

MENDELL ENERGY, LLC

Location ADAMS COUNTY, CO
Field SPINDLE
Installation ALICIA

Slot ALICIA 12-15H-1N
Well ALICIA 12-15H-1N
Wellbore ALICIA 12-15H-1N (PWB)



Created by admin
Date plotted 19-Aug-2014
Plot reference is ALICIA 12-15H-1N (PWB).
Ref wellpath is ALICIA 12-15H-1N (PWP#1).
Coordinates are in feet reference ALICIA 12-15H-1N.
True Vertical Depths are reference Rig Datum.
Measured Depths are reference Rig Datum.
Rig Datum: Planned Datum #1
Rig Datum to Mean Sea Level: 5163.00 ft.
Plot North is aligned to GRID North.

Scale 1 cm = 250 ft

East (feet) ->

-1500 -1000 -500 0 500

Scale 1 cm = 250 ft

<- True Vertical Depth (feet)

<- North(feet)

Scale 1 cm = 250 ft

WELL PROFILE DATA

Point	MD	Inc	Azi	TVD	North	East	deg/100ft	V. Sect
Tie on	13.00	0.00	0.00	13.00	0.00	0.00	0.00	0.00
KOP	1550.00	0.00	0.00	1550.00	0.00	0.00	0.00	0.00
End of Build	2007.88	9.16	218.13	2005.93	-28.72	-22.54	2.00	-25.97
End of Hold	7248.56	9.16	218.13	7179.81	-684.84	-537.47	0.00	-619.10
Target ALICIA 12-15H-1	8220.18	90.00	359.70	7821.00	-116.69	-604.67	10.00	-47.00
T.D. & Target ALICIA 12	13862.96	90.00	359.70	7821.00	5526.01	-634.11	0.00	5562.28

Tie on - 0.00 Inc, 13.00 MD, 13.00 TVD, 0.00 VS

9 5/8in Surface Casing

3DS Kick off Point - 0.00 Inc, 1550.00 MD, 1550.00 TVD, 0.00 VS

End of Build - 9.16 Inc, 2007.88 MD, 2005.93 TVD, -25.97 VS

ALICIA 12-15H-1 - T2

ALICIA 12-15H-1 - T1

E/2 Sec 12

End of Hold - 9.16 Inc, 7248.56 MD, 7179.81 TVD, -619.10 VS

7.0in Intermediate Casing

ALICIA 12-15H-1 - T1

T.D. & End of Hold - 7821.00 TVD, 5526.01 N 634.11 W

ALICIA 12-15H-1 - T2

S/C Kick off Point - 90.00 Inc, 8220.18 MD, 7821.00 TVD, -47.00 VS

4 1/2in Intermediate Casing

-1000 -500 -0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000

Scale 1 cm = 250 ft

Vertical Section (feet) ->

Azimuth 353.45 with reference 0.00 N, 0.00 E from ALICIA 12-15H-1N



INTEGRATED PETROLEUM TECHNOLOGIES, INC
SYSDRILL
Well Design Combined Report
Wellbore: ALICIA 12-15H-1N (PWB)

Wellhead Details							
Name	Northing	Easting	Latitude	Longitude	North	East	Elevation Above Inst.
ALICIA 12-15H-1N	1233694.8679	3154953.1896	39.97355000	-104.94711000	0.00N	0.00E	-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	1233694.87	3154953.19
1550.00	0.00	0.000	1550.00	0.00N	0.00E	==>	0.00	1233694.87	3154953.19
2007.88	9.16	218.130	2005.93	28.72S	22.54W	2.00	-25.97	1233666.15	3154930.65
7248.56	9.16	218.130	7179.81	684.84S	537.47W	==>	-619.10	1233010.05	3154415.74
8220.18	90.00	359.700	7821.00	116.69S	604.67W	10.00	-47.00	1233578.18	3154348.54
13862.96	90.00	359.700	7821.00	5526.01N	634.11W	==>	5562.28	1239220.70	3154319.10

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	1233694.87	3154953.19
13.00	0.00	0.000	13.00	0.00N	0.00E	==>	0.00	1233694.87	3154953.19
100.00	0.00	0.000	100.00	0.00N	0.00E	==>	0.00	1233694.87	3154953.19
200.00	0.00	0.000	200.00	0.00N	0.00E	==>	0.00	1233694.87	3154953.19
300.00	0.00	0.000	300.00	0.00N	0.00E	==>	0.00	1233694.87	3154953.19
400.00	0.00	0.000	400.00	0.00N	0.00E	==>	0.00	1233694.87	3154953.19
500.00	0.00	0.000	500.00	0.00N	0.00E	==>	0.00	1233694.87	3154953.19
600.00	0.00	0.000	600.00	0.00N	0.00E	==>	0.00	1233694.87	3154953.19
700.00	0.00	0.000	700.00	0.00N	0.00E	==>	0.00	1233694.87	3154953.19
800.00	0.00	0.000	800.00	0.00N	0.00E	==>	0.00	1233694.87	3154953.19
900.00	0.00	0.000	900.00	0.00N	0.00E	==>	0.00	1233694.87	3154953.19
1000.00	0.00	0.000	1000.00	0.00N	0.00E	==>	0.00	1233694.87	3154953.19
1100.00	0.00	0.000	1100.00	0.00N	0.00E	==>	0.00	1233694.87	3154953.19
1200.00	0.00	0.000	1200.00	0.00N	0.00E	==>	0.00	1233694.87	3154953.19
1300.00	0.00	0.000	1300.00	0.00N	0.00E	==>	0.00	1233694.87	3154953.19
1400.00	0.00	0.000	1400.00	0.00N	0.00E	==>	0.00	1233694.87	3154953.19
1500.00	0.00	0.000	1500.00	0.00N	0.00E	==>	0.00	1233694.87	3154953.19
1537.00	0.00	0.000	1537.00	0.00N	0.00E	==>	0.00	1233694.87	3154953.19
1550.00	0.00	0.000	1550.00	0.00N	0.00E	==>	0.00	1233694.87	3154953.19
1637.00	1.74	218.130	1636.99	1.04S	0.82W	2.00	-0.94	1233693.83	3154952.37
1737.00	3.74	218.130	1736.87	4.80S	3.77W	2.00	-4.34	1233690.07	3154949.42
1837.00	5.74	218.130	1836.52	11.30S	8.87W	2.00	-10.22	1233683.57	3154944.32
1937.00	7.74	218.130	1935.82	20.53S	16.11W	2.00	-18.56	1233674.34	3154937.08
2000.00	9.00	218.130	1998.15	27.75S	21.78W	2.00	-25.08	1233667.12	3154931.42
2007.88	9.16	218.130	2005.93	28.72S	22.54W	2.00	-25.97	1233666.15	3154930.65
2100.00	9.16	218.130	2096.88	40.26S	31.59W	==>	-36.39	1233654.61	3154921.60
2200.00	9.16	218.130	2195.60	52.78S	41.42W	==>	-47.71	1233642.09	3154911.77
2300.00	9.16	218.130	2294.33	65.30S	51.25W	==>	-59.03	1233629.57	3154901.95
2400.00	9.16	218.130	2393.06	77.82S	61.07W	==>	-70.35	1233617.05	3154892.12
2500.00	9.16	218.130	2491.78	90.34S	70.90W	==>	-81.66	1233604.54	3154882.30
2600.00	9.16	218.130	2590.51	102.86S	80.72W	==>	-92.98	1233592.02	3154872.47
2700.00	9.16	218.130	2689.23	115.37S	90.55W	==>	-104.30	1233579.50	3154862.64
2800.00	9.16	218.130	2787.96	127.89S	100.37W	==>	-115.62	1233566.98	3154852.82
2900.00	9.16	218.130	2886.68	140.41S	110.20W	==>	-126.94	1233554.46	3154842.99
3000.00	9.16	218.130	2985.41	152.93S	120.02W	==>	-138.25	1233541.94	3154833.17
3100.00	9.16	218.130	3084.13	165.45S	129.85W	==>	-149.57	1233529.42	3154823.34
3200.00	9.16	218.130	3182.86	177.97S	139.68W	==>	-160.89	1233516.90	3154813.52
3300.00	9.16	218.130	3281.58	190.49S	149.50W	==>	-172.21	1233504.38	3154803.69

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 5163.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 353.450 degrees
Bottom hole distance is 5562.28 Feet on azimuth 353.45 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-1N (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	9.16	218.130	3380.31	203.01S	159.33W	==>	-183.52	1233491.86	3154793.87
3500.00	9.16	218.130	3479.04	215.53S	169.15W	==>	-194.84	1233479.34	3154784.04
3600.00	9.16	218.130	3577.76	228.05S	178.98W	==>	-206.16	1233466.82	3154774.22
3700.00	9.16	218.130	3676.49	240.57S	188.80W	==>	-217.48	1233454.30	3154764.39
3800.00	9.16	218.130	3775.21	253.09S	198.63W	==>	-228.80	1233441.79	3154754.57
3900.00	9.16	218.130	3873.94	265.61S	208.46W	==>	-240.11	1233429.27	3154744.74
4000.00	9.16	218.130	3972.66	278.13S	218.28W	==>	-251.43	1233416.75	3154734.92
4100.00	9.16	218.130	4071.39	290.65S	228.11W	==>	-262.75	1233404.23	3154725.09
4200.00	9.16	218.130	4170.11	303.17S	237.93W	==>	-274.07	1233391.71	3154715.27
4300.00	9.16	218.130	4268.84	315.69S	247.76W	==>	-285.39	1233379.19	3154705.44
4400.00	9.16	218.130	4367.56	328.21S	257.58W	==>	-296.70	1233366.67	3154695.61
4500.00	9.16	218.130	4466.29	340.73S	267.41W	==>	-308.02	1233354.15	3154685.79
4600.00	9.16	218.130	4565.02	353.25S	277.23W	==>	-319.34	1233341.63	3154675.96
4700.00	9.16	218.130	4663.74	365.77S	287.06W	==>	-330.66	1233329.11	3154666.14
4800.00	9.16	218.130	4762.47	378.29S	296.89W	==>	-341.98	1233316.59	3154656.31
4900.00	9.16	218.130	4861.19	390.81S	306.71W	==>	-353.29	1233304.07	3154646.49
5000.00	9.16	218.130	4959.92	403.33S	316.54W	==>	-364.61	1233291.56	3154636.66
5100.00	9.16	218.130	5058.64	415.85S	326.36W	==>	-375.93	1233279.04	3154626.84
5200.00	9.16	218.130	5157.37	428.37S	336.19W	==>	-387.25	1233266.52	3154617.01
5300.00	9.16	218.130	5256.09	440.89S	346.01W	==>	-398.56	1233254.00	3154607.19
5400.00	9.16	218.130	5354.82	453.40S	355.84W	==>	-409.88	1233241.48	3154597.36
5500.00	9.16	218.130	5453.54	465.92S	365.67W	==>	-421.20	1233228.96	3154587.54
5600.00	9.16	218.130	5552.27	478.44S	375.49W	==>	-432.52	1233216.44	3154577.71
5700.00	9.16	218.130	5651.00	490.96S	385.32W	==>	-443.84	1233203.92	3154567.89
5800.00	9.16	218.130	5749.72	503.48S	395.14W	==>	-455.15	1233191.40	3154558.06
5900.00	9.16	218.130	5848.45	516.00S	404.97W	==>	-466.47	1233178.88	3154548.24
6000.00	9.16	218.130	5947.17	528.52S	414.79W	==>	-477.79	1233166.36	3154538.41
6100.00	9.16	218.130	6045.90	541.04S	424.62W	==>	-489.11	1233153.84	3154528.59
6200.00	9.16	218.130	6144.62	553.56S	434.44W	==>	-500.43	1233141.32	3154518.76
6300.00	9.16	218.130	6243.35	566.08S	444.27W	==>	-511.74	1233128.81	3154508.93
6400.00	9.16	218.130	6342.07	578.60S	454.10W	==>	-523.06	1233116.29	3154499.11
6500.00	9.16	218.130	6440.80	591.12S	463.92W	==>	-534.38	1233103.77	3154489.28
6600.00	9.16	218.130	6539.52	603.64S	473.75W	==>	-545.70	1233091.25	3154479.46
6700.00	9.16	218.130	6638.25	616.16S	483.57W	==>	-557.01	1233078.73	3154469.63
6800.00	9.16	218.130	6736.98	628.68S	493.40W	==>	-568.33	1233066.21	3154459.81
6900.00	9.16	218.130	6835.70	641.20S	503.22W	==>	-579.65	1233053.69	3154449.98
7000.00	9.16	218.130	6934.43	653.72S	513.05W	==>	-590.97	1233041.17	3154440.16
7100.00	9.16	218.130	7033.15	666.24S	522.87W	==>	-602.29	1233028.65	3154430.33
7200.00	9.16	218.130	7131.88	678.76S	532.70W	==>	-613.60	1233016.13	3154420.51
7248.56	9.16	218.130	7179.81	684.84S	537.47W	==>	-619.10	1233010.05	3154415.74
7300.00	6.07	250.230	7230.82	688.98S	542.56W	10.00	-622.63	1233005.91	3154410.65
7400.00	9.81	324.290	7330.06	683.84S	552.53W	10.00	-616.39	1233011.05	3154400.68
7500.00	18.84	342.630	7426.90	661.45S	562.35W	10.00	-593.03	1233033.44	3154390.86
7600.00	28.51	349.070	7518.39	622.50S	571.72W	10.00	-553.27	1233072.38	3154381.49
7700.00	38.35	352.430	7601.75	568.18S	580.35W	10.00	-498.31	1233126.71	3154372.86
7800.00	48.24	354.570	7674.45	500.13S	587.99W	10.00	-429.84	1233194.76	3154365.22
7900.00	58.16	356.130	7734.28	420.42S	594.40W	10.00	-349.91	1233274.46	3154358.81
8000.00	68.10	357.390	7779.42	331.47S	599.39W	10.00	-260.98	1233363.41	3154353.82
8100.00	78.04	358.490	7808.50	235.99S	602.80W	10.00	-165.73	1233458.89	3154350.41
8200.00	87.99	359.500	7820.65	136.87S	604.53W	10.00	-67.06	1233558.00	3154348.68
8220.18	90.00	359.700	7821.00	116.69S	604.67W	10.00	-47.00	1233578.18	3154348.54
8300.00	90.00	359.700	7821.00	36.87S	605.09W	==>	32.35	1233657.99	3154348.12
8400.00	90.00	359.700	7821.00	63.12N	605.61W	==>	131.75	1233757.99	3154347.60
8500.00	90.00	359.700	7821.00	163.12N	606.13W	==>	231.16	1233857.99	3154347.08
8600.00	90.00	359.700	7821.00	263.12N	606.66W	==>	330.57	1233957.98	3154346.55
8700.00	90.00	359.700	7821.00	363.12N	607.18W	==>	429.97	1234057.98	3154346.03
8800.00	90.00	359.700	7821.00	463.12N	607.70W	==>	529.38	1234157.97	3154345.51
8900.00	90.00	359.700	7821.00	563.12N	608.22W	==>	628.78	1234257.97	3154344.99
9000.00	90.00	359.700	7821.00	663.12N	608.74W	==>	728.19	1234357.96	3154344.47
9100.00	90.00	359.700	7821.00	763.11N	609.26W	==>	827.60	1234457.96	3154343.95
9200.00	90.00	359.700	7821.00	863.11N	609.79W	==>	927.00	1234557.95	3154343.42

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Bottom hole distance is 5562.28 Feet on azimuth 353.45 degrees from Wellhead
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Wellbore: ALICIA 12-15H-1N (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	359.700	7821.00	963.11N	610.31W	==>	1026.41	1234657.95	3154342.90
9400.00	90.00	359.700	7821.00	1063.11N	610.83W	==>	1125.82	1234757.94	3154342.38
9500.00	90.00	359.700	7821.00	1163.11N	611.35W	==>	1225.22	1234857.94	3154341.86
9600.00	90.00	359.700	7821.00	1263.11N	611.87W	==>	1324.63	1234957.93	3154341.34
9700.00	90.00	359.700	7821.00	1363.11N	612.39W	==>	1424.03	1235057.93	3154340.82
9800.00	90.00	359.700	7821.00	1463.11N	612.92W	==>	1523.44	1235157.92	3154340.29
9900.00	90.00	359.700	7821.00	1563.10N	613.44W	==>	1622.85	1235257.92	3154339.77
10000.00	90.00	359.700	7821.00	1663.10N	613.96W	==>	1722.25	1235357.91	3154339.25
10100.00	90.00	359.700	7821.00	1763.10N	614.48W	==>	1821.66	1235457.91	3154338.73
10200.00	90.00	359.700	7821.00	1863.10N	615.00W	==>	1921.07	1235557.91	3154338.21
10300.00	90.00	359.700	7821.00	1963.10N	615.53W	==>	2020.47	1235657.90	3154337.69
10400.00	90.00	359.700	7821.00	2063.10N	616.05W	==>	2119.88	1235757.90	3154337.16
10500.00	90.00	359.700	7821.00	2163.10N	616.57W	==>	2219.28	1235857.89	3154336.64
10600.00	90.00	359.700	7821.00	2263.09N	617.09W	==>	2318.69	1235957.89	3154336.12
10700.00	90.00	359.700	7821.00	2363.09N	617.61W	==>	2418.10	1236057.88	3154335.60
10800.00	90.00	359.700	7821.00	2463.09N	618.13W	==>	2517.50	1236157.88	3154335.08
10900.00	90.00	359.700	7821.00	2563.09N	618.66W	==>	2616.91	1236257.87	3154334.55
11000.00	90.00	359.700	7821.00	2663.09N	619.18W	==>	2716.31	1236357.87	3154334.03
11100.00	90.00	359.700	7821.00	2763.09N	619.70W	==>	2815.72	1236457.86	3154333.51
11200.00	90.00	359.700	7821.00	2863.09N	620.22W	==>	2915.13	1236557.86	3154332.99
11300.00	90.00	359.700	7821.00	2963.08N	620.74W	==>	3014.53	1236657.85	3154332.47
11400.00	90.00	359.700	7821.00	3063.08N	621.26W	==>	3113.94	1236757.85	3154331.95
11500.00	90.00	359.700	7821.00	3163.08N	621.79W	==>	3213.35	1236857.84	3154331.42
11600.00	90.00	359.700	7821.00	3263.08N	622.31W	==>	3312.75	1236957.84	3154330.90
11700.00	90.00	359.700	7821.00	3363.08N	622.83W	==>	3412.16	1237057.83	3154330.38
11800.00	90.00	359.700	7821.00	3463.08N	623.35W	==>	3511.56	1237157.83	3154329.86
11900.00	90.00	359.700	7821.00	3563.08N	623.87W	==>	3610.97	1237257.83	3154329.34
12000.00	90.00	359.700	7821.00	3663.08N	624.39W	==>	3710.38	1237357.82	3154328.82
12100.00	90.00	359.700	7821.00	3763.07N	624.92W	==>	3809.78	1237457.82	3154328.29
12200.00	90.00	359.700	7821.00	3863.07N	625.44W	==>	3909.19	1237557.81	3154327.77
12300.00	90.00	359.700	7821.00	3963.07N	625.96W	==>	4008.59	1237657.81	3154327.25
12400.00	90.00	359.700	7821.00	4063.07N	626.48W	==>	4108.00	1237757.80	3154326.73
12500.00	90.00	359.700	7821.00	4163.07N	627.00W	==>	4207.41	1237857.80	3154326.21
12600.00	90.00	359.700	7821.00	4263.07N	627.53W	==>	4306.81	1237957.79	3154325.69
12700.00	90.00	359.700	7821.00	4363.07N	628.05W	==>	4406.22	1238057.79	3154325.16
12800.00	90.00	359.700	7821.00	4463.06N	628.57W	==>	4505.63	1238157.78	3154324.64
12900.00	90.00	359.700	7821.00	4563.06N	629.09W	==>	4605.03	1238257.78	3154324.12
13000.00	90.00	359.700	7821.00	4663.06N	629.61W	==>	4704.44	1238357.77	3154323.60
13100.00	90.00	359.700	7821.00	4763.06N	630.13W	==>	4803.84	1238457.77	3154323.08
13200.00	90.00	359.700	7821.00	4863.06N	630.66W	==>	4903.25	1238557.76	3154322.55
13300.00	90.00	359.700	7821.00	4963.06N	631.18W	==>	5002.66	1238657.76	3154322.03
13400.00	90.00	359.700	7821.00	5063.06N	631.70W	==>	5102.06	1238757.75	3154321.51
13500.00	90.00	359.700	7821.00	5163.05N	632.22W	==>	5201.47	1238857.75	3154320.99
13600.00	90.00	359.700	7821.00	5263.05N	632.74W	==>	5300.87	1238957.74	3154320.47
13700.00	90.00	359.700	7821.00	5363.05N	633.26W	==>	5400.28	1239057.74	3154319.95
13800.00	90.00	359.700	7821.00	5463.05N	633.79W	==>	5499.69	1239157.74	3154319.42
13862.96	90.00	359.700	7821.00	5526.01N	634.11W	==>	5562.28	1239220.70	3154319.10

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Vertical Section is from 0.00N 0.00E on azimuth 353.450 degrees
Bottom hole distance is 5562.28 Feet on azimuth 353.45 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-1N (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	8220.00	7821.00	116.87S	604.67W
6 1/8	8220.00	7821.00	116.87S	604.67W	13862.96	7821.00	5526.01N	634.11W

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	8220.00	7821.00	116.87S	604.67W
4 1/2in Intermediate Casing	8020.00	7786.56	312.80S	600.20W	13862.96	7821.00	5526.01N	634.11W

Targets								
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting	Last Revised
ALICIA 12-15H-1 - T1	116.69S	604.67W	7821.00	39.97324000	-104.94927000	1233578.18	3154348.54	3-Mar-2014
ALICIA 12-15H-1 - T2	5526.01N	634.11W	7821.00	39.98873000	-104.94925000	1239220.70	3154319.10	3-Mar-2014

Survey Tool Program					
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model
172592	Planned	13862.96	7821.00	WdW Rate Gyro	Standard

Notes

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SYSDRILL
Closest Approach + Clearance Factor Summary Report
Wellbore: ALICIA 12-15H-1N (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-1N (PWB)	3-Mar-2014	19-Aug-2014

Well		
Name	Government ID	Last Revised
ALICIA 12-15H-1N		19-Aug-2014

Slot							
Name	Grid Northing	Grid Easting	Latitude	Longitude	North	East	
ALICIA 12-15H-1N	1233694.8679	3154953.1896	39.97355000	-104.94711000	0.00N	0.00E	

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
	SPINDLE	3156324.1590	1233718.6871	CO83-NF on NORTH AMERICAN DATUM 1983
				datum
				North Alignment
				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-5N	ALICIA 12-15H-5N (PWB)	ALICIA 12-15H-5N	ALICIA	15.79	1550.00	13859.65	12.66	1554.99	3.27	13859.65
ALICIA 12-15H-6C	ALICIA 12-15H-6C (PWB)	ALICIA 12-15H-6C	ALICIA	15.79	1500.00	1500.00	12.74	1500.00	3.90	12595.02
ALICIA 12-15H-2N	ALICIA 12-15H-2N (PWB)	ALICIA 12-15H-2N	ALICIA	30.08	1550.00	13859.98	26.95	1554.99	6.58	13862.96
ALICIA 12-15H-4C	ALICIA 12-15H-4C (PWB)	ALICIA 12-15H-4C	ALICIA	45.82	1550.00	12563.40	42.68	1554.99	12.25	12595.02
Ruby #1	Ruby #1 (AWB)	Ruby #1	Offsets	53.54	1550.00	8370.19	48.69	1554.99	10.93	1604.21
ALICIA 12-15H-3N	ALICIA 12-15H-3N (PWB)	ALICIA 12-15H-3N	ALICIA	61.58	1554.99	13858.14	58.44	1554.99	9.90	13862.96
Ruby #2	Ruby #2 (AWB)	Ruby #2	Offsets	73.31	1218.00	9730.38	70.41	1218.00	18.09	9713.00
MALLO #1	MALLO #1 (AWB)	MALLO #1	Offsets	119.50	1550.00	1550.00	115.34	1554.99	28.07	1669.82
W MORRISON N #15-1	W MORRISON #15-1 (AWB)	MORRISON N #15-1	Offsets	495.70	13858.14	13858.14	420.63	13858.14	6.60	13857.63
TUDEX REINHOLT #NC4	TUDEX REINHOLT #NC4	TUDEX REINHOLT #NC4	Offsets	586.03	12102.90	12102.90	544.42	12102.90	14.08	12101.14

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Wellbore: ALICIA 12-15H-1N (PWB)

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]
(AWB)										
W MORRISO N 24-1 #3	W MORRISON 24-1 #3 (AWB)	MORRISO N 24-1 #3	Offsets	788.34	13687.34	13687.34	713.84	13694.10	10.51	13759.72
W MORRISO N 33-1 #4	W MORRISON 33-1 #4 (AWB)	MORRISO N 33-1 #4	Offsets	1116.82	13862.96	13862.96	1062.79	13862.96	20.67	13862.96
DARLOW UNIT #12-16B	DARLOW UNIT #12-16B (AWB)	DARLOW UNIT #12-16B	Offsets	1170.41	1554.99	8419.81	1165.56	1554.99	121.10	9068.12
AFTON 12-16H-1	AFTON 12-16H-1 (PWB)	Slot #1	AFTON	1172.23	7256.85	7256.85	1154.69	7243.78	16.41	12562.21
AFTON 12-16H-1	AFTON 12-16H-1 (REV 1)	Slot #1	AFTON	1232.67	13862.96	13862.96	1132.63	13862.96	12.32	13862.96
PULIS #12-8	PULIS #12-8 (AWB)	PULIS #12-8	Offsets	1297.99	1554.99	1554.99	1293.82	1554.99	170.73	5278.75
AFTON 12-16H-2	AFTON 12-16H-2 (PWB)	Slot #2	AFTON	1357.32	7517.42	7517.42	1294.26	12562.21	17.73	12562.21
AFTON 12-16H-8	AFTON 12-16H-8 (PWB)	Slot #8	AFTON	1359.19	1915.89	1915.89	1355.30	1932.29	19.42	12595.02
AFTON 12-16H-7	AFTON 12-16H-7 (PWB)	Slot #7	AFTON	1378.93	1915.89	1915.89	1375.05	1915.89	20.57	12595.02
W MORRISO N #11-1	W MORRISON #11-1 (AWB)	MORRISO N #11-1	Offsets	1390.18	13862.96	13862.96	1330.66	13862.96	23.36	13862.96
AFTON #12-16H-3	AFTON #12-16H-3 (PWB)	Slot #3	AFTON	1401.27	1653.42	12549.82	1397.92	1669.82	24.09	12677.04
AFTON 12-16H-6	AFTON 12-16H-6 (PWB)	Slot #6	AFTON	1403.88	1398.00	1398.00	1400.93	1243.31	30.54	12841.08
AFTON #12-16H-4	AFTON #12-16H-4 Original	Slot #4	AFTON	1405.33	1472.97	8358.03	1399.12	1505.78	53.11	9379.80
AFTON #12-16H-4	AFTON #12-16H-4 Sidetrack	Slot #4	AFTON	1405.33	1472.97	12359.42	1399.12	1505.78	14.49	12447.38
BELLINGER R #12-7	BELLINGER #12-7 (AWB)	BELLINGER R #12-7	Offsets	1411.02	1550.00	1550.00	1406.84	1554.99	195.21	5245.94
AFTON #12-16H-4	AFTON #12-16H-4 (PWB)	Slot #4	AFTON	1419.00	1259.72	1259.72	1416.03	1243.31	26.39	12726.25
AFTON #12-16H-4	AFTON #12-16H-4 Ensign Plan	Slot #4	AFTON	1419.10	1554.99	1554.99	1415.96	1554.99	26.69	12726.25
AFTON 12-16H-5	AFTON 12-16H-5	Slot #5	AFTON	1419.85	1347.00	1347.00	1416.90	1243.31	32.35	12890.30

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Wellbore: ALICIA 12-15H-1N (PWB)

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]
	(PWB)									
BARKER #12-9	BARKER #12-9 (AWB)	BARKER #12-9	Offsets	1609.16	9707.88	9707.88	1587.58	9713.00	71.43	10085.18
W MORRISON #16-1	W MORRISON #16-1 (AWB)	MORRISON #16-1	Offsets	1698.43	13518.64	13518.64	1626.27	13530.06	23.41	13661.29
DARLOW #12-2	DARLOW #12-2 (AWB)	DARLOW #12-2	Offsets	1726.92	1550.00	1550.00	1722.78	1554.99	248.37	5245.94
ELMS #2	ELMS #2 (AWB)	ELMS #2	Offsets	1736.93	11315.49	11315.49	1702.07	11315.49	48.74	11594.36
W MORRISON #9-1	W MORRISON #9-1 (AWB)	MORRISON #9-1	Offsets	2106.24	13862.96	13862.96	2034.39	13862.96	29.31	13862.96
TUDEX BRINK #S-2	TUDEX BRINK #S-2 (AWB)	TUDEX BRINK #S-2	Offsets	2411.17	1554.99	1554.99	2407.98	1554.99	526.75	2413.00