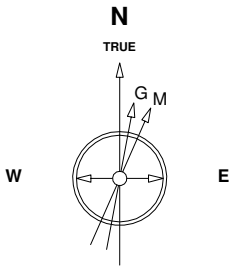
Great Western Operating Company, LLC

Location	**Colorado**	**Slot**	**Peterson CX GH 30-40D**
Field	**Wattenburg**	**Well**	**Peterson CX GH 30-40D**
Installation	**Peterson**	**Wellbore**	**Peterson CX GH 30-40D (AWB)**

Created by admin
Date plotted 29-Feb-2016

Plot reference is Peterson CX GH 30-40D (AWB).
Ref wellpath is Peterson CX GH 30-40D (AWP#1).
Coordinates are in Feet reference Peterson CX GH 30-40D.
True Vertical Depths are reference Rig Datum.
Measured Depths are reference Rig Datum.
Rig Datum: Actual Datum #1
Rig Datum to Mean Sea Level: 5474.00 ft.
Plot North is aligned to TRUE North.



17-Feb-2016
IGRF Model [1900.0-2020.0] Dip: 66.91 deg Field: 52556.0 nT
Lat: N40 22 25.4496 Long: W104 28 40.4004 Elev: 5474.00 ft
Magnetic North is 8.20 deg East of TRUE North
To correct azimuth from Magnetic to TRUE add 8.20 deg

Scale 1 cm = 200 ft

<- West (Feet) : East (Feet) ->

-2800 -2400 -2000 -1600 -1200 -800 -400 0 400 800 1200 1600 2000 2400 2800

2000 1600 1200 800 400 0 -400 -800 -1200 -1600 -2000 -2400 -2800 -3200 -3600 -4000

<- North(Feet)

Scale 1 cm = 200 ft

Scale 1 cm = 400 ft

<- True Vertical Depth (Feet)

-1600 -800 0 800 1600 2400 3200 4000 4800 5600 6400 7200 8000

-800 0 800 1600 2400 3200 4000 4800 5600 6400 7200 8000

Scale 1 cm = 400 ft

Vertical Section (Feet) ->

SHL: 1427 FNL, 2261 FEL

TPZ: 6941 MD, 2457 FNL, 36 FEL

TD: 7347 MD, 2460 FNL, 31 FEL

TPZ: 6941 MD, 2457 FNL, 36 FEL

TD: 7347 MD, 2460 FNL, 31 FEL

E2 Sec 30, T5N, R63W

Azimuth 118.04 with reference 0.00 N, 0.00 E from Peterson CX GH 30-40D

Company:	GREAT WESTERN	Job Number:	PA-2510	Calculation Method	Minimum Curvature
Field:	WATTENBERG	Magnetic Decl.:	8.45	Proposed Azimuth	117.95
Cty/Blk/Par:	WELD	Grid Corr.:		Depth Reference	RKB
Well Name:	CX GH 30-40D	Total Survey Corr.:	8.45	Tie Into	Drill SURFACE
Rig:	CADE 25	Target Info:	2640' FNL & 20'FEL		

Survey Depth (ft)	Incl (°)	Azimuth (°)	Course Lgth (ft)	TVD (ft)	VS (ft)	Coordinates N/S (ft)		Coordinates E/W (ft)		DLS (°/100')	Bld Rate (°/100')	Wlk Rate (°/100')	Remarks
61	0.30	312.10	61	61.00	-0.15	0.11	N	0.12	W	0.49	0.5	511.6	
152	0.30	339.70	91	152.00	-0.56	0.49	N	0.38	W	0.16	0.0	30.3	
244	0.70	114.20	92	244.00	-0.18	0.49	N	0.05	E	1.02	0.4	-245.1	
338	3.20	130.90	94	337.94	2.95	1.47	S	2.56	E	2.70	2.7	17.8	
428	5.50	130.70	90	427.67	9.60	5.93	S	7.73	E	2.56	2.6	-0.2	
518	7.70	125.50	90	517.07	19.79	12.24	S	15.91	E	2.53	2.4	-5.8	
608	9.80	117.00	90	606.02	33.43	19.22	S	27.64	E	2.73	2.3	-9.4	
731	12.90	119.10	123	726.60	57.63	30.65	S	48.97	E	2.54	2.5	1.7	
827	13.70	120.20	96	820.02	79.70	41.58	S	68.16	E	0.87	0.8	1.1	
921	15.10	123.30	94	911.07	103.01	53.90	S	88.02	E	1.70	1.5	3.3	
1018	16.80	124.00	97	1004.33	129.54	68.68	S	110.20	E	1.76	1.8	0.7	
1113	17.90	120.40	95	1095.01	157.78	83.75	S	134.17	E	1.62	1.2	-3.8	
1207	19.40	121.40	94	1184.07	187.79	99.19	S	159.96	E	1.63	1.6	1.1	
1300	20.50	119.70	93	1271.49	219.49	115.31	S	187.29	E	1.34	1.2	-1.8	
1395	22.00	119.30	95	1360.03	253.91	132.26	S	217.26	E	1.59	1.6	-0.4	
1492	22.60	119.50	97	1449.78	290.70	150.33	S	249.33	E	0.62	0.6	0.2	
1587	24.40	120.00	95	1536.89	328.56	169.13	S	282.21	E	1.91	1.9	0.5	
1682	27.60	119.10	95	1622.27	370.19	189.65	S	318.44	E	3.39	3.4	-0.9	
1776	28.80	117.70	94	1705.11	414.60	210.77	S	357.52	E	1.46	1.3	-1.5	
1872	29.50	119.00	96	1788.95	461.36	232.97	S	398.66	E	0.98	0.7	1.4	
1967	31.80	117.40	95	1870.67	509.78	255.84	S	441.35	E	2.57	2.4	-1.7	
2061	33.80	117.20	94	1949.68	560.70	279.19	S	486.60	E	2.13	2.1	-0.2	
2155	32.80	116.30	94	2028.25	612.29	302.42	S	532.68	E	1.19	-1.1	-1.0	
2251	31.50	115.80	96	2109.53	663.35	324.86	S	578.57	E	1.38	-1.4	-0.5	
2343	31.50	116.80	92	2187.97	711.39	346.16	S	621.66	E	0.57	0.0	1.1	
2438	32.10	116.10	95	2268.71	761.44	368.45	S	666.49	E	0.74	0.6	-0.7	
2533	31.50	115.30	95	2349.45	811.46	390.16	S	711.59	E	0.77	-0.6	-0.8	
2628	32.20	114.90	95	2430.15	861.53	411.43	S	756.99	E	0.77	0.7	-0.4	
2724	32.20	115.40	96	2511.38	912.62	433.17	S	803.30	E	0.28	0.0	0.5	
2818	32.50	117.00	94	2590.79	962.89	455.37	S	848.42	E	0.97	0.3	1.7	
2913	33.20	117.90	95	2670.60	1014.42	479.13	S	894.15	E	0.90	0.7	0.9	
3007	32.80	115.60	94	2749.44	1065.60	502.18	S	939.85	E	1.40	-0.4	-2.4	
3102	32.50	115.40	95	2829.43	1116.80	524.24	S	986.11	E	0.34	-0.3	-0.2	
3197	31.40	114.70	95	2910.04	1167.01	545.53	S	1031.65	E	1.22	-1.2	-0.7	
3291	29.70	114.70	94	2990.98	1214.71	565.50	S	1075.06	E	1.81	-1.8	0.0	
3387	29.00	119.00	96	3074.67	1261.73	586.72	S	1117.03	E	2.31	-0.7	4.5	
3481	29.80	119.50	94	3156.56	1307.86	609.27	S	1157.29	E	0.89	0.9	0.5	
3576	30.90	118.80	95	3238.54	1355.85	632.64	S	1199.21	E	1.22	1.2	-0.7	
3671	29.50	118.20	95	3320.65	1403.63	655.45	S	1241.20	E	1.51	-1.5	-0.6	
3766	29.80	119.00	95	3403.21	1450.62	677.95	S	1282.46	E	0.52	0.3	0.8	
3861	31.00	118.80	95	3485.15	1498.69	701.18	S	1324.55	E	1.27	1.3	-0.2	
3956	31.70	118.40	95	3566.28	1548.11	724.84	S	1367.94	E	0.77	0.7	-0.4	
4050	31.70	118.60	94	3646.25	1597.50	748.40	S	1411.35	E	0.11	0.0	0.2	
4145	31.80	117.70	95	3727.04	1647.49	771.99	S	1455.43	E	0.51	0.1	-0.9	
4240	31.20	117.40	95	3808.04	1697.13	794.95	S	1499.43	E	0.65	-0.6	-0.3	
4335	32.30	119.00	95	3888.82	1747.11	818.58	S	1543.48	E	1.46	1.2	1.7	
4428	31.00	118.20	93	3967.99	1795.91	841.94	S	1586.32	E	1.47	-1.4	-0.9	
4523	31.20	118.80	95	4049.33	1844.98	865.36	S	1629.45	E	0.39	0.2	0.6	
4617	34.60	117.90	94	4128.25	1896.02	889.58	S	1674.38	E	3.65	3.6	-1.0	
4711	33.70	117.50	94	4206.04	1948.79	914.11	S	1721.10	E	0.99	-1.0	-0.4	
4806	32.70	117.50	95	4285.53	2000.81	938.13	S	1767.24	E	1.05	-1.1	0.0	
4901	30.20	117.70	95	4366.57	2050.37	961.09	S	1811.16	E	2.63	-2.6	0.2	
4996	30.70	119.10	95	4448.46	2098.51	983.99	S	1853.51	E	0.91	0.5	1.5	
5090	28.20	118.80	94	4530.31	2144.71	1006.37	S	1893.95	E	2.66	-2.7	-0.3	
5186	27.60	118.60	96	4615.15	2189.63	1027.94	S	1933.35	E	0.63	-0.6	-0.2	
5280	27.00	117.40	94	4698.68	2232.74	1048.18	S	1971.41	E	0.87	-0.6	-1.3	
5374	25.00	117.90	94	4783.17	2273.95	1067.30	S	2007.91	E	2.14	-2.1	0.5	
5469	22.20	118.10	95	4870.21	2311.98	1085.15	S	2041.49	E	2.95	-2.9	0.2	
5563	19.90	116.70	94	4957.93	2345.73	1100.70	S	2071.45	E	2.50	-2.4	-1.5	
5658	17.50	118.40	95	5047.91	2376.18	1114.76	S	2098.47	E	2.59	-2.5	1.8	
5754	15.10	118.80	96	5140.05	2403.13	1127.65	S	2122.12	E	2.50	-2.5	0.4	
5848	13.80	122.80	94	5231.07	2426.54	1139.63	S	2142.28	E	1.74	-1.4	4.3	
5942	11.30	120.70	94	5322.82	2446.91	1150.40	S	2159.62	E	2.70	-2.7	-2.2	
6037	10.10	123.90	95	5416.17	2464.50	1159.80	S	2174.54	E	1.41	-1.3	3.4	
6131	9.10	119.10	94	5508.85	2480.13	1168.01	S	2187.88	E	1.36	-1.1	-5.1	
6223	7.30	118.20	92	5599.91	2493.25	1174.31	S	2199.39	E	1.96	-2.0	-1.0	
6319	5.60	116.00	96	5695.30	2504.03	1179.25	S	2208.97	E	1.79	-1.8	-2.3	
6412	4.40	114.00	93	5787.94	2512.12	1182.69	S	2216.31	E	1.30	-1.3	-2.2	
6507	3.30	110.30	95	5882.73	2518.47	1185.12	S	2222.20	E	1.19	-1.2	-3.9	
6600	2.50	105.10	93	5975.61	2523.10	1186.58	S	2226.67	E	0.90	-0.9	-5.6	
6696	2.20	135.10	96	6071.53	2526.90	1188.43	S	2230.00	E	1.30	-0.3	31.3	
6791	1.60	104.50	95	6166.48	2529.93	1190.05	S	2232.57	E	1.22	-0.6	-32.2	
7013	1.00	110.30	222	6388.42	2534.87	1191.50	S	2237.38	E	0.28	-0.3	2.6	
7234	0.60	126.20	221	6609.40	2537.92	1192.85	S	2240.13	E	0.21	-0.2	7.2	
7297	0.70	120.00	63	6672.39	2538.63	1193.24	S	2240.73	E	0.19	0.2	-9.8	TD 1/11/13 @ 14:30
7347	0.70	120.00	50	6722.39	2539.24	1193.55	S	2241.25	E	0.00	0.0	0.0	Projection to Bit

Surveys

N/S	E/W	VS	TVD
0.11	-0.12	-0.15	61.00
0.49	-0.38	-0.56	152.00
0.49	0.05	-0.18	244.00
-1.47	2.56	2.95	337.94
-5.93	7.73	9.60	427.67
-12.24	15.91	19.79	517.07
-19.22	27.64	33.43	606.02
-30.65	48.97	57.63	726.60
-41.58	68.16	79.70	820.02
-53.90	88.02	103.01	911.07
-68.68	110.20	129.54	1004.33
-83.75	134.17	157.78	1095.01
-99.19	159.96	187.79	1184.07
-115.31	187.29	219.49	1271.49
-132.26	217.26	253.91	1360.03
-150.33	249.33	290.70	1449.78
-169.13	282.21	328.56	1536.89
-189.65	318.44	370.19	1622.27
-210.77	357.52	414.60	1705.11
-232.97	398.66	461.36	1788.95
-255.84	441.35	509.78	1870.67
-279.19	486.60	560.70	1949.68
-302.42	532.68	612.29	2028.25
-324.86	578.57	663.35	2109.53
-346.16	621.66	711.39	2187.97
-368.45	666.49	761.44	2268.71
-390.16	711.59	811.46	2349.45
-411.43	756.99	861.53	2430.15
-433.17	803.30	912.62	2511.38
-455.37	848.42	962.89	2590.79
-479.13	894.15	1014.42	2670.60
-502.18	939.85	1065.60	2749.44
-524.24	986.11	1116.80	2829.43
-545.53	1031.65	1167.01	2910.04
-565.50	1075.06	1214.71	2990.98
-586.72	1117.03	1261.73	3074.67
-609.27	1157.29	1307.86	3156.56
-632.64	1199.21	1355.85	3238.54
-655.45	1241.20	1403.63	3320.65
-677.95	1282.46	1450.62	3403.21
-701.18	1324.55	1498.69	3485.15
-724.84	1367.94	1548.11	3566.28
-748.40	1411.35	1597.50	3646.25
-771.99	1455.43	1647.49	3727.04
-794.95	1499.43	1697.13	3808.04
-818.58	1543.48	1747.11	3888.82
-841.94	1586.32	1795.91	3967.99
-865.36	1629.45	1844.98	4049.33
-889.58	1674.38	1896.02	4128.25
-914.11	1721.10	1948.79	4206.04
-938.13	1767.24	2000.81	4285.53
-961.09	1811.16	2050.37	4366.57
-983.99	1853.51	2098.51	4448.46
-1006.37	1893.95	2144.71	4530.31
-1027.94	1933.35	2189.63	4615.15
-1048.18	1971.41	2232.74	4698.68
-1067.30	2007.91	2273.95	4783.17
-1085.15	2041.49	2311.98	4870.21
-1100.70	2071.45	2345.73	4957.93
-1114.76	2098.47	2376.18	5047.91
-1127.65	2122.12	2403.13	5140.05
-1139.63	2142.28	2426.54	5231.07
-1150.40	2159.62	2446.91	5322.82
-1159.80	2174.54	2464.50	5416.17
-1168.01	2187.88	2480.13	5508.85
-1174.31	2199.39	2493.25	5599.91
-1179.25	2208.97	2504.03	5695.30
-1182.69	2216.31	2512.12	5787.94
-1185.12	2222.20	2518.47	5882.73
-1186.58	2226.67	2523.10	5975.61
-1188.43	2230.00	2526.90	6071.53
-1190.05	2232.57	2529.93	6166.48
-1191.50	2237.38	2534.87	6388.42
-1192.85	2240.13	2537.92	6609.40
-1193.24	2240.73	2538.63	6672.39
-1193.55	2241.25	2539.24	6722.39
#VALUE!	#VALUE!	#VALUE!	#VALUE!
#VALUE!	#VALUE!	#VALUE!	#VALUE!
#VALUE!	#VALUE!	#VALUE!	#VALUE!