

5D Plan Report**BONANZA CREEK**

Field Name: *DJ_WATTENBERG_NAD 83*
Site Name: *PRONGHORN F-17 PAD*
Well Name: *PRONGHORN 11-14-17HNB*
Plan: *PLAN 1*





Weatherford®

Plan Point Information:

DogLeg Severity Unit: °/100.00ft

				Position offsets from Slot centre									
MD	Inc	Az	TVD	+N/-S	+E/-W	VSec	DLS	Toolface	Build	Turn			
(USft)	(°)	(°)	(USft)	(USft)	(USft)	(USft)	(DLSU)	(°)	(DLSU)	(DLSU)			
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00			
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00			
1800.15	16.00	300.33	1789.79	56.06	-95.82	-45.03	2.00	300.3	2.00	0.00			
3167.58	16.00	300.33	3104.23	246.44	-421.20	-197.96	0.00	0.0	0.00	0.00			
3967.73	0.00	0.00	3894.02	302.51	-517.03	-242.99	2.00	180.0	-2.00	0.00			
5600.46	0.00	0.00	5526.75	302.51	-517.03	-242.99	0.00	0.0	0.00	0.00			
6282.28	75.00	179.95	6029.87	-83.55	-516.69	140.63	11.00	179.9	11.00	0.00			
6382.28	75.00	179.95	6055.75	-180.14	-516.61	236.61	0.00	0.0	0.00	0.00			
6518.65	90.00	179.95	6073.50	-314.96	-516.48	370.56	11.00	360.0	11.00	-0.00			
10771.97	90.00	179.95	6073.50	-4568.28	-512.50	4596.93	0.00	0.0	0.00	0.00			

Target Set Information:

Name: PRONGHORN11-14-17HNB

Name	TVD	Lat	Long
(USft)	(USft)	(°)	(°)
PBHL	6073.50	40.395130	-104.240460

Casing Point Information:

Name	MD	TVD
	(USft)	(USft)
7in	6518.65	6073.50

Plan Data for PRONGHORN 11-14-17HNB

Field: DJ_WATTENBERG_NAD83

Map Unit: USFt

Vertical Reference Datum (VRD): MeanSeaLevel
Projected Coordinate System: NAD83/ColoradoNorth(ftUS)

Site: PRONGHORN F-17 PAD

Unit: USFeet TVD Reference:

Company Name:

Position: Northing: 1393852.86USft Latitude: 40.407670°

Easting: 3351255.81USft Longitude: -104.238620°

North Reference: True Grid Convergence: 0.82°

Elevation Above VRD: 4592.00USft

Slot: PRONGHORN 11-14-17HNB

Position:

Offset is from Site centre

+N/-S: -0.00USft Northing: 1393852.86USft Latitude: 40.407670°

+E/-W: 0.00USft Easting: 3351255.81USft Longitude: -104.238620°

Elevation Above VRD: 4592.00USft

Well: PRONGHORN 11-14-17HNB

Type: Main-Well

File Number:

Vertical Section: Position offset of origin from Slot centre:

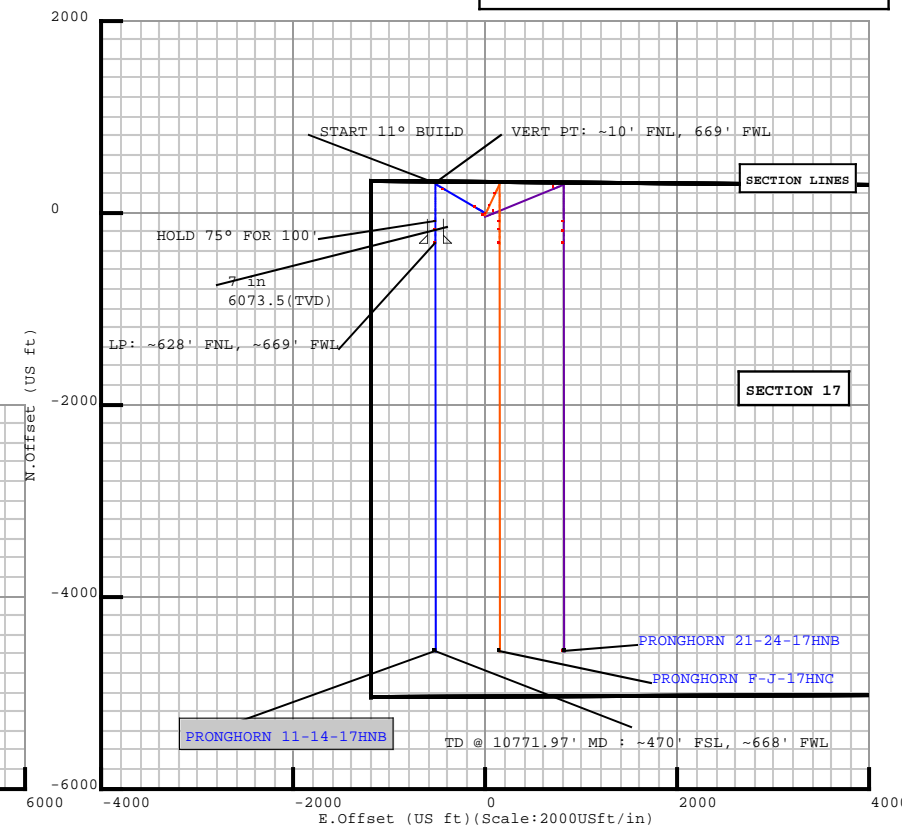
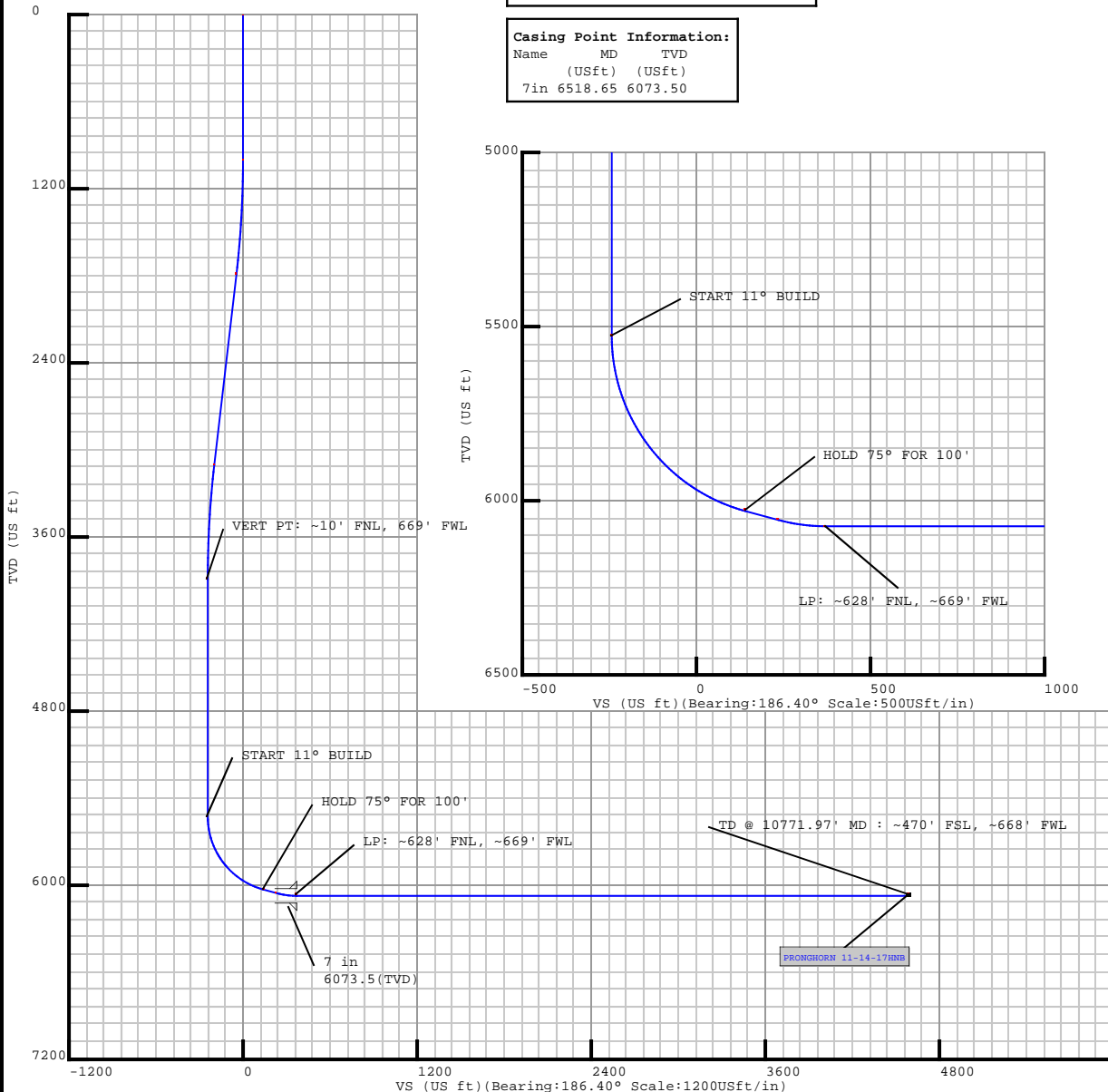
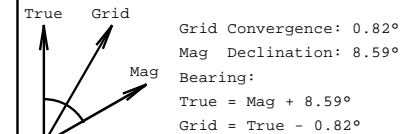
+N/-S: 0.00USft Azimuth: 186.40°

+E/-W: -0.00USft

Magnetic Parameters:

Model: Field Strength: Declination: Dip: Date:

BGGM 52606(nT) 8.59° 66.62° 2014-01-10



Plan Surveys for the PRONGHORN 11-14-17HNB

Site Name PRONGHORN F-17 PAD	Units : US ft	North Reference : True	Convergence Angle : 0.82
	Position	Northing : 1393852.86 US ft	Latitude : 40.407670
		Easting : 3351255.81 US ft	Longitude : -104.238620
	Elevation above: 4592.00 US ft Comment :		
Slot Name PRONGHORN 11-14-17HNB	Position (Offsets relative to Site Centre)		
	+N / -S : -0.00 US ft	Northing : 1393852.86 US ft	Latitude : 40.407670
	+E / -W : 0.00 US ft	Easting : 3351255.81 US ft	Longitude : -104.238620
	Slot TVD Reference : Ground Elevation Elevation above : 4592.00 US ft Comment :		
Well Name PRONGHORN 11-14-17HNB	Type : Main well	UWI :	Plan : PLAN 1
	Rig Height <i>Drill Floor</i> : 16.50 US ft	Comment :	
	Relative to : 4608.50 US ft		
	Closure Distance : 4596.93 US ft	Closure Azimuth : 186.401°	
	Vertical Section (Position of Origin Relative to Slot)		
	+N / -S : 0.00 US ft	+E / -W : -0.00 US ft	Az : 186.40°
	Magnetic Parameters		
	Model : BGGM	Field Strength : 52606.3nT	Dec : 8.59°
			Dip : 66.62°
			Date : 10/Jan/2014

Target Set**Name :** PRONGHORN 11-14-17HNB**Number of Targets :** 1**Comment :**

TargetName:	Position (Relative to centre)				
PBHL	+N / -S : -4568.28US ft		Northing : 1389277.76 US ft		
	+E / -W : -512.50 US ft		Easting : 3350808.34US ft		
Shape:	Latitude : 40°23'42.468000"				
Cuboid	Longitude : -104°14'25.656000"				
	TVD (Drill Floor) : 6073.50 US ft				
	Orientation	Azimuth : 0.00°		Inclination : 0.00°	
	Dimensions	Length : 20.00 US ft		Breadth : 20.00 US ft	
				Height : 20.00 US ft	

Casing Points (Relative to centre, TVD relative to Drill Floor)								
Name	MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (°)	Longitude (°)
7 in	6518.65	90.00	179.95	6073.50	-314.96	-516.48	40.406805	-104.240475

Well path created using minimum curvature

Salient Points (Relative to centre, TVD relative to Drill Floor)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (°)	Longitude (°)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	40.407670	-104.238620	0.00	0.00	0.00	
1000.00	0.00	0.00	1000.00	0.00	0.00	40.407670	-104.238620	0.00	0.00	0.00	
1800.15	16.00	300.33	1789.79	56.06	-95.82	40.407824	-104.238964	2.00	300.33	-45.03	
3167.58	16.00	300.33	3104.23	246.44	-421.20	40.408346	-104.240133	0.00	0.00	-197.95	
3967.73	0.00	0.00	3894.02	302.51	-517.03	40.408500	-104.240477	2.00	180.00	-242.99	VERT PT: ~10' FNL, 669' FWL
5600.46	0.00	0.00	5526.75	302.51	-517.03	40.408500	-104.240477	0.00	0.00	-242.99	START 11° BUILD
6282.28	75.00	179.95	6029.87	-83.55	-516.69	40.407441	-104.240475	11.00	179.95	140.63	HOLD 75° FOR 100'
6382.28	75.00	179.95	6055.75	-180.14	-516.61	40.407175	-104.240475	0.00	0.00	236.61	
6518.65	90.00	179.95	6073.50	-314.96	-516.48	40.406805	-104.240475	11.00	359.99	370.57	LP: ~628' FNL, ~669' FWL
6518.65	90.00	179.95	6073.50	-314.96	-516.48	40.406805	-104.240475	0.00	0.00	370.57	7 in
10771.97	90.00	179.95	6073.50	-4568.28	-512.50	40.395130	-104.240460	0.00	0.00	4596.94	TD @ 10771.97' MD : ~470' FSL, ~668' FWL

5D Plan Report

Interpolated Points (Relative to centre, TVD relative to Drill Floor)									
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment
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	
200.00	0.00	0.00	200.00	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	
400.00	0.00	0.00	400.00	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	
600.00	0.00	0.00	600.00	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	
800.00	0.00	0.00	800.00	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	
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	
1100.00	2.00	300.33	1099.98	0.88	-1.51	2.00	300.33	-0.71	
1200.00	4.00	300.33	1199.84	3.52	-6.02	2.00	0.00	-2.83	
1300.00	6.00	300.33	1299.45	7.93	-13.55	2.00	0.00	-6.36	
1400.00	8.00	300.33	1398.70	14.08	-24.06	2.00	0.00	-11.31	
1500.00	10.00	300.33	1497.47	21.98	-37.57	2.00	0.00	-17.65	
1600.00	12.00	300.33	1595.62	31.61	-54.03	2.00	0.00	-25.39	
1700.00	14.00	300.33	1693.06	42.97	-73.45	2.00	0.00	-34.52	
1800.00	16.00	300.33	1789.64	56.04	-95.79	2.00	0.00	-45.01	
1800.15	16.00	300.33	1789.79	56.06	-95.82	0.00	0.00	-45.03	
1900.00	16.00	300.33	1885.77	69.97	-119.58	0.00	0.00	-56.20	
2000.00	16.00	300.33	1981.89	83.89	-143.38	0.00	0.00	-67.38	
2100.00	16.00	300.33	2078.02	97.81	-167.17	0.00	0.00	-78.56	
2200.00	16.00	300.33	2174.14	111.73	-190.97	0.00	0.00	-89.75	
2300.00	16.00	300.33	2270.27	125.66	-214.76	0.00	0.00	-100.93	
2400.00	16.00	300.33	2366.39	139.58	-238.56	0.00	0.00	-112.11	
2500.00	16.00	300.33	2462.52	153.50	-262.35	0.00	0.00	-123.30	
2600.00	16.00	300.33	2558.64	167.42	-286.15	0.00	0.00	-134.48	
2700.00	16.00	300.33	2654.77	181.34	-309.94	0.00	0.00	-145.66	
2800.00	16.00	300.33	2750.89	195.27	-333.74	0.00	0.00	-156.85	
2900.00	16.00	300.33	2847.01	209.19	-357.53	0.00	0.00	-168.03	
3000.00	16.00	300.33	2943.14	223.11	-381.33	0.00	0.00	-179.21	
3100.00	16.00	300.33	3039.26	237.03	-405.12	0.00	0.00	-190.40	
3167.58	16.00	300.33	3104.23	246.44	-421.20	0.00	0.00	-197.95	
3200.00	15.35	300.33	3135.44	250.87	-428.77	2.00	180.00	-201.51	
3300.00	13.35	300.33	3232.31	263.39	-450.16	2.00	180.00	-211.56	
3400.00	11.35	300.33	3329.99	274.19	-468.63	2.00	180.00	-220.24	
3500.00	9.35	300.33	3428.36	283.27	-484.14	2.00	180.00	-227.53	
3600.00	7.35	300.33	3527.29	290.60	-496.68	2.00	180.00	-233.43	
3700.00	5.35	300.33	3626.67	296.19	-506.24	2.00	180.00	-237.92	
3800.00	3.35	300.33	3726.38	300.03	-512.79	2.00	180.00	-241.00	

5D Plan Report

Interpolated Points (Relative to centre, TVD relative to Drill Floor)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment	
3900.00	1.35	300.33	3826.29	302.10	-516.34	2.00	180.00	-242.66		
3967.73	0.00	0.00	3894.02	302.51	-517.03	2.00	180.00	-242.99	VERT PT: ~10' FNL, 669' FWL	
4000.00	0.00	0.00	3926.28	302.51	-517.03	0.00	0.00	-242.99		
4100.00	0.00	0.00	4026.28	302.51	-517.03	0.00	0.00	-242.99		
4200.00	0.00	0.00	4126.28	302.51	-517.03	0.00	0.00	-242.99		
4300.00	0.00	0.00	4226.28	302.51	-517.03	0.00	0.00	-242.99		
4400.00	0.00	0.00	4326.28	302.51	-517.03	0.00	0.00	-242.99		
4500.00	0.00	0.00	4426.28	302.51	-517.03	0.00	0.00	-242.99		
4600.00	0.00	0.00	4526.28	302.51	-517.03	0.00	0.00	-242.99		
4700.00	0.00	0.00	4626.28	302.51	-517.03	0.00	0.00	-242.99		
4800.00	0.00	0.00	4726.28	302.51	-517.03	0.00	0.00	-242.99		
4900.00	0.00	0.00	4826.28	302.51	-517.03	0.00	0.00	-242.99		
5000.00	0.00	0.00	4926.28	302.51	-517.03	0.00	0.00	-242.99		
5100.00	0.00	0.00	5026.28	302.51	-517.03	0.00	0.00	-242.99		
5200.00	0.00	0.00	5126.28	302.51	-517.03	0.00	0.00	-242.99		
5300.00	0.00	0.00	5226.28	302.51	-517.03	0.00	0.00	-242.99		
5400.00	0.00	0.00	5326.28	302.51	-517.03	0.00	0.00	-242.99		
5500.00	0.00	0.00	5426.28	302.51	-517.03	0.00	0.00	-242.99		
5600.00	0.00	0.00	5526.28	302.51	-517.03	0.00	0.00	-242.99		
5600.46	0.00	0.00	5526.75	302.51	-517.03	0.00	0.00	-242.99	START 11° BUILD	
5700.00	10.95	179.95	5625.68	293.03	-517.02	11.00	179.95	-233.57		
5800.00	21.95	179.95	5721.44	264.75	-516.99	11.00	0.00	-205.47		
5900.00	32.95	179.95	5810.04	218.73	-516.95	11.00	0.00	-159.74		
6000.00	43.95	179.95	5888.24	156.64	-516.90	11.00	0.00	-98.04		
6100.00	54.95	179.95	5953.15	80.78	-516.83	11.00	0.00	-22.66		
6200.00	65.95	179.95	6002.40	-6.08	-516.76	11.00	0.00	63.65		
6282.28	75.00	179.95	6029.87	-83.55	-516.69	11.00	0.00	140.63	HOLD 75° FOR 100'	
6300.00	75.00	179.95	6034.45	-100.67	-516.67	0.00	0.00	157.63		
6382.28	75.00	179.95	6055.75	-180.14	-516.61	0.00	0.00	236.61		
6400.00	76.95	179.95	6060.04	-197.33	-516.59	11.00	359.99	253.69		
6500.00	87.95	179.95	6073.16	-296.31	-516.50	11.00	359.99	352.04		
6518.65	90.00	179.95	6073.50	-314.96	-516.48	11.00	359.99	370.57	LP: ~628' FNL, ~669' FWL 7 in	
6518.65	90.00	179.95	6073.50	-314.96	-516.48	0.00	0.00	370.57		
6600.00	90.00	179.95	6073.50	-396.31	-516.41	0.00	0.00	451.41		
6700.00	90.00	179.95	6073.50	-496.31	-516.31	0.00	0.00	550.77		
6800.00	90.00	179.95	6073.50	-596.31	-516.22	0.00	0.00	650.14		
6900.00	90.00	179.95	6073.50	-696.31	-516.13	0.00	0.00	749.50		
7000.00	90.00	179.95	6073.50	-796.31	-516.03	0.00	0.00	848.87		
7100.00	90.00	179.95	6073.50	-896.31	-515.94	0.00	0.00	948.24		
7200.00	90.00	179.95	6073.50	-996.31	-515.84	0.00	0.00	1047.60		

5D Plan Report

Interpolated Points (Relative to centre, TVD relative to Drill Floor)									
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment
7300.00	90.00	179.95	6073.50	-1096.31	-515.75	0.00	0.00	1146.97	
7400.00	90.00	179.95	6073.50	-1196.31	-515.66	0.00	0.00	1246.34	
7500.00	90.00	179.95	6073.50	-1296.31	-515.56	0.00	0.00	1345.70	
7600.00	90.00	179.95	6073.50	-1396.31	-515.47	0.00	0.00	1445.07	
7700.00	90.00	179.95	6073.50	-1496.31	-515.38	0.00	0.00	1544.44	
7800.00	90.00	179.95	6073.50	-1596.31	-515.28	0.00	0.00	1643.80	
7900.00	90.00	179.95	6073.50	-1696.31	-515.19	0.00	0.00	1743.17	
8000.00	90.00	179.95	6073.50	-1796.31	-515.10	0.00	0.00	1842.53	
8100.00	90.00	179.95	6073.50	-1896.31	-515.00	0.00	0.00	1941.90	
8200.00	90.00	179.95	6073.50	-1996.31	-514.91	0.00	0.00	2041.27	
8300.00	90.00	179.95	6073.50	-2096.31	-514.81	0.00	0.00	2140.63	
8400.00	90.00	179.95	6073.50	-2196.31	-514.72	0.00	0.00	2240.00	
8500.00	90.00	179.95	6073.50	-2296.31	-514.63	0.00	0.00	2339.37	
8600.00	90.00	179.95	6073.50	-2396.31	-514.53	0.00	0.00	2438.73	
8700.00	90.00	179.95	6073.50	-2496.31	-514.44	0.00	0.00	2538.10	
8800.00	90.00	179.95	6073.50	-2596.31	-514.35	0.00	0.00	2637.46	
8900.00	90.00	179.95	6073.50	-2696.31	-514.25	0.00	0.00	2736.83	
9000.00	90.00	179.95	6073.50	-2796.31	-514.16	0.00	0.00	2836.20	
9100.00	90.00	179.95	6073.50	-2896.31	-514.07	0.00	0.00	2935.56	
9200.00	90.00	179.95	6073.50	-2996.31	-513.97	0.00	0.00	3034.93	
9300.00	90.00	179.95	6073.50	-3096.31	-513.88	0.00	0.00	3134.30	
9400.00	90.00	179.95	6073.50	-3196.31	-513.78	0.00	0.00	3233.66	
9500.00	90.00	179.95	6073.50	-3296.31	-513.69	0.00	0.00	3333.03	
9600.00	90.00	179.95	6073.50	-3396.31	-513.60	0.00	0.00	3432.40	
9700.00	90.00	179.95	6073.50	-3496.31	-513.50	0.00	0.00	3531.76	
9800.00	90.00	179.95	6073.50	-3596.31	-513.41	0.00	0.00	3631.13	
9900.00	90.00	179.95	6073.50	-3696.31	-513.32	0.00	0.00	3730.49	
10000.00	90.00	179.95	6073.50	-3796.31	-513.22	0.00	0.00	3829.86	
10100.00	90.00	179.95	6073.50	-3896.31	-513.13	0.00	0.00	3929.23	
10200.00	90.00	179.95	6073.50	-3996.31	-513.03	0.00	0.00	4028.59	
10300.00	90.00	179.95	6073.50	-4096.31	-512.94	0.00	0.00	4127.96	
10400.00	90.00	179.95	6073.50	-4196.31	-512.85	0.00	0.00	4227.33	
10500.00	90.00	179.95	6073.50	-4296.31	-512.75	0.00	0.00	4326.69	
10600.00	90.00	179.95	6073.50	-4396.31	-512.66	0.00	0.00	4426.06	
10700.00	90.00	179.95	6073.50	-4496.31	-512.57	0.00	0.00	4525.42	
10771.97	90.00	179.95	6073.50	-4568.28	-512.50	0.00	0.00	4596.94	TD @ 10771.97' MD : ~470' FSL, ~668' FWL