

5D Plan Report**BONANZA CREEK**

Field Name: *DJ _WATTENBERG_NAD 83*
Site Name: *PRONGHORN F-17 PAD*
Well Name: *PRONGHORN F-J-17HNC*
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	
1799.83	16.00	25.37	1789.48	100.23	47.54	-104.90	2.00	25.4	2.00	0.00	
2281.94	16.00	25.37	2252.92	220.27	104.47	-230.55	0.00	0.0	0.00	0.00	
3081.77	0.00	0.00	3042.40	320.50	152.00	-335.45	2.00	180.0	-2.00	0.00	
5639.12	0.00	0.00	5599.75	320.50	152.00	-335.45	0.00	0.0	0.00	0.00	
6320.94	75.00	179.95	6102.87	-65.56	152.34	48.17	11.00	179.9	11.00	0.00	
6420.94	75.00	179.95	6128.76	-162.15	152.42	144.15	0.00	0.0	0.00	0.00	
6557.30	90.00	179.95	6146.50	-296.96	152.54	278.11	11.00	0.0	11.00	0.00	
10806.77	90.00	179.95	6146.50	-4546.43	155.97	4500.71	0.00	0.0	0.00	0.00	

Target Set Information:

Name: PRONGHORN F-J-17HNC

Name	TVD	Lat	Long
	(USft)	(°)	(°)
PBHL	6146.50	40.395130	-104.238060

Casing Point Information:

Name	MD	TVD
	(USft)	(USft)
7 in	6557.30	6146.50

Plan Data for PRONGHORN F-J-17HNC

Field: DJ _WATTENBERG_NAD 83

Map Unit: USFt Vertical Reference Datum (VRD): Mean Sea Level
Projected Coordinate System: NAD83 / Colorado North (ftUS)

Site: PRONGHORN F-17 PAD

Unit: USFeet TVD Reference:

Company Name: BONANZA CREEK

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 F-J-17HNC

Position:

Offset is from Site centre

+N/-S: -21.85USft Northing: 1393831.01USft Latitude: 40.407610°

+E/-W: 0.00USft Easting: 3351256.12USft Longitude: -104.238620°

Elevation Above VRD: 4592.00USft

Well: PRONGHORN F-J-17HNC

Type: Main-Well

File Number:

Vertical Section: Position offset of origin from Slot centre:

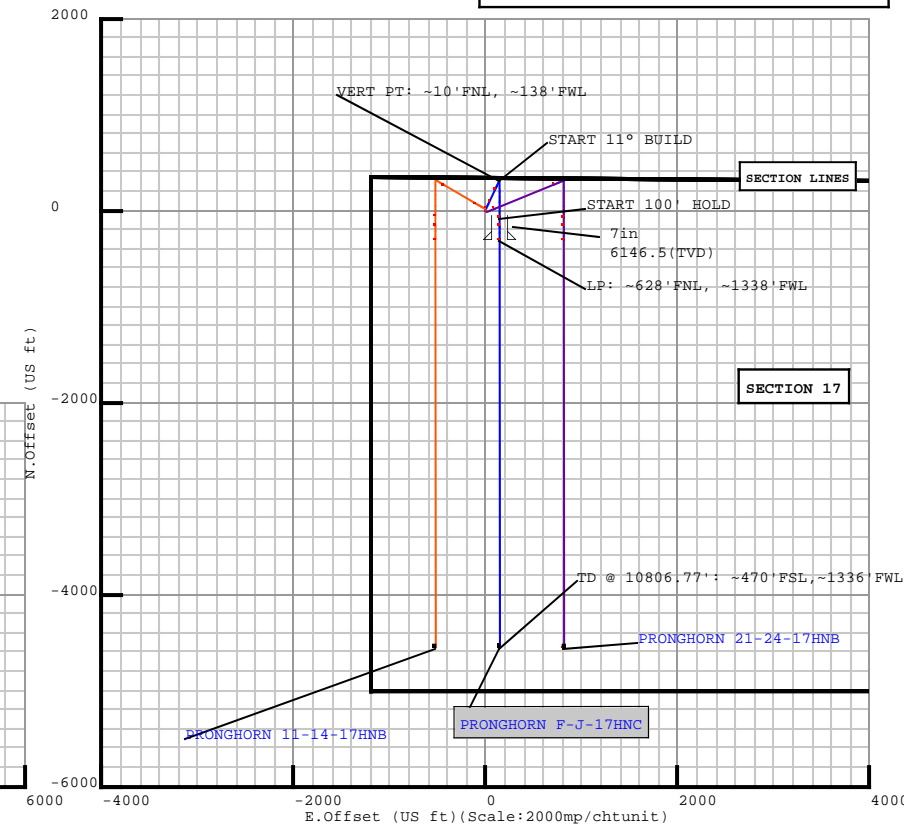
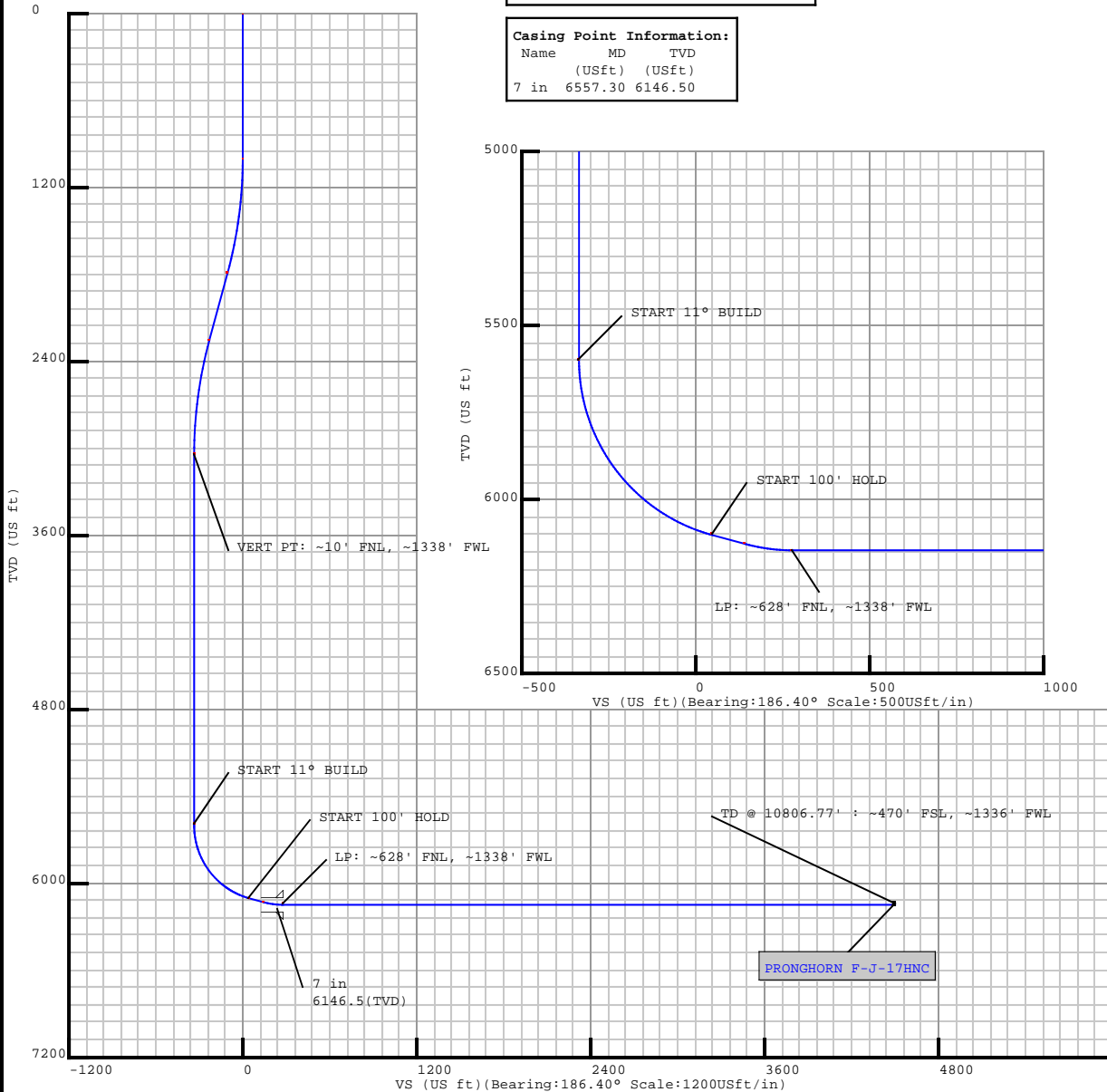
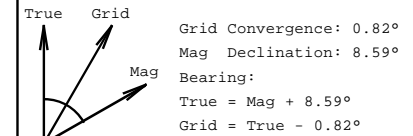
+N/-S: 21.85USft Azimuth: 186.40°

+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 F-J-17HNC

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 F-J-17HNC	Position (Offsets relative to Site Centre)		
	+N / -S : -21.85 US ft	Northing : 1393831.01 US ft	Latitude : 40.407610
	+E / -W : 0.00 US ft	Easting : 3351256.12 US ft	Longitude : -104.238620
	Slot TVD Reference : Ground Elevation Elevation above : 4592.00 US ft Comment :		
Well Name PRONGHORN F-J-17HNC	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 : 4549.1 US ft	Closure Azimuth : 178.035°	
	Vertical Section (Position of Origin Relative to Slot)		
	+N / -S : 21.85 US ft	+E / -W : -0.00 US ft	Az : 178.04°
	Magnetic Parameters		
	Model : BGGM	Field Strength : 52606.3nT	Dec : 8.59°
			Dip : 66.62°
			Date : 10/Jan/2014

Target Set**Name :** PRONGHORN F-J-17HNC**Number of Targets :** 1**Comment :**

TargetName:	Position (Relative to centre)			
PBHL	+N / -S : -4546.43US ft		Northing : 1389287.26 US ft	Latitude : 40°23'42.468000"
Shape:	+E / -W : 155.97 US ft		Easting : 3351476.75US ft	Longitude : -104°14'17.016000"
Cuboid	TVD (Drill Floor) : 6146.50 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	6557.30	90.00	179.95	6146.50	-296.96	152.54	40.406795	-104.238072

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	40.407610	-104.238620	0.00	0.00	21.84	
1000.00	0.00	0.00	1000.00	0.00	0.00	40.407610	-104.238620	0.00	0.00	21.84	
1799.83	16.00	25.37	1789.48	100.23	47.54	40.407885	-104.238449	2.00	25.37	-76.70	
2281.94	16.00	25.37	2252.92	220.27	104.47	40.408215	-104.238245	0.00	0.00	-194.73	
3081.77	0.00	0.00	3042.40	320.50	152.00	40.408490	-104.238074	2.00	180.00	-293.27	VERT PT: ~10' FNL, ~1338' FWL
5639.12	0.00	0.00	5599.75	320.50	152.00	40.408490	-104.238074	0.00	0.00	-293.27	START 11° BUILD
6320.94	75.00	179.95	6102.87	-65.56	152.34	40.407430	-104.238073	11.00	179.95	92.57	START 100' HOLD
6420.94	75.00	179.95	6128.76	-162.15	152.42	40.407165	-104.238073	0.00	0.00	189.11	
6557.30	90.00	179.95	6146.50	-296.96	152.54	40.406795	-104.238072	11.00	0.01	323.85	LP: ~628' FNL, ~1338' FWL; 7 in
10806.77	90.00	179.95	6146.50	-4546.43	155.97	40.395130	-104.238060	0.00	0.00	4570.95	TD @ 10806.77' : ~470' FSL, ~1336' FWL

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	21.84			

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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
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	21.84	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	21.84	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	21.84	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	21.84	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	21.84	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	21.84	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	21.84	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	21.84	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	21.84	
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	21.84	
1100.00	2.00	25.37	1099.98	1.58	0.75	2.00	25.37	20.29	
1200.00	4.00	25.37	1199.84	6.31	2.99	2.00	0.00	15.64	
1300.00	6.00	25.37	1299.45	14.18	6.72	2.00	0.00	7.90	
1400.00	8.00	25.37	1398.70	25.19	11.95	2.00	0.00	-2.92	
1500.00	10.00	25.37	1497.47	39.32	18.65	2.00	0.00	-16.82	
1600.00	12.00	25.37	1595.62	56.56	26.83	2.00	0.00	-33.77	
1700.00	14.00	25.37	1693.06	76.89	36.46	2.00	0.00	-53.75	
1799.83	16.00	25.37	1789.48	100.23	47.54	2.00	0.00	-76.70	
1800.00	16.00	25.37	1789.64	100.27	47.56	0.00	0.00	-76.74	
1900.00	16.00	25.37	1885.77	125.17	59.36	0.00	0.00	-101.23	
2000.00	16.00	25.37	1981.90	150.07	71.17	0.00	0.00	-125.71	
2100.00	16.00	25.37	2078.03	174.97	82.98	0.00	0.00	-150.19	
2200.00	16.00	25.37	2174.15	199.87	94.79	0.00	0.00	-174.67	
2281.94	16.00	25.37	2252.92	220.27	104.47	0.00	0.00	-194.73	
2300.00	15.64	25.37	2270.30	224.72	106.58	2.00	180.00	-199.10	
2400.00	13.64	25.37	2367.05	247.55	117.40	2.00	180.00	-221.55	
2500.00	11.64	25.37	2464.62	267.31	126.78	2.00	180.00	-240.98	
2600.00	9.64	25.37	2562.90	283.99	134.68	2.00	180.00	-257.37	
2700.00	7.64	25.37	2661.76	297.55	141.12	2.00	180.00	-270.71	
2800.00	5.64	25.37	2761.08	307.99	146.07	2.00	180.00	-280.97	
2900.00	3.64	25.37	2860.75	315.29	149.53	2.00	180.00	-288.15	
3000.00	1.64	25.37	2960.64	319.45	151.50	2.00	180.00	-292.24	
3081.77	0.00	0.00	3042.40	320.50	152.00	2.00	180.00	-293.27	VERT PT: ~10' FNL, ~1338' FWL
3100.00	0.00	0.00	3060.63	320.50	152.00	0.00	0.00	-293.27	
3200.00	0.00	0.00	3160.63	320.50	152.00	0.00	0.00	-293.27	
3300.00	0.00	0.00	3260.63	320.50	152.00	0.00	0.00	-293.27	
3400.00	0.00	0.00	3360.63	320.50	152.00	0.00	0.00	-293.27	
3500.00	0.00	0.00	3460.63	320.50	152.00	0.00	0.00	-293.27	
3600.00	0.00	0.00	3560.63	320.50	152.00	0.00	0.00	-293.27	
3700.00	0.00	0.00	3660.63	320.50	152.00	0.00	0.00	-293.27	

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
3800.00	0.00	0.00	3760.63	320.50	152.00	0.00	0.00	-293.27	
3900.00	0.00	0.00	3860.63	320.50	152.00	0.00	0.00	-293.27	
4000.00	0.00	0.00	3960.63	320.50	152.00	0.00	0.00	-293.27	
4100.00	0.00	0.00	4060.63	320.50	152.00	0.00	0.00	-293.27	
4200.00	0.00	0.00	4160.63	320.50	152.00	0.00	0.00	-293.27	
4300.00	0.00	0.00	4260.63	320.50	152.00	0.00	0.00	-293.27	
4400.00	0.00	0.00	4360.63	320.50	152.00	0.00	0.00	-293.27	
4500.00	0.00	0.00	4460.63	320.50	152.00	0.00	0.00	-293.27	
4600.00	0.00	0.00	4560.63	320.50	152.00	0.00	0.00	-293.27	
4700.00	0.00	0.00	4660.63	320.50	152.00	0.00	0.00	-293.27	
4800.00	0.00	0.00	4760.63	320.50	152.00	0.00	0.00	-293.27	
4900.00	0.00	0.00	4860.63	320.50	152.00	0.00	0.00	-293.27	
5000.00	0.00	0.00	4960.63	320.50	152.00	0.00	0.00	-293.27	
5100.00	0.00	0.00	5060.63	320.50	152.00	0.00	0.00	-293.27	
5200.00	0.00	0.00	5160.63	320.50	152.00	0.00	0.00	-293.27	
5300.00	0.00	0.00	5260.63	320.50	152.00	0.00	0.00	-293.27	
5400.00	0.00	0.00	5360.63	320.50	152.00	0.00	0.00	-293.27	
5500.00	0.00	0.00	5460.63	320.50	152.00	0.00	0.00	-293.27	
5600.00	0.00	0.00	5560.63	320.50	152.00	0.00	0.00	-293.27	
5639.12	0.00	0.00	5599.75	320.50	152.00	0.00	0.00	-293.27	START 11° BUILD
5700.00	6.70	179.95	5660.49	316.95	152.01	11.00	179.95	-289.72	
5800.00	17.70	179.95	5758.08	295.86	152.02	11.00	0.00	-268.64	
5900.00	28.70	179.95	5849.86	256.53	152.06	11.00	0.00	-229.33	
6000.00	39.70	179.95	5932.44	200.41	152.11	11.00	0.00	-173.25	
6100.00	50.70	179.95	6002.80	129.57	152.17	11.00	0.00	-102.44	
6200.00	61.70	179.95	6058.35	46.60	152.24	11.00	0.00	-19.52	
6300.00	72.70	179.95	6097.05	-45.44	152.32	11.00	0.00	72.47	
6320.94	75.00	179.95	6102.87	-65.56	152.34	11.00	0.00	92.57	START 100' HOLD
6400.00	75.00	179.95	6123.34	-141.92	152.41	0.00	0.00	168.89	
6420.94	75.00	179.95	6128.76	-162.15	152.42	0.00	0.00	189.11	
6500.00	83.70	179.95	6143.36	-239.77	152.49	11.00	0.01	266.69	
6557.30	90.00	179.95	6146.50	-296.96	152.54	11.00	0.01	323.85	LP: ~628' FNL, ~1338' FWL; 7 in
6600.00	90.00	179.95	6146.50	-339.66	152.57	0.00	0.00	366.52	
6700.00	90.00	179.95	6146.50	-439.66	152.65	0.00	0.00	466.46	
6800.00	90.00	179.95	6146.50	-539.66	152.73	0.00	0.00	566.41	
6900.00	90.00	179.95	6146.50	-639.66	152.81	0.00	0.00	666.35	
7000.00	90.00	179.95	6146.50	-739.66	152.90	0.00	0.00	766.30	
7100.00	90.00	179.95	6146.50	-839.66	152.98	0.00	0.00	866.24	
7200.00	90.00	179.95	6146.50	-939.66	153.06	0.00	0.00	966.18	
7300.00	90.00	179.95	6146.50	-1039.66	153.14	0.00	0.00	1066.13	

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
7400.00	90.00	179.95	6146.50	-1139.66	153.22	0.00	0.00	1166.07	
7500.00	90.00	179.95	6146.50	-1239.66	153.30	0.00	0.00	1266.02	
7600.00	90.00	179.95	6146.50	-1339.66	153.38	0.00	0.00	1365.96	
7700.00	90.00	179.95	6146.50	-1439.66	153.46	0.00	0.00	1465.91	
7800.00	90.00	179.95	6146.50	-1539.66	153.54	0.00	0.00	1565.85	
7900.00	90.00	179.95	6146.50	-1639.66	153.62	0.00	0.00	1665.79	
8000.00	90.00	179.95	6146.50	-1739.66	153.70	0.00	0.00	1765.74	
8100.00	90.00	179.95	6146.50	-1839.66	153.79	0.00	0.00	1865.68	
8200.00	90.00	179.95	6146.50	-1939.66	153.87	0.00	0.00	1965.63	
8300.00	90.00	179.95	6146.50	-2039.66	153.95	0.00	0.00	2065.57	
8400.00	90.00	179.95	6146.50	-2139.66	154.03	0.00	0.00	2165.52	
8500.00	90.00	179.95	6146.50	-2239.66	154.11	0.00	0.00	2265.46	
8600.00	90.00	179.95	6146.50	-2339.66	154.19	0.00	0.00	2365.40	
8700.00	90.00	179.95	6146.50	-2439.66	154.27	0.00	0.00	2465.35	
8800.00	90.00	179.95	6146.50	-2539.66	154.35	0.00	0.00	2565.29	
8900.00	90.00	179.95	6146.50	-2639.66	154.43	0.00	0.00	2665.24	
9000.00	90.00	179.95	6146.50	-2739.66	154.51	0.00	0.00	2765.18	
9100.00	90.00	179.95	6146.50	-2839.66	154.59	0.00	0.00	2865.12	
9200.00	90.00	179.95	6146.50	-2939.66	154.68	0.00	0.00	2965.07	
9300.00	90.00	179.95	6146.50	-3039.66	154.76	0.00	0.00	3065.01	
9400.00	90.00	179.95	6146.50	-3139.66	154.84	0.00	0.00	3164.96	
9500.00	90.00	179.95	6146.50	-3239.66	154.92	0.00	0.00	3264.90	
9600.00	90.00	179.95	6146.50	-3339.66	155.00	0.00	0.00	3364.85	
9700.00	90.00	179.95	6146.50	-3439.66	155.08	0.00	0.00	3464.79	
9800.00	90.00	179.95	6146.50	-3539.66	155.16	0.00	0.00	3564.73	
9900.00	90.00	179.95	6146.50	-3639.66	155.24	0.00	0.00	3664.68	
10000.00	90.00	179.95	6146.50	-3739.66	155.32	0.00	0.00	3764.62	
10100.00	90.00	179.95	6146.50	-3839.66	155.40	0.00	0.00	3864.57	
10200.00	90.00	179.95	6146.50	-3939.66	155.48	0.00	0.00	3964.51	
10300.00	90.00	179.95	6146.50	-4039.66	155.56	0.00	0.00	4064.46	
10400.00	90.00	179.95	6146.50	-4139.66	155.65	0.00	0.00	4164.40	
10500.00	90.00	179.95	6146.50	-4239.66	155.73	0.00	0.00	4264.34	
10600.00	90.00	179.95	6146.50	-4339.66	155.81	0.00	0.00	4364.29	
10700.00	90.00	179.95	6146.50	-4439.66	155.89	0.00	0.00	4464.23	
10800.00	90.00	179.95	6146.50	-4539.66	155.97	0.00	0.00	4564.18	
10806.77	90.00	179.95	6146.50	-4546.43	155.97	0.00	0.00	4570.95	TD @ 10806.77' : ~470' FSL, ~1336' FWL