

HRM Resources

Location	DJ Basin	Slot	PC SOUTH 1S-66-2928-16CDH
Field	WATTENBERG	Well	W PC SOUTH 1S-66-2928-16CDH
Installation	PC 1S-66-2928 PAD	Wellbore	W PC SOUTH 1S-66-2928-16CDH (PWB)

N
GRID

East (Feet) ->

-3200 -1600 0 1600 3200 4800 6400 8000 9600 11200
Scale 1 cm = 800 ft

Jan-24-2017
EMMA-2015 [2000.0-2020.0] Dip: 66.34 deg Field: 52071.6 nT
Lat: N39 56 7.4760 Long: W104 48 15.5520 Elev: 9723.01 ft
Magnetic North is 8.36 deg East of True North
GRID North is 0.45 deg East of True North
To correct azimuth from True to GRID subtract 0.45 deg
To correct azimuth from Magnetic to GRID add 7.91 deg

Created by	admin
Date plotted	1-Feb-2017
Plot reference is W PC SOUTH 1S-66-2928-16CDH (PWB).	
Ref wellpath is W PC SOUTH 1S-66-2928-16CDH (PWP#1).	
Coordinates are in Feet reference PC SOUTH 1S-66-2928-16CDH.	
True Vertical Depths are reference Rig Datum.	
Measured Depths are reference Rig Datum.	
Rig Datum: Planned Datum #1	
Rig Datum to Mean Sea Level: 5062.36 ft.	
Plot North is aligned to GRID North.	

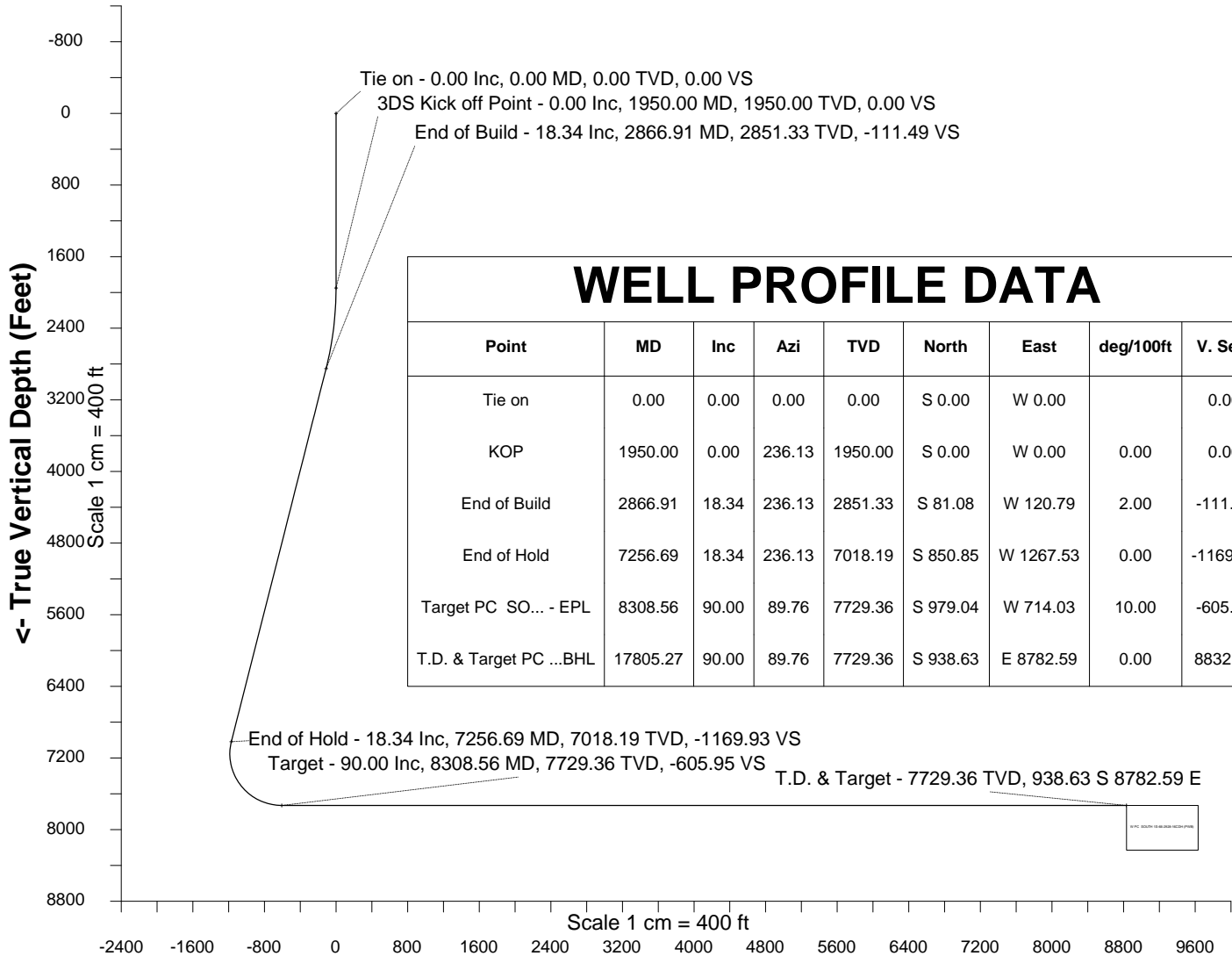
Surface 0.00 N 0.00 E

PC SOUTH 1S-66-2928-16CDH - BHL

PC SOUTH 1S-66-2928-16CDH - EPL

PC North Block Boundary

1600
0
-1600
-3200
Scale 1 cm = 800 ft
v- North(Feet)



WELL PROFILE DATA

Point	MD	Inc	Azi	TVD	North	East	deg/100ft	V. Sect
Tie on	0.00	0.00	0.00	0.00	S 0.00	W 0.00		0.00
KOP	1950.00	0.00	236.13	1950.00	S 0.00	W 0.00	0.00	0.00
End of Build	2866.91	18.34	236.13	2851.33	S 81.08	W 120.79	2.00	-111.49
End of Hold	7256.69	18.34	236.13	7018.19	S 850.85	W 1267.53	0.00	-1169.93
Target PC SO... - EPL	8308.56	90.00	89.76	7729.36	S 979.04	W 714.03	10.00	-605.95
T.D. & Target PC ...BHL	17805.27	90.00	89.76	7729.36	S 938.63	E 8782.59	0.00	8832.61

End of Hold - 18.34 Inc, 7256.69 MD, 7018.19 TVD, -1169.93 VS

Target - 90.00 Inc, 8308.56 MD, 7729.36 TVD, -605.95 VS

T.D. & Target - 7729.36 TVD, 938.63 S 8782.59 E

Azimuth 96.10 with reference 0.00 N, 0.00 E from PC SOUTH 1S-66-2928-16CDH



Wellhead Details							
Name	Latitude	Longitude	Northing	Easting	North	East	Slot Elevation Above Ground
PC SOUTH 1S-66-2928-16CDH	N39 56 6.7200	W104 48 15.1560	1220007.4294	3195111.2813	76.26S	31.45E	0.00

Declination		
Date	Source	Time
Jan-24-2017	EMM-2015 [2000.0-2020.0]	09:32

Installation Details						
Name	Installation Position (Latitude)	Installation Position (Longitude)	Northing	Easting	Coord System Name	North Alignment
PC 1S-66-2928 PAD	N39 56 7.4760	W104 48 15.5520	1220083.6821	3195079.8360	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid

Summary Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
0.00	0.00	0.000	0.00	0.00N	0.00E		0.00	1220007.43	3195111.28
1950.00	0.00	236.130	1950.00	0.00N	0.00E	==>	0.00	1220007.43	3195111.28
2866.91	18.34	236.130	2851.33	81.08S	120.79W	2.00	-111.49	1219926.35	3194990.49
7256.69	18.34	236.130	7018.19	850.85S	1267.53W	==>	-1169.93	1219156.61	3193843.79
8308.56	90.00	89.760	7729.36	979.04S	714.03W	10.00	-605.95	1219028.42	3194397.27
17805.27	90.00	89.760	7729.36	938.63S	8782.59E	==>	8832.61	1219068.83	3203893.61

Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
0.00	0.00	0.000	0.00	0.00N	0.00E		0.00	Slot Datum
100.00	0.00	0.000	100.00	0.00N	0.00E	==>	0.00	
200.00	0.00	0.000	200.00	0.00N	0.00E	==>	0.00	
300.00	0.00	0.000	300.00	0.00N	0.00E	==>	0.00	
400.00	0.00	0.000	400.00	0.00N	0.00E	==>	0.00	
500.00	0.00	0.000	500.00	0.00N	0.00E	==>	0.00	
600.00	0.00	0.000	600.00	0.00N	0.00E	==>	0.00	
700.00	0.00	0.000	700.00	0.00N	0.00E	==>	0.00	
800.00	0.00	0.000	800.00	0.00N	0.00E	==>	0.00	
900.00	0.00	0.000	900.00	0.00N	0.00E	==>	0.00	
1000.00	0.00	0.000	1000.00	0.00N	0.00E	==>	0.00	
1100.00	0.00	0.000	1100.00	0.00N	0.00E	==>	0.00	
1200.00	0.00	0.000	1200.00	0.00N	0.00E	==>	0.00	
1300.00	0.00	0.000	1300.00	0.00N	0.00E	==>	0.00	
1400.00	0.00	0.000	1400.00	0.00N	0.00E	==>	0.00	
1500.00	0.00	0.000	1500.00	0.00N	0.00E	==>	0.00	
1600.00	0.00	0.000	1600.00	0.00N	0.00E	==>	0.00	
1700.00	0.00	0.000	1700.00	0.00N	0.00E	==>	0.00	
1800.00	0.00	0.000	1800.00	0.00N	0.00E	==>	0.00	
1900.00	0.00	0.000	1900.00	0.00N	0.00E	==>	0.00	
2000.00	1.00	236.130	2000.00	0.24S	0.36W	2.00	-0.33	
2100.00	3.00	236.130	2099.93	2.19S	3.26W	2.00	-3.01	
2200.00	5.00	236.130	2199.68	6.08S	9.05W	2.00	-8.35	
2300.00	7.00	236.130	2299.13	11.90S	17.73W	2.00	-16.36	
2400.00	9.00	236.130	2398.15	19.66S	29.28W	2.00	-27.03	
2500.00	11.00	236.130	2496.63	29.34S	43.70W	2.00	-40.34	
2600.00	13.00	236.130	2594.44	40.92S	60.96W	2.00	-56.27	
2700.00	15.00	236.130	2691.46	54.40S	81.05W	2.00	-74.81	
2800.00	17.00	236.130	2787.58	69.77S	103.93W	2.00	-95.93	
2900.00	18.34	236.130	2882.74	86.89S	129.44W	==>	-119.47	
3000.00	18.34	236.130	2977.67	104.42S	155.56W	==>	-143.58	
3100.00	18.34	236.130	3072.59	121.96S	181.68W	==>	-167.69	

All data is in Feet unless otherwise stated
Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 5062.4ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 96.100 degrees
Bottom hole distance is 8832.61 Feet on azimuth 96.10 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by IPT
Date Printed: 1-Feb-2017



SYSDRILL
Well Design Combined Report
Wellbore: W PC SOUTH 1S-66-2928-16CDH (PWB)



Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
3200.00	18.34	236.130	3167.51	139.49S	207.81W	==>	-191.81	
3300.00	18.34	236.130	3262.43	157.03S	233.93W	==>	-215.92	
3400.00	18.34	236.130	3357.35	174.56S	260.05W	==>	-240.03	
3500.00	18.34	236.130	3452.27	192.10S	286.18W	==>	-264.14	
3600.00	18.34	236.130	3547.20	209.63S	312.30W	==>	-288.25	
3700.00	18.34	236.130	3642.12	227.17S	338.42W	==>	-312.36	
3800.00	18.34	236.130	3737.04	244.71S	364.54W	==>	-336.47	
3900.00	18.34	236.130	3831.96	262.24S	390.67W	==>	-360.59	
4000.00	18.34	236.130	3926.88	279.78S	416.79W	==>	-384.70	
4100.00	18.34	236.130	4021.80	297.31S	442.91W	==>	-408.81	
4200.00	18.34	236.130	4116.73	314.85S	469.03W	==>	-432.92	
4300.00	18.34	236.130	4211.65	332.38S	495.16W	==>	-457.03	
4400.00	18.34	236.130	4306.57	349.92S	521.28W	==>	-481.14	
4500.00	18.34	236.130	4401.49	367.45S	547.40W	==>	-505.25	
4600.00	18.34	236.130	4496.41	384.99S	573.53W	==>	-529.37	
4700.00	18.34	236.130	4591.33	402.52S	599.65W	==>	-553.48	
4800.00	18.34	236.130	4686.26	420.06S	625.77W	==>	-577.59	
4900.00	18.34	236.130	4781.18	437.59S	651.89W	==>	-601.70	
5000.00	18.34	236.130	4876.10	455.13S	678.02W	==>	-625.81	
5100.00	18.34	236.130	4971.02	472.66S	704.14W	==>	-649.92	
5200.00	18.34	236.130	5065.94	490.20S	730.26W	==>	-674.03	
5300.00	18.34	236.130	5160.86	507.74S	756.39W	==>	-698.15	
5400.00	18.34	236.130	5255.79	525.27S	782.51W	==>	-722.26	
5500.00	18.34	236.130	5350.71	542.81S	808.63W	==>	-746.37	
5600.00	18.34	236.130	5445.63	560.34S	834.75W	==>	-770.48	
5700.00	18.34	236.130	5540.55	577.88S	860.88W	==>	-794.59	
5800.00	18.34	236.130	5635.47	595.41S	887.00W	==>	-818.70	
5900.00	18.34	236.130	5730.39	612.95S	913.12W	==>	-842.81	
6000.00	18.34	236.130	5825.31	630.48S	939.25W	==>	-866.93	
6100.00	18.34	236.130	5920.24	648.02S	965.37W	==>	-891.04	
6200.00	18.34	236.130	6015.16	665.55S	991.49W	==>	-915.15	
6300.00	18.34	236.130	6110.08	683.09S	1017.61W	==>	-939.26	
6400.00	18.34	236.130	6205.00	700.62S	1043.74W	==>	-963.37	
6500.00	18.34	236.130	6299.92	718.16S	1069.86W	==>	-987.48	
6600.00	18.34	236.130	6394.84	735.69S	1095.98W	==>	-1011.59	
6700.00	18.34	236.130	6489.77	753.23S	1122.11W	==>	-1035.71	
6800.00	18.34	236.130	6584.69	770.77S	1148.23W	==>	-1059.82	
6900.00	18.34	236.130	6679.61	788.30S	1174.35W	==>	-1083.93	
7000.00	18.34	236.130	6774.53	805.84S	1200.47W	==>	-1108.04	
7100.00	18.34	236.130	6869.45	823.37S	1226.60W	==>	-1132.15	
7200.00	18.34	236.130	6964.37	840.91S	1252.72W	==>	-1156.26	
7300.00	14.99	226.480	7059.68	858.51S	1277.25W	10.00	-1178.79	
7400.00	10.44	184.490	7157.40	876.49S	1287.37W	10.00	-1186.93	
7500.00	13.82	138.040	7255.37	894.44S	1280.07W	10.00	-1177.77	
7600.00	21.69	117.240	7350.63	911.82S	1255.59W	10.00	-1151.59	
7700.00	30.79	107.700	7440.27	928.10S	1214.67W	10.00	-1109.17	
7800.00	40.29	102.260	7521.57	942.79S	1158.56W	10.00	-1051.81	
7900.00	49.95	98.630	7592.06	955.43S	1088.94W	10.00	-981.24	
8000.00	59.70	95.910	7649.60	965.65S	1007.95W	10.00	-899.63	
8100.00	69.50	93.690	7707.14	973.13S	918.05W	10.00	-809.43	
8200.00	79.32	91.740	7719.28	977.65S	821.95W	10.00	-713.41	
8300.00	89.16	89.910	7729.30	979.06S	722.59W	10.00	-614.46	
8400.00	90.00	89.760	7729.36	978.65S	622.60W	==>	-515.07	
8500.00	90.00	89.760	7729.36	978.22S	522.60W	==>	-415.68	
8600.00	90.00	89.760	7729.36	977.80S	422.60W	==>	-316.29	
8700.00	90.00	89.760	7729.36	977.37S	322.60W	==>	-216.91	
8800.00	90.00	89.760	7729.36	976.95S	222.60W	==>	-117.52	
8900.00	90.00	89.760	7729.36	976.52S	122.60W	==>	-18.13	
9000.00	90.00	89.760	7729.36	976.10S	22.60W	==>	81.26	

All data is in Feet unless otherwise stated
Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 5062.4ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 96.100 degrees
Bottom hole distance is 8832.61 Feet on azimuth 96.10 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by IPT
Date Printed: 1-Feb-2017



SYSDRILL
Well Design Combined Report
Wellbore: W PC SOUTH 1S-66-2928-16CDH (PWB)



Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
9100.00	90.00	89.760	7729.36	975.67S	77.40E	==>	180.64	
9200.00	90.00	89.760	7729.36	975.25S	177.40E	==>	280.03	
9300.00	90.00	89.760	7729.36	974.82S	277.40E	==>	379.42	
9400.00	90.00	89.760	7729.36	974.39S	377.40E	==>	478.81	
9500.00	90.00	89.760	7729.36	973.97S	477.39E	==>	578.19	
9600.00	90.00	89.760	7729.36	973.54S	577.39E	==>	677.58	
9700.00	90.00	89.760	7729.36	973.12S	677.39E	==>	776.97	
9800.00	90.00	89.760	7729.36	972.69S	777.39E	==>	876.36	
9900.00	90.00	89.760	7729.36	972.27S	877.39E	==>	975.74	
10000.00	90.00	89.760	7729.36	971.84S	977.39E	==>	1075.13	
10100.00	90.00	89.760	7729.36	971.42S	1077.39E	==>	1174.52	
10200.00	90.00	89.760	7729.36	970.99S	1177.39E	==>	1273.91	
10300.00	90.00	89.760	7729.36	970.57S	1277.39E	==>	1373.30	
10400.00	90.00	89.760	7729.36	970.14S	1377.39E	==>	1472.68	
10500.00	90.00	89.760	7729.36	969.71S	1477.39E	==>	1572.07	
10600.00	90.00	89.760	7729.36	969.29S	1577.38E	==>	1671.46	
10700.00	90.00	89.760	7729.36	968.86S	1677.38E	==>	1770.85	
10800.00	90.00	89.760	7729.36	968.44S	1777.38E	==>	1870.23	
10900.00	90.00	89.760	7729.36	968.01S	1877.38E	==>	1969.62	
11000.00	90.00	89.760	7729.36	967.59S	1977.38E	==>	2069.01	
11100.00	90.00	89.760	7729.36	967.16S	2077.38E	==>	2168.40	
11200.00	90.00	89.760	7729.36	966.74S	2177.38E	==>	2267.78	
11300.00	90.00	89.760	7729.36	966.31S	2277.38E	==>	2367.17	
11400.00	90.00	89.760	7729.36	965.89S	2377.38E	==>	2466.56	
11500.00	90.00	89.760	7729.36	965.46S	2477.38E	==>	2565.95	
11600.00	90.00	89.760	7729.36	965.03S	2577.38E	==>	2665.33	
11700.00	90.00	89.760	7729.36	964.61S	2677.37E	==>	2764.72	
11800.00	90.00	89.760	7729.36	964.18S	2777.37E	==>	2864.11	
11900.00	90.00	89.760	7729.36	963.76S	2877.37E	==>	2963.50	
12000.00	90.00	89.760	7729.36	963.33S	2977.37E	==>	3062.88	
12100.00	90.00	89.760	7729.36	962.91S	3077.37E	==>	3162.27	
12200.00	90.00	89.760	7729.36	962.48S	3177.37E	==>	3261.66	
12300.00	90.00	89.760	7729.36	962.06S	3277.37E	==>	3361.05	
12400.00	90.00	89.760	7729.36	961.63S	3377.37E	==>	3460.44	
12500.00	90.00	89.760	7729.36	961.20S	3477.37E	==>	3559.82	
12600.00	90.00	89.760	7729.36	960.78S	3577.37E	==>	3659.21	
12700.00	90.00	89.760	7729.36	960.35S	3677.37E	==>	3758.60	
12800.00	90.00	89.760	7729.36	959.93S	3777.36E	==>	3857.99	
12900.00	90.00	89.760	7729.36	959.50S	3877.36E	==>	3957.37	
13000.00	90.00	89.760	7729.36	959.08S	3977.36E	==>	4056.76	
13100.00	90.00	89.760	7729.36	958.65S	4077.36E	==>	4156.15	
13200.00	90.00	89.760	7729.36	958.23S	4177.36E	==>	4255.54	
13300.00	90.00	89.760	7729.36	957.80S	4277.36E	==>	4354.92	
13400.00	90.00	89.760	7729.36	957.38S	4377.36E	==>	4454.31	
13500.00	90.00	89.760	7729.36	956.95S	4477.36E	==>	4553.70	
13600.00	90.00	89.760	7729.36	956.52S	4577.36E	==>	4653.09	
13700.00	90.00	89.760	7729.36	956.10S	4677.36E	==>	4752.47	
13800.00	90.00	89.760	7729.36	955.67S	4777.36E	==>	4851.86	
13900.00	90.00	89.760	7729.36	955.25S	4877.35E	==>	4951.25	
14000.00	90.00	89.760	7729.36	954.82S	4977.35E	==>	5050.64	
14100.00	90.00	89.760	7729.36	954.40S	5077.35E	==>	5150.02	
14200.00	90.00	89.760	7729.36	953.97S	5177.35E	==>	5249.41	
14300.00	90.00	89.760	7729.36	953.55S	5277.35E	==>	5348.80	
14400.00	90.00	89.760	7729.36	953.12S	5377.35E	==>	5448.19	
14500.00	90.00	89.760	7729.36	952.70S	5477.35E	==>	5547.58	
14600.00	90.00	89.760	7729.36	952.27S	5577.35E	==>	5646.96	
14700.00	90.00	89.760	7729.36	951.84S	5677.35E	==>	5746.35	
14800.00	90.00	89.760	7729.36	951.42S	5777.35E	==>	5845.74	
14900.00	90.00	89.760	7729.36	950.99S	5877.35E	==>	5945.13	

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Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 5062.4ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 96.100 degrees
Bottom hole distance is 8832.61 Feet on azimuth 96.10 degrees from Wellhead
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Well Design Combined Report
Wellbore: W PC SOUTH 1S-66-2928-16CDH (PWB)



Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
15000.00	90.00	89.760	7729.36	950.57S	5977.34E	==>	6044.51	
15100.00	90.00	89.760	7729.36	950.14S	6077.34E	==>	6143.90	
15200.00	90.00	89.760	7729.36	949.72S	6177.34E	==>	6243.29	
15300.00	90.00	89.760	7729.36	949.29S	6277.34E	==>	6342.68	
15400.00	90.00	89.760	7729.36	948.87S	6377.34E	==>	6442.06	
15500.00	90.00	89.760	7729.36	948.44S	6477.34E	==>	6541.45	
15600.00	90.00	89.760	7729.36	948.01S	6577.34E	==>	6640.84	
15700.00	90.00	89.760	7729.36	947.59S	6677.34E	==>	6740.23	
15800.00	90.00	89.760	7729.36	947.16S	6777.34E	==>	6839.61	
15900.00	90.00	89.760	7729.36	946.74S	6877.34E	==>	6939.00	
16000.00	90.00	89.760	7729.36	946.31S	6977.34E	==>	7038.39	
16100.00	90.00	89.760	7729.36	945.89S	7077.33E	==>	7137.78	
16200.00	90.00	89.760	7729.36	945.46S	7177.33E	==>	7237.17	
16300.00	90.00	89.760	7729.36	945.04S	7277.33E	==>	7336.55	
16400.00	90.00	89.760	7729.36	944.61S	7377.33E	==>	7435.94	
16500.00	90.00	89.760	7729.36	944.19S	7477.33E	==>	7535.33	
16600.00	90.00	89.760	7729.36	943.76S	7577.33E	==>	7634.72	
16700.00	90.00	89.760	7729.36	943.33S	7677.33E	==>	7734.10	
16800.00	90.00	89.760	7729.36	942.91S	7777.33E	==>	7833.49	
16900.00	90.00	89.760	7729.36	942.48S	7877.33E	==>	7932.88	
17000.00	90.00	89.760	7729.36	942.06S	7977.33E	==>	8032.27	
17100.00	90.00	89.760	7729.36	941.63S	8077.33E	==>	8131.65	
17200.00	90.00	89.760	7729.36	941.21S	8177.32E	==>	8231.04	
17300.00	90.00	89.760	7729.36	940.78S	8277.32E	==>	8330.43	
17400.00	90.00	89.760	7729.36	940.36S	8377.32E	==>	8429.82	
17500.00	90.00	89.760	7729.36	939.93S	8477.32E	==>	8529.20	
17600.00	90.00	89.760	7729.36	939.51S	8577.32E	==>	8628.59	
17700.00	90.00	89.760	7729.36	939.08S	8677.32E	==>	8727.98	
17800.00	90.00	89.760	7729.36	938.65S	8777.32E	==>	8827.37	
17805.27	90.00	89.760	7729.36	938.63S	8782.59E	==>	8832.61	

All data is in Feet unless otherwise stated
Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 5062.4ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 96.100 degrees
Bottom hole distance is 8832.61 Feet on azimuth 96.10 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by IPT
Date Printed: 1-Feb-2017



Targets							
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting
PC SOUTH 1S-66-2928-16CDH - BHL	938.63S	8782.59E	7729.36	N39 55 56.7480	W104 46 22.5120	1219068.83	3203893.61
PC SOUTH 1S-66-2928-16CDH - EPL	979.04S	814.03W	7729.36	N39 55 57.1080	W104 48 25.7040	1219028.42	3194297.28

Survey Tool Program					
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model
523328	Planned	1500.00	1500.00	WdW Rate Gyro	Standard
523327	Planned	17805.27	7729.36	ISCWSA MWD	Rev 4 + SAG + FLT

Notes



SYSDRILL
Closest Approach + Clearance Factor Summary Report
Wellbore: W PC SOUTH 1S-66-2928-16CDH (PWB)



Ellipse separations are reported ONLY if BOTH wells have uncertainty data
Only Depth and Magnetic Reference Field error terms are correlated across tie points
Scan limit is calculated on CENTRE to CENTRE distance
Summary data uses Closest Approach clearance calculation for all minima
Hole size/Casings ARE included
Hole size/Casings are NOT subtracted from Centre-Centre distance
Confidence limit of 95.00% / 2.80 SD.

Wellbore		
Name	Created	Last Revised
W PC SOUTH 1S-66-2928-16CDH (PWB)	Jan-24-2017	Jan-24-2017

Well		
Name	Government ID	Last Revised
W PC SOUTH 1S-66-2928-16CDH		Jan-24-2017

Slot						
Name	Latitude	Longitude	Grid Northing	Grid Easting	North	East
PC SOUTH 1S-66-2928-16CDH	N39 56 6.7200	W104 48 15.1560	1220007.4294	3195111.2813	76.26S	31.45E

Installation						
Name	Installation Position (Latitude)	Installation Position (Longitude)	Easting	Northing	Coord System Name	North Alignment
PC 1S-66-2928 PAD	N39 56 7.4760	W104 48 15.5520	3195079.8360	1220083.6821	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid

Clearance Summary							
Offset WellName	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]
W PC SOUTH 1S-66-2928-17N H	14.57	1900.00	17805.27	-80.28	17805.27	0.77	17805.27
W PC SOUTH 1S-66-2928-15N H	14.57	1952.10	8305.72	-185.64	17805.27	0.65	17805.27
W PC SOUTH 1S-66-2928-18N H	29.14	1849.76	17805.27	-117.06	17805.27	0.82	17805.27
W PC NORTH 1S-66-2928-6NH	30.85	1349.91	17805.27	28.67	1349.91	3.30	17805.27
W PC SOUTH 1S-66-2928-14N H	32.79	1952.10	17805.27	-18.21	17805.27	0.97	17805.27
W PC NORTH 1S-66-2928-5NH	34.12	1300.00	17805.27	32.02	1300.00	3.81	17805.27
W PC NORTH 1S-66-2928-7CD H	34.12	1400.00	17805.27	31.86	1400.00	2.95	17805.27
W PC NORTH 1S-66-2928-8NH	42.44	1449.86	17805.27	40.08	1476.38	2.84	17805.27
W PC SOUTH 1S-66-2928-19C DH	43.71	1800.00	17805.27	40.11	1837.27	1.07	17805.27
W PC NORTH 1S-66-2928-4CD H	45.02	1250.26	17805.27	43.00	1250.26	4.01	17805.27
W PC SOUTH 1S-66-2928-13C	47.36	1952.10	1950.00	42.50	1984.91	1.09	17805.27

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Vertical Section is from 0.00N 0.00E on azimuth 96.100 degrees
Prepared by IPT
Date Printed: 1-Feb-2017



SYSDRILL
Closest Approach + Clearance Factor Summary Report
Wellbore: W PC SOUTH 1S-66-2928-16CDH (PWB)



Clearance Summary							
Offset WellName	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]
DH							
W PC NORTH 1S-66-2928-9NH	53.50	1500.00	1476.38	51.09	1525.59	2.38	17805.27
W PC NORTH 1S-66-2928-3NH	56.52	1200.29	1200.29	54.58	1200.29	4.28	17805.27
W PC SOUTH 1S-66-2928-20N H	58.29	1749.61	17805.27	55.07	1771.65	1.29	17805.27
W PC SOUTH 1S-66-2928-12N H	61.93	1952.10	1950.00	57.07	1984.91	1.44	17805.27
W PC NORTH 1S-66-2928-10C DH	65.95	1558.40	1500.00	63.38	1673.23	2.13	17805.27
W PC NORTH 1S-66-2928-2NH	69.19	1150.42	17805.27	67.33	1150.42	4.68	17805.27
W PC NORTH 1S-66-2928-11N H	76.50	1952.10	17805.27	71.64	1984.91	1.90	17805.27
W POLLARD #1	657.05	13685.82	13685.82	399.30	13713.91	2.54	13730.31

