.90	300.11	0.00	0.00	0.00
3,527.73	5.23	84.85	3,514.00	27.18	301.41	302.64	0.00	0.00	0.00
G Sand									
3,567.89	5.23	84.85	3,554.00	27.51	305.06	306.30	0.00	0.00	0.00
G Sand Base									
3,600.00	5.23	84.85	3,585.97	27.77	307.98	309.23	0.00	0.00	0.00
3,700.00	5.23	84.85	3,685.56	28.59	317.06	318.35	0.00	0.00	0.00
3,800.00	5.23	84.85	3,785.14	29.41	326.15	327.47	0.00	0.00	0.00
3,900.00	5.23	84.85	3,884.72	30.23	335.23	336.59	0.00	0.00	0.00
4,000.00	5.23	84.85	3,984.30	31.05	344.32	345.71	0.00	0.00	0.00
4,100.00	5.23	84.85	4,083.89	31.87	353.40	354.84	0.00	0.00	0.00
4,200.00	5.23	84.85	4,183.47	32.69	362.49	363.96	0.00	0.00	0.00
4,300.00	5.23	84.85	4,283.05	33.51	371.57	373.08	0.00	0.00	0.00
4,400.00	5.23	84.85	4,382.64	34.33	380.65	382.20	0.00	0.00	0.00

Database:	Grand Junction District	Local Co-ordinate Reference:	Well NR 323-3 - Slot NR 323-3 (B8)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Site:	NR 23-3 Pad	North Reference:	True
Well:	NR 323-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 22Jan2018 mmsdi		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,500.00	5.23	84.85	4,482.22	35.15	389.74	391.32	0.00	0.00	0.00
4,600.00	5.23	84.85	4,581.80	35.97	398.82	400.44	0.00	0.00	0.00
4,700.00	5.23	84.85	4,681.39	36.79	407.91	409.56	0.00	0.00	0.00
4,800.00	5.23	84.85	4,780.97	37.61	416.99	418.68	0.00	0.00	0.00
4,900.00	5.23	84.85	4,880.55	38.42	426.07	427.80	0.00	0.00	0.00
5,000.00	5.23	84.85	4,980.14	39.24	435.16	436.92	0.00	0.00	0.00
5,100.00	5.23	84.85	5,079.72	40.06	444.24	446.05	0.00	0.00	0.00
5,200.00	5.23	84.85	5,179.30	40.88	453.33	455.17	0.00	0.00	0.00
5,300.00	5.23	84.85	5,278.89	41.70	462.41	464.29	0.00	0.00	0.00
5,400.00	5.23	84.85	5,378.47	42.52	471.50	473.41	0.00	0.00	0.00
5,500.00	5.23	84.85	5,478.05	43.34	480.58	482.53	0.00	0.00	0.00
5,600.00	5.23	84.85	5,577.64	44.16	489.66	491.65	0.00	0.00	0.00
5,700.00	5.23	84.85	5,677.22	44.98	498.75	500.77	0.00	0.00	0.00
5,800.00	5.23	84.85	5,776.80	45.80	507.83	509.89	0.00	0.00	0.00
5,900.00	5.23	84.85	5,876.38	46.62	516.92	519.01	0.00	0.00	0.00
6,000.00	5.23	84.85	5,975.97	47.44	526.00	528.14	0.00	0.00	0.00
6,058.28	5.23	84.85	6,034.00	47.91	531.29	533.45	0.00	0.00	0.00
OCRK									
6,100.00	5.23	84.85	6,075.55	48.26	535.08	537.26	0.00	0.00	0.00
6,200.00	5.23	84.85	6,175.13	49.07	544.17	546.38	0.00	0.00	0.00
6,300.00	5.23	84.85	6,274.72	49.89	553.25	555.50	0.00	0.00	0.00
6,400.00	5.23	84.85	6,374.30	50.71	562.34	564.62	0.00	0.00	0.00
6,500.00	5.23	84.85	6,473.88	51.53	571.42	573.74	0.00	0.00	0.00
6,600.00	5.23	84.85	6,573.47	52.35	580.51	582.86	0.00	0.00	0.00
6,700.00	5.23	84.85	6,673.05	53.17	589.59	591.98	0.00	0.00	0.00
6,800.00	5.23	84.85	6,772.63	53.99	598.67	601.10	0.00	0.00	0.00
6,900.00	5.23	84.85	6,872.22	54.81	607.76	610.22	0.00	0.00	0.00
7,000.00	5.23	84.85	6,971.80	55.63	616.84	619.35	0.00	0.00	0.00
7,043.99	5.23	84.85	7,015.60	55.99	620.84	623.36	0.00	0.00	0.00
Start Drop -1.50									
7,100.00	4.39	84.85	7,071.42	56.41	625.52	628.06	1.50	-1.50	0.00
7,200.00	2.89	84.85	7,171.21	56.98	631.85	634.41	1.50	-1.50	0.00
7,300.00	1.39	84.85	7,271.14	57.32	635.57	638.15	1.50	-1.50	0.00
7,392.87	0.00	0.00	7,364.00	57.42	636.70	639.28	1.50	-1.50	-91.36
Start 2600.00 hold at 7392.87 MD - KMGAS - NR 323-3 BTV									
7,400.00	0.00	0.00	7,371.13	57.42	636.70	639.28	0.00	0.00	0.00
7,500.00	0.00	0.00	7,471.13	57.42	636.70	639.28	0.00	0.00	0.00
7,600.00	0.00	0.00	7,571.13	57.42	636.70	639.28	0.00	0.00	0.00
7,700.00	0.00	0.00	7,671.13	57.42	636.70	639.28	0.00	0.00	0.00
7,800.00	0.00	0.00	7,771.13	57.42	636.70	639.28	0.00	0.00	0.00
7,900.00	0.00	0.00	7,871.13	57.42	636.70	639.28	0.00	0.00	0.00
8,000.00	0.00	0.00	7,971.13	57.42	636.70	639.28	0.00	0.00	0.00
8,100.00	0.00	0.00	8,071.13	57.42	636.70	639.28	0.00	0.00	0.00
8,200.00	0.00	0.00	8,171.13	57.42	636.70	639.28	0.00	0.00	0.00
8,300.00	0.00	0.00	8,271.13	57.42	636.70	639.28	0.00	0.00	0.00
8,400.00	0.00	0.00	8,371.13	57.42	636.70	639.28	0.00	0.00	0.00
8,500.00	0.00	0.00	8,471.13	57.42	636.70	639.28	0.00	0.00	0.00
8,600.00	0.00	0.00	8,571.13	57.42	636.70	639.28	0.00	0.00	0.00
8,700.00	0.00	0.00	8,671.13	57.42	636.70	639.28	0.00	0.00	0.00
8,800.00	0.00	0.00	8,771.13	57.42	636.70	639.28	0.00	0.00	0.00
8,900.00	0.00	0.00	8,871.13	57.42	636.70	639.28	0.00	0.00	0.00
8,912.87	0.00	0.00	8,884.00	57.42	636.70	639.28	0.00	0.00	0.00
CME0									

Database:	Grand Junction District	Local Co-ordinate Reference:	Well NR 323-3 - Slot NR 323-3 (B8)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Site:	NR 23-3 Pad	North Reference:	True
Well:	NR 323-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 22Jan2018 mmsdi		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,000.00	0.00	0.00	8,971.13	57.42	636.70	639.28	0.00	0.00	0.00
9,100.00	0.00	0.00	9,071.13	57.42	636.70	639.28	0.00	0.00	0.00
9,200.00	0.00	0.00	9,171.13	57.42	636.70	639.28	0.00	0.00	0.00
9,300.00	0.00	0.00	9,271.13	57.42	636.70	639.28	0.00	0.00	0.00
9,400.00	0.00	0.00	9,371.13	57.42	636.70	639.28	0.00	0.00	0.00
9,500.00	0.00	0.00	9,471.13	57.42	636.70	639.28	0.00	0.00	0.00
9,600.00	0.00	0.00	9,571.13	57.42	636.70	639.28	0.00	0.00	0.00
9,700.00	0.00	0.00	9,671.13	57.42	636.70	639.28	0.00	0.00	0.00
9,800.00	0.00	0.00	9,771.13	57.42	636.70	639.28	0.00	0.00	0.00
9,842.87	0.00	0.00	9,814.00	57.42	636.70	639.28	0.00	0.00	0.00
RLNS									
9,900.00	0.00	0.00	9,871.13	57.42	636.70	639.28	0.00	0.00	0.00
9,992.86	0.00	0.00	9,963.99	57.42	636.70	639.28	0.00	0.00	0.00
TD									
9,992.87	0.00	0.00	9,964.00	57.42	636.70	639.28	0.00	0.00	0.00
TD at 9992.87 - NR 323-3 PBHL									

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
NR 323-3 BTV - plan hits target center - Circle (radius 50.00)	0.00	0.00	7,364.00	57.42	636.70	1,634,963.30	2,330,394.70	39.5527294	-107.8749847
NR 323-3 PBHL - plan hits target center - Point	0.00	0.00	9,964.00	57.42	636.70	1,634,963.30	2,330,394.70	39.5527294	-107.8749847

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,100.00	1,096.39	9 5/8" Casing @ 1100' MD	9.62	13.50	

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,527.73	3,514.00	G Sand		0.00	0.00
3,567.89	3,554.00	G Sand Base		0.00	0.00
6,058.28	6,034.00	OCRK		0.00	0.00
7,392.87	7,364.00	KMVGAS		0.00	0.00
8,912.87	8,884.00	CME0		0.00	0.00
9,842.87	9,814.00	RLNS		0.00	0.00
9,992.86	9,963.99	TD		0.00	0.00

Database:	Grand Junction District	Local Co-ordinate Reference:	Well NR 323-3 - Slot NR 323-3 (B8)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Site:	NR 23-3 Pad	North Reference:	True
Well:	NR 323-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 22Jan2018 mmsdi		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
135.00	135.00	0.00	0.00	Start Build 3.50
284.52	284.31	0.61	6.80	Start 6759.46 hold at 284.52 MD
7,043.99	7,015.60	55.99	620.84	Start Drop -1.50
7,392.87	7,364.00	57.42	636.70	Start 2600.00 hold at 7392.87 MD
9,992.87	9,964.00	57.42	636.70	TD at 9992.87