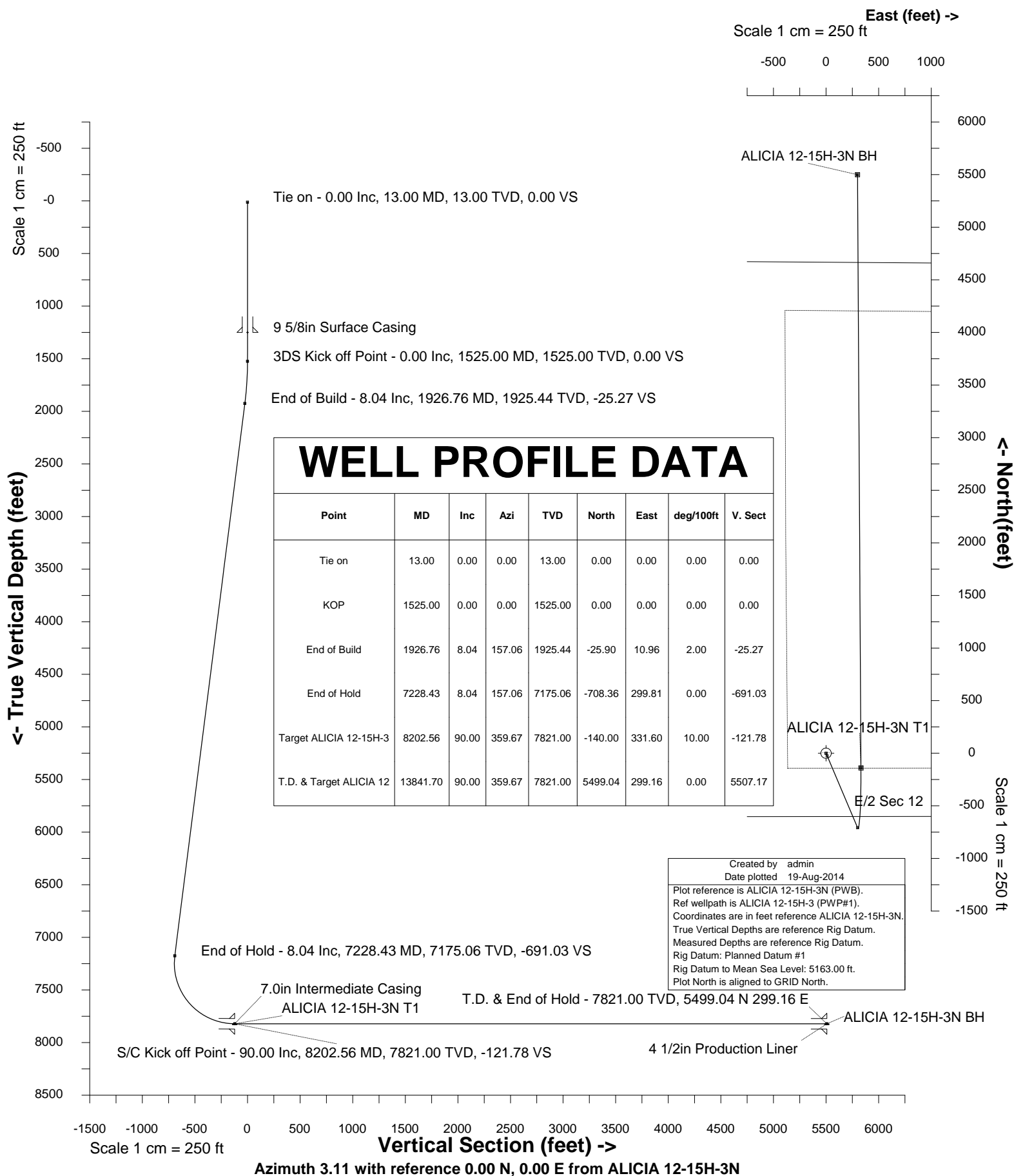


# MENDELL ENERGY, LLC

Location ADAMS COUNTY, CO  
Field SPINDLE  
Installation ALICIA

Slot ALICIA 12-15H-3N  
Well ALICIA 12-15H-3N  
Wellbore ALICIA 12-15H-3N (PWB)





INTEGRATED PETROLEUM TECHNOLOGIES, INC  
SYSDRILL  
Well Design Combined Report  
Wellbore: ALICIA 12-15H-3N (PWB)

Wellhead Details							
Name	Northing	Easting	Latitude	Longitude	North	East	Elevation Above Inst.
ALICIA 12-15H-3N	1233720.7161	3155009.0820	39.97362000	-104.94691000	25.85N	55.89E	-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	1233720.72	3155009.08
1525.00	0.00	0.000	1525.00	0.00N	0.00E	==>	0.00	1233720.72	3155009.08
1926.76	8.04	157.060	1925.44	25.90S	10.96E	2.00	-25.27	1233694.82	3155020.04
7228.43	8.04	157.060	7175.06	708.36S	299.81E	==>	-691.03	1233012.38	3155308.89
8202.56	90.00	359.670	7821.00	140.00S	331.60E	10.00	-121.78	1233580.72	3155340.67
13841.70	90.00	359.670	7821.00	5499.04N	299.16E	==>	5507.17	1239219.57	3155308.23

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	1233720.72	3155009.08
13.00	0.00	0.000	13.00	0.00N	0.00E	==>	0.00	1233720.72	3155009.08
100.00	0.00	0.000	100.00	0.00N	0.00E	==>	0.00	1233720.72	3155009.08
200.00	0.00	0.000	200.00	0.00N	0.00E	==>	0.00	1233720.72	3155009.08
300.00	0.00	0.000	300.00	0.00N	0.00E	==>	0.00	1233720.72	3155009.08
400.00	0.00	0.000	400.00	0.00N	0.00E	==>	0.00	1233720.72	3155009.08
500.00	0.00	0.000	500.00	0.00N	0.00E	==>	0.00	1233720.72	3155009.08
600.00	0.00	0.000	600.00	0.00N	0.00E	==>	0.00	1233720.72	3155009.08
700.00	0.00	0.000	700.00	0.00N	0.00E	==>	0.00	1233720.72	3155009.08
800.00	0.00	0.000	800.00	0.00N	0.00E	==>	0.00	1233720.72	3155009.08
900.00	0.00	0.000	900.00	0.00N	0.00E	==>	0.00	1233720.72	3155009.08
1000.00	0.00	0.000	1000.00	0.00N	0.00E	==>	0.00	1233720.72	3155009.08
1100.00	0.00	0.000	1100.00	0.00N	0.00E	==>	0.00	1233720.72	3155009.08
1200.00	0.00	0.000	1200.00	0.00N	0.00E	==>	0.00	1233720.72	3155009.08
1300.00	0.00	0.000	1300.00	0.00N	0.00E	==>	0.00	1233720.72	3155009.08
1400.00	0.00	0.000	1400.00	0.00N	0.00E	==>	0.00	1233720.72	3155009.08
1500.00	0.00	0.000	1500.00	0.00N	0.00E	==>	0.00	1233720.72	3155009.08
1512.00	0.00	0.000	1512.00	0.00N	0.00E	==>	0.00	1233720.72	3155009.08
1525.00	0.00	0.000	1525.00	0.00N	0.00E	==>	0.00	1233720.72	3155009.08
1612.00	1.74	157.060	1611.99	1.22S	0.51E	2.00	-1.19	1233719.50	3155009.60
1712.00	3.74	157.060	1711.87	5.62S	2.38E	2.00	-5.48	1233715.10	3155011.46
1812.00	5.74	157.060	1811.52	13.23S	5.60E	2.00	-12.90	1233707.49	3155014.68
1912.00	7.74	157.060	1910.82	24.04S	10.17E	2.00	-23.45	1233696.68	3155019.25
1926.76	8.04	157.060	1925.44	25.90S	10.96E	2.00	-25.27	1233694.82	3155020.04
2000.00	8.04	157.060	1997.97	35.33S	14.95E	==>	-34.46	1233685.39	3155024.03
2100.00	8.04	157.060	2096.98	48.20S	20.40E	==>	-47.02	1233672.52	3155029.48
2200.00	8.04	157.060	2196.00	61.07S	25.85E	==>	-59.58	1233659.64	3155034.93
2300.00	8.04	157.060	2295.02	73.95S	31.30E	==>	-72.14	1233646.77	3155040.38
2400.00	8.04	157.060	2394.04	86.82S	36.75E	==>	-84.70	1233633.90	3155045.83
2500.00	8.04	157.060	2493.06	99.69S	42.19E	==>	-97.25	1233621.03	3155051.27
2600.00	8.04	157.060	2592.07	112.56S	47.64E	==>	-109.81	1233608.16	3155056.72
2700.00	8.04	157.060	2691.09	125.44S	53.09E	==>	-122.37	1233595.28	3155062.17
2800.00	8.04	157.060	2790.11	138.31S	58.54E	==>	-134.93	1233582.41	3155067.62
2900.00	8.04	157.060	2889.13	151.18S	63.99E	==>	-147.48	1233569.54	3155073.07
3000.00	8.04	157.060	2988.15	164.05S	69.44E	==>	-160.04	1233556.67	3155078.52
3100.00	8.04	157.060	3087.17	176.93S	74.88E	==>	-172.60	1233543.79	3155083.96
3200.00	8.04	157.060	3186.18	189.80S	80.33E	==>	-185.16	1233530.92	3155089.41
3300.00	8.04	157.060	3285.20	202.67S	85.78E	==>	-197.71	1233518.05	3155094.86

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 3.110 degrees  
Bottom hole distance is 5507.17 Feet on azimuth 3.11 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Integrated Petroleum Technologies, Inc.  
Date Printed: 19-Aug-2014



INTEGRATED PETROLEUM TECHNOLOGIES, INC  
SYSDRILL  
Well Design Combined Report  
Wellbore: ALICIA 12-15H-3N (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	8.04	157.060	3384.22	215.55S	91.23E	==>	-210.27	1233505.18	3155100.31
3500.00	8.04	157.060	3483.24	228.42S	96.68E	==>	-222.83	1233492.31	3155105.76
3600.00	8.04	157.060	3582.26	241.29S	102.13E	==>	-235.39	1233479.43	3155111.20
3700.00	8.04	157.060	3681.28	254.16S	107.57E	==>	-247.94	1233466.56	3155116.65
3800.00	8.04	157.060	3780.29	267.04S	113.02E	==>	-260.50	1233453.69	3155122.10
3900.00	8.04	157.060	3879.31	279.91S	118.47E	==>	-273.06	1233440.82	3155127.55
4000.00	8.04	157.060	3978.33	292.78S	123.92E	==>	-285.62	1233427.94	3155133.00
4100.00	8.04	157.060	4077.35	305.65S	129.37E	==>	-298.17	1233415.07	3155138.44
4200.00	8.04	157.060	4176.37	318.53S	134.82E	==>	-310.73	1233402.20	3155143.89
4300.00	8.04	157.060	4275.38	331.40S	140.26E	==>	-323.29	1233389.33	3155149.34
4400.00	8.04	157.060	4374.40	344.27S	145.71E	==>	-335.85	1233376.46	3155154.79
4500.00	8.04	157.060	4473.42	357.14S	151.16E	==>	-348.41	1233363.58	3155160.24
4600.00	8.04	157.060	4572.44	370.02S	156.61E	==>	-360.96	1233350.71	3155165.69
4700.00	8.04	157.060	4671.46	382.89S	162.06E	==>	-373.52	1233337.84	3155171.13
4800.00	8.04	157.060	4770.48	395.76S	167.51E	==>	-386.08	1233324.97	3155176.58
4900.00	8.04	157.060	4869.49	408.63S	172.95E	==>	-398.64	1233312.10	3155182.03
5000.00	8.04	157.060	4968.51	421.51S	178.40E	==>	-411.19	1233299.22	3155187.48
5100.00	8.04	157.060	5067.53	434.38S	183.85E	==>	-423.75	1233286.35	3155192.93
5200.00	8.04	157.060	5166.55	447.25S	189.30E	==>	-436.31	1233273.48	3155198.37
5300.00	8.04	157.060	5265.57	460.12S	194.75E	==>	-448.87	1233260.61	3155203.82
5400.00	8.04	157.060	5364.59	473.00S	200.20E	==>	-461.42	1233247.73	3155209.27
5500.00	8.04	157.060	5463.60	485.87S	205.64E	==>	-473.98	1233234.86	3155214.72
5600.00	8.04	157.060	5562.62	498.74S	211.09E	==>	-486.54	1233221.99	3155220.17
5700.00	8.04	157.060	5661.64	511.62S	216.54E	==>	-499.10	1233209.12	3155225.61
5800.00	8.04	157.060	5760.66	524.49S	221.99E	==>	-511.65	1233196.25	3155231.06
5900.00	8.04	157.060	5859.68	537.36S	227.44E	==>	-524.21	1233183.37	3155236.51
6000.00	8.04	157.060	5958.69	550.23S	232.89E	==>	-536.77	1233170.50	3155241.96
6100.00	8.04	157.060	6057.71	563.11S	238.33E	==>	-549.33	1233157.63	3155247.41
6200.00	8.04	157.060	6156.73	575.98S	243.78E	==>	-561.89	1233144.76	3155252.86
6300.00	8.04	157.060	6255.75	588.85S	249.23E	==>	-574.44	1233131.88	3155258.30
6400.00	8.04	157.060	6354.77	601.72S	254.68E	==>	-587.00	1233119.01	3155263.75
6500.00	8.04	157.060	6453.79	614.60S	260.13E	==>	-599.56	1233106.14	3155269.20
6600.00	8.04	157.060	6552.80	627.47S	265.57E	==>	-612.12	1233093.27	3155274.65
6700.00	8.04	157.060	6651.82	640.34S	271.02E	==>	-624.67	1233080.40	3155280.10
6800.00	8.04	157.060	6750.84	653.21S	276.47E	==>	-637.23	1233067.52	3155285.54
6900.00	8.04	157.060	6849.86	666.09S	281.92E	==>	-649.79	1233054.65	3155290.99
7000.00	8.04	157.060	6948.88	678.96S	287.37E	==>	-662.35	1233041.78	3155296.44
7100.00	8.04	157.060	7047.90	691.83S	292.82E	==>	-674.90	1233028.91	3155301.89
7200.00	8.04	157.060	7146.91	704.70S	298.26E	==>	-687.46	1233016.04	3155307.34
7228.43	8.04	157.060	7175.06	708.36S	299.81E	==>	-691.03	1233012.38	3155308.89
7300.00	3.12	94.390	7246.32	713.13S	303.71E	10.00	-695.57	1233007.61	3155312.78
7400.00	10.22	17.190	7345.71	704.84S	309.06E	10.00	-687.01	1233015.90	3155318.13
7500.00	19.98	8.260	7442.15	679.39S	314.14E	10.00	-661.32	1233041.35	3155323.21
7600.00	29.89	5.090	7532.72	637.56S	318.82E	10.00	-619.30	1233083.18	3155327.89
7700.00	39.84	3.400	7614.67	580.62S	322.94E	10.00	-562.22	1233140.12	3155332.01
7800.00	49.81	2.300	7685.50	510.29S	326.38E	10.00	-491.81	1233210.44	3155335.45
7900.00	59.79	1.480	7743.07	428.72S	329.03E	10.00	-410.21	1233292.01	3155338.10
8000.00	69.77	0.820	7785.62	338.38S	330.82E	10.00	-319.91	1233382.34	3155339.89
8100.00	79.76	0.230	7811.86	242.02S	331.69E	10.00	-223.65	1233478.70	3155340.76
8200.00	89.74	359.680	7820.99	142.57S	331.62E	10.00	-124.34	1233578.15	3155340.69
8202.56	90.00	359.670	7821.00	140.00S	331.60E	10.00	-121.78	1233580.72	3155340.67
8300.00	90.00	359.670	7821.00	42.57S	331.04E	==>	-24.52	1233678.15	3155340.11
8400.00	90.00	359.670	7821.00	57.43N	330.47E	==>	75.29	1233778.14	3155339.54
8500.00	90.00	359.670	7821.00	157.43N	329.89E	==>	175.11	1233878.14	3155338.96
8600.00	90.00	359.670	7821.00	257.43N	329.32E	==>	274.93	1233978.13	3155338.39
8700.00	90.00	359.670	7821.00	357.42N	328.74E	==>	374.75	1234078.13	3155337.81
8800.00	90.00	359.670	7821.00	457.42N	328.16E	==>	474.57	1234178.12	3155337.24
8900.00	90.00	359.670	7821.00	557.42N	327.59E	==>	574.39	1234278.12	3155336.66
9000.00	90.00	359.670	7821.00	657.42N	327.01E	==>	674.21	1234378.11	3155336.08
9100.00	90.00	359.670	7821.00	757.42N	326.44E	==>	774.03	1234478.11	3155335.51
9200.00	90.00	359.670	7821.00	857.42N	325.86E	==>	873.85	1234578.10	3155334.93

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Vertical Section is from 0.00N 0.00E on azimuth 3.110 degrees  
Bottom hole distance is 5507.17 Feet on azimuth 3.11 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Integrated Petroleum Technologies, Inc.  
Date Printed: 19-Aug-2014



INTEGRATED PETROLEUM TECHNOLOGIES, INC  
SYSDRILL

Well Design Combined Report  
Wellbore: ALICIA 12-15H-3N (PWB)

Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft] ==>	Vertical Section[ft] 973.67	Northing	Easting
9300.00	90.00	359.670	7821.00	957.41N	325.29E			1234678.10	3155334.36
9400.00	90.00	359.670	7821.00	1057.41N	324.71E	==>	1073.49	1234778.09	3155333.78
9500.00	90.00	359.670	7821.00	1157.41N	324.14E	==>	1173.31	1234878.09	3155333.21
9600.00	90.00	359.670	7821.00	1257.41N	323.56E	==>	1273.13	1234978.08	3155332.63
9700.00	90.00	359.670	7821.00	1357.41N	322.99E	==>	1372.95	1235078.08	3155332.06
9800.00	90.00	359.670	7821.00	1457.41N	322.41E	==>	1472.77	1235178.07	3155331.48
9900.00	90.00	359.670	7821.00	1557.40N	321.84E	==>	1572.59	1235278.07	3155330.91
10000.00	90.00	359.670	7821.00	1657.40N	321.26E	==>	1672.41	1235378.06	3155330.33
10100.00	90.00	359.670	7821.00	1757.40N	320.68E	==>	1772.23	1235478.06	3155329.76
10200.00	90.00	359.670	7821.00	1857.40N	320.11E	==>	1872.04	1235578.05	3155329.18
10300.00	90.00	359.670	7821.00	1957.40N	319.53E	==>	1971.86	1235678.05	3155328.61
10400.00	90.00	359.670	7821.00	2057.40N	318.96E	==>	2071.68	1235778.04	3155328.03
10500.00	90.00	359.670	7821.00	2157.39N	318.38E	==>	2171.50	1235878.04	3155327.45
10600.00	90.00	359.670	7821.00	2257.39N	317.81E	==>	2271.32	1235978.03	3155326.88
10700.00	90.00	359.670	7821.00	2357.39N	317.23E	==>	2371.14	1236078.03	3155326.30
10800.00	90.00	359.670	7821.00	2457.39N	316.66E	==>	2470.96	1236178.02	3155325.73
10900.00	90.00	359.670	7821.00	2557.39N	316.08E	==>	2570.78	1236278.02	3155325.15
11000.00	90.00	359.670	7821.00	2657.39N	315.51E	==>	2670.60	1236378.01	3155324.58
11100.00	90.00	359.670	7821.00	2757.38N	314.93E	==>	2770.42	1236478.01	3155324.00
11200.00	90.00	359.670	7821.00	2857.38N	314.36E	==>	2870.24	1236578.00	3155323.43
11300.00	90.00	359.670	7821.00	2957.38N	313.78E	==>	2970.06	1236678.00	3155322.85
11400.00	90.00	359.670	7821.00	3057.38N	313.20E	==>	3069.88	1236777.99	3155322.28
11500.00	90.00	359.670	7821.00	3157.38N	312.63E	==>	3169.70	1236877.99	3155321.70
11600.00	90.00	359.670	7821.00	3257.38N	312.05E	==>	3269.52	1236977.98	3155321.13
11700.00	90.00	359.670	7821.00	3357.37N	311.48E	==>	3369.34	1237077.98	3155320.55
11800.00	90.00	359.670	7821.00	3457.37N	310.90E	==>	3469.16	1237177.97	3155319.97
11900.00	90.00	359.670	7821.00	3557.37N	310.33E	==>	3568.98	1237277.97	3155319.40
12000.00	90.00	359.670	7821.00	3657.37N	309.75E	==>	3668.79	1237377.96	3155318.82
12100.00	90.00	359.670	7821.00	3757.37N	309.18E	==>	3768.61	1237477.96	3155318.25
12200.00	90.00	359.670	7821.00	3857.37N	308.60E	==>	3868.43	1237577.95	3155317.67
12300.00	90.00	359.670	7821.00	3957.36N	308.03E	==>	3968.25	1237677.95	3155317.10
12400.00	90.00	359.670	7821.00	4057.36N	307.45E	==>	4068.07	1237777.94	3155316.52
12500.00	90.00	359.670	7821.00	4157.36N	306.88E	==>	4167.89	1237877.94	3155315.95
12600.00	90.00	359.670	7821.00	4257.36N	306.30E	==>	4267.71	1237977.93	3155315.37
12700.00	90.00	359.670	7821.00	4357.36N	305.73E	==>	4367.53	1238077.93	3155314.80
12800.00	90.00	359.670	7821.00	4457.36N	305.15E	==>	4467.35	1238177.92	3155314.22
12900.00	90.00	359.670	7821.00	4557.35N	304.57E	==>	4567.17	1238277.92	3155313.65
13000.00	90.00	359.670	7821.00	4657.35N	304.00E	==>	4666.99	1238377.91	3155313.07
13100.00	90.00	359.670	7821.00	4757.35N	303.42E	==>	4766.81	1238477.91	3155312.50
13200.00	90.00	359.670	7821.00	4857.35N	302.85E	==>	4866.63	1238577.90	3155311.92
13300.00	90.00	359.670	7821.00	4957.35N	302.27E	==>	4966.45	1238677.90	3155311.34
13400.00	90.00	359.670	7821.00	5057.35N	301.70E	==>	5066.27	1238777.89	3155310.77
13500.00	90.00	359.670	7821.00	5157.34N	301.12E	==>	5166.09	1238877.89	3155310.19
13600.00	90.00	359.670	7821.00	5257.34N	300.55E	==>	5265.91	1238977.88	3155309.62
13700.00	90.00	359.670	7821.00	5357.34N	299.97E	==>	5365.73	1239077.88	3155309.04
13800.00	90.00	359.670	7821.00	5457.34N	299.40E	==>	5465.54	1239177.87	3155308.47
13841.70	90.00	359.670	7821.00	5499.04N	299.16E	==>	5507.17	1239219.57	3155308.23

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Vertical Section is from 0.00N 0.00E on azimuth 3.110 degrees  
Bottom hole distance is 5507.17 Feet on azimuth 3.11 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Integrated Petroleum Technologies, Inc.  
Date Printed: 19-Aug-2014



INTEGRATED PETROLEUM TECHNOLOGIES, INC  
SYSDRILL  
Well Design Combined Report  
Wellbore: ALICIA 12-15H-3N (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	8202.00	7821.00	140.57S	331.61E
6 1/8	8202.00	7821.00	140.57S	331.61E	13841.70	7821.00	5499.04N	299.16E

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	8202.00	7821.00	140.57S	331.61E
4 1/2in Production Liner	8002.00	7786.30	336.50S	330.85E	13841.70	7821.00	5499.04N	299.16E

Targets								
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting	Last Revised
ALICIA 12-15H-3N BH	5499.04N	299.16E	7821.00	39.98871000	-104.94572000	1239219.57	3155308.23	3-Mar-2014
ALICIA 12-15H-3N T1	140.00S	331.60E	7821.00	39.97323000	-104.94573000	1233580.72	3155340.67	3-Mar-2014

Survey Tool Program					
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model
172739	Planned	13841.70	7821.00	WdW Rate Gyro	Standard

Notes

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SYSDRILL  
Closest Approach + Clearance Factor Summary Report  
Wellbore: ALICIA 12-15H-3N (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  
Proximities beyond 2500.00ft with expansion rate of 0.00ft/1000ft are not reported  
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
ALICIA 12-15H-3N (PWB)	3-Mar-2014	19-Aug-2014

Well		
Name	Government ID	Last Revised
ALICIA 12-15H-3N		19-Aug-2014

Slot						
Name	Grid Northing	Grid Easting	Latitude	Longitude	North	East
ALICIA 12-15H-3N	1233720.7161	3155009.0820	39.97362000	-104.94691000	25.85N	55.89E

Installation				
Name	Easting	Northing	Coord System Name	North Alignment
ALICIA	3154953.1896	1233694.8679	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid

Field				
Name	Easting	Northing	Coord System Name	North Alignment
SPINDLE	3156324.1590	1233718.6871	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid

Clearance Summary										
Offset WellName	Offset Wellbore	Offset Slot	Offset Structure	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]
ALICIA 12-15H-4C	ALICIA 12-15H-4C (PWB)	ALICIA 12-15H-4C	ALICIA	15.75	1608.35	12548.46	12.50	1653.42	3.88	7411.29
Ruby #1	Ruby #1 (AWB)	Ruby #1	Offsets	20.06	1525.00	8355.39	15.25	1538.59	4.15	1554.99
ALICIA 12-15H-2N	ALICIA 12-15H-2N (PWB)	ALICIA 12-15H-2N	ALICIA	31.49	1625.06	13841.70	28.23	1653.42	3.31	13841.70
Ruby #2	Ruby #2 (AWB)	Ruby #2	Offsets	40.12	1218.00	9715.66	37.22	1218.00	13.69	1243.31
ALICIA 12-15H-5N	ALICIA 12-15H-5N (PWB)	ALICIA 12-15H-5N	ALICIA	45.81	1587.80	13841.70	42.61	1604.21	6.62	13841.70
ALICIA 12-15H-1N	ALICIA 12-15H-1N (PWB)	ALICIA 12-15H-1N	ALICIA	61.58	1550.01	13841.70	58.45	1550.01	9.90	13841.70
MALLO #1	MALLO #1 (AWB)	MALLO #1	Offsets	67.71	1525.00	1525.00	63.59	1538.59	16.13	1620.61
ALICIA 12-15H-6C	ALICIA 12-15H-6C (PWB)	ALICIA 12-15H-6C	ALICIA	77.36	1500.00	12562.52	74.31	1500.00	14.98	12660.64
AFTON 12-16H-1	AFTON 12-16H-1 (PWB)	Slot #1	AFTON	264.72	7418.23	7418.23	247.65	7418.23	6.64	12545.81
AFTON 12-16H-1	AFTON 12-16H-1 (REV 1)	Slot #1	AFTON	284.96	13841.70	13841.70	200.29	13841.70	3.37	13841.70

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Clearance Summary										
Offset WellName	Offset Wellbore	Offset Slot	Offset Structure	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]
AFTON 12-16H-2	AFTON 12-16H-2 (PWB)	Slot #2	AFTON	372.76	8198.70	8198.70	304.67	12545.81	4.95	12545.81
TUDEX REINHOLT #NC4	TUDEX REINHOLT #NC4 (AWB)	TUDEX REINHOLT #NC4	Offsets	404.06	12086.49	12086.49	362.68	12086.49	9.77	12086.49
W MORRISO N #15-1	W MORRISON #15-1 (AWB)	MORRISO N #15-1	Offsets	493.45	13841.70	13841.70	418.62	13841.70	6.59	13841.70
AFTON 12-16H-8	AFTON 12-16H-8 (PWB)	Slot #8	AFTON	504.43	8182.29	8182.29	446.67	12545.81	7.06	12545.81
AFTON 12-16H-7	AFTON 12-16H-7 (PWB)	Slot #7	AFTON	594.70	7502.46	7502.46	544.28	12545.81	8.79	12562.21
BARKER #12-9	BARKER #12-9 (AWB)	BARKER #12-9	Offsets	617.79	9692.44	9692.44	596.47	9692.44	27.90	9839.12
W MORRISO N #16-1	W MORRISON #16-1 (AWB)	MORRISO N #16-1	Offsets	709.11	13503.28	13503.28	637.15	13513.66	9.81	13562.87
ELMS #2	ELMS #2 (AWB)	ELMS #2	Offsets	746.42	11299.09	11299.09	711.79	11313.00	21.15	11413.00
DARLOW UNIT #12-16B	DARLOW UNIT #12-16B (AWB)	DARLOW UNIT #12-16B	Offsets	780.45	8404.41	8404.41	766.54	8404.41	54.81	8658.01
AFTON #12-16H-3	AFTON #12-16H-3 (PWB)	Slot #3	AFTON	855.39	8100.27	12534.37	800.76	12545.81	11.36	12595.02
AFTON #12-16H-4	AFTON #12-16H-4 Sidetrack	Slot #4	AFTON	1029.94	9107.94	12343.90	894.96	12348.96	7.53	12381.77
AFTON #12-16H-4	AFTON #12-16H-4 (PWB)	Slot #4	AFTON	1039.41	7870.61	7870.61	987.01	12545.81	13.96	12627.83
AFTON #12-16H-4	AFTON #12-16H-4 Original	Slot #4	AFTON	1040.72	8058.33	8058.33	1008.91	8049.58	28.46	9150.14
AFTON #12-16H-4	AFTON #12-16H-4 Ensign Plan	Slot #4	AFTON	1044.39	7969.04	7969.04	1010.69	12545.81	14.21	12627.83
W MORRISO N 33-1 #4	W MORRISON 33-1 #4 (AWB)	MORRISO N 33-1 #4	Offsets	1120.88	13841.70	13841.70	1069.19	13841.70	21.68	13841.70
PULIS #12-8	PULIS #12-8 (AWB)	PULIS #12-8	Offsets	1151.61	5049.09	5049.09	1141.02	5163.92	105.59	5344.36
W MORRISO N #9-1	W MORRISON #9-1 (AWB)	MORRISO N #9-1	Offsets	1324.19	13841.70	13841.70	1267.60	13841.70	23.40	13841.70
AFTON 12-16H-6	AFTON 12-16H-6 (PWB)	Slot #6	AFTON	1347.33	1398.00	1398.00	1314.65	12545.81	17.94	12693.45

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Clearance Summary										
Offset WellName	Offset Wellbore	Offset Slot	Offset Structure	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]
AFTON 12-16H-5	AFTON 12-16H-5 (PWB)	Slot #5	AFTON	1363.31	1347.00	1347.00	1360.36	1243.31	19.90	12742.66
BELLINGER R #12-7	BELLINGER #12-7 (AWB)	BELLINGER R #12-7	Offsets	1383.97	1525.00	1525.00	1379.82	1525.00	197.70	5229.54
DARLOW #12-2	DARLOW #12-2 (AWB)	DARLOW #12-2	Offsets	1673.78	1525.00	1525.00	1669.67	1538.59	197.49	5327.96
W MORRISON N 24-1 #3	W MORRISON 24-1 #3 (AWB)	MORRISON N 24-1 #3	Offsets	1777.58	13673.31	13673.31	1703.35	13694.10	23.75	13841.70
W MORRISON N #11-1	W MORRISON #11-1 (AWB)	MORRISON N #11-1	Offsets	2158.90	13841.70	13841.70	2087.32	13841.70	30.16	13841.70
TUDEX BRINK #S-2	TUDEX BRINK #S-2 (AWB)	TUDEX BRINK #S-2	Offsets	2371.47	1525.00	4823.00	2368.32	1538.59	256.05	5147.51