

# **EXTRACTION OIL & GAS**

**SEC 19 T7N R65W**

**WAAG NORTH**

**WAAG 1 - Slot WAAG 1**

**Wellbore #1**

**Plan: Plan #1 01Aug14 jps**

## **Standard Planning Report - Geographic**

**13 August, 2014**

# New Tech

## Planning Report - Geographic

<b>Database:</b>	EDM 2003.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well WAAG 1 - Slot WAAG 1
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	WELL @ 4918.0ft (Xtreme 7)
<b>Project:</b>	SEC 19 T7N R65W	<b>MD Reference:</b>	WELL @ 4918.0ft (Xtreme 7)
<b>Site:</b>	WAAG NORTH	<b>North Reference:</b>	True
<b>Well:</b>	WAAG 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 01Aug14 jps		

<b>Project</b>	SEC 19 T7N R65W, Weld County, CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

<b>Site</b>	WAAG NORTH			
<b>Site Position:</b>		<b>Northing:</b>	1,450,756.94 ft	<b>Latitude:</b> 40° 34' 4.944 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,219,613.80 ft	<b>Longitude:</b> 104° 42' 34.200 W
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	"	<b>Grid Convergence:</b> 0.51 °

<b>Well</b>	WAAG 1 - Slot WAAG 1			
<b>Well Position</b>	<b>+N/-S</b>	0.0 ft	<b>Northing:</b>	1,450,756.94 ft
	<b>+E/-W</b>	0.0 ft	<b>Easting:</b>	3,219,613.80 ft
<b>Position Uncertainty</b>		0.0 ft	<b>Wellhead Elevation:</b>	ft
			<b>Ground Level:</b>	4,902.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	8/1/2014	8.43	67.09	52,894

<b>Design</b>	Plan #1 01Aug14 jps			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	270.84

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,465.8	11.32	90.41	1,462.2	-0.4	55.7	2.00	2.00	0.00	90.41	
6,266.9	11.32	90.41	6,169.8	-7.1	997.8	0.00	0.00	0.00	0.00	
6,832.7	0.00	0.00	6,732.0	-7.5	1,053.5	2.00	-2.00	0.00	180.00	
6,862.7	0.00	0.00	6,762.0	-7.5	1,053.5	0.00	0.00	0.00	0.00	
7,762.7	90.00	270.75	7,335.0	0.0	480.6	10.00	10.00	0.00	270.75	
12,255.3	90.00	270.74	7,335.0	58.6	-4,011.7	0.00	0.00	0.00	0.00	TD / PBHL WAAG NC

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## Planning Report - Geographic

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<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	WELL @ 4918.0ft (Xtreme 7)
<b>Project:</b>	SEC 19 T7N R65W	<b>MD Reference:</b>	WELL @ 4918.0ft (Xtreme 7)
<b>Site:</b>	WAAG NORTH	<b>North Reference:</b>	True
<b>Well:</b>	WAAG 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 01Aug14 jps		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	1,450,756.94	3,219,613.80	40° 34' 4.944 N	104° 42' 34.200 W
100.0	0.00	0.00	100.0	0.0	0.0	1,450,756.94	3,219,613.80	40° 34' 4.944 N	104° 42' 34.200 W
200.0	0.00	0.00	200.0	0.0	0.0	1,450,756.94	3,219,613.80	40° 34' 4.944 N	104° 42' 34.200 W
300.0	0.00	0.00	300.0	0.0	0.0	1,450,756.94	3,219,613.80	40° 34' 4.944 N	104° 42' 34.200 W
400.0	0.00	0.00	400.0	0.0	0.0	1,450,756.94	3,219,613.80	40° 34' 4.944 N	104° 42' 34.200 W
500.0	0.00	0.00	500.0	0.0	0.0	1,450,756.94	3,219,613.80	40° 34' 4.944 N	104° 42' 34.200 W
600.0	0.00	0.00	600.0	0.0	0.0	1,450,756.94	3,219,613.80	40° 34' 4.944 N	104° 42' 34.200 W
700.0	0.00	0.00	700.0	0.0	0.0	1,450,756.94	3,219,613.80	40° 34' 4.944 N	104° 42' 34.200 W
800.0	0.00	0.00	800.0	0.0	0.0	1,450,756.94	3,219,613.80	40° 34' 4.944 N	104° 42' 34.200 W
850.0	0.00	0.00	850.0	0.0	0.0	1,450,756.94	3,219,613.80	40° 34' 4.944 N	104° 42' 34.200 W
<b>9 5/8"</b>									
900.0	0.00	0.00	900.0	0.0	0.0	1,450,756.94	3,219,613.80	40° 34' 4.944 N	104° 42' 34.200 W
<b>Start Build 2.00</b>									
1,000.0	2.00	90.41	1,000.0	0.0	1.7	1,450,756.95	3,219,615.54	40° 34' 4.944 N	104° 42' 34.177 W
1,100.0	4.00	90.41	1,099.8	0.0	7.0	1,450,756.96	3,219,620.78	40° 34' 4.943 N	104° 42' 34.110 W
1,200.0	6.00	90.41	1,199.5	-0.1	15.7	1,450,756.97	3,219,629.49	40° 34' 4.943 N	104° 42' 33.997 W
1,300.0	8.00	90.41	1,298.7	-0.2	27.9	1,450,756.99	3,219,641.68	40° 34' 4.942 N	104° 42' 33.839 W
1,400.0	10.00	90.41	1,397.5	-0.3	43.5	1,450,757.02	3,219,657.32	40° 34' 4.941 N	104° 42' 33.636 W
1,465.8	11.32	90.41	1,462.2	-0.4	55.7	1,450,757.04	3,219,669.50	40° 34' 4.940 N	104° 42' 33.478 W
<b>Hold 11.32° Inc, 90.41° Az</b>									
1,500.0	11.32	90.41	1,495.7	-0.4	62.4	1,450,757.06	3,219,676.20	40° 34' 4.940 N	104° 42' 33.391 W
1,600.0	11.32	90.41	1,593.7	-0.6	82.0	1,450,757.09	3,219,695.82	40° 34' 4.938 N	104° 42' 33.137 W
1,700.0	11.32	90.41	1,691.8	-0.7	101.6	1,450,757.13	3,219,715.45	40° 34' 4.937 N	104° 42' 32.883 W
1,800.0	11.32	90.41	1,789.8	-0.9	121.3	1,450,757.16	3,219,735.07	40° 34' 4.935 N	104° 42' 32.629 W
1,900.0	11.32	90.41	1,887.9	-1.0	140.9	1,450,757.20	3,219,754.69	40° 34' 4.934 N	104° 42' 32.374 W
2,000.0	11.32	90.41	1,985.9	-1.1	160.5	1,450,757.23	3,219,774.32	40° 34' 4.933 N	104° 42' 32.120 W
2,100.0	11.32	90.41	2,084.0	-1.3	180.1	1,450,757.27	3,219,793.94	40° 34' 4.931 N	104° 42' 31.866 W
2,200.0	11.32	90.41	2,182.1	-1.4	199.8	1,450,757.30	3,219,813.56	40° 34' 4.930 N	104° 42' 31.612 W
2,300.0	11.32	90.41	2,280.1	-1.6	219.4	1,450,757.34	3,219,833.18	40° 34' 4.929 N	104° 42' 31.357 W
2,400.0	11.32	90.41	2,378.2	-1.7	239.0	1,450,757.38	3,219,852.81	40° 34' 4.927 N	104° 42' 31.103 W
2,500.0	11.32	90.41	2,476.2	-1.8	258.6	1,450,757.41	3,219,872.43	40° 34' 4.926 N	104° 42' 30.849 W
2,600.0	11.32	90.41	2,574.3	-2.0	278.2	1,450,757.45	3,219,892.05	40° 34' 4.924 N	104° 42' 30.594 W
2,700.0	11.32	90.41	2,672.3	-2.1	297.9	1,450,757.48	3,219,911.68	40° 34' 4.923 N	104° 42' 30.340 W
2,800.0	11.32	90.41	2,770.4	-2.3	317.5	1,450,757.52	3,219,931.30	40° 34' 4.922 N	104° 42' 30.086 W
2,900.0	11.32	90.41	2,868.4	-2.4	337.1	1,450,757.55	3,219,950.92	40° 34' 4.920 N	104° 42' 29.832 W
3,000.0	11.32	90.41	2,966.5	-2.5	356.7	1,450,757.59	3,219,970.55	40° 34' 4.919 N	104° 42' 29.577 W
3,100.0	11.32	90.41	3,064.6	-2.7	376.4	1,450,757.62	3,219,990.17	40° 34' 4.917 N	104° 42' 29.323 W
3,200.0	11.32	90.41	3,162.6	-2.8	396.0	1,450,757.66	3,220,009.79	40° 34' 4.916 N	104° 42' 29.069 W
3,300.0	11.32	90.41	3,260.7	-3.0	415.6	1,450,757.69	3,220,029.41	40° 34' 4.915 N	104° 42' 28.815 W
3,400.0	11.32	90.41	3,358.7	-3.1	435.2	1,450,757.73	3,220,049.04	40° 34' 4.913 N	104° 42' 28.560 W
3,500.0	11.32	90.41	3,456.8	-3.2	454.9	1,450,757.76	3,220,068.66	40° 34' 4.912 N	104° 42' 28.306 W
3,600.0	11.32	90.41	3,554.8	-3.4	474.5	1,450,757.80	3,220,088.28	40° 34' 4.911 N	104° 42' 28.052 W
3,656.3	11.32	90.41	3,610.0	-3.5	485.5	1,450,757.82	3,220,099.32	40° 34' 4.910 N	104° 42' 27.909 W
<b>PARKMAN</b>									
3,700.0	11.32	90.41	3,652.9	-3.5	494.1	1,450,757.84	3,220,107.91	40° 34' 4.909 N	104° 42' 27.797 W
3,800.0	11.32	90.41	3,750.9	-3.7	513.7	1,450,757.87	3,220,127.53	40° 34' 4.908 N	104° 42' 27.543 W
3,900.0	11.32	90.41	3,849.0	-3.8	533.3	1,450,757.91	3,220,147.15	40° 34' 4.906 N	104° 42' 27.289 W
4,000.0	11.32	90.41	3,947.1	-3.9	553.0	1,450,757.94	3,220,166.78	40° 34' 4.905 N	104° 42' 27.035 W
4,100.0	11.32	90.41	4,045.1	-4.1	572.6	1,450,757.98	3,220,186.40	40° 34' 4.904 N	104° 42' 26.780 W
4,200.0	11.32	90.41	4,143.2	-4.2	592.2	1,450,758.01	3,220,206.02	40° 34' 4.902 N	104° 42' 26.526 W
4,300.0	11.32	90.41	4,241.2	-4.4	611.8	1,450,758.05	3,220,225.64	40° 34' 4.901 N	104° 42' 26.272 W
4,397.7	11.32	90.41	4,337.0	-4.5	631.0	1,450,758.08	3,220,244.81	40° 34' 4.900 N	104° 42' 26.024 W
<b>SUSSEX</b>									

# New Tech

## Planning Report - Geographic

<b>Database:</b>	EDM 2003.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well WAAG 1 - Slot WAAG 1
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	WELL @ 4918.0ft (Xtreme 7)
<b>Project:</b>	SEC 19 T7N R65W	<b>MD Reference:</b>	WELL @ 4918.0ft (Xtreme 7)
<b>Site:</b>	WAAG NORTH	<b>North Reference:</b>	True
<b>Well:</b>	WAAG 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 01Aug14 jps		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
4,400.0	11.32	90.41	4,339.3	-4.5	631.5	1,450,758.08	3,220,245.27	40° 34' 4.900 N	104° 42' 26.018 W
4,500.0	11.32	90.41	4,437.3	-4.6	651.1	1,450,758.12	3,220,264.89	40° 34' 4.898 N	104° 42' 25.763 W
4,600.0	11.32	90.41	4,535.4	-4.8	670.7	1,450,758.15	3,220,284.51	40° 34' 4.897 N	104° 42' 25.509 W
4,700.0	11.32	90.41	4,633.4	-4.9	690.3	1,450,758.19	3,220,304.14	40° 34' 4.895 N	104° 42' 25.255 W
4,798.5	11.32	90.41	4,730.0	-5.0	709.6	1,450,758.22	3,220,323.46	40° 34' 4.894 N	104° 42' 25.004 W
<b>SHANNON</b>									
4,800.0	11.32	90.41	4,731.5	-5.0	709.9	1,450,758.22	3,220,323.76	40° 34' 4.894 N	104° 42' 25.001 W
4,900.0	11.32	90.41	4,829.6	-5.2	729.6	1,450,758.26	3,220,343.38	40° 34' 4.893 N	104° 42' 24.746 W
5,000.0	11.32	90.41	4,927.6	-5.3	749.2	1,450,758.30	3,220,363.01	40° 34' 4.891 N	104° 42' 24.492 W
5,100.0	11.32	90.41	5,025.7	-5.5	768.8	1,450,758.33	3,220,382.63	40° 34' 4.890 N	104° 42' 24.238 W
5,200.0	11.32	90.41	5,123.7	-5.6	788.4	1,450,758.37	3,220,402.25	40° 34' 4.888 N	104° 42' 23.983 W
5,300.0	11.32	90.41	5,221.8	-5.7	808.1	1,450,758.40	3,220,421.87	40° 34' 4.887 N	104° 42' 23.729 W
5,400.0	11.32	90.41	5,319.8	-5.9	827.7	1,450,758.44	3,220,441.50	40° 34' 4.886 N	104° 42' 23.475 W
5,500.0	11.32	90.41	5,417.9	-6.0	847.3	1,450,758.47	3,220,461.12	40° 34' 4.884 N	104° 42' 23.221 W
5,600.0	11.32	90.41	5,516.0	-6.2	866.9	1,450,758.51	3,220,480.74	40° 34' 4.883 N	104° 42' 22.966 W
5,700.0	11.32	90.41	5,614.0	-6.3	886.5	1,450,758.54	3,220,500.37	40° 34' 4.882 N	104° 42' 22.712 W
5,800.0	11.32	90.41	5,712.1	-6.4	906.2	1,450,758.58	3,220,519.99	40° 34' 4.880 N	104° 42' 22.458 W
5,900.0	11.32	90.41	5,810.1	-6.6	925.8	1,450,758.61	3,220,539.61	40° 34' 4.879 N	104° 42' 22.204 W
6,000.0	11.32	90.41	5,908.2	-6.7	945.4	1,450,758.65	3,220,559.24	40° 34' 4.877 N	104° 42' 21.949 W
6,100.0	11.32	90.41	6,006.2	-6.9	965.0	1,450,758.68	3,220,578.86	40° 34' 4.876 N	104° 42' 21.695 W
6,200.0	11.32	90.41	6,104.3	-7.0	984.7	1,450,758.72	3,220,598.48	40° 34' 4.875 N	104° 42' 21.441 W
6,266.9	11.32	90.41	6,169.8	-7.1	997.8	1,450,758.74	3,220,611.60	40° 34' 4.874 N	104° 42' 21.271 W
<b>Start Drop -2.00</b>									
6,300.0	10.65	90.41	6,202.4	-7.1	1,004.1	1,450,758.75	3,220,617.92	40° 34' 4.873 N	104° 42' 21.189 W
6,400.0	8.65	90.41	6,301.0	-7.3	1,020.9	1,450,758.79	3,220,634.68	40° 34' 4.872 N	104° 42' 20.972 W
6,500.0	6.65	90.41	6,400.1	-7.4	1,034.2	1,450,758.81	3,220,648.00	40° 34' 4.871 N	104° 42' 20.799 W
6,600.0	4.65	90.41	6,499.6	-7.4	1,044.0	1,450,758.83	3,220,657.85	40° 34' 4.870 N	104° 42' 20.671 W
6,700.0	2.65	90.41	6,599.4	-7.5	1,050.4	1,450,758.84	3,220,664.23	40° 34' 4.870 N	104° 42' 20.589 W
6,800.0	0.65	90.41	6,699.3	-7.5	1,053.3	1,450,758.84	3,220,667.11	40° 34' 4.870 N	104° 42' 20.551 W
6,832.7	0.00	0.00	6,732.0	-7.5	1,053.5	1,450,758.84	3,220,667.30	40° 34' 4.870 N	104° 42' 20.549 W
<b>Vertical</b>									
6,862.7	0.00	0.00	6,762.0	-7.5	1,053.5	1,450,758.84	3,220,667.30	40° 34' 4.870 N	104° 42' 20.549 W
<b>KOP 10°/100</b>									
6,900.0	3.73	270.75	6,799.3	-7.5	1,052.3	1,450,758.85	3,220,666.08	40° 34' 4.870 N	104° 42' 20.565 W
7,000.0	13.73	270.75	6,898.0	-7.3	1,037.1	1,450,758.91	3,220,650.92	40° 34' 4.872 N	104° 42' 20.761 W
7,100.0	23.73	270.75	6,992.6	-6.9	1,005.0	1,450,759.05	3,220,618.85	40° 34' 4.876 N	104° 42' 21.177 W
7,116.9	25.43	270.75	7,008.0	-6.8	998.0	1,450,759.08	3,220,611.80	40° 34' 4.877 N	104° 42' 21.268 W
<b>NIOBRARA</b>									
7,200.0	33.73	270.75	7,080.2	-6.2	957.0	1,450,759.25	3,220,570.84	40° 34' 4.882 N	104° 42' 21.799 W
7,286.2	42.35	270.75	7,148.0	-5.5	904.0	1,450,759.47	3,220,517.76	40° 34' 4.889 N	104° 42' 22.487 W
<b>NIO B TARGET</b>									
7,300.0	43.73	270.75	7,158.1	-5.4	894.5	1,450,759.51	3,220,508.35	40° 34' 4.890 N	104° 42' 22.608 W
7,400.0	53.73	270.75	7,223.9	-4.4	819.5	1,450,759.82	3,220,433.29	40° 34' 4.900 N	104° 42' 23.581 W
7,500.0	63.73	270.75	7,275.8	-3.3	734.1	1,450,760.18	3,220,347.92	40° 34' 4.911 N	104° 42' 24.687 W
7,539.4	67.67	270.75	7,292.0	-2.8	698.2	1,450,760.33	3,220,312.01	40° 34' 4.916 N	104° 42' 25.152 W
<b>FORT HAYS</b>									
7,600.0	73.73	270.75	7,312.0	-2.1	641.1	1,450,760.57	3,220,254.85	40° 34' 4.923 N	104° 42' 25.893 W
7,655.7	79.30	270.75	7,325.0	-1.4	586.9	1,450,760.80	3,220,200.70	40° 34' 4.930 N	104° 42' 26.595 W
<b>CODELL</b>									
7,700.0	83.73	270.75	7,331.5	-0.8	543.1	1,450,760.98	3,220,156.91	40° 34' 4.936 N	104° 42' 27.162 W
7,762.7	90.00	270.75	7,335.0	0.0	480.6	1,450,761.24	3,220,094.34	40° 34' 4.944 N	104° 42' 27.973 W
<b>Landing Pt 90° Inc, 270.75° Az - 7"</b>									
7,800.0	90.00	270.75	7,335.0	0.5	443.3	1,450,761.40	3,220,057.03	40° 34' 4.949 N	104° 42' 28.456 W

# New Tech

## Planning Report - Geographic

<b>Database:</b>	EDM 2003.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well WAAG 1 - Slot WAAG 1
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	WELL @ 4918.0ft (Xtreme 7)
<b>Project:</b>	SEC 19 T7N R65W	<b>MD Reference:</b>	WELL @ 4918.0ft (Xtreme 7)
<b>Site:</b>	WAAG NORTH	<b>North Reference:</b>	True
<b>Well:</b>	WAAG 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 01Aug14 jps		

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
7,900.0	90.00	270.75	7,335.0	1.8	343.3	1,450,761.82	3,219,957.03	40° 34' 4.962 N	104° 42' 29.752 W
8,000.0	90.00	270.75	7,335.0	3.1	243.3	1,450,762.24	3,219,857.03	40° 34' 4.975 N	104° 42' 31.048 W
8,100.0	90.00	270.75	7,335.0	4.4	143.3	1,450,762.66	3,219,757.03	40° 34' 4.988 N	104° 42' 32.343 W
8,200.0	90.00	270.75	7,335.0	5.7	43.3	1,450,763.08	3,219,657.03	40° 34' 5.001 N	104° 42' 33.639 W
8,300.0	90.00	270.75	7,335.0	7.1	-56.7	1,450,763.49	3,219,557.04	40° 34' 5.014 N	104° 42' 34.935 W
8,400.0	90.00	270.75	7,335.0	8.4	-156.7	1,450,763.91	3,219,457.04	40° 34' 5.027 N	104° 42' 36.230 W
8,500.0	90.00	270.75	7,335.0	9.7	-256.7	1,450,764.33	3,219,357.04	40° 34' 5.040 N	104° 42' 37.526 W
8,600.0	90.00	270.75	7,334.9	11.0	-356.7	1,450,764.75	3,219,257.04	40° 34' 5.053 N	104° 42' 38.822 W
8,700.0	90.00	270.75	7,334.9	12.3	-456.7	1,450,765.17	3,219,157.04	40° 34' 5.065 N	104° 42' 40.118 W
8,800.0	90.00	270.75	7,334.9	13.6	-556.7	1,450,765.59	3,219,057.04	40° 34' 5.078 N	104° 42' 41.413 W
8,900.0	90.00	270.75	7,334.9	14.9	-656.7	1,450,766.01	3,218,957.04	40° 34' 5.091 N	104° 42' 42.709 W
9,000.0	90.00	270.75	7,334.9	16.2	-756.6	1,450,766.43	3,218,857.04	40° 34' 5.104 N	104° 42' 44.005 W
9,100.0	90.00	270.75	7,334.9	17.5	-856.6	1,450,766.85	3,218,757.04	40° 34' 5.117 N	104° 42' 45.300 W
9,200.0	90.00	270.75	7,334.9	18.8	-956.6	1,450,767.26	3,218,657.04	40° 34' 5.130 N	104° 42' 46.596 W
9,300.0	90.00	270.75	7,334.9	20.2	-1,056.6	1,450,767.68	3,218,557.04	40° 34' 5.143 N	104° 42' 47.892 W
9,400.0	90.00	270.75	7,334.9	21.5	-1,156.6	1,450,768.10	3,218,457.05	40° 34' 5.156 N	104° 42' 49.187 W
9,500.0	90.00	270.75	7,334.9	22.8	-1,256.6	1,450,768.52	3,218,357.05	40° 34' 5.169 N	104° 42' 50.483 W
9,600.0	90.00	270.75	7,334.9	24.1	-1,356.6	1,450,768.94	3,218,257.05	40° 34' 5.182 N	104° 42' 51.779 W
9,700.0	90.00	270.75	7,334.9	25.4	-1,456.6	1,450,769.36	3,218,157.05	40° 34' 5.195 N	104° 42' 53.074 W
9,800.0	90.00	270.75	7,334.9	26.7	-1,556.6	1,450,769.78	3,218,057.05	40° 34' 5.207 N	104° 42' 54.370 W
9,900.0	90.00	270.75	7,334.9	28.0	-1,656.6	1,450,770.20	3,217,957.05	40° 34' 5.220 N	104° 42' 55.666 W
10,000.0	90.00	270.75	7,334.9	29.3	-1,756.6	1,450,770.62	3,217,857.05	40° 34' 5.233 N	104° 42' 56.962 W
10,100.0	90.00	270.75	7,334.9	30.6	-1,856.5	1,450,771.03	3,217,757.05	40° 34' 5.246 N	104° 42' 58.257 W
10,200.0	90.00	270.75	7,334.9	32.0	-1,956.5	1,450,771.45	3,217,657.05	40° 34' 5.259 N	104° 42' 59.553 W
10,300.0	90.00	270.75	7,334.9	33.3	-2,056.5	1,450,771.87	3,217,557.05	40° 34' 5.272 N	104° 43' 0.849 W
10,400.0	90.00	270.75	7,334.9	34.6	-2,156.5	1,450,772.29	3,217,457.05	40° 34' 5.285 N	104° 43' 2.144 W
10,500.0	90.00	270.75	7,334.9	35.9	-2,256.5	1,450,772.71	3,217,357.05	40° 34' 5.298 N	104° 43' 3.440 W
10,600.0	90.00	270.75	7,334.9	37.2	-2,356.5	1,450,773.13	3,217,257.06	40° 34' 5.310 N	104° 43' 4.736 W
10,700.0	90.00	270.75	7,334.8	38.5	-2,456.5	1,450,773.55	3,217,157.06	40° 34' 5.323 N	104° 43' 6.031 W
10,800.0	90.00	270.75	7,334.8	39.8	-2,556.5	1,450,773.97	3,217,057.06	40° 34' 5.336 N	104° 43' 7.327 W
10,900.0	90.00	270.75	7,334.8	41.1	-2,656.5	1,450,774.39	3,216,957.06	40° 34' 5.349 N	104° 43' 8.623 W
11,000.0	90.00	270.75	7,334.8	42.4	-2,756.5	1,450,774.80	3,216,857.06	40° 34' 5.362 N	104° 43' 9.918 W
11,100.0	90.01	270.75	7,334.8	43.7	-2,856.5	1,450,775.22	3,216,757.06	40° 34' 5.375 N	104° 43' 11.214 W
11,200.0	90.01	270.75	7,334.8	45.1	-2,956.5	1,450,775.64	3,216,657.06	40° 34' 5.387 N	104° 43' 12.510 W
11,300.0	90.01	270.75	7,334.8	46.4	-3,056.4	1,450,776.06	3,216,557.06	40° 34' 5.400 N	104° 43' 13.806 W
11,400.0	90.01	270.75	7,334.8	47.7	-3,156.4	1,450,776.48	3,216,457.06	40° 34' 5.413 N	104° 43' 15.101 W
11,500.0	90.01	270.75	7,334.8	49.0	-3,256.4	1,450,776.90	3,216,357.06	40° 34' 5.426 N	104° 43' 16.397 W
11,600.0	90.01	270.75	7,334.8	50.3	-3,356.4	1,450,777.32	3,216,257.06	40° 34' 5.439 N	104° 43' 17.693 W
11,700.0	90.01	270.75	7,334.8	51.6	-3,456.4	1,450,777.74	3,216,157.07	40° 34' 5.452 N	104° 43' 18.988 W
11,800.0	90.01	270.75	7,334.7	52.9	-3,556.4	1,450,778.16	3,216,057.07	40° 34' 5.464 N	104° 43' 20.284 W
11,900.0	90.01	270.75	7,334.7	54.2	-3,656.4	1,450,778.57	3,215,957.07	40° 34' 5.477 N	104° 43' 21.580 W
12,000.0	90.01	270.75	7,334.7	55.5	-3,756.4	1,450,778.99	3,215,857.07	40° 34' 5.490 N	104° 43' 22.875 W
12,100.0	90.01	270.75	7,334.7	56.8	-3,856.4	1,450,779.41	3,215,757.07	40° 34' 5.503 N	104° 43' 24.171 W
12,200.0	90.01	270.75	7,334.7	58.2	-3,956.4	1,450,779.83	3,215,657.07	40° 34' 5.516 N	104° 43' 25.467 W
12,255.3	90.00	270.74	7,334.7	58.9	-4,011.7	1,450,780.06	3,215,601.77	40° 34' 5.523 N	104° 43' 26.183 W

TD at 12255.3 - TD / PBHL WAAG NORTH 1

# New Tech

## Planning Report - Geographic

<b>Database:</b>	EDM 2003.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well WAAG 1 - Slot WAAG 1
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	WELL @ 4918.0ft (Xtreme 7)
<b>Project:</b>	SEC 19 T7N R65W	<b>MD Reference:</b>	WELL @ 4918.0ft (Xtreme 7)
<b>Site:</b>	WAAG NORTH	<b>North Reference:</b>	True
<b>Well:</b>	WAAG 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 01Aug14 jps		

Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
LP WAAG NORTH 1 - plan hits target - Point	0.00	0.51	7,335.0	0.0	480.6	1,450,761.23	3,220,094.41	40° 34' 4.944 N	104° 42' 27.972 W
TD / PBHL WAAG NOR' - plan hits target - Point	0.00	0.50	7,335.0	58.6	-4,011.7	1,450,779.80	3,215,601.72	40° 34' 5.520 N	104° 43' 26.184 W

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
850.0	850.0	9 5/8"	0	0	
7,762.7	7,335.0	7"	0	0	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3656.30	3610.00	PARKMAN			
4397.70	4337.00	SUSSEX			
4798.50	4730.00	SHANNON			
7116.90	7008.00	NIOBRARA			
7286.20	7148.00	NIO B TARGET			
7539.40	7292.00	FORT HAYS			
7655.70	7325.00	CODELL			

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
900.0	900.0	0.0	0.0	Start Build 2.00	
1,465.8	1,462.2	-0.4	55.7	Hold 11.32° Inc, 90.41° Az	
6,266.9	6,169.8	-7.1	997.8	Start Drop -2.00	
6,832.7	6,732.0	-7.5	1,053.5	Vertical	
6,862.7	6,762.0	-7.5	1,053.5	KOP 10°/100	
7,762.7	7,335.0	0.0	480.6	Landing Pt 90° Inc, 270.75° Az	
12,255.3	7,334.7	58.9	-4,011.7	TD at 12255.3	