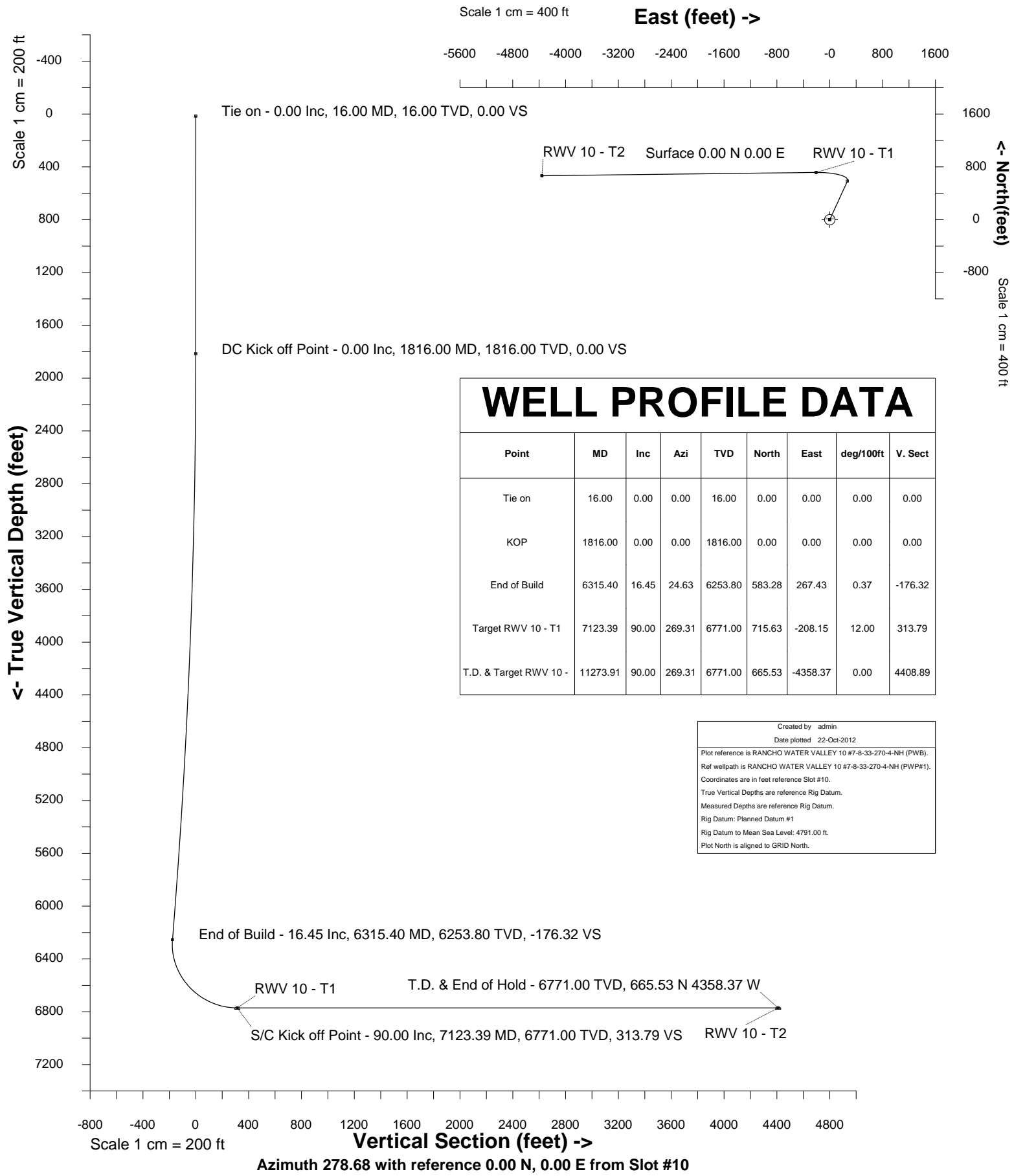


TEKTON WINDSOR, LLC

Location	Windsor, CO, USA	Slot	Slot #10
Field	Windsor Project	Well	RANCHO WATER VALLEY 10 #7-8-33-270-4-NH
Installation	Rancho Water Valley	Wellbore	RANCHO WATER VALLEY 10 #7-8-33-270-4-NH (PWB)





SYSDRILL
Well Design Combined Report
Wellbore: RANCHO WATER VALLEY 10 #7-8-33-270-4-NH (PWB)
Wellpath: RANCHO WATER VALLEY 10 #7-8-33-270-4-NH (PWP#1)

Wellhead Details

Name	Northing	Easting	Latitude	Longitude	North	East
Slot #10	1402073.4735	3170249.2183	N40 26 7.7345	W104 53 18.2040	0.00N	94.65W

Site Details

Name	Northing	Easting	Coord System Name	North Alignment
Rancho Water Valley	1402073.4733	3170343.8622	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
16.00	0.00	0.000	16.00	0.00N	0.00E		0.00	1402073.47	3170249.22
1816.00	0.00	0.000	1816.00	0.00N	0.00E	==>	0.00	1402073.47	3170249.22
6315.40	16.45	24.630	6253.80	583.28N	267.43E	0.37	-176.32	1402656.73	3170516.64
7123.39	90.00	269.310	6771.00	715.63N	208.15W	12.00	313.79	1402789.07	3170041.08
11273.91	90.00	269.310	6771.00	665.53N	4358.37W	==>	4408.89	1402738.97	3165891.02

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	1402073.47	3170249.22
16.00	0.00	0.000	16.00	0.00N	0.00E	==>	0.00	1402073.47	3170249.22
100.00	0.00	0.000	100.00	0.00N	0.00E	==>	0.00	1402073.47	3170249.22
200.00	0.00	0.000	200.00	0.00N	0.00E	==>	0.00	1402073.47	3170249.22
300.00	0.00	0.000	300.00	0.00N	0.00E	==>	0.00	1402073.47	3170249.22
400.00	0.00	0.000	400.00	0.00N	0.00E	==>	0.00	1402073.47	3170249.22
500.00	0.00	0.000	500.00	0.00N	0.00E	==>	0.00	1402073.47	3170249.22
600.00	0.00	0.000	600.00	0.00N	0.00E	==>	0.00	1402073.47	3170249.22
700.00	0.00	0.000	700.00	0.00N	0.00E	==>	0.00	1402073.47	3170249.22
800.00	0.00	0.000	800.00	0.00N	0.00E	==>	0.00	1402073.47	3170249.22
900.00	0.00	0.000	900.00	0.00N	0.00E	==>	0.00	1402073.47	3170249.22
1000.00	0.00	0.000	1000.00	0.00N	0.00E	==>	0.00	1402073.47	3170249.22
1100.00	0.00	0.000	1100.00	0.00N	0.00E	==>	0.00	1402073.47	3170249.22
1200.00	0.00	0.000	1200.00	0.00N	0.00E	==>	0.00	1402073.47	3170249.22
1300.00	0.00	0.000	1300.00	0.00N	0.00E	==>	0.00	1402073.47	3170249.22
1400.00	0.00	0.000	1400.00	0.00N	0.00E	==>	0.00	1402073.47	3170249.22
1500.00	0.00	0.000	1500.00	0.00N	0.00E	==>	0.00	1402073.47	3170249.22
1600.00	0.00	0.000	1600.00	0.00N	0.00E	==>	0.00	1402073.47	3170249.22
1700.00	0.00	0.000	1700.00	0.00N	0.00E	==>	0.00	1402073.47	3170249.22
1800.00	0.00	0.000	1800.00	0.00N	0.00E	==>	0.00	1402073.47	3170249.22
1816.00	0.00	0.000	1816.00	0.00N	0.00E	==>	0.00	1402073.47	3170249.22
1900.00	0.31	24.630	1900.00	0.20N	0.09E	0.37	-0.06	1402073.68	3170249.31
2000.00	0.67	24.630	2000.00	0.98N	0.45E	0.37	-0.30	1402074.46	3170249.67
2100.00	1.04	24.630	2099.98	2.34N	1.07E	0.37	-0.71	1402075.81	3170250.29
2200.00	1.40	24.630	2199.96	4.28N	1.96E	0.37	-1.29	1402077.75	3170251.18
2300.00	1.77	24.630	2299.92	6.80N	3.12E	0.37	-2.05	1402080.27	3170252.33
2400.00	2.14	24.630	2399.86	9.89N	4.54E	0.37	-2.99	1402083.37	3170253.75
2500.00	2.50	24.630	2499.78	13.57N	6.22E	0.37	-4.10	1402087.04	3170255.44
2600.00	2.87	24.630	2599.67	17.83N	8.17E	0.37	-5.39	1402091.30	3170257.39
2700.00	3.23	24.630	2699.53	22.66N	10.39E	0.37	-6.85	1402096.14	3170259.61
2800.00	3.60	24.630	2799.35	28.08N	12.87E	0.37	-8.49	1402101.55	3170262.09
2900.00	3.96	24.630	2899.14	34.08N	15.62E	0.37	-10.30	1402107.55	3170264.84
3000.00	4.33	24.630	2998.87	40.65N	18.64E	0.37	-12.29	1402114.12	3170267.85
3100.00	4.70	24.630	3098.56	47.80N	21.92E	0.37	-14.45	1402121.27	3170271.13
3200.00	5.06	24.630	3198.20	55.53N	25.46E	0.37	-16.79	1402129.00	3170274.68
3300.00	5.43	24.630	3297.78	63.84N	29.27E	0.37	-19.30	1402137.31	3170278.49
3400.00	5.79	24.630	3397.30	72.73N	33.34E	0.37	-21.98	1402146.20	3170282.56
3500.00	6.16	24.630	3496.76	82.19N	37.68E	0.37	-24.85	1402155.66	3170286.90
3600.00	6.52	24.630	3596.15	92.23N	42.29E	0.37	-27.88	1402165.70	3170291.50
3700.00	6.89	24.630	3695.46	102.85N	47.15E	0.37	-31.09	1402176.32	3170296.37
3800.00	7.26	24.630	3794.70	114.04N	52.29E	0.37	-34.47	1402187.51	3170301.50
3900.00	7.62	24.630	3893.86	125.81N	57.68E	0.37	-38.03	1402199.28	3170306.90
4000.00	7.99	24.630	3992.93	138.15N	63.34E	0.37	-41.76	1402211.62	3170312.56
4100.00	8.35	24.630	4091.92	151.07N	69.26E	0.37	-45.67	1402224.54	3170318.48
4200.00	8.72	24.630	4190.81	164.56N	75.45E	0.37	-49.74	1402238.03	3170324.67
4300.00	9.08	24.630	4289.61	178.63N	81.90E	0.37	-54.00	1402252.09	3170331.11
4400.00	9.45	24.630	4388.30	193.27N	88.61E	0.37	-58.42	1402266.73	3170337.83
4500.00	9.82	24.630	4486.89	208.48N	95.58E	0.37	-63.02	1402281.94	3170344.80
4600.00	10.18	24.630	4585.37	224.26N	102.82E	0.37	-67.79	1402297.72	3170352.04
4700.00	10.55	24.630	4683.74	240.61N	110.32E	0.37	-72.73	1402314.08	3170359.53
4800.00	10.91	24.630	4781.99	257.54N	118.08E	0.37	-77.85	1402331.00	3170367.29
4900.00	11.28	24.630	4880.12	275.03N	126.10E	0.37	-83.14	1402348.49	3170375.31
5000.00	11.64	24.630	4978.13	293.09N	134.38E	0.37	-88.60	1402366.56	3170383.59
5100.00	12.01	24.630	5076.00	311.72N	142.92E	0.37	-94.23	1402385.19	3170392.14

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 4791.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 278.680 degrees
Bottom hole distance is 4408.89 Feet on azimuth 278.68 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by Peterson Energy
Date Printed: 22-Oct-2012



SYSDRILL
Well Design Combined Report
Wellbore: RANCHO WATER VALLEY 10 #7-8-33-270-4-NH (PWB)
Wellpath: RANCHO WATER VALLEY 10 #7-8-33-270-4-NH (PWP#1)

Interpolated Wellpath

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
5200.00	12.38	24.630	5173.75	330.92N	151.73E	0.37	-100.03	1402404.38	3170400.94
5300.00	12.74	24.630	5271.36	350.69N	160.79E	0.37	-106.01	1402424.15	3170410.00
5400.00	13.11	24.630	5368.82	371.02N	170.11E	0.37	-112.15	1402444.48	3170419.32
5500.00	13.47	24.630	5466.14	391.92N	179.69E	0.37	-118.47	1402465.37	3170428.90
5600.00	13.84	24.630	5563.32	413.38N	189.53E	0.37	-124.96	1402486.83	3170438.74
5700.00	14.20	24.630	5660.34	435.40N	199.63E	0.37	-131.62	1402508.86	3170448.84
5800.00	14.57	24.630	5757.20	457.99N	209.98E	0.37	-138.44	1402531.44	3170459.19
5900.00	14.94	24.630	5853.90	481.13N	220.60E	0.37	-145.44	1402554.59	3170469.80
6000.00	15.30	24.630	5950.44	504.84N	231.47E	0.37	-152.61	1402578.30	3170480.67
6100.00	15.67	24.630	6046.81	529.11N	242.59E	0.37	-159.94	1402602.56	3170491.80
6200.00	16.03	24.630	6143.01	553.94N	253.98E	0.37	-167.45	1402627.39	3170503.18
6300.00	16.40	24.630	6239.03	579.32N	265.61E	0.37	-175.12	1402652.77	3170514.82
6315.40	16.45	24.630	6253.80	583.28N	267.43E	0.37	-176.32	1402656.73	3170516.64
6400.00	15.28	347.100	6335.39	605.09N	269.94E	12.00	-175.51	1402678.54	3170519.15
6500.00	21.19	312.830	6430.59	630.32N	253.69E	12.00	-155.63	1402703.76	3170502.90
6600.00	30.75	295.970	6520.51	653.88N	217.32E	12.00	-116.12	1402727.33	3170466.52
6700.00	41.51	286.860	6601.21	674.77N	162.41E	12.00	-58.69	1402748.22	3170411.62
6800.00	52.74	281.030	6669.17	692.06N	91.38E	12.00	14.13	1402765.50	3170340.59
6900.00	64.17	276.730	6721.42	704.99N	7.32E	12.00	99.18	1402778.44	3170256.54
7000.00	75.71	273.210	6755.68	713.01N	86.09W	12.00	192.73	1402786.46	3170163.13
7100.00	87.29	270.030	6770.45	715.76N	184.77W	12.00	290.70	1402789.21	3170064.45
7123.39	90.00	269.310	6771.00	715.63N	208.15W	12.00	313.79	1402789.07	3170041.08
7200.00	90.00	269.310	6771.00	714.70N	284.76W	==>	389.38	1402788.15	3169964.47
7300.00	90.00	269.310	6771.00	713.50N	384.75W	==>	488.04	1402786.94	3169864.48
7400.00	90.00	269.310	6771.00	712.29N	484.74W	==>	586.71	1402785.73	3169764.49
7500.00	90.00	269.310	6771.00	711.08N	584.74W	==>	685.37	1402784.53	3169664.51
7600.00	90.00	269.310	6771.00	709.88N	684.73W	==>	784.04	1402783.32	3169564.52
7700.00	90.00	269.310	6771.00	708.67N	784.72W	==>	882.70	1402782.11	3169464.53
7800.00	90.00	269.310	6771.00	707.46N	884.71W	==>	981.37	1402780.91	3169364.54
7900.00	90.00	269.310	6771.00	706.25N	984.71W	==>	1080.03	1402779.70	3169264.55
8000.00	90.00	269.310	6771.00	705.05N	1084.70W	==>	1178.70	1402778.49	3169164.56
8100.00	90.00	269.310	6771.00	703.84N	1184.69W	==>	1277.36	1402777.28	3169064.57
8200.00	90.00	269.310	6771.00	702.63N	1284.68W	==>	1376.03	1402776.08	3168964.59
8300.00	90.00	269.310	6771.00	701.43N	1384.68W	==>	1474.69	1402774.87	3168864.60
8400.00	90.00	269.310	6771.00	700.22N	1484.67W	==>	1573.36	1402773.66	3168764.61
8500.00	90.00	269.310	6771.00	699.01N	1584.66W	==>	1672.02	1402772.46	3168664.62
8600.00	90.00	269.310	6771.00	697.80N	1684.66W	==>	1770.69	1402771.25	3168564.63
8700.00	90.00	269.310	6771.00	696.60N	1784.65W	==>	1869.35	1402770.04	3168464.64
8800.00	90.00	269.310	6771.00	695.39N	1884.64W	==>	1968.01	1402768.84	3168364.65
8900.00	90.00	269.310	6771.00	694.18N	1984.63W	==>	2066.68	1402767.63	3168264.66
9000.00	90.00	269.310	6771.00	692.98N	2084.63W	==>	2165.34	1402766.42	3168164.68
9100.00	90.00	269.310	6771.00	691.77N	2184.62W	==>	2264.01	1402765.21	3168064.69
9200.00	90.00	269.310	6771.00	690.56N	2284.61W	==>	2362.67	1402764.01	3167964.70
9300.00	90.00	269.310	6771.00	689.35N	2384.60W	==>	2461.34	1402762.80	3167864.71
9400.00	90.00	269.310	6771.00	688.15N	2484.60W	==>	2560.00	1402761.59	3167764.72
9500.00	90.00	269.310	6771.00	686.94N	2584.59W	==>	2658.67	1402760.39	3167664.73
9600.00	90.00	269.310	6771.00	685.73N	2684.58W	==>	2757.33	1402759.18	3167564.74
9700.00	90.00	269.310	6771.00	684.53N	2784.58W	==>	2856.00	1402757.97	3167464.75
9800.00	90.00	269.310	6771.00	683.32N	2884.57W	==>	2954.66	1402756.76	3167364.77
9900.00	90.00	269.310	6771.00	682.11N	2984.56W	==>	3053.33	1402755.56	3167264.78
10000.00	90.00	269.310	6771.00	680.90N	3084.55W	==>	3151.99	1402754.35	3167164.79
10100.00	90.00	269.310	6771.00	679.70N	3184.55W	==>	3250.66	1402753.14	3167064.80
10200.00	90.00	269.310	6771.00	678.49N	3284.54W	==>	3349.32	1402751.94	3166964.81
10300.00	90.00	269.310	6771.00	677.28N	3384.53W	==>	3447.99	1402750.73	3166864.82
10400.00	90.00	269.310	6771.00	676.08N	3484.52W	==>	3546.65	1402749.52	3166764.83
10500.00	90.00	269.310	6771.00	674.87N	3584.52W	==>	3645.31	1402748.32	3166664.84
10600.00	90.00	269.310	6771.00	673.66N	3684.51W	==>	3743.98	1402747.11	3166564.86
10700.00	90.00	269.310	6771.00	672.45N	3784.50W	==>	3842.64	1402745.90	3166464.87
10800.00	90.00	269.310	6771.00	671.25N	3884.49W	==>	3941.31	1402744.69	3166364.88
10900.00	90.00	269.310	6771.00	670.04N	3984.49W	==>	4039.97	1402743.49	3166264.89
11000.00	90.00	269.310	6771.00	668.83N	4084.48W	==>	4138.64	1402742.28	3166164.90
11100.00	90.00	269.310	6771.00	667.63N	4184.47W	==>	4237.30	1402741.07	3166064.91
11200.00	90.00	269.310	6771.00	666.42N	4284.47W	==>	4335.97	1402739.87	3165964.92
11273.91	90.00	269.310	6771.00	665.53N	4358.37W	==>	4408.89	1402738.97	3165891.02

All data is in Feet unless otherwise stated
Coordinates are from Slot MD's are from Rig (Planned Datum #1 4791.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 278.680 degrees
Bottom hole distance is 4408.89 Feet on azimuth 278.68 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by Peterson Energy
Date Printed: 22-Oct-2012



SYSDRILL
Well Design Combined Report
Wellbore: RANCHO WATER VALLEY 10 #7-8-33-270-4-NH (PWB)
Wellpath: RANCHO WATER VALLEY 10 #7-8-33-270-4-NH (PWP#1)

Targets

Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting	Last Revised
RWV 10 - T1	715.63N	208.15W	6771.00	N40 26 14.8200	W104 53 20.8320	1402789.07	3170041.08	19-Oct-2012
RWV 10 - T2	665.53N	4358.37W	6771.00	N40 26 14.6040	W104 54 14.5080	1402738.97	3165891.02	19-Oct-2012

Survey Tool Program

Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model
5337	Planned	11273.91	6771.00	WdW Rate Gyro	Standard

Notes

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 4791.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 278.680 degrees
Bottom hole distance is 4408.89 Feet on azimuth 278.68 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by Peterson Energy
Date Printed: 22-Oct-2012



SYSDRILL
Closest Approach + Clearance Factor Summary Report
Wellbore: RANCHO WATER VALLEY 10 #7-8-33-270-4-NH (PWB)
Wellpath: RANCHO WATER VALLEY 10 #7-8-33-270-4-NH (PWP#1)

Ellipse separations are reported ONLY if BOTH wells have uncertainty data
Only Depth and Magnetic Reference Field error terms are correlated across tie points
Cutoff 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
RANCHO WATER VALLEY 10 #7-8-33-270-4-NH (PWB)	17-Oct-2012	18-Oct-2012

Well

Name	Government ID	Last Revised
RANCHO WATER VALLEY 10 #7-8-33-270-4-NH		17-Oct-2012

Slot

Name	Grid Northing	Grid Easting	Latitude	Longitude	North	East
Slot #10	1402073.4735	3170249.2183	N40 26 7.7345	W104 53 18.2040	0.00N	94.65W

Installation

Name	Easting	Northing	Coord System Name	North Alignment
Rancho Water Valley	3170343.8622	1402073.4733	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid

Field

Name	Easting	Northing	Coord System Name	North Alignment
Windsor Project	3162710.0707	1407271.6545	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]
RANCHO WATER VALLEY 9 #8-7-33-00 0-4-CH	RANCHO WATER VALLEY 9 #8-7-33-000-4 -CH (PWB)	Slot #9	Rancho Water Valley	12.77	2263.38	6905.76	9.47	2296.18	3.82	2345.40
RANCHO WATER VALLEY 11 #7-7-33-27 0-6-CH	RANCHO WATER VALLEY 11 #7-7-33-270-6 -CH (PWB)	Slot #11	Rancho Water Valley	15.99	2033.72	6517.55	12.93	2082.93	1.45	11273.91
RANCHO WATER VALLEY 8 #7-8-33-27 0-5-CH	RANCHO WATER VALLEY 8 #7-8-33-270-5 -CH (PWB)	Slot #8	Rancho Water Valley	30.19	2000.91	6776.72	26.98	2033.72	9.28	2066.52
RANCHO WATER VALLEY 12 #7-7-33-27 0-4-NH	RANCHO WATER VALLEY 12 #7-7-33-270-4 -NH (PWB)	Slot #12	Rancho Water Valley	32.31	1886.08	1886.08	29.42	1918.89	1.69	11273.91
RANCHO WATER VALLEY 7 #8-7-33-00 0-4-NH	RANCHO WATER VALLEY 7 #8-7-33-000-4 -NH (PWB)	Slot #7	Rancho Water Valley	47.32	1616.00	11273.91	44.78	1616.00	2.03	11273.91
RANCHO WATER VALLEY 13 #7-6-33-27 0-6-CH	RANCHO WATER VALLEY 13 #7-6-33-270-6 -CH (PWB)	Slot #13	Rancho Water Valley	49.96	1541.59	1541.59	47.48	1607.21	4.25	11273.91
RANCHO WATER VALLEY 6 #0-7-4-270 -5-NH	RANCHO WATER VALLEY 6 #0-7-4-270-5 -NH (PWB)	Slot #6	Rancho Water Valley	61.30	2400.75	11273.91	57.45	2400.75	7.19	11273.91
RANCHO WATER VALLEY #2-6-4	RANCHO WATER VALLEY #2-6-4 (AWB)	Slot #3	Rancho Water Valley	63.09	940.47	8496.97	59.55	951.04	17.03	1016.00

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 4791.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 278.680 degrees
Prepared by Peterson Energy
Date Printed: 22-Oct-2012



SYSDRILL
Closest Approach + Clearance Factor Summary Report
Wellbore: RANCHO WATER VALLEY 10 #7-8-33-270-4-NH (PWB)
Wellpath: RANCHO WATER VALLEY 10 #7-8-33-270-4-NH (PWP#1)

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]
RANCHO WATER VALLEY 5 #7-2-4-270-4-NH	RANCHO WATER VALLEY 5 #7-2-4-270-4-NH (PWB)	Slot #5	Rancho Water Valley	77.95	1738.44	11273.91	75.26	1754.85	7.19	11273.91
RANCHO WATER VALLEY 4 #7-1-4-270-4-NH	RANCHO WATER VALLEY 4 #7-1-4-270-4-NH (PWB)	Slot #4	Rancho Water Valley	94.65	1500.00	11203.66	92.25	1500.00	4.17	11216.00
RANCHO WATER VALLEY 2-8-4	RANCHO WATER VALLEY 2-8-4 (AWB)	Slot #2	Rancho Water Valley	104.92	1691.51	7253.07	101.03	1705.63	23.76	1886.08
RANCHO WATER VALLEY #3-9-4	RANCHO WATER VALLEY #3-9-4 (AWB)	Slot #1	Rancho Water Valley	144.80	17.00	537.47	143.66	557.34	53.70	1213.51