

XTOENERGY

Company: XTO Energy
Lease/Well: Outrider Federal No/006H

Rig Name: NorAm 25
State/County: New Mexico/Lea
VS-Azi: 0.00 Degrees
Latitude: 32.19520, Longitude: -103.66370
Grid North = True North -0.36 degs (NAD 27)
Grid Correction Applied = -0.36 degs



Depth Reference : RKB= 25 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: outrider federal #6h.ut
Minimum Curvature Method
Report Date/Time: 1/6/2016 / 10:15

VES Survey International
West Texas
432-563-5444
Surveyor: Eric Warner
Outrider Federal No 006H / API 30-025-42932

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	----
100.00	0.49	37.03	100.00	0.34	0.26	0.34	0.43	37.03	0.49
200.00	0.82	38.38	199.99	1.25	0.96	1.25	1.57	37.55	0.33
300.00	0.65	34.93	299.98	2.28	1.73	2.28	2.86	37.29	0.18
400.00	0.45	50.23	399.98	2.99	2.36	2.99	3.81	38.25	0.25
500.00	0.23	174.31	499.98	3.04	2.68	3.04	4.05	41.33	0.60
600.00	0.75	219.61	599.97	2.34	2.28	2.34	3.27	44.23	0.62
700.00	1.41	221.37	699.96	0.91	1.05	0.91	1.39	48.95	0.66
800.00	2.02	227.91	799.91	-1.19	-1.07	-1.19	1.60	222.00	0.64
900.00	2.39	230.91	899.84	-3.68	-4.00	-3.68	5.44	227.32	0.39
1000.00	2.22	228.72	999.76	-6.28	-7.07	-6.28	9.45	228.40	0.19
1100.00	1.51	225.71	1099.70	-8.47	-9.47	-8.47	12.71	228.17	0.71
1200.00	1.32	221.07	1199.67	-10.26	-11.17	-10.26	15.17	227.42	0.22
1300.00	1.07	218.11	1299.65	-11.87	-12.50	-11.87	17.24	226.49	0.26
1400.00	1.07	215.65	1399.63	-13.36	-13.62	-13.36	19.08	225.56	0.05
1500.00	1.03	212.53	1499.62	-14.88	-14.65	-14.88	20.89	224.56	0.07
1600.00	1.16	208.32	1599.60	-16.53	-15.62	-16.53	22.74	223.37	0.15

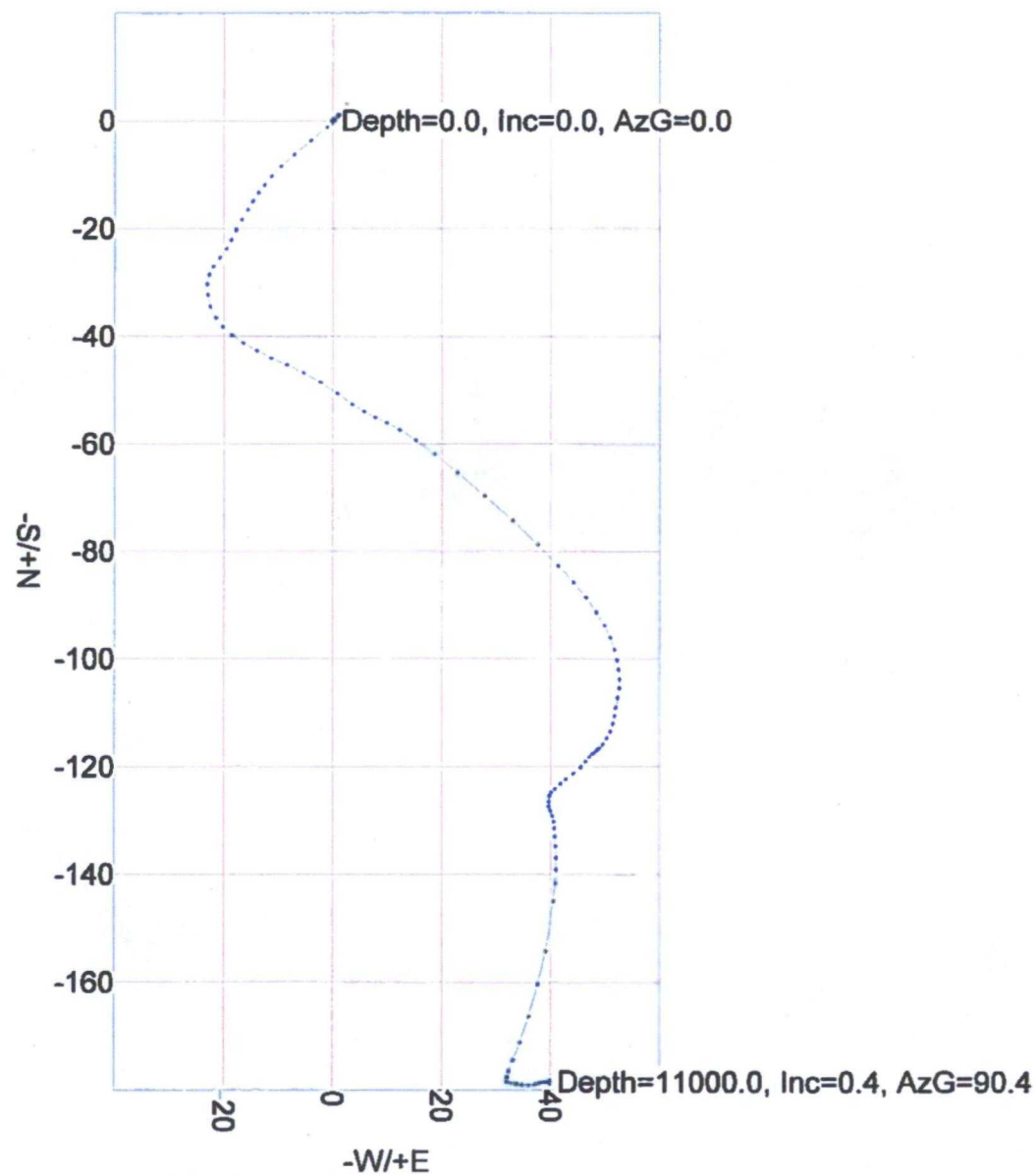
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1700.00	1.23	210.81	1699.58	-18.34	-16.65	-18.34	24.77	222.22	0.08
1800.00	1.38	206.61	1799.55	-20.34	-17.73	-20.34	26.98	221.09	0.18
1900.00	0.96	204.58	1899.53	-22.18	-18.62	-22.18	28.96	220.02	0.42
2000.00	1.08	212.08	1999.51	-23.74	-19.47	-23.74	30.71	219.36	0.18
2100.00	1.28	220.50	2099.49	-25.39	-20.70	-25.39	32.76	219.19	0.26
2200.00	0.99	211.26	2199.47	-26.98	-21.87	-26.98	34.73	219.03	0.34
2300.00	0.97	201.50	2299.46	-28.50	-22.63	-28.50	36.40	218.45	0.17
2400.00	1.10	182.38	2399.44	-30.25	-22.98	-30.25	37.99	217.22	0.37
2500.00	1.25	174.10	2499.42	-32.30	-22.91	-32.30	39.60	215.35	0.22
2600.00	1.38	161.19	2599.39	-34.52	-22.41	-34.52	41.15	212.99	0.32
2700.00	1.25	148.06	2699.37	-36.58	-21.44	-36.58	42.40	210.38	0.33
2800.00	1.15	135.99	2799.35	-38.23	-20.17	-38.23	43.22	207.82	0.27
2900.00	1.41	129.38	2899.32	-39.73	-18.53	-39.73	43.84	205.00	0.30
3000.00	1.62	122.13	2999.29	-41.26	-16.38	-41.26	44.39	201.65	0.28
3100.00	1.65	118.40	3099.25	-42.70	-13.91	-42.70	44.91	198.04	0.11
3200.00	1.72	115.70	3199.20	-44.04	-11.29	-44.04	45.46	194.38	0.11
3300.00	1.93	112.12	3299.15	-45.32	-8.37	-45.32	46.09	190.47	0.24
3400.00	1.97	119.26	3399.09	-46.80	-5.31	-46.80	47.10	186.48	0.25
3500.00	2.08	120.38	3499.03	-48.55	-2.25	-48.55	48.60	182.66	0.12
3600.00	2.29	128.39	3598.96	-50.71	0.87	-50.71	50.71	179.01	0.37
3700.00	1.58	124.45	3698.90	-52.72	3.57	-52.72	52.84	176.13	0.72
3800.00	1.34	120.46	3798.87	-54.09	5.71	-54.09	54.39	173.97	0.25
3900.00	1.29	113.04	3898.84	-55.13	7.76	-55.13	55.67	171.99	0.18
4000.00	1.45	116.03	3998.81	-56.12	9.93	-56.12	56.99	169.97	0.18
4100.00	1.69	120.59	4098.78	-57.43	12.34	-57.43	58.74	167.88	0.27
4200.00	2.25	123.78	4198.72	-59.27	15.24	-59.27	61.20	165.58	0.57
4300.00	2.72	128.73	4298.62	-61.85	18.72	-61.85	64.62	163.16	0.52
4400.00	3.50	130.43	4398.48	-65.31	22.89	-65.31	69.21	160.68	0.79
4500.00	4.10	131.16	4498.26	-69.64	27.91	-69.64	75.03	158.16	0.60
4600.00	3.88	132.92	4598.01	-74.30	33.08	-74.30	81.33	156.00	0.25
4700.00	3.44	135.73	4697.81	-78.75	37.65	-78.75	87.29	154.45	0.48
4800.00	2.79	137.93	4797.66	-82.71	41.37	-82.71	92.48	153.42	0.65
4900.00	2.01	138.24	4897.57	-85.82	44.17	-85.82	96.52	152.77	0.78
5000.00	2.09	142.92	4997.51	-88.59	46.44	-88.59	100.02	152.33	0.18
5100.00	1.78	147.21	5097.45	-91.35	48.38	-91.35	103.37	152.09	0.34
5200.00	1.52	150.34	5197.41	-93.81	49.88	-93.81	106.24	152.00	0.28
5300.00	1.42	158.63	5297.38	-96.11	50.99	-96.11	108.80	152.05	0.23
5400.00	1.27	164.96	5397.35	-98.34	51.73	-98.34	111.12	152.26	0.21
5500.00	0.97	168.87	5497.33	-100.25	52.18	-100.25	113.01	152.50	0.31

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5600.00	1.10	170.39	5597.31	-102.02	52.60	-102.02	114.74	152.77	0.13
5700.00	0.99	179.75	5697.30	-103.83	52.67	-103.83	116.43	153.10	0.20
5800.00	0.92	186.79	5797.28	-105.49	52.68	-105.49	117.87	153.51	0.14
5900.00	1.11	190.36	5897.27	-107.23	52.31	-107.23	119.31	154.00	0.20
6000.00	0.99	189.29	5997.25	-109.04	52.00	-109.04	120.80	154.51	0.12
6100.00	0.78	187.16	6097.24	-110.57	51.77	-110.57	122.09	154.91	0.22
6200.00	0.96	195.53	6197.23	-112.05	51.46	-112.05	123.30	155.33	0.22
6300.00	0.80	202.62	6297.22	-113.49	50.97	-113.49	124.41	155.81	0.20
6400.00	0.75	210.23	6397.21	-114.70	50.37	-114.70	125.27	156.29	0.11
6500.00	0.89	215.99	6497.20	-115.89	49.59	-115.89	126.06	156.84	0.17
6600.00	0.15	247.48	6597.19	-116.57	49.01	-116.57	126.46	157.20	0.77
6700.00	0.07	207.64	6697.19	-116.67	48.87	-116.67	126.49	157.27	0.11
6800.00	0.18	233.38	6797.19	-116.82	48.72	-116.82	126.57	157.36	0.12
6900.00	0.28	226.47	6897.19	-117.08	48.42	-117.08	126.69	157.53	0.10
7000.00	0.35	232.40	6997.19	-117.43	48.00	-117.43	126.86	157.77	0.08
7100.00	0.11	240.80	7097.19	-117.66	47.68	-117.66	126.95	157.94	0.25
7200.00	0.74	223.27	7197.18	-118.18	47.15	-118.18	127.24	158.25	0.64
7300.00	0.57	212.85	7297.18	-119.07	46.43	-119.07	127.80	158.70	0.21
7400.00	0.95	226.35	7397.17	-120.06	45.57	-120.06	128.42	159.22	0.42
7500.00	1.13	230.55	7497.15	-121.26	44.20	-121.26	129.06	159.97	0.20
7600.00	0.86	233.17	7597.14	-122.34	42.84	-122.34	129.62	160.70	0.27
7700.00	0.66	227.70	7697.13	-123.17	41.81	-123.17	130.08	161.25	0.22
7800.00	0.87	225.68	7797.12	-124.09	40.85	-124.09	130.64	161.78	0.21
7900.00	0.29	233.81	7897.11	-124.77	40.10	-124.77	131.06	162.19	0.58
8000.00	0.58	194.62	7997.11	-125.42	39.76	-125.42	131.57	162.41	0.40
8100.00	0.68	180.53	8097.10	-126.50	39.63	-126.50	132.57	162.61	0.19
8200.00	0.35	169.86	8197.10	-127.40	39.67	-127.40	133.44	162.70	0.34
8300.00	0.60	152.71	8297.10	-128.17	39.97	-128.17	134.26	162.88	0.28
8400.00	0.67	165.40	8397.09	-129.19	40.35	-129.19	135.35	162.95	0.16
8500.00	0.56	170.32	8497.09	-130.24	40.58	-130.24	136.42	162.99	0.11
8600.00	0.77	177.55	8597.08	-131.40	40.69	-131.40	137.55	162.79	0.22
8700.00	1.01	175.37	8697.07	-132.95	40.79	-132.95	139.06	162.94	0.25
8800.00	1.11	176.33	8797.05	-134.79	40.93	-134.79	140.87	163.11	0.10
8900.00	1.28	178.74	8897.03	-136.87	41.01	-136.87	142.89	163.32	0.18
9000.00	1.27	180.10	8997.00	-139.10	41.04	-139.10	145.02	163.56	0.03
9100.00	1.68	185.79	9096.97	-141.66	40.89	-141.66	147.44	163.90	0.43
9200.00	2.11	186.59	9196.91	-144.95	40.53	-144.95	150.50	164.38	0.43
9300.00	2.65	188.03	9296.83	-149.07	39.99	-149.07	154.34	164.98	0.54
9400.00	3.34	191.28	9396.69	-154.21	39.10	-154.21	159.09	165.77	0.71

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
9500.00	3.88	194.31	9496.49	-160.35	37.69	-160.35	164.72	166.77	0.58
9600.00	3.26	197.50	9596.30	-166.33	36.00	-166.33	170.19	167.79	0.66
9700.00	2.40	199.49	9696.18	-171.02	34.45	-171.02	174.45	168.61	0.86
9800.00	1.65	202.46	9796.11	-174.33	33.20	-174.33	177.46	169.22	0.76
9900.00	0.82	198.89	9896.09	-176.34	32.42	-176.34	179.29	169.58	0.84
10000.00	0.66	195.88	9996.08	-177.57	32.03	-177.57	180.43	169.78	0.17
10100.00	0.40	147.70	10096.08	-178.41	32.06	-178.41	181.27	169.81	0.49
10200.00	0.61	89.10	10196.07	-178.70	32.78	-178.70	181.68	169.81	0.53
10300.00	0.52	99.75	10296.07	-178.76	33.76	-178.76	181.92	169.31	0.14
10400.00	0.66	101.53	10396.06	-178.95	34.77	-178.95	182.30	169.01	0.14
10500.00	0.79	87.77	10496.05	-179.04	36.01	-179.04	182.63	168.63	0.22
10600.00	0.55	76.89	10596.05	-178.91	37.17	-178.91	182.73	168.26	0.26
10700.00	0.43	69.74	10696.04	-178.66	38.00	-178.66	182.66	167.99	0.13
10800.00	0.29	80.92	10796.04	-178.49	38.60	-178.49	182.62	167.80	0.16
10900.00	0.31	85.84	10896.04	-178.43	39.13	-178.43	182.67	167.63	0.03
11000.00	0.35	90.38	10996.04	-178.42	39.70	-178.42	182.78	167.45	0.05

XTOENERGY

VES Survey International
West Texas
432-563-5444
Surveyor: Eric Warner
Outrider Federal No 006H / API 30-025-42932



V.E.S. Survey Date: 12/29/2015

XTOENERGY

Company: XTO Energy
Lease/Well: Outrider Federal No/006H



Rig Name: NorAm 25
State/County: New Mexico/Lea
VS-Azi: 0.00 Degrees
Latitude: 32.19520, Longitude: -103.66370
Grid North = True North -0.36 degs (NAD 27)
Grid Correction Applied = -0.36 degs

Depth Reference : RKB= 25 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: outrider federal #6h.ut
Minimum Curvature Method
Report Date/Time: 1/6/2016 / 10:15

VES Survey International
West Texas
432-563-5444
Surveyor: Eric Warner
Outrider Federal No 006H / API 30-025-42932

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	----
100.00	0.49	37.03	100.00	0.34	0.26	0.34	0.43	37.03	0.49
200.00	0.82	38.38	199.99	1.25	0.96	1.25	1.57	37.55	0.33
300.00	0.65	34.93	299.98	2.28	1.73	2.28	2.86	37.29	0.18
400.00	0.46	50.23	399.98	2.99	2.36	2.99	3.81	38.25	0.25
500.00	0.23	174.31	499.98	3.04	2.68	3.04	4.05	41.33	0.60
600.00	0.75	219.61	599.97	2.34	2.28	2.34	3.27	44.23	0.62
700.00	1.41	221.37	699.96	0.91	1.05	0.91	1.39	48.95	0.66
800.00	2.02	227.91	799.91	-1.19	-1.07	-1.19	1.60	222.00	0.64
900.00	2.39	230.91	899.84	-3.68	-4.00	-3.68	5.44	227.32	0.39
1000.00	2.22	228.72	999.76	-6.28	-7.07	-6.28	9.45	228.40	0.19
1100.00	1.51	225.71	1099.70	-8.47	-9.47	-8.47	12.71	228.17	0.71
1200.00	1.32	221.07	1199.67	-10.26	-11.17	-10.26	15.17	227.42	0.22
1300.00	1.07	218.11	1299.65	-11.87	-12.50	-11.87	17.24	226.49	0.26
1400.00	1.07	215.65	1399.63	-13.36	-13.62	-13.36	19.08	225.56	0.05
1500.00	1.03	212.53	1499.62	-14.88	-14.65	-14.88	20.89	224.56	0.07
1600.00	1.16	208.32	1599.60	-16.53	-15.62	-16.53	22.74	223.37	0.15

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1700.00	1.23	210.81	1699.58	-18.34	-16.65	-18.34	24.77	222.22	0.08
1800.00	1.38	206.61	1799.55	-20.34	-17.73	-20.34	26.98	221.09	0.18
1900.00	0.96	204.58	1899.53	-22.18	-18.62	-22.18	28.96	220.02	0.42
2000.00	1.08	212.08	1999.51	-23.74	-19.47	-23.74	30.71	219.36	0.18
2100.00	1.28	220.50	2099.49	-25.39	-20.70	-25.39	32.78	219.19	0.26
2200.00	0.99	211.26	2199.47	-26.98	-21.87	-26.98	34.73	219.03	0.34
2300.00	0.97	201.50	2299.46	-28.50	-22.63	-28.50	36.40	218.45	0.17
2400.00	1.10	182.38	2399.44	-30.25	-22.98	-30.25	37.99	217.22	0.37
2500.00	1.25	174.10	2499.42	-32.30	-22.91	-32.30	39.60	216.35	0.22
2600.00	1.38	161.19	2599.39	-34.62	-22.41	-34.62	41.15	212.99	0.32
2700.00	1.25	148.06	2699.37	-36.58	-21.44	-36.58	42.40	210.38	0.33
2800.00	1.15	135.99	2799.36	-38.23	-20.17	-38.23	43.22	207.82	0.27
2900.00	1.41	129.38	2899.32	-39.73	-18.53	-39.73	43.84	205.00	0.30
3000.00	1.62	122.13	2999.29	-41.26	-16.38	-41.26	44.39	201.65	0.28
3100.00	1.65	118.40	3099.25	-42.70	-13.91	-42.70	44.91	198.04	0.11
3200.00	1.72	116.70	3199.20	-44.04	-11.29	-44.04	45.46	194.38	0.11
3300.00	1.93	112.12	3299.16	-45.32	-8.37	-45.32	46.09	190.47	0.24
3400.00	1.97	119.26	3399.09	-46.80	-5.31	-46.80	47.10	186.48	0.25
3500.00	2.08	120.38	3499.03	-48.55	-2.25	-48.55	48.60	182.66	0.12
3600.00	2.29	128.39	3598.96	-50.71	0.87	-50.71	50.71	179.01	0.37
3700.00	1.58	124.45	3698.90	-52.72	3.57	-52.72	52.84	176.13	0.72
3800.00	1.34	120.46	3798.87	-54.09	5.71	-54.09	54.39	173.97	0.25
3900.00	1.29	113.04	3898.84	-55.13	7.76	-55.13	55.67	171.99	0.18
4000.00	1.45	116.03	3998.81	-56.12	9.93	-56.12	56.99	169.97	0.18
4100.00	1.69	120.59	4098.78	-57.43	12.34	-57.43	58.74	167.88	0.27
4200.00	2.25	123.78	4198.72	-59.27	15.24	-59.27	61.20	165.58	0.57
4300.00	2.72	128.73	4298.62	-61.85	18.72	-61.85	64.62	163.16	0.52
4400.00	3.50	130.43	4398.48	-65.31	22.89	-65.31	69.21	160.68	0.79
4500.00	4.10	131.16	4498.26	-69.64	27.91	-69.64	75.03	158.16	0.60
4600.00	3.88	132.92	4598.01	-74.30	33.08	-74.30	81.33	156.00	0.25
4700.00	3.44	135.73	4697.81	-78.75	37.65	-78.75	87.29	154.45	0.48
4800.00	2.79	137.93	4797.66	-82.71	41.37	-82.71	92.48	153.42	0.65
4900.00	2.01	138.24	4897.57	-85.82	44.17	-85.82	96.52	152.77	0.78
5000.00	2.09	142.92	4997.51	-88.59	46.44	-88.59	100.02	152.33	0.18
5100.00	1.78	147.21	5097.46	-91.35	48.38	-91.35	103.37	152.09	0.34
5200.00	1.52	150.34	5197.41	-93.81	49.88	-93.81	106.24	152.00	0.28
5300.00	1.42	158.63	5297.38	-96.11	50.99	-96.11	108.80	152.05	0.23
5400.00	1.27	164.96	5397.35	-98.34	51.73	-98.34	111.12	152.26	0.21
5500.00	0.97	168.87	5497.33	-100.25	52.18	-100.25	113.01	152.50	0.31

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5600.00	1.10	170.39	5597.31	-102.02	52.50	-102.02	114.74	152.77	0.13
5700.00	0.99	179.75	5697.30	-103.83	52.67	-103.83	116.43	153.10	0.20
5800.00	0.92	186.79	5797.28	-105.49	52.58	-105.49	117.87	153.51	0.14
5900.00	1.11	190.36	5897.27	-107.23	52.31	-107.23	119.31	154.00	0.20
6000.00	0.99	189.29	5997.25	-109.04	52.00	-109.04	120.80	154.51	0.12
6100.00	0.78	187.16	6097.24	-110.57	51.77	-110.57	122.09	154.91	0.22
6200.00	0.96	195.53	6197.23	-112.05	51.46	-112.05	123.30	155.33	0.22
6300.00	0.80	202.62	6297.22	-113.49	50.97	-113.49	124.41	155.81	0.20
6400.00	0.75	210.23	6397.21	-114.70	50.37	-114.70	125.27	156.29	0.11
6500.00	0.89	215.99	6497.20	-115.89	49.59	-115.89	126.06	156.84	0.17
6600.00	0.15	247.48	6597.19	-116.57	49.01	-116.57	126.46	157.20	0.77
6700.00	0.07	207.64	6697.19	-116.67	48.87	-116.67	126.49	157.27	0.11
6800.00	0.18	233.38	6797.19	-116.82	48.72	-116.82	126.57	157.36	0.12
6900.00	0.28	226.47	6897.19	-117.08	48.42	-117.08	126.69	157.53	0.10
7000.00	0.35	232.40	6997.19	-117.43	48.00	-117.43	126.86	157.77	0.08
7100.00	0.11	240.80	7097.19	-117.66	47.68	-117.66	126.95	157.94	0.25
7200.00	0.74	223.27	7197.18	-118.18	47.15	-118.18	127.24	158.25	0.64
7300.00	0.57	212.85	7297.18	-119.07	46.43	-119.07	127.80	158.70	0.21
7400.00	0.95	226.35	7397.17	-120.06	45.57	-120.06	128.42	159.22	0.42
7500.00	1.13	230.55	7497.15	-121.26	44.20	-121.26	129.06	159.97	0.20
7600.00	0.86	233.17	7597.14	-122.34	42.84	-122.34	129.62	160.70	0.27
7700.00	0.66	227.70	7697.13	-123.17	41.81	-123.17	130.08	161.25	0.22
7800.00	0.87	225.68	7797.12	-124.09	40.85	-124.09	130.64	161.78	0.21
7900.00	0.29	233.81	7897.11	-124.77	40.10	-124.77	131.06	162.19	0.58
8000.00	0.58	194.62	7997.11	-125.42	39.76	-125.42	131.57	162.41	0.40
8100.00	0.68	180.53	8097.10	-126.50	39.63	-126.50	132.57	162.61	0.19
8200.00	0.35	169.86	8197.10	-127.40	39.67	-127.40	133.44	162.70	0.34
8300.00	0.60	152.71	8297.10	-128.17	39.97	-128.17	134.26	162.68	0.28
8400.00	0.67	165.40	8397.09	-129.19	40.35	-129.19	135.35	162.65	0.16
8500.00	0.56	170.32	8497.09	-130.24	40.58	-130.24	136.42	162.69	0.11
8600.00	0.77	177.55	8597.08	-131.40	40.69	-131.40	137.55	162.79	0.22
8700.00	1.01	175.37	8697.07	-132.95	40.79	-132.95	139.06	162.94	0.25
8800.00	1.11	176.33	8797.05	-134.79	40.93	-134.79	140.87	163.11	0.10
8900.00	1.28	178.74	8897.03	-136.87	41.01	-136.87	142.89	163.32	0.18
9000.00	1.27	180.10	8997.00	-139.10	41.04	-139.10	145.02	163.56	0.03
9100.00	1.68	185.79	9096.97	-141.66	40.89	-141.66	147.44	163.90	0.43
9200.00	2.11	186.59	9196.91	-144.95	40.53	-144.95	150.50	164.38	0.43
9300.00	2.65	188.03	9296.83	-149.07	39.99	-149.07	154.34	164.98	0.54
9400.00	3.34	191.28	9396.69	-154.21	39.10	-154.21	159.09	165.77	0.71

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
9500.00	3.88	194.31	9496.49	-160.35	37.69	-160.35	164.72	166.77	0.58
9600.00	3.26	197.50	9596.30	-166.33	36.00	-166.33	170.19	167.79	0.66
9700.00	2.40	199.49	9696.18	-171.02	34.45	-171.02	174.45	168.61	0.86
9800.00	1.65	202.46	9796.11	-174.33	33.20	-174.33	177.46	169.22	0.76
9900.00	0.82	198.89	9896.09	-176.34	32.42	-176.34	179.29	169.58	0.84
10000.00	0.66	195.88	9996.08	-177.57	32.03	-177.57	180.43	169.78	0.17
10100.00	0.40	147.70	10096.08	-178.41	32.06	-178.41	181.27	169.81	0.49
10200.00	0.61	89.10	10196.07	-178.70	32.78	-178.70	181.68	169.61	0.53
10300.00	0.52	99.75	10296.07	-178.76	33.76	-178.76	181.92	169.31	0.14
10400.00	0.66	101.53	10396.06	-178.95	34.77	-178.95	182.30	169.01	0.14
10500.00	0.79	87.77	10496.05	-179.04	36.01	-179.04	182.63	168.63	0.22
10600.00	0.55	76.89	10596.05	-178.91	37.17	-178.91	182.73	168.26	0.26
10700.00	0.43	69.74	10696.04	-178.86	38.00	-178.86	182.66	167.99	0.13
10800.00	0.29	80.92	10796.04	-178.49	38.60	-178.49	182.62	167.80	0.16
10900.00	0.31	85.84	10896.04	-178.43	39.13	-178.43	182.67	167.63	0.03
11000.00	0.35	90.38	10996.04	-178.42	39.70	-178.42	182.78	167.45	0.05

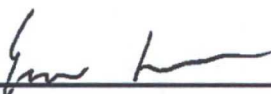


HOBBS OCD

OCT 13 2016

RECEIVED

I Eric Warner certify that I am employed by VES Survey International. That I did on the day(s) of 12/29/15 through 12/29/15 conduct or supervise the taking of a Rate Gyro survey from a depth of 0.00 feet to a depth of 11,000.00 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and qualified to make this report; that this survey was conducted at the request of XTO Energy for the Outrider Federal Well # 6H API # 30-025-42932 in Lea County / Parish New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Vaughn Energy Services



Eric Warner
Service Technician
Vaughn Energy Services



NorAm Drilling Company

A GLOBAL RIG COMPANY ASA

Operator: XTO Energy

Well & Lease Number: Outrider Federal 6H

County: Lea

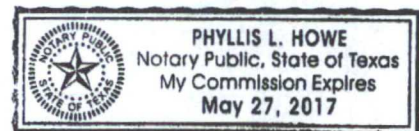
State of New Mexico

Deviation Report

Footage	Degree
300	0.65
600	0.75
900	2.39
1200	1.32
1700	1.23
2200	0.99
2700	1.25
3200	1.72
3700	1.58
4200	2.25
4700	3.44
5200	1.52
5700	0.99
6200	0.96
6700	0.07
7200	0.74
7700	0.66
8200	0.35
8700	1.01
9200	2.11
9700	2.40
10100	0.40

Completed by: Will Luker

Will Luker, Safety Director
NorAm Drilling Company



Appeared before me on: 8/24/16

Notary Public: Phyllis L. Howe

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