



INTEGRATED PETROLEUM TECHNOLOGIES, INC  
SYSDRILL  
Well Design Combined Report  
Wellbore: ALICIA 12-15H-2N (PWB)

Wellhead Details							
Name	Northing	Easting	Latitude	Longitude	North	East	Elevation Above Inst.
ALICIA 12-15H-2N	1233705.9707	3154981.1472	39.97358000	-104.94701000	11.10N	27.96E	-0.00

Declination			
Date	Source	Time	
	8-Jul-2013	IGRF Model [1900.0-2015.0]	09:34

Site Details				
Name	Northing	Easting	Coord System Name	North Alignment
ALICIA	1233694.8679	3154953.1896	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
13.00	0.00	0.000	13.00	0.00N	0.00E		0.00	1233705.97	3154981.15
1625.00	0.00	0.000	1625.00	0.00N	0.00E	==>	0.00	1233705.97	3154981.15
1994.80	7.40	177.280	1993.78	23.81S	1.13E	2.00	-23.81	1233682.16	3154982.28
7218.85	7.40	177.280	7174.36	695.53S	33.04E	==>	-695.55	1233010.46	3155014.19
8192.75	90.00	359.630	7821.00	127.32S	32.82E	10.00	-127.34	1233578.65	3155013.97
13835.55	90.00	359.630	7821.00	5515.37N	3.57W	==>	5515.37	1239221.15	3154977.58

Interpolated 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	1233705.97	3154981.15
13.00	0.00	0.000	13.00	0.00N	0.00E	==>	0.00	1233705.97	3154981.15
100.00	0.00	0.000	100.00	0.00N	0.00E	==>	0.00	1233705.97	3154981.15
200.00	0.00	0.000	200.00	0.00N	0.00E	==>	0.00	1233705.97	3154981.15
300.00	0.00	0.000	300.00	0.00N	0.00E	==>	0.00	1233705.97	3154981.15
400.00	0.00	0.000	400.00	0.00N	0.00E	==>	0.00	1233705.97	3154981.15
500.00	0.00	0.000	500.00	0.00N	0.00E	==>	0.00	1233705.97	3154981.15
600.00	0.00	0.000	600.00	0.00N	0.00E	==>	0.00	1233705.97	3154981.15
700.00	0.00	0.000	700.00	0.00N	0.00E	==>	0.00	1233705.97	3154981.15
800.00	0.00	0.000	800.00	0.00N	0.00E	==>	0.00	1233705.97	3154981.15
900.00	0.00	0.000	900.00	0.00N	0.00E	==>	0.00	1233705.97	3154981.15
1000.00	0.00	0.000	1000.00	0.00N	0.00E	==>	0.00	1233705.97	3154981.15
1100.00	0.00	0.000	1100.00	0.00N	0.00E	==>	0.00	1233705.97	3154981.15
1200.00	0.00	0.000	1200.00	0.00N	0.00E	==>	0.00	1233705.97	3154981.15
1300.00	0.00	0.000	1300.00	0.00N	0.00E	==>	0.00	1233705.97	3154981.15
1400.00	0.00	0.000	1400.00	0.00N	0.00E	==>	0.00	1233705.97	3154981.15
1500.00	0.00	0.000	1500.00	0.00N	0.00E	==>	0.00	1233705.97	3154981.15
1600.00	0.00	0.000	1600.00	0.00N	0.00E	==>	0.00	1233705.97	3154981.15
1612.00	0.00	0.000	1612.00	0.00N	0.00E	==>	0.00	1233705.97	3154981.15
1625.00	0.00	0.000	1625.00	0.00N	0.00E	==>	0.00	1233705.97	3154981.15
1712.00	1.74	177.280	1711.99	1.32S	0.06E	2.00	-1.32	1233704.65	3154981.21
1812.00	3.74	177.280	1811.87	6.09S	0.29E	2.00	-6.09	1233699.88	3154981.44
1912.00	5.74	177.280	1911.52	14.35S	0.68E	2.00	-14.35	1233691.62	3154981.83
1994.80	7.40	177.280	1993.78	23.81S	1.13E	2.00	-23.81	1233682.16	3154982.28
2000.00	7.40	177.280	1998.93	24.48S	1.16E	==>	-24.48	1233681.50	3154982.31
2100.00	7.40	177.280	2098.10	37.33S	1.77E	==>	-37.34	1233668.64	3154982.92
2200.00	7.40	177.280	2197.27	50.19S	2.38E	==>	-50.19	1233655.78	3154983.53
2300.00	7.40	177.280	2296.43	63.05S	3.00E	==>	-63.05	1233642.92	3154984.14
2400.00	7.40	177.280	2395.60	75.91S	3.61E	==>	-75.91	1233630.06	3154984.75
2500.00	7.40	177.280	2494.77	88.77S	4.22E	==>	-88.77	1233617.21	3154985.36
2600.00	7.40	177.280	2593.94	101.63S	4.83E	==>	-101.63	1233604.35	3154985.98
2700.00	7.40	177.280	2693.11	114.48S	5.44E	==>	-114.49	1233591.49	3154986.59
2800.00	7.40	177.280	2792.27	127.34S	6.05E	==>	-127.35	1233578.63	3154987.20
2900.00	7.40	177.280	2891.44	140.20S	6.66E	==>	-140.21	1233565.77	3154987.81
3000.00	7.40	177.280	2990.61	153.06S	7.27E	==>	-153.06	1233552.92	3154988.42
3100.00	7.40	177.280	3089.78	165.92S	7.88E	==>	-165.92	1233540.06	3154989.03
3200.00	7.40	177.280	3188.95	178.78S	8.49E	==>	-178.78	1233527.20	3154989.64
3300.00	7.40	177.280	3288.11	191.63S	9.10E	==>	-191.64	1233514.34	3154990.25

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 5163.0ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 359.960 degrees  
Bottom hole distance is 5515.37 Feet on azimuth 359.96 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Integrated Petroleum Technologies, Inc.  
Date Printed: 3-Sep-2014



INTEGRATED PETROLEUM TECHNOLOGIES, INC  
SYSDRILL

Well Design Combined Report  
Wellbore: ALICIA 12-15H-2N (PWB)

Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
3400.00	7.40	177.280	3387.28	204.49S	9.72E	==>	-204.50	1233501.48	3154990.86
3500.00	7.40	177.280	3486.45	217.35S	10.33E	==>	-217.36	1233488.63	3154991.47
3600.00	7.40	177.280	3585.62	230.21S	10.94E	==>	-230.22	1233475.77	3154992.08
3700.00	7.40	177.280	3684.79	243.07S	11.55E	==>	-243.07	1233462.91	3154992.69
3800.00	7.40	177.280	3783.95	255.93S	12.16E	==>	-255.93	1233450.05	3154993.31
3900.00	7.40	177.280	3883.12	268.78S	12.77E	==>	-268.79	1233437.20	3154993.92
4000.00	7.40	177.280	3982.29	281.64S	13.38E	==>	-281.65	1233424.34	3154994.53
4100.00	7.40	177.280	4081.46	294.50S	13.99E	==>	-294.51	1233411.48	3154995.14
4200.00	7.40	177.280	4180.63	307.36S	14.60E	==>	-307.37	1233398.62	3154995.75
4300.00	7.40	177.280	4279.79	320.22S	15.21E	==>	-320.23	1233385.76	3154996.36
4400.00	7.40	177.280	4378.96	333.08S	15.82E	==>	-333.09	1233372.91	3154996.97
4500.00	7.40	177.280	4478.13	345.93S	16.43E	==>	-345.94	1233360.05	3154997.58
4600.00	7.40	177.280	4577.30	358.79S	17.05E	==>	-358.80	1233347.19	3154998.19
4700.00	7.40	177.280	4676.47	371.65S	17.66E	==>	-371.66	1233334.33	3154998.80
4800.00	7.40	177.280	4775.63	384.51S	18.27E	==>	-384.52	1233321.47	3154999.41
4900.00	7.40	177.280	4874.80	397.37S	18.88E	==>	-397.38	1233308.62	3155000.03
5000.00	7.40	177.280	4973.97	410.23S	19.49E	==>	-410.24	1233295.76	3155000.64
5100.00	7.40	177.280	5073.14	423.08S	20.10E	==>	-423.10	1233282.90	3155001.25
5200.00	7.40	177.280	5172.31	435.94S	20.71E	==>	-435.96	1233270.04	3155001.86
5300.00	7.40	177.280	5271.47	448.80S	21.32E	==>	-448.81	1233257.19	3155002.47
5400.00	7.40	177.280	5370.64	461.66S	21.93E	==>	-461.67	1233244.33	3155003.08
5500.00	7.40	177.280	5469.81	474.52S	22.54E	==>	-474.53	1233231.47	3155003.69
5600.00	7.40	177.280	5568.98	487.38S	23.15E	==>	-487.39	1233218.61	3155004.30
5700.00	7.40	177.280	5668.15	500.23S	23.77E	==>	-500.25	1233205.75	3155004.91
5800.00	7.40	177.280	5767.31	513.09S	24.38E	==>	-513.11	1233192.90	3155005.52
5900.00	7.40	177.280	5866.48	525.95S	24.99E	==>	-525.97	1233180.04	3155006.13
6000.00	7.40	177.280	5965.65	538.81S	25.60E	==>	-538.82	1233167.18	3155006.74
6100.00	7.40	177.280	6064.82	551.67S	26.21E	==>	-551.68	1233154.32	3155007.36
6200.00	7.40	177.280	6163.99	564.53S	26.82E	==>	-564.54	1233141.46	3155007.97
6300.00	7.40	177.280	6263.15	577.38S	27.43E	==>	-577.40	1233128.61	3155008.58
6400.00	7.40	177.280	6362.32	590.24S	28.04E	==>	-590.26	1233115.75	3155009.19
6500.00	7.40	177.280	6461.49	603.10S	28.65E	==>	-603.12	1233102.89	3155009.80
6600.00	7.40	177.280	6560.66	615.96S	29.26E	==>	-615.98	1233090.03	3155010.41
6700.00	7.40	177.280	6659.83	628.82S	29.87E	==>	-628.84	1233077.18	3155011.02
6800.00	7.40	177.280	6758.99	641.67S	30.49E	==>	-641.69	1233064.32	3155011.63
6900.00	7.40	177.280	6858.16	654.53S	31.10E	==>	-654.55	1233051.46	3155012.24
7000.00	7.40	177.280	6957.33	667.39S	31.71E	==>	-667.41	1233038.60	3155012.85
7100.00	7.40	177.280	7056.50	680.25S	32.32E	==>	-680.27	1233025.74	3155013.46
7200.00	7.40	177.280	7155.67	693.11S	32.93E	==>	-693.13	1233012.89	3155014.07
7218.85	7.40	177.280	7174.36	695.53S	33.04E	==>	-695.55	1233010.46	3155014.19
7300.00	0.79	22.440	7255.30	700.24S	33.51E	10.00	-700.26	1233005.75	3155014.65
7400.00	10.73	1.240	7354.68	690.28S	33.97E	10.00	-690.30	1233015.72	3155015.12
7500.00	20.73	0.440	7450.81	663.20S	34.31E	10.00	-663.23	1233042.79	3155015.45
7600.00	30.73	0.140	7540.78	619.85S	34.51E	10.00	-619.87	1233086.14	3155015.65
7700.00	40.73	359.980	7621.86	561.53S	34.56E	10.00	-561.56	1233144.46	3155015.71
7800.00	50.73	359.880	7691.58	490.02S	34.47E	10.00	-490.05	1233215.96	3155015.62
7900.00	60.73	359.800	7747.83	407.49S	34.24E	10.00	-407.52	1233298.49	3155015.39
8000.00	70.73	359.740	7788.88	316.45S	33.87E	10.00	-316.47	1233389.53	3155015.02
8100.00	80.73	359.680	7813.51	219.66S	33.38E	10.00	-219.68	1233486.32	3155014.52
8192.75	90.00	359.630	7821.00	127.32S	32.82E	10.00	-127.34	1233578.65	3155013.97
8200.00	90.00	359.630	7821.00	120.07S	32.78E	==>	-120.09	1233585.91	3155013.92
8300.00	90.00	359.630	7821.00	20.07S	32.13E	==>	-20.09	1233685.90	3155013.28
8400.00	90.00	359.630	7821.00	79.93N	31.49E	==>	79.91	1233785.89	3155012.63
8500.00	90.00	359.630	7821.00	179.92N	30.84E	==>	179.90	1233885.89	3155011.99
8600.00	90.00	359.630	7821.00	279.92N	30.20E	==>	279.90	1233985.88	3155011.34
8700.00	90.00	359.630	7821.00	379.92N	29.55E	==>	379.90	1234085.88	3155010.70
8800.00	90.00	359.630	7821.00	479.92N	28.91E	==>	479.90	1234185.87	3155010.05
8900.00	90.00	359.630	7821.00	579.92N	28.26E	==>	579.90	1234285.87	3155009.41
9000.00	90.00	359.630	7821.00	679.91N	27.62E	==>	679.90	1234385.86	3155008.76
9100.00	90.00	359.630	7821.00	779.91N	26.97E	==>	779.89	1234485.86	3155008.12
9200.00	90.00	359.630	7821.00	879.91N	26.33E	==>	879.89	1234585.85	3155007.47

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 5163.0ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 359.960 degrees  
Bottom hole distance is 5515.37 Feet on azimuth 359.96 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Integrated Petroleum Technologies, Inc.  
Date Printed: 3-Sep-2014



INTEGRATED PETROLEUM TECHNOLOGIES, INC  
SYSDRILL

Well Design Combined Report  
Wellbore: ALICIA 12-15H-2N (PWB)

Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
9300.00	90.00	359.630	7821.00	979.91N	25.68E	==>	979.89	1234685.85	3155006.83
9400.00	90.00	359.630	7821.00	1079.91N	25.04E	==>	1079.89	1234785.84	3155006.18
9500.00	90.00	359.630	7821.00	1179.90N	24.39E	==>	1179.89	1234885.83	3155005.54
9600.00	90.00	359.630	7821.00	1279.90N	23.75E	==>	1279.89	1234985.83	3155004.89
9700.00	90.00	359.630	7821.00	1379.90N	23.10E	==>	1379.88	1235085.82	3155004.25
9800.00	90.00	359.630	7821.00	1479.90N	22.46E	==>	1479.88	1235185.82	3155003.60
9900.00	90.00	359.630	7821.00	1579.90N	21.81E	==>	1579.88	1235285.81	3155002.96
10000.00	90.00	359.630	7821.00	1679.89N	21.17E	==>	1679.88	1235385.81	3155002.31
10100.00	90.00	359.630	7821.00	1779.89N	20.52E	==>	1779.88	1235485.80	3155001.67
10200.00	90.00	359.630	7821.00	1879.89N	19.88E	==>	1879.88	1235585.80	3155001.02
10300.00	90.00	359.630	7821.00	1979.89N	19.23E	==>	1979.87	1235685.79	3155000.38
10400.00	90.00	359.630	7821.00	2079.88N	18.59E	==>	2079.87	1235785.79	3154999.73
10500.00	90.00	359.630	7821.00	2179.88N	17.94E	==>	2179.87	1235885.78	3154999.09
10600.00	90.00	359.630	7821.00	2279.88N	17.30E	==>	2279.87	1235985.77	3154998.44
10700.00	90.00	359.630	7821.00	2379.88N	16.65E	==>	2379.87	1236085.77	3154997.80
10800.00	90.00	359.630	7821.00	2479.88N	16.01E	==>	2479.87	1236185.76	3154997.15
10900.00	90.00	359.630	7821.00	2579.87N	15.36E	==>	2579.86	1236285.76	3154996.51
11000.00	90.00	359.630	7821.00	2679.87N	14.72E	==>	2679.86	1236385.75	3154995.86
11100.00	90.00	359.630	7821.00	2779.87N	14.07E	==>	2779.86	1236485.75	3154995.22
11200.00	90.00	359.630	7821.00	2879.87N	13.43E	==>	2879.86	1236585.74	3154994.57
11300.00	90.00	359.630	7821.00	2979.87N	12.78E	==>	2979.86	1236685.74	3154993.93
11400.00	90.00	359.630	7821.00	3079.86N	12.14E	==>	3079.86	1236785.73	3154993.28
11500.00	90.00	359.630	7821.00	3179.86N	11.49E	==>	3179.85	1236885.73	3154992.64
11600.00	90.00	359.630	7821.00	3279.86N	10.85E	==>	3279.85	1236985.72	3154991.99
11700.00	90.00	359.630	7821.00	3379.86N	10.20E	==>	3379.85	1237085.72	3154991.35
11800.00	90.00	359.630	7821.00	3479.86N	9.56E	==>	3479.85	1237185.71	3154990.70
11900.00	90.00	359.630	7821.00	3579.85N	8.91E	==>	3579.85	1237285.70	3154990.06
12000.00	90.00	359.630	7821.00	3679.85N	8.27E	==>	3679.85	1237385.70	3154989.41
12100.00	90.00	359.630	7821.00	3779.85N	7.62E	==>	3779.84	1237485.69	3154988.77
12200.00	90.00	359.630	7821.00	3879.85N	6.98E	==>	3879.84	1237585.69	3154988.12
12300.00	90.00	359.630	7821.00	3979.85N	6.33E	==>	3979.84	1237685.68	3154987.48
12400.00	90.00	359.630	7821.00	4079.84N	5.69E	==>	4079.84	1237785.68	3154986.83
12500.00	90.00	359.630	7821.00	4179.84N	5.04E	==>	4179.84	1237885.67	3154986.19
12600.00	90.00	359.630	7821.00	4279.84N	4.40E	==>	4279.84	1237985.67	3154985.54
12700.00	90.00	359.630	7821.00	4379.84N	3.75E	==>	4379.83	1238085.66	3154984.90
12800.00	90.00	359.630	7821.00	4479.83N	3.11E	==>	4479.83	1238185.66	3154984.25
12900.00	90.00	359.630	7821.00	4579.83N	2.46E	==>	4579.83	1238285.65	3154983.61
13000.00	90.00	359.630	7821.00	4679.83N	1.82E	==>	4679.83	1238385.64	3154982.96
13100.00	90.00	359.630	7821.00	4779.83N	1.17E	==>	4779.83	1238485.64	3154982.32
13200.00	90.00	359.630	7821.00	4879.83N	0.53E	==>	4879.83	1238585.63	3154981.67
13300.00	90.00	359.630	7821.00	4979.82N	0.12W	==>	4979.82	1238685.63	3154981.03
13400.00	90.00	359.630	7821.00	5079.82N	0.76W	==>	5079.82	1238785.62	3154980.38
13500.00	90.00	359.630	7821.00	5179.82N	1.41W	==>	5179.82	1238885.62	3154979.74
13600.00	90.00	359.630	7821.00	5279.82N	2.05W	==>	5279.82	1238985.61	3154979.09
13700.00	90.00	359.630	7821.00	5379.82N	2.70W	==>	5379.82	1239085.61	3154978.45
13800.00	90.00	359.630	7821.00	5479.81N	3.34W	==>	5479.82	1239185.60	3154977.81
13835.55	90.00	359.630	7821.00	5515.37N	3.57W	==>	5515.37	1239221.15	3154977.58

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 5163.0ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 359.960 degrees  
Bottom hole distance is 5515.37 Feet on azimuth 359.96 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Integrated Petroleum Technologies, Inc.  
Date Printed: 3-Sep-2014



INTEGRATED PETROLEUM TECHNOLOGIES, INC  
SYSDRILL  
Well Design Combined Report  
Wellbore: ALICIA 12-15H-2N (PWB)

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]
13 1/2	13.00	13.00	0.00N	0.00E	1250.00	1250.00	0.00N	0.00E
8 3/4	1250.00	1250.00	0.00N	0.00E	8192.00	7821.00	128.07S	32.83E
6 1/8	8192.00	7821.00	128.07S	32.83E	13835.50	7821.00	5515.32N	3.57W

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]
9 5/8in Surface Casing	13.00	13.00	0.00N	0.00E	1250.00	1250.00	0.00N	0.00E
7.0in Intermediate Casing	13.00	13.00	0.00N	0.00E	8192.00	7821.00	128.07S	32.83E
4 1/2in Production Liner	7992.00	7786.19	323.98S	33.90E	13835.50	7821.00	5515.32N	3.57W

Targets								
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting	Last Revised
ALICIA 12-15H-2N - BH	5515.37N	3.57W	7821.00	39.98872000	-104.94690000	1239221.15	3154977.58	3-Mar-2014
ALICIA 12-15H-2N - T1	127.32S	28.82E	7821.00	39.97323000	-104.94691000	1233578.65	3155009.97	3-Mar-2014

Survey Tool Program					
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model
172619	Planned	13835.55	7821.00	WdW Rate Gyro	Standard

Notes

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