



Denver Division- Colorado

DJ - Hereford Ranch

Tree Creek #10-22H

Tree Creek #10-22H

Original Wellbore

Plan: APD Directional Plan

Standard Planning Report (Field)

16 November, 2010



Database:	Local	Local Co-ordinate Reference:	Well Tree Creek #10-22H
Company:	Denver Division- Colorado	TVD Reference:	Rig @ 5446.0ft (TBD)
Project:	DJ - Hereford Ranch	MD Reference:	Rig @ 5446.0ft (TBD)
Site:	Tree Creek #10-22H	North Reference:	True
Well:	Tree Creek #10-22H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Project	DJ - Hereford Ranch, Weld County		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Colorado North 501		

Site	Tree Creek #10-22H				
Site Position:		Northing:	544,466.52 ft	Latitude:	40° 49' 29.480 N
From:	Lat/Long	Easting:	2,235,875.54 ft	Longitude:	104° 38' 51.900 W
Position Uncertainty:	0.0 ft	Slot Radius:		Grid Convergence:	0.55

Well	Tree Creek #10-22H					
Well Position	+N/-S	0.0 ft	Northing:	544,466.51 ft	Latitude:	40° 49' 29.480 N
	+E/-W	0.0 ft	Easting:	2,235,875.54 ft	Longitude:	104° 38' 51.900 W
Position Uncertainty	0.0 ft	Wellhead Elevation:		Ground Level:	5,424.0 ft	

Wellbore	Original Wellbore				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/09	9.00	67.47	53,532

Design	APD Directional Plan			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	154.17

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	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	
7,329.5	0.00	0.00	7,329.5	0.0	0.0	0.00	0.00	0.00	0.00	
8,079.5	90.00	154.17	7,807.0	-429.8	208.0	12.00	12.00	0.00	154.17	
12,296.3	90.00	154.17	7,807.0	-4,225.2	2,045.4	0.00	0.00	0.00	0.00	Tree Creek #10-22H (

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Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	Subsea Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
WHITE RIVER										
0.0	0.00	0.00	0.0	-5,446.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	-5,346.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	-5,246.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	-5,146.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	-5,046.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	-4,946.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	-4,846.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	-4,746.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	-4,646.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	-4,546.0	0.0	0.0	0.0	0.00	0.00	0.00
FOX HILLS										
982.0	0.00	0.00	982.0	-4,464.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	-4,446.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	-4,346.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	-4,246.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	-4,146.0	0.0	0.0	0.0	0.00	0.00	0.00
PIERRE SHALE										
1,362.0	0.00	0.00	1,362.0	-4,084.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	-4,046.0	0.0	0.0	0.0	0.00	0.00	0.00
9 5/8"										
1,475.0	0.00	0.00	1,475.0	-3,971.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	-3,946.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	-3,846.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	-3,746.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	-3,646.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	-3,546.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	-3,446.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	-3,346.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	-3,246.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	-3,146.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	-3,046.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	-2,946.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	-2,846.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	-2,746.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	-2,646.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	-2,546.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	-2,446.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	-2,346.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	-2,246.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	-2,146.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	-2,046.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	-1,946.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	-1,846.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	-1,746.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	-1,646.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	-1,546.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	-1,446.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	-1,346.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	-1,246.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	-1,146.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	-1,046.0	0.0	0.0	0.0	0.00	0.00	0.00
RICHARD SAND										
4,402.0	0.00	0.00	4,402.0	-1,044.0	0.0	0.0	0.0	0.00	0.00	0.00

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Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	Subsea Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,500.0	0.00	0.00	4,500.0	-946.0	0.0	0.0	0.0	0.00	0.00	0.00
HYGIENE										
4,562.0	0.00	0.00	4,562.0	-884.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	-846.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	-746.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	-646.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	-546.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	-446.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	-346.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	-246.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	-146.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	-46.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	54.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	154.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	254.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	354.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	454.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	554.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	654.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	754.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	854.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	954.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	1,054.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	1,154.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	1,254.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	1,354.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	1,454.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	1,554.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	1,654.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	1,754.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	1,854.0	0.0	0.0	0.0	0.00	0.00	0.00
7,329.5	0.00	0.00	7,329.5	1,883.5	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	8.46	154.17	7,399.7	1,953.7	-4.7	2.3	5.2	12.00	12.00	0.00
7,500.0	20.46	154.17	7,496.4	2,050.4	-27.1	13.1	30.1	12.00	12.00	0.00
7,600.0	32.46	154.17	7,585.8	2,139.8	-67.1	32.5	74.6	12.00	12.00	0.00
SHARON SPRINGS										
7,644.3	37.77	154.17	7,622.0	2,176.0	-90.1	43.6	100.1	12.00	12.00	0.00
7,700.0	44.46	154.17	7,663.9	2,217.9	-123.0	59.5	136.7	12.00	12.00	0.00
NIORARA										
7,741.1	49.39	154.17	7,692.0	2,246.0	-150.0	72.6	166.7	12.00	12.00	0.00
7,800.0	56.46	154.17	7,727.5	2,281.5	-192.3	93.1	213.6	12.00	12.00	0.00
B1 CHALK										
7,827.5	59.75	154.17	7,742.0	2,296.0	-213.3	103.2	237.0	12.00	12.00	0.00
7,900.0	68.46	154.17	7,773.6	2,327.6	-271.9	131.6	302.1	12.00	12.00	0.00
B-CHALK										
7,959.5	75.60	154.17	7,792.0	2,346.0	-322.9	156.3	358.7	12.00	12.00	0.00
8,000.0	80.46	154.17	7,800.4	2,354.4	-358.5	173.5	398.3	12.00	12.00	0.00
7"										
8,079.5	90.00	154.17	7,807.0	2,361.0	-429.7	208.0	477.4	12.00	12.00	0.00
8,100.0	90.00	154.17	7,807.0	2,361.0	-448.2	217.0	497.9	0.02	0.02	0.00
8,200.0	90.00	154.17	7,807.0	2,361.0	-538.2	260.5	597.9	0.00	0.00	0.00
8,300.0	90.00	154.17	7,807.0	2,361.0	-628.2	304.1	697.9	0.00	0.00	0.00
8,400.0	90.00	154.17	7,807.0	2,361.0	-718.2	347.7	797.9	0.00	0.00	0.00

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Design:	APD Directional Plan		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	Subsea Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,500.0	90.00	154.17	7,807.0	2,361.0	-808.2	391.3	897.9	0.00	0.00	0.00
8,600.0	90.00	154.17	7,807.0	2,361.0	-898.2	434.8	997.9	0.00	0.00	0.00
8,700.0	90.00	154.17	7,807.0	2,361.0	-988.2	478.4	1,097.9	0.00	0.00	0.00
8,800.0	90.00	154.17	7,807.0	2,361.0	-1,078.2	522.0	1,197.9	0.00	0.00	0.00
8,900.0	90.00	154.17	7,807.0	2,361.0	-1,168.2	565.5	1,297.9	0.00	0.00	0.00
9,000.0	90.00	154.17	7,807.0	2,361.0	-1,258.2	609.1	1,397.9	0.00	0.00	0.00
9,100.0	90.00	154.17	7,807.0	2,361.0	-1,348.3	652.7	1,497.9	0.00	0.00	0.00
9,200.0	90.00	154.17	7,807.0	2,361.0	-1,438.3	696.3	1,597.9	0.00	0.00	0.00
9,300.0	90.00	154.17	7,807.0	2,361.0	-1,528.3	739.8	1,697.9	0.00	0.00	0.00
9,400.0	90.00	154.17	7,807.0	2,361.0	-1,618.3	783.4	1,797.9	0.00	0.00	0.00
9,500.0	90.00	154.17	7,807.0	2,361.0	-1,708.3	827.0	1,897.9	0.00	0.00	0.00
9,600.0	90.00	154.17	7,807.0	2,361.0	-1,798.3	870.5	1,997.9	0.00	0.00	0.00
9,700.0	90.00	154.17	7,807.0	2,361.0	-1,888.3	914.1	2,097.9	0.00	0.00	0.00
9,800.0	90.00	154.17	7,807.0	2,361.0	-1,978.3	957.7	2,197.9	0.00	0.00	0.00
9,900.0	90.00	154.17	7,807.0	2,361.0	-2,068.3	1,001.3	2,297.9	0.00	0.00	0.00
10,000.0	90.00	154.17	7,807.0	2,361.0	-2,158.3	1,044.8	2,397.9	0.00	0.00	0.00
10,100.0	90.00	154.17	7,807.0	2,361.0	-2,248.3	1,088.4	2,497.9	0.00	0.00	0.00
10,200.0	90.00	154.17	7,807.0	2,361.0	-2,338.3	1,132.0	2,597.9	0.00	0.00	0.00
10,300.0	90.00	154.17	7,807.0	2,361.0	-2,428.4	1,175.6	2,697.9	0.00	0.00	0.00
10,400.0	90.00	154.17	7,807.0	2,361.0	-2,518.4	1,219.1	2,797.9	0.00	0.00	0.00
10,500.0	90.00	154.17	7,807.0	2,361.0	-2,608.4	1,262.7	2,897.9	0.00	0.00	0.00
10,600.0	90.00	154.17	7,807.0	2,361.0	-2,698.4	1,306.3	2,997.9	0.00	0.00	0.00
10,700.0	90.00	154.17	7,807.0	2,361.0	-2,788.4	1,349.8	3,097.9	0.00	0.00	0.00
10,800.0	90.00	154.17	7,807.0	2,361.0	-2,878.4	1,393.4	3,197.9	0.00	0.00	0.00
10,900.0	90.00	154.17	7,807.0	2,361.0	-2,968.4	1,437.0	3,297.9	0.00	0.00	0.00
11,000.0	90.00	154.17	7,807.0	2,361.0	-3,058.4	1,480.6	3,397.9	0.00	0.00	0.00
11,100.0	90.00	154.17	7,807.0	2,361.0	-3,148.4	1,524.1	3,497.9	0.00	0.00	0.00
11,200.0	90.00	154.17	7,807.0	2,361.0	-3,238.4	1,567.7	3,597.9	0.00	0.00	0.00
11,300.0	90.00	154.17	7,807.0	2,361.0	-3,328.4	1,611.3	3,697.9	0.00	0.00	0.00
11,400.0	90.00	154.17	7,807.0	2,361.0	-3,418.4	1,654.9	3,797.9	0.00	0.00	0.00
11,500.0	90.00	154.17	7,807.0	2,361.0	-3,508.4	1,698.4	3,897.9	0.00	0.00	0.00
11,600.0	90.00	154.17	7,807.0	2,361.0	-3,598.5	1,742.0	3,997.9	0.00	0.00	0.00
11,700.0	90.00	154.17	7,807.0	2,361.0	-3,688.5	1,785.6	4,097.9	0.00	0.00	0.00
11,800.0	90.00	154.17	7,807.0	2,361.0	-3,778.5	1,829.1	4,197.9	0.00	0.00	0.00
11,900.0	90.00	154.17	7,807.0	2,361.0	-3,868.5	1,872.7	4,297.9	0.00	0.00	0.00
12,000.0	90.00	154.17	7,807.0	2,361.0	-3,958.5	1,916.3	4,397.9	0.00	0.00	0.00
12,100.0	90.00	154.17	7,807.0	2,361.0	-4,048.5	1,959.9	4,497.9	0.00	0.00	0.00
12,200.0	90.00	154.17	7,807.0	2,361.0	-4,138.5	2,003.4	4,597.9	0.00	0.00	0.00
4 1/2" - Tree Creek #10-22H (BHL)										
12,296.3	90.00	154.17	7,807.0	2,361.0	-4,225.2	2,045.4	4,694.2	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Tree Creek #10-22H (BHL)	0.00	0.00	7,807.0	-4,225.2	2,045.4	540,261.19	2,237,961.44	40° 48' 47.730 N	104° 38' 25.300 W
- plan hits target center									
- Point									

Database:	Local	Local Co-ordinate Reference:	Well Tree Creek #10-22H
Company:	Denver Division- Colorado	TVD Reference:	Rig @ 5446.0ft (TBD)
Project:	DJ - Hereford Ranch	MD Reference:	Rig @ 5446.0ft (TBD)
Site:	Tree Creek #10-22H	North Reference:	True
Well:	Tree Creek #10-22H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

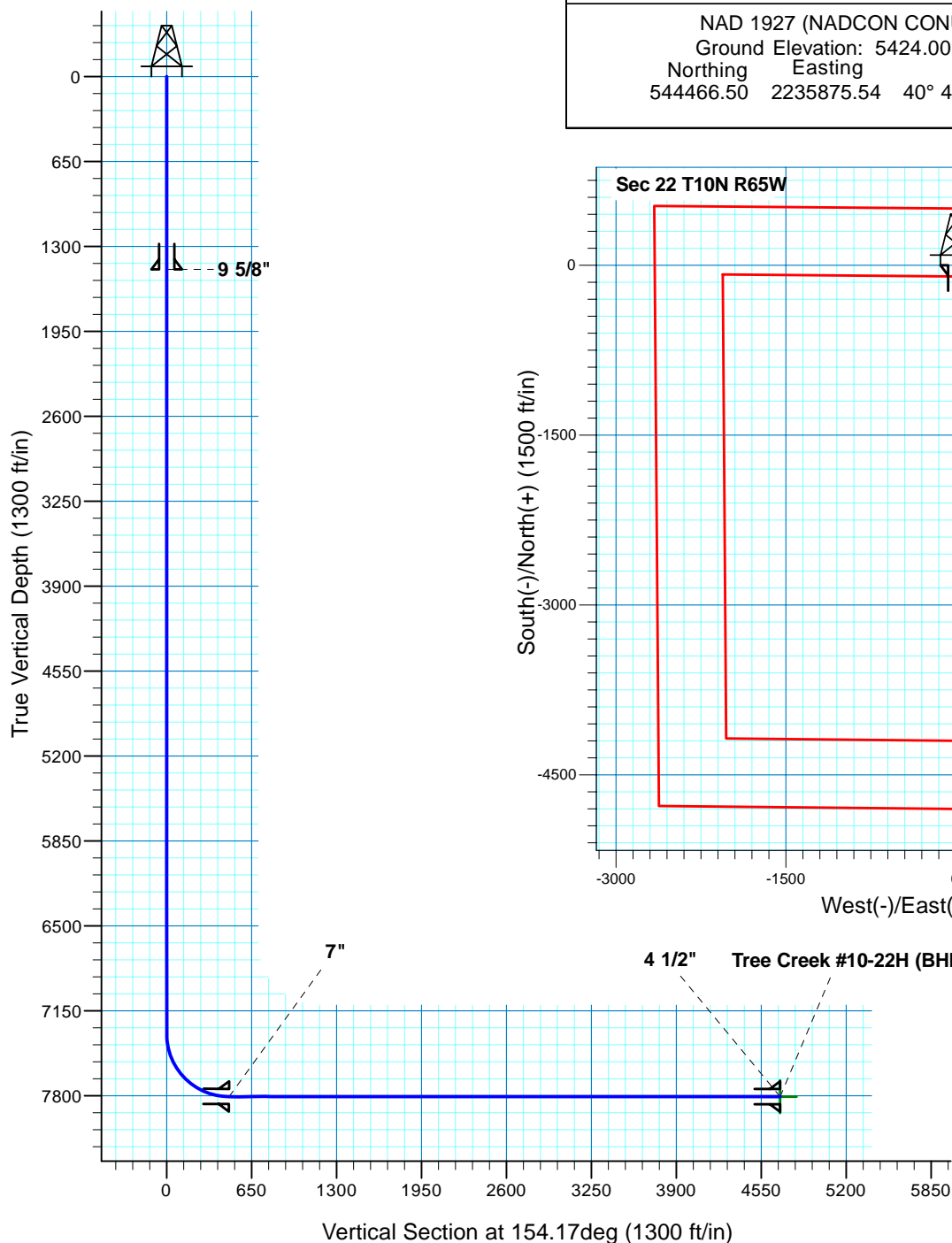
Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
1,475.0	1,475.0	9 5/8"	9-5/8	13-1/2	
8,079.5	7,807.0	7"	7	8-3/4	
12,296.3	7,807.0	4 1/2"	4-1/2	6	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
0.0	0.0	WHITE RIVER		0.00	
982.0	982.0	FOX HILLS		0.00	
1,362.0	1,362.0	PIERRE SHALE		0.00	
4,402.0	4,402.0	RICHARD SAND		0.00	
4,562.0	4,562.0	HYGIENE		0.00	
7,644.3	7,622.0	SHARON SPRINGS		0.00	
7,741.1	7,692.0	NIOBRARA		0.00	
7,827.5	7,742.0	B1 CHALK		0.00	
7,959.5	7,792.0	B-CHALK		0.00	

Tree Creek 10-22H
Section 22 T10N R65W
Weld County, CO

Surface Location

NAD 1927 (NADCON CONUS) Colorado North 501
Ground Elevation: 5424.00 Rig @ 5446.00ft (TBD)
Northing Easting Latitude Longitude
544466.50 2235875.54 40° 49' 29.480 N 104° 38' 51.900 W



T M
Azimuths to True North
Magnetic North: 9.00°
Magnetic Field
Strength: 53531.7nT
Dip Angle: 67.47°
Date: 12/31/2009
Model: IGRF200510

Project: DJ - Hereford Ranch
Site: Tree Creek 10-22H
Well: Tree Creek 10-22H
Plan: APD Directional Plan

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	-0.01	0.00	0.00	0.00	0.00	
2	7329.53	0.00	0.00	7329.53	-0.01	0.00	0.00	0.00	0.00	
3	8079.54	90.00	154.17	7807.00	-429.77	208.04	12.00	154.17	477.47	
4	12296.30	90.00	154.17	7807.00	-4225.19	2045.40	0.00	0.00	4694.23	Tree Creek #10-22H (BHL)

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Tree Creek #10-22H (BHL)	7807.00	-4225.19	2045.40	540261.19	2237961.44	40° 48' 47.730 N	104° 38' 25.300 W	Point