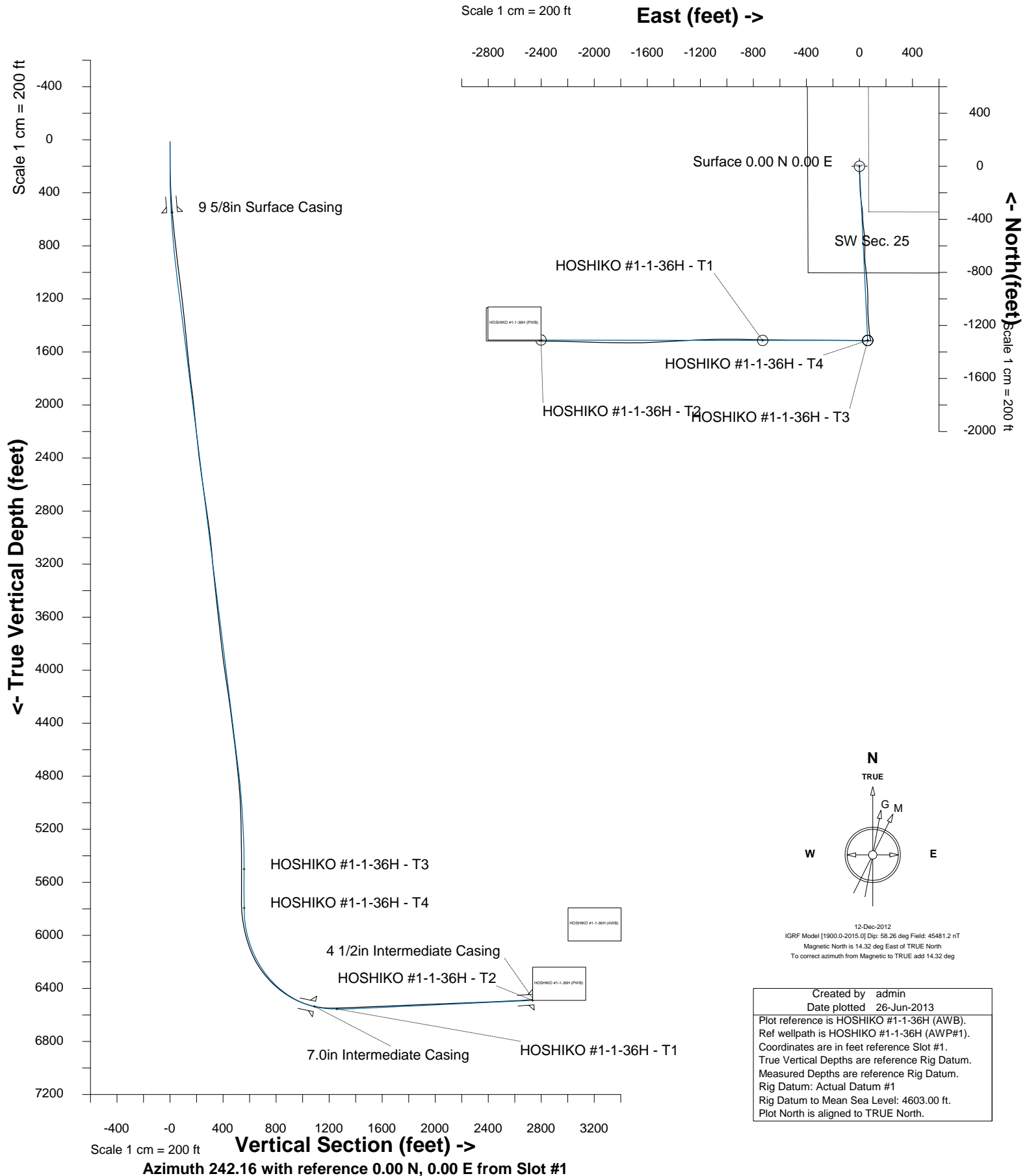


# PICO NIOBRARA(Imported)

Location	Weld County, CO, USA(Imported)	Slot	Slot #1
Field	WATTENBERG(Imported)	Well	HOSHIKO #1-1-36H
Installation	HOSHIKO PAD	Wellbore	HOSHIKO #1-1-36H (AWB)



SYSDRILL  
Wellpath Report  
Wellbore: HOSHIKO #1-1-36H (AWB)  
Wellpath: HOSHIKO #1-1-36H (AWP#1)

**Wellbore**

Name	Created	Last Revised
HOSHIKO #1-1-36H (AWB)		

**Well**

Name	Government ID	Last Revised
HOSHIKO #1-1-36H		

**Slot**

Name	Grid Northing	Grid Easting	Latitude	Longitude	North	East
Slot #1	1377518.4004	3279502.2090	N40 21 55.2600	W104 29 48.9480	0.00N	0.00E

**Installation**

Name	Easting	Northing	Coord System Name	North Alignment
HOSHIKO PAD	3279502.2090	1377518.4004	CO83-NF on NORTH AMERICAN DATUM 1983 datum	True

**Field**

Name	Easting	Northing	Coord System Name	North Alignment
WATTENBERG(Imported)	-8146545.5520	4032917.4057	CO83-NF on NORTH AMERICAN DATUM 1983 datum	True

**Wellpath Report**

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]
0.00	0.00	0.000	0.00	0.00N	0.00E		0.00
15.00	0.00	0.000	15.00	0.00N	0.00E	==>	0.00
124.00	0.30	2.000	124.00	0.29N	0.01E	0.28	-0.14
240.00	2.60	173.400	239.96	2.03S	0.32E	2.50	0.66
364.00	5.90	179.700	363.61	11.19S	0.68E	2.68	4.63
488.00	9.60	175.000	486.45	27.87S	1.61E	3.02	11.59
610.00	11.10	183.400	606.47	49.73S	1.80E	1.74	21.63
734.00	12.70	181.800	727.80	75.27S	0.67E	1.32	34.57
859.00	15.20	174.600	849.12	105.33S	1.78E	2.43	47.62
981.00	16.40	178.700	966.51	138.47S	3.68E	1.34	61.43
1105.00	15.80	178.500	1085.64	172.85S	4.51E	0.49	76.74
1229.00	16.50	174.600	1204.75	207.26S	6.61E	1.04	90.95
1352.00	17.10	174.600	1322.50	242.65S	9.96E	0.49	104.53
1475.00	15.30	171.300	1440.62	276.70S	14.12E	1.64	116.75
1597.00	15.60	173.200	1558.21	308.90S	18.49E	0.48	127.92
1718.00	15.70	173.600	1674.72	341.32S	22.24E	0.12	139.75
1840.00	15.50	180.100	1792.24	374.03S	24.06E	1.44	153.42
1962.00	16.20	176.000	1909.60	407.31S	25.21E	1.08	167.94
2086.00	16.00	174.600	2028.74	441.58S	28.03E	0.35	181.46
2209.00	15.70	170.900	2147.07	474.89S	32.26E	0.86	193.28
2332.00	16.00	175.300	2265.39	508.22S	36.28E	1.01	205.29
2455.00	16.00	174.800	2383.63	542.00S	39.20E	0.11	218.48
2577.00	17.10	179.900	2500.58	576.68S	40.76E	1.49	233.30
2702.00	17.00	181.500	2620.09	613.32S	40.31E	0.38	250.81
2827.00	16.40	179.900	2739.81	649.24S	39.87E	0.60	267.98
2952.00	17.70	179.200	2859.32	685.89S	40.16E	1.05	284.84
3078.00	16.90	176.400	2979.62	723.32S	41.58E	0.92	301.07
3203.00	15.50	170.400	3099.66	757.92S	45.51E	1.74	313.76
3328.00	14.50	172.700	3220.40	789.91S	50.28E	0.93	324.48
3453.00	14.40	176.700	3341.45	820.95S	53.16E	0.80	336.43
3578.00	15.20	176.400	3462.30	852.83S	55.09E	0.64	349.61
3703.00	15.40	175.000	3582.87	885.72S	57.56E	0.34	362.78
3828.00	15.70	176.900	3703.30	919.14S	59.92E	0.47	376.31
3954.00	15.10	175.900	3824.77	952.53S	62.02E	0.52	390.05
4079.00	16.70	179.900	3944.99	986.73S	63.21E	1.55	404.97
4204.00	17.30	180.400	4064.53	1023.28S	63.12E	0.49	422.12
4329.00	17.60	180.600	4183.78	1060.76S	62.79E	0.24	439.92
4454.00	17.20	177.400	4303.06	1098.12S	63.43E	0.83	456.80
4580.00	16.20	175.000	4423.74	1134.24S	65.81E	0.96	471.57
4705.00	17.50	177.400	4543.38	1170.39S	68.18E	1.18	486.36
4830.00	15.90	174.600	4663.10	1206.22S	70.64E	1.43	500.91
4955.00	14.30	175.200	4783.78	1238.65S	73.55E	1.29	513.49
5080.00	11.90	174.600	4905.52	1266.87S	76.05E	1.92	524.46
5205.00	8.00	170.200	5028.62	1288.28S	78.75E	3.18	532.07
5330.00	6.20	164.100	5152.66	1303.34S	82.08E	1.56	536.17
5456.00	3.30	155.500	5278.21	1313.19S	85.44E	2.36	537.79
5581.00	1.60	180.800	5403.10	1318.21S	86.91E	1.58	538.83
5706.00	1.00	342.700	5528.08	1318.91S	86.56E	2.06	539.47

All data is in Feet unless otherwise stated  
Coordinates are from Slot MD's are from Rig and TVD's are from Rig ( Actual Datum #1 4603.0ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 242.160 degrees  
Bottom hole distance is 2750.63 Feet on azimuth 241.37 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Integrated Petroleum Technologies, Inc.  
Date Printed: 26-Jun-2013

SYSDRILL  
Wellpath Report  
Wellbore: HOSHIKO #1-1-36H (AWB)  
Wellpath: HOSHIKO #1-1-36H (AWP#1)

**Wellpath Report**

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]
5831.00	0.80	350.400	5653.07	1317.01S	86.09E	0.19	539.00
5894.00	0.70	345.500	5716.06	1316.20S	85.92E	0.19	538.77
5925.00	0.90	354.600	5747.06	1315.78S	85.85E	0.76	538.63
5957.00	1.80	272.500	5779.05	1315.50S	85.33E	5.93	538.97
5988.00	4.20	271.000	5810.01	1315.46S	83.71E	7.75	540.39
6019.00	6.50	272.900	5840.87	1315.35S	80.82E	7.44	542.89
6051.00	8.80	274.100	5872.58	1315.09S	76.57E	7.20	546.52
6082.00	11.00	272.900	5903.12	1314.77S	71.25E	7.13	551.08
6113.00	12.40	271.000	5933.48	1314.56S	64.96E	4.68	556.53
6144.00	14.20	270.600	5963.64	1314.46S	57.83E	5.81	562.79
6176.00	16.10	270.400	5994.53	1314.39S	49.47E	5.94	570.15
6207.00	17.90	270.300	6024.17	1314.34S	40.41E	5.81	578.14
6238.00	19.30	270.800	6053.55	1314.24S	30.52E	4.55	586.84
6270.00	21.60	271.300	6083.53	1314.03S	19.34E	7.21	596.63
6301.00	24.60	271.000	6112.05	1313.79S	7.19E	9.68	607.26
6332.00	27.30	270.400	6139.92	1313.63S	6.38W	8.75	619.18
6364.00	29.30	269.600	6168.09	1313.63S	21.55W	6.36	632.60
6395.00	31.70	270.400	6194.80	1313.63S	37.28W	7.85	646.51
6426.00	34.50	271.100	6220.77	1313.40S	54.20W	9.12	661.37
6457.00	37.30	270.800	6245.88	1313.10S	72.38W	9.05	677.30
6489.00	40.00	270.800	6270.86	1312.82S	92.36W	8.44	694.83
6520.00	42.20	270.800	6294.22	1312.54S	112.74W	7.10	712.72
6551.00	44.20	271.300	6316.82	1312.15S	133.95W	6.55	731.29
6582.00	46.60	270.800	6338.59	1311.75S	156.02W	7.83	750.62
6614.00	49.20	269.900	6360.04	1311.60S	179.76W	8.39	771.55
6645.00	51.60	269.600	6379.80	1311.71S	203.64W	7.78	792.71
6676.00	53.60	270.100	6398.62	1311.77S	228.27W	6.58	814.52
6707.00	55.30	271.100	6416.65	1311.51S	253.49W	6.08	836.69
6739.00	57.80	270.600	6434.29	1311.11S	280.18W	7.92	860.11
6770.00	60.50	269.900	6450.18	1311.00S	306.79W	8.92	883.59
6802.00	63.00	269.900	6465.33	1311.05S	334.98W	7.81	908.53
6833.00	65.40	269.700	6478.82	1311.14S	362.89W	7.76	933.26
6864.00	67.30	270.100	6491.25	1311.19S	391.28W	6.24	958.39
6895.00	69.40	269.700	6502.69	1311.24S	420.09W	6.88	983.89
6927.00	71.80	269.600	6513.32	1311.43S	450.27W	7.51	1010.66
6958.00	74.60	270.100	6522.28	1311.51S	479.95W	9.16	1036.93
6989.00	77.30	270.400	6529.80	1311.37S	510.02W	8.76	1063.46
7021.00	79.70	270.400	6536.18	1311.16S	541.37W	7.50	1091.08
7052.00	82.00	270.800	6541.11	1310.83S	571.97W	7.53	1117.99
7083.00	84.20	271.100	6544.83	1310.32S	602.74W	7.16	1144.96
7115.00	86.40	270.800	6547.46	1309.80S	634.63W	6.94	1172.91
7146.00	88.40	270.400	6548.86	1309.47S	665.59W	6.58	1200.14
7177.00	90.70	270.300	6549.11	1309.28S	696.59W	7.43	1227.46
7209.00	91.50	270.800	6548.49	1308.97S	728.58W	2.95	1255.60
7259.00	91.50	270.800	6547.18	1308.28S	778.56W	==>	1299.47
7280.00	91.60	271.700	6546.61	1307.82S	799.55W	4.31	1317.81
7311.00	92.10	271.700	6545.61	1306.90S	830.52W	1.61	1344.77
7342.00	92.30	271.300	6544.42	1306.09S	861.48W	1.44	1371.77
7374.00	92.70	271.500	6543.03	1305.31S	893.44W	1.40	1399.66
7405.00	92.60	271.000	6541.59	1304.63S	924.40W	1.64	1426.72
7436.00	92.20	270.100	6540.30	1304.34S	955.37W	3.17	1453.97
7468.00	91.50	269.400	6539.26	1304.47S	987.36W	3.09	1482.31
7499.00	91.50	269.400	6538.45	1304.80S	1018.34W	==>	1509.87
7530.00	91.80	269.400	6537.56	1305.12S	1049.33W	0.97	1537.42
7561.00	91.70	269.200	6536.61	1305.50S	1080.31W	0.72	1564.99
7593.00	91.80	268.300	6535.63	1306.20S	1112.29W	2.83	1593.59
7624.00	92.10	268.100	6534.58	1307.17S	1143.26W	1.16	1621.43
7655.00	92.40	268.100	6533.36	1308.20S	1174.22W	0.97	1649.28
7687.00	92.80	268.100	6531.91	1309.26S	1206.17W	1.25	1678.02
7718.00	93.00	267.600	6530.34	1310.42S	1237.10W	1.74	1705.92
7749.00	91.90	267.300	6529.02	1311.80S	1268.04W	3.68	1733.93
7781.00	91.80	267.100	6527.98	1313.36S	1299.99W	0.70	1762.90
7812.00	91.60	266.700	6527.07	1315.04S	1330.93W	1.44	1791.04
7843.00	92.00	266.900	6526.09	1316.77S	1361.87W	1.44	1819.21
7874.00	92.20	266.900	6524.96	1318.44S	1392.80W	0.65	1847.34
7906.00	92.20	266.700	6523.73	1320.23S	1424.73W	0.62	1876.41
7937.00	92.50	266.600	6522.46	1322.04S	1455.65W	1.02	1904.59
7968.00	92.70	266.400	6521.05	1323.93S	1486.56W	0.91	1932.81
8000.00	91.80	267.300	6519.79	1325.68S	1518.48W	3.98	1961.86
8031.00	92.10	267.600	6518.74	1327.06S	1549.44W	1.37	1989.87
8062.00	92.00	267.100	6517.63	1328.50S	1580.38W	1.64	2017.90
8094.00	91.60	268.000	6516.62	1329.86S	1612.34W	3.08	2046.80
8125.00	92.00	268.300	6515.65	1330.86S	1643.31W	1.61	2074.65
8156.00	91.80	269.400	6514.62	1331.48S	1674.28W	3.60	2102.33
8187.00	92.20	269.400	6513.54	1331.81S	1705.26W	1.29	2129.87

All data is in Feet unless otherwise stated  
Coordinates are from Slot MD's are from Rig and TVD's are from Rig ( Actual Datum #1 4603.0ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 242.160 degrees  
Bottom hole distance is 2750.63 Feet on azimuth 241.37 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Integrated Petroleum Technologies, Inc.  
Date Printed: 26-Jun-2013

SYSDRILL  
Wellpath Report  
Wellbore: HOSHIKO #1-1-36H (AWB)  
Wellpath: HOSHIKO #1-1-36H (AWP#1)

**Wellpath Report**

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]
8219.00	92.60	269.400	6512.20	1332.14S	1737.23W	1.25	2158.30
8250.00	92.80	271.000	6510.74	1332.04S	1768.20W	5.20	2185.62
8281.00	92.90	270.800	6509.20	1331.55S	1799.15W	0.72	2212.77
8313.00	92.00	271.000	6507.83	1331.05S	1831.12W	2.88	2240.80
8344.00	92.20	271.300	6506.70	1330.43S	1862.09W	1.16	2267.90
8375.00	92.40	271.300	6505.45	1329.72S	1893.06W	0.65	2294.95
8407.00	91.20	271.500	6504.45	1328.94S	1925.03W	3.80	2322.86
8438.00	90.90	271.300	6503.88	1328.18S	1956.02W	1.16	2349.90
8469.00	91.20	271.500	6503.31	1327.43S	1987.00W	1.16	2376.95
8500.00	91.30	271.500	6502.63	1326.62S	2017.99W	0.32	2403.96
8532.00	91.60	271.500	6501.82	1325.78S	2049.97W	0.94	2431.85
8563.00	91.80	271.500	6500.90	1324.97S	2080.94W	0.65	2458.86
8594.00	92.20	271.300	6499.82	1324.21S	2111.91W	1.44	2485.89
8625.00	92.30	271.300	6498.61	1323.51S	2142.88W	0.32	2512.95
8657.00	92.50	271.500	6497.27	1322.73S	2174.84W	0.88	2540.85
8688.00	92.90	271.700	6495.80	1321.86S	2205.80W	1.44	2567.81
8719.00	93.00	271.100	6494.21	1321.11S	2236.75W	1.96	2594.82
8751.00	93.40	271.300	6492.42	1320.44S	2268.69W	1.40	2622.76
8782.00	93.80	271.300	6490.48	1319.73S	2299.62W	1.29	2649.78
8813.00	93.30	271.100	6488.56	1319.09S	2330.55W	1.74	2676.83
8845.00	93.50	270.800	6486.66	1318.56S	2362.49W	1.13	2704.82
8897.00	93.50	270.800	6483.48	1317.83S	2414.39W	==>	2750.37

All data is in Feet unless otherwise stated  
Coordinates are from Slot MD's are from Rig and TVD's are from Rig ( Actual Datum #1 4603.0ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 242.160 degrees  
Bottom hole distance is 2750.63 Feet on azimuth 241.37 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Integrated Petroleum Technologies, Inc.  
Date Printed: 26-Jun-2013

SYSDRILL  
Wellpath Report  
Wellbore: HOSHIKO #1-1-36H (AWB)  
Wellpath: HOSHIKO #1-1-36H (AWP#1)

**Hole Sections**

Diameter [in]	Start MD[ft]	Start TVD[ft]	Start North[ft]	Start East[ft]	End MD[ft]	End TVD[ft]	End North[ft]	End East[ft]	Wellbore
13 1/2	15.00	15.00	0.00N	0.00E	558.00	555.39	40.03S	2.11E	HOSHIKO #1-1-36H (AWB)
8 3/4	558.00	555.39	40.03S	2.11E	7259.00	6547.18	1308.28S	778.56W	HOSHIKO #1-1-36H (AWB)

**Casings**

Name	Top MD[ft]	Top TVD[ft]	Top North[ft]	Top East[ft]	Shoe MD[ft]	Shoe TVD[ft]	Shoe North[ft]	Shoe East[ft]	Wellbore
9 5/8in Surface Casing	15.00	15.00	0.00N	0.00E	548.81	546.35	38.37S	2.11E	HOSHIKO #1-1-36H (AWB)
7.0in Intermediate Casing	15.00	15.00	0.00N	0.00E	7019.81	6535.97	1311.16S	540.20W	HOSHIKO #1-1-36H (AWB)
4 1/2in Intermediate Casing	6678.32	6400.00	1311.77S	230.14W	8887.00	6484.10	1317.97S	2404.41W	HOSHIKO #1-1-36H (AWB)

**Survey Tool Program**

Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model
41208	Input	8897.00	6483.48	No Tool	No Model

All data is in Feet unless otherwise stated  
Coordinates are from Slot MD's are from Rig and TVD's are from Rig ( Actual Datum #1 4603.0ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 242.160 degrees  
Bottom hole distance is 2750.63 Feet on azimuth 241.37 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Integrated Petroleum Technologies, Inc.  
Date Printed: 26-Jun-2013