

EXTRACTION OIL & GAS

SEC 19 T7N R65W

WAAG MIDDLE

WAAG 16 - Slot WAAG 16

Wellbore #1

Plan: Plan #1 09Aug14 mab

Standard Planning Report - Geographic

11 August, 2014

New Tech
Planning Report - Geographic

Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well WAAG 16 - Slot WAAG 16
Company:	EXTRACTION OIL & GAS	TVD Reference:	WELL @ 4899.0ft (Xtreme 7)
Project:	SEC 19 T7N R65W	MD Reference:	WELL @ 4899.0ft (Xtreme 7)
Site:	WAAG MIDDLE	North Reference:	True
Well:	WAAG 16	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 09Aug14 mab		

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

Site	WAAG MIDDLE				
Site Position:		Northing:	1,448,275.07 ft	Latitude:	40° 33' 40.356 N
From:	Lat/Long	Easting:	3,220,338.91 ft	Longitude:	104° 42' 25.092 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.51 °

Well	WAAG 16 - Slot WAAG 16					
Well Position	+N/-S	0.0 ft	Northing:	1,448,165.78 ft	Latitude:	40° 33' 39.276 N
	+E/-W	0.0 ft	Easting:	3,220,339.88 ft	Longitude:	104° 42' 25.092 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,883.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	8/9/2014	8.42	67.08	52,889

Design	Plan #1 09Aug14 mab			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	261.80

Plan Sections										
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	
1,320.1	8.40	156.18	1,318.6	-28.1	12.4	2.00	2.00	0.00	156.18	
6,369.1	8.40	156.18	6,313.4	-703.1	310.4	0.00	0.00	0.00	0.00	
6,789.2	0.00	0.00	6,732.0	-731.2	322.8	2.00	-2.00	0.00	180.00	
6,819.2	0.00	0.00	6,762.0	-731.2	322.8	0.00	0.00	0.00	0.00	
7,719.2	90.00	270.62	7,335.0	-725.0	-250.1	10.00	10.00	0.00	270.62	
12,170.7	90.00	270.61	7,335.0	-677.2	-4,701.3	0.00	0.00	0.00	0.00	TD / PBHL WAAG MI

New Tech
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Database: EDM 2003.16 Single User Db	Local Co-ordinate Reference: Well WAAG 16 - Slot WAAG 16
Company: EXTRACTION OIL & GAS	TVD Reference: WELL @ 4899.0ft (Xtreme 7)
Project: SEC 19 T7N R65W	MD Reference: WELL @ 4899.0ft (Xtreme 7)
Site: WAAG MIDDLE	North Reference: True
Well: WAAG 16	Survey Calculation Method: Minimum Curvature
Wellbore: Wellbore #1	
Design: Plan #1 09Aug14 mab	

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	1,448,165.78	3,220,339.88	40° 33' 39.276 N	104° 42' 25.092 W	
100.0	0.00	0.00	100.0	0.0	0.0	1,448,165.78	3,220,339.88	40° 33' 39.276 N	104° 42' 25.092 W	
200.0	0.00	0.00	200.0	0.0	0.0	1,448,165.78	3,220,339.88	40° 33' 39.276 N	104° 42' 25.092 W	
300.0	0.00	0.00	300.0	0.0	0.0	1,448,165.78	3,220,339.88	40° 33' 39.276 N	104° 42' 25.092 W	
400.0	0.00	0.00	400.0	0.0	0.0	1,448,165.78	3,220,339.88	40° 33' 39.276 N	104° 42' 25.092 W	
500.0	0.00	0.00	500.0	0.0	0.0	1,448,165.78	3,220,339.88	40° 33' 39.276 N	104° 42' 25.092 W	
600.0	0.00	0.00	600.0	0.0	0.0	1,448,165.78	3,220,339.88	40° 33' 39.276 N	104° 42' 25.092 W	
700.0	0.00	0.00	700.0	0.0	0.0	1,448,165.78	3,220,339.88	40° 33' 39.276 N	104° 42' 25.092 W	
800.0	0.00	0.00	800.0	0.0	0.0	1,448,165.78	3,220,339.88	40° 33' 39.276 N	104° 42' 25.092 W	
850.0	0.00	0.00	850.0	0.0	0.0	1,448,165.78	3,220,339.88	40° 33' 39.276 N	104° 42' 25.092 W	
9 5/8"										
900.0	0.00	0.00	900.0	0.0	0.0	1,448,165.78	3,220,339.88	40° 33' 39.276 N	104° 42' 25.092 W	
Start Build 2.00										
1,000.0	2.00	156.18	1,000.0	-1.6	0.7	1,448,164.19	3,220,340.60	40° 33' 39.260 N	104° 42' 25.083 W	
1,100.0	4.00	156.18	1,099.8	-6.4	2.8	1,448,159.42	3,220,342.76	40° 33' 39.213 N	104° 42' 25.055 W	
1,200.0	6.00	156.18	1,199.5	-14.4	6.3	1,448,151.48	3,220,346.35	40° 33' 39.134 N	104° 42' 25.010 W	
1,300.0	8.00	156.18	1,298.7	-25.5	11.3	1,448,140.38	3,220,351.37	40° 33' 39.024 N	104° 42' 24.946 W	
1,320.1	8.40	156.18	1,318.6	-28.1	12.4	1,448,137.76	3,220,352.55	40° 33' 38.998 N	104° 42' 24.931 W	
Hold 8.40° Inc, 156.18° Az										
1,400.0	8.40	156.18	1,397.6	-38.8	17.1	1,448,127.13	3,220,357.36	40° 33' 38.892 N	104° 42' 24.870 W	
1,500.0	8.40	156.18	1,496.6	-52.2	23.0	1,448,113.81	3,220,363.38	40° 33' 38.760 N	104° 42' 24.794 W	
1,600.0	8.40	156.18	1,595.5	-65.5	28.9	1,448,100.50	3,220,369.40	40° 33' 38.628 N	104° 42' 24.717 W	
1,700.0	8.40	156.18	1,694.4	-78.9	34.8	1,448,087.18	3,220,375.43	40° 33' 38.496 N	104° 42' 24.641 W	
1,800.0	8.40	156.18	1,793.3	-92.3	40.7	1,448,073.87	3,220,381.45	40° 33' 38.364 N	104° 42' 24.564 W	
1,900.0	8.40	156.18	1,892.3	-105.6	46.6	1,448,060.56	3,220,387.47	40° 33' 38.232 N	104° 42' 24.488 W	
2,000.0	8.40	156.18	1,991.2	-119.0	52.5	1,448,047.24	3,220,393.49	40° 33' 38.100 N	104° 42' 24.411 W	
2,100.0	8.40	156.18	2,090.1	-132.4	58.4	1,448,033.93	3,220,399.51	40° 33' 37.968 N	104° 42' 24.335 W	
2,200.0	8.40	156.18	2,189.1	-145.8	64.3	1,448,020.61	3,220,405.53	40° 33' 37.836 N	104° 42' 24.258 W	
2,300.0	8.40	156.18	2,288.0	-159.1	70.2	1,448,007.30	3,220,411.55	40° 33' 37.704 N	104° 42' 24.182 W	
2,400.0	8.40	156.18	2,386.9	-172.5	76.1	1,447,993.98	3,220,417.57	40° 33' 37.571 N	104° 42' 24.105 W	
2,500.0	8.40	156.18	2,485.8	-185.9	82.0	1,447,980.67	3,220,423.59	40° 33' 37.439 N	104° 42' 24.029 W	
2,600.0	8.40	156.18	2,584.8	-199.2	88.0	1,447,967.35	3,220,429.61	40° 33' 37.307 N	104° 42' 23.952 W	
2,700.0	8.40	156.18	2,683.7	-212.6	93.9	1,447,954.04	3,220,435.63	40° 33' 37.175 N	104° 42' 23.876 W	
2,800.0	8.40	156.18	2,782.6	-226.0	99.8	1,447,940.72	3,220,441.65	40° 33' 37.043 N	104° 42' 23.800 W	
2,900.0	8.40	156.18	2,881.5	-239.3	105.7	1,447,927.41	3,220,447.67	40° 33' 36.911 N	104° 42' 23.723 W	
3,000.0	8.40	156.18	2,980.5	-252.7	111.6	1,447,914.10	3,220,453.70	40° 33' 36.779 N	104° 42' 23.647 W	
3,100.0	8.40	156.18	3,079.4	-266.1	117.5	1,447,900.78	3,220,459.72	40° 33' 36.647 N	104° 42' 23.570 W	
3,200.0	8.40	156.18	3,178.3	-279.4	123.4	1,447,887.47	3,220,465.74	40° 33' 36.515 N	104° 42' 23.494 W	
3,300.0	8.40	156.18	3,277.2	-292.8	129.3	1,447,874.15	3,220,471.76	40° 33' 36.383 N	104° 42' 23.417 W	
3,400.0	8.40	156.18	3,376.2	-306.2	135.2	1,447,860.84	3,220,477.78	40° 33' 36.251 N	104° 42' 23.341 W	
3,500.0	8.40	156.18	3,475.1	-319.5	141.1	1,447,847.52	3,220,483.80	40° 33' 36.118 N	104° 42' 23.264 W	
3,600.0	8.40	156.18	3,574.0	-332.9	147.0	1,447,834.21	3,220,489.82	40° 33' 35.986 N	104° 42' 23.188 W	
3,636.4	8.40	156.18	3,610.0	-337.8	149.1	1,447,829.37	3,220,492.01	40° 33' 35.938 N	104° 42' 23.160 W	
PARKMAN										
3,700.0	8.40	156.18	3,673.0	-346.3	152.9	1,447,820.89	3,220,495.84	40° 33' 35.854 N	104° 42' 23.111 W	
3,800.0	8.40	156.18	3,771.9	-359.6	158.8	1,447,807.58	3,220,501.86	40° 33' 35.722 N	104° 42' 23.035 W	
3,900.0	8.40	156.18	3,870.8	-373.0	164.7	1,447,794.26	3,220,507.88	40° 33' 35.590 N	104° 42' 22.958 W	
4,000.0	8.40	156.18	3,969.7	-386.4	170.6	1,447,780.95	3,220,513.90	40° 33' 35.458 N	104° 42' 22.882 W	
4,100.0	8.40	156.18	4,068.7	-399.7	176.5	1,447,767.64	3,220,519.92	40° 33' 35.326 N	104° 42' 22.806 W	
4,200.0	8.40	156.18	4,167.6	-413.1	182.4	1,447,754.32	3,220,525.94	40° 33' 35.194 N	104° 42' 22.729 W	
4,300.0	8.40	156.18	4,266.5	-426.5	188.3	1,447,741.01	3,220,531.97	40° 33' 35.062 N	104° 42' 22.653 W	
4,371.3	8.40	156.18	4,337.0	-436.0	192.5	1,447,731.52	3,220,536.26	40° 33' 34.968 N	104° 42' 22.598 W	
SUSSEX										

New Tech
 Planning Report - Geographic

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Company:	EXTRACTION OIL & GAS	TVD Reference:	WELL @ 4899.0ft (Xtreme 7)
Project:	SEC 19 T7N R65W	MD Reference:	WELL @ 4899.0ft (Xtreme 7)
Site:	WAAG MIDDLE	North Reference:	True
Well:	WAAG 16	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 09Aug14 mab		

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	8.40	156.18	4,365.4	-439.8	194.2	1,447,727.69	3,220,537.99	40° 33' 34.930 N	104° 42' 22.576 W	
4,500.0	8.40	156.18	4,464.4	-453.2	200.1	1,447,714.38	3,220,544.01	40° 33' 34.797 N	104° 42' 22.500 W	
4,600.0	8.40	156.18	4,563.3	-466.6	206.0	1,447,701.06	3,220,550.03	40° 33' 34.665 N	104° 42' 22.423 W	
4,700.0	8.40	156.18	4,662.2	-479.9	211.9	1,447,687.75	3,220,556.05	40° 33' 34.533 N	104° 42' 22.347 W	
4,768.5	8.40	156.18	4,730.0	-489.1	215.9	1,447,678.63	3,220,560.17	40° 33' 34.443 N	104° 42' 22.294 W	
SHANNON										
4,800.0	8.40	156.18	4,761.1	-493.3	217.8	1,447,674.43	3,220,562.07	40° 33' 34.401 N	104° 42' 22.270 W	
4,900.0	8.40	156.18	4,860.1	-506.7	223.7	1,447,661.12	3,220,568.09	40° 33' 34.269 N	104° 42' 22.194 W	
5,000.0	8.40	156.18	4,959.0	-520.1	229.6	1,447,647.80	3,220,574.11	40° 33' 34.137 N	104° 42' 22.117 W	
5,100.0	8.40	156.18	5,057.9	-533.4	235.5	1,447,634.49	3,220,580.13	40° 33' 34.005 N	104° 42' 22.041 W	
5,200.0	8.40	156.18	5,156.8	-546.8	241.4	1,447,621.18	3,220,586.15	40° 33' 33.873 N	104° 42' 21.964 W	
5,300.0	8.40	156.18	5,255.8	-560.2	247.3	1,447,607.86	3,220,592.17	40° 33' 33.741 N	104° 42' 21.888 W	
5,400.0	8.40	156.18	5,354.7	-573.5	253.2	1,447,594.55	3,220,598.19	40° 33' 33.609 N	104° 42' 21.812 W	
5,500.0	8.40	156.18	5,453.6	-586.9	259.1	1,447,581.23	3,220,604.21	40° 33' 33.476 N	104° 42' 21.735 W	
5,600.0	8.40	156.18	5,552.6	-600.3	265.0	1,447,567.92	3,220,610.24	40° 33' 33.344 N	104° 42' 21.659 W	
5,700.0	8.40	156.18	5,651.5	-613.6	270.9	1,447,554.60	3,220,616.26	40° 33' 33.212 N	104° 42' 21.582 W	
5,800.0	8.40	156.18	5,750.4	-627.0	276.8	1,447,541.29	3,220,622.28	40° 33' 33.080 N	104° 42' 21.506 W	
5,900.0	8.40	156.18	5,849.3	-640.4	282.7	1,447,527.97	3,220,628.30	40° 33' 32.948 N	104° 42' 21.429 W	
6,000.0	8.40	156.18	5,948.3	-653.7	288.6	1,447,514.66	3,220,634.32	40° 33' 32.816 N	104° 42' 21.353 W	
6,100.0	8.40	156.18	6,047.2	-667.1	294.5	1,447,501.34	3,220,640.34	40° 33' 32.684 N	104° 42' 21.276 W	
6,200.0	8.40	156.18	6,146.1	-680.5	300.4	1,447,488.03	3,220,646.36	40° 33' 32.552 N	104° 42' 21.200 W	
6,300.0	8.40	156.18	6,245.0	-693.8	306.3	1,447,474.72	3,220,652.38	40° 33' 32.420 N	104° 42' 21.123 W	
6,369.1	8.40	156.18	6,313.4	-703.1	310.4	1,447,465.52	3,220,656.54	40° 33' 32.328 N	104° 42' 21.071 W	
Start Drop -2.00										
6,400.0	7.78	156.18	6,344.0	-707.1	312.1	1,447,461.55	3,220,658.33	40° 33' 32.289 N	104° 42' 21.048 W	
6,500.0	5.78	156.18	6,443.3	-717.9	316.9	1,447,450.79	3,220,663.20	40° 33' 32.182 N	104° 42' 20.986 W	
6,600.0	3.78	156.18	6,542.9	-725.5	320.3	1,447,443.19	3,220,666.64	40° 33' 32.107 N	104° 42' 20.942 W	
6,700.0	1.78	156.18	6,642.8	-729.9	322.2	1,447,438.76	3,220,668.64	40° 33' 32.063 N	104° 42' 20.917 W	
6,789.2	0.00	0.00	6,732.0	-731.2	322.8	1,447,437.50	3,220,669.21	40° 33' 32.050 N	104° 42' 20.910 W	
Vertical										
6,800.0	0.00	0.00	6,742.8	-731.2	322.8	1,447,437.50	3,220,669.21	40° 33' 32.050 N	104° 42' 20.910 W	
6,819.2	0.00	0.00	6,762.0	-731.2	322.8	1,447,437.50	3,220,669.21	40° 33' 32.050 N	104° 42' 20.910 W	
KOP 10°/100										
6,900.0	8.08	270.62	6,842.5	-731.1	317.1	1,447,437.51	3,220,663.52	40° 33' 32.051 N	104° 42' 20.983 W	
7,000.0	18.08	270.62	6,939.8	-730.9	294.5	1,447,437.55	3,220,640.92	40° 33' 32.053 N	104° 42' 21.276 W	
7,073.5	25.43	270.62	7,008.0	-730.6	267.3	1,447,437.60	3,220,613.71	40° 33' 32.056 N	104° 42' 21.629 W	
NIOBRARA										
7,100.0	28.08	270.62	7,031.7	-730.5	255.4	1,447,437.63	3,220,601.77	40° 33' 32.058 N	104° 42' 21.783 W	
7,200.0	38.08	270.62	7,115.4	-729.9	200.9	1,447,437.73	3,220,547.26	40° 33' 32.064 N	104° 42' 22.490 W	
7,242.7	42.35	270.62	7,148.0	-729.6	173.3	1,447,437.78	3,220,519.67	40° 33' 32.066 N	104° 42' 22.847 W	
NIO B TARGET										
7,300.0	48.08	270.62	7,188.3	-729.1	132.6	1,447,437.86	3,220,479.04	40° 33' 32.071 N	104° 42' 23.373 W	
7,400.0	58.08	270.62	7,248.3	-728.3	52.8	1,447,438.01	3,220,399.20	40° 33' 32.079 N	104° 42' 24.408 W	
7,495.9	67.67	270.62	7,292.0	-727.4	-32.5	1,447,438.17	3,220,313.92	40° 33' 32.088 N	104° 42' 25.513 W	
FORT HAYS										
7,500.0	68.08	270.62	7,293.5	-727.3	-36.2	1,447,438.17	3,220,310.15	40° 33' 32.089 N	104° 42' 25.562 W	
7,600.0	78.08	270.62	7,322.6	-726.3	-131.8	1,447,438.35	3,220,214.60	40° 33' 32.099 N	104° 42' 26.799 W	
7,612.2	79.30	270.62	7,325.0	-726.2	-143.8	1,447,438.38	3,220,202.61	40° 33' 32.100 N	104° 42' 26.955 W	
CODELL										
7,700.0	88.08	270.62	7,334.6	-725.2	-230.9	1,447,438.54	3,220,115.45	40° 33' 32.110 N	104° 42' 28.084 W	
7,719.2	90.00	270.62	7,335.0	-725.0	-250.1	1,447,438.57	3,220,096.25	40° 33' 32.112 N	104° 42' 28.333 W	
Landing Pt 90° Inc, 270.62° Az - 7"										
7,800.0	90.00	270.62	7,335.0	-724.1	-330.9	1,447,438.73	3,220,015.46	40° 33' 32.120 N	104° 42' 29.379 W	

New Tech
 Planning Report - Geographic

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Company:	EXTRACTION OIL & GAS	TVD Reference:	WELL @ 4899.0ft (Xtreme 7)
Project:	SEC 19 T7N R65W	MD Reference:	WELL @ 4899.0ft (Xtreme 7)
Site:	WAAG MIDDLE	North Reference:	True
Well:	WAAG 16	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 09Aug14 mab		

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	270.62	7,335.0	-723.0	-430.9	1,447,438.91	3,219,915.46	40° 33' 32.131 N	104° 42' 30.675 W	
8,000.0	90.00	270.62	7,335.0	-722.0	-530.9	1,447,439.10	3,219,815.46	40° 33' 32.142 N	104° 42' 31.971 W	
8,100.0	90.00	270.62	7,335.0	-720.9	-630.9	1,447,439.29	3,219,715.46	40° 33' 32.152 N	104° 42' 33.266 W	
8,200.0	90.00	270.62	7,335.0	-719.8	-730.9	1,447,439.48	3,219,615.46	40° 33' 32.163 N	104° 42' 34.562 W	
8,300.0	90.00	270.62	7,335.0	-718.7	-830.9	1,447,439.67	3,219,515.46	40° 33' 32.174 N	104° 42' 35.857 W	
8,400.0	90.00	270.62	7,334.9	-717.6	-930.9	1,447,439.85	3,219,415.46	40° 33' 32.184 N	104° 42' 37.153 W	
8,500.0	90.00	270.62	7,334.9	-716.6	-1,030.9	1,447,440.04	3,219,315.46	40° 33' 32.195 N	104° 42' 38.448 W	
8,600.0	90.00	270.62	7,334.9	-715.5	-1,130.9	1,447,440.23	3,219,215.46	40° 33' 32.206 N	104° 42' 39.744 W	
8,700.0	90.00	270.62	7,334.9	-714.4	-1,230.9	1,447,440.42	3,219,115.46	40° 33' 32.216 N	104° 42' 41.039 W	
8,800.0	90.00	270.62	7,334.9	-713.3	-1,330.9	1,447,440.60	3,219,015.46	40° 33' 32.227 N	104° 42' 42.335 W	
8,900.0	90.00	270.62	7,334.9	-712.2	-1,430.9	1,447,440.79	3,218,915.46	40° 33' 32.238 N	104° 42' 43.631 W	
9,000.0	90.00	270.62	7,334.9	-711.1	-1,530.8	1,447,440.98	3,218,815.46	40° 33' 32.248 N	104° 42' 44.926 W	
9,100.0	90.00	270.62	7,334.9	-710.1	-1,630.8	1,447,441.17	3,218,715.46	40° 33' 32.259 N	104° 42' 46.222 W	
9,200.0	90.00	270.62	7,334.9	-709.0	-1,730.8	1,447,441.36	3,218,615.46	40° 33' 32.269 N	104° 42' 47.517 W	
9,300.0	90.00	270.62	7,334.9	-707.9	-1,830.8	1,447,441.54	3,218,515.46	40° 33' 32.280 N	104° 42' 48.813 W	
9,400.0	90.00	270.62	7,334.9	-706.8	-1,930.8	1,447,441.73	3,218,415.46	40° 33' 32.291 N	104° 42' 50.108 W	
9,500.0	90.00	270.62	7,334.9	-705.7	-2,030.8	1,447,441.92	3,218,315.46	40° 33' 32.301 N	104° 42' 51.404 W	
9,600.0	90.00	270.62	7,334.9	-704.6	-2,130.8	1,447,442.11	3,218,215.46	40° 33' 32.312 N	104° 42' 52.699 W	
9,700.0	90.00	270.62	7,334.9	-703.6	-2,230.8	1,447,442.29	3,218,115.46	40° 33' 32.323 N	104° 42' 53.995 W	
9,800.0	90.00	270.62	7,334.9	-702.5	-2,330.8	1,447,442.48	3,218,015.46	40° 33' 32.333 N	104° 42' 55.291 W	
9,900.0	90.00	270.62	7,334.9	-701.4	-2,430.8	1,447,442.67	3,217,915.46	40° 33' 32.344 N	104° 42' 56.586 W	
10,000.0	90.00	270.62	7,334.9	-700.3	-2,530.8	1,447,442.86	3,217,815.46	40° 33' 32.354 N	104° 42' 57.882 W	
10,100.0	90.00	270.62	7,334.9	-699.2	-2,630.8	1,447,443.05	3,217,715.46	40° 33' 32.365 N	104° 42' 59.177 W	
10,200.0	90.00	270.62	7,334.9	-698.2	-2,730.8	1,447,443.23	3,217,615.46	40° 33' 32.376 N	104° 43' 0.473 W	
10,300.0	90.01	270.62	7,334.8	-697.1	-2,830.8	1,447,443.42	3,217,515.46	40° 33' 32.386 N	104° 43' 1.768 W	
10,400.0	90.01	270.62	7,334.8	-696.0	-2,930.8	1,447,443.61	3,217,415.46	40° 33' 32.397 N	104° 43' 3.064 W	
10,500.0	90.01	270.62	7,334.8	-694.9	-3,030.8	1,447,443.80	3,217,315.46	40° 33' 32.407 N	104° 43' 4.359 W	
10,600.0	90.01	270.62	7,334.8	-693.8	-3,130.8	1,447,443.98	3,217,215.46	40° 33' 32.418 N	104° 43' 5.655 W	
10,700.0	90.01	270.62	7,334.8	-692.7	-3,230.7	1,447,444.17	3,217,115.46	40° 33' 32.428 N	104° 43' 6.951 W	
10,800.0	90.01	270.62	7,334.8	-691.7	-3,330.7	1,447,444.36	3,217,015.46	40° 33' 32.439 N	104° 43' 8.246 W	
10,900.0	90.01	270.62	7,334.8	-690.6	-3,430.7	1,447,444.55	3,216,915.46	40° 33' 32.450 N	104° 43' 9.542 W	
11,000.0	90.01	270.62	7,334.8	-689.5	-3,530.7	1,447,444.74	3,216,815.46	40° 33' 32.460 N	104° 43' 10.837 W	
11,100.0	90.01	270.62	7,334.8	-688.4	-3,630.7	1,447,444.92	3,216,715.46	40° 33' 32.471 N	104° 43' 12.133 W	
11,200.0	90.01	270.62	7,334.7	-687.3	-3,730.7	1,447,445.11	3,216,615.46	40° 33' 32.481 N	104° 43' 13.428 W	
11,300.0	90.01	270.62	7,334.7	-686.3	-3,830.7	1,447,445.30	3,216,515.46	40° 33' 32.492 N	104° 43' 14.724 W	
11,400.0	90.01	270.62	7,334.7	-685.2	-3,930.7	1,447,445.49	3,216,415.46	40° 33' 32.502 N	104° 43' 16.019 W	
11,500.0	90.01	270.62	7,334.7	-684.1	-4,030.7	1,447,445.67	3,216,315.46	40° 33' 32.513 N	104° 43' 17.315 W	
11,600.0	90.01	270.62	7,334.7	-683.0	-4,130.7	1,447,445.86	3,216,215.46	40° 33' 32.523 N	104° 43' 18.611 W	
11,700.0	90.01	270.62	7,334.7	-681.9	-4,230.7	1,447,446.05	3,216,115.46	40° 33' 32.534 N	104° 43' 19.906 W	
11,800.0	90.01	270.62	7,334.7	-680.8	-4,330.7	1,447,446.24	3,216,015.46	40° 33' 32.544 N	104° 43' 21.202 W	
11,900.0	90.01	270.62	7,334.7	-679.8	-4,430.7	1,447,446.43	3,215,915.46	40° 33' 32.555 N	104° 43' 22.497 W	
12,000.0	90.01	270.62	7,334.6	-678.7	-4,530.7	1,447,446.61	3,215,815.46	40° 33' 32.565 N	104° 43' 23.793 W	
12,100.0	90.01	270.62	7,334.6	-677.6	-4,630.7	1,447,446.80	3,215,715.47	40° 33' 32.576 N	104° 43' 25.088 W	
12,170.7	90.00	270.61	7,335.0	-677.2	-4,701.3	1,447,446.60	3,215,644.79	40° 33' 32.580 N	104° 43' 26.004 W	
TD at 12170.7 - TD / PBHL WAAG MIDDLE 16										

New Tech
Planning Report - Geographic

Database: EDM 2003.16 Single User Db	Local Co-ordinate Reference: Well WAAG 16 - Slot WAAG 16
Company: EXTRACTION OIL & GAS	TVD Reference: WELL @ 4899.0ft (Xtreme 7)
Project: SEC 19 T7N R65W	MD Reference: WELL @ 4899.0ft (Xtreme 7)
Site: WAAG MIDDLE	North Reference: True
Well: WAAG 16	Survey Calculation Method: Minimum Curvature
Wellbore: Wellbore #1	
Design: Plan #1 09Aug14 mab	

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
- Shape									
LP WAAG MIDDLE 16 - plan hits target - Point	0.00	0.00	7,335.0	-725.0	-250.1	1,447,438.60	3,220,096.31	40° 33' 32.112 N	104° 42' 28.332 W
TD / PBHL WAAG MIDC - plan hits target - Point	0.00	0.00	7,335.0	-677.2	-4,701.3	1,447,446.60	3,215,644.79	40° 33' 32.580 N	104° 43' 26.004 W

Casing Points							
Measured Depth	Vertical Depth		Name	Casing Diameter	Hole Diameter		
(ft)	(ft)			(")	(")		
850.0	850.0	9 5/8"		0	0		
7,719.2	7,335.0	7"		0	0		

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
3636.40	3610.00	PARKMAN				
4371.30	4337.00	SUSSEX				
4768.50	4730.00	SHANNON				
7073.50	7008.00	NIOBRARA				
7242.70	7148.00	NIO B TARGET				
7495.90	7292.00	FORT HAYS				
7612.20	7325.00	CODELL				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(ft)	(ft)	+N/-S	+E/-W		
(ft)	(ft)	(ft)	(ft)		
900.0	900.0	0.0	0.0	Start Build 2.00	
1,320.1	1,318.6	-28.1	12.4	Hold 8.40° Inc, 156.18° Az	
6,369.1	6,313.4	-703.1	310.4	Start Drop -2.00	
6,789.2	6,732.0	-731.2	322.8	Vertical	
6,819.2	6,762.0	-731.2	322.8	KOP 10°/100	
7,719.2	7,335.0	-725.0	-250.1	Landing Pt 90° Inc, 270.62° Az	
12,170.7	7,335.0	-677.2	-4,701.3	TD at 12170.7	