

US ROCKIES WATTENBERG PLANNING

**WELD-NAD83-UTMFT13N
3N-66W-02 GLADE Geothermal Pad
GLADE WEST**

Plan A

Plan: Permit Rev-2

Standard Planning Report

17 December, 2024

Project: WELD-NAD83-UTMFT13N
 Site: 3N-66W-02 GLADE Geothermal Pad
 Well: GLADE WEST
 Wellbore: Plan A
 Design: Permit Rev-2

US ROCKIES WATTENBERG PLANNING

CASING DETAILS

TVD	MD	Name	Size
1637.00	1637.00	13-3/8"	13-3/8
10606.00	10624.84	9 5/8"	9-5/8
20000.00	20132.79	5-1/2"	5-1/2

SHL
2134' FSL
1246' FEL

TPZ
2153' FSL
1472' FEL

BHL
2287' FSL
2376' FEL



Azimuths to True North
 Magnetic North: 7.46°
 Magnetic Field
 Strength: 51510.1nT
 Dip Angle: 66.39°
 Date: 12/13/2024
 Model: IGRF2020

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	8800.00	0.00	0.00	8800.00	0.00	0.00	0.00	0.00	0.00
3	9850.00	10.50	275.29	9844.13	8.85	-95.53	1.00	275.29	95.94
4	14534.61	10.50	275.29	14450.30	87.55	-945.60	0.00	0.00	949.64
5	14684.61	7.50	275.29	14598.43	89.72	-988.96	2.00	180.00	973.11
6	20132.79	7.50	275.29	20000.00	155.28	-1677.06	0.00	0.00	1684.24

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	Northing	Easting	Latitude	Longitude
GLADE WEST_SHL	0.00	14618806.56	1713149.34	40.252551	-104.739325
GLADE WEST_TPZ	10556.00	14618826.90	1712922.37	40.252609	-104.740138
GLADE WEST_BHL	20000.00	14618956.91	1711471.83	40.252978	-104.745336

WELL DETAILS: GLADE WEST

GL = 4900'

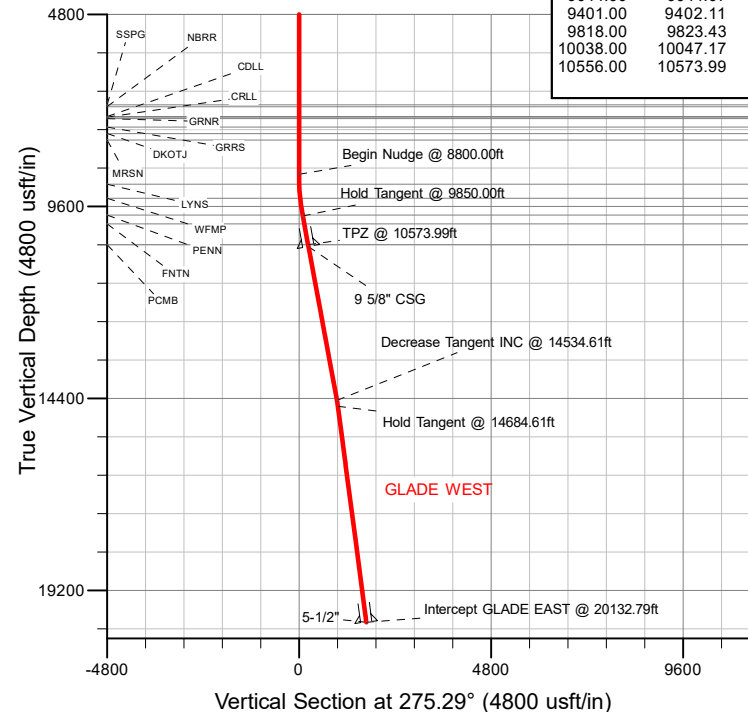
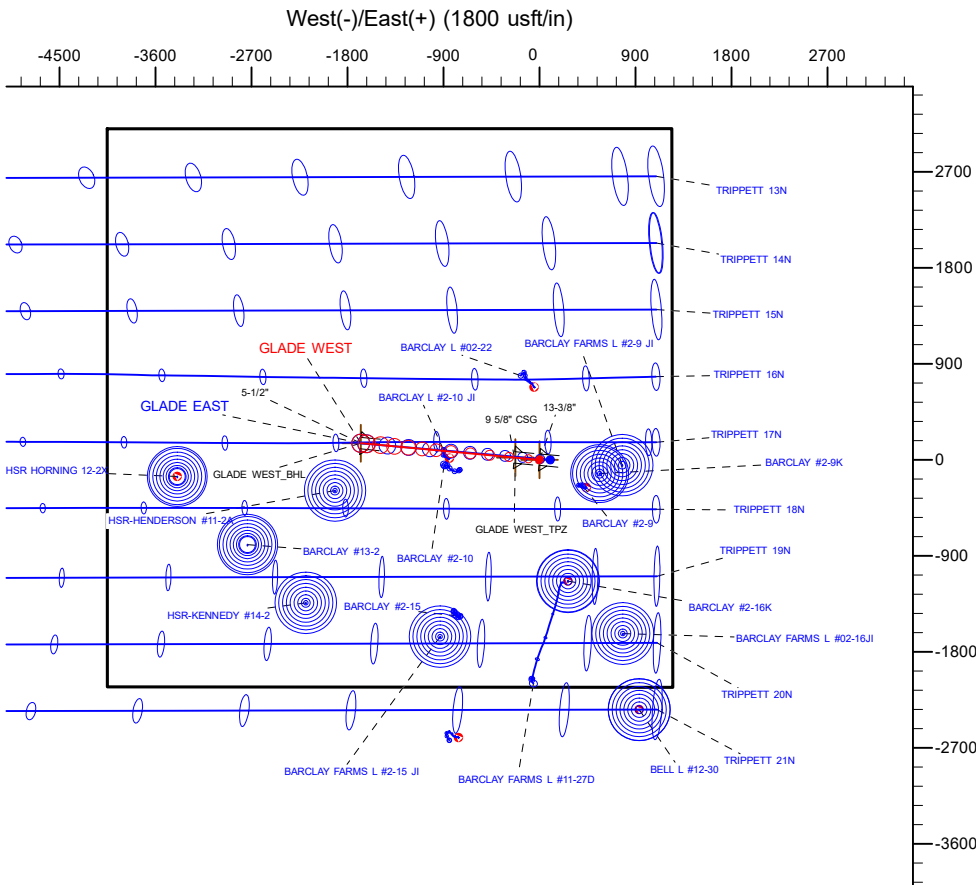
RKB = 17' @ 4917.00usft (RIG)

Plan: Permit Rev-2 (GLADE WEST/Plan A)

Date: 12/17/2024

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1091.00	1091.00	FXHL_MKR
1637.00	1637.00	Surface Casing Depth
4311.00	4311.00	SSSX
7065.00	7065.00	SSPG
7113.00	7113.00	NBRR
7356.00	7356.00	CDLL
7372.00	7372.00	CRLL
7410.00	7410.00	GRNR
7622.00	7622.00	GRRS
7784.00	7784.00	DKOTJ
7942.00	7942.00	MRSN
9044.00	9044.07	LYNS
9401.00	9402.11	WFMP
9818.00	9823.43	PENN
10038.00	10047.17	FNTN
10556.00	10573.99	PCMB



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well GLADE WEST
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4917.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4917.00usft (RIG)
Site:	3N-66W-02 GLADE Geothermal Pad	North Reference:	True
Well:	GLADE WEST	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-2		

Project WELD-NAD83-UTMFT13N			
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 13N (108 W to 102 W)		

Site 3N-66W-02 GLADE Geothermal Pad			
Site Position:		Northing:	14,618,996.66 usft
From:	Lat/Long	Easting:	1,713,200.11 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	40.253073
		Longitude:	-104.739141

Well GLADE WEST			
Well Position	+N/-S	0.00 usft	Northing: 14,618,806.56 usft
	+E/-W	0.00 usft	Easting: 1,713,149.34 usft
Position Uncertainty		3.28 usft	Wellhead Elevation: usft
Grid Convergence:		0.17 °	Ground Level: 4,900.00 usft
			Latitude: 40.252551
			Longitude: -104.739325

Wellbore Plan A					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF202013	12/13/2024	7.46	66.39	51,510.13795319

Design Permit Rev-2				
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	275.29

Plan Survey Tool Program		Date	12/17/2024		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	1,637.00 Permit Rev-2 (Plan A)	A005Mb_MWD+IFR1 OWSG MWD + IFR1		
2	1,637.00	20,132.79 Permit Rev-2 (Plan A)	A005Mb_MWD+IFR1 OWSG MWD + IFR1		

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Site:	3N-66W-02 GLADE Geothermal Pad	North Reference:	True
Well:	GLADE WEST	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-2		

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	
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,850.00	10.50	275.29	9,844.13	8.85	-95.53	1.00	1.00	0.00	275.29	
14,534.61	10.50	275.29	14,450.30	87.55	-945.60	0.00	0.00	0.00	0.00	
14,684.61	7.50	275.29	14,598.44	89.72	-968.96	2.00	-2.00	0.00	180.00	
20,132.79	7.50	275.29	20,000.01	155.28	-1,677.06	0.00	0.00	0.00	0.00	

Planning Report

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Site:	3N-66W-02 GLADE Geothermal Pad	North Reference:	True
Well:	GLADE WEST	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-2		

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)	
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 8800.00ft										
8,900.00	1.00	275.29	8,900.00	0.08	-0.87	0.87	1.00	1.00	1.00	0.00
9,000.00	2.00	275.29	8,999.96	0.32	-3.48	3.49	1.00	1.00	1.00	0.00
9,044.07	2.44	275.29	9,044.00	0.48	-5.18	5.20	1.00	1.00	1.00	0.00
LYNS										
9,100.00	3.00	275.29	9,099.86	0.72	-7.82	7.85	1.00	1.00	1.00	0.00
9,200.00	4.00	275.29	9,199.68	1.29	-13.90	13.96	1.00	1.00	1.00	0.00
9,300.00	5.00	275.29	9,299.37	2.01	-21.71	21.80	1.00	1.00	1.00	0.00
9,400.00	6.00	275.29	9,398.90	2.89	-31.25	31.39	1.00	1.00	1.00	0.00
9,402.11	6.02	275.29	9,401.00	2.91	-31.47	31.61	1.00	1.00	1.00	0.00
WFMP										
9,500.00	7.00	275.29	9,498.26	3.94	-42.53	42.71	1.00	1.00	1.00	0.00
9,600.00	8.00	275.29	9,597.40	5.14	-55.52	55.76	1.00	1.00	1.00	0.00
9,700.00	9.00	275.29	9,696.30	6.50	-70.24	70.54	1.00	1.00	1.00	0.00
9,800.00	10.00	275.29	9,794.93	8.03	-86.67	87.05	1.00	1.00	1.00	0.00
9,823.43	10.23	275.29	9,818.00	8.40	-90.77	91.16	1.00	1.00	1.00	0.00
PENN										
9,850.00	10.50	275.29	9,844.13	8.85	-95.53	95.94	1.00	1.00	1.00	0.00
Hold Tangent @ 9850.00ft										
9,900.00	10.50	275.29	9,893.30	9.69	-104.61	105.05	0.00	0.00	0.00	0.00
10,000.00	10.50	275.29	9,991.62	11.37	-122.75	123.28	0.00	0.00	0.00	0.00
10,047.17	10.50	275.29	10,038.00	12.16	-131.31	131.87	0.00	0.00	0.00	0.00
FNTN										
10,100.00	10.50	275.29	10,089.95	13.05	-140.90	141.50	0.00	0.00	0.00	0.00
10,200.00	10.50	275.29	10,188.27	14.73	-159.04	159.72	0.00	0.00	0.00	0.00
10,300.00	10.50	275.29	10,286.60	16.41	-177.19	177.95	0.00	0.00	0.00	0.00
10,400.00	10.50	275.29	10,384.92	18.09	-195.34	196.17	0.00	0.00	0.00	0.00
10,500.00	10.50	275.29	10,483.25	19.77	-213.48	214.40	0.00	0.00	0.00	0.00
10,573.99	10.50	275.29	10,556.00	21.01	-226.91	227.88	0.00	0.00	0.00	0.00
TPZ @ 10573.99ft - PCMB										
10,600.00	10.50	275.29	10,581.57	21.45	-231.63	232.62	0.00	0.00	0.00	0.00
10,624.84	10.50	275.29	10,606.00	21.86	-236.14	237.15	0.00	0.00	0.00	0.00
9 5/8" CSG										
10,700.00	10.50	275.29	10,679.90	23.13	-249.77	250.84	0.00	0.00	0.00	0.00
10,800.00	10.50	275.29	10,778.23	24.81	-267.92	269.07	0.00	0.00	0.00	0.00
10,900.00	10.50	275.29	10,876.55	26.49	-286.07	287.29	0.00	0.00	0.00	0.00
11,000.00	10.50	275.29	10,974.88	28.17	-304.21	305.51	0.00	0.00	0.00	0.00
11,100.00	10.50	275.29	11,073.20	29.85	-322.36	323.74	0.00	0.00	0.00	0.00
11,200.00	10.50	275.29	11,171.53	31.53	-340.50	341.96	0.00	0.00	0.00	0.00
11,300.00	10.50	275.29	11,269.85	33.21	-358.65	360.18	0.00	0.00	0.00	0.00
11,400.00	10.50	275.29	11,368.18	34.89	-376.80	378.41	0.00	0.00	0.00	0.00
11,500.00	10.50	275.29	11,466.50	36.57	-394.94	396.63	0.00	0.00	0.00	0.00
11,600.00	10.50	275.29	11,564.83	38.25	-413.09	414.85	0.00	0.00	0.00	0.00
11,700.00	10.50	275.29	11,663.15	39.93	-431.23	433.08	0.00	0.00	0.00	0.00
11,800.00	10.50	275.29	11,761.48	41.61	-449.38	451.30	0.00	0.00	0.00	0.00
11,900.00	10.50	275.29	11,859.81	43.29	-467.53	469.53	0.00	0.00	0.00	0.00
12,000.00	10.50	275.29	11,958.13	44.97	-485.67	487.75	0.00	0.00	0.00	0.00
12,100.00	10.50	275.29	12,056.46	46.65	-503.82	505.97	0.00	0.00	0.00	0.00

Planning Report

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Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4917.00usft (RIG)
Site:	3N-66W-02 GLADE Geothermal Pad	North Reference:	True
Well:	GLADE WEST	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-2		

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)
12,200.00	10.50	275.29	12,154.78	48.33	-521.96	524.20	0.00	0.00	0.00
12,300.00	10.50	275.29	12,253.11	50.01	-540.11	542.42	0.00	0.00	0.00
12,400.00	10.50	275.29	12,351.43	51.69	-558.26	560.64	0.00	0.00	0.00
12,500.00	10.50	275.29	12,449.76	53.37	-576.40	578.87	0.00	0.00	0.00
12,600.00	10.50	275.29	12,548.08	55.05	-594.55	597.09	0.00	0.00	0.00
12,700.00	10.50	275.29	12,646.41	56.73	-612.69	615.31	0.00	0.00	0.00
12,800.00	10.50	275.29	12,744.73	58.41	-630.84	633.54	0.00	0.00	0.00
12,900.00	10.50	275.29	12,843.06	60.09	-648.98	651.76	0.00	0.00	0.00
13,000.00	10.50	275.29	12,941.39	61.77	-667.13	669.98	0.00	0.00	0.00
13,100.00	10.50	275.29	13,039.71	63.45	-685.28	688.21	0.00	0.00	0.00
13,200.00	10.50	275.29	13,138.04	65.13	-703.42	706.43	0.00	0.00	0.00
13,300.00	10.50	275.29	13,236.36	66.81	-721.57	724.65	0.00	0.00	0.00
13,400.00	10.50	275.29	13,334.69	68.49	-739.71	742.88	0.00	0.00	0.00
13,500.00	10.50	275.29	13,433.01	70.17	-757.86	761.10	0.00	0.00	0.00
13,600.00	10.50	275.29	13,531.34	71.85	-776.01	779.33	0.00	0.00	0.00
13,700.00	10.50	275.29	13,629.66	73.53	-794.15	797.55	0.00	0.00	0.00
13,800.00	10.50	275.29	13,727.99	75.21	-812.30	815.77	0.00	0.00	0.00
13,900.00	10.50	275.29	13,826.32	76.89	-830.44	834.00	0.00	0.00	0.00
14,000.00	10.50	275.29	13,924.64	78.57	-848.59	852.22	0.00	0.00	0.00
14,100.00	10.50	275.29	14,022.97	80.25	-866.74	870.44	0.00	0.00	0.00
14,200.00	10.50	275.29	14,121.29	81.93	-884.88	888.67	0.00	0.00	0.00
14,300.00	10.50	275.29	14,219.62	83.61	-903.03	906.89	0.00	0.00	0.00
14,400.00	10.50	275.29	14,317.94	85.29	-921.17	925.11	0.00	0.00	0.00
14,500.00	10.50	275.29	14,416.27	86.97	-939.32	943.34	0.00	0.00	0.00
14,534.61	10.50	275.29	14,450.30	87.55	-945.60	949.64	0.00	0.00	0.00
Decrease Tangent INC @ 14534.61ft									
14,600.00	9.19	275.29	14,514.72	88.59	-956.73	960.83	2.00	-2.00	0.00
14,684.61	7.50	275.29	14,598.44	89.72	-968.96	973.11	2.00	-2.00	0.00
Hold Tangent @ 14684.61ft									
14,700.00	7.50	275.29	14,613.69	89.90	-970.96	975.12	0.00	0.00	0.00
14,800.00	7.50	275.29	14,712.84	91.11	-983.96	988.17	0.00	0.00	0.00
14,900.00	7.50	275.29	14,811.98	92.31	-996.96	1,001.22	0.00	0.00	0.00
15,000.00	7.50	275.29	14,911.13	93.51	-1,009.95	1,014.27	0.00	0.00	0.00
15,100.00	7.50	275.29	15,010.27	94.72	-1,022.95	1,027.33	0.00	0.00	0.00
15,200.00	7.50	275.29	15,109.42	95.92	-1,035.95	1,040.38	0.00	0.00	0.00
15,300.00	7.50	275.29	15,208.56	97.12	-1,048.94	1,053.43	0.00	0.00	0.00
15,400.00	7.50	275.29	15,307.70	98.33	-1,061.94	1,066.48	0.00	0.00	0.00
15,500.00	7.50	275.29	15,406.85	99.53	-1,074.94	1,079.54	0.00	0.00	0.00
15,600.00	7.50	275.29	15,505.99	100.73	-1,087.94	1,092.59	0.00	0.00	0.00
15,700.00	7.50	275.29	15,605.14	101.94	-1,100.93	1,105.64	0.00	0.00	0.00
15,800.00	7.50	275.29	15,704.28	103.14	-1,113.93	1,118.69	0.00	0.00	0.00
15,900.00	7.50	275.29	15,803.43	104.34	-1,126.93	1,131.75	0.00	0.00	0.00
16,000.00	7.50	275.29	15,902.57	105.55	-1,139.92	1,144.80	0.00	0.00	0.00
16,100.00	7.50	275.29	16,001.72	106.75	-1,152.92	1,157.85	0.00	0.00	0.00
16,200.00	7.50	275.29	16,100.86	107.95	-1,165.92	1,170.91	0.00	0.00	0.00
16,300.00	7.50	275.29	16,200.01	109.16	-1,178.92	1,183.96	0.00	0.00	0.00
16,400.00	7.50	275.29	16,299.15	110.36	-1,191.91	1,197.01	0.00	0.00	0.00
16,500.00	7.50	275.29	16,398.29	111.56	-1,204.91	1,210.06	0.00	0.00	0.00
16,600.00	7.50	275.29	16,497.44	112.77	-1,217.91	1,223.12	0.00	0.00	0.00
16,700.00	7.50	275.29	16,596.58	113.97	-1,230.90	1,236.17	0.00	0.00	0.00
16,800.00	7.50	275.29	16,695.73	115.17	-1,243.90	1,249.22	0.00	0.00	0.00
16,900.00	7.50	275.29	16,794.87	116.38	-1,256.90	1,262.27	0.00	0.00	0.00
17,000.00	7.50	275.29	16,894.02	117.58	-1,269.89	1,275.33	0.00	0.00	0.00
17,100.00	7.50	275.29	16,993.16	118.78	-1,282.89	1,288.38	0.00	0.00	0.00

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Design:	Permit Rev-2		

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)	
17,200.00	7.50	275.29	17,092.31	119.99	-1,295.89	1,301.43	0.00	0.00	0.00	
17,300.00	7.50	275.29	17,191.45	121.19	-1,308.89	1,314.48	0.00	0.00	0.00	
17,400.00	7.50	275.29	17,290.59	122.39	-1,321.88	1,327.54	0.00	0.00	0.00	
17,500.00	7.50	275.29	17,389.74	123.60	-1,334.88	1,340.59	0.00	0.00	0.00	
17,600.00	7.50	275.29	17,488.88	124.80	-1,347.88	1,353.64	0.00	0.00	0.00	
17,700.00	7.50	275.29	17,588.03	126.00	-1,360.87	1,366.69	0.00	0.00	0.00	
17,800.00	7.50	275.29	17,687.17	127.21	-1,373.87	1,379.75	0.00	0.00	0.00	
17,900.00	7.50	275.29	17,786.32	128.41	-1,386.87	1,392.80	0.00	0.00	0.00	
18,000.00	7.50	275.29	17,885.46	129.62	-1,399.86	1,405.85	0.00	0.00	0.00	
18,100.00	7.50	275.29	17,984.61	130.82	-1,412.86	1,418.91	0.00	0.00	0.00	
18,200.00	7.50	275.29	18,083.75	132.02	-1,425.86	1,431.96	0.00	0.00	0.00	
18,300.00	7.50	275.29	18,182.89	133.23	-1,438.86	1,445.01	0.00	0.00	0.00	
18,400.00	7.50	275.29	18,282.04	134.43	-1,451.85	1,458.06	0.00	0.00	0.00	
18,500.00	7.50	275.29	18,381.18	135.63	-1,464.85	1,471.12	0.00	0.00	0.00	
18,600.00	7.50	275.29	18,480.33	136.84	-1,477.85	1,484.17	0.00	0.00	0.00	
18,700.00	7.50	275.29	18,579.47	138.04	-1,490.84	1,497.22	0.00	0.00	0.00	
18,800.00	7.50	275.29	18,678.62	139.24	-1,503.84	1,510.27	0.00	0.00	0.00	
18,900.00	7.50	275.29	18,777.76	140.45	-1,516.84	1,523.33	0.00	0.00	0.00	
19,000.00	7.50	275.29	18,876.91	141.65	-1,529.83	1,536.38	0.00	0.00	0.00	
19,100.00	7.50	275.29	18,976.05	142.85	-1,542.83	1,549.43	0.00	0.00	0.00	
19,200.00	7.50	275.29	19,075.20	144.06	-1,555.83	1,562.48	0.00	0.00	0.00	
19,300.00	7.50	275.29	19,174.34	145.26	-1,568.83	1,575.54	0.00	0.00	0.00	
19,400.00	7.50	275.29	19,273.48	146.46	-1,581.82	1,588.59	0.00	0.00	0.00	
19,500.00	7.50	275.29	19,372.63	147.67	-1,594.82	1,601.64	0.00	0.00	0.00	
19,600.00	7.50	275.29	19,471.77	148.87	-1,607.82	1,614.69	0.00	0.00	0.00	
19,700.00	7.50	275.29	19,570.92	150.07	-1,620.81	1,627.75	0.00	0.00	0.00	
19,800.00	7.50	275.29	19,670.06	151.28	-1,633.81	1,640.80	0.00	0.00	0.00	
19,900.00	7.50	275.29	19,769.21	152.48	-1,646.81	1,653.85	0.00	0.00	0.00	
20,000.00	7.50	275.29	19,868.35	153.68	-1,659.81	1,666.90	0.00	0.00	0.00	
20,100.00	7.50	275.29	19,967.50	154.89	-1,672.80	1,679.96	0.00	0.00	0.00	
20,132.79	7.50	275.29	20,000.00	155.28	-1,677.06	1,684.24	0.00	0.00	0.00	
Intercept GLADE EAST @ 20132.79ft										

Casing Points						
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")		
1,637.00	1,637.00	13-3/8"	13-3/8	17-1/2		
10,624.84	10,606.00	9 5/8" CSG	9-5/8	12-1/4		
20,132.79	20,000.01	5-1/2"	5-1/2	8-3/4		

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well GLADE WEST
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4917.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4917.00usft (RIG)
Site:	3N-66W-02 GLADE Geothermal Pad	North Reference:	True
Well:	GLADE WEST	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-2		

Formations						
	Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
	1,091.00	1,091.00	FXHL_MKR			
	1,637.00	1,637.00	Surface Casing Depth			
	4,311.00	4,311.00	SSSX			
	7,065.00	7,065.00	SSPG			
	7,113.00	7,113.00	NBRR			
	7,356.00	7,356.00	CDLL			
	7,372.00	7,372.00	CRLL			
	7,410.00	7,410.00	GRNR			
	7,622.00	7,622.00	GRRS			
	7,784.00	7,784.00	DKOTJ			
	7,942.00	7,942.00	MRSN			
	9,044.07	9,044.00	LYNS			
	9,402.11	9,401.00	WFMP			
	9,823.43	9,818.00	PENN			
	10,047.17	10,038.00	FNTN			
	10,573.99	10,556.00	PCMB			

Plan Annotations					
	Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
			+N/-S (usft)	+E/-W (usft)	
	8,800.00	8,800.00	0.00	0.00	Begin Nudge @ 8800.00ft
	9,850.00	9,844.13	8.85	-95.53	Hold Tangent @ 9850.00ft
	10,573.99	10,556.00	21.01	-226.91	TPZ @ 10573.99ft
	14,534.61	14,450.30	87.55	-945.60	Decrease Tangent INC @ 14534.61ft
	14,684.61	14,598.44	89.72	-968.96	Hold Tangent @ 14684.61ft
	20,132.79	20,000.00	155.28	-1,677.06	Intercept GLADE EAST @ 20132.79ft