

SECTION DETAILS

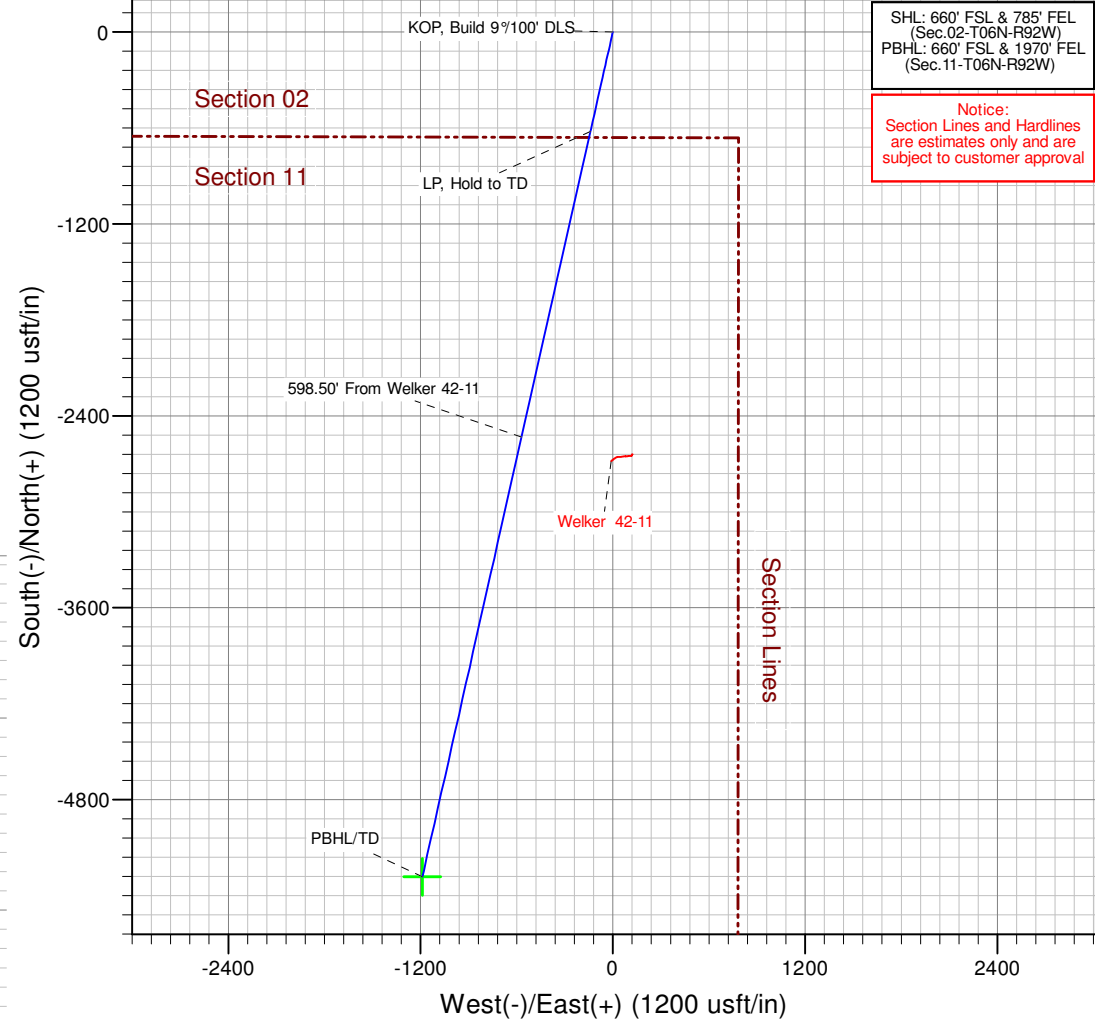
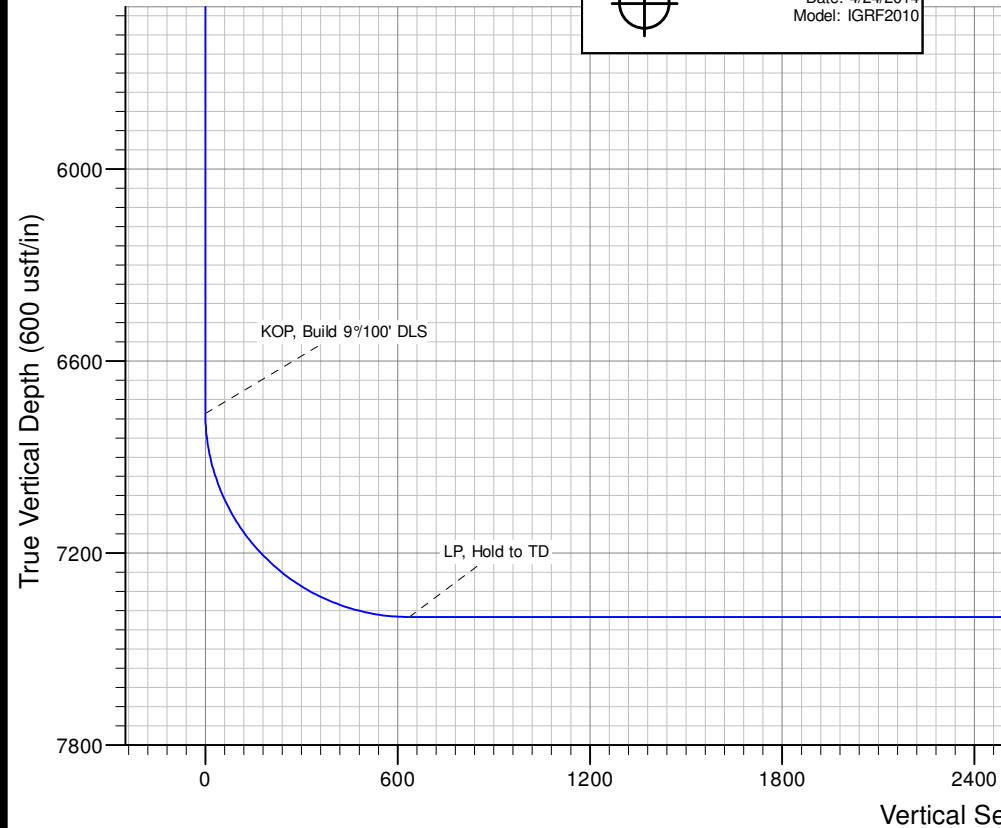
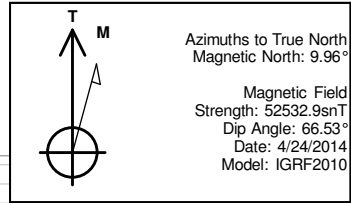
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	6763.38	0.00	0.00	6763.38	0.00	0.00	0.00	0.00	0.00	KOP, Build 9°/100' DLS
3	7763.38	90.00	192.68	7400.00	-621.10	-139.71	9.00	192.68	636.62	LP, Hold to TD
4	12541.15	90.00	192.68	7400.00	-5282.41	-1188.18	0.00	0.00	5414.39	PBHL/TD

WELL DETAILS: Welker 6-92 1-2H11

+N/-S	+E/-W	Northing	GL 6504.00 Easting	KB @ 6526.00usft Latitude	Longitude
0.00	0.00	1430390.16	2393690.21	40° 29' 39.700 N	107° 40' 48.821 W

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
PBHL Welker 6-92 1-2H11 - 720' West	7400.00	-5282.41	-1188.18	Point



SHL: 660' FSL & 785' FEL
 (Sec.02-T06N-R92W)
 PBHL: 660' FSL & 1970' FEL
 (Sec.11-T06N-R92W)

Notice:
 Section Lines and Hardlines
 are estimates only and are
 subject to customer approval



Southwestern Energy Production Company

**Moffat Co., CO
Sec.02-T06N-R92W
Welker 6-92 1-2H11**

Original Hole

Plan: Rev 1

Standard Planning Report

04 August, 2014

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Welker 6-92 1-2H11
Company:	Southwestern Energy Production Company	TVD Reference:	KB @ 6526.00usft
Project:	Moffat Co., CO	MD Reference:	KB @ 6526.00usft
Site:	Sec.02-T06N-R92W	North Reference:	True
Well:	Welker 6-92 1-2H11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Rev 1		

Project	Moffat Co., CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		Sec.02-T06N-R92W			
Site Position:		Northing:	1,430,390.16 usft	Latitude:	40° 29' 39.700 N
From:	Lat/Long	Easting:	2,393,690.21 usft	Longitude:	107° 40' 48.821 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.41 °

Well	Welker 6-92 1-2H11					
Well Position	+N/-S	0.00 usft	Northing:	1,430,390.16 usft	Latitude:	40° 29' 39.700 N
	+E/-W	0.00 usft	Easting:	2,393,690.21 usft	Longitude:	107° 40' 48.821 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	6,526.00 usft	Ground Level:	6,504.00 usft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/24/2014	9.96	66.53	52,533

Design	Rev 1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	192.68

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	
6,763.38	0.00	0.00	6,763.38	0.00	0.00	0.00	0.00	0.00	0.00	
7,763.38	90.00	192.68	7,400.00	-621.10	-139.71	9.00	9.00	0.00	192.68	PBHL Welker 6-92 1-1
12,541.15	90.00	192.68	7,400.00	-5,282.41	-1,188.18	0.00	0.00	0.00	0.00	PBHL Welker 6-92 1-1

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Welker 6-92 1-2H11
Company:	Southwestern Energy Production Company	TVD Reference:	KB @ 6526.00usft
Project:	Moffat Co., CO	MD Reference:	KB @ 6526.00usft
Site:	Sec.02-T06N-R92W	North Reference:	True
Well:	Welker 6-92 1-2H11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Rev 1		

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
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Welker 6-92 1-2H11
Company:	Southwestern Energy Production Company	TVD Reference:	KB @ 6526.00usft
Project:	Moffat Co., CO	MD Reference:	KB @ 6526.00usft
Site:	Sec.02-T06N-R92W	North Reference:	True
Well:	Welker 6-92 1-2H11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Rev 1		

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)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,763.38	0.00	0.00	6,763.38	0.00	0.00	0.00	0.00	0.00	0.00
KOP, Build 9°/100' DLS									
6,800.00	3.30	192.68	6,799.98	-1.03	-0.23	1.05	9.00	9.00	0.00
6,900.00	12.30	192.68	6,898.95	-14.25	-3.20	14.60	9.00	9.00	0.00
7,000.00	21.30	192.68	6,994.59	-42.41	-9.54	43.47	9.00	9.00	0.00
7,100.00	30.30	192.68	7,084.53	-84.82	-19.08	86.94	9.00	9.00	0.00
7,200.00	39.30	192.68	7,166.57	-140.44	-31.59	143.95	9.00	9.00	0.00
7,300.00	48.30	192.68	7,238.67	-207.89	-46.76	213.09	9.00	9.00	0.00
7,400.00	57.30	192.68	7,299.08	-285.52	-64.22	292.65	9.00	9.00	0.00
7,500.00	66.30	192.68	7,346.29	-371.41	-83.54	380.69	9.00	9.00	0.00
7,600.00	75.30	192.68	7,379.15	-463.45	-104.24	475.03	9.00	9.00	0.00
7,700.00	84.30	192.68	7,396.85	-559.37	-125.82	573.34	9.00	9.00	0.00
7,763.38	90.00	192.68	7,400.00	-621.10	-139.71	636.62	9.00	9.00	0.00
LP, Hold to TD									
7,800.00	90.00	192.68	7,400.00	-656.83	-147.74	673.24	0.00	0.00	0.00
7,900.00	90.00	192.68	7,400.00	-754.39	-169.69	773.24	0.00	0.00	0.00
8,000.00	90.00	192.68	7,400.00	-851.95	-191.63	873.24	0.00	0.00	0.00
8,100.00	90.00	192.68	7,400.00	-949.52	-213.58	973.24	0.00	0.00	0.00
8,200.00	90.00	192.68	7,400.00	-1,047.08	-235.52	1,073.24	0.00	0.00	0.00
8,300.00	90.00	192.68	7,400.00	-1,144.64	-257.47	1,173.24	0.00	0.00	0.00
8,400.00	90.00	192.68	7,400.00	-1,242.20	-279.41	1,273.24	0.00	0.00	0.00
8,500.00	90.00	192.68	7,400.00	-1,339.77	-301.36	1,373.24	0.00	0.00	0.00
8,600.00	90.00	192.68	7,400.00	-1,437.33	-323.30	1,473.24	0.00	0.00	0.00
8,700.00	90.00	192.68	7,400.00	-1,534.89	-345.25	1,573.24	0.00	0.00	0.00
8,800.00	90.00	192.68	7,400.00	-1,632.45	-367.19	1,673.24	0.00	0.00	0.00
8,900.00	90.00	192.68	7,400.00	-1,730.02	-389.13	1,773.24	0.00	0.00	0.00
9,000.00	90.00	192.68	7,400.00	-1,827.58	-411.08	1,873.24	0.00	0.00	0.00
9,100.00	90.00	192.68	7,400.00	-1,925.14	-433.02	1,973.24	0.00	0.00	0.00
9,200.00	90.00	192.68	7,400.00	-2,022.70	-454.97	2,073.24	0.00	0.00	0.00
9,300.00	90.00	192.68	7,400.00	-2,120.27	-476.91	2,173.24	0.00	0.00	0.00
9,400.00	90.00	192.68	7,400.00	-2,217.83	-498.86	2,273.24	0.00	0.00	0.00
9,500.00	90.00	192.68	7,400.00	-2,315.39	-520.80	2,373.24	0.00	0.00	0.00
9,600.00	90.00	192.68	7,400.00	-2,412.95	-542.75	2,473.24	0.00	0.00	0.00
9,700.00	90.00	192.68	7,400.00	-2,510.51	-564.69	2,573.24	0.00	0.00	0.00
9,722.68	90.00	192.68	7,400.00	-2,532.64	-569.67	2,595.92	0.00	0.00	0.00
598.50' From Welker 42-11									
9,800.00	90.00	192.68	7,400.00	-2,608.08	-586.64	2,673.24	0.00	0.00	0.00
9,900.00	90.00	192.68	7,400.00	-2,705.64	-608.58	2,773.24	0.00	0.00	0.00
10,000.00	90.00	192.68	7,400.00	-2,803.20	-630.53	2,873.24	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Welker 6-92 1-2H11
Company:	Southwestern Energy Production Company	TVD Reference:	KB @ 6526.00usft
Project:	Moffat Co., CO	MD Reference:	KB @ 6526.00usft
Site:	Sec.02-T06N-R92W	North Reference:	True
Well:	Welker 6-92 1-2H11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Rev 1		

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)	
10,100.00	90.00	192.68	7,400.00	-2,900.76	-652.47	2,973.24	0.00	0.00	0.00	
10,200.00	90.00	192.68	7,400.00	-2,998.33	-674.42	3,073.24	0.00	0.00	0.00	
10,300.00	90.00	192.68	7,400.00	-3,095.89	-696.36	3,173.24	0.00	0.00	0.00	
10,400.00	90.00	192.68	7,400.00	-3,193.45	-718.31	3,273.24	0.00	0.00	0.00	
10,500.00	90.00	192.68	7,400.00	-3,291.01	-740.25	3,373.24	0.00	0.00	0.00	
10,600.00	90.00	192.68	7,400.00	-3,388.58	-762.20	3,473.24	0.00	0.00	0.00	
10,700.00	90.00	192.68	7,400.00	-3,486.14	-784.14	3,573.24	0.00	0.00	0.00	
10,800.00	90.00	192.68	7,400.00	-3,583.70	-806.09	3,673.24	0.00	0.00	0.00	
10,900.00	90.00	192.68	7,400.00	-3,681.26	-828.03	3,773.24	0.00	0.00	0.00	
11,000.00	90.00	192.68	7,400.00	-3,778.83	-849.98	3,873.24	0.00	0.00	0.00	
11,100.00	90.00	192.68	7,400.00	-3,876.39	-871.92	3,973.24	0.00	0.00	0.00	
11,200.00	90.00	192.68	7,400.00	-3,973.95	-893.87	4,073.24	0.00	0.00	0.00	
11,300.00	90.00	192.68	7,400.00	-4,071.51	-915.81	4,173.24	0.00	0.00	0.00	
11,400.00	90.00	192.68	7,400.00	-4,169.08	-937.76	4,273.24	0.00	0.00	0.00	
11,500.00	90.00	192.68	7,400.00	-4,266.64	-959.70	4,373.24	0.00	0.00	0.00	
11,600.00	90.00	192.68	7,400.00	-4,364.20	-981.65	4,473.24	0.00	0.00	0.00	
11,700.00	90.00	192.68	7,400.00	-4,461.76	-1,003.59	4,573.24	0.00	0.00	0.00	
11,800.00	90.00	192.68	7,400.00	-4,559.33	-1,025.54	4,673.24	0.00	0.00	0.00	
11,900.00	90.00	192.68	7,400.00	-4,656.89	-1,047.48	4,773.24	0.00	0.00	0.00	
12,000.00	90.00	192.68	7,400.00	-4,754.45	-1,069.43	4,873.24	0.00	0.00	0.00	
12,100.00	90.00	192.68	7,400.00	-4,852.01	-1,091.37	4,973.24	0.00	0.00	0.00	
12,200.00	90.00	192.68	7,400.00	-4,949.58	-1,113.31	5,073.24	0.00	0.00	0.00	
12,300.00	90.00	192.68	7,400.00	-5,047.14	-1,135.26	5,173.24	0.00	0.00	0.00	
12,400.00	90.00	192.68	7,400.00	-5,144.70	-1,157.20	5,273.24	0.00	0.00	0.00	
12,500.00	90.00	192.68	7,400.00	-5,242.26	-1,179.15	5,373.24	0.00	0.00	0.00	
12,541.15	90.00	192.68	7,400.00	-5,282.41	-1,188.18	5,414.39	0.00	0.00	0.00	
PBHL/TD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		Longitude
- hit/miss target										
- Shape										
PBHL Welker 6-92 1-2H	0.00	0.00	7,400.00	-5,282.41	-1,188.18	1,425,138.56	2,392,372.52	40° 28' 47.499 N		107° 41' 4.197 W
- plan hits target center										
- Point										

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
6,763.38	6,763.38	0.00	0.00	KOP, Build 9°/100' DLS	
7,763.38	7,400.00	-621.10	-139.71	LP, Hold to TD	
9,722.68	7,400.00	-2,532.64	-569.67	598.50' From Welker 42-11	
12,541.15	7,400.00	-5,282.41	-1,188.18	PBHL/TD	