



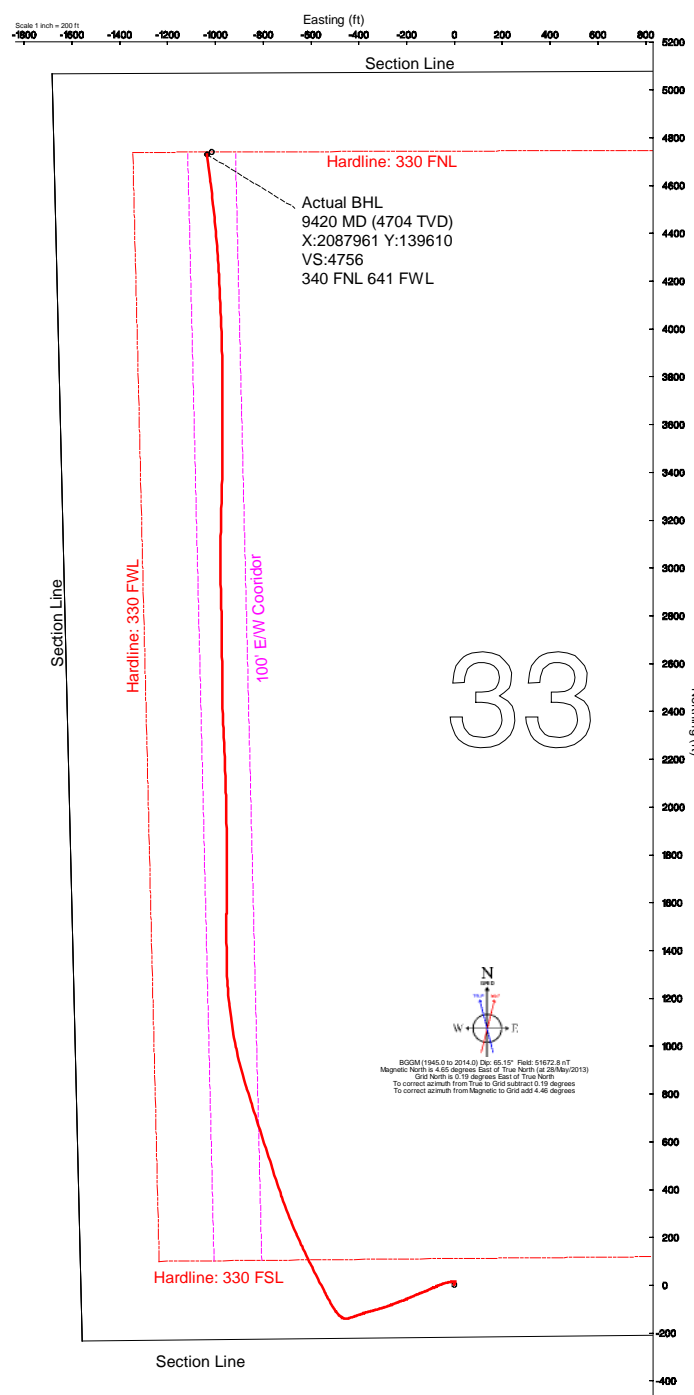
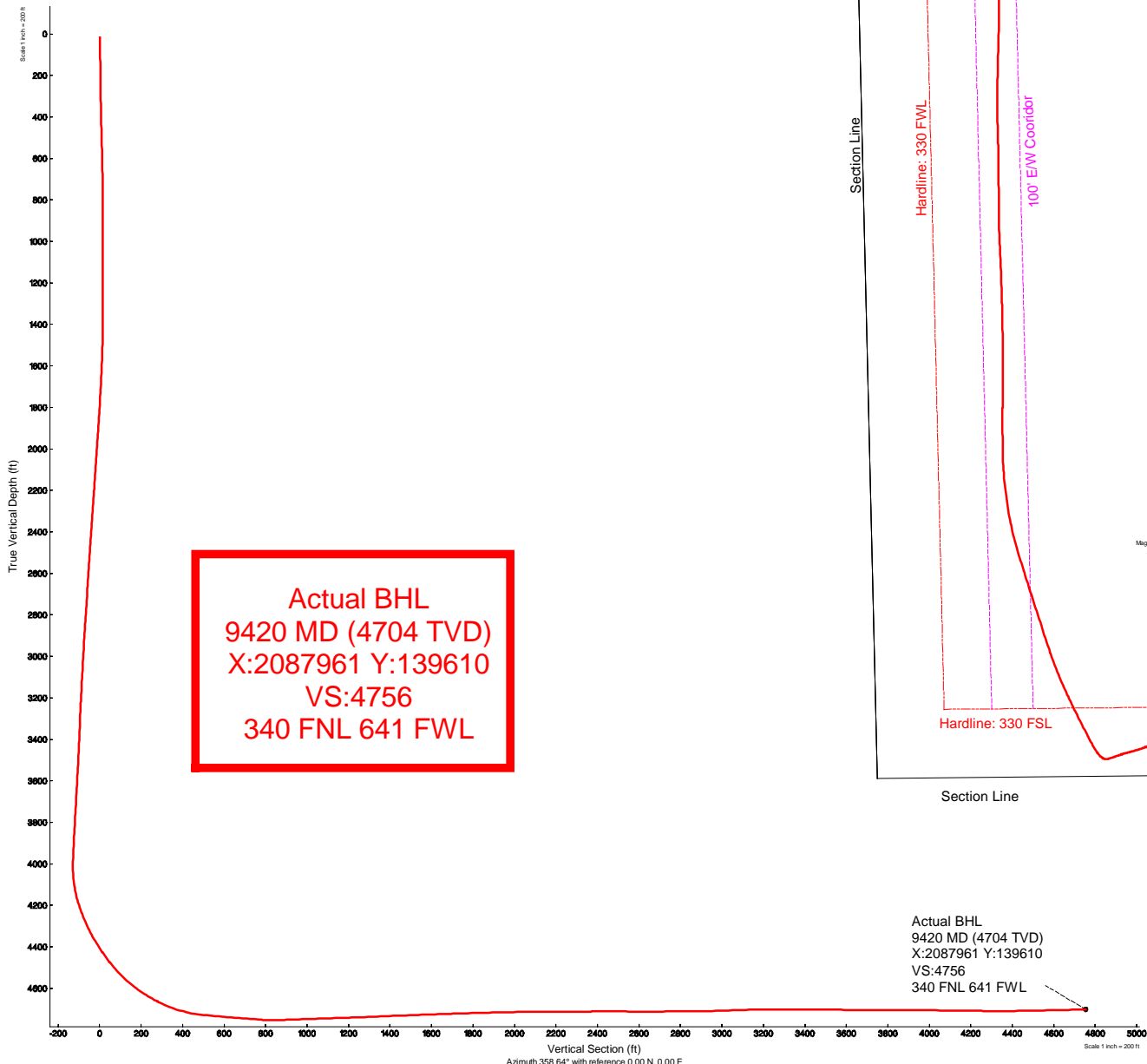
# Sandridge Energy

4J Ranch 3408 2-33H (Final)  
 4J Ranch 3408 2-33H SL 220 FSL 1565 FWL  
 Harper County, Kansas (Sandridge Energy) NAD27 / Grid

P3d reference wellbath is Plan 1	
True vertical depths are referenced to Unit 310 (RT)	Grid System: NAD27 / Lambert Kansas SP, Southern Zone (1502), US feet
Measured depths are referenced to Unit 310 (RT)	North Reference: Grid north
Unit 310 (RT) to Mean Sea Level: 1262 feet	Scale: True Distance
Mean Sea Level to Mud line (in Slot: 4J Ranch 3408 2-33H SL 220 FSL 1565 FWL): -1247 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: bouglac on 28/May/2013

### Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
4J Ranch 3408 2-33H Sec. 33-34S-8W	2088997.000	1348777.000	37°02'12.066"N	98°11'42.454"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
4J Ranch 3408 2-33H SL 220 FSL 1565 FWL	0.00	0.00	2088997.000	1348777.000
Unit 310 (RT) to Mud line (in Slot: 4J Ranch 3408 2-33H SL 220 FSL 1565 FWL)				156
Mean Sea Level to Mud line (in Slot: 4J Ranch 3408 2-33H SL 220 FSL 1565 FWL)				-1247ft
Unit 310 (RT) to Mean Sea Level				1262ft



Actual BHL  
 9420 MD (4704 TVD)  
 X:2087961 Y:139610  
 VS:4756  
 340 FNL 641 FWL





## Actual Wellpath Report

Sandridge 4J Ranch 3408 2-33H\_Final Surveys.  
Page n of nn



REFERENCE WELLPATH IDENTIFICATION			
Operator	Sandridge Energy	Slot	4J Ranch 3408 2-33H SL 220 FSL 1565 FWL
Area	Kansas	Well	Subject
Field	Harper County, Kansas (Sandridge Energy) NAD27 / Grid	Wellbore	4J Ranch 3408 2-33H Actual
Facility	4J Ranch 3408 2-33H Sec. 33-34S-8W		

REPORT SETUP INFORMATION			
Projection System	NAD27 / Lambert Kansas SP, Southern Zone (1502), US feet		
North Reference	Grid	Software System	WellArchitect™ 3.0.0
Convergence at slot	0.19° East	User	Adammic
Scale	1.00005	Report Generated	13/Aug/2013 at 2:27:16 PM
Wellbore last revised	05-28-2013	Database/Source file	intokcapp01

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	2088997.00	134877.00	37°02'12.066"N	98°11'42.454"W
Facility Reference Pt			2088997.00	134877.00	37°02'12.066"N	98°11'42.454"W
Field Reference Pt			2132248.82	161602.28	37°06'34.560"N	98°02'47.460"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Unit 310 (RT) to Facility Vertical Datum	15.00ft
Horizontal Reference Pt	Slot	Unit 310 (RT) to Mean Sea Level	1262.00ft
Vertical Reference Pt	Unit 310 (RT)	Unit 310 (RT) to Mud Line at Slot (4J Ranch 3408 2-33H SL 220 FSL 1565 FWL)	15.00ft
MD Reference Pt	Unit 310 (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	358.64°



## Actual Wellpath Report

Sandridge 4J Ranch 3408 2-33H\_Final Surveys.  
Page n of nn



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Area	Kansas	Well	Subject
Field	Harper County, Kansas (Sandridge Energy) NAD27 / Grid	Wellbore	4J Ranch 3408 2-33H Actual
Facility	4J Ranch 3408 2-33H Sec. 33-34S-8W		

WELLPATH DATA (133 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS [°/100ft]	Comments
0.00†	0.000	18.440	0.00	0.00	0.00	0.00	2088997.00	134877.00	0.00	
15.00	0.000	18.440	15.00	0.00	0.00	0.00	2088997.00	134877.00	0.00	
500.00	1.750	18.440	499.92	6.97	7.03	2.34	2088999.34	134884.03	0.36	
775.00	0.750	18.440	774.86	12.61	12.72	4.24	2089001.24	134889.72	0.36	
810.00	0.250	18.440	809.85	12.90	13.01	4.34	2089001.34	134890.01	1.43	
901.00	0.040	253.480	900.85	13.08	13.19	4.37	2089001.37	134890.19	0.30	
993.00	0.100	34.880	992.85	13.13	13.24	4.38	2089001.38	134890.24	0.15	
1085.00	0.030	201.570	1084.85	13.18	13.29	4.42	2089001.42	134890.29	0.14	
1177.00	0.310	273.320	1176.85	13.18	13.28	4.16	2089001.16	134890.28	0.33	
1208.00	0.940	270.700	1207.85	13.19	13.29	3.83	2089000.83	134890.29	2.03	
1238.00	1.620	267.640	1237.84	13.19	13.27	3.16	2089000.16	134890.27	2.28	
1269.00	2.160	268.940	1268.83	13.19	13.24	2.13	2088999.13	134890.24	1.75	
1299.00	3.130	268.070	1298.79	13.18	13.20	0.75	2088997.75	134890.21	3.24	
1330.00	4.180	267.010	1329.73	13.14	13.12	-1.22	2088995.78	134890.12	3.39	
1360.00	5.330	265.990	1359.63	13.05	12.96	-3.71	2088993.29	134889.96	3.84	
1391.00	6.380	265.220	1390.47	12.88	12.72	-6.86	2088990.14	134889.72	3.40	
1421.00	7.250	263.740	1420.25	12.62	12.37	-10.40	2088986.60	134889.37	2.96	
1452.00	8.100	261.850	1450.97	12.19	11.85	-14.51	2088982.49	134888.85	2.86	
1513.00	9.630	258.600	1511.24	10.79	10.23	-23.76	2088973.23	134887.23	2.64	
1543.00	9.560	257.040	1540.83	9.86	9.18	-28.65	2088968.35	134886.18	0.90	
1637.00	9.370	254.060	1633.55	6.36	5.33	-43.62	2088953.38	134882.33	0.56	
1732.00	9.360	247.790	1727.28	1.66	0.28	-58.20	2088938.79	134877.28	1.07	
1827.00	9.490	245.290	1821.00	-4.19	-5.91	-72.47	2088924.52	134871.09	0.45	
1922.00	9.160	246.350	1914.74	-10.16	-12.22	-86.51	2088910.48	134864.78	0.39	
2016.00	10.000	246.460	2007.43	-16.08	-18.48	-100.85	2088896.15	134858.52	0.89	
2111.00	10.980	247.260	2100.84	-22.49	-25.27	-116.75	2088880.24	134851.73	1.04	
2206.00	10.920	249.180	2194.11	-28.79	-31.97	-133.51	2088863.48	134845.03	0.39	
2301.00	10.810	247.200	2287.41	-35.04	-38.62	-150.13	2088846.86	134838.38	0.41	
2395.00	10.720	247.740	2379.76	-41.38	-45.35	-166.35	2088830.64	134831.65	0.14	
2490.00	10.660	245.350	2473.11	-48.01	-52.36	-182.51	2088814.48	134824.64	0.47	
2585.00	10.720	246.090	2566.46	-54.87	-59.60	-198.58	2088798.41	134817.39	0.16	
2679.00	10.370	252.440	2658.88	-60.58	-65.70	-214.63	2088782.35	134811.30	1.29	
2774.00	10.690	248.550	2752.28	-65.99	-71.50	-230.99	2088766.00	134805.50	0.82	
2869.00	10.760	248.630	2845.62	-72.06	-77.95	-247.45	2088749.54	134799.04	0.08	
2963.00	10.820	249.200	2937.96	-77.99	-84.29	-263.87	2088733.12	134792.71	0.13	
3058.00	10.660	252.110	3031.29	-83.46	-90.15	-280.56	2088716.42	134786.84	0.60	
3153.00	10.530	251.680	3124.67	-88.49	-95.58	-297.17	2088699.82	134781.42	0.16	
3248.00	10.470	253.950	3218.08	-93.21	-100.69	-313.70	2088683.28	134776.30	0.44	
3343.00	10.280	255.470	3311.53	-97.33	-105.21	-330.20	2088666.78	134771.79	0.35	
3438.00	10.570	256.120	3404.96	-101.15	-109.42	-346.87	2088650.11	134767.57	0.33	
3532.00	10.440	253.160	3497.39	-105.30	-113.96	-363.39	2088633.59	134763.03	0.59	
3627.00	10.590	251.150	3590.79	-110.22	-119.27	-379.89	2088617.09	134757.72	0.42	
3722.00	10.360	250.720	3684.21	-115.47	-124.91	-396.21	2088600.77	134752.08	0.26	
3817.00	10.570	250.630	3777.63	-120.79	-130.62	-412.50	2088584.48	134746.37	0.22	
3912.00	10.790	253.460	3870.98	-125.81	-136.05	-429.24	2088567.74	134740.95	0.60	



## Actual Wellpath Report

Sandridge 4J Ranch 3408 2-33H\_Final Surveys.  
Page n of nn



REFERENCE WELLPATH IDENTIFICATION			
Operator	Sandridge Energy	Slot	4J Ranch 3408 2-33H SL 220 FSL 1565 FWL
Area	Kansas	Well	Subject
Field	Harper County, Kansas (Sandridge Energy) NAD27 / Grid	Wellbore	4J Ranch 3408 2-33H Actual
Facility	4J Ranch 3408 2-33H Sec. 33-34S-8W		

WELLPATH DATA (133 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS [°/100ft]	Comments
4007.00	10.480	253.390	3964.35	-130.41	-141.05	-446.04	2088550.93	134735.95	0.33	
4038.00	10.310	262.800	3994.84	-131.44	-142.20	-451.50	2088545.48	134734.79	5.50	
4070.00	10.780	277.960	4026.31	-131.24	-142.15	-457.30	2088539.67	134734.85	8.77	
4102.00	11.790	290.140	4057.70	-129.56	-140.61	-463.34	2088533.64	134736.39	8.07	
4133.00	13.020	299.470	4087.97	-126.61	-137.80	-469.35	2088527.62	134739.20	7.57	
4165.00	14.810	307.490	4119.04	-122.20	-133.53	-475.74	2088521.24	134743.46	8.21	
4197.00	17.140	314.030	4149.80	-116.27	-127.77	-482.37	2088514.60	134749.23	9.19	
4228.00	19.830	319.560	4179.20	-108.94	-120.59	-489.07	2088507.90	134756.41	10.35	
4259.00	22.440	323.560	4208.12	-100.01	-111.82	-496.00	2088500.98	134765.17	9.61	
4291.00	24.430	326.410	4237.48	-89.41	-101.40	-503.29	2088493.69	134775.60	7.16	
4323.00	25.900	329.680	4266.44	-77.70	-89.85	-510.48	2088486.50	134787.15	6.32	
4355.00	26.850	330.830	4295.11	-65.19	-77.51	-517.53	2088479.45	134799.49	3.37	
4386.00	28.510	331.330	4322.56	-52.43	-64.90	-524.49	2088472.48	134812.10	5.41	
4418.00	31.820	332.070	4350.22	-38.09	-50.74	-532.11	2088464.87	134826.25	10.41	
4449.00	33.590	332.630	4376.31	-23.07	-35.91	-539.88	2088457.09	134841.09	5.79	
4481.00	35.480	333.050	4402.67	-6.74	-19.77	-548.16	2088448.81	134857.23	5.95	
4512.00	37.510	333.170	4427.59	9.90	-3.32	-556.50	2088440.48	134873.68	6.55	
4544.00	39.280	332.530	4452.66	27.79	14.36	-565.57	2088431.40	134891.36	5.67	
4576.00	41.260	332.960	4477.08	46.40	32.75	-575.04	2088421.93	134909.75	6.25	
4607.00	43.350	333.130	4500.01	65.21	51.35	-584.49	2088412.48	134928.35	6.75	
4639.00	45.860	333.040	4522.79	85.49	71.38	-594.67	2088402.30	134948.38	7.85	
4671.00	48.440	333.910	4544.55	106.72	92.37	-605.14	2088391.83	134969.38	8.31	
4702.00	50.860	334.080	4564.62	128.19	113.60	-615.50	2088381.47	134990.61	7.82	
4734.00	53.010	334.230	4584.35	151.12	136.28	-626.48	2088370.49	135013.28	6.73	
4766.00	55.570	334.780	4603.02	174.83	159.73	-637.66	2088359.31	135036.74	8.12	
4797.00	58.010	335.270	4620.00	198.59	183.24	-648.61	2088348.36	135060.25	7.98	
4829.00	60.390	336.210	4636.38	223.91	208.30	-659.90	2088337.07	135085.31	7.85	
4861.00	62.630	337.060	4651.65	249.99	234.11	-671.05	2088325.92	135111.13	7.38	
4893.00	64.620	337.650	4665.86	276.70	260.57	-682.08	2088314.88	135137.59	6.43	
4924.00	66.660	338.410	4678.65	303.13	286.76	-692.65	2088304.32	135163.77	6.95	
4956.00	68.950	339.010	4690.74	330.98	314.37	-703.40	2088293.56	135191.38	7.36	
4988.00	72.260	340.220	4701.36	359.52	342.66	-713.91	2088283.05	135219.67	10.94	
5019.00	75.020	340.650	4710.09	387.77	370.68	-723.87	2088273.09	135247.70	9.00	
5051.00	77.140	340.940	4717.79	417.33	400.01	-734.09	2088262.87	135277.03	6.68	
5114.00	82.900	342.240	4728.70	476.63	458.86	-753.67	2088243.29	135335.88	9.37	
5145.00	85.190	342.690	4731.92	506.24	488.26	-762.96	2088234.00	135365.28	7.53	
5240.00	85.280	341.860	4739.81	597.08	578.43	-791.78	2088205.18	135455.46	0.88	
5335.00	85.870	342.180	4747.14	687.84	668.52	-821.02	2088175.94	135545.56	0.71	
5430.00	85.810	342.620	4754.03	778.80	758.84	-849.67	2088147.29	135635.88	0.47	
5498.00	91.140	342.130	4755.84	844.04	823.60	-870.24	2088126.71	135700.64	7.87	
5545.00	92.370	344.050	4754.40	889.29	868.54	-883.91	2088113.05	135745.59	4.85	
5606.00	91.700	346.090	4752.24	948.55	927.44	-899.61	2088097.34	135804.49	3.52	
5670.00	91.890	347.890	4750.23	1011.20	989.77	-914.01	2088082.94	135866.82	2.83	
5733.00	91.970	350.360	4748.11	1073.29	1051.60	-925.89	2088071.06	135928.65	3.92	
5796.00	91.880	352.060	4745.99	1135.72	1113.82	-935.51	2088061.44	135990.88	2.70	



## Actual Wellpath Report

Sandridge 4J Ranch 3408 2-33H\_Final Surveys.  
Page n of nn



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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS [°/100ft]	Comments
5859.00	91.820	353.850	4743.96	1198.38	1176.31	-943.23	2088053.72	136053.37	2.84	
5923.00	92.290	356.070	4741.66	1262.20	1240.01	-948.85	2088048.10	136117.08	3.54	
5986.00	92.530	357.390	4739.01	1325.11	1302.86	-952.44	2088044.51	136179.92	2.13	
6049.00	92.050	359.820	4736.50	1388.05	1365.78	-953.97	2088042.98	136242.85	3.93	
6114.00	92.220	359.370	4734.08	1453.00	1430.73	-954.43	2088042.52	136307.81	0.74	
6176.00	92.710	0.060	4731.41	1514.93	1492.68	-954.74	2088042.21	136369.75	1.36	
6239.00	91.550	0.580	4729.07	1577.86	1555.63	-954.39	2088042.56	136432.71	2.02	
6302.00	92.010	0.890	4727.11	1640.79	1618.59	-953.58	2088043.37	136495.68	0.88	
6365.00	92.160	0.240	4724.82	1703.71	1681.55	-952.96	2088043.99	136558.63	1.06	
6460.00	91.760	0.700	4721.57	1798.60	1776.49	-952.18	2088044.77	136653.58	0.64	
6555.00	90.890	358.140	4719.37	1893.56	1871.45	-953.14	2088043.81	136748.55	2.85	
6650.00	91.630	359.130	4717.28	1988.54	1966.40	-955.41	2088041.54	136843.50	1.30	
6745.00	89.350	358.690	4716.47	2083.53	2061.37	-957.21	2088039.74	136938.48	2.44	
6839.00	90.460	357.680	4716.63	2177.52	2155.32	-960.19	2088036.76	137032.43	1.60	
6934.00	90.870	357.790	4715.52	2272.50	2250.24	-963.95	2088033.01	137127.36	0.45	
7029.00	90.710	357.220	4714.21	2367.47	2345.14	-968.08	2088028.87	137222.26	0.62	
7123.00	89.940	358.620	4713.68	2461.46	2439.07	-971.49	2088025.46	137316.20	1.70	
7218.00	89.310	359.870	4714.30	2556.45	2534.06	-972.74	2088024.21	137411.19	1.47	
7313.00	90.280	359.460	4714.64	2651.43	2629.06	-973.30	2088023.65	137506.19	1.11	
7407.00	90.800	359.650	4713.76	2745.42	2723.05	-974.03	2088022.92	137600.19	0.59	
7502.00	90.410	358.180	4712.75	2840.41	2818.03	-975.83	2088021.12	137695.17	1.60	
7597.00	90.520	358.790	4711.98	2935.40	2912.99	-978.34	2088018.61	137790.14	0.65	
7692.00	92.500	359.680	4709.48	3030.36	3007.94	-979.61	2088017.34	137885.10	2.28	
7755.00	91.740	0.140	4707.15	3093.30	3070.90	-979.71	2088017.24	137948.06	1.41	
7819.00	92.130	1.480	4704.99	3157.22	3134.85	-978.80	2088018.15	138012.01	2.18	
7882.00	89.600	1.360	4704.04	3220.13	3197.82	-977.24	2088019.71	138074.99	4.02	
7977.00	89.570	1.610	4704.72	3315.01	3292.79	-974.78	2088022.17	138169.96	0.27	
8072.00	89.690	1.330	4705.34	3409.89	3387.75	-972.34	2088024.61	138264.93	0.32	
8167.00	89.820	0.320	4705.74	3504.82	3482.74	-970.97	2088025.98	138359.92	1.07	
8262.00	89.540	0.010	4706.28	3599.79	3577.74	-970.70	2088026.25	138454.92	0.44	
8357.00	90.340	359.860	4706.37	3694.76	3672.74	-970.81	2088026.14	138549.93	0.86	
8451.00	89.810	359.780	4706.25	3788.74	3766.74	-971.10	2088025.85	138643.93	0.57	
8546.00	89.410	358.880	4706.90	3883.73	3861.73	-972.22	2088024.74	138738.93	1.04	
8641.00	89.440	358.430	4707.85	3978.73	3956.70	-974.44	2088022.51	138833.90	0.47	
8736.00	88.980	357.270	4709.16	4073.71	4051.62	-978.01	2088018.94	138928.83	1.31	
8831.00	89.450	357.210	4710.46	4168.67	4146.50	-982.58	2088014.37	139023.71	0.50	
8926.00	89.260	357.360	4711.53	4263.64	4241.39	-987.08	2088009.87	139118.60	0.25	
9021.00	90.310	355.390	4711.89	4358.56	4336.19	-993.09	2088003.86	139213.41	2.35	
9116.00	90.740	354.610	4711.02	4453.36	4430.82	-1001.37	2087995.58	139308.05	0.94	
9211.00	91.420	353.740	4709.23	4548.05	4525.32	-1011.01	2087985.94	139402.55	1.16	
9306.00	91.330	352.990	4706.95	4642.62	4619.65	-1021.98	2087974.97	139496.89	0.79	
9377.00	91.550	352.850	4705.16	4713.25	4690.09	-1030.73	2087966.22	139567.33	0.37	
9420.00	91.550	352.850	4704.00	4756.01	4732.74	-1036.08	2087960.87	139609.98	0.00	Actual BHL 9420 MD (4704 TVD) X:2087961 Y:139610 VS:4756 340 FNL 641 FWL

WELLPATH COMPOSITION - Ref Wellbore: 4J Ranch 3408 2-33H Actual					Ref Wellpath: AWP (Final)	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model		Log Name/Comment		Wellbore
15.00	775.00	EMS (Standard)		Rig Surveys		4J Ranch 3408 2-33H Actual
775.00	9377.00	NaviTrak (Standard)		INTEQ MWD		4J Ranch 3408 2-33H Actual
9377.00	9420.00	Blind Drilling (std)		Projection to bit		4J Ranch 3408 2-33H Actual