



Gyroscopic Survey Report  
for  
KPK

Well Location	WELD
Well Name	ANDERSON #12-32
Rig Number	
Survey Date	11/4/2014
Latitude	40.2676900°N
Longitude	104.9205300°W
North Reference	True North
Grid Correction	None
Depth Reference	GL (4961.00 ft)
Calculation Method	Minimum Curvature
Section (VS) Ref	0.00N (ft), 0.00E (ft), 237.62Azim (deg)
Definitive Survey	ANDERSON #12-32 (05-123-23790)
Operator(s)	C KIRBY

**Well Notes**

API-05-123-23790

# Survey Report

**Well Name:** ANDERSON #12-32  
**Survey:** ANDERSON #12-32 (05-123-23790)  
**Survey Date:** 11/4/2014

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	Closure Distance ft	Closure Direction deg	DLS %/100ft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid
87.06	0.78	358.94	87.05	-0.31	0.60	-0.01	0.60	358.94	0.90
123.76	0.68	349.58	123.76	-0.52	1.06	-0.06	1.06	357.02	0.43
147.51	0.69	346.86	147.50	-0.62	1.34	-0.11	1.35	355.17	0.14
170.35	0.68	340.09	170.34	-0.70	1.60	-0.19	1.61	353.22	0.35
198.47	0.64	338.41	198.46	-0.76	1.90	-0.30	1.93	350.91	0.16
221.83	0.59	328.81	221.82	-0.79	2.13	-0.41	2.17	348.96	0.48
248.89	0.55	328.94	248.87	-0.79	2.36	-0.55	2.42	346.76	0.15
272.13	0.47	322.86	272.12	-0.79	2.53	-0.67	2.62	345.16	0.41
299.11	0.41	327.53	299.09	-0.78	2.70	-0.79	2.81	343.71	0.27
322.49	0.39	325.15	322.47	-0.78	2.84	-0.88	2.97	342.77	0.11
345.72	0.32	328.01	345.71	-0.77	2.96	-0.96	3.11	342.02	0.30
372.69	0.33	327.13	372.67	-0.77	3.09	-1.04	3.26	341.35	0.02
396.05	0.18	339.35	396.04	-0.78	3.18	-1.09	3.36	341.05	0.66
423.00	0.15	359.05	422.98	-0.81	3.25	-1.11	3.44	341.21	0.24
445.47	0.14	343.04	445.45	-0.83	3.31	-1.11	3.49	341.38	0.19
473.27	0.03	44.53	473.26	-0.85	3.34	-1.12	3.53	341.50	0.44
495.75	0.07	236.51	495.74	-0.84	3.34	-1.13	3.53	341.38	0.43
523.38	0.09	240.62	523.36	-0.80	3.32	-1.16	3.52	340.80	0.07
545.95	0.14	247.86	545.94	-0.76	3.30	-1.20	3.51	340.08	0.24
573.60	0.31	253.60	573.58	-0.65	3.27	-1.30	3.52	338.32	0.63
596.04	0.42	255.55	596.02	-0.52	3.23	-1.44	3.54	336.02	0.48
623.77	0.63	254.25	623.75	-0.28	3.17	-1.68	3.58	332.03	0.75
646.96	0.72	255.79	646.94	-0.02	3.10	-1.94	3.66	327.86	0.42
673.94	0.98	252.69	673.92	0.37	2.99	-2.33	3.79	322.02	0.98
697.12	0.99	252.97	697.09	0.75	2.87	-2.71	3.95	316.61	0.02
724.73	0.88	250.13	724.70	1.19	2.73	-3.14	4.16	310.97	0.40
747.28	0.91	252.84	747.24	1.53	2.61	-3.47	4.35	306.96	0.22
774.89	0.98	255.76	774.85	1.97	2.49	-3.91	4.64	302.49	0.31
797.33	0.99	257.53	797.28	2.33	2.40	-4.29	4.91	299.26	0.15
820.50	1.05	258.92	820.45	2.72	2.32	-4.69	5.23	296.29	0.25
848.21	1.12	259.41	848.16	3.21	2.22	-5.21	5.66	293.09	0.26
870.62	1.08	254.85	870.57	3.61	2.12	-5.63	6.01	290.68	0.42
898.21	1.06	253.57	898.15	4.11	1.98	-6.12	6.43	287.96	0.13
920.76	1.05	254.25	920.70	4.51	1.87	-6.52	6.78	285.99	0.07
948.38	1.04	257.48	948.31	4.98	1.75	-7.01	7.22	283.99	0.22

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MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	Closure Distance ft	Closure Direction deg	DLS %/100ft
971.51	1.07	260.22	971.44	5.38	1.66	-7.42	7.61	282.63	0.25
998.48	1.18	261.53	998.40	5.86	1.58	-7.95	8.10	281.25	0.43
1021.60	1.18	257.54	1021.52	6.30	1.49	-8.41	8.54	280.07	0.36
1049.27	1.18	256.31	1049.19	6.84	1.37	-8.97	9.07	278.66	0.09
1071.44	1.13	256.38	1071.35	7.26	1.26	-9.40	9.48	277.63	0.26
1098.55	1.19	261.00	1098.46	7.77	1.15	-9.94	10.00	276.62	0.41
1124.82	1.26	264.07	1124.72	8.28	1.08	-10.49	10.55	275.88	0.36
1147.89	1.38	265.80	1147.78	8.75	1.03	-11.02	11.07	275.36	0.58
1169.94	1.36	261.49	1169.82	9.23	0.98	-11.54	11.59	274.83	0.48
1197.17	1.31	262.60	1197.05	9.80	0.89	-12.17	12.20	274.18	0.22
1224.28	1.29	263.61	1224.15	10.36	0.81	-12.78	12.81	273.65	0.11
1246.31	1.34	268.35	1246.17	10.80	0.78	-13.29	13.31	273.36	0.55
1273.53	1.33	264.79	1273.39	11.36	0.74	-13.92	13.94	273.05	0.31
1296.02	1.32	263.17	1295.87	11.82	0.69	-14.44	14.45	272.73	0.17
1322.75	1.28	266.38	1322.60	12.36	0.63	-15.04	15.05	272.41	0.31
1349.84	1.36	270.56	1349.68	12.90	0.62	-15.66	15.68	272.25	0.44
1372.56	1.36	271.01	1372.39	13.35	0.62	-16.20	16.21	272.20	0.05
1399.03	1.39	270.40	1398.85	13.88	0.63	-16.84	16.85	272.15	0.13
1421.74	1.36	271.25	1421.55	14.34	0.64	-17.38	17.39	272.11	0.17
1448.19	1.24	274.50	1448.00	14.83	0.67	-17.98	17.99	272.13	0.53
1470.88	1.32	272.11	1470.68	15.24	0.70	-18.49	18.50	272.16	0.40
1497.92	1.38	269.65	1497.72	15.77	0.71	-19.12	19.14	272.12	0.32
1524.35	1.39	272.26	1524.14	16.30	0.72	-19.76	19.77	272.08	0.24
1547.04	1.41	275.01	1546.82	16.75	0.75	-20.31	20.33	272.12	0.31
1573.32	1.47	275.81	1573.09	17.27	0.81	-20.97	20.99	272.23	0.27
1596.11	1.55	274.01	1595.87	17.75	0.87	-21.57	21.59	272.30	0.38
1623.12	1.38	269.65	1622.87	18.32	0.89	-22.26	22.27	272.29	0.75
1649.30	1.19	264.39	1649.05	18.83	0.86	-22.84	22.86	272.16	0.85
1672.21	1.18	264.57	1671.95	19.25	0.82	-23.31	23.33	272.00	0.02
1699.32	1.21	261.84	1699.06	19.76	0.75	-23.87	23.89	271.80	0.23
1721.28	1.31	262.86	1721.01	20.20	0.68	-24.35	24.36	271.61	0.49
1748.26	1.22	264.16	1747.99	20.74	0.62	-24.95	24.95	271.42	0.34
1770.31	1.05	261.87	1770.03	21.13	0.56	-25.38	25.39	271.27	0.83
1797.29	1.10	261.15	1797.01	21.59	0.49	-25.88	25.88	271.08	0.20
1824.26	1.08	260.16	1823.98	22.07	0.41	-26.38	26.39	270.88	0.09
1847.06	0.90	253.44	1846.77	22.44	0.32	-26.77	26.77	270.68	0.93

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MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	Closure Distance ft	Closure Direction deg	DLS °/100ft
1870.81	0.96	259.77	1870.52	22.80	0.23	-27.14	27.14	270.49	0.49
1898.32	0.89	254.80	1898.02	23.22	0.13	-27.57	27.57	270.28	0.39
1921.66	0.90	251.00	1921.36	23.57	0.03	-27.92	27.92	270.05	0.27
1949.64	0.76	241.66	1949.33	23.97	-0.13	-28.29	28.29	269.73	0.70
1972.25	0.76	246.31	1971.94	24.27	-0.27	-28.56	28.57	269.47	0.27
1995.62	0.76	239.63	1995.32	24.58	-0.41	-28.84	28.84	269.19	0.38
2023.59	0.83	233.34	2023.28	24.96	-0.62	-29.16	29.17	268.78	0.41
2046.20	0.77	215.58	2045.89	25.27	-0.84	-29.38	29.40	268.36	1.13
2074.15	0.72	214.16	2073.83	25.60	-1.14	-29.59	29.61	267.80	0.18
2096.75	0.80	219.61	2096.43	25.88	-1.38	-29.77	29.80	267.35	0.48
2124.56	0.87	212.80	2124.24	26.25	-1.70	-30.01	30.06	266.75	0.43
2147.26	0.80	211.22	2146.94	26.55	-1.98	-30.18	30.25	266.24	0.29
2170.46	0.77	214.37	2170.13	26.84	-2.25	-30.36	30.44	265.76	0.24
2198.35	0.82	220.19	2198.02	27.20	-2.56	-30.59	30.70	265.22	0.34
2220.92	0.90	217.62	2220.59	27.52	-2.82	-30.80	30.93	264.77	0.42
2248.81	0.85	204.49	2248.48	27.91	-3.19	-31.02	31.19	264.14	0.74
2272.12	0.77	206.57	2271.78	28.18	-3.48	-31.16	31.36	263.62	0.40
2298.39	0.77	209.72	2298.05	28.49	-3.79	-31.33	31.56	263.10	0.16
2321.83	0.83	208.56	2321.49	28.78	-4.08	-31.49	31.75	262.62	0.26
2348.71	0.85	203.14	2348.37	29.11	-4.43	-31.66	31.97	262.03	0.31
2372.13	0.83	200.86	2371.79	29.39	-4.75	-31.79	32.14	261.50	0.18
2398.52	0.81	203.88	2398.17	29.70	-5.10	-31.93	32.34	260.93	0.18
2421.56	0.89	205.42	2421.21	29.99	-5.41	-32.08	32.53	260.42	0.37
2448.91	0.92	202.37	2448.56	30.35	-5.81	-32.25	32.77	259.79	0.21
2472.19	0.92	203.20	2471.84	30.65	-6.15	-32.40	32.97	259.25	0.06
2499.91	0.92	211.71	2499.55	31.04	-6.55	-32.60	33.25	258.65	0.49
2522.43	1.04	211.91	2522.07	31.38	-6.87	-32.80	33.51	258.17	0.52
2545.81	1.10	211.15	2545.45	31.77	-7.24	-33.03	33.82	257.63	0.27
2572.81	1.04	208.45	2572.44	32.22	-7.68	-33.28	34.15	257.01	0.29
2596.06	1.01	218.76	2595.68	32.60	-8.02	-33.51	34.46	256.53	0.80
2623.76	1.10	219.12	2623.38	33.08	-8.42	-33.83	34.86	256.02	0.31
2646.27	1.15	213.50	2645.89	33.49	-8.78	-34.09	35.20	255.56	0.54
2674.05	1.16	215.65	2673.66	34.01	-9.24	-34.41	35.63	254.97	0.17
2696.47	1.25	219.74	2696.08	34.45	-9.61	-34.70	36.00	254.52	0.54
2724.07	1.37	219.20	2723.67	35.05	-10.10	-35.10	36.52	253.95	0.45
2746.88	1.52	220.48	2746.47	35.60	-10.54	-35.47	37.00	253.45	0.66

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MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	Closure Distance ft	Closure Direction deg	DLS %/100ft
2773.47	1.55	219.89	2773.06	36.28	-11.08	-35.93	37.60	252.85	0.12
2796.33	1.47	221.02	2795.91	36.85	-11.54	-36.32	38.11	252.37	0.36
2822.90	1.49	222.93	2822.47	37.52	-12.05	-36.78	38.70	251.85	0.20
2845.71	1.57	222.67	2845.26	38.11	-12.50	-37.19	39.24	251.42	0.35
2872.86	1.60	221.56	2872.40	38.83	-13.06	-37.70	39.89	250.89	0.14
2899.29	1.53	221.78	2898.83	39.52	-13.60	-38.18	40.53	250.39	0.26
2922.20	1.48	220.33	2921.73	40.10	-14.05	-38.57	41.05	249.98	0.29
2949.46	1.53	225.62	2948.98	40.79	-14.57	-39.06	41.69	249.54	0.55
2971.53	1.57	223.68	2971.04	41.37	-15.00	-39.48	42.23	249.20	0.30
2998.66	1.38	225.46	2998.17	42.05	-15.50	-39.97	42.87	248.81	0.70
3020.82	1.31	227.14	3020.31	42.56	-15.86	-40.34	43.35	248.54	0.38
3047.93	1.31	232.96	3047.42	43.17	-16.25	-40.82	43.93	248.29	0.49
3070.56	1.35	239.37	3070.05	43.70	-16.54	-41.25	44.45	248.15	0.68
3097.17	1.32	239.00	3096.65	44.32	-16.86	-41.78	45.06	248.03	0.10
3124.26	1.24	242.42	3123.73	44.92	-17.16	-42.31	45.66	247.93	0.42
3146.26	1.25	245.98	3145.72	45.40	-17.36	-42.74	46.13	247.89	0.36
3173.45	1.37	246.66	3172.90	46.01	-17.61	-43.31	46.76	247.87	0.42
3196.15	1.43	245.04	3195.60	46.56	-17.84	-43.82	47.31	247.84	0.32
3222.59	1.39	244.18	3222.03	47.20	-18.12	-44.40	47.96	247.80	0.16
3249.60	1.49	251.87	3249.03	47.87	-18.37	-45.03	48.63	247.81	0.80
3272.25	1.44	250.08	3271.68	48.43	-18.56	-45.58	49.21	247.84	0.28
3298.63	1.53	250.07	3298.05	49.10	-18.79	-46.22	49.90	247.87	0.31
3321.27	1.50	246.86	3320.68	49.69	-19.01	-46.78	50.49	247.88	0.40
3348.05	1.46	247.65	3347.45	50.37	-19.28	-47.41	51.18	247.87	0.16
3372.95	1.42	250.30	3372.34	50.98	-19.50	-48.00	51.81	247.89	0.30
3397.56	1.53	252.90	3396.94	51.60	-19.70	-48.60	52.44	247.93	0.51
3421.67	1.49	246.86	3421.04	52.22	-19.92	-49.20	53.08	247.95	0.67
3449.30	1.35	235.09	3448.67	52.90	-20.25	-49.79	53.75	247.87	1.18
3466.28	1.34	238.93	3465.64	53.30	-20.47	-50.13	54.15	247.79	0.53
3497.67	1.37	243.39	3497.03	54.04	-20.83	-50.78	54.88	247.70	0.35
3520.96	1.37	239.34	3520.31	54.59	-21.09	-51.27	55.44	247.64	0.42
3548.38	1.40	233.30	3547.72	55.26	-21.46	-51.82	56.09	247.50	0.55
3574.33	1.34	226.80	3573.66	55.87	-21.86	-52.30	56.68	247.32	0.65
3597.23	1.33	226.72	3596.55	56.40	-22.22	-52.69	57.18	247.13	0.04
3623.90	1.27	229.92	3623.22	56.99	-22.63	-53.14	57.75	246.93	0.36
3646.18	1.31	229.24	3645.49	57.49	-22.95	-53.52	58.23	246.79	0.19

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3671.63	1.40	231.70	3670.94	58.09	-23.33	-53.98	58.81	246.62	0.44
3697.77	1.40	228.11	3697.07	58.72	-23.75	-54.47	59.42	246.45	0.34
3723.80	1.35	229.09	3723.09	59.33	-24.16	-54.94	60.02	246.26	0.21
3749.22	1.27	229.64	3748.50	59.91	-24.53	-55.38	60.57	246.10	0.31
3771.05	1.30	233.63	3770.33	60.39	-24.84	-55.76	61.04	245.99	0.43
3797.18	1.28	235.51	3796.46	60.98	-25.18	-56.24	61.62	245.88	0.17
3821.83	1.31	232.42	3821.10	61.54	-25.51	-56.69	62.17	245.78	0.29
3847.82	1.22	233.89	3847.08	62.11	-25.85	-57.15	62.73	245.66	0.34
3873.26	1.26	245.54	3872.52	62.66	-26.13	-57.62	63.27	245.61	1.00
3896.37	1.20	240.96	3895.61	63.15	-26.35	-58.07	63.77	245.59	0.51
3924.43	1.25	242.06	3923.67	63.75	-26.63	-58.59	64.36	245.55	0.19
3946.74	1.23	241.93	3945.98	64.23	-26.86	-59.02	64.84	245.53	0.08
3974.94	1.13	239.66	3974.17	64.81	-27.14	-59.53	65.42	245.49	0.37
3997.74	1.01	241.22	3996.97	65.23	-27.35	-59.90	65.85	245.45	0.58
4021.31	0.88	248.23	4020.54	65.62	-27.52	-60.25	66.23	245.45	0.72
4049.49	0.91	252.60	4048.71	66.05	-27.67	-60.66	66.67	245.48	0.26
4072.30	0.92	252.22	4071.52	66.40	-27.78	-61.01	67.04	245.52	0.04
4095.85	0.95	251.75	4095.06	66.77	-27.90	-61.37	67.42	245.56	0.15
4123.16	0.96	247.94	4122.37	67.22	-28.05	-61.80	67.87	245.58	0.23
4146.71	0.97	248.43	4145.91	67.61	-28.20	-62.17	68.27	245.60	0.08
4174.14	0.85	247.12	4173.35	68.04	-28.37	-62.57	68.70	245.61	0.45
4197.69	0.87	249.24	4196.89	68.38	-28.50	-62.90	69.06	245.63	0.16
4221.25	0.91	256.47	4220.45	68.74	-28.61	-63.25	69.42	245.67	0.51
4248.70	0.95	259.41	4247.89	69.16	-28.70	-63.69	69.86	245.74	0.23
4271.51	0.96	255.35	4270.70	69.51	-28.78	-64.06	70.23	245.81	0.30
4298.92	1.02	254.03	4298.11	69.97	-28.91	-64.52	70.70	245.87	0.24
4323.21	1.00	251.44	4322.39	70.38	-29.03	-64.93	71.12	245.91	0.20
4344.90	0.96	252.43	4344.08	70.74	-29.15	-65.28	71.49	245.94	0.22
4372.62	0.89	252.41	4371.79	71.17	-29.28	-65.70	71.93	245.98	0.24
4395.76	0.90	250.04	4394.94	71.52	-29.40	-66.05	72.29	246.00	0.18
4422.61	0.93	250.65	4421.78	71.94	-29.54	-66.45	72.72	246.03	0.11
4445.88	0.98	242.01	4445.05	72.33	-29.70	-66.81	73.11	246.03	0.66
4472.60	1.07	231.65	4471.77	72.80	-29.96	-67.20	73.58	245.97	0.77
4495.86	1.17	217.26	4495.02	73.24	-30.29	-67.52	74.00	245.84	1.28
4523.55	1.17	214.10	4522.70	73.76	-30.75	-67.85	74.49	245.62	0.23
4545.93	1.17	212.31	4545.08	74.18	-31.13	-68.10	74.87	245.43	0.16

# Survey Report

**Well Name:** ANDERSON #12-32  
**Survey:** ANDERSON #12-32 (05-123-23790)  
**Survey Date:** 11/4/2014

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	Closure Distance ft	Closure Direction deg	DLS °/100ft
4573.61	1.13	211.79	4572.76	74.68	-31.60	-68.39	75.34	245.20	0.13
4596.62	1.11	214.98	4595.75	75.09	-31.97	-68.64	75.72	245.02	0.28
4623.55	1.12	215.90	4622.69	75.58	-32.40	-68.94	76.18	244.83	0.07
4646.55	1.18	217.38	4645.68	76.01	-32.77	-69.22	76.58	244.67	0.29
4673.59	1.14	218.60	4672.71	76.52	-33.20	-69.55	77.07	244.48	0.18
4696.46	1.11	221.09	4695.58	76.95	-33.55	-69.84	77.48	244.34	0.24
4724.35	1.04	224.48	4723.46	77.45	-33.93	-70.20	77.97	244.20	0.34
4746.72	1.00	225.83	4745.83	77.84	-34.21	-70.48	78.34	244.11	0.20
4774.26	0.93	229.92	4773.37	78.30	-34.52	-70.82	78.79	244.01	0.35
4796.65	0.93	234.58	4795.75	78.66	-34.74	-71.11	79.14	243.96	0.34
4824.28	0.95	237.57	4823.38	79.11	-35.00	-71.49	79.59	243.92	0.19
4847.38	0.99	241.59	4846.48	79.50	-35.19	-71.82	79.98	243.89	0.34
4874.29	1.10	240.70	4873.38	79.99	-35.43	-72.25	80.47	243.88	0.41
4897.38	1.09	238.65	4896.47	80.43	-35.65	-72.63	80.91	243.85	0.17
4924.90	1.06	234.83	4923.98	80.95	-35.94	-73.06	81.42	243.81	0.29
4947.38	1.06	236.49	4946.46	81.36	-36.17	-73.40	81.83	243.77	0.14
4974.92	1.01	235.31	4973.99	81.86	-36.45	-73.82	82.32	243.72	0.17
4997.27	1.00	233.14	4996.35	82.25	-36.68	-74.13	82.71	243.68	0.18
5024.93	1.02	239.76	5023.99	82.74	-36.95	-74.54	83.19	243.63	0.43
5047.29	1.04	241.95	5046.36	83.14	-37.14	-74.89	83.60	243.62	0.20
5074.92	1.06	239.63	5073.98	83.64	-37.39	-75.33	84.10	243.60	0.17
5098.00	1.04	237.39	5097.06	84.07	-37.61	-75.69	84.52	243.58	0.20
5124.48	1.12	238.69	5123.53	84.57	-37.87	-76.12	85.02	243.55	0.32
5147.29	1.12	236.39	5146.33	85.01	-38.11	-76.50	85.46	243.52	0.20
5174.34	1.16	234.59	5173.38	85.55	-38.42	-76.94	86.00	243.46	0.18
5196.31	1.09	236.62	5195.34	85.98	-38.66	-77.29	86.42	243.43	0.37
5223.49	0.98	229.24	5222.53	86.47	-38.96	-77.68	86.90	243.37	0.63
5245.46	0.93	230.98	5244.49	86.83	-39.19	-77.97	87.26	243.31	0.25
5272.58	0.91	232.28	5271.60	87.27	-39.46	-78.31	87.69	243.25	0.11
5299.74	0.87	230.26	5298.77	87.69	-39.73	-78.64	88.10	243.20	0.21
5321.72	0.88	230.87	5320.73	88.02	-39.94	-78.90	88.43	243.15	0.08
5348.89	0.85	233.32	5347.91	88.43	-40.19	-79.22	88.83	243.10	0.19
5370.87	0.81	237.70	5369.89	88.75	-40.37	-79.48	89.15	243.07	0.33
5397.94	0.79	235.38	5396.95	89.13	-40.58	-79.80	89.53	243.04	0.15
5420.74	0.71	239.87	5419.75	89.42	-40.74	-80.05	89.82	243.03	0.46
5447.08	0.57	228.13	5446.09	89.71	-40.91	-80.29	90.11	243.00	0.73

# Survey Report

**Well Name:** ANDERSON #12-32  
**Survey:** ANDERSON #12-32 (05-123-23790)  
**Survey Date:** 11/4/2014

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	Closure Distance ft	Closure Direction deg	DLS °/100ft
5474.29	0.46	225.85	5473.30	89.95	-41.08	-80.47	90.34	242.96	0.38
5497.01	0.40	223.33	5496.02	90.12	-41.20	-80.59	90.51	242.92	0.28
5523.37	0.36	241.98	5522.38	90.29	-41.30	-80.72	90.68	242.90	0.49
5546.21	0.34	245.37	5545.21	90.43	-41.36	-80.85	90.81	242.90	0.11
5573.29	0.26	229.06	5572.29	90.57	-41.44	-80.97	90.95	242.90	0.43
5599.77	0.18	219.90	5598.77	90.67	-41.51	-81.04	91.05	242.88	0.32
5622.49	0.11	225.06	5621.49	90.72	-41.55	-81.08	91.10	242.86	0.30
5648.84	0.10	220.77	5647.85	90.77	-41.59	-81.11	91.15	242.85	0.05
5671.57	0.08	173.04	5670.58	90.80	-41.62	-81.12	91.18	242.84	0.34
5698.79	0.06	137.32	5697.79	90.80	-41.65	-81.11	91.18	242.82	0.17
5720.80	0.06	172.94	5719.80	90.81	-41.67	-81.10	91.18	242.81	0.16
5748.02	0.13	154.97	5747.02	90.82	-41.71	-81.09	91.19	242.78	0.28
5774.16	0.17	147.61	5773.16	90.82	-41.77	-81.05	91.18	242.74	0.18
5797.14	0.17	172.99	5796.14	90.83	-41.83	-81.03	91.19	242.70	0.33
5824.36	0.19	156.48	5823.37	90.86	-41.91	-81.01	91.21	242.64	0.20
5846.38	0.20	138.07	5845.38	90.86	-41.97	-80.97	91.20	242.60	0.29
5873.57	0.20	152.99	5872.57	90.85	-42.05	-80.92	91.19	242.54	0.19
5895.72	0.18	148.17	5894.72	90.86	-42.12	-80.88	91.19	242.49	0.10
5921.88	0.40	153.63	5920.88	90.87	-42.23	-80.82	91.19	242.41	0.85
5947.91	0.38	137.90	5946.91	90.86	-42.38	-80.72	91.17	242.30	0.42
5970.25	0.38	127.19	5969.25	90.82	-42.48	-80.61	91.12	242.21	0.32
5996.99	0.31	131.43	5995.99	90.77	-42.58	-80.48	91.05	242.12	0.28
6023.58	0.23	138.30	6022.58	90.74	-42.67	-80.39	91.01	242.04	0.33
6049.59	0.27	129.55	6048.59	90.72	-42.75	-80.31	90.98	241.97	0.22
6071.93	0.24	136.90	6070.93	90.69	-42.82	-80.23	90.95	241.91	0.21
6098.52	0.27	102.67	6097.52	90.64	-42.87	-80.13	90.88	241.85	0.58
6124.52	0.22	111.37	6123.52	90.56	-42.91	-80.03	90.81	241.80	0.25
6146.83	0.12	133.09	6145.83	90.53	-42.94	-79.97	90.77	241.77	0.50
6172.81	0.14	106.20	6171.81	90.51	-42.96	-79.92	90.74	241.74	0.24
6199.40	0.17	111.13	6198.40	90.46	-42.99	-79.86	90.69	241.71	0.13
6221.59	0.09	103.61	6220.59	90.43	-43.00	-79.81	90.66	241.68	0.37
6247.67	0.07	116.49	6246.67	90.41	-43.02	-79.77	90.63	241.67	0.09
6274.21	0.14	134.15	6273.21	90.39	-43.04	-79.74	90.61	241.64	0.27
6296.60	0.08	143.39	6295.60	90.38	-43.08	-79.71	90.60	241.61	0.25
6322.91	0.17	101.26	6321.91	90.35	-43.10	-79.66	90.57	241.58	0.45
6345.98	0.14	129.99	6344.98	90.32	-43.12	-79.60	90.53	241.55	0.35



# Survey Report

**Well Name:** ANDERSON #12-32  
**Survey:** ANDERSON #12-32 (05-123-23790)  
**Survey Date:** 11/4/2014

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	Closure Distance ft	Closure Direction deg	DLS %/100ft
6373.59	0.16	152.19	6372.59	90.31	-43.18	-79.56	90.52	241.51	0.23
6395.92	0.27	133.00	6394.92	90.30	-43.24	-79.51	90.51	241.46	0.59
6423.52	0.29	124.99	6422.52	90.26	-43.33	-79.40	90.45	241.38	0.16
6445.84	0.29	137.34	6444.84	90.23	-43.40	-79.32	90.42	241.31	0.28
6473.31	0.34	136.70	6472.31	90.20	-43.51	-79.22	90.38	241.22	0.19
6495.64	0.42	140.82	6494.64	90.18	-43.62	-79.12	90.35	241.13	0.37
6523.22	0.36	132.96	6522.22	90.15	-43.76	-78.99	90.30	241.02	0.29
6546.30	0.35	121.50	6545.29	90.10	-43.84	-78.88	90.25	240.93	0.31
6573.16	0.36	123.76	6572.16	90.03	-43.93	-78.74	90.17	240.84	0.06
6596.23	0.30	136.08	6595.23	89.98	-44.02	-78.64	90.12	240.76	0.40
6623.69	0.37	120.16	6622.68	89.93	-44.11	-78.51	90.06	240.67	0.43
6645.84	0.28	119.95	6644.84	89.87	-44.18	-78.41	89.99	240.60	0.42
6672.81	0.32	114.31	6671.80	89.80	-44.24	-78.28	89.92	240.53	0.19
6699.78	0.29	124.49	6698.77	89.73	-44.31	-78.16	89.84	240.45	0.22
6721.69	0.33	162.48	6720.68	89.73	-44.40	-78.09	89.83	240.38	0.94
6748.63	0.31	171.15	6747.63	89.78	-44.55	-78.06	89.87	240.29	0.20
6774.36	0.15	161.05	6773.36	89.81	-44.65	-78.03	89.90	240.22	0.62
6796.97	0.25	175.52	6795.96	89.84	-44.72	-78.02	89.93	240.18	0.48
6824.75	0.32	199.36	6823.75	89.93	-44.86	-78.04	90.02	240.11	0.49
6845.91	0.39	204.39	6844.90	90.04	-44.98	-78.09	90.12	240.06	0.35
6872.84	0.38	196.47	6871.83	90.18	-45.15	-78.15	90.26	239.99	0.20
6899.14	0.34	179.80	6898.14	90.29	-45.31	-78.18	90.36	239.91	0.43
6921.73	0.38	176.42	6920.72	90.36	-45.45	-78.17	90.43	239.83	0.22
6948.04	0.34	176.56	6947.03	90.44	-45.62	-78.16	90.50	239.73	0.15
6974.94	0.46	170.35	6973.93	90.52	-45.80	-78.14	90.58	239.62	0.45
6997.50	0.58	166.19	6996.49	90.59	-46.00	-78.10	90.64	239.50	0.56
7023.79	0.43	139.30	7022.77	90.62	-46.21	-78.00	90.66	239.36	1.04
7046.34	0.41	137.25	7045.33	90.59	-46.33	-77.89	90.63	239.26	0.11
7073.22	0.33	127.85	7072.20	90.55	-46.45	-77.77	90.58	239.15	0.38
7099.49	0.36	132.28	7098.48	90.50	-46.55	-77.64	90.53	239.06	0.16
7121.92	0.41	145.04	7120.90	90.48	-46.66	-77.55	90.50	238.96	0.44
7148.77	0.47	134.70	7147.76	90.45	-46.82	-77.41	90.47	238.83	0.37
7170.69	0.50	129.13	7169.67	90.40	-46.94	-77.28	90.42	238.72	0.24
7197.79	0.39	127.72	7196.77	90.33	-47.07	-77.11	90.34	238.60	0.41
7224.04	0.47	127.42	7223.02	90.26	-47.19	-76.96	90.27	238.48	0.34
7246.56	0.58	109.38	7245.54	90.16	-47.29	-76.77	90.17	238.37	0.88



Well Name: ANDERSON #12-32  
Survey: ANDERSON #12-32 (05-123-23790)  
Survey Date: 11/4/2014

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	Closure Distance ft	Closure Direction deg	DLS °/100ft
7273.50	0.66	104.94	7272.48	89.97	-47.37	-76.50	89.98	238.23	0.33
7299.54	0.49	91.33	7298.52	89.78	-47.41	-76.24	89.78	238.12	0.82
7322.18	0.36	99.97	7321.15	89.64	-47.43	-76.07	89.65	238.06	0.64
7349.32	0.37	102.73	7348.30	89.52	-47.46	-75.90	89.52	237.98	0.07
7372.78	0.45	103.06	7371.76	89.40	-47.50	-75.74	89.40	237.91	0.37
7395.89	0.39	106.70	7394.86	89.28	-47.54	-75.57	89.28	237.83	0.29
7422.74	0.35	117.14	7421.72	89.18	-47.61	-75.41	89.18	237.74	0.30
7445.78	0.28	93.70	7444.76	89.10	-47.64	-75.30	89.10	237.68	0.62
7473.06	0.33	89.10	7472.04	88.98	-47.64	-75.15	88.98	237.63	0.20
7498.76	0.37	64.59	7497.73	88.83	-47.61	-75.00	88.83	237.59	0.60
7524.25	0.47	43.84	7523.22	88.65	-47.50	-74.85	88.65	237.60	0.71
7548.34	0.37	60.15	7547.31	88.47	-47.38	-74.72	88.47	237.62	0.64
7565.76	0.29	40.78	7564.73	88.38	-47.32	-74.64	88.38	237.62	0.80