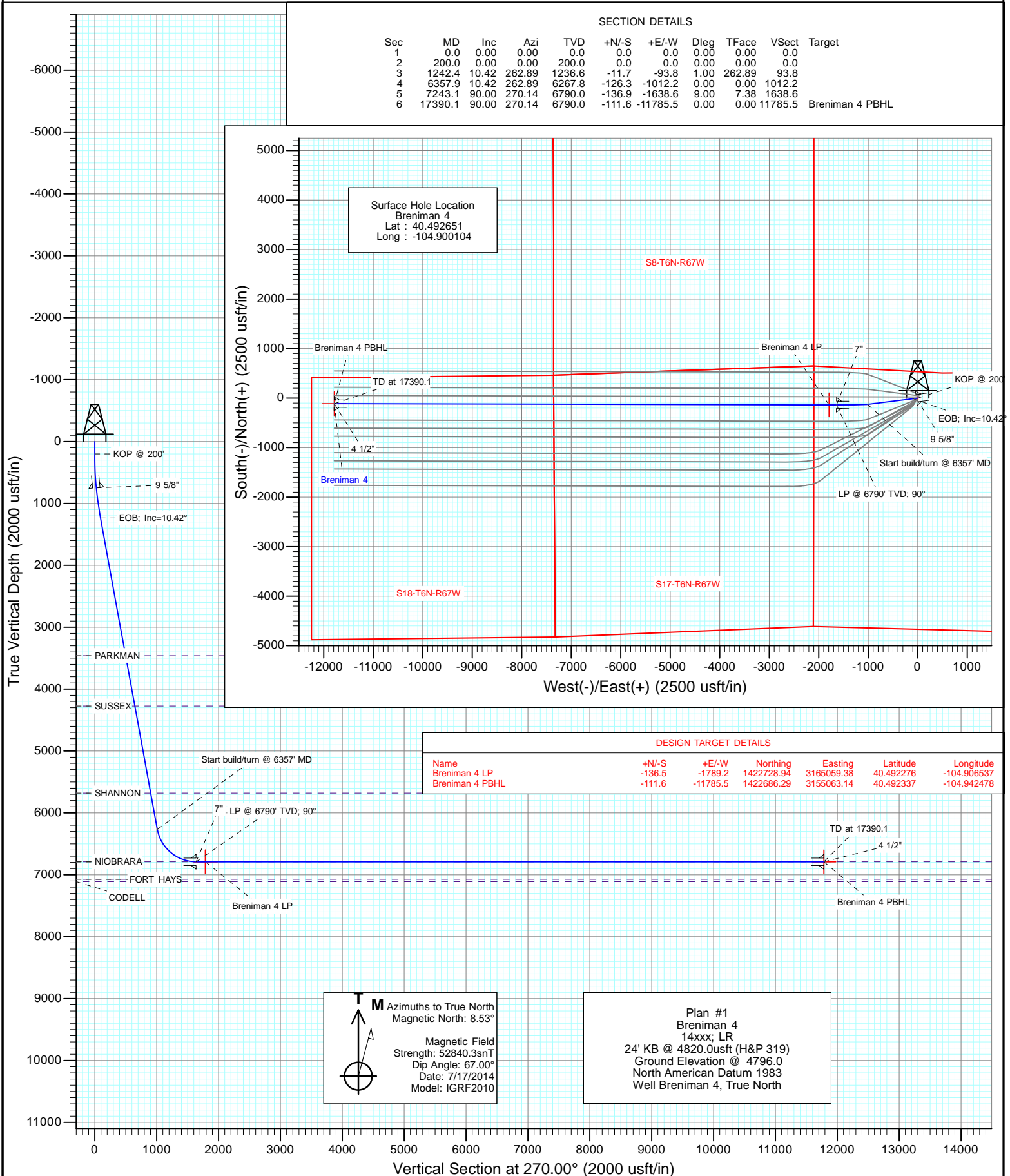




Project: WELD COUNTY, CO  
Site: S16-T6N-R67W  
Well: Breniman 4  
Wellbore: Hz  
Design: Plan #1



## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Company:</b>	Extraction Oil & Gas	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Project:</b>	WELD COUNTY, CO	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site:</b>	S16-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #1		

<b>Project</b>	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		

Site		S16-T6N-R67W			
Site Position:		Northing:	1,422,877.59 usft	Latitude:	40.492651
From:	Lat/Long	Easting:	3,166,847.63 usft	Longitude:	-104.900104
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.39 °

Well	Breniman 4					
Well Position	+N/-S	0.0 usft	Northing:	1,422,877.59 usft	Latitude:	40.492651
	+E/-W	0.0 usft	Easting:	3,166,847.63 usft	Longitude:	-104.900104
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	4,796.0 usft

<b>Wellbore</b>	Hz				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	7/17/2014	8.53	67.00	52,840

<b>Design</b>	Plan #1				
<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) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	270.00	

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,242.4	10.42	262.89	1,236.6	-11.7	-93.8	1.00	1.00	0.00	262.89	
6,357.9	10.42	262.89	6,267.8	-126.3	-1,012.2	0.00	0.00	0.00	0.00	
7,243.1	90.00	270.14	6,790.0	-136.9	-1,638.6	9.00	8.99	0.82	7.38	
17,390.1	90.00	270.14	6,790.0	-111.6	-11,785.5	0.00	0.00	0.00	0.00	Breniman 4 PBHL

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Company:</b>	Extraction Oil & Gas	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Project:</b>	WELD COUNTY, CO	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site:</b>	S16-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	KOP @ 200'
300.0	1.00	262.89	300.0	-0.1	-0.9	0.9	1.00	1.00	
400.0	2.00	262.89	400.0	-0.4	-3.5	3.5	1.00	1.00	
500.0	3.00	262.89	499.9	-1.0	-7.8	7.8	1.00	1.00	
600.0	4.00	262.89	599.7	-1.7	-13.8	13.8	1.00	1.00	
700.0	5.00	262.89	699.4	-2.7	-21.6	21.6	1.00	1.00	
750.0	5.50	262.89	749.2	-3.3	-26.2	26.2	1.00	1.00	9 5/8"
800.0	6.00	262.89	798.9	-3.9	-31.1	31.1	1.00	1.00	
900.0	7.00	262.89	898.3	-5.3	-42.4	42.4	1.00	1.00	
1,000.0	8.00	262.89	997.4	-6.9	-55.3	55.3	1.00	1.00	
1,100.0	9.00	262.89	1,096.3	-8.7	-70.0	70.0	1.00	1.00	
1,200.0	10.00	262.89	1,194.9	-10.8	-86.4	86.4	1.00	1.00	
1,242.4	10.42	262.89	1,236.6	-11.7	-93.8	93.8	1.00	1.00	EOB; Inc=10.42°
1,300.0	10.42	262.89	1,293.3	-13.0	-104.2	104.2	0.00	0.00	
1,400.0	10.42	262.89	1,391.7	-15.2	-122.1	122.1	0.00	0.00	
1,500.0	10.42	262.89	1,490.0	-17.5	-140.1	140.1	0.00	0.00	
1,600.0	10.42	262.89	1,588.4	-19.7	-158.0	158.0	0.00	0.00	
1,700.0	10.42	262.89	1,686.7	-22.0	-176.0	176.0	0.00	0.00	
1,800.0	10.42	262.89	1,785.1	-24.2	-193.9	193.9	0.00	0.00	
1,900.0	10.42	262.89	1,883.4	-26.4	-211.9	211.9	0.00	0.00	
2,000.0	10.42	262.89	1,981.8	-28.7	-229.8	229.8	0.00	0.00	
2,100.0	10.42	262.89	2,080.1	-30.9	-247.8	247.8	0.00	0.00	
2,200.0	10.42	262.89	2,178.5	-33.2	-265.8	265.8	0.00	0.00	
2,300.0	10.42	262.89	2,276.8	-35.4	-283.7	283.7	0.00	0.00	
2,400.0	10.42	262.89	2,375.2	-37.7	-301.7	301.7	0.00	0.00	
2,500.0	10.42	262.89	2,473.5	-39.9	-319.6	319.6	0.00	0.00	
2,600.0	10.42	262.89	2,571.8	-42.1	-337.6	337.6	0.00	0.00	
2,700.0	10.42	262.89	2,670.2	-44.4	-355.5	355.5	0.00	0.00	
2,800.0	10.42	262.89	2,768.5	-46.6	-373.5	373.5	0.00	0.00	
2,900.0	10.42	262.89	2,866.9	-48.9	-391.4	391.4	0.00	0.00	
3,000.0	10.42	262.89	2,965.2	-51.1	-409.4	409.4	0.00	0.00	
3,100.0	10.42	262.89	3,063.6	-53.3	-427.3	427.3	0.00	0.00	
3,200.0	10.42	262.89	3,161.9	-55.6	-445.3	445.3	0.00	0.00	
3,300.0	10.42	262.89	3,260.3	-57.8	-463.2	463.2	0.00	0.00	
3,400.0	10.42	262.89	3,358.6	-60.1	-481.2	481.2	0.00	0.00	
3,500.0	10.42	262.89	3,457.0	-62.3	-499.1	499.1	0.00	0.00	
3,503.0	10.42	262.89	3,460.0	-62.4	-499.7	499.7	0.00	0.00	PARKMAN
3,600.0	10.42	262.89	3,555.3	-64.5	-517.1	517.1	0.00	0.00	
3,700.0	10.42	262.89	3,653.7	-66.8	-535.1	535.1	0.00	0.00	
3,800.0	10.42	262.89	3,752.0	-69.0	-553.0	553.0	0.00	0.00	
3,900.0	10.42	262.89	3,850.4	-71.3	-571.0	571.0	0.00	0.00	
4,000.0	10.42	262.89	3,948.7	-73.5	-588.9	588.9	0.00	0.00	
4,100.0	10.42	262.89	4,047.1	-75.7	-606.9	606.9	0.00	0.00	
4,200.0	10.42	262.89	4,145.4	-78.0	-624.8	624.8	0.00	0.00	
4,300.0	10.42	262.89	4,243.8	-80.2	-642.8	642.8	0.00	0.00	
4,331.7	10.42	262.89	4,275.0	-80.9	-648.5	648.5	0.00	0.00	SUSSEX
4,400.0	10.42	262.89	4,342.1	-82.5	-660.7	660.7	0.00	0.00	
4,500.0	10.42	262.89	4,440.5	-84.7	-678.7	678.7	0.00	0.00	
4,600.0	10.42	262.89	4,538.8	-87.0	-696.6	696.6	0.00	0.00	
4,700.0	10.42	262.89	4,637.2	-89.2	-714.6	714.6	0.00	0.00	

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Company:</b>	Extraction Oil & Gas	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Project:</b>	WELD COUNTY, CO	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site:</b>	S16-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
4,800.0	10.42	262.89	4,735.5	-91.4	-732.5	732.5	0.00	0.00	
4,900.0	10.42	262.89	4,833.9	-93.7	-750.5	750.5	0.00	0.00	
5,000.0	10.42	262.89	4,932.2	-95.9	-768.4	768.4	0.00	0.00	
5,100.0	10.42	262.89	5,030.6	-98.2	-786.4	786.4	0.00	0.00	
5,200.0	10.42	262.89	5,128.9	-100.4	-804.4	804.4	0.00	0.00	
5,300.0	10.42	262.89	5,227.3	-102.6	-822.3	822.3	0.00	0.00	
5,400.0	10.42	262.89	5,325.6	-104.9	-840.3	840.3	0.00	0.00	
5,500.0	10.42	262.89	5,424.0	-107.1	-858.2	858.2	0.00	0.00	
5,600.0	10.42	262.89	5,522.3	-109.4	-876.2	876.2	0.00	0.00	
5,700.0	10.42	262.89	5,620.7	-111.6	-894.1	894.1	0.00	0.00	
5,760.3	10.42	262.89	5,680.0	-113.0	-904.9	904.9	0.00	0.00	SHANNON
5,800.0	10.42	262.89	5,719.0	-113.8	-912.1	912.1	0.00	0.00	
5,900.0	10.42	262.89	5,817.4	-116.1	-930.0	930.0	0.00	0.00	
6,000.0	10.42	262.89	5,915.7	-118.3	-948.0	948.0	0.00	0.00	
6,100.0	10.42	262.89	6,014.1	-120.6	-965.9	965.9	0.00	0.00	
6,200.0	10.42	262.89	6,112.4	-122.8	-983.9	983.9	0.00	0.00	
6,300.0	10.42	262.89	6,210.8	-125.1	-1,001.8	1,001.8	0.00	0.00	
6,357.9	10.42	262.89	6,267.8	-126.3	-1,012.2	1,012.2	0.00	0.00	Start build/turn @ 6357' MD
6,400.0	14.18	264.87	6,308.8	-127.3	-1,021.2	1,021.2	9.00	8.95	
6,500.0	23.16	267.03	6,403.5	-129.4	-1,053.1	1,053.1	9.00	8.97	
6,600.0	32.15	268.02	6,492.0	-131.3	-1,099.4	1,099.4	9.00	8.99	
6,700.0	41.14	268.62	6,572.1	-133.1	-1,159.0	1,159.0	9.00	8.99	
6,800.0	50.14	269.03	6,642.0	-134.5	-1,230.4	1,230.4	9.00	9.00	
6,900.0	59.13	269.35	6,699.8	-135.6	-1,311.8	1,311.8	9.00	9.00	
7,000.0	68.13	269.61	6,744.2	-136.4	-1,401.3	1,401.3	9.00	9.00	
7,100.0	77.13	269.84	6,774.0	-136.9	-1,496.7	1,496.7	9.00	9.00	
7,200.0	86.12	270.05	6,788.5	-137.0	-1,595.5	1,595.5	9.00	9.00	
7,243.1	90.00	270.14	6,790.0	-136.9	-1,638.6	1,638.6	8.99	8.99	LP @ 6790' TVD; 90° - NIOBRARA - 7"
7,300.0	90.00	270.14	6,790.0	-136.8	-1,695.5	1,695.5	0.00	0.00	
7,400.0	90.00	270.14	6,790.0	-136.5	-1,795.5	1,795.5	0.00	0.00	
7,500.0	90.00	270.14	6,790.0	-136.3	-1,895.5	1,895.5	0.00	0.00	
7,600.0	90.00	270.14	6,790.0	-136.0	-1,995.5	1,995.5	0.00	0.00	
7,700.0	90.00	270.14	6,790.0	-135.8	-2,095.5	2,095.5	0.00	0.00	
7,800.0	90.00	270.14	6,790.0	-135.5	-2,195.5	2,195.5	0.00	0.00	
7,900.0	90.00	270.14	6,790.0	-135.3	-2,295.5	2,295.5	0.00	0.00	
8,000.0	90.00	270.14	6,790.0	-135.0	-2,395.5	2,395.5	0.00	0.00	
8,100.0	90.00	270.14	6,790.0	-134.8	-2,495.5	2,495.5	0.00	0.00	
8,200.0	90.00	270.14	6,790.0	-134.5	-2,595.5	2,595.5	0.00	0.00	
8,300.0	90.00	270.14	6,790.0	-134.3	-2,695.5	2,695.5	0.00	0.00	
8,400.0	90.00	270.14	6,790.0	-134.0	-2,795.5	2,795.5	0.00	0.00	
8,500.0	90.00	270.14	6,790.0	-133.8	-2,895.5	2,895.5	0.00	0.00	
8,600.0	90.00	270.14	6,790.0	-133.5	-2,995.5	2,995.5	0.00	0.00	
8,700.0	90.00	270.14	6,790.0	-133.3	-3,095.5	3,095.5	0.00	0.00	
8,800.0	90.00	270.14	6,790.0	-133.0	-3,195.5	3,195.5	0.00	0.00	
8,900.0	90.00	270.14	6,790.0	-132.8	-3,295.5	3,295.5	0.00	0.00	
9,000.0	90.00	270.14	6,790.0	-132.5	-3,395.5	3,395.5	0.00	0.00	
9,100.0	90.00	270.14	6,790.0	-132.3	-3,495.5	3,495.5	0.00	0.00	
9,200.0	90.00	270.14	6,790.0	-132.0	-3,595.5	3,595.5	0.00	0.00	
9,300.0	90.00	270.14	6,790.0	-131.8	-3,695.5	3,695.5	0.00	0.00	
9,400.0	90.00	270.14	6,790.0	-131.5	-3,795.5	3,795.5	0.00	0.00	
9,500.0	90.00	270.14	6,790.0	-131.3	-3,895.5	3,895.5	0.00	0.00	
9,600.0	90.00	270.14	6,790.0	-131.0	-3,995.5	3,995.5	0.00	0.00	

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Company:</b>	Extraction Oil & Gas	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Project:</b>	WELD COUNTY, CO	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site:</b>	S16-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #1		

## Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
9,700.0	90.00	270.14	6,790.0	-130.8	-4,095.5	4,095.5	0.00	0.00	
9,800.0	90.00	270.14	6,790.0	-130.5	-4,195.5	4,195.5	0.00	0.00	
9,900.0	90.00	270.14	6,790.0	-130.3	-4,295.5	4,295.5	0.00	0.00	
10,000.0	90.00	270.14	6,790.0	-130.0	-4,395.5	4,395.5	0.00	0.00	
10,100.0	90.00	270.14	6,790.0	-129.8	-4,495.5	4,495.5	0.00	0.00	
10,200.0	90.00	270.14	6,790.0	-129.5	-4,595.5	4,595.5	0.00	0.00	
10,300.0	90.00	270.14	6,790.0	-129.3	-4,695.5	4,695.5	0.00	0.00	
10,400.0	90.00	270.14	6,790.0	-129.0	-4,795.5	4,795.5	0.00	0.00	
10,500.0	90.00	270.14	6,790.0	-128.8	-4,895.5	4,895.5	0.00	0.00	
10,600.0	90.00	270.14	6,790.0	-128.5	-4,995.5	4,995.5	0.00	0.00	
10,700.0	90.00	270.14	6,790.0	-128.3	-5,095.5	5,095.5	0.00	0.00	
10,800.0	90.00	270.14	6,790.0	-128.0	-5,195.5	5,195.5	0.00	0.00	
10,900.0	90.00	270.14	6,790.0	-127.8	-5,295.5	5,295.5	0.00	0.00	
11,000.0	90.00	270.14	6,790.0	-127.5	-5,395.5	5,395.5	0.00	0.00	
11,100.0	90.00	270.14	6,790.0	-127.3	-5,495.5	5,495.5	0.00	0.00	
11,200.0	90.00	270.14	6,790.0	-127.0	-5,595.5	5,595.5	0.00	0.00	
11,300.0	90.00	270.14	6,790.0	-126.8	-5,695.5	5,695.5	0.00	0.00	
11,400.0	90.00	270.14	6,790.0	-126.5	-5,795.5	5,795.5	0.00	0.00	
11,500.0	90.00	270.14	6,790.0	-126.3	-5,895.5	5,895.5	0.00	0.00	
11,600.0	90.00	270.14	6,790.0	-126.0	-5,995.5	5,995.5	0.00	0.00	
11,700.0	90.00	270.14	6,790.0	-125.8	-6,095.5	6,095.5	0.00	0.00	
11,800.0	90.00	270.14	6,790.0	-125.5	-6,195.5	6,195.5	0.00	0.00	
11,900.0	90.00	270.14	6,790.0	-125.3	-6,295.5	6,295.5	0.00	0.00	
12,000.0	90.00	270.14	6,790.0	-125.0	-6,395.5	6,395.5	0.00	0.00	
12,100.0	90.00	270.14	6,790.0	-124.8	-6,495.5	6,495.5	0.00	0.00	
12,200.0	90.00	270.14	6,790.0	-124.5	-6,595.5	6,595.5	0.00	0.00	
12,300.0	90.00	270.14	6,790.0	-124.3	-6,695.5	6,695.5	0.00	0.00	
12,400.0	90.00	270.14	6,790.0	-124.0	-6,795.5	6,795.5	0.00	0.00	
12,500.0	90.00	270.14	6,790.0	-123.8	-6,895.4	6,895.4	0.00	0.00	
12,600.0	90.00	270.14	6,790.0	-123.5	-6,995.4	6,995.4	0.00	0.00	
12,700.0	90.00	270.14	6,790.0	-123.3	-7,095.4	7,095.4	0.00	0.00	
12,800.0	90.00	270.14	6,790.0	-123.0	-7,195.4	7,195.4	0.00	0.00	
12,900.0	90.00	270.14	6,790.0	-122.8	-7,295.4	7,295.4	0.00	0.00	
13,000.0	90.00	270.14	6,790.0	-122.5	-7,395.4	7,395.4	0.00	0.00	
13,100.0	90.00	270.14	6,790.0	-122.3	-7,495.4	7,495.4	0.00	0.00	
13,200.0	90.00	270.14	6,790.0	-122.0	-7,595.4	7,595.4	0.00	0.00	
13,300.0	90.00	270.14	6,790.0	-121.8	-7,695.4	7,695.4	0.00	0.00	
13,400.0	90.00	270.14	6,790.0	-121.5	-7,795.4	7,795.4	0.00	0.00	
13,500.0	90.00	270.14	6,790.0	-121.3	-7,895.4	7,895.4	0.00	0.00	
13,600.0	90.00	270.14	6,790.0	-121.0	-7,995.4	7,995.4	0.00	0.00	
13,700.0	90.00	270.14	6,790.0	-120.8	-8,095.4	8,095.4	0.00	0.00	
13,800.0	90.00	270.14	6,790.0	-120.5	-8,195.4	8,195.4	0.00	0.00	
13,900.0	90.00	270.14	6,790.0	-120.3	-8,295.4	8,295.4	0.00	0.00	
14,000.0	90.00	270.14	6,790.0	-120.0	-8,395.4	8,395.4	0.00	0.00	
14,100.0	90.00	270.14	6,790.0	-119.8	-8,495.4	8,495.4	0.00	0.00	
14,200.0	90.00	270.14	6,790.0	-119.5	-8,595.4	8,595.4	0.00	0.00	
14,300.0	90.00	270.14	6,790.0	-119.3	-8,695.4	8,695.4	0.00	0.00	
14,400.0	90.00	270.14	6,790.0	-119.0	-8,795.4	8,795.4	0.00	0.00	
14,500.0	90.00	270.14	6,790.0	-118.8	-8,895.4	8,895.4	0.00	0.00	
14,600.0	90.00	270.14	6,790.0	-118.5	-8,995.4	8,995.4	0.00	0.00	
14,700.0	90.00	270.14	6,790.0	-118.3	-9,095.4	9,095.4	0.00	0.00	
14,800.0	90.00	270.14	6,790.0	-118.0	-9,195.4	9,195.4	0.00	0.00	

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Company:</b>	Extraction Oil & Gas	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Project:</b>	WELD COUNTY, CO	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site:</b>	S16-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
14,900.0	90.00	270.14	6,790.0	-117.8	-9,295.4	9,295.4	0.00	0.00	
15,000.0	90.00	270.14	6,790.0	-117.5	-9,395.4	9,395.4	0.00	0.00	
15,100.0	90.00	270.14	6,790.0	-117.3	-9,495.4	9,495.4	0.00	0.00	
15,200.0	90.00	270.14	6,790.0	-117.0	-9,595.4	9,595.4	0.00	0.00	
15,300.0	90.00	270.14	6,790.0	-116.8	-9,695.4	9,695.4	0.00	0.00	
15,400.0	90.00	270.14	6,790.0	-116.5	-9,795.4	9,795.4	0.00	0.00	
15,500.0	90.00	270.14	6,790.0	-116.3	-9,895.4	9,895.4	0.00	0.00	
15,600.0	90.00	270.14	6,790.0	-116.0	-9,995.4	9,995.4	0.00	0.00	
15,700.0	90.00	270.14	6,790.0	-115.8	-10,095.4	10,095.4	0.00	0.00	
15,800.0	90.00	270.14	6,790.0	-115.5	-10,195.4	10,195.4	0.00	0.00	
15,900.0	90.00	270.14	6,790.0	-115.3	-10,295.4	10,295.4	0.00	0.00	
16,000.0	90.00	270.14	6,790.0	-115.0	-10,395.4	10,395.4	0.00	0.00	
16,100.0	90.00	270.14	6,790.0	-114.8	-10,495.4	10,495.4	0.00	0.00	
16,200.0	90.00	270.14	6,790.0	-114.5	-10,595.4	10,595.4	0.00	0.00	
16,300.0	90.00	270.14	6,790.0	-114.3	-10,695.4	10,695.4	0.00	0.00	
16,400.0	90.00	270.14	6,790.0	-114.0	-10,795.4	10,795.4	0.00	0.00	
16,500.0	90.00	270.14	6,790.0	-113.8	-10,895.4	10,895.4	0.00	0.00	
16,600.0	90.00	270.14	6,790.0	-113.5	-10,995.4	10,995.4	0.00	0.00	
16,700.0	90.00	270.14	6,790.0	-113.3	-11,095.4	11,095.4	0.00	0.00	
16,800.0	90.00	270.14	6,790.0	-113.0	-11,195.4	11,195.4	0.00	0.00	
16,900.0	90.00	270.14	6,790.0	-112.8	-11,295.4	11,295.4	0.00	0.00	
17,000.0	90.00	270.14	6,790.0	-112.5	-11,395.4	11,395.4	0.00	0.00	
17,100.0	90.00	270.14	6,790.0	-112.3	-11,495.4	11,495.4	0.00	0.00	
17,200.0	90.00	270.14	6,790.0	-112.0	-11,595.4	11,595.4	0.00	0.00	
17,300.0	90.00	270.14	6,790.0	-111.8	-11,695.4	11,695.4	0.00	0.00	
17,390.1	90.00	270.14	6,790.0	-111.6	-11,785.5	11,785.5	0.00	0.00	TD at 17390.1

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Breniman 4 PBHL	0.00	0.00	6,790.0	-111.6	-11,785.5	1,422,686.29	3,155,063.14	40.492337	-104.942478
- plan hits target center									
- Point									
Breniman 4 LP	0.00	0.00	6,790.0	-136.5	-1,789.2	1,422,728.94	3,165,059.38	40.492276	-104.906537
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
750.0	749.2	9 5/8"	0	0	
7,243.1	6,790.0	7"	0	0	
17,390.1	6,790.0	4 1/2"	0	0	

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Company:</b>	Extraction Oil & Gas	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Project:</b>	WELD COUNTY, CO	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site:</b>	S16-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,503.0	3,460.0	PARKMAN				
4,331.7	4,275.0	SUSSEX				
5,760.3	5,680.0	SHANNON				
7,243.1	6,790.0	NIOBRARA				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
200.0	200.0	0.0	0.0	KOP @ 200'	
1,242.4	1,236.6	-11.7	-93.8	EOB; Inc=10.42°	
6,357.9	6,267.8	-126.3	-1,012.2	Start build/turn @ 6357' MD	
7,243.1	6,790.0	-136.9	-1,638.6	LP @ 6790' TVD; 90°	
17,390.1	6,790.0	-111.6	-11,785.5	TD at 17390.1	

# **Extraction Oil & Gas**

**WELD COUNTY, CO**

**S16-T6N-R67W**

**Breniman 4**

**Hz**

**Plan #1**

## **Anticollision Report**

**28 July, 2014**



# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,000.0usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	7/28/2014		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	17,390.1	Plan #1 (Hz)	Geolink MWD	Geolink MWD	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
S16-T6N-R67W						
Breniman 1 - Hz - Plan #1	200.4	201.4	83.6	83.0	135.362	CC, ES
Breniman 1 - Hz - Plan #1	17,390.1	17,411.2	660.1	96.3	1.171	Level 2, SF
Breniman 10 - Hz - Plan #1	166.3	167.3	168.2	168.0	676.605	CC
Breniman 10 - Hz - Plan #1	200.0	200.0	168.2	167.9	547.259	ES
Breniman 10 - Hz - Plan #1	2,100.0	2,039.8	294.3	288.8	53.837	SF
Breniman 11 - Hz - Plan #1	166.3	167.3	196.3	196.0	789.466	CC
Breniman 11 - Hz - Plan #1	200.0	200.0	196.3	196.0	638.542	ES
Breniman 11 - Hz - Plan #1	2,200.0	2,119.5	357.9	352.0	60.888	SF
Breniman 2 - Hz - Plan #1	201.9	202.9	55.7	55.0	89.367	CC
Breniman 2 - Hz - Plan #1	17,390.1	17,394.7	330.1	-233.5	0.586	Level 1, ES, SF
Breniman 3 - Hz - Plan #1	205.0	206.0	27.6	27.0	43.566	CC
Breniman 3 - Hz - Plan #1	400.0	401.5	27.9	26.6	21.108	ES
Breniman 3 - Hz - Plan #1	17,390.1	17,710.6	363.6	102.2	1.391	Level 3, SF
Breniman 5 - Hz - Plan #1	166.3	167.3	28.2	28.0	113.456	CC
Breniman 5 - Hz - Plan #1	300.0	300.6	28.4	27.9	58.759	ES
Breniman 5 - Hz - Plan #1	17,390.1	17,280.0	330.1	48.5	1.172	Level 2, SF
Breniman 6 - Hz - Plan #1	166.3	167.3	56.1	55.9	225.736	CC
Breniman 6 - Hz - Plan #1	217.1	217.9	56.1	55.8	166.412	ES
Breniman 6 - Hz - Plan #1	17,390.1	17,606.0	591.7	355.5	2.505	SF
Breniman 7 - Hz - Plan #1	166.3	167.3	84.5	84.2	339.854	CC
Breniman 7 - Hz - Plan #1	200.0	201.0	84.5	84.2	274.880	ES
Breniman 7 - Hz - Plan #1	17,390.1	17,301.1	660.1	378.6	2.345	SF
Breniman 8 - Hz - Plan #1	166.3	167.3	112.1	111.8	450.883	CC
Breniman 8 - Hz - Plan #1	200.0	201.0	112.1	111.8	364.682	ES
Breniman 8 - Hz - Plan #1	17,390.1	16,783.6	990.2	708.6	3.517	SF
Breniman 9 - Hz - Plan #1	166.3	167.3	140.5	140.2	565.001	CC
Breniman 9 - Hz - Plan #1	200.0	200.0	140.5	140.2	456.994	ES
Breniman 9 - Hz - Plan #1	2,000.0	1,954.5	242.9	237.8	47.422	SF

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 1 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor		
0.0	0.0	1.0	1.0	0.0	0.0	30.83	71.8	42.8	83.6					
100.0	100.0	101.0	101.0	0.1	0.1	30.83	71.8	42.8	83.6	83.3	0.27	312.970		
200.0	200.0	201.0	201.0	0.3	0.3	30.83	71.8	42.8	83.6	83.0	0.62	135.648		
200.4	200.4	201.4	201.4	0.3	0.3	30.83	71.8	42.8	83.6	83.0	0.62	135.362 CC, ES		
300.0	300.0	301.2	301.2	0.5	0.5	127.81	72.1	42.0	84.0	83.0	0.97	86.814		
400.0	400.0	401.5	401.4	0.7	0.7	127.44	73.0	39.5	85.1	83.8	1.33	64.241		
500.0	499.9	501.7	501.5	0.9	0.9	126.85	74.6	35.4	87.1	85.4	1.70	51.336		
600.0	599.7	601.9	601.5	1.1	1.1	126.07	76.9	29.7	89.9	87.8	2.09	43.042		
700.0	699.4	702.0	701.3	1.3	1.3	125.14	79.7	22.4	93.4	90.9	2.51	37.301		
800.0	798.9	802.1	800.9	1.5	1.5	124.09	83.2	13.4	97.9	94.9	2.95	33.119		
900.0	898.3	902.1	900.3	1.8	1.8	122.98	87.4	2.8	103.1	99.6	3.44	29.954		
1,000.0	997.4	1,002.0	999.4	2.0	2.0	121.82	92.1	-9.4	109.2	105.2	3.97	27.492		
1,100.0	1,096.3	1,101.8	1,098.1	2.3	2.3	120.65	97.5	-23.2	116.1	111.5	4.55	25.534		
1,200.0	1,194.9	1,201.6	1,196.5	2.7	2.7	119.50	103.5	-38.5	123.9	118.7	5.17	23.950		
1,300.0	1,293.3	1,301.2	1,294.4	3.0	3.0	118.32	110.1	-55.5	132.4	126.5	5.84	22.659		
1,400.0	1,391.7	1,400.8	1,392.0	3.3	3.4	116.70	117.2	-73.9	141.0	134.4	6.55	21.540		
1,500.0	1,490.0	1,500.3	1,489.5	3.7	3.8	115.12	124.5	-92.6	149.7	142.5	7.26	20.621		
1,600.0	1,588.4	1,599.8	1,587.0	4.0	4.1	113.72	131.9	-111.4	158.6	150.6	7.99	19.862		
1,700.0	1,686.7	1,699.4	1,684.4	4.4	4.5	112.47	139.2	-130.2	167.5	158.8	8.71	19.228		
1,800.0	1,785.1	1,798.9	1,781.9	4.8	4.9	111.34	146.5	-148.9	176.6	167.1	9.45	18.693		
1,900.0	1,883.4	1,898.4	1,879.4	5.1	5.3	110.32	153.8	-167.7	185.6	175.5	10.18	18.236		
2,000.0	1,981.8	1,998.0	1,976.9	5.5	5.7	109.40	161.1	-186.4	194.8	183.8	10.92	17.844		
2,100.0	2,080.1	2,097.5	2,074.4	5.8	6.1	108.56	168.4	-205.2	203.9	192.3	11.65	17.503		
2,200.0	2,178.5	2,197.0	2,171.8	6.2	6.5	107.80	175.7	-223.9	213.1	200.8	12.39	17.205		
2,300.0	2,276.8	2,296.6	2,269.3	6.6	6.9	107.10	183.0	-242.7	222.4	209.3	13.13	16.943		
2,400.0	2,375.2	2,396.1	2,366.8	6.9	7.3	106.45	190.3	-261.5	231.7	217.8	13.86	16.711		
2,500.0	2,473.5	2,495.7	2,464.3	7.3	7.6	105.85	197.6	-280.2	241.0	226.4	14.60	16.504		
2,600.0	2,571.9	2,595.2	2,561.8	7.6	8.0	105.30	204.9	-299.0	250.3	235.0	15.34	16.318		
2,700.0	2,670.2	2,694.7	2,659.2	8.0	8.4	104.79	212.2	-317.7	259.7	243.6	16.08	16.152		
2,800.0	2,768.6	2,794.3	2,756.7	8.4	8.8	104.31	219.5	-336.5	269.0	252.2	16.81	16.001		
2,900.0	2,866.9	2,893.8	2,854.2	8.7	9.2	103.87	226.8	-355.2	278.4	260.9	17.55	15.864		
3,000.0	2,965.3	2,993.3	2,951.7	9.1	9.6	103.45	234.2	-374.0	287.8	269.5	18.29	15.739		
3,100.0	3,063.6	3,092.9	3,049.2	9.4	10.0	103.06	241.5	-392.7	297.2	278.2	19.02	15.625		
3,200.0	3,162.0	3,192.4	3,146.6	9.8	10.4	102.70	248.8	-411.5	306.7	286.9	19.76	15.520		
3,300.0	3,260.3	3,291.9	3,244.1	10.2	10.8	102.35	256.1	-430.3	316.1	295.6	20.49	15.423		
3,400.0	3,358.7	3,391.5	3,341.6	10.5	11.2	102.03	263.4	-449.0	325.5	304.3	21.23	15.334		
3,500.0	3,457.0	3,491.0	3,439.1	10.9	11.6	101.72	270.7	-467.8	335.0	313.0	21.97	15.252		
3,600.0	3,555.4	3,590.6	3,536.6	11.3	12.0	101.43	278.0	-486.5	344.5	321.8	22.70	15.175		
3,700.0	3,653.7	3,690.1	3,634.0	11.6	12.4	101.16	285.3	-505.3	354.0	330.5	23.43	15.104		
3,800.0	3,752.1	3,789.6	3,731.5	12.0	12.8	100.90	292.6	-524.0	363.4	339.3	24.17	15.037		
3,900.0	3,850.4	3,889.2	3,829.0	12.4	13.2	100.66	299.9	-542.8	372.9	348.0	24.90	14.975		
4,000.0	3,948.7	3,988.7	3,926.5	12.7	13.6	100.42	307.2	-561.6	382.4	356.8	25.64	14.917		
4,100.0	4,047.1	4,088.2	4,024.0	13.1	14.0	100.20	314.5	-580.3	391.9	365.6	26.37	14.862		
4,200.0	4,145.4	4,187.8	4,121.4	13.5	14.4	99.99	321.8	-599.1	401.4	374.3	27.10	14.811		
4,300.0	4,243.8	4,287.3	4,218.9	13.8	14.8	99.79	329.1	-617.8	411.0	383.1	27.84	14.762		
4,400.0	4,342.1	4,386.8	4,316.4	14.2	15.2	99.59	336.5	-636.6	420.5	391.9	28.57	14.717		
4,500.0	4,440.5	4,486.4	4,413.9	14.5	15.6	99.41	343.8	-655.3	430.0	400.7	29.30	14.674		
4,600.0	4,538.8	4,585.9	4,511.3	14.9	15.9	99.23	351.1	-674.1	439.5	409.5	30.04	14.633		
4,700.0	4,637.2	4,685.4	4,608.8	15.3	16.3	99.06	358.4	-692.8	449.1	418.3	30.77	14.595		
4,800.0	4,735.5	4,785.0	4,706.3	15.6	16.7	98.90	365.7	-711.6	458.6	427.1	31.50	14.558		
4,900.0	4,833.9	4,884.5	4,803.8	16.0	17.1	98.75	373.0	-730.4	468.1	435.9	32.23	14.523		
5,000.0	4,932.2	4,984.1	4,901.3	16.4	17.5	98.60	380.3	-749.1	477.7	444.7	32.97	14.490		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 1 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference  (usft)	Offset  (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
5,100.0	5,030.6	5,083.6	4,998.7	16.7	17.9	98.45	387.6	-767.9	487.2	453.5	33.70	14.459		
5,200.0	5,128.9	5,183.1	5,096.2	17.1	18.3	98.32	394.9	-786.6	496.8	462.3	34.43	14.429		
5,300.0	5,227.3	5,282.7	5,193.7	17.5	18.7	98.18	402.2	-805.4	506.3	471.2	35.16	14.400		
5,400.0	5,325.6	5,382.2	5,291.2	17.8	19.1	98.06	409.5	-824.1	515.9	480.0	35.89	14.373		
5,500.0	5,424.0	5,481.7	5,388.7	18.2	19.5	97.93	416.8	-842.9	525.4	488.8	36.62	14.347		
5,600.0	5,522.3	5,581.3	5,486.1	18.6	19.9	97.82	424.1	-861.7	535.0	497.6	37.36	14.322		
5,700.0	5,620.7	5,680.8	5,583.6	18.9	20.3	97.70	431.5	-880.4	544.6	506.5	38.09	14.298		
5,800.0	5,719.0	5,780.3	5,681.1	19.3	20.7	97.59	438.8	-899.2	554.1	515.3	38.82	14.275		
5,900.0	5,817.4	5,879.9	5,778.6	19.6	21.1	97.48	446.1	-917.9	563.7	524.1	39.55	14.253		
6,000.0	5,915.7	5,979.4	5,876.1	20.0	21.5	97.38	453.4	-936.7	573.3	533.0	40.28	14.232		
6,100.0	6,014.1	6,079.0	5,973.5	20.4	21.9	97.28	460.7	-955.4	582.8	541.8	41.01	14.212		
6,200.0	6,112.4	6,178.5	6,071.0	20.7	22.3	97.18	468.0	-974.2	592.4	550.7	41.74	14.192		
6,300.0	6,210.8	6,278.0	6,168.5	21.1	22.7	97.09	475.3	-993.0	602.0	559.5	42.47	14.173		
6,400.0	6,308.9	6,377.5	6,266.0	21.5	23.1	94.83	482.6	-1,011.7	611.5	568.3	43.23	14.146		
6,500.0	6,403.5	6,478.6	6,363.4	22.2	23.6	92.59	489.9	-1,037.2	620.9	576.5	44.41	13.981		
6,600.0	6,492.0	6,581.0	6,456.7	23.1	24.5	91.54	497.0	-1,078.4	629.7	583.6	46.11	13.657		
6,700.0	6,572.1	6,684.6	6,543.3	24.2	25.5	90.91	503.6	-1,134.8	637.8	589.4	48.34	13.195		
6,800.0	6,642.0	6,789.4	6,620.3	25.6	26.9	90.50	509.5	-1,205.3	644.9	593.8	51.09	12.622		
6,900.0	6,699.8	6,895.3	6,685.4	27.2	28.5	90.23	514.5	-1,288.5	650.8	596.4	54.37	11.970		
7,000.0	6,744.2	7,002.1	6,736.3	29.0	30.3	90.05	518.6	-1,382.2	655.3	597.2	58.13	11.275		
7,100.0	6,774.0	7,109.6	6,771.0	31.0	32.4	89.94	521.4	-1,483.8	658.4	596.1	62.29	10.570		
7,200.0	6,788.5	7,217.5	6,788.2	33.1	34.6	89.91	522.9	-1,590.3	660.0	593.2	66.74	9.889		
7,300.0	6,790.0	7,321.2	6,790.0	35.3	36.8	89.91	523.3	-1,693.8	660.1	588.9	71.21	9.271		
7,400.0	6,790.0	7,421.2	6,790.0	37.5	39.0	89.91	523.6	-1,793.8	660.1	584.5	75.66	8.725		
7,500.0	6,790.0	7,521.2	6,790.0	39.8	41.2	89.91	523.8	-1,893.8	660.1	580.0	80.17	8.234		
7,600.0	6,790.0	7,621.2	6,790.0	42.1	43.4	89.91	524.1	-1,993.8	660.1	575.4	84.73	7.791		
7,700.0	6,790.0	7,721.2	6,790.0	44.4	45.7	89.91	524.3	-2,093.8	660.1	570.8	89.33	7.390		
7,800.0	6,790.0	7,821.2	6,790.0	46.7	48.0	89.91	524.6	-2,193.8	660.1	566.2	93.96	7.025		
7,900.0	6,790.0	7,921.2	6,790.0	49.0	50.3	89.91	524.8	-2,293.8	660.1	561.5	98.63	6.693		
8,000.0	6,790.0	8,021.2	6,790.0	51.3	52.6	89.91	525.1	-2,393.8	660.1	556.8	103.32	6.389		
8,100.0	6,790.0	8,121.2	6,790.0	53.7	54.9	89.91	525.3	-2,493.8	660.1	552.1	108.04	6.110		
8,200.0	6,790.0	8,221.2	6,790.0	56.1	57.3	89.91	525.6	-2,593.8	660.1	547.3	112.78	5.853		
8,300.0	6,790.0	8,321.2	6,790.0	58.4	59.6	89.91	525.8	-2,693.8	660.1	542.6	117.53	5.617		
8,400.0	6,790.0	8,421.2	6,790.0	60.8	62.0	89.91	526.1	-2,793.8	660.1	537.8	122.30	5.398		
8,500.0	6,790.0	8,521.2	6,790.0	63.2	64.4	89.91	526.3	-2,893.8	660.1	533.0	127.08	5.195		
8,600.0	6,790.0	8,621.2	6,790.0	65.6	66.7	89.91	526.6	-2,993.8	660.1	528.2	131.87	5.006		
8,700.0	6,790.0	8,721.2	6,790.0	68.0	69.1	89.91	526.8	-3,093.8	660.1	523.4	136.68	4.830		
8,800.0	6,790.0	8,821.2	6,790.0	70.4	71.5	89.91	527.1	-3,193.8	660.1	518.6	141.50	4.665		
8,900.0	6,790.0	8,921.2	6,790.0	72.8	73.9	89.91	527.3	-3,293.8	660.1	513.8	146.32	4.511		
9,000.0	6,790.0	9,021.2	6,790.0	75.2	76.3	89.91	527.6	-3,393.8	660.1	509.0	151.15	4.367		
9,100.0	6,790.0	9,121.2	6,790.0	77.7	78.7	89.91	527.8	-3,493.8	660.1	504.1	155.99	4.232		
9,200.0	6,790.0	9,221.2	6,790.0	80.1	81.1	89.91	528.1	-3,593.8	660.1	499.3	160.84	4.104		
9,300.0	6,790.0	9,321.2	6,790.0	82.5	83.5	89.91	528.3	-3,693.8	660.1	494.4	165.69	3.984		
9,400.0	6,790.0	9,421.2	6,790.0	84.9	86.0	89.91	528.6	-3,793.8	660.1	489.6	170.55	3.871		
9,500.0	6,790.0	9,521.2	6,790.0	87.4	88.4	89.91	528.8	-3,893.8	660.1	484.7	175.41	3.763		
9,600.0	6,790.0	9,621.2	6,790.0	89.8	90.8	89.91	529.1	-3,993.8	660.1	479.8	180.28	3.662		
9,700.0	6,790.0	9,721.2	6,790.0	92.2	93.2	89.91	529.3	-4,093.8	660.1	475.0	185.15	3.565		
9,800.0	6,790.0	9,821.2	6,790.0	94.7	95.7	89.91	529.6	-4,193.8	660.1	470.1	190.03	3.474		
9,900.0	6,790.0	9,921.2	6,790.0	97.1	98.1	89.91	529.8	-4,293.8	660.1	465.2	194.91	3.387		
10,000.0	6,790.0	10,021.2	6,790.0	99.6	100.5	89.91	530.1	-4,393.8	660.1	460.3	199.79	3.304		
10,100.0	6,790.0	10,121.2	6,790.0	102.0	103.0	89.91	530.3	-4,493.8	660.1	455.4	204.68	3.225		
10,200.0	6,790.0	10,221.2	6,790.0	104.4	105.4	89.91	530.6	-4,593.8	660.1	450.6	209.57	3.150		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 1 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
10,300.0	6,790.0	10,321.2	6,790.0	106.9	107.8	89.91	530.8	-4,693.8	660.1	445.7	214.46	3.078		
10,400.0	6,790.0	10,421.2	6,790.0	109.3	110.3	89.91	531.1	-4,793.8	660.1	440.8	219.35	3.009		
10,500.0	6,790.0	10,521.2	6,790.0	111.8	112.7	89.91	531.3	-4,893.8	660.1	435.9	224.25	2.944		
10,600.0	6,790.0	10,621.2	6,790.0	114.2	115.2	89.91	531.6	-4,993.8	660.1	431.0	229.15	2.881		
10,700.0	6,790.0	10,721.2	6,790.0	116.7	117.6	89.91	531.8	-5,093.8	660.1	426.1	234.05	2.820		
10,800.0	6,790.0	10,821.2	6,790.0	119.1	120.1	89.91	532.1	-5,193.8	660.1	421.2	238.96	2.763		
10,900.0	6,790.0	10,921.2	6,790.0	121.6	122.5	89.91	532.3	-5,293.8	660.1	416.3	243.86	2.707		
11,000.0	6,790.0	11,021.2	6,790.0	124.0	125.0	89.91	532.6	-5,393.8	660.1	411.4	248.77	2.654		
11,100.0	6,790.0	11,121.2	6,790.0	126.5	127.4	89.91	532.8	-5,493.8	660.1	406.4	253.68	2.602		
11,200.0	6,790.0	11,221.2	6,790.0	128.9	129.9	89.91	533.1	-5,593.8	660.1	401.5	258.59	2.553		
11,300.0	6,790.0	11,321.2	6,790.0	131.4	132.3	89.91	533.3	-5,693.8	660.1	396.6	263.50	2.505		
11,400.0	6,790.0	11,421.2	6,790.0	133.9	134.8	89.91	533.6	-5,793.8	660.1	391.7	268.41	2.459		
11,500.0	6,790.0	11,521.2	6,790.0	136.3	137.2	89.91	533.8	-5,893.8	660.1	386.8	273.32	2.415		
11,600.0	6,790.0	11,621.2	6,790.0	138.8	139.7	89.91	534.1	-5,993.8	660.1	381.9	278.24	2.372		
11,700.0	6,790.0	11,721.2	6,790.0	141.2	142.1	89.91	534.3	-6,093.8	660.1	377.0	283.16	2.331		
11,800.0	6,790.0	11,821.2	6,790.0	143.7	144.6	89.91	534.6	-6,193.8	660.1	372.0	288.07	2.291		
11,900.0	6,790.0	11,921.2	6,790.0	146.1	147.0	89.91	534.8	-6,293.8	660.1	367.1	292.99	2.253		
12,000.0	6,790.0	12,021.2	6,790.0	148.6	149.5	89.91	535.1	-6,393.8	660.1	362.2	297.91	2.216		
12,100.0	6,790.0	12,121.2	6,790.0	151.1	151.9	89.91	535.3	-6,493.8	660.1	357.3	302.83	2.180		
12,200.0	6,790.0	12,221.2	6,790.0	153.5	154.4	89.91	535.6	-6,593.8	660.1	352.4	307.75	2.145		
12,300.0	6,790.0	12,321.2	6,790.0	156.0	156.9	89.91	535.8	-6,693.8	660.1	347.4	312.68	2.111		
12,400.0	6,790.0	12,421.2	6,790.0	158.5	159.3	89.91	536.1	-6,793.8	660.1	342.5	317.60	2.078		
12,500.0	6,790.0	12,521.2	6,790.0	160.9	161.8	89.91	536.3	-6,893.8	660.1	337.6	322.52	2.047		
12,600.0	6,790.0	12,621.2	6,790.0	163.4	164.2	89.91	536.6	-6,993.8	660.1	332.7	327.45	2.016		
12,700.0	6,790.0	12,721.2	6,790.0	165.8	166.7	89.91	536.8	-7,093.8	660.1	327.7	332.37	1.986		
12,800.0	6,790.0	12,821.2	6,790.0	168.3	169.2	89.91	537.1	-7,193.8	660.1	322.8	337.30	1.957		
12,900.0	6,790.0	12,921.2	6,790.0	170.8	171.6	89.91	537.3	-7,293.8	660.1	317.9	342.23	1.929		
13,000.0	6,790.0	13,021.2	6,790.0	173.2	174.1	89.91	537.6	-7,393.8	660.1	313.0	347.15	1.902		
13,100.0	6,790.0	13,121.2	6,790.0	175.7	176.5	89.91	537.8	-7,493.8	660.1	308.0	352.08	1.875		
13,200.0	6,790.0	13,221.2	6,790.0	178.2	179.0	89.91	538.1	-7,593.8	660.1	303.1	357.01	1.849		
13,300.0	6,790.0	13,321.2	6,790.0	180.6	181.5	89.91	538.3	-7,693.8	660.1	298.2	361.94	1.824		
13,400.0	6,790.0	13,421.2	6,790.0	183.1	183.9	89.91	538.6	-7,793.8	660.1	293.3	366.87	1.799		
13,500.0	6,790.0	13,521.2	6,790.0	185.6	186.4	89.91	538.8	-7,893.8	660.1	288.3	371.80	1.775		
13,600.0	6,790.0	13,621.2	6,790.0	188.0	188.9	89.91	539.1	-7,993.8	660.1	283.4	376.73	1.752		
13,700.0	6,790.0	13,721.2	6,790.0	190.5	191.3	89.91	539.3	-8,093.8	660.1	278.5	381.66	1.730		
13,800.0	6,790.0	13,821.2	6,790.0	192.9	193.8	89.91	539.6	-8,193.8	660.1	273.5	386.59	1.708		
13,900.0	6,790.0	13,921.2	6,790.0	195.4	196.3	89.91	539.8	-8,293.8	660.1	268.6	391.53	1.686		
14,000.0	6,790.0	14,021.2	6,790.0	197.9	198.7	89.91	540.1	-8,393.8	660.1	263.7	396.46	1.665		
14,100.0	6,790.0	14,121.2	6,790.0	200.3	201.2	89.91	540.3	-8,493.8	660.1	258.7	401.39	1.645		
14,200.0	6,790.0	14,221.2	6,790.0	202.8	203.6	89.91	540.6	-8,593.8	660.1	253.8	406.32	1.625		
14,300.0	6,790.0	14,321.2	6,790.0	205.3	206.1	89.91	540.8	-8,693.8	660.1	248.9	411.26	1.605		
14,400.0	6,790.0	14,421.2	6,790.0	207.7	208.6	89.91	541.1	-8,793.8	660.1	243.9	416.19	1.586		
14,500.0	6,790.0	14,521.2	6,790.0	210.2	211.0	89.91	541.3	-8,893.8	660.1	239.0	421.13	1.568		
14,600.0	6,790.0	14,621.2	6,790.0	212.7	213.5	89.91	541.6	-8,993.8	660.1	234.1	426.06	1.549		
14,700.0	6,790.0	14,721.2	6,790.0	215.1	216.0	89.91	541.8	-9,093.8	660.1	229.1	431.00	1.532		
14,800.0	6,790.0	14,821.2	6,790.0	217.6	218.4	89.91	542.1	-9,193.8	660.1	224.2	435.93	1.514		
14,900.0	6,790.0	14,921.2	6,790.0	220.1	220.9	89.91	542.3	-9,293.8	660.1	219.3	440.87	1.497 Level 3		
15,000.0	6,790.0	15,021.2	6,790.0	222.6	223.4	89.91	542.6	-9,393.8	660.1	214.3	445.80	1.481 Level 3		
15,100.0	6,790.0	15,121.2	6,790.0	225.0	225.8	89.91	542.8	-9,493.8	660.1	209.4	450.74	1.465 Level 3		
15,200.0	6,790.0	15,221.2	6,790.0	227.5	228.3	89.91	543.1	-9,593.8	660.1	204.4	455.67	1.449 Level 3		
15,300.0	6,790.0	15,321.2	6,790.0	230.0	230.8	89.91	543.3	-9,693.8	660.1	199.5	460.61	1.433 Level 3		
15,400.0	6,790.0	15,421.2	6,790.0	232.4	233.2	89.91	543.6	-9,793.8	660.1	194.6	465.55	1.418 Level 3		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 1 - Hz - Plan #1													Offset Site Error: 0.0 usft	
Survey Program: 0-Geolink MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
15,500.0	6,790.0	15,521.2	6,790.0	234.9	235.7	89.91	543.8	-9,893.8	660.1	189.6	470.49	1.403	Level 3	
15,600.0	6,790.0	15,621.2	6,790.0	237.4	238.2	89.91	544.1	-9,993.8	660.1	184.7	475.42	1.388	Level 3	
15,700.0	6,790.0	15,721.2	6,790.0	239.8	240.6	89.91	544.3	-10,093.8	660.1	179.8	480.36	1.374	Level 3	
15,800.0	6,790.0	15,821.2	6,790.0	242.3	243.1	89.91	544.6	-10,193.8	660.1	174.8	485.30	1.360	Level 3	
15,900.0	6,790.0	15,921.2	6,790.0	244.8	245.6	89.91	544.8	-10,293.8	660.1	169.9	490.24	1.347	Level 3	
16,000.0	6,790.0	16,021.2	6,790.0	247.2	248.0	89.91	545.1	-10,393.8	660.1	164.9	495.18	1.333	Level 3	
16,100.0	6,790.0	16,121.2	6,790.0	249.7	250.5	89.91	545.3	-10,493.8	660.1	160.0	500.11	1.320	Level 3	
16,200.0	6,790.0	16,221.2	6,790.0	252.2	253.0	89.91	545.6	-10,593.8	660.1	155.1	505.05	1.307	Level 3	
16,300.0	6,790.0	16,321.2	6,790.0	254.6	255.5	89.91	545.8	-10,693.8	660.1	150.1	509.99	1.294	Level 3	
16,400.0	6,790.0	16,421.2	6,790.0	257.1	257.9	89.91	546.1	-10,793.8	660.1	145.2	514.93	1.282	Level 3	
16,500.0	6,790.0	16,521.2	6,790.0	259.6	260.4	89.91	546.3	-10,893.8	660.1	140.2	519.87	1.270	Level 3	
16,600.0	6,790.0	16,621.2	6,790.0	262.1	262.9	89.91	546.6	-10,993.8	660.1	135.3	524.81	1.258	Level 3	
16,700.0	6,790.0	16,721.2	6,790.0	264.5	265.3	89.91	546.8	-11,093.8	660.1	130.4	529.75	1.246	Level 2	
16,800.0	6,790.0	16,821.2	6,790.0	267.0	267.8	89.91	547.1	-11,193.8	660.1	125.4	534.69	1.235	Level 2	
16,900.0	6,790.0	16,921.2	6,790.0	269.5	270.3	89.91	547.3	-11,293.8	660.1	120.5	539.63	1.223	Level 2	
17,000.0	6,790.0	17,021.2	6,790.0	271.9	272.7	89.91	547.6	-11,393.8	660.1	115.5	544.57	1.212	Level 2	
17,100.0	6,790.0	17,121.2	6,790.0	274.4	275.2	89.91	547.8	-11,493.8	660.1	110.6	549.51	1.201	Level 2	
17,200.0	6,790.0	17,221.2	6,790.0	276.9	277.7	89.91	548.1	-11,593.8	660.1	105.7	554.45	1.191	Level 2	
17,300.0	6,790.0	17,321.2	6,790.0	279.3	280.1	89.91	548.3	-11,693.8	660.1	100.7	559.39	1.180	Level 2	
17,390.1	6,790.0	17,411.2	6,790.0	281.6	282.4	89.91	548.5	-11,783.9	660.1	96.3	563.84	1.171	Level 2, SF	

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 10 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	1.0	1.0	0.0	0.0	-149.05	-144.3	-86.5	168.2					
100.0	100.0	101.0	101.0	0.1	0.0	-149.05	-144.3	-86.5	168.2	168.1	0.13	1,266.230		
166.3	166.3	167.3	167.3	0.2	0.0	-149.05	-144.3	-86.5	168.2	168.0	0.25	676.605 CC		
200.0	200.0	200.0	200.0	0.3	0.0	-149.05	-144.3	-86.5	168.2	167.9	0.31	547.259 ES		
300.0	300.0	298.4	298.4	0.5	0.0	-52.04	-144.7	-87.2	168.5	168.0	0.48	349.129		
400.0	400.0	395.8	395.8	0.7	0.0	-52.34	-146.1	-89.3	169.1	168.5	0.66	256.142		
500.0	499.9	493.2	493.1	0.9	0.0	-52.84	-148.3	-92.8	170.3	169.5	0.84	201.895		
600.0	599.7	590.6	590.3	1.1	0.0	-53.52	-151.5	-97.7	171.9	170.9	1.03	166.169		
700.0	699.4	688.0	687.4	1.3	0.0	-54.38	-155.5	-103.9	174.1	172.8	1.24	140.734		
800.0	798.9	785.3	784.3	1.5	0.0	-55.40	-160.5	-111.6	176.7	175.3	1.45	121.621		
900.0	898.3	882.5	880.9	1.8	0.0	-56.57	-166.3	-120.6	179.9	178.3	1.69	106.685		
1,000.0	997.4	979.8	977.4	2.0	0.0	-57.86	-173.0	-131.0	183.7	181.8	1.94	94.674		
1,100.0	1,096.3	1,076.9	1,073.5	2.3	0.0	-59.26	-180.6	-142.8	188.2	185.9	2.22	84.812		
1,200.0	1,194.9	1,174.0	1,169.3	2.7	0.0	-60.75	-189.1	-155.9	193.2	190.7	2.52	76.590		
1,300.0	1,293.3	1,271.0	1,264.8	3.0	0.0	-62.25	-198.4	-170.3	199.1	196.2	2.85	69.956		
1,400.0	1,391.7	1,367.9	1,359.9	3.3	0.0	-63.44	-208.6	-186.1	206.3	203.2	3.18	64.975		
1,500.0	1,490.0	1,464.7	1,454.5	3.7	0.0	-64.28	-219.7	-203.3	215.0	211.5	3.51	61.278		
1,600.0	1,588.4	1,561.3	1,548.6	4.0	0.0	-64.78	-231.6	-221.7	225.0	221.1	3.84	58.561		
1,700.0	1,686.7	1,657.7	1,642.0	4.4	0.0	-64.98	-244.4	-241.4	236.3	232.1	4.17	56.607		
1,800.0	1,785.1	1,753.8	1,734.8	4.8	0.0	-64.93	-257.9	-262.4	248.8	244.3	4.50	55.258		
1,900.0	1,883.4	1,849.5	1,826.8	5.1	0.0	-64.65	-272.2	-284.6	262.7	257.9	4.83	54.400		
2,000.0	1,981.8	1,944.9	1,918.0	5.5	0.0	-64.19	-287.3	-307.9	277.8	272.7	5.15	53.948		
2,100.0	2,080.1	2,039.8	2,008.3	5.8	0.0	-63.59	-303.2	-332.5	294.3	288.8	5.47	53.837 SF		
2,200.0	2,178.5	2,134.2	2,097.6	6.2	0.0	-62.87	-319.8	-358.1	312.0	306.2	5.78	54.017		
2,300.0	2,276.8	2,228.0	2,185.9	6.6	0.0	-62.07	-337.0	-384.8	331.1	325.0	6.08	54.451		
2,400.0	2,375.2	2,321.3	2,273.2	6.9	0.0	-61.20	-354.9	-412.6	351.5	345.2	6.38	55.105		
2,500.0	2,473.5	2,413.9	2,359.3	7.3	0.0	-60.29	-373.5	-441.3	373.4	366.7	6.67	55.956		
2,600.0	2,571.9	2,505.9	2,444.2	7.6	0.0	-59.37	-392.7	-471.0	396.6	389.6	6.96	56.980		
2,700.0	2,670.2	2,600.0	2,530.4	8.0	0.0	-58.40	-413.1	-502.6	421.2	413.9	7.24	58.171		
2,800.0	2,768.6	2,691.6	2,614.0	8.4	0.0	-57.48	-433.5	-534.2	446.9	439.4	7.52	59.445		
2,900.0	2,866.9	2,788.0	2,701.8	8.7	0.0	-56.61	-455.0	-567.4	472.8	465.0	7.79	60.675		
3,000.0	2,965.3	2,884.3	2,789.6	9.1	0.0	-55.83	-476.5	-600.7	498.7	490.7	8.07	61.833		
3,100.0	3,063.6	2,980.7	2,877.5	9.4	0.0	-55.12	-498.0	-634.0	524.8	516.5	8.34	62.924		
3,200.0	3,162.0	3,077.0	2,965.3	9.8	0.0	-54.49	-519.5	-667.3	550.9	542.3	8.61	63.954		
3,300.0	3,260.3	3,173.4	3,053.1	10.2	0.0	-53.91	-541.0	-700.5	577.1	568.2	8.89	64.927		
3,400.0	3,358.7	3,269.7	3,141.0	10.5	0.0	-53.38	-562.5	-733.8	603.4	594.2	9.16	65.846		
3,500.0	3,457.0	3,366.1	3,228.8	10.9	0.0	-52.89	-584.0	-767.1	629.7	620.2	9.44	66.717		
3,600.0	3,555.4	3,462.4	3,316.6	11.3	0.0	-52.45	-605.5	-800.4	656.0	646.3	9.71	67.541		
3,700.0	3,653.7	3,558.8	3,404.5	11.6	0.0	-52.03	-627.0	-833.6	682.3	672.3	9.99	68.324		
3,800.0	3,752.1	3,655.2	3,492.3	12.0	0.0	-51.65	-648.5	-866.9	708.7	698.5	10.26	69.067		
3,900.0	3,850.4	3,751.5	3,580.1	12.4	0.0	-51.30	-670.0	-900.2	735.1	724.6	10.54	69.773		
4,000.0	3,948.7	3,847.9	3,668.0	12.7	0.0	-50.97	-691.5	-933.5	761.6	750.8	10.81	70.445		
4,100.0	4,047.1	3,944.2	3,755.8	13.1	0.0	-50.66	-713.0	-966.7	788.0	776.9	11.09	71.086		
4,200.0	4,145.4	4,040.6	3,843.6	13.5	0.0	-50.37	-734.5	-1,000.0	814.5	803.2	11.36	71.697		
4,300.0	4,243.8	4,136.9	3,931.5	13.8	0.0	-50.11	-756.0	-1,033.3	841.0	829.4	11.64	72.280		
4,400.0	4,342.1	4,233.3	4,019.3	14.2	0.0	-49.85	-777.5	-1,066.6	867.5	855.6	11.91	72.837		
4,500.0	4,440.5	4,329.6	4,107.1	14.5	0.0	-49.61	-799.0	-1,099.8	894.1	881.9	12.19	73.370		
4,600.0	4,538.8	4,426.0	4,195.0	14.9	0.0	-49.39	-820.5	-1,133.1	920.6	908.1	12.46	73.880		
4,700.0	4,637.2	4,522.3	4,282.8	15.3	0.0	-49.18	-842.0	-1,166.4	947.1	934.4	12.74	74.369		
4,800.0	4,735.5	4,618.7	4,370.6	15.6	0.0	-48.98	-863.5	-1,199.7	973.7	960.7	13.01	74.837		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 11 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	1.0	1.0	0.0	0.0	-149.04	-168.3	-101.0	196.3					
100.0	100.0	101.0	101.0	0.1	0.0	-149.04	-168.3	-101.0	196.3	196.1	0.13	1,477.444		
166.3	166.3	167.3	167.3	0.2	0.0	-149.04	-168.3	-101.0	196.3	196.0	0.25	789.466 CC		
200.0	200.0	200.0	200.0	0.3	0.0	-149.04	-168.3	-101.0	196.3	196.0	0.31	638.542 ES		
300.0	300.0	297.9	297.8	0.5	0.0	-52.04	-168.8	-101.6	196.5	196.1	0.48	407.346		
400.0	400.0	394.7	394.7	0.7	0.0	-52.36	-170.4	-103.5	197.3	196.7	0.66	298.816		
500.0	499.9	491.6	491.4	0.9	0.0	-52.89	-173.0	-106.7	198.6	197.8	0.84	235.484		
600.0	599.7	588.4	588.1	1.1	0.0	-53.63	-176.6	-111.2	200.5	199.5	1.03	193.759		
700.0	699.4	685.2	684.6	1.3	0.0	-54.56	-181.2	-117.0	202.9	201.7	1.24	164.041		
800.0	798.9	781.9	780.9	1.5	0.0	-55.66	-186.8	-124.0	206.0	204.5	1.45	141.700		
900.0	898.3	878.5	876.9	1.8	0.0	-56.92	-193.4	-132.3	209.7	208.0	1.69	124.235		
1,000.0	997.4	975.0	972.7	2.0	0.0	-58.31	-201.1	-141.8	214.1	212.2	1.94	110.189		
1,100.0	1,096.3	1,071.5	1,068.1	2.3	0.0	-59.82	-209.7	-152.5	219.2	217.0	2.22	98.657		
1,200.0	1,194.9	1,167.9	1,163.3	2.7	0.0	-61.41	-219.4	-164.6	225.1	222.6	2.53	89.049		
1,300.0	1,293.3	1,264.1	1,258.0	3.0	0.0	-63.05	-230.0	-177.8	232.0	229.1	2.85	81.294		
1,400.0	1,391.7	1,360.2	1,352.3	3.3	0.0	-64.43	-241.6	-192.3	240.4	237.2	3.19	75.418		
1,500.0	1,490.0	1,456.2	1,446.2	3.7	0.0	-65.51	-254.2	-207.9	250.3	246.7	3.53	70.999		
1,600.0	1,588.4	1,552.0	1,539.5	4.0	0.0	-66.30	-267.7	-224.8	261.6	257.7	3.86	67.689		
1,700.0	1,686.7	1,647.6	1,632.2	4.4	0.0	-66.83	-282.2	-242.8	274.3	270.1	4.20	65.238		
1,800.0	1,785.1	1,742.8	1,724.2	4.8	0.0	-67.13	-297.6	-262.0	288.4	283.9	4.54	63.463		
1,900.0	1,883.4	1,837.6	1,815.4	5.1	0.0	-67.21	-313.8	-282.2	303.8	298.9	4.88	62.230		
2,000.0	1,981.8	1,932.1	1,905.8	5.5	0.0	-67.13	-331.0	-303.6	320.5	315.3	5.22	61.437		
2,100.0	2,080.1	2,026.1	1,995.3	5.8	0.0	-66.89	-348.9	-326.0	338.5	333.0	5.55	61.010		
2,200.0	2,178.5	2,119.5	2,083.8	6.2	0.0	-66.53	-367.7	-349.4	357.9	352.0	5.88	60.888 SF		
2,300.0	2,276.8	2,212.5	2,171.4	6.6	0.0	-66.07	-387.3	-373.8	378.5	372.3	6.20	61.028		
2,400.0	2,375.2	2,304.8	2,257.8	6.9	0.0	-65.53	-407.6	-399.1	400.5	393.9	6.52	61.394		
2,500.0	2,473.5	2,396.5	2,343.1	7.3	0.0	-64.94	-428.7	-425.3	423.8	416.9	6.84	61.955		
2,600.0	2,571.9	2,487.5	2,427.3	7.6	0.0	-64.30	-450.4	-452.4	448.4	441.2	7.15	62.688		
2,700.0	2,670.2	2,577.9	2,510.2	8.0	0.0	-63.64	-472.8	-480.3	474.4	466.9	7.46	63.574		
2,800.0	2,768.6	2,667.4	2,591.9	8.4	0.0	-62.95	-495.8	-508.9	501.7	493.9	7.77	64.594		
2,900.0	2,866.9	2,756.2	2,672.2	8.7	0.0	-62.25	-519.4	-538.3	530.3	522.3	8.07	65.734		
3,000.0	2,965.3	2,846.5	2,753.4	9.1	0.0	-61.54	-544.1	-569.1	560.3	551.9	8.36	66.980		
3,100.0	3,063.6	2,941.5	2,838.7	9.4	0.0	-60.85	-570.4	-601.8	590.6	581.9	8.66	68.206		
3,200.0	3,162.0	3,036.6	2,924.0	9.8	0.0	-60.22	-596.6	-634.5	621.0	612.0	8.95	69.359		
3,300.0	3,260.3	3,131.7	3,009.4	10.2	0.0	-59.65	-622.9	-667.2	651.4	642.2	9.25	70.446		
3,400.0	3,358.7	3,226.7	3,094.7	10.5	0.0	-59.14	-649.1	-699.9	681.9	672.4	9.54	71.471		
3,500.0	3,457.0	3,321.8	3,180.0	10.9	0.0	-58.66	-675.3	-732.6	712.5	702.6	9.84	72.438		
3,600.0	3,555.4	3,416.9	3,265.3	11.3	0.0	-58.23	-701.6	-765.3	743.0	732.9	10.13	73.354		
3,700.0	3,653.7	3,511.9	3,350.6	11.6	0.0	-57.83	-727.8	-798.0	773.7	763.2	10.42	74.220		
3,800.0	3,752.1	3,607.0	3,436.0	12.0	0.0	-57.46	-754.1	-830.6	804.3	793.6	10.72	75.041		
3,900.0	3,850.4	3,702.0	3,521.3	12.4	0.0	-57.12	-780.3	-863.3	835.0	824.0	11.01	75.821		
4,000.0	3,948.7	3,797.1	3,606.6	12.7	0.0	-56.80	-806.6	-896.0	865.7	854.4	11.31	76.561		
4,100.0	4,047.1	3,892.2	3,691.9	13.1	0.0	-56.50	-832.8	-928.7	896.4	884.8	11.60	77.266		
4,200.0	4,145.4	3,987.2	3,777.2	13.5	0.0	-56.23	-859.0	-961.4	927.2	915.3	11.90	77.937		
4,300.0	4,243.8	4,082.3	3,862.6	13.8	0.0	-55.97	-885.3	-994.1	957.9	945.7	12.19	78.576		
4,400.0	4,342.1	4,177.4	3,947.9	14.2	0.0	-55.73	-911.5	-1,026.8	988.7	976.2	12.49	79.187		

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 2 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference  (usft)	Offset  (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
0.0	0.0	1.0	1.0	0.0	0.0	30.98	47.7	28.6	55.7					
100.0	100.0	101.0	101.0	0.1	0.1	30.98	47.7	28.6	55.7	55.4	0.27	208.430		
200.0	200.0	201.0	201.0	0.3	0.3	30.98	47.7	28.6	55.7	55.0	0.62	90.338		
201.9	201.9	202.9	202.9	0.3	0.3	128.09	47.7	28.6	55.7	55.0	0.62	89.367	CC	
300.0	300.0	301.4	301.4	0.5	0.5	127.96	47.8	27.8	55.8	54.9	0.97	57.725		
400.0	400.0	401.8	401.7	0.7	0.7	127.58	48.2	25.1	56.4	55.1	1.33	42.556		
500.0	499.9	502.2	502.0	0.9	0.9	126.99	48.7	20.7	57.3	55.6	1.70	33.810		
600.0	599.7	602.5	602.2	1.1	1.1	126.20	49.5	14.6	58.6	56.5	2.08	28.130		
700.0	699.4	702.9	702.3	1.3	1.3	125.24	50.5	6.8	60.3	57.8	2.50	24.150		
800.0	798.9	803.2	802.1	1.5	1.5	124.14	51.7	-2.8	62.4	59.5	2.94	21.208		
900.0	898.3	903.6	901.8	1.8	1.8	122.93	53.1	-14.2	64.9	61.5	3.43	18.950		
1,000.0	997.4	1,003.9	1,001.2	2.0	2.0	121.66	54.8	-27.2	67.9	63.9	3.95	17.167		
1,100.0	1,096.3	1,104.2	1,100.4	2.3	2.3	120.34	56.7	-42.0	71.2	66.7	4.53	15.727		
1,200.0	1,194.9	1,204.4	1,199.3	2.7	2.7	119.00	58.7	-58.5	75.0	69.8	5.16	14.546		
1,300.0	1,293.3	1,304.6	1,297.7	3.0	3.0	117.57	61.0	-76.6	79.1	73.3	5.82	13.578		
1,400.0	1,391.7	1,404.4	1,395.9	3.3	3.4	116.11	63.4	-95.0	83.2	76.7	6.51	12.776		
1,500.0	1,490.0	1,504.3	1,494.0	3.7	3.7	114.79	65.7	-113.5	87.4	80.2	7.21	12.115		
1,600.0	1,588.4	1,604.2	1,592.2	4.0	4.1	113.58	68.0	-132.0	91.6	83.7	7.92	11.563		
1,700.0	1,686.7	1,704.1	1,690.3	4.4	4.5	112.49	70.4	-150.5	95.8	87.2	8.64	11.098		
1,800.0	1,785.1	1,804.0	1,788.5	4.8	4.8	111.48	72.7	-168.9	100.1	90.8	9.36	10.701		
1,900.0	1,883.4	1,903.9	1,886.6	5.1	5.2	110.56	75.1	-187.4	104.4	94.4	10.08	10.360		
2,000.0	1,981.8	2,003.8	1,984.7	5.5	5.5	109.71	77.4	-205.9	108.8	98.0	10.81	10.065		
2,100.0	2,080.1	2,103.7	2,082.9	5.8	5.9	108.93	79.7	-224.4	113.1	101.6	11.54	9.806		
2,200.0	2,178.5	2,203.6	2,181.0	6.2	6.3	108.21	82.1	-242.8	117.5	105.2	12.27	9.578		
2,300.0	2,276.8	2,303.5	2,279.2	6.6	6.7	107.54	84.4	-261.3	121.9	108.9	13.00	9.377		
2,400.0	2,375.2	2,403.4	2,377.3	6.9	7.0	106.91	86.7	-279.8	126.3	112.6	13.73	9.197		
2,500.0	2,473.5	2,503.3	2,475.5	7.3	7.4	106.33	89.1	-298.3	130.7	116.3	14.47	9.036		
2,600.0	2,571.9	2,603.2	2,573.6	7.6	7.8	105.78	91.4	-316.7	135.2	120.0	15.20	8.891		
2,700.0	2,670.2	2,703.1	2,671.7	8.0	8.1	105.27	93.8	-335.2	139.6	123.7	15.94	8.760		
2,800.0	2,768.6	2,803.0	2,769.9	8.4	8.5	104.79	96.1	-353.7	144.1	127.4	16.67	8.641		
2,900.0	2,866.9	2,902.9	2,868.0	8.7	8.9	104.34	98.4	-372.2	148.5	131.1	17.41	8.532		
3,000.0	2,965.3	3,002.7	2,966.2	9.1	9.2	103.92	100.8	-390.6	153.0	134.9	18.14	8.433		
3,100.0	3,063.6	3,102.6	3,064.3	9.4	9.6	103.52	103.1	-409.1	157.5	138.6	18.88	8.342		
3,200.0	3,162.0	3,202.5	3,162.4	9.8	10.0	103.14	105.4	-427.6	162.0	142.4	19.62	8.257		
3,300.0	3,260.3	3,302.4	3,260.6	10.2	10.4	102.79	107.8	-446.1	166.5	146.1	20.35	8.180		
3,400.0	3,358.7	3,402.3	3,358.7	10.5	10.7	102.45	110.1	-464.5	171.0	149.9	21.09	8.108		
3,500.0	3,457.0	3,502.2	3,456.9	10.9	11.1	102.13	112.4	-483.0	175.5	153.7	21.83	8.041		
3,600.0	3,555.4	3,602.1	3,555.0	11.3	11.5	101.82	114.8	-501.5	180.0	157.5	22.56	7.979		
3,700.0	3,653.7	3,702.0	3,653.2	11.6	11.8	101.53	117.1	-520.0	184.5	161.2	23.30	7.921		
3,800.0	3,752.1	3,801.9	3,751.3	12.0	12.2	101.26	119.5	-538.4	189.1	165.0	24.03	7.866		
3,900.0	3,850.4	3,901.8	3,849.4	12.4	12.6	100.99	121.8	-556.9	193.6	168.8	24.77	7.816		
4,000.0	3,948.7	4,001.7	3,947.6	12.7	13.0	100.74	124.1	-575.4	198.1	172.6	25.50	7.768		
4,100.0	4,047.1	4,101.6	4,045.7	13.1	13.3	100.50	126.5	-593.9	202.7	176.4	26.24	7.723		
4,200.0	4,145.4	4,201.5	4,143.9	13.5	13.7	100.27	128.8	-612.3	207.2	180.2	26.98	7.681		
4,300.0	4,243.8	4,301.4	4,242.0	13.8	14.1	100.05	131.1	-630.8	211.7	184.0	27.71	7.641		
4,400.0	4,342.1	4,401.3	4,340.2	14.2	14.5	99.84	133.5	-649.3	216.3	187.8	28.45	7.603		
4,500.0	4,440.5	4,501.1	4,438.3	14.5	14.8	99.64	135.8	-667.8	220.8	191.6	29.18	7.567		
4,600.0	4,538.8	4,601.0	4,536.4	14.9	15.2	99.45	138.2	-686.2	225.4	195.5	29.92	7.534		
4,700.0	4,637.2	4,700.9	4,634.6	15.3	15.6	99.26	140.5	-704.7	229.9	199.3	30.65	7.501		
4,800.0	4,735.5	4,800.8	4,732.7	15.6	15.9	99.08	142.8	-723.2	234.5	203.1	31.39	7.471		
4,900.0	4,833.9	4,900.7	4,830.9	16.0	16.3	98.91	145.2	-741.7	239.0	206.9	32.12	7.442		
5,000.0	4,932.2	5,000.6	4,929.0	16.4	16.7	98.75	147.5	-760.1	243.6	210.7	32.85	7.414		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 2 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
5,100.0	5,030.6	5,100.5	5,027.2	16.7	17.1	98.59	149.8	-778.6	248.2	214.6	33.59	7.388		
5,200.0	5,128.9	5,200.4	5,125.3	17.1	17.4	98.43	152.2	-797.1	252.7	218.4	34.32	7.363		
5,300.0	5,227.3	5,300.3	5,223.4	17.5	17.8	98.29	154.5	-815.6	257.3	222.2	35.06	7.339		
5,400.0	5,325.6	5,400.2	5,321.6	17.8	18.2	98.14	156.9	-834.0	261.9	226.1	35.79	7.316		
5,500.0	5,424.0	5,500.1	5,419.7	18.2	18.6	98.01	159.2	-852.5	266.4	229.9	36.53	7.294		
5,600.0	5,522.3	5,600.0	5,517.9	18.6	18.9	97.87	161.5	-871.0	271.0	233.7	37.26	7.273		
5,700.0	5,620.7	5,699.9	5,616.0	18.9	19.3	97.74	163.9	-889.4	275.6	237.6	37.99	7.253		
5,800.0	5,719.0	5,799.8	5,714.2	19.3	19.7	97.62	166.2	-907.9	280.1	241.4	38.73	7.234		
5,900.0	5,817.4	5,899.7	5,812.3	19.6	20.1	97.50	168.5	-926.4	284.7	245.3	39.46	7.215		
6,000.0	5,915.7	5,999.6	5,910.4	20.0	20.4	97.38	170.9	-944.9	289.3	249.1	40.19	7.197		
6,100.0	6,014.1	6,099.4	6,008.6	20.4	20.8	97.27	173.2	-963.3	293.9	252.9	40.93	7.180		
6,200.0	6,112.4	6,199.3	6,106.7	20.7	21.2	97.16	175.5	-981.8	298.4	256.8	41.66	7.163		
6,300.0	6,210.8	6,299.2	6,204.9	21.1	21.5	97.05	177.9	-1,000.3	303.0	260.6	42.39	7.148		
6,400.0	6,308.9	6,399.2	6,302.9	21.5	21.9	94.94	180.2	-1,019.6	307.6	264.4	43.20	7.120		
6,500.0	6,403.5	6,499.3	6,397.9	22.2	22.6	92.67	182.5	-1,050.6	312.0	267.5	44.48	7.014		
6,600.0	6,492.0	6,599.5	6,487.1	23.1	23.5	91.59	184.7	-1,096.2	316.1	269.9	46.26	6.833		
6,700.0	6,572.1	6,700.0	6,568.1	24.2	24.6	90.94	186.8	-1,155.4	319.9	271.3	48.54	6.590		
6,800.0	6,642.0	6,800.6	6,638.9	25.6	26.0	90.50	188.6	-1,226.6	323.1	271.8	51.31	6.297		
6,900.0	6,699.8	6,901.3	6,697.7	27.2	27.6	90.20	190.2	-1,308.3	325.8	271.3	54.56	5.972		
7,000.0	6,744.2	7,002.2	6,743.0	29.0	29.4	89.99	191.4	-1,398.3	327.9	269.7	58.24	5.630		
7,100.0	6,774.0	7,103.2	6,773.5	31.0	31.5	89.87	192.4	-1,494.4	329.3	267.0	62.28	5.288		
7,200.0	6,788.5	7,204.2	6,788.5	33.1	33.6	89.82	193.0	-1,594.2	330.0	263.4	66.56	4.958		
7,300.0	6,790.0	7,304.7	6,790.0	35.3	35.8	89.83	193.3	-1,694.7	330.1	259.1	70.95	4.652		
7,400.0	6,790.0	7,404.7	6,790.0	37.5	38.0	89.83	193.5	-1,794.7	330.1	254.7	75.40	4.377		
7,500.0	6,790.0	7,504.7	6,790.0	39.8	40.3	89.83	193.8	-1,894.7	330.1	250.1	79.91	4.130		
7,600.0	6,790.0	7,604.7	6,790.0	42.1	42.6	89.83	194.0	-1,994.7	330.1	245.6	84.47	3.907		
7,700.0	6,790.0	7,704.7	6,790.0	44.4	44.9	89.83	194.3	-2,094.7	330.1	241.0	89.07	3.705		
7,800.0	6,790.0	7,804.7	6,790.0	46.7	47.2	89.83	194.5	-2,194.7	330.1	236.4	93.71	3.522		
7,900.0	6,790.0	7,904.7	6,790.0	49.0	49.5	89.83	194.8	-2,294.7	330.1	231.7	98.38	3.355		
8,000.0	6,790.0	8,004.7	6,790.0	51.3	51.8	89.83	195.0	-2,394.7	330.1	227.0	103.07	3.202		
8,100.0	6,790.0	8,104.7	6,790.0	53.7	54.2	89.83	195.3	-2,494.7	330.1	222.3	107.79	3.062		
8,200.0	6,790.0	8,204.7	6,790.0	56.1	56.6	89.83	195.5	-2,594.7	330.1	217.5	112.52	2.933		
8,300.0	6,790.0	8,304.7	6,790.0	58.4	58.9	89.83	195.8	-2,694.7	330.1	212.8	117.28	2.814		
8,400.0	6,790.0	8,404.7	6,790.0	60.8	61.3	89.83	196.0	-2,794.7	330.1	208.0	122.04	2.704		
8,500.0	6,790.0	8,504.7	6,790.0	63.2	63.7	89.83	196.3	-2,894.7	330.1	203.2	126.83	2.602		
8,600.0	6,790.0	8,604.7	6,790.0	65.6	66.1	89.83	196.5	-2,994.7	330.1	198.4	131.62	2.508		
8,700.0	6,790.0	8,704.7	6,790.0	68.0	68.5	89.83	196.8	-3,094.7	330.1	193.6	136.43	2.419		
8,800.0	6,790.0	8,804.7	6,790.0	70.4	70.9	89.83	197.0	-3,194.7	330.1	188.8	141.24	2.337		
8,900.0	6,790.0	8,904.7	6,790.0	72.8	73.3	89.83	197.3	-3,294.7	330.1	184.0	146.07	2.260		
9,000.0	6,790.0	9,004.7	6,790.0	75.2	75.7	89.83	197.5	-3,394.7	330.1	179.2	150.90	2.187		
9,100.0	6,790.0	9,104.7	6,790.0	77.7	78.2	89.83	197.8	-3,494.7	330.1	174.3	155.74	2.119		
9,200.0	6,790.0	9,204.7	6,790.0	80.1	80.6	89.83	198.0	-3,594.7	330.1	169.5	160.59	2.055		
9,300.0	6,790.0	9,304.7	6,790.0	82.5	83.0	89.83	198.3	-3,694.7	330.1	164.6	165.44	1.995		
9,400.0	6,790.0	9,404.7	6,790.0	84.9	85.4	89.83	198.5	-3,794.7	330.1	159.8	170.30	1.938		
9,500.0	6,790.0	9,504.7	6,790.0	87.4	87.9	89.83	198.8	-3,894.7	330.1	154.9	175.16	1.884		
9,600.0	6,790.0	9,604.7	6,790.0	89.8	90.3	89.83	199.0	-3,994.7	330.1	150.0	180.03	1.833		
9,700.0	6,790.0	9,704.7	6,790.0	92.2	92.7	89.83	199.3	-4,094.7	330.1	145.2	184.90	1.785		
9,800.0	6,790.0	9,804.7	6,790.0	94.7	95.2	89.83	199.5	-4,194.7	330.1	140.3	189.78	1.739		
9,900.0	6,790.0	9,904.7	6,790.0	97.1	97.6	89.83	199.8	-4,294.7	330.1	135.4	194.66	1.696		
10,000.0	6,790.0	10,004.7	6,790.0	99.6	100.0	89.83	200.0	-4,394.7	330.1	130.5	199.54	1.654		
10,100.0	6,790.0	10,104.7	6,790.0	102.0	102.5	89.83	200.3	-4,494.7	330.1	125.6	204.43	1.615		
10,200.0	6,790.0	10,204.7	6,790.0	104.4	104.9	89.83	200.5	-4,594.7	330.1	120.7	209.32	1.577		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 2 - Hz - Plan #1												Offset Site Error:	0.0 usft
Survey Program: O-Geolink MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
10,300.0	6,790.0	10,304.7	6,790.0	106.9	107.4	89.83	200.8	-4,694.7	330.1	115.8	214.21	1.541	
10,400.0	6,790.0	10,404.7	6,790.0	109.3	109.8	89.83	201.0	-4,794.7	330.1	111.0	219.11	1.506	
10,500.0	6,790.0	10,504.7	6,790.0	111.8	112.3	89.83	201.3	-4,894.7	330.1	106.1	224.00	1.473 Level 3	
10,600.0	6,790.0	10,604.7	6,790.0	114.2	114.7	89.83	201.5	-4,994.7	330.1	101.2	228.90	1.442 Level 3	
10,700.0	6,790.0	10,704.7	6,790.0	116.7	117.2	89.83	201.8	-5,094.7	330.1	96.3	233.80	1.412 Level 3	
10,800.0	6,790.0	10,804.7	6,790.0	119.1	119.6	89.83	202.0	-5,194.7	330.1	91.4	238.71	1.383 Level 3	
10,900.0	6,790.0	10,904.7	6,790.0	121.6	122.1	89.83	202.3	-5,294.7	330.1	86.4	243.61	1.355 Level 3	
11,000.0	6,790.0	11,004.7	6,790.0	124.0	124.5	89.83	202.5	-5,394.7	330.1	81.5	248.52	1.328 Level 3	
11,100.0	6,790.0	11,104.7	6,790.0	126.5	127.0	89.83	202.8	-5,494.7	330.1	76.6	253.43	1.302 Level 3	
11,200.0	6,790.0	11,204.7	6,790.0	128.9	129.4	89.83	203.0	-5,594.7	330.1	71.7	258.34	1.278 Level 3	
11,300.0	6,790.0	11,304.7	6,790.0	131.4	131.9	89.83	203.3	-5,694.7	330.1	66.8	263.25	1.254 Level 3	
11,400.0	6,790.0	11,404.7	6,790.0	133.9	134.3	89.83	203.5	-5,794.7	330.1	61.9	268.16	1.231 Level 2	
11,500.0	6,790.0	11,504.7	6,790.0	136.3	136.8	89.83	203.8	-5,894.7	330.1	57.0	273.08	1.209 Level 2	
11,600.0	6,790.0	11,604.7	6,790.0	138.8	139.3	89.83	204.0	-5,994.7	330.1	52.1	277.99	1.187 Level 2	
11,700.0	6,790.0	11,704.7	6,790.0	141.2	141.7	89.83	204.3	-6,094.7	330.1	47.2	282.91	1.167 Level 2	
11,800.0	6,790.0	11,804.7	6,790.0	143.7	144.2	89.83	204.5	-6,194.7	330.1	42.2	287.83	1.147 Level 2	
11,900.0	6,790.0	11,904.7	6,790.0	146.1	146.6	89.83	204.8	-6,294.7	330.1	37.3	292.75	1.127 Level 2	
12,000.0	6,790.0	12,004.7	6,790.0	148.6	149.1	89.83	205.0	-6,394.7	330.1	32.4	297.67	1.109 Level 2	
12,100.0	6,790.0	12,104.7	6,790.0	151.1	151.6	89.83	205.3	-6,494.7	330.1	27.5	302.59	1.091 Level 2	
12,200.0	6,790.0	12,204.7	6,790.0	153.5	154.0	89.83	205.5	-6,594.7	330.1	22.6	307.51	1.073 Level 2	
12,300.0	6,790.0	12,304.7	6,790.0	156.0	156.5	89.83	205.8	-6,694.7	330.1	17.6	312.43	1.056 Level 2	
12,400.0	6,790.0	12,404.7	6,790.0	158.5	158.9	89.83	206.0	-6,794.7	330.1	12.7	317.35	1.040 Level 2	
12,500.0	6,790.0	12,504.7	6,790.0	160.9	161.4	89.83	206.3	-6,894.7	330.1	7.8	322.28	1.024 Level 2	
12,600.0	6,790.0	12,604.7	6,790.0	163.4	163.9	89.83	206.5	-6,994.6	330.1	2.9	327.20	1.009 Level 2	
12,700.0	6,790.0	12,704.7	6,790.0	165.8	166.3	89.83	206.8	-7,094.6	330.1	-2.1	332.13	0.994 Level 1	
12,800.0	6,790.0	12,804.7	6,790.0	168.3	168.8	89.83	207.0	-7,194.6	330.1	-7.0	337.05	0.979 Level 1	
12,900.0	6,790.0	12,904.7	6,790.0	170.8	171.2	89.83	207.3	-7,294.6	330.1	-11.9	341.98	0.965 Level 1	
13,000.0	6,790.0	13,004.7	6,790.0	173.2	173.7	89.83	207.5	-7,394.6	330.1	-16.8	346.91	0.951 Level 1	
13,100.0	6,790.0	13,104.7	6,790.0	175.7	176.2	89.83	207.8	-7,494.6	330.1	-21.8	351.84	0.938 Level 1	
13,200.0	6,790.0	13,204.7	6,790.0	178.2	178.6	89.83	208.0	-7,594.6	330.1	-26.7	356.77	0.925 Level 1	
13,300.0	6,790.0	13,304.7	6,790.0	180.6	181.1	89.83	208.3	-7,694.6	330.1	-31.6	361.70	0.913 Level 1	
13,400.0	6,790.0	13,404.7	6,790.0	183.1	183.6	89.83	208.5	-7,794.6	330.1	-36.6	366.62	0.900 Level 1	
13,500.0	6,790.0	13,504.7	6,790.0	185.6	186.0	89.83	208.8	-7,894.6	330.1	-41.5	371.56	0.888 Level 1	
13,600.0	6,790.0	13,604.7	6,790.0	188.0	188.5	89.83	209.0	-7,994.6	330.1	-46.4	376.49	0.877 Level 1	
13,700.0	6,790.0	13,704.7	6,790.0	190.5	191.0	89.83	209.3	-8,094.6	330.1	-51.4	381.42	0.865 Level 1	
13,800.0	6,790.0	13,804.7	6,790.0	192.9	193.4	89.83	209.5	-8,194.6	330.1	-56.3	386.35	0.854 Level 1	
13,900.0	6,790.0	13,904.7	6,790.0	195.4	195.9	89.83	209.8	-8,294.6	330.1	-61.2	391.28	0.844 Level 1	
14,000.0	6,790.0	14,004.7	6,790.0	197.9	198.4	89.83	210.0	-8,394.6	330.1	-66.2	396.21	0.833 Level 1	
14,100.0	6,790.0	14,104.7	6,790.0	200.3	200.8	89.83	210.3	-8,494.6	330.1	-71.1	401.15	0.823 Level 1	
14,200.0	6,790.0	14,204.7	6,790.0	202.8	203.3	89.83	210.5	-8,594.6	330.1	-76.0	406.08	0.813 Level 1	
14,300.0	6,790.0	14,304.7	6,790.0	205.3	205.8	89.83	210.8	-8,694.6	330.1	-81.0	411.01	0.803 Level 1	
14,400.0	6,790.0	14,404.7	6,790.0	207.7	208.2	89.83	211.0	-8,794.6	330.1	-85.9	415.95	0.794 Level 1	
14,500.0	6,790.0	14,504.7	6,790.0	210.2	210.7	89.83	211.3	-8,894.6	330.1	-90.8	420.88	0.784 Level 1	
14,600.0	6,790.0	14,604.7	6,790.0	212.7	213.2	89.83	211.5	-8,994.6	330.1	-95.8	425.82	0.775 Level 1	
14,700.0	6,790.0	14,704.7	6,790.0	215.1	215.6	89.83	211.8	-9,094.6	330.1	-100.7	430.75	0.766 Level 1	
14,800.0	6,790.0	14,804.7	6,790.0	217.6	218.1	89.83	212.0	-9,194.6	330.1	-105.6	435.69	0.758 Level 1	
14,900.0	6,790.0	14,904.7	6,790.0	220.1	220.6	89.83	212.3	-9,294.6	330.1	-110.6	440.62	0.749 Level 1	
15,000.0	6,790.0	15,004.7	6,790.0	222.6	223.0	89.83	212.5	-9,394.6	330.1	-115.5	445.56	0.741 Level 1	
15,100.0	6,790.0	15,104.7	6,790.0	225.0	225.5	89.83	212.8	-9,494.6	330.1	-120.4	450.49	0.733 Level 1	
15,200.0	6,790.0	15,204.7	6,790.0	227.5	228.0	89.83	213.0	-9,594.6	330.1	-125.4	455.43	0.725 Level 1	
15,300.0	6,790.0	15,304.7	6,790.0	230.0	230.4	89.83	213.3	-9,694.6	330.1	-130.3	460.37	0.717 Level 1	
15,400.0	6,790.0	15,404.7	6,790.0	232.4	232.9	89.83	213.5	-9,794.6	330.1	-135.2	465.30	0.709 Level 1	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 2 - Hz - Plan #1												Offset Site Error:		0.0 usft
Survey Program: 0-Geolink MWD												Offset Well Error:		0.0 usft
Reference		Offset		Semi Major Axis			Distance					Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis			
15,500.0	6,790.0	15,504.7	6,790.0	234.9	235.4	89.83	213.8	-9,894.6	330.1	-140.2	470.24	0.702 Level 1		
15,600.0	6,790.0	15,604.7	6,790.0	237.4	237.8	89.83	214.0	-9,994.6	330.1	-145.1	475.18	0.695 Level 1		
15,700.0	6,790.0	15,704.7	6,790.0	239.8	240.3	89.83	214.3	-10,094.6	330.1	-150.1	480.12	0.687 Level 1		
15,800.0	6,790.0	15,804.7	6,790.0	242.3	242.8	89.83	214.5	-10,194.6	330.1	-155.0	485.06	0.680 Level 1		
15,900.0	6,790.0	15,904.7	6,790.0	244.8	245.2	89.83	214.8	-10,294.6	330.1	-159.9	489.99	0.674 Level 1		
16,000.0	6,790.0	16,004.7	6,790.0	247.2	247.7	89.83	215.0	-10,394.6	330.1	-164.9	494.93	0.667 Level 1		
16,100.0	6,790.0	16,104.7	6,790.0	249.7	250.2	89.83	215.3	-10,494.6	330.1	-169.8	499.87	0.660 Level 1		
16,200.0	6,790.0	16,204.7	6,790.0	252.2	252.7	89.83	215.5	-10,594.6	330.1	-174.7	504.81	0.654 Level 1		
16,300.0	6,790.0	16,304.7	6,790.0	254.6	255.1	89.83	215.8	-10,694.6	330.1	-179.7	509.75	0.647 Level 1		
16,400.0	6,790.0	16,404.7	6,790.0	257.1	257.6	89.83	216.0	-10,794.6	330.1	-184.6	514.69	0.641 Level 1		
16,500.0	6,790.0	16,504.7	6,790.0	259.6	260.1	89.83	216.3	-10,894.6	330.1	-189.6	519.63	0.635 Level 1		
16,600.0	6,790.0	16,604.7	6,790.0	262.1	262.5	89.83	216.5	-10,994.6	330.1	-194.5	524.57	0.629 Level 1		
16,700.0	6,790.0	16,704.7	6,790.0	264.5	265.0	89.83	216.8	-11,094.6	330.1	-199.4	529.51	0.623 Level 1		
16,800.0	6,790.0	16,804.7	6,790.0	267.0	267.5	89.83	217.0	-11,194.6	330.1	-204.4	534.45	0.618 Level 1		
16,900.0	6,790.0	16,904.7	6,790.0	269.5	269.9	89.83	217.3	-11,294.6	330.1	-209.3	539.39	0.612 Level 1		
17,000.0	6,790.0	17,004.7	6,790.0	271.9	272.4	89.83	217.5	-11,394.6	330.1	-214.3	544.33	0.606 Level 1		
17,100.0	6,790.0	17,104.7	6,790.0	274.4	274.9	89.83	217.8	-11,494.6	330.1	-219.2	549.27	0.601 Level 1		
17,200.0	6,790.0	17,204.7	6,790.0	276.9	277.4	89.83	218.0	-11,594.6	330.1	-224.1	554.21	0.596 Level 1		
17,300.0	6,790.0	17,304.7	6,790.0	279.3	279.8	89.83	218.3	-11,694.6	330.1	-229.1	559.15	0.590 Level 1		
17,390.1	6,790.0	17,394.7	6,790.0	281.6	282.0	89.83	218.5	-11,784.7	330.1	-233.5	563.60	0.586 Level 1, ES, SF		

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 3 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor		
0.0	0.0	1.0	1.0	0.0	0.0	30.93	23.7	14.2	27.6					
100.0	100.0	101.0	101.0	0.1	0.1	30.93	23.7	14.2	27.6	27.3	0.27	103.356		
200.0	200.0	201.0	201.0	0.3	0.3	30.93	23.7	14.2	27.6	27.0	0.62	44.797		
205.0	205.0	206.0	206.0	0.3	0.3	128.04	23.7	14.2	27.6	27.0	0.63	43.566 CC		
300.0	300.0	301.2	301.2	0.5	0.5	127.88	23.7	13.3	27.7	26.7	0.97	28.628		
400.0	400.0	401.5	401.5	0.7	0.7	127.45	23.7	10.6	27.9	26.6	1.32	21.108 ES		
500.0	499.9	501.7	501.6	0.9	0.9	126.77	23.7	6.2	28.4	26.7	1.69	16.774		
600.0	599.7	602.0	601.6	1.1	1.1	125.87	23.7	0.1	29.0	26.9	2.08	13.962		
700.0	699.4	702.2	701.6	1.3	1.3	124.78	23.7	-7.8	29.9	27.4	2.49	11.991		
800.0	798.9	802.4	801.3	1.5	1.5	123.54	23.8	-17.5	30.9	28.0	2.93	10.535		
900.0	898.3	902.7	900.9	1.8	1.8	122.17	23.8	-28.8	32.1	28.7	3.41	9.416		
1,000.0	997.4	1,002.9	1,000.3	2.0	2.0	120.73	23.8	-42.0	33.6	29.6	3.93	8.532		
1,100.0	1,096.3	1,103.1	1,099.4	2.3	2.3	119.24	23.9	-56.8	35.2	30.7	4.51	7.817		
1,200.0	1,194.9	1,203.3	1,198.2	2.7	2.7	117.78	23.9	-73.4	37.1	32.0	5.13	7.236		
1,300.0	1,293.3	1,303.3	1,296.7	3.0	3.0	117.51	24.0	-90.5	39.5	33.7	5.76	6.856		
1,400.0	1,391.7	1,403.2	1,395.2	3.3	3.3	117.47	24.0	-107.7	41.9	35.5	6.39	6.556		
1,500.0	1,490.0	1,503.2	1,493.6	3.7	3.7	117.44	24.1	-124.8	44.3	37.3	7.03	6.304		
1,600.0	1,588.4	1,603.2	1,592.1	4.0	4.0	117.41	24.1	-142.0	46.8	39.1	7.68	6.090		
1,700.0	1,686.7	1,703.1	1,690.6	4.4	4.3	117.38	24.2	-159.1	49.2	40.9	8.33	5.907		
1,800.0	1,785.1	1,803.1	1,789.1	4.8	4.7	117.35	24.2	-176.2	51.6	42.7	8.98	5.749		
1,900.0	1,883.4	1,903.1	1,887.6	5.1	5.0	117.33	24.3	-193.4	54.1	44.4	9.64	5.610		
2,000.0	1,981.8	2,003.1	1,986.1	5.5	5.4	117.31	24.3	-210.5	56.5	46.2	10.29	5.489		
2,100.0	2,080.1	2,103.0	2,084.6	5.8	5.7	117.29	24.3	-227.7	58.9	48.0	10.95	5.381		
2,200.0	2,178.5	2,203.0	2,183.1	6.2	6.1	117.27	24.4	-244.8	61.4	49.8	11.61	5.285		
2,300.0	2,276.8	2,303.0	2,281.6	6.6	6.4	117.26	24.4	-261.9	63.8	51.5	12.27	5.198		
2,400.0	2,375.2	2,402.9	2,380.1	6.9	6.8	117.24	24.5	-279.1	66.2	53.3	12.93	5.120		
2,500.0	2,473.5	2,502.9	2,478.5	7.3	7.1	117.23	24.5	-296.2	68.7	55.1	13.60	5.050		
2,600.0	2,571.9	2,602.9	2,577.0	7.6	7.5	117.22	24.6	-313.4	71.1	56.8	14.26	4.986		
2,700.0	2,670.2	2,702.8	2,675.5	8.0	7.8	117.20	24.6	-330.5	73.5	58.6	14.92	4.927		
2,800.0	2,768.6	2,802.8	2,774.0	8.4	8.1	117.19	24.7	-347.6	76.0	60.4	15.59	4.873		
2,900.0	2,866.9	2,902.8	2,872.5	8.7	8.5	117.18	24.7	-364.8	78.4	62.1	16.25	4.823		
3,000.0	2,965.3	3,002.8	2,971.0	9.1	8.8	117.17	24.8	-381.9	80.8	63.9	16.92	4.777		
3,100.0	3,063.6	3,102.7	3,069.5	9.4	9.2	117.16	24.8	-399.1	83.3	65.7	17.58	4.735		
3,200.0	3,162.0	3,202.7	3,168.0	9.8	9.5	117.15	24.9	-416.2	85.7	67.4	18.25	4.695		
3,300.0	3,260.3	3,302.7	3,266.5	10.2	9.9	117.14	24.9	-433.3	88.1	69.2	18.92	4.659		
3,400.0	3,358.7	3,402.6	3,365.0	10.5	10.2	117.14	25.0	-450.5	90.6	71.0	19.58	4.624		
3,500.0	3,457.0	3,502.6	3,463.4	10.9	10.6	117.13	25.0	-467.6	93.0	72.7	20.25	4.592		
3,600.0	3,555.4	3,602.6	3,561.9	11.3	10.9	117.12	25.1	-484.8	95.4	74.5	20.92	4.562		
3,700.0	3,653.7	3,702.5	3,660.4	11.6	11.3	117.11	25.1	-501.9	97.9	76.3	21.58	4.534		
3,800.0	3,752.1	3,802.5	3,758.9	12.0	11.6	117.11	25.2	-519.0	100.3	78.0	22.25	4.507		
3,900.0	3,850.4	3,902.5	3,857.4	12.4	12.0	117.10	25.2	-536.2	102.7	79.8	22.92	4.482		
4,000.0	3,948.7	4,002.5	3,955.9	12.7	12.3	117.10	25.2	-553.3	105.2	81.6	23.59	4.458		
4,100.0	4,047.1	4,102.4	4,054.4	13.1	12.7	117.09	25.3	-570.5	107.6	83.3	24.25	4.436		
4,200.0	4,145.4	4,202.4	4,152.9	13.5	13.0	117.08	25.3	-587.6	110.0	85.1	24.92	4.415		
4,300.0	4,243.8	4,302.4	4,251.4	13.8	13.4	117.08	25.4	-604.7	112.5	86.9	25.59	4.394		
4,400.0	4,342.1	4,402.3	4,349.9	14.2	13.7	117.07	25.4	-621.9	114.9	88.6	26.26	4.375		
4,500.0	4,440.5	4,502.3	4,448.3	14.5	14.1	117.07	25.5	-639.0	117.3	90.4	26.93	4.357		
4,600.0	4,538.8	4,602.3	4,546.8	14.9	14.4	117.06	25.5	-656.2	119.8	92.2	27.59	4.340		
4,700.0	4,637.2	4,702.3	4,645.3	15.3	14.8	117.06	25.6	-673.3	122.2	93.9	28.26	4.323		
4,800.0	4,735.5	4,802.2	4,743.8	15.6	15.1	117.06	25.6	-690.4	124.6	95.7	28.93	4.307		
4,900.0	4,833.9	4,902.2	4,842.3	16.0	15.5	117.05	25.7	-707.6	127.1	97.5	29.60	4.292		
5,000.0	4,932.2	5,002.2	4,940.8	16.4	15.8	117.05	25.7	-724.7	129.5	99.2	30.27	4.278		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 3 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance			Total Uncertainty Axis	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference  (usft)	Offset  (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)				Between Ellipses (usft)	
5,100.0	5,030.6	5,102.1	5,039.3	16.7	16.2	117.04	25.8	-741.9	131.9	101.0	30.94	4.264		
5,200.0	5,128.9	5,202.1	5,137.8	17.1	16.5	117.04	25.8	-759.0	134.4	102.7	31.61	4.251		
5,300.0	5,227.3	5,302.1	5,236.3	17.5	16.9	117.04	25.9	-776.1	136.8	104.5	32.27	4.238		
5,400.0	5,325.6	5,402.0	5,334.8	17.8	17.2	117.03	25.9	-793.3	139.2	106.3	32.94	4.226		
5,500.0	5,424.0	5,502.0	5,433.2	18.2	17.6	117.03	26.0	-810.4	141.6	108.0	33.61	4.214		
5,600.0	5,522.3	5,602.0	5,531.7	18.6	17.9	117.03	26.0	-827.6	144.1	109.8	34.28	4.203		
5,700.0	5,620.7	5,702.0	5,630.2	18.9	18.3	117.02	26.1	-844.7	146.5	111.6	34.95	4.192		
5,800.0	5,719.0	5,801.9	5,728.7	19.3	18.6	117.02	26.1	-861.8	148.9	113.3	35.62	4.182		
5,900.0	5,817.4	5,901.9	5,827.2	19.6	19.0	117.02	26.2	-879.0	151.4	115.1	36.29	4.172		
6,000.0	5,915.7	6,001.9	5,925.7	20.0	19.3	117.02	26.2	-896.1	153.8	116.9	36.96	4.162		
6,100.0	6,014.1	6,101.8	6,024.2	20.4	19.7	117.01	26.2	-913.3	156.2	118.6	37.63	4.153		
6,200.0	6,112.4	6,201.8	6,122.7	20.7	20.0	117.01	26.3	-930.4	158.7	120.4	38.30	4.143		
6,300.0	6,210.8	6,301.8	6,221.2	21.1	20.4	117.01	26.3	-947.5	161.1	122.1	38.97	4.135		
6,400.0	6,308.9	6,401.7	6,319.6	21.5	20.7	115.40	26.4	-964.7	164.0	124.4	39.59	4.143		
6,500.0	6,403.5	6,500.4	6,416.9	22.2	21.1	117.15	26.4	-981.6	171.9	132.3	39.59	4.341		
6,600.0	6,492.0	6,595.5	6,510.6	23.1	21.4	122.92	26.5	-997.9	188.5	149.7	38.72	4.867		
6,700.0	6,572.1	6,688.1	6,601.7	24.2	21.7	129.99	26.5	-1,013.9	217.5	180.4	37.11	5.862		
6,800.0	6,642.0	6,807.8	6,716.3	25.6	22.4	137.91	26.6	-1,048.0	254.2	219.4	34.82	7.299		
6,900.0	6,699.8	6,944.2	6,836.4	27.2	23.7	143.93	26.8	-1,112.1	291.0	258.0	33.04	8.807		
7,000.0	6,744.2	7,100.8	6,953.8	29.0	25.6	148.38	27.0	-1,215.1	324.0	292.0	31.96	10.135		
7,100.0	6,774.0	7,279.4	7,052.4	31.0	28.6	151.37	27.4	-1,363.3	349.0	317.1	31.90	10.940		
7,200.0	6,788.5	7,475.8	7,108.9	33.1	32.5	152.85	27.9	-1,550.6	362.2	329.0	33.25	10.895		
7,300.0	6,790.0	7,620.6	7,115.0	35.3	35.6	153.01	28.3	-1,695.1	363.6	328.1	35.50	10.242		
7,400.0	6,790.0	7,720.6	7,115.0	37.5	37.8	153.01	28.5	-1,795.1	363.6	326.1	37.53	9.687		
7,500.0	6,790.0	7,820.6	7,115.0	39.8	40.1	153.01	28.7	-1,895.1	363.6	324.0	39.59	9.184		
7,600.0	6,790.0	7,920.6	7,115.0	42.1	42.3	153.01	29.0	-1,995.1	363.6	321.9	41.67	8.725		
7,700.0	6,790.0	8,020.6	7,115.0	44.4	44.6	153.01	29.2	-2,095.1	363.6	319.8	43.77	8.307		
7,800.0	6,790.0	8,120.6	7,115.0	46.7	46.9	153.01	29.5	-2,195.1	363.6	317.7	45.89	7.924		
7,900.0	6,790.0	8,220.6	7,115.0	49.0	49.3	153.01	29.7	-2,295.1	363.6	315.6	48.02	7.572		
8,000.0	6,790.0	8,320.6	7,115.0	51.3	51.6	153.01	30.0	-2,395.1	363.6	313.4	50.16	7.248		
8,100.0	6,790.0	8,420.6	7,115.0	53.7	53.9	153.01	30.2	-2,495.1	363.6	311.3	52.32	6.950		
8,200.0	6,790.0	8,520.6	7,115.0	56.1	56.3	153.01	30.5	-2,595.1	363.6	309.1	54.48	6.674		
8,300.0	6,790.0	8,620.6	7,115.0	58.4	58.7	153.01	30.7	-2,695.1	363.6	307.0	56.65	6.418		
8,400.0	6,790.0	8,720.6	7,115.0	60.8	61.1	153.01	31.0	-2,795.1	363.6	304.8	58.83	6.180		
8,500.0	6,790.0	8,820.6	7,115.0	63.2	63.4	153.01	31.2	-2,895.1	363.6	302.6	61.02	5.959		
8,600.0	6,790.0	8,920.6	7,115.0	65.6	65.8	153.01	31.5	-2,995.1	363.6	300.4	63.21	5.752		
8,700.0	6,790.0	9,020.6	7,115.0	68.0	68.2	153.01	31.7	-3,095.1	363.6	298.2	65.41	5.559		
8,800.0	6,790.0	9,120.6	7,115.0	70.4	70.6	153.01	32.0	-3,195.1	363.6	296.0	67.61	5.378		
8,900.0	6,790.0	9,220.6	7,115.0	72.8	73.0	153.01	32.2	-3,295.1	363.6	293.8	69.82	5.208		
9,000.0	6,790.0	9,320.6	7,115.0	75.2	75.5	153.01	32.5	-3,395.1	363.6	291.6	72.03	5.048		
9,100.0	6,790.0	9,420.6	7,115.0	77.7	77.9	153.01	32.7	-3,495.1	363.6	289.4	74.25	4.897		
9,200.0	6,790.0	9,520.6	7,115.0	80.1	80.3	153.01	33.0	-3,595.1	363.6	287.1	76.47	4.755		
9,300.0	6,790.0	9,620.6	7,115.0	82.5	82.7	153.01	33.2	-3,695.1	363.6	284.9	78.69	4.621		
9,400.0	6,790.0	9,720.6	7,115.0	84.9	85.1	153.01	33.5	-3,795.1	363.6	282.7	80.91	4.494		
9,500.0	6,790.0	9,820.6	7,115.0	87.4	87.6	153.01	33.7	-3,895.1	363.6	280.5	83.14	4.373		
9,600.0	6,790.0	9,920.6	7,115.0	89.8	90.0	153.01	34.0	-3,995.1	363.6	278.2	85.37	4.259		
9,700.0	6,790.0	10,020.6	7,115.0	92.2	92.4	153.01	34.2	-4,095.1	363.6	276.0	87.60	4.151		
9,800.0	6,790.0	10,120.6	7,115.0	94.7	94.9	153.01	34.5	-4,195.1	363.6	273.8	89.84	4.047		
9,900.0	6,790.0	10,220.6	7,115.0	97.1	97.3	153.01	34.7	-4,295.1	363.6	271.5	92.07	3.949		
10,000.0	6,790.0	10,320.6	7,115.0	99.6	99.8	153.01	35.0	-4,395.1	363.6	269.3	94.31	3.855		
10,100.0	6,790.0	10,420.6	7,115.0	102.0	102.2	153.01	35.2	-4,495.1	363.6	267.1	96.55	3.766		
10,200.0	6,790.0	10,520.6	7,115.0	104.4	104.6	153.01	35.5	-4,595.1	363.6	264.8	98.79	3.681		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 3 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis			
10,300.0	6,790.0	10,620.6	7,115.0	106.9	107.1	153.01	35.7	-4,695.1	363.6	262.6	101.03	3.599		
10,400.0	6,790.0	10,720.6	7,115.0	109.3	109.5	153.01	36.0	-4,795.1	363.6	260.3	103.28	3.521		
10,500.0	6,790.0	10,820.6	7,115.0	111.8	112.0	153.01	36.2	-4,895.1	363.6	258.1	105.52	3.446		
10,600.0	6,790.0	10,920.6	7,115.0	114.2	114.4	153.01	36.5	-4,995.1	363.6	255.8	107.77	3.374		
10,700.0	6,790.0	11,020.6	7,115.0	116.7	116.9	153.01	36.7	-5,095.1	363.6	253.6	110.02	3.305		
10,800.0	6,790.0	11,120.6	7,115.0	119.1	119.3	153.01	37.0	-5,195.1	363.6	251.3	112.26	3.239		
10,900.0	6,790.0	11,220.6	7,115.0	121.6	121.8	153.01	37.2	-5,295.1	363.6	249.1	114.51	3.175		
11,000.0	6,790.0	11,320.6	7,115.0	124.0	124.2	153.01	37.5	-5,395.1	363.6	246.8	116.76	3.114		
11,100.0	6,790.0	11,420.6	7,115.0	126.5	126.7	153.01	37.7	-5,495.1	363.6	244.6	119.01	3.055		
11,200.0	6,790.0	11,520.6	7,115.0	128.9	129.1	153.01	38.0	-5,595.1	363.6	242.3	121.27	2.998		
11,300.0	6,790.0	11,620.6	7,115.0	131.4	131.6	153.01	38.2	-5,695.1	363.6	240.1	123.52	2.944		
11,400.0	6,790.0	11,720.6	7,115.0	133.9	134.0	153.01	38.5	-5,795.1	363.6	237.8	125.77	2.891		
11,500.0	6,790.0	11,820.6	7,115.0	136.3	136.5	153.01	38.7	-5,895.1	363.6	235.6	128.03	2.840		
11,600.0	6,790.0	11,920.6	7,115.0	138.8	139.0	153.01	39.0	-5,995.1	363.6	233.3	130.28	2.791		
11,700.0	6,790.0	12,020.6	7,115.0	141.2	141.4	153.01	39.2	-6,095.1	363.6	231.1	132.54	2.743		
11,800.0	6,790.0	12,120.6	7,115.0	143.7	143.9	153.01	39.5	-6,195.1	363.6	228.8	134.79	2.698		
11,900.0	6,790.0	12,220.6	7,115.0	146.1	146.3	153.01	39.7	-6,295.1	363.6	226.6	137.05	2.653		
12,000.0	6,790.0	12,320.6	7,115.0	148.6	148.8	153.01	40.0	-6,395.1	363.6	224.3	139.30	2.610		
12,100.0	6,790.0	12,420.6	7,115.0	151.1	151.3	153.01	40.2	-6,495.1	363.6	222.0	141.56	2.569		
12,200.0	6,790.0	12,520.6	7,115.0	153.5	153.7	153.01	40.5	-6,595.1	363.6	219.8	143.82	2.528		
12,300.0	6,790.0	12,620.6	7,115.0	156.0	156.2	153.01	40.7	-6,695.1	363.6	217.5	146.08	2.489		
12,400.0	6,790.0	12,720.6	7,115.0	158.5	158.6	153.01	41.0	-6,795.1	363.6	215.3	148.34	2.451		
12,500.0	6,790.0	12,820.6	7,115.0	160.9	161.1	153.01	41.2	-6,895.1	363.6	213.0	150.60	2.414		
12,600.0	6,790.0	12,920.6	7,115.0	163.4	163.6	153.01	41.5	-6,995.1	363.6	210.8	152.86	2.379		
12,700.0	6,790.0	13,020.6	7,115.0	165.8	166.0	153.01	41.7	-7,095.1	363.6	208.5	155.12	2.344		
12,800.0	6,790.0	13,120.6	7,115.0	168.3	168.5	153.01	42.0	-7,195.1	363.6	206.2	157.38	2.310		
12,900.0	6,790.0	13,220.6	7,115.0	170.8	170.9	153.01	42.2	-7,295.1	363.6	204.0	159.64	2.278		
13,000.0	6,790.0	13,320.6	7,115.0	173.2	173.4	153.01	42.5	-7,395.1	363.6	201.7	161.90	2.246		
13,100.0	6,790.0	13,420.6	7,115.0	175.7	175.9	153.01	42.7	-7,495.1	363.6	199.4	164.16	2.215		
13,200.0	6,790.0	13,520.6	7,115.0	178.2	178.3	153.01	43.0	-7,595.1	363.6	197.2	166.42	2.185		
13,300.0	6,790.0	13,620.6	7,115.0	180.6	180.8	153.01	43.2	-7,695.1	363.6	194.9	168.68	2.156		
13,400.0	6,790.0	13,720.6	7,115.0	183.1	183.3	153.01	43.5	-7,795.1	363.6	192.7	170.95	2.127		
13,500.0	6,790.0	13,820.6	7,115.0	185.6	185.7	153.01	43.7	-7,895.1	363.6	190.4	173.21	2.099		
13,600.0	6,790.0	13,920.6	7,115.0	188.0	188.2	153.01	44.0	-7,995.1	363.6	188.1	175.47	2.072		
13,700.0	6,790.0	14,020.6	7,115.0	190.5	190.7	153.01	44.2	-8,095.1	363.6	185.9	177.73	2.046		
13,800.0	6,790.0	14,120.6	7,115.0	192.9	193.1	153.01	44.5	-8,195.1	363.6	183.6	180.00	2.020		
13,900.0	6,790.0	14,220.6	7,115.0	195.4	195.6	153.01	44.7	-8,295.1	363.6	181.3	182.26	1.995		
14,000.0	6,790.0	14,320.6	7,115.0	197.9	198.1	153.01	45.0	-8,395.1	363.6	179.1	184.53	1.971		
14,100.0	6,790.0	14,420.6	7,115.0	200.3	200.5	153.01	45.2	-8,495.1	363.6	176.8	186.79	1.947		
14,200.0	6,790.0	14,520.6	7,115.0	202.8	203.0	153.01	45.5	-8,595.1	363.6	174.6	189.05	1.923		
14,300.0	6,790.0	14,620.6	7,115.0	205.3	205.5	153.01	45.7	-8,695.1	363.6	172.3	191.32	1.901		
14,400.0	6,790.0	14,720.6	7,115.0	207.7	207.9	153.01	46.0	-8,795.1	363.6	170.0	193.58	1.878		
14,500.0	6,790.0	14,820.6	7,115.0	210.2	210.4	153.01	46.2	-8,895.1	363.6	167.8	195.85	1.857		
14,600.0	6,790.0	14,920.6	7,115.0	212.7	212.9	153.01	46.5	-8,995.1	363.6	165.5	198.11	1.835		
14,700.0	6,790.0	15,020.6	7,115.0	215.1	215.3	153.01	46.7	-9,095.1	363.6	163.2	200.38	1.815		
14,800.0	6,790.0	15,120.6	7,115.0	217.6	217.8	153.01	47.0	-9,195.1	363.6	161.0	202.64	1.794		
14,900.0	6,790.0	15,220.6	7,115.0	220.1	220.3	153.01	47.2	-9,295.1	363.6	158.7	204.91	1.774		
15,000.0	6,790.0	15,320.6	7,115.0	222.6	222.7	153.01	47.5	-9,395.1	363.6	156.4	207.17	1.755		
15,100.0	6,790.0	15,420.6	7,115.0	225.0	225.2	153.01	47.7	-9,495.1	363.6	154.2	209.44	1.736		
15,200.0	6,790.0	15,520.6	7,115.0	227.5	227.7	153.01	48.0	-9,595.1	363.6	151.9	211.71	1.718		
15,300.0	6,790.0	15,620.6	7,115.0	230.0	230.1	153.01	48.2	-9,695.1	363.6	149.6	213.97	1.699		
15,400.0	6,790.0	15,720.6	7,115.0	232.4	232.6	153.01	48.5	-9,795.1	363.6	147.4	216.24	1.682		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 3 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
15,500.0	6,790.0	15,820.6	7,115.0	234.9	235.1	153.01	48.7	-9,895.1	363.6	145.1	218.51	1.664		
15,600.0	6,790.0	15,920.6	7,115.0	237.4	237.5	153.01	49.0	-9,995.1	363.6	142.8	220.77	1.647		
15,700.0	6,790.0	16,020.6	7,115.0	239.8	240.0	153.01	49.2	-10,095.1	363.6	140.6	223.04	1.630		
15,800.0	6,790.0	16,120.6	7,115.0	242.3	242.5	153.01	49.5	-10,195.1	363.6	138.3	225.31	1.614		
15,900.0	6,790.0	16,220.6	7,115.0	244.8	244.9	153.01	49.7	-10,295.1	363.6	136.0	227.57	1.598		
16,000.0	6,790.0	16,320.6	7,115.0	247.2	247.4	153.01	50.0	-10,395.1	363.6	133.8	229.84	1.582		
16,100.0	6,790.0	16,420.6	7,115.0	249.7	249.9	153.01	50.2	-10,495.1	363.6	131.5	232.11	1.567		
16,200.0	6,790.0	16,520.6	7,115.0	252.2	252.3	153.01	50.5	-10,595.1	363.6	129.2	234.37	1.551		
16,300.0	6,790.0	16,620.6	7,115.0	254.6	254.8	153.01	50.7	-10,695.1	363.6	127.0	236.64	1.537		
16,400.0	6,790.0	16,720.6	7,115.0	257.1	257.3	153.01	51.0	-10,795.1	363.6	124.7	238.91	1.522		
16,500.0	6,790.0	16,820.6	7,115.0	259.6	259.8	153.01	51.2	-10,895.1	363.6	122.4	241.18	1.508		
16,600.0	6,790.0	16,920.6	7,115.0	262.1	262.2	153.01	51.5	-10,995.0	363.6	120.2	243.44	1.494 Level 3		
16,700.0	6,790.0	17,020.6	7,115.0	264.5	264.7	153.01	51.7	-11,095.0	363.6	117.9	245.71	1.480 Level 3		
16,800.0	6,790.0	17,120.6	7,115.0	267.0	267.2	153.01	52.0	-11,195.0	363.6	115.6	247.98	1.466 Level 3		
16,900.0	6,790.0	17,220.6	7,115.0	269.5	269.6	153.01	52.2	-11,295.0	363.6	113.4	250.25	1.453 Level 3		
17,000.0	6,790.0	17,320.6	7,115.0	271.9	272.1	153.01	52.5	-11,395.0	363.6	111.1	252.52	1.440 Level 3		
17,100.0	6,790.0	17,420.6	7,115.0	274.4	274.6	153.01	52.7	-11,495.0	363.6	108.8	254.78	1.427 Level 3		
17,200.0	6,790.0	17,520.6	7,115.0	276.9	277.0	153.01	53.0	-11,595.0	363.6	106.6	257.05	1.415 Level 3		
17,300.0	6,790.0	17,620.6	7,115.0	279.3	279.5	153.01	53.2	-11,695.0	363.6	104.3	259.32	1.402 Level 3		
17,390.1	6,790.0	17,710.6	7,115.0	281.6	281.7	153.01	53.5	-11,785.1	363.6	102.2	261.36	1.391 Level 3, SF		

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 5 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	1.0	1.0	0.0	0.0	-148.49	-24.0	-14.7	28.2					
100.0	100.0	101.0	101.0	0.1	0.0	-148.49	-24.0	-14.7	28.2	28.1	0.13	212.326		
166.3	166.3	167.3	167.3	0.2	0.0	-148.49	-24.0	-14.7	28.2	28.0	0.25	113.456 CC		
200.0	200.0	201.0	201.0	0.3	0.0	-148.49	-24.0	-14.7	28.2	27.9	0.31	91.765		
300.0	300.0	300.6	300.6	0.5	0.0	-51.62	-24.3	-15.6	28.4	27.9	0.48	58.759 ES		
400.0	400.0	400.2	400.2	0.7	0.0	-52.39	-25.2	-18.0	28.8	28.1	0.66	43.550		
500.0	499.9	500.0	499.9	0.9	0.0	-53.64	-26.7	-22.1	29.4	28.6	0.84	34.893		
600.0	599.7	599.4	599.1	1.1	0.0	-55.30	-28.7	-27.9	30.4	29.4	1.04	29.358		
700.0	699.4	699.0	698.4	1.3	0.0	-57.29	-31.3	-35.2	31.7	30.5	1.24	25.545		
800.0	798.9	798.6	797.5	1.5	0.0	-59.51	-34.4	-44.2	33.3	31.9	1.46	22.779		
900.0	898.3	898.2	896.5	1.8	0.0	-61.87	-38.2	-54.8	35.3	33.6	1.70	20.696		
1,000.0	997.4	997.8	995.2	2.0	0.0	-64.28	-42.5	-67.0	37.6	35.6	1.97	19.083		
1,100.0	1,096.3	1,097.3	1,093.7	2.3	0.0	-66.67	-47.4	-80.9	40.3	38.0	2.26	17.810		
1,200.0	1,194.9	1,196.8	1,191.8	2.7	0.0	-68.99	-52.8	-96.3	43.4	40.8	2.58	16.792		
1,300.0	1,293.3	1,296.4	1,289.7	3.0	0.0	-70.87	-58.8	-113.4	47.0	44.1	2.92	16.074		
1,400.0	1,391.7	1,395.8	1,387.2	3.3	0.0	-70.98	-65.4	-132.0	51.4	48.2	3.25	15.800		
1,500.0	1,490.0	1,495.3	1,484.4	3.7	0.0	-69.66	-72.5	-152.2	56.7	53.2	3.58	15.869		
1,600.0	1,588.4	1,595.2	1,581.8	4.0	0.0	-68.27	-79.8	-172.7	62.3	58.4	3.89	16.003		
1,700.0	1,686.7	1,695.0	1,679.2	4.4	0.0	-67.10	-87.0	-193.3	67.9	63.7	4.21	16.126		
1,800.0	1,785.1	1,794.8	1,776.6	4.8	0.0	-66.11	-94.3	-213.9	73.5	69.0	4.53	16.238		
1,900.0	1,883.4	1,894.7	1,874.0	5.1	0.0	-65.26	-101.6	-234.5	79.1	74.3	4.84	16.340		
2,000.0	1,981.8	1,994.5	1,971.5	5.5	0.0	-64.52	-108.8	-255.1	84.8	79.6	5.16	16.433		
2,100.0	2,080.1	2,094.4	2,068.9	5.8	0.0	-63.88	-116.1	-275.6	90.4	84.9	5.47	16.518		
2,200.0	2,178.5	2,194.2	2,166.3	6.2	0.0	-63.31	-123.3	-296.2	96.1	90.3	5.79	16.597		
2,300.0	2,276.8	2,294.0	2,263.7	6.6	0.0	-62.80	-130.6	-316.8	101.8	95.6	6.10	16.669		
2,400.0	2,375.2	2,393.9	2,361.1	6.9	0.0	-62.35	-137.9	-337.4	107.4	101.0	6.42	16.735		
2,500.0	2,473.5	2,493.7	2,458.6	7.3	0.0	-61.95	-145.1	-357.9	113.1	106.4	6.73	16.796		
2,600.0	2,571.9	2,593.5	2,556.0	7.6	0.0	-61.58	-152.4	-378.5	118.8	111.8	7.05	16.853		
2,700.0	2,670.2	2,693.4	2,653.4	8.0	0.0	-61.25	-159.6	-399.1	124.5	117.1	7.36	16.906		
2,800.0	2,768.6	2,793.2	2,750.8	8.4	0.0	-60.94	-166.9	-419.7	130.2	122.5	7.68	16.956		
2,900.0	2,866.9	2,893.0	2,848.2	8.7	0.0	-60.66	-174.2	-440.3	135.9	127.9	7.99	17.002		
3,000.0	2,965.3	2,992.9	2,945.7	9.1	0.0	-60.41	-181.4	-460.8	141.6	133.3	8.31	17.045		
3,100.0	3,063.6	3,092.7	3,043.1	9.4	0.0	-60.17	-188.7	-481.4	147.3	138.7	8.62	17.085		
3,200.0	3,162.0	3,192.5	3,140.5	9.8	0.0	-59.95	-195.9	-502.0	153.0	144.1	8.94	17.123		
3,300.0	3,260.3	3,292.4	3,237.9	10.2	0.0	-59.75	-203.2	-522.6	158.8	149.5	9.25	17.158		
3,400.0	3,358.7	3,392.2	3,335.4	10.5	0.0	-59.56	-210.5	-543.2	164.5	154.9	9.57	17.192		
3,500.0	3,457.0	3,492.0	3,432.8	10.9	0.0	-59.38	-217.7	-563.7	170.2	160.3	9.88	17.223		
3,600.0	3,555.4	3,591.9	3,530.2	11.3	0.0	-59.22	-225.0	-584.3	175.9	165.7	10.20	17.253		
3,700.0	3,653.7	3,691.7	3,627.6	11.6	0.0	-59.06	-232.2	-604.9	181.6	171.1	10.51	17.281		
3,800.0	3,752.1	3,791.6	3,725.0	12.0	0.0	-58.92	-239.5	-625.5	187.3	176.5	10.82	17.308		
3,900.0	3,850.4	3,891.4	3,822.5	12.4	0.0	-58.78	-246.8	-646.1	193.1	181.9	11.14	17.333		
4,000.0	3,948.7	3,991.2	3,919.9	12.7	0.0	-58.65	-254.0	-666.6	198.8	187.3	11.45	17.358		
4,100.0	4,047.1	4,091.1	4,017.3	13.1	0.0	-58.53	-261.3	-687.2	204.5	192.7	11.77	17.381		
4,200.0	4,145.4	4,190.9	4,114.7	13.5	0.0	-58.41	-268.5	-707.8	210.2	198.2	12.08	17.403		
4,300.0	4,243.8	4,290.7	4,212.1	13.8	0.0	-58.31	-275.8	-728.4	216.0	203.6	12.40	17.423		
4,400.0	4,342.1	4,390.6	4,309.6	14.2	0.0	-58.20	-283.1	-749.0	221.7	209.0	12.71	17.443		
4,500.0	4,440.5	4,490.4	4,407.0	14.5	0.0	-58.10	-290.3	-769.5	227.4	214.4	13.02	17.462		
4,600.0	4,538.8	4,590.2	4,504.4	14.9	0.0	-58.01	-297.6	-790.1	233.1	219.8	13.34	17.481		
4,700.0	4,637.2	4,690.1	4,601.8	15.3	0.0	-57.92	-304.8	-810.7	238.9	225.2	13.65	17.498		
4,800.0	4,735.5	4,789.9	4,699.2	15.6	0.0	-57.84	-312.1	-831.3	244.6	230.6	13.97	17.515		
4,900.0	4,833.9	4,889.7	4,796.7	16.0	0.0	-57.76	-319.4	-851.9	250.3	236.1	14.28	17.531		
5,000.0	4,932.2	4,989.6	4,894.1	16.4	0.0	-57.68	-326.6	-872.4	256.1	241.5	14.59	17.546		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 5 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
5,100.0	5,030.6	5,089.4	4,991.5	16.7	0.0	-57.61	-333.9	-893.0	261.8	246.9	14.91	17.561		
5,200.0	5,128.9	5,189.2	5,088.9	17.1	0.0	-57.54	-341.1	-913.6	267.5	252.3	15.22	17.575		
5,300.0	5,227.3	5,289.1	5,186.3	17.5	0.0	-57.47	-348.4	-934.2	273.3	257.7	15.54	17.589		
5,400.0	5,325.6	5,388.9	5,283.8	17.8	0.0	-57.40	-355.7	-954.8	279.0	263.1	15.85	17.602		
5,500.0	5,424.0	5,488.7	5,381.2	18.2	0.0	-57.34	-362.9	-975.3	284.7	268.6	16.16	17.615		
5,600.0	5,522.3	5,588.6	5,478.6	18.6	0.0	-57.28	-370.2	-995.9	290.5	274.0	16.48	17.627		
5,700.0	5,620.7	5,688.4	5,576.0	18.9	0.0	-57.22	-377.4	-1,016.5	296.2	279.4	16.79	17.639		
5,800.0	5,719.0	5,788.3	5,673.5	19.3	0.0	-57.17	-384.7	-1,037.1	301.9	284.8	17.11	17.650		
5,900.0	5,817.4	5,888.1	5,770.9	19.6	0.0	-57.12	-392.0	-1,057.7	307.6	290.2	17.42	17.661		
6,000.0	5,915.7	5,987.9	5,868.3	20.0	0.0	-57.07	-399.2	-1,078.2	313.4	295.6	17.73	17.672		
6,100.0	6,014.1	6,087.8	5,965.7	20.4	0.0	-57.02	-406.5	-1,098.8	319.1	301.1	18.05	17.682		
6,200.0	6,112.4	6,187.6	6,063.1	20.7	0.0	-56.97	-413.7	-1,119.4	324.9	306.5	18.36	17.692		
6,300.0	6,210.8	6,287.4	6,160.6	21.1	0.0	-56.92	-421.0	-1,140.0	330.6	311.9	18.68	17.701		
6,400.0	6,308.9	6,387.3	6,258.0	21.5	0.0	-56.88	-428.3	-1,160.6	335.7	316.7	19.03	17.638		
6,500.0	6,403.5	6,474.2	6,342.2	22.2	0.0	-62.29	-434.5	-1,181.1	336.7	316.9	19.79	17.011		
6,600.0	6,492.0	6,556.9	6,419.2	23.1	0.0	-64.98	-440.2	-1,210.5	336.5	315.6	20.85	16.134		
6,700.0	6,572.1	6,640.7	6,492.7	24.2	0.0	-67.69	-445.6	-1,250.3	335.4	313.2	22.23	15.090		
6,800.0	6,642.0	6,726.0	6,561.5	25.6	0.0	-70.62	-450.7	-1,300.3	333.9	310.0	23.92	13.960		
6,900.0	6,699.8	6,813.1	6,624.2	27.2	0.0	-73.82	-455.2	-1,360.5	332.2	306.3	25.91	12.824		
7,000.0	6,744.2	6,902.4	6,679.4	29.0	0.0	-77.30	-459.2	-1,430.5	330.7	302.5	28.13	11.754		
7,100.0	6,774.0	6,994.2	6,725.4	31.0	0.0	-81.02	-462.5	-1,509.8	329.6	299.1	30.51	10.803		
7,198.1	6,788.4	7,087.2	6,760.0	33.1	0.0	-84.85	-464.8	-1,596.0	329.2	296.3	32.87	10.014		
7,200.0	6,788.5	7,089.0	6,760.5	33.1	0.0	-84.93	-464.9	-1,597.7	329.2	296.3	32.91	10.001		
7,300.0	6,790.0	7,187.8	6,782.8	35.3	0.0	-88.57	-466.3	-1,693.8	329.6	294.4	35.22	9.359		
7,400.0	6,790.0	7,290.6	6,790.0	37.5	0.0	-89.83	-466.6	-1,796.3	330.1	292.6	37.46	8.812		
7,500.0	6,790.0	7,390.6	6,790.0	39.8	0.0	-89.83	-466.3	-1,896.3	330.1	290.4	39.71	8.312		
7,600.0	6,790.0	7,490.6	6,790.0	42.1	0.0	-89.83	-466.1	-1,996.3	330.1	288.1	41.99	7.861		
7,700.0	6,790.0	7,590.6	6,790.0	44.4	0.0	-89.83	-465.8	-2,096.3	330.1	285.8	44.29	7.452		
7,800.0	6,790.0	7,690.6	6,790.0	46.7	0.0	-89.83	-465.6	-2,196.3	330.1	283.5	46.61	7.082		
7,900.0	6,790.0	7,790.6	6,790.0	49.0	0.0	-89.83	-465.3	-2,296.3	330.1	281.1	48.94	6.744		
8,000.0	6,790.0	7,890.6	6,790.0	51.3	0.0	-89.83	-465.1	-2,396.3	330.1	278.8	51.29	6.436		
8,100.0	6,790.0	7,990.6	6,790.0	53.7	0.0	-89.83	-464.8	-2,496.3	330.1	276.4	53.65	6.153		
8,200.0	6,790.0	8,090.6	6,790.0	56.1	0.0	-89.83	-464.6	-2,596.3	330.1	274.0	56.01	5.893		
8,300.0	6,790.0	8,190.6	6,790.0	58.4	0.0	-89.83	-464.3	-2,696.3	330.1	271.7	58.39	5.653		
8,400.0	6,790.0	8,290.6	6,790.0	60.8	0.0	-89.83	-464.1	-2,796.3	330.1	269.3	60.77	5.431		
8,500.0	6,790.0	8,390.6	6,790.0	63.2	0.0	-89.83	-463.8	-2,896.3	330.1	266.9	63.17	5.225		
8,600.0	6,790.0	8,490.6	6,790.0	65.6	0.0	-89.83	-463.6	-2,996.3	330.1	264.5	65.56	5.034		
8,700.0	6,790.0	8,590.6	6,790.0	68.0	0.0	-89.83	-463.3	-3,096.3	330.1	262.1	67.97	4.856		
8,800.0	6,790.0	8,690.6	6,790.0	70.4	0.0	-89.83	-463.1	-3,196.3	330.1	259.7	70.38	4.690		
8,900.0	6,790.0	8,790.6	6,790.0	72.8	0.0	-89.83	-462.8	-3,296.3	330.1	257.3	72.79	4.535		
9,000.0	6,790.0	8,890.6	6,790.0	75.2	0.0	-89.83	-462.6	-3,396.3	330.1	254.9	75.20	4.389		
9,100.0	6,790.0	8,990.6	6,790.0	77.7	0.0	-89.83	-462.3	-3,496.3	330.1	252.4	77.63	4.252		
9,200.0	6,790.0	9,090.6	6,790.0	80.1	0.0	-89.83	-462.1	-3,596.3	330.1	250.0	80.05	4.123		
9,300.0	6,790.0	9,190.6	6,790.0	82.5	0.0	-89.83	-461.8	-3,696.3	330.1	247.6	82.48	4.002		
9,400.0	6,790.0	9,290.6	6,790.0	84.9	0.0	-89.83	-461.6	-3,796.3	330.1	245.2	84.90	3.887		
9,500.0	6,790.0	9,390.6	6,790.0	87.4	0.0	-89.83	-461.3	-3,896.3	330.1	242.7	87.34	3.779		
9,600.0	6,790.0	9,490.6	6,790.0	89.8	0.0	-89.83	-461.1	-3,996.3	330.1	240.3	89.77	3.677		
9,700.0	6,790.0	9,590.6	6,790.0	92.2	0.0	-89.83	-460.8	-4,096.3	330.1	237.9	92.21	3.580		
9,800.0	6,790.0	9,690.6	6,790.0	94.7	0.0	-89.83	-460.6	-4,196.3	330.1	235.4	94.65	3.487		
9,900.0	6,790.0	9,790.6	6,790.0	97.1	0.0	-89.83	-460.3	-4,296.3	330.1	233.0	97.09	3.400		
10,000.0	6,790.0	9,890.6	6,790.0	99.6	0.0	-89.83	-460.1	-4,396.3	330.1	230.5	99.53	3.316		
10,100.0	6,790.0	9,990.6	6,790.0	102.0	0.0	-89.83	-459.8	-4,496.3	330.1	228.1	101.97	3.237		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

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<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 5 - Hz - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor	
10,200.0	6,790.0	10,090.6	6,790.0	104.4	0.0	-89.83	-459.6	-4,596.3	330.1	225.6	104.42	3.161	
10,300.0	6,790.0	10,190.6	6,790.0	106.9	0.0	-89.83	-459.3	-4,696.3	330.1	223.2	106.86	3.089	
10,400.0	6,790.0	10,290.6	6,790.0	109.3	0.0	-89.83	-459.1	-4,796.3	330.1	220.8	109.31	3.020	
10,500.0	6,790.0	10,390.6	6,790.0	111.8	0.0	-89.83	-458.8	-4,896.3	330.1	218.3	111.76	2.953	
10,600.0	6,790.0	10,490.6	6,790.0	114.2	0.0	-89.83	-458.6	-4,996.3	330.1	215.9	114.21	2.890	
10,700.0	6,790.0	10,590.6	6,790.0	116.7	0.0	-89.83	-458.3	-5,096.3	330.1	213.4	116.66	2.829	
10,800.0	6,790.0	10,690.6	6,790.0	119.1	0.0	-89.83	-458.1	-5,196.3	330.1	211.0	119.11	2.771	
10,900.0	6,790.0	10,790.6	6,790.0	121.6	0.0	-89.83	-457.8	-5,296.3	330.1	208.5	121.56	2.715	
11,000.0	6,790.0	10,890.6	6,790.0	124.0	0.0	-89.83	-457.6	-5,396.3	330.1	206.0	124.02	2.661	
11,100.0	6,790.0	10,990.6	6,790.0	126.5	0.0	-89.83	-457.3	-5,496.3	330.1	203.6	126.47	2.610	
11,200.0	6,790.0	11,090.6	6,790.0	128.9	0.0	-89.83	-457.1	-5,596.3	330.1	201.1	128.93	2.560	
11,300.0	6,790.0	11,190.6	6,790.0	131.4	0.0	-89.83	-456.8	-5,696.3	330.1	198.7	131.38	2.512	
11,400.0	6,790.0	11,290.6	6,790.0	133.9	0.0	-89.83	-456.6	-5,796.3	330.1	196.2	133.84	2.466	
11,500.0	6,790.0	11,390.6	6,790.0	136.3	0.0	-89.83	-456.3	-5,896.3	330.1	193.8	136.30	2.422	
11,600.0	6,790.0	11,490.6	6,790.0	138.8	0.0	-89.83	-456.1	-5,996.3	330.1	191.3	138.75	2.379	
11,700.0	6,790.0	11,590.6	6,790.0	141.2	0.0	-89.83	-455.8	-6,096.3	330.1	188.8	141.21	2.337	
11,800.0	6,790.0	11,690.6	6,790.0	143.7	0.0	-89.83	-455.6	-6,196.3	330.1	186.4	143.67	2.297	
11,900.0	6,790.0	11,790.6	6,790.0	146.1	0.0	-89.83	-455.3	-6,296.3	330.1	183.9	146.13	2.259	
12,000.0	6,790.0	11,890.6	6,790.0	148.6	0.0	-89.83	-455.1	-6,396.3	330.1	181.5	148.59	2.221	
12,100.0	6,790.0	11,990.6	6,790.0	151.1	0.0	-89.83	-454.8	-6,496.3	330.1	179.0	151.05	2.185	
12,200.0	6,790.0	12,090.6	6,790.0	153.5	0.0	-89.83	-454.6	-6,596.3	330.1	176.5	153.51	2.150	
12,300.0	6,790.0	12,190.6	6,790.0	156.0	0.0	-89.83	-454.3	-6,696.3	330.1	174.1	155.97	2.116	
12,400.0	6,790.0	12,290.6	6,790.0	158.5	0.0	-89.83	-454.1	-6,796.3	330.1	171.6	158.44	2.083	
12,500.0	6,790.0	12,390.6	6,790.0	160.9	0.0	-89.83	-453.8	-6,896.3	330.1	169.2	160.90	2.051	
12,600.0	6,790.0	12,490.6	6,790.0	163.4	0.0	-89.83	-453.6	-6,996.3	330.1	166.7	163.36	2.020	
12,700.0	6,790.0	12,590.6	6,790.0	165.8	0.0	-89.83	-453.3	-7,096.3	330.1	164.2	165.82	1.990	
12,800.0	6,790.0	12,690.6	6,790.0	168.3	0.0	-89.83	-453.1	-7,196.3	330.1	161.8	168.29	1.961	
12,900.0	6,790.0	12,790.6	6,790.0	170.8	0.0	-89.83	-452.8	-7,296.3	330.1	159.3	170.75	1.933	
13,000.0	6,790.0	12,890.6	6,790.0	173.2	0.0	-89.83	-452.6	-7,396.3	330.1	156.8	173.21	1.906	
13,100.0	6,790.0	12,990.6	6,790.0	175.7	0.0	-89.83	-452.3	-7,496.3	330.1	154.4	175.68	1.879	
13,200.0	6,790.0	13,090.6	6,790.0	178.2	0.0	-89.83	-452.1	-7,596.3	330.1	151.9	178.14	1.853	
13,300.0	6,790.0	13,190.6	6,790.0	180.6	0.0	-89.83	-451.8	-7,696.3	330.1	149.5	180.61	1.828	
13,400.0	6,790.0	13,290.6	6,790.0	183.1	0.0	-89.83	-451.6	-7,796.3	330.1	147.0	183.07	1.803	
13,500.0	6,790.0	13,390.6	6,790.0	185.6	0.0	-89.83	-451.3	-7,896.3	330.1	144.5	185.54	1.779	
13,600.0	6,790.0	13,490.6	6,790.0	188.0	0.0	-89.83	-451.1	-7,996.3	330.1	142.1	188.00	1.756	
13,700.0	6,790.0	13,590.6	6,790.0	190.5	0.0	-89.83	-450.8	-8,096.3	330.1	139.6	190.47	1.733	
13,800.0	6,790.0	13,690.6	6,790.0	192.9	0.0	-89.83	-450.6	-8,196.3	330.1	137.1	192.93	1.711	
13,900.0	6,790.0	13,790.6	6,790.0	195.4	0.0	-89.83	-450.3	-8,296.3	330.1	134.7	195.40	1.689	
14,000.0	6,790.0	13,890.6	6,790.0	197.9	0.0	-89.83	-450.1	-8,396.3	330.1	132.2	197.87	1.668	
14,100.0	6,790.0	13,990.6	6,790.0	200.3	0.0	-89.83	-449.8	-8,496.3	330.1	129.7	200.33	1.648	
14,200.0	6,790.0	14,090.6	6,790.0	202.8	0.0	-89.83	-449.6	-8,596.3	330.1	127.3	202.80	1.628	
14,300.0	6,790.0	14,190.6	6,790.0	205.3	0.0	-89.83	-449.4	-8,696.3	330.1	124.8	205.27	1.608	
14,400.0	6,790.0	14,290.6	6,790.0	207.7	0.0	-89.83	-449.1	-8,796.3	330.1	122.3	207.73	1.589	
14,500.0	6,790.0	14,390.6	6,790.0	210.2	0.0	-89.83	-448.9	-8,896.3	330.1	119.9	210.20	1.570	
14,600.0	6,790.0	14,490.6	6,790.0	212.7	0.0	-89.83	-448.6	-8,996.3	330.1	117.4	212.67	1.552	
14,700.0	6,790.0	14,590.6	6,790.0	215.1	0.0	-89.83	-448.4	-9,096.3	330.1	114.9	215.14	1.534	
14,800.0	6,790.0	14,690.6	6,790.0	217.6	0.0	-89.83	-448.1	-9,196.3	330.1	112.5	217.60	1.517	
14,900.0	6,790.0	14,790.6	6,790.0	220.1	0.0	-89.83	-447.9	-9,296.3	330.1	110.0	220.07	1.500 Level 3	
15,000.0	6,790.0	14,890.6	6,790.0	222.6	0.0	-89.83	-447.6	-9,396.3	330.1	107.5	222.54	1.483 Level 3	
15,100.0	6,790.0	14,990.6	6,790.0	225.0	0.0	-89.83	-447.4	-9,496.3	330.1	105.1	225.01	1.467 Level 3	
15,200.0	6,790.0	15,090.6	6,790.0	227.5	0.0	-89.83	-447.1	-9,596.3	330.1	102.6	227.48	1.451 Level 3	
15,300.0	6,790.0	15,190.6	6,790.0	230.0	0.0	-89.83	-446.9	-9,696.3	330.1	100.1	229.94	1.435 Level 3	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 5 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
15,400.0	6,790.0	15,290.6	6,790.0	232.4	0.0	-89.83	-446.6	-9,796.3	330.1	97.6	232.41	1.420	Level 3	
15,500.0	6,790.0	15,390.6	6,790.0	234.9	0.0	-89.83	-446.4	-9,896.3	330.1	95.2	234.88	1.405	Level 3	
15,600.0	6,790.0	15,490.6	6,790.0	237.4	0.0	-89.83	-446.1	-9,996.3	330.1	92.7	237.35	1.391	Level 3	
15,700.0	6,790.0	15,590.6	6,790.0	239.8	0.0	-89.83	-445.9	-10,096.3	330.1	90.2	239.82	1.376	Level 3	
15,800.0	6,790.0	15,690.6	6,790.0	242.3	0.0	-89.83	-445.6	-10,196.3	330.1	87.8	242.29	1.362	Level 3	
15,900.0	6,790.0	15,790.6	6,790.0	244.8	0.0	-89.83	-445.4	-10,296.3	330.1	85.3	244.76	1.349	Level 3	
16,000.0	6,790.0	15,890.6	6,790.0	247.2	0.0	-89.83	-445.1	-10,396.3	330.1	82.8	247.23	1.335	Level 3	
16,100.0	6,790.0	15,990.6	6,790.0	249.7	0.0	-89.83	-444.9	-10,496.3	330.1	80.4	249.70	1.322	Level 3	
16,200.0	6,790.0	16,090.6	6,790.0	252.2	0.0	-89.83	-444.6	-10,596.3	330.1	77.9	252.17	1.309	Level 3	
16,300.0	6,790.0	16,190.6	6,790.0	254.6	0.0	-89.83	-444.4	-10,696.3	330.1	75.4	254.63	1.296	Level 3	
16,400.0	6,790.0	16,290.6	6,790.0	257.1	0.0	-89.83	-444.1	-10,796.3	330.1	73.0	257.10	1.284	Level 3	
16,500.0	6,790.0	16,390.6	6,790.0	259.6	0.0	-89.83	-443.9	-10,896.3	330.1	70.5	259.57	1.272	Level 3	
16,600.0	6,790.0	16,490.6	6,790.0	262.1	0.0	-89.83	-443.6	-10,996.3	330.1	68.0	262.04	1.260	Level 3	
16,700.0	6,790.0	16,590.6	6,790.0	264.5	0.0	-89.83	-443.4	-11,096.3	330.1	65.5	264.51	1.248	Level 2	
16,800.0	6,790.0	16,690.6	6,790.0	267.0	0.0	-89.83	-443.1	-11,196.3	330.1	63.1	266.98	1.236	Level 2	
16,900.0	6,790.0	16,790.6	6,790.0	269.5	0.0	-89.83	-442.9	-11,296.3	330.1	60.6	269.45	1.225	Level 2	
17,000.0	6,790.0	16,890.6	6,790.0	271.9	0.0	-89.83	-442.6	-11,396.3	330.1	58.1	271.92	1.214	Level 2	
17,100.0	6,790.0	16,990.6	6,790.0	274.4	0.0	-89.83	-442.4	-11,496.3	330.1	55.7	274.39	1.203	Level 2	
17,200.0	6,790.0	17,090.6	6,790.0	276.9	0.0	-89.83	-442.1	-11,596.3	330.1	53.2	276.86	1.192	Level 2	
17,300.0	6,790.0	17,190.6	6,790.0	279.3	0.0	-89.83	-441.9	-11,696.3	330.1	50.7	279.33	1.182	Level 2	
17,364.9	6,790.0	17,255.5	6,790.0	280.9	0.0	-89.83	-441.7	-11,761.2	330.1	49.1	280.94	1.175	Level 2	
17,390.1	6,790.0	17,280.0	6,790.0	281.6	0.0	-89.83	-441.6	-11,785.7	330.1	48.5	281.56	1.172	Level 2, SF	

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 6 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	1.0	1.0	0.0	0.0	-148.97	-48.1	-28.9	56.1					
100.0	100.0	101.0	101.0	0.1	0.0	-148.97	-48.1	-28.9	56.1	56.0	0.13	422.453		
166.3	166.3	167.3	167.3	0.2	0.0	-148.97	-48.1	-28.9	56.1	55.9	0.25	225.736 CC		
200.0	200.0	201.0	201.0	0.3	0.0	-148.97	-48.1	-28.9	56.1	55.8	0.31	182.580		
217.1	217.1	217.9	217.9	0.3	0.0	-51.86	-48.1	-29.0	56.1	55.8	0.34	166.412 ES		
300.0	300.0	300.0	300.0	0.5	0.0	-52.06	-48.5	-29.7	56.3	55.8	0.48	116.721		
400.0	400.0	399.4	399.3	0.7	0.0	-52.66	-49.6	-32.1	56.9	56.2	0.66	86.132		
500.0	499.9	498.5	498.4	0.9	0.0	-53.65	-51.4	-36.0	57.8	57.0	0.84	68.530		
600.0	599.7	597.7	597.4	1.1	0.0	-54.97	-54.0	-41.4	59.2	58.1	1.04	57.124		
700.0	699.4	696.9	696.2	1.3	0.0	-56.60	-57.3	-48.4	60.9	59.7	1.24	49.145		
800.0	798.9	796.0	794.9	1.5	0.0	-58.45	-61.3	-56.9	63.2	61.7	1.46	43.258		
900.0	898.3	895.1	893.4	1.8	0.0	-60.48	-66.1	-67.0	65.9	64.2	1.70	38.744		
1,000.0	997.4	994.2	991.6	2.0	0.0	-62.62	-71.6	-78.6	69.1	67.1	1.96	35.185		
1,100.0	1,096.3	1,093.2	1,089.6	2.3	0.0	-64.81	-77.8	-91.7	72.8	70.6	2.25	32.322		
1,200.0	1,194.9	1,192.2	1,187.2	2.7	0.0	-67.00	-84.7	-106.4	77.1	74.5	2.57	29.990		
1,300.0	1,293.3	1,291.1	1,284.6	3.0	0.0	-68.99	-92.4	-122.6	82.1	79.2	2.91	28.223		
1,400.0	1,391.7	1,390.0	1,381.5	3.3	0.0	-69.97	-100.7	-140.2	88.1	84.9	3.25	27.148		
1,500.0	1,490.0	1,489.5	1,478.7	3.7	0.0	-70.17	-109.7	-159.2	95.0	91.4	3.58	26.529		
1,600.0	1,588.4	1,589.2	1,576.2	4.0	0.0	-70.30	-118.8	-178.4	102.0	98.0	3.92	26.017		
1,700.0	1,686.7	1,689.0	1,673.7	4.4	0.0	-70.42	-127.8	-197.5	108.9	104.7	4.26	25.574		
1,800.0	1,785.1	1,788.7	1,771.1	4.8	0.0	-70.52	-136.9	-216.6	115.9	111.3	4.60	25.187		
1,900.0	1,883.4	1,888.5	1,868.6	5.1	0.0	-70.61	-145.9	-235.8	122.8	117.9	4.94	24.847		
2,000.0	1,981.8	1,988.3	1,966.1	5.5	0.0	-70.69	-155.0	-254.9	129.8	124.5	5.29	24.546		
2,100.0	2,080.1	2,088.0	2,063.6	5.8	0.0	-70.76	-164.0	-274.0	136.8	131.1	5.63	24.278		
2,200.0	2,178.5	2,187.8	2,161.1	6.2	0.0	-70.82	-173.1	-293.2	143.7	137.8	5.98	24.038		
2,300.0	2,276.8	2,287.5	2,258.6	6.6	0.0	-70.88	-182.1	-312.3	150.7	144.4	6.33	23.822		
2,400.0	2,375.2	2,387.3	2,356.1	6.9	0.0	-70.93	-191.2	-331.4	157.7	151.0	6.67	23.626		
2,500.0	2,473.5	2,487.0	2,453.5	7.3	0.0	-70.98	-200.2	-350.6	164.6	157.6	7.02	23.448		
2,600.0	2,571.9	2,586.8	2,551.0	7.6	0.0	-71.03	-209.3	-369.7	171.6	164.2	7.37	23.286		
2,700.0	2,670.2	2,686.6	2,648.5	8.0	0.0	-71.07	-218.3	-388.8	178.5	170.8	7.72	23.138		
2,800.0	2,768.6	2,786.3	2,746.0	8.4	0.0	-71.11	-227.4	-408.0	185.5	177.4	8.07	23.001		
2,900.0	2,866.9	2,886.1	2,843.5	8.7	0.0	-71.14	-236.4	-427.1	192.5	184.1	8.41	22.875		
3,000.0	2,965.3	2,985.8	2,941.0	9.1	0.0	-71.17	-245.5	-446.2	199.4	190.7	8.76	22.759		
3,100.0	3,063.6	3,085.6	3,038.5	9.4	0.0	-71.20	-254.5	-465.4	206.4	197.3	9.11	22.651		
3,200.0	3,162.0	3,185.3	3,136.0	9.8	0.0	-71.23	-263.6	-484.5	213.4	203.9	9.46	22.550		
3,300.0	3,260.3	3,285.1	3,233.4	10.2	0.0	-71.26	-272.6	-503.6	220.3	210.5	9.81	22.457		
3,400.0	3,358.7	3,384.9	3,330.9	10.5	0.0	-71.29	-281.7	-522.8	227.3	217.1	10.16	22.369		
3,500.0	3,457.0	3,484.6	3,428.4	10.9	0.0	-71.31	-290.7	-541.9	234.3	223.7	10.51	22.287		
3,600.0	3,555.4	3,584.4	3,525.9	11.3	0.0	-71.33	-299.8	-561.0	241.2	230.4	10.86	22.210		
3,700.0	3,653.7	3,684.1	3,623.4	11.6	0.0	-71.35	-308.8	-580.2	248.2	237.0	11.21	22.138		
3,800.0	3,752.1	3,783.9	3,720.9	12.0	0.0	-71.37	-317.9	-599.3	255.1	243.6	11.56	22.070		
3,900.0	3,850.4	3,883.6	3,818.4	12.4	0.0	-71.39	-326.9	-618.4	262.1	250.2	11.91	22.005		
4,000.0	3,948.7	3,983.4	3,915.8	12.7	0.0	-71.41	-336.0	-637.6	269.1	256.8	12.26	21.944		
4,100.0	4,047.1	4,083.2	4,013.3	13.1	0.0	-71.43	-345.0	-656.7	276.0	263.4	12.61	21.887		
4,200.0	4,145.4	4,182.9	4,110.8	13.5	0.0	-71.44	-354.1	-675.8	283.0	270.0	12.96	21.832		
4,300.0	4,243.8	4,282.7	4,208.3	13.8	0.0	-71.46	-363.1	-695.0	290.0	276.6	13.31	21.781		
4,400.0	4,342.1	4,382.4	4,305.8	14.2	0.0	-71.47	-372.2	-714.1	296.9	283.3	13.66	21.731		
4,500.0	4,440.5	4,482.2	4,403.3	14.5	0.0	-71.49	-381.2	-733.2	303.9	289.9	14.01	21.685		
4,600.0	4,538.8	4,581.9	4,500.8	14.9	0.0	-71.50	-390.3	-752.4	310.9	296.5	14.36	21.640		
4,700.0	4,637.2	4,681.7	4,598.2	15.3	0.0	-71.51	-399.3	-771.5	317.8	303.1	14.72	21.597		
4,800.0	4,735.5	4,781.5	4,695.7	15.6	0.0	-71.53	-408.4	-790.6	324.8	309.7	15.07	21.557		
4,900.0	4,833.9	4,881.2	4,793.2	16.0	0.0	-71.54	-417.4	-809.7	331.7	316.3	15.42	21.518		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 6 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
5,000.0	4,932.2	4,981.0	4,890.7	16.4	0.0	-71.55	-426.5	-828.9	338.7	322.9	15.77	21.481		
5,100.0	5,030.6	5,080.7	4,988.2	16.7	0.0	-71.56	-435.5	-848.0	345.7	329.5	16.12	21.445		
5,200.0	5,128.9	5,180.5	5,085.7	17.1	0.0	-71.57	-444.6	-867.1	352.6	336.2	16.47	21.411		
5,300.0	5,227.3	5,280.2	5,183.2	17.5	0.0	-71.58	-453.6	-886.3	359.6	342.8	16.82	21.378		
5,400.0	5,325.6	5,380.0	5,280.6	17.8	0.0	-71.59	-462.7	-905.4	366.6	349.4	17.17	21.347		
5,500.0	5,424.0	5,479.8	5,378.1	18.2	0.0	-71.60	-471.7	-924.5	373.5	356.0	17.52	21.317		
5,600.0	5,522.3	5,579.5	5,475.6	18.6	0.0	-71.61	-480.8	-943.7	380.5	362.6	17.87	21.288		
5,700.0	5,620.7	5,679.3	5,573.1	18.9	0.0	-71.62	-489.8	-962.8	387.5	369.2	18.22	21.260		
5,800.0	5,719.0	5,779.0	5,670.6	19.3	0.0	-71.62	-498.9	-981.9	394.4	375.8	18.58	21.233		
5,900.0	5,817.4	5,878.8	5,768.1	19.6	0.0	-71.63	-507.9	-1,001.1	401.4	382.5	18.93	21.207		
6,000.0	5,915.7	5,978.5	5,865.6	20.0	0.0	-71.64	-517.0	-1,020.2	408.3	389.1	19.28	21.182		
6,100.0	6,014.1	6,078.3	5,963.0	20.4	0.0	-71.65	-526.0	-1,039.3	415.3	395.7	19.63	21.158		
6,200.0	6,112.4	6,178.1	6,060.5	20.7	0.0	-71.65	-535.1	-1,058.5	422.3	402.3	19.98	21.134		
6,300.0	6,210.8	6,277.8	6,158.0	21.1	0.0	-71.66	-544.1	-1,077.6	429.2	408.9	20.33	21.112		
6,400.0	6,308.9	6,377.6	6,255.5	21.5	0.0	-73.55	-553.2	-1,096.7	435.9	415.2	20.72	21.040		
6,500.0	6,403.5	6,476.4	6,352.0	22.2	0.0	-77.03	-562.1	-1,115.7	440.4	418.9	21.47	20.509		
6,600.0	6,492.0	6,571.9	6,445.4	23.1	0.0	-81.24	-570.8	-1,134.0	443.4	420.8	22.61	19.612		
6,700.0	6,572.1	6,661.8	6,533.3	24.2	0.0	-86.34	-578.9	-1,151.3	447.7	423.7	24.00	18.652		
6,800.0	6,642.0	6,745.2	6,614.7	25.6	0.0	-91.74	-586.5	-1,167.4	457.2	431.7	25.52	17.920		
6,900.0	6,699.8	6,837.5	6,702.9	27.2	0.0	-97.41	-594.7	-1,193.3	474.1	447.1	27.02	17.543		
7,000.0	6,744.2	6,941.8	6,796.7	29.0	0.0	-102.95	-603.3	-1,237.6	497.4	469.0	28.42	17.503		
7,100.0	6,774.0	7,063.5	6,895.4	31.0	0.0	-108.49	-612.3	-1,307.9	525.5	495.9	29.59	17.763		
7,200.0	6,788.5	7,211.0	6,994.5	33.1	0.0	-114.11	-621.3	-1,416.4	555.6	525.2	30.38	18.285		
7,300.0	6,790.0	7,397.2	7,079.9	35.3	0.0	-120.43	-628.9	-1,580.9	582.0	551.4	30.63	19.001		
7,400.0	6,790.0	7,616.9	7,115.0	37.5	0.0	-123.20	-631.6	-1,796.7	591.7	560.0	31.65	18.692		
7,500.0	6,790.0	7,716.9	7,115.0	39.8	0.0	-123.20	-631.4	-1,896.7	591.7	558.1	33.54	17.639		
7,600.0	6,790.0	7,816.9	7,115.0	42.1	0.0	-123.20	-631.1	-1,996.7	591.7	556.2	35.45	16.689		
7,700.0	6,790.0	7,916.9	7,115.0	44.4	0.0	-123.20	-630.9	-2,096.7	591.7	554.3	37.38	15.828		
7,800.0	6,790.0	8,016.9	7,115.0	46.7	0.0	-123.20	-630.6	-2,196.7	591.7	552.4	39.32	15.046		
7,900.0	6,790.0	8,116.9	7,115.0	49.0	0.0	-123.20	-630.4	-2,296.7	591.7	550.4	41.28	14.334		
8,000.0	6,790.0	8,216.9	7,115.0	51.3	0.0	-123.20	-630.1	-2,396.7	591.7	548.4	43.24	13.682		
8,100.0	6,790.0	8,316.9	7,115.0	53.7	0.0	-123.20	-629.9	-2,496.7	591.7	546.5	45.22	13.084		
8,200.0	6,790.0	8,416.9	7,115.0	56.1	0.0	-123.20	-629.6	-2,596.7	591.7	544.5	47.20	12.535		
8,300.0	6,790.0	8,516.9	7,115.0	58.4	0.0	-123.20	-629.4	-2,696.7	591.7	542.5	49.20	12.027		
8,400.0	6,790.0	8,616.9	7,115.0	60.8	0.0	-123.20	-629.1	-2,796.7	591.7	540.5	51.19	11.558		
8,500.0	6,790.0	8,716.9	7,115.0	63.2	0.0	-123.20	-628.9	-2,896.7	591.7	538.5	53.20	11.123		
8,600.0	6,790.0	8,816.9	7,115.0	65.6	0.0	-123.20	-628.6	-2,996.7	591.7	536.5	55.21	10.718		
8,700.0	6,790.0	8,916.9	7,115.0	68.0	0.0	-123.20	-628.4	-3,096.7	591.7	534.5	57.22	10.341		
8,800.0	6,790.0	9,016.9	7,115.0	70.4	0.0	-123.20	-628.1	-3,196.7	591.7	532.4	59.24	9.989		
8,900.0	6,790.0	9,116.9	7,115.0	72.8	0.0	-123.20	-627.9	-3,296.7	591.7	530.4	61.26	9.659		
9,000.0	6,790.0	9,216.9	7,115.0	75.2	0.0	-123.20	-627.6	-3,396.7	591.7	528.4	63.28	9.350		
9,100.0	6,790.0	9,316.9	7,115.0	77.7	0.0	-123.20	-627.4	-3,496.7	591.7	526.4	65.31	9.060		
9,200.0	6,790.0	9,416.9	7,115.0	80.1	0.0	-123.20	-627.1	-3,596.7	591.7	524.3	67.34	8.786		
9,300.0	6,790.0	9,516.9	7,115.0	82.5	0.0	-123.20	-626.9	-3,696.7	591.7	522.3	69.37	8.529		
9,400.0	6,790.0	9,616.9	7,115.0	84.9	0.0	-123.20	-626.6	-3,796.7	591.7	520.3	71.41	8.286		
9,500.0	6,790.0	9,716.9	7,115.0	87.4	0.0	-123.20	-626.4	-3,896.7	591.7	518.2	73.45	8.056		
9,600.0	6,790.0	9,816.9	7,115.0	89.8	0.0	-123.20	-626.1	-3,996.7	591.7	516.2	75.48	7.838		
9,700.0	6,790.0	9,916.9	7,115.0	92.2	0.0	-123.20	-625.9	-4,096.7	591.7	514.2	77.53	7.632		
9,800.0	6,790.0	10,016.9	7,115.0	94.7	0.0	-123.20	-625.6	-4,196.7	591.7	512.1	79.57	7.436		
9,900.0	6,790.0	10,116.9	7,115.0	97.1	0.0	-123.20	-625.4	-4,296.7	591.7	510.1	81.61	7.250		
10,000.0	6,790.0	10,216.9	7,115.0	99.6	0.0	-123.20	-625.1	-4,396.7	591.7	508.0	83.66	7.073		
10,100.0	6,790.0	10,316.9	7,115.0	102.0	0.0	-123.20	-624.9	-4,496.7	591.7	506.0	85.71	6.904		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 6 - Hz - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
10,200.0	6,790.0	10,416.9	7,115.0	104.4	0.0	-123.20	-624.6	-4,596.7	591.7	503.9	87.75	6.743	
10,300.0	6,790.0	10,516.9	7,115.0	106.9	0.0	-123.20	-624.4	-4,696.7	591.7	501.9	89.80	6.589	
10,400.0	6,790.0	10,616.9	7,115.0	109.3	0.0	-123.20	-624.1	-4,796.7	591.7	499.8	91.85	6.442	
10,500.0	6,790.0	10,716.9	7,115.0	111.8	0.0	-123.20	-623.9	-4,896.7	591.7	497.8	93.91	6.301	
10,600.0	6,790.0	10,816.9	7,115.0	114.2	0.0	-123.20	-623.6	-4,996.7	591.7	495.7	95.96	6.166	
10,700.0	6,790.0	10,916.9	7,115.0	116.7	0.0	-123.20	-623.4	-5,096.7	591.7	493.7	98.01	6.037	
10,800.0	6,790.0	11,016.9	7,115.0	119.1	0.0	-123.20	-623.1	-5,196.7	591.7	491.6	100.07	5.913	
10,900.0	6,790.0	11,116.9	7,115.0	121.6	0.0	-123.20	-622.9	-5,296.7	591.7	489.6	102.12	5.794	
11,000.0	6,790.0	11,216.9	7,115.0	124.0	0.0	-123.20	-622.6	-5,396.7	591.7	487.5	104.18	5.680	
11,100.0	6,790.0	11,316.9	7,115.0	126.5	0.0	-123.20	-622.4	-5,496.7	591.7	485.5	106.23	5.570	
11,200.0	6,790.0	11,416.9	7,115.0	128.9	0.0	-123.20	-622.1	-5,596.7	591.7	483.4	108.29	5.464	
11,300.0	6,790.0	11,516.9	7,115.0	131.4	0.0	-123.20	-621.9	-5,696.7	591.7	481.3	110.35	5.362	
11,400.0	6,790.0	11,616.9	7,115.0	133.9	0.0	-123.20	-621.6	-5,796.7	591.7	479.3	112.40	5.264	
11,500.0	6,790.0	11,716.9	7,115.0	136.3	0.0	-123.20	-621.4	-5,896.7	591.7	477.2	114.46	5.169	
11,600.0	6,790.0	11,816.9	7,115.0	138.8	0.0	-123.20	-621.1	-5,996.7	591.7	475.2	116.52	5.078	
11,700.0	6,790.0	11,916.9	7,115.0	141.2	0.0	-123.20	-620.9	-6,096.7	591.7	473.1	118.58	4.990	
11,800.0	6,790.0	12,016.9	7,115.0	143.7	0.0	-123.20	-620.6	-6,196.7	591.7	471.0	120.64	4.904	
11,900.0	6,790.0	12,116.9	7,115.0	146.1	0.0	-123.20	-620.4	-6,296.7	591.7	469.0	122.70	4.822	
12,000.0	6,790.0	12,216.9	7,115.0	148.6	0.0	-123.20	-620.1	-6,396.7	591.7	466.9	124.76	4.742	
12,100.0	6,790.0	12,316.9	7,115.0	151.1	0.0	-123.20	-619.9	-6,496.7	591.7	464.9	126.83	4.665	
12,200.0	6,790.0	12,416.9	7,115.0	153.5	0.0	-123.20	-619.6	-6,596.7	591.7	462.8	128.89	4.591	
12,300.0	6,790.0	12,516.9	7,115.0	156.0	0.0	-123.20	-619.4	-6,696.7	591.7	460.7	130.95	4.518	
12,400.0	6,790.0	12,616.9	7,115.0	158.5	0.0	-123.20	-619.1	-6,796.7	591.7	458.7	133.01	4.448	
12,500.0	6,790.0	12,716.9	7,115.0	160.9	0.0	-123.20	-618.9	-6,896.7	591.7	456.6	135.07	4.380	
12,600.0	6,790.0	12,816.9	7,115.0	163.4	0.0	-123.20	-618.6	-6,996.7	591.7	454.5	137.14	4.315	
12,700.0	6,790.0	12,916.9	7,115.0	165.8	0.0	-123.20	-618.4	-7,096.7	591.7	452.5	139.20	4.251	
12,800.0	6,790.0	13,016.9	7,115.0	168.3	0.0	-123.20	-618.1	-7,196.7	591.7	450.4	141.27	4.188	
12,900.0	6,790.0	13,116.9	7,115.0	170.8	0.0	-123.20	-617.9	-7,296.7	591.7	448.4	143.33	4.128	
13,000.0	6,790.0	13,216.9	7,115.0	173.2	0.0	-123.20	-617.6	-7,396.7	591.7	446.3	145.39	4.070	
13,100.0	6,790.0	13,316.9	7,115.0	175.7	0.0	-123.20	-617.4	-7,496.7	591.7	444.2	147.46	4.013	
13,200.0	6,790.0	13,416.9	7,115.0	178.2	0.0	-123.20	-617.1	-7,596.7	591.7	442.2	149.52	3.957	
13,300.0	6,790.0	13,516.9	7,115.0	180.6	0.0	-123.20	-616.9	-7,696.7	591.7	440.1	151.59	3.903	
13,400.0	6,790.0	13,616.9	7,115.0	183.1	0.0	-123.20	-616.6	-7,796.7	591.7	438.0	153.65	3.851	
13,500.0	6,790.0	13,716.9	7,115.0	185.6	0.0	-123.20	-616.4	-7,896.7	591.7	436.0	155.72	3.800	
13,600.0	6,790.0	13,816.9	7,115.0	188.0	0.0	-123.20	-616.1	-7,996.7	591.7	433.9	157.78	3.750	
13,700.0	6,790.0	13,916.9	7,115.0	190.5	0.0	-123.20	-615.9	-8,096.7	591.7	431.8	159.85	3.701	
13,800.0	6,790.0	14,016.9	7,115.0	192.9	0.0	-123.20	-615.6	-8,196.7	591.7	429.8	161.92	3.654	
13,900.0	6,790.0	14,116.9	7,115.0	195.4	0.0	-123.20	-615.4	-8,296.7	591.7	427.7	163.98	3.608	
14,000.0	6,790.0	14,216.9	7,115.0	197.9	0.0	-123.20	-615.1	-8,396.7	591.7	425.6	166.05	3.563	
14,100.0	6,790.0	14,316.9	7,115.0	200.3	0.0	-123.20	-614.9	-8,496.7	591.7	423.6	168.11	3.520	
14,200.0	6,790.0	14,416.9	7,115.0	202.8	0.0	-123.20	-614.6	-8,596.7	591.7	421.5	170.18	3.477	
14,300.0	6,790.0	14,516.9	7,115.0	205.3	0.0	-123.20	-614.4	-8,696.7	591.7	419.4	172.25	3.435	
14,400.0	6,790.0	14,616.9	7,115.0	207.7	0.0	-123.20	-614.1	-8,796.7	591.7	417.4	174.32	3.394	
14,500.0	6,790.0	14,716.9	7,115.0	210.2	0.0	-123.20	-613.9	-8,896.7	591.7	415.3	176.38	3.355	
14,600.0	6,790.0	14,816.9	7,115.0	212.7	0.0	-123.20	-613.6	-8,996.7	591.7	413.2	178.45	3.316	
14,700.0	6,790.0	14,916.9	7,115.0	215.1	0.0	-123.20	-613.4	-9,096.7	591.7	411.2	180.52	3.278	
14,800.0	6,790.0	15,016.9	7,115.0	217.6	0.0	-123.20	-613.1	-9,196.7	591.7	409.1	182.58	3.241	
14,900.0	6,790.0	15,116.9	7,115.0	220.1	0.0	-123.20	-612.9	-9,296.7	591.7	407.0	184.65	3.204	
15,000.0	6,790.0	15,216.9	7,115.0	222.6	0.0	-123.20	-612.6	-9,396.7	591.7	405.0	186.72	3.169	
15,100.0	6,790.0	15,316.9	7,115.0	225.0	0.0	-123.20	-612.4	-9,496.7	591.7	402.9	188.79	3.134	
15,200.0	6,790.0	15,416.9	7,115.0	227.5	0.0	-123.20	-612.1	-9,596.7	591.7	400.8	190.86	3.100	
15,300.0	6,790.0	15,516.9	7,115.0	230.0	0.0	-123.20	-611.9	-9,696.7	591.7	398.8	192.92	3.067	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 6 - Hz - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance				Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
15,400.0	6,790.0	15,616.9	7,115.0	232.4	0.0	-123.20	-611.6	-9,796.7	591.7	396.7	194.99	3.034	
15,500.0	6,790.0	15,716.9	7,115.0	234.9	0.0	-123.20	-611.4	-9,896.7	591.7	394.6	197.06	3.003	
15,600.0	6,790.0	15,816.9	7,115.0	237.4	0.0	-123.20	-611.1	-9,996.7	591.7	392.6	199.13	2.971	
15,700.0	6,790.0	15,916.9	7,115.0	239.8	0.0	-123.20	-610.9	-10,096.7	591.7	390.5	201.20	2.941	
15,800.0	6,790.0	16,016.9	7,115.0	242.3	0.0	-123.20	-610.6	-10,196.7	591.7	388.4	203.27	2.911	
15,900.0	6,790.0	16,116.9	7,115.0	244.8	0.0	-123.20	-610.4	-10,296.7	591.7	386.3	205.34	2.882	
16,000.0	6,790.0	16,216.9	7,115.0	247.2	0.0	-123.20	-610.1	-10,396.7	591.7	384.3	207.40	2.853	
16,100.0	6,790.0	16,316.9	7,115.0	249.7	0.0	-123.20	-609.9	-10,496.7	591.7	382.2	209.47	2.825	
16,200.0	6,790.0	16,416.9	7,115.0	252.2	0.0	-123.20	-609.6	-10,596.7	591.7	380.1	211.54	2.797	
16,300.0	6,790.0	16,516.9	7,115.0	254.6	0.0	-123.20	-609.4	-10,696.7	591.7	378.1	213.61	2.770	
16,400.0	6,790.0	16,616.9	7,115.0	257.1	0.0	-123.20	-609.1	-10,796.7	591.7	376.0	215.68	2.743	
16,500.0	6,790.0	16,716.9	7,115.0	259.6	0.0	-123.20	-608.9	-10,896.7	591.7	373.9	217.75	2.717	
16,600.0	6,790.0	16,816.9	7,115.0	262.1	0.0	-123.20	-608.6	-10,996.7	591.7	371.9	219.82	2.692	
16,700.0	6,790.0	16,916.9	7,115.0	264.5	0.0	-123.20	-608.4	-11,096.7	591.7	369.8	221.89	2.667	
16,800.0	6,790.0	17,016.9	7,115.0	267.0	0.0	-123.20	-608.1	-11,196.7	591.7	367.7	223.96	2.642	
16,900.0	6,790.0	17,116.9	7,115.0	269.5	0.0	-123.20	-607.9	-11,296.7	591.7	365.7	226.03	2.618	
17,000.0	6,790.0	17,216.9	7,115.0	271.9	0.0	-123.20	-607.6	-11,396.7	591.7	363.6	228.10	2.594	
17,100.0	6,790.0	17,316.9	7,115.0	274.4	0.0	-123.20	-607.4	-11,496.7	591.7	361.5	230.17	2.571	
17,200.0	6,790.0	17,416.9	7,115.0	276.9	0.0	-123.20	-607.1	-11,596.7	591.7	359.4	232.24	2.548	
17,300.0	6,790.0	17,516.9	7,115.0	279.3	0.0	-123.20	-606.9	-11,696.7	591.7	357.4	234.31	2.525	
17,364.8	6,790.0	17,581.7	7,115.0	280.9	0.0	-123.20	-606.7	-11,761.5	591.7	356.0	235.65	2.511	
17,390.1	6,790.0	17,606.0	7,115.0	281.6	0.0	-123.20	-606.7	-11,785.8	591.7	355.5	236.17	2.505 SF	

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 7 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Between Centres (usft)	Between Ellipses (usft)						
0.0	0.0	1.0	1.0	0.0	0.0	-149.10	-72.5	-43.4	84.5					
100.0	100.0	101.0	101.0	0.1	0.0	-149.10	-72.5	-43.4	84.5	84.4	0.13	636.018		
166.3	166.3	167.3	167.3	0.2	0.0	-149.10	-72.5	-43.4	84.5	84.2	0.25	339.854 CC		
200.0	200.0	201.0	201.0	0.3	0.0	-149.10	-72.5	-43.4	84.5	84.2	0.31	274.880 ES		
300.0	300.0	300.0	300.0	0.5	0.0	-52.16	-72.9	-44.1	84.7	84.2	0.48	175.602		
400.0	400.0	398.4	398.4	0.7	0.0	-52.70	-74.2	-46.3	85.4	84.7	0.66	129.326		
500.0	499.9	497.1	497.0	0.9	0.0	-53.58	-76.4	-50.0	86.5	85.7	0.84	102.570		
600.0	599.7	595.8	595.5	1.1	0.0	-54.77	-79.5	-55.2	88.2	87.1	1.04	85.133		
700.0	699.4	694.4	693.8	1.3	0.0	-56.24	-83.3	-61.7	90.3	89.1	1.24	72.858		
800.0	798.9	793.1	792.0	1.5	0.0	-57.94	-88.1	-69.8	93.0	91.5	1.46	63.740		
900.0	898.3	891.6	889.9	1.8	0.0	-59.83	-93.7	-79.3	96.3	94.6	1.70	56.700		
1,000.0	997.4	990.2	987.6	2.0	0.0	-61.85	-100.2	-90.2	100.2	98.2	1.96	51.111		
1,100.0	1,096.3	1,088.6	1,085.1	2.3	0.0	-63.94	-107.5	-102.6	104.7	102.5	2.25	46.587		
1,200.0	1,194.9	1,187.0	1,182.2	2.7	0.0	-66.07	-115.6	-116.4	109.9	107.4	2.56	42.875		
1,300.0	1,293.3	1,285.4	1,278.9	3.0	0.0	-68.09	-124.6	-131.6	116.0	113.1	2.90	39.995		
1,400.0	1,391.7	1,383.6	1,375.2	3.3	0.0	-69.43	-134.5	-148.3	123.3	120.1	3.24	38.055		
1,500.0	1,490.0	1,481.8	1,471.1	3.7	0.0	-70.07	-145.1	-166.3	131.8	128.3	3.58	36.826		
1,600.0	1,588.4	1,580.1	1,566.8	4.0	0.0	-70.15	-156.6	-185.7	141.5	137.6	3.92	36.123		
1,700.0	1,686.7	1,679.6	1,663.5	4.4	0.0	-70.08	-168.5	-205.8	151.5	147.2	4.25	35.610		
1,800.0	1,785.1	1,779.1	1,760.2	4.8	0.0	-70.01	-180.4	-225.9	161.5	156.9	4.59	35.162		
1,900.0	1,883.4	1,878.6	1,857.0	5.1	0.0	-69.96	-192.3	-246.0	171.5	166.6	4.93	34.767		
2,000.0	1,981.8	1,978.1	1,953.7	5.5	0.0	-69.91	-204.1	-266.1	181.5	176.2	5.27	34.417		
2,100.0	2,080.1	2,077.6	2,050.4	5.8	0.0	-69.86	-216.0	-286.2	191.5	185.9	5.62	34.105		
2,200.0	2,178.5	2,177.1	2,147.1	6.2	0.0	-69.82	-227.9	-306.3	201.5	195.6	5.96	33.825		
2,300.0	2,276.8	2,276.6	2,243.8	6.6	0.0	-69.79	-239.8	-326.4	211.5	205.2	6.30	33.573		
2,400.0	2,375.2	2,376.1	2,340.6	6.9	0.0	-69.75	-251.6	-346.5	221.5	214.9	6.64	33.345		
2,500.0	2,473.5	2,475.6	2,437.3	7.3	0.0	-69.72	-263.5	-366.6	231.5	224.5	6.99	33.137		
2,600.0	2,571.9	2,575.1	2,534.0	7.6	0.0	-69.70	-275.4	-386.7	241.5	234.2	7.33	32.948		
2,700.0	2,670.2	2,674.6	2,630.7	8.0	0.0	-69.67	-287.3	-406.8	251.5	243.8	7.67	32.774		
2,800.0	2,768.6	2,774.1	2,727.4	8.4	0.0	-69.65	-299.1	-426.9	261.5	253.5	8.02	32.614		
2,900.0	2,866.9	2,873.6	2,824.2	8.7	0.0	-69.62	-311.0	-447.0	271.5	263.2	8.36	32.467		
3,000.0	2,965.3	2,973.1	2,920.9	9.1	0.0	-69.60	-322.9	-467.1	281.5	272.8	8.71	32.330		
3,100.0	3,063.6	3,072.6	3,017.6	9.4	0.0	-69.59	-334.8	-487.2	291.5	282.5	9.05	32.204		
3,200.0	3,162.0	3,172.1	3,114.3	9.8	0.0	-69.57	-346.6	-507.3	301.5	292.1	9.40	32.086		
3,300.0	3,260.3	3,271.6	3,211.1	10.2	0.0	-69.55	-358.5	-527.4	311.5	301.8	9.74	31.976		
3,400.0	3,358.7	3,371.1	3,307.8	10.5	0.0	-69.54	-370.4	-547.5	321.5	311.5	10.09	31.873		
3,500.0	3,457.0	3,470.6	3,404.5	10.9	0.0	-69.52	-382.3	-567.6	331.5	321.1	10.43	31.777		
3,600.0	3,555.4	3,570.1	3,501.2	11.3	0.0	-69.51	-394.2	-587.6	341.6	330.8	10.78	31.687		
3,700.0	3,653.7	3,669.6	3,597.9	11.6	0.0	-69.49	-406.0	-607.7	351.6	340.4	11.12	31.602		
3,800.0	3,752.1	3,769.0	3,694.7	12.0	0.0	-69.48	-417.9	-627.8	361.6	350.1	11.47	31.522		
3,900.0	3,850.4	3,868.5	3,791.4	12.4	0.0	-69.47	-429.8	-647.9	371.6	359.7	11.82	31.446		
4,000.0	3,948.7	3,968.0	3,888.1	12.7	0.0	-69.46	-441.7	-668.0	381.6	369.4	12.16	31.374		
4,100.0	4,047.1	4,067.5	3,984.8	13.1	0.0	-69.45	-453.5	-688.1	391.6	379.1	12.51	31.307		
4,200.0	4,145.4	4,167.0	4,081.6	13.5	0.0	-69.44	-465.4	-708.2	401.6	388.7	12.85	31.243		
4,300.0	4,243.8	4,266.5	4,178.3	13.8	0.0	-69.43	-477.3	-728.3	411.6	398.4	13.20	31.182		
4,400.0	4,342.1	4,366.0	4,275.0	14.2	0.0	-69.42	-489.2	-748.4	421.6	408.0	13.55	31.124		
4,500.0	4,440.5	4,465.5	4,371.7	14.5	0.0	-69.41	-501.0	-768.5	431.6	417.7	13.89	31.069		
4,600.0	4,538.8	4,565.0	4,468.4	14.9	0.0	-69.40	-512.9	-788.6	441.6	427.3	14.24	31.016		
4,700.0	4,637.2	4,664.5	4,565.2	15.3	0.0	-69.40	-524.8	-808.7	451.6	437.0	14.58	30.966		
4,800.0	4,735.5	4,764.0	4,661.9	15.6	0.0	-69.39	-536.7	-828.8	461.6	446.7	14.93	30.918		
4,900.0	4,833.9	4,863.5	4,758.6	16.0	0.0	-69.38	-548.5	-848.9	471.6	456.3	15.28	30.873		
5,000.0	4,932.2	4,963.0	4,855.3	16.4	0.0	-69.38	-560.4	-869.0	481.6	466.0	15.62	30.829		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 7 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
5,100.0	5,030.6	5,062.5	4,952.0	16.7	0.0	-69.37	-572.3	-889.1	491.6	475.6	15.97	30.787		
5,200.0	5,128.9	5,162.0	5,048.8	17.1	0.0	-69.36	-584.2	-909.2	501.6	485.3	16.31	30.747		
5,300.0	5,227.3	5,261.5	5,145.5	17.5	0.0	-69.36	-596.0	-929.3	511.6	494.9	16.66	30.708		
5,400.0	5,325.6	5,361.0	5,242.2	17.8	0.0	-69.35	-607.9	-949.4	521.6	504.6	17.01	30.671		
5,500.0	5,424.0	5,460.5	5,338.9	18.2	0.0	-69.34	-619.8	-969.5	531.6	514.3	17.35	30.635		
5,600.0	5,522.3	5,560.0	5,435.7	18.6	0.0	-69.34	-631.7	-989.5	541.6	523.9	17.70	30.601		
5,700.0	5,620.7	5,659.5	5,532.4	18.9	0.0	-69.33	-643.5	-1,009.6	551.6	533.6	18.05	30.568		
5,800.0	5,719.0	5,759.0	5,629.1	19.3	0.0	-69.33	-655.4	-1,029.7	561.6	543.2	18.39	30.537		
5,900.0	5,817.4	5,858.5	5,725.8	19.6	0.0	-69.32	-667.3	-1,049.8	571.6	552.9	18.74	30.506		
6,000.0	5,915.7	5,958.0	5,822.5	20.0	0.0	-69.32	-679.2	-1,069.9	581.6	562.5	19.08	30.476		
6,100.0	6,014.1	6,057.5	5,919.3	20.4	0.0	-69.32	-691.0	-1,090.0	591.6	572.2	19.43	30.448		
6,200.0	6,112.4	6,157.0	6,016.0	20.7	0.0	-69.31	-702.9	-1,110.1	601.6	581.9	19.78	30.420		
6,300.0	6,210.8	6,256.5	6,112.7	21.1	0.0	-69.31	-714.8	-1,130.2	611.6	591.5	20.12	30.394		
6,400.0	6,308.9	6,356.0	6,209.4	21.5	0.0	-71.02	-726.7	-1,150.3	621.3	600.8	20.49	30.323		
6,500.0	6,403.5	6,450.0	6,300.8	22.2	0.0	-73.63	-737.9	-1,169.5	628.2	607.0	21.17	29.674		
6,600.0	6,492.0	6,535.0	6,381.5	23.1	0.0	-75.58	-747.8	-1,194.2	633.6	611.4	22.14	28.613		
6,700.0	6,572.1	6,620.5	6,458.5	24.2	0.0	-77.33	-757.2	-1,229.6	638.5	615.1	23.39	27.302		
6,800.0	6,642.0	6,708.2	6,532.1	25.6	0.0	-79.09	-766.1	-1,276.6	643.0	618.1	24.90	25.824		
6,900.0	6,699.8	6,798.8	6,600.5	27.2	0.0	-80.94	-774.4	-1,335.2	647.0	620.4	26.66	24.271		
7,000.0	6,744.2	6,892.7	6,662.0	29.0	0.0	-82.90	-781.8	-1,405.6	650.7	622.1	28.64	22.724		
7,100.0	6,774.0	6,990.4	6,714.4	31.0	0.0	-84.95	-788.1	-1,487.8	654.1	623.3	30.78	21.253		
7,200.0	6,788.5	7,092.5	6,755.1	33.1	0.0	-87.09	-792.9	-1,581.2	656.9	623.9	33.00	19.908		
7,300.0	6,790.0	7,200.1	6,781.4	35.3	0.0	-89.17	-795.9	-1,685.3	659.2	624.0	35.23	18.714		
7,400.0	6,790.0	7,312.4	6,790.0	37.5	0.0	-89.91	-796.6	-1,797.1	660.1	622.7	37.46	17.624		
7,500.0	6,790.0	7,412.4	6,790.0	39.8	0.0	-89.91	-796.4	-1,897.1	660.1	620.4	39.71	16.624		
7,600.0	6,790.0	7,512.4	6,790.0	42.1	0.0	-89.91	-796.1	-1,997.1	660.1	618.1	41.99	15.721		
7,700.0	6,790.0	7,612.4	6,790.0	44.4	0.0	-89.91	-795.9	-2,097.1	660.1	615.8	44.29	14.905		
7,800.0	6,790.0	7,712.4	6,790.0	46.7	0.0	-89.91	-795.6	-2,197.1	660.1	613.5	46.61	14.163		
7,900.0	6,790.0	7,812.4	6,790.0	49.0	0.0	-89.91	-795.4	-2,297.1	660.1	611.2	48.94	13.488		
8,000.0	6,790.0	7,912.4	6,790.0	51.3	0.0	-89.91	-795.1	-2,397.1	660.1	608.8	51.29	12.871		
8,100.0	6,790.0	8,012.4	6,790.0	53.7	0.0	-89.91	-794.9	-2,497.1	660.1	606.5	53.65	12.305		
8,200.0	6,790.0	8,112.4	6,790.0	56.1	0.0	-89.91	-794.6	-2,597.1	660.1	604.1	56.01	11.785		
8,300.0	6,790.0	8,212.4	6,790.0	58.4	0.0	-89.91	-794.4	-2,697.1	660.1	601.7	58.39	11.305		
8,400.0	6,790.0	8,312.4	6,790.0	60.8	0.0	-89.91	-794.1	-2,797.1	660.1	599.3	60.77	10.862		
8,500.0	6,790.0	8,412.4	6,790.0	63.2	0.0	-89.91	-793.9	-2,897.1	660.1	597.0	63.17	10.450		
8,600.0	6,790.0	8,512.4	6,790.0	65.6	0.0	-89.91	-793.6	-2,997.1	660.1	594.6	65.56	10.068		
8,700.0	6,790.0	8,612.4	6,790.0	68.0	0.0	-89.91	-793.4	-3,097.1	660.1	592.2	67.97	9.712		
8,800.0	6,790.0	8,712.4	6,790.0	70.4	0.0	-89.91	-793.1	-3,197.1	660.1	589.7	70.38	9.380		
8,900.0	6,790.0	8,812.4	6,790.0	72.8	0.0	-89.91	-792.9	-3,297.1	660.1	587.3	72.79	9.069		
9,000.0	6,790.0	8,912.4	6,790.0	75.2	0.0	-89.91	-792.6	-3,397.1	660.1	584.9	75.20	8.778		
9,100.0	6,790.0	9,012.4	6,790.0	77.7	0.0	-89.91	-792.4	-3,497.1	660.1	582.5	77.63	8.504		
9,200.0	6,790.0	9,112.4	6,790.0	80.1	0.0	-89.91	-792.1	-3,597.1	660.1	580.1	80.05	8.246		
9,300.0	6,790.0	9,212.4	6,790.0	82.5	0.0	-89.91	-791.9	-3,697.1	660.1	577.6	82.48	8.004		
9,400.0	6,790.0	9,312.4	6,790.0	84.9	0.0	-89.91	-791.7	-3,797.1	660.1	575.2	84.90	7.775		
9,500.0	6,790.0	9,412.4	6,790.0	87.4	0.0	-89.91	-791.4	-3,897.1	660.1	572.8	87.34	7.558		
9,600.0	6,790.0	9,512.4	6,790.0	89.8	0.0	-89.91	-791.2	-3,997.1	660.1	570.3	89.77	7.353		
9,700.0	6,790.0	9,612.4	6,790.0	92.2	0.0	-89.91	-790.9	-4,097.1	660.1	567.9	92.21	7.159		
9,800.0	6,790.0	9,712.4	6,790.0	94.7	0.0	-89.91	-790.7	-4,197.1	660.1	565.5	94.65	6.975		
9,900.0	6,790.0	9,812.4	6,790.0	97.1	0.0	-89.91	-790.4	-4,297.1	660.1	563.0	97.09	6.799		
10,000.0	6,790.0	9,912.4	6,790.0	99.6	0.0	-89.91	-790.2	-4,397.1	660.1	560.6	99.53	6.633		
10,100.0	6,790.0	10,012.4	6,790.0	102.0	0.0	-89.91	-789.9	-4,497.1	660.1	558.1	101.97	6.474		
10,200.0	6,790.0	10,112.4	6,790.0	104.4	0.0	-89.91	-789.7	-4,597.1	660.1	555.7	104.42	6.322		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 7 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
10,300.0	6,790.0	10,212.4	6,790.0	106.9	0.0	-89.91	-789.4	-4,697.1	660.1	553.3	106.86	6.177		
10,400.0	6,790.0	10,312.4	6,790.0	109.3	0.0	-89.91	-789.2	-4,797.1	660.1	550.8	109.31	6.039		
10,500.0	6,790.0	10,412.4	6,790.0	111.8	0.0	-89.91	-788.9	-4,897.1	660.1	548.4	111.76	5.907		
10,600.0	6,790.0	10,512.4	6,790.0	114.2	0.0	-89.91	-788.7	-4,997.1	660.1	545.9	114.21	5.780		
10,700.0	6,790.0	10,612.4	6,790.0	116.7	0.0	-89.91	-788.4	-5,097.1	660.1	543.5	116.66	5.659		
10,800.0	6,790.0	10,712.4	6,790.0	119.1	0.0	-89.91	-788.2	-5,197.1	660.1	541.0	119.11	5.542		
10,900.0	6,790.0	10,812.4	6,790.0	121.6	0.0	-89.91	-787.9	-5,297.1	660.1	538.6	121.56	5.430		
11,000.0	6,790.0	10,912.4	6,790.0	124.0	0.0	-89.91	-787.7	-5,397.1	660.1	536.1	124.02	5.323		
11,100.0	6,790.0	11,012.4	6,790.0	126.5	0.0	-89.91	-787.4	-5,497.1	660.1	533.6	126.47	5.220		
11,200.0	6,790.0	11,112.4	6,790.0	128.9	0.0	-89.91	-787.2	-5,597.1	660.1	531.2	128.93	5.120		
11,300.0	6,790.0	11,212.4	6,790.0	131.4	0.0	-89.91	-786.9	-5,697.1	660.1	528.7	131.38	5.024		
11,400.0	6,790.0	11,312.4	6,790.0	133.9	0.0	-89.91	-786.7	-5,797.1	660.1	526.3	133.84	4.932		
11,500.0	6,790.0	11,412.4	6,790.0	136.3	0.0	-89.91	-786.4	-5,897.1	660.1	523.8	136.30	4.843		
11,600.0	6,790.0	11,512.4	6,790.0	138.8	0.0	-89.91	-786.2	-5,997.1	660.1	521.4	138.75	4.757		
11,700.0	6,790.0	11,612.4	6,790.0	141.2	0.0	-89.91	-785.9	-6,097.1	660.1	518.9	141.21	4.675		
11,800.0	6,790.0	11,712.4	6,790.0	143.7	0.0	-89.91	-785.7	-6,197.1	660.1	516.4	143.67	4.595		
11,900.0	6,790.0	11,812.4	6,790.0	146.1	0.0	-89.91	-785.4	-6,297.1	660.1	514.0	146.13	4.517		
12,000.0	6,790.0	11,912.4	6,790.0	148.6	0.0	-89.91	-785.2	-6,397.1	660.1	511.5	148.59	4.443		
12,100.0	6,790.0	12,012.4	6,790.0	151.1	0.0	-89.91	-784.9	-6,497.1	660.1	509.1	151.05	4.370		
12,200.0	6,790.0	12,112.4	6,790.0	153.5	0.0	-89.91	-784.7	-6,597.1	660.1	506.6	153.51	4.300		
12,300.0	6,790.0	12,212.4	6,790.0	156.0	0.0	-89.91	-784.4	-6,697.1	660.1	504.1	155.97	4.232		
12,400.0	6,790.0	12,312.4	6,790.0	158.5	0.0	-89.91	-784.2	-6,797.1	660.1	501.7	158.44	4.166		
12,500.0	6,790.0	12,412.4	6,790.0	160.9	0.0	-89.91	-783.9	-6,897.1	660.1	499.2	160.90	4.103		
12,600.0	6,790.0	12,512.4	6,790.0	163.4	0.0	-89.91	-783.7	-6,997.1	660.1	496.8	163.36	4.041		
12,700.0	6,790.0	12,612.4	6,790.0	165.8	0.0	-89.91	-783.4	-7,097.1	660.1	494.3	165.82	3.981		
12,800.0	6,790.0	12,712.4	6,790.0	168.3	0.0	-89.91	-783.2	-7,197.1	660.1	491.8	168.29	3.923		
12,900.0	6,790.0	12,812.4	6,790.0	170.8	0.0	-89.91	-782.9	-7,297.1	660.1	489.4	170.75	3.866		
13,000.0	6,790.0	12,912.4	6,790.0	173.2	0.0	-89.91	-782.7	-7,397.1	660.1	486.9	173.21	3.811		
13,100.0	6,790.0	13,012.4	6,790.0	175.7	0.0	-89.91	-782.4	-7,497.1	660.1	484.4	175.68	3.758		
13,200.0	6,790.0	13,112.4	6,790.0	178.2	0.0	-89.91	-782.2	-7,597.1	660.1	482.0	178.14	3.706		
13,300.0	6,790.0	13,212.4	6,790.0	180.6	0.0	-89.91	-781.9	-7,697.1	660.1	479.5	180.61	3.655		
13,400.0	6,790.0	13,312.4	6,790.0	183.1	0.0	-89.91	-781.7	-7,797.1	660.1	477.0	183.07	3.606		
13,500.0	6,790.0	13,412.4	6,790.0	185.6	0.0	-89.91	-781.4	-7,897.1	660.1	474.6	185.54	3.558		
13,600.0	6,790.0	13,512.4	6,790.0	188.0	0.0	-89.91	-781.2	-7,997.1	660.1	472.1	188.00	3.511		
13,700.0	6,790.0	13,612.4	6,790.0	190.5	0.0	-89.91	-780.9	-8,097.1	660.1	469.7	190.47	3.466		
13,800.0	6,790.0	13,712.4	6,790.0	192.9	0.0	-89.91	-780.7	-8,197.1	660.1	467.2	192.93	3.421		
13,900.0	6,790.0	13,812.4	6,790.0	195.4	0.0	-89.91	-780.4	-8,297.1	660.1	464.7	195.40	3.378		
14,000.0	6,790.0	13,912.4	6,790.0	197.9	0.0	-89.91	-780.2	-8,397.1	660.1	462.3	197.87	3.336		
14,100.0	6,790.0	14,012.4	6,790.0	200.3	0.0	-89.91	-779.9	-8,497.1	660.1	459.8	200.33	3.295		
14,200.0	6,790.0	14,112.4	6,790.0	202.8	0.0	-89.91	-779.7	-8,597.1	660.1	457.3	202.80	3.255		
14,300.0	6,790.0	14,212.4	6,790.0	205.3	0.0	-89.91	-779.4	-8,697.1	660.1	454.9	205.27	3.216		
14,400.0	6,790.0	14,312.4	6,790.0	207.7	0.0	-89.91	-779.2	-8,797.1	660.1	452.4	207.73	3.178		
14,500.0	6,790.0	14,412.4	6,790.0	210.2	0.0	-89.91	-778.9	-8,897.1	660.1	449.9	210.20	3.140		
14,600.0	6,790.0	14,512.4	6,790.0	212.7	0.0	-89.91	-778.7	-8,997.1	660.1	447.5	212.67	3.104		
14,700.0	6,790.0	14,612.4	6,790.0	215.1	0.0	-89.91	-778.4	-9,097.1	660.1	445.0	215.14	3.068		
14,800.0	6,790.0	14,712.4	6,790.0	217.6	0.0	-89.91	-778.2	-9,197.1	660.1	442.5	217.60	3.034		
14,900.0	6,790.0	14,812.4	6,790.0	220.1	0.0	-89.91	-777.9	-9,297.1	660.1	440.0	220.07	3.000		
15,000.0	6,790.0	14,912.4	6,790.0	222.6	0.0	-89.91	-777.7	-9,397.1	660.1	437.6	222.54	2.966		
15,100.0	6,790.0	15,012.4	6,790.0	225.0	0.0	-89.91	-777.4	-9,497.1	660.1	435.1	225.01	2.934		
15,200.0	6,790.0	15,112.4	6,790.0	227.5	0.0	-89.91	-777.2	-9,597.1	660.1	432.6	227.48	2.902		
15,300.0	6,790.0	15,212.4	6,790.0	230.0	0.0	-89.91	-776.9	-9,697.1	660.1	430.2	229.94	2.871		
15,400.0	6,790.0	15,312.4	6,790.0	232.4	0.0	-89.91	-776.7	-9,797.1	660.1	427.7	232.41	2.840		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 7 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-Reference													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
15,500.0	6,790.0	15,412.4	6,790.0	234.9	0.0	-89.91	-776.4	-9,897.1	660.1	425.2	234.88	2.810		
15,600.0	6,790.0	15,512.4	6,790.0	237.4	0.0	-89.91	-776.2	-9,997.1	660.1	422.8	237.35	2.781		
15,700.0	6,790.0	15,612.4	6,790.0	239.8	0.0	-89.91	-775.9	-10,097.1	660.1	420.3	239.82	2.753		
15,800.0	6,790.0	15,712.4	6,790.0	242.3	0.0	-89.91	-775.7	-10,197.1	660.1	417.8	242.29	2.725		
15,900.0	6,790.0	15,812.4	6,790.0	244.8	0.0	-89.91	-775.4	-10,297.1	660.1	415.4	244.76	2.697		
16,000.0	6,790.0	15,912.4	6,790.0	247.2	0.0	-89.91	-775.2	-10,397.1	660.1	412.9	247.23	2.670		
16,100.0	6,790.0	16,012.4	6,790.0	249.7	0.0	-89.91	-774.9	-10,497.1	660.1	410.4	249.70	2.644		
16,200.0	6,790.0	16,112.4	6,790.0	252.2	0.0	-89.91	-774.7	-10,597.1	660.1	408.0	252.17	2.618		
16,300.0	6,790.0	16,212.4	6,790.0	254.6	0.0	-89.91	-774.4	-10,697.1	660.1	405.5	254.64	2.592		
16,400.0	6,790.0	16,312.4	6,790.0	257.1	0.0	-89.91	-774.2	-10,797.1	660.1	403.0	257.11	2.568		
16,500.0	6,790.0	16,412.4	6,790.0	259.6	0.0	-89.91	-773.9	-10,897.1	660.1	400.5	259.57	2.543		
16,600.0	6,790.0	16,512.4	6,790.0	262.1	0.0	-89.91	-773.7	-10,997.1	660.1	398.1	262.04	2.519		
16,700.0	6,790.0	16,612.4	6,790.0	264.5	0.0	-89.91	-773.4	-11,097.1	660.1	395.6	264.51	2.496		
16,800.0	6,790.0	16,712.4	6,790.0	267.0	0.0	-89.91	-773.2	-11,197.1	660.1	393.1	266.98	2.472		
16,900.0	6,790.0	16,812.4	6,790.0	269.5	0.0	-89.91	-772.9	-11,297.1	660.1	390.7	269.45	2.450		
17,000.0	6,790.0	16,912.4	6,790.0	271.9	0.0	-89.91	-772.7	-11,397.1	660.1	388.2	271.92	2.428		
17,100.0	6,790.0	17,012.4	6,790.0	274.4	0.0	-89.91	-772.4	-11,497.1	660.1	385.7	274.40	2.406		
17,200.0	6,790.0	17,112.4	6,790.0	276.9	0.0	-89.91	-772.2	-11,597.1	660.1	383.3	276.87	2.384		
17,300.0	6,790.0	17,212.4	6,790.0	279.3	0.0	-89.91	-771.9	-11,697.1	660.1	380.8	279.34	2.363		
17,364.6	6,790.0	17,277.0	6,790.0	280.9	0.0	-89.91	-771.8	-11,761.8	660.1	379.2	280.93	2.350		
17,390.1	6,790.0	17,301.1	6,790.0	281.6	0.0	-89.91	-771.7	-11,785.8	660.1	378.6	281.56	2.345 SF		

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 8 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	1.0	1.0	0.0	0.0	-149.10	-96.2	-57.6	112.1					
100.0	100.0	101.0	101.0	0.1	0.0	-149.10	-96.2	-57.6	112.1	112.0	0.13	843.803		
166.3	166.3	167.3	167.3	0.2	0.0	-149.10	-96.2	-57.6	112.1	111.8	0.25	450.883 CC		
200.0	200.0	201.0	201.0	0.3	0.0	-149.10	-96.2	-57.6	112.1	111.8	0.31	364.682 ES		
300.0	300.0	300.0	300.0	0.5	0.0	-52.09	-96.6	-58.4	112.3	111.8	0.48	232.744		
301.7	301.7	301.0	301.0	0.5	0.0	-52.09	-96.6	-58.4	112.3	111.8	0.49	231.331		
400.0	400.0	397.7	397.7	0.7	0.0	-52.42	-97.7	-60.6	112.9	112.2	0.66	170.922		
500.0	499.9	496.1	496.0	0.9	0.0	-52.96	-99.6	-64.4	113.8	113.0	0.84	134.939		
600.0	599.7	594.4	594.1	1.1	0.0	-53.70	-102.2	-69.7	115.2	114.1	1.03	111.302		
700.0	699.4	692.8	692.2	1.3	0.0	-54.64	-105.6	-76.5	116.9	115.7	1.24	94.521		
800.0	798.9	791.1	790.0	1.5	0.0	-55.74	-109.8	-84.8	119.1	117.7	1.45	81.944		
900.0	898.3	889.4	887.7	1.8	0.0	-56.99	-114.7	-94.6	121.8	120.1	1.69	72.141		
1,000.0	997.4	987.6	985.1	2.0	0.0	-58.37	-120.3	-105.9	124.9	123.0	1.94	64.277		
1,100.0	1,096.3	1,085.8	1,082.3	2.3	0.0	-59.84	-126.7	-118.7	128.5	126.3	2.22	57.834		
1,200.0	1,194.9	1,184.0	1,179.2	2.7	0.0	-61.39	-133.8	-133.0	132.7	130.1	2.53	52.474		
1,300.0	1,293.3	1,282.1	1,275.7	3.0	0.0	-62.91	-141.7	-148.7	137.5	134.6	2.85	48.192		
1,400.0	1,391.7	1,380.2	1,371.9	3.3	0.0	-63.92	-150.3	-165.9	143.5	140.3	3.18	45.108		
1,500.0	1,490.0	1,478.1	1,467.6	3.7	0.0	-64.38	-159.6	-184.6	150.8	147.3	3.51	42.957		
1,600.0	1,588.4	1,575.9	1,562.7	4.0	0.0	-64.38	-169.7	-204.7	159.3	155.4	3.84	41.519		
1,700.0	1,686.7	1,673.5	1,657.3	4.4	0.0	-63.97	-180.4	-226.1	168.9	164.8	4.16	40.646		
1,800.0	1,785.1	1,770.7	1,751.1	4.8	0.0	-63.23	-191.8	-249.0	179.8	175.3	4.47	40.232		
1,900.0	1,883.4	1,867.7	1,844.2	5.1	0.0	-62.24	-203.9	-273.2	192.0	187.2	4.77	40.202		
2,000.0	1,981.8	1,964.2	1,936.5	5.5	0.0	-61.06	-216.6	-298.6	205.4	200.3	5.07	40.503		
2,100.0	2,080.1	2,060.3	2,027.8	5.8	0.0	-59.74	-230.0	-325.4	220.2	214.8	5.36	41.092		
2,200.0	2,178.5	2,155.9	2,118.2	6.2	0.0	-58.35	-243.9	-353.3	236.3	230.7	5.64	41.938		
2,300.0	2,276.8	2,251.0	2,207.5	6.6	0.0	-56.91	-258.5	-382.5	253.9	248.0	5.90	43.013		
2,400.0	2,375.2	2,345.5	2,295.7	6.9	0.0	-55.46	-273.6	-412.7	272.9	266.8	6.16	44.294		
2,500.0	2,473.5	2,439.3	2,382.7	7.3	0.0	-54.02	-289.3	-444.1	293.4	287.0	6.41	45.760		
2,600.0	2,571.9	2,533.9	2,469.9	7.6	0.0	-52.61	-305.6	-476.9	315.3	308.7	6.65	47.387		
2,700.0	2,670.2	2,631.1	2,559.4	8.0	0.0	-51.31	-322.6	-510.9	337.7	330.8	6.89	48.989		
2,800.0	2,768.6	2,728.3	2,648.8	8.4	0.0	-50.17	-339.6	-544.9	360.3	353.1	7.13	50.501		
2,900.0	2,866.9	2,825.5	2,738.3	8.7	0.0	-49.16	-356.6	-578.8	382.9	375.5	7.37	51.927		
3,000.0	2,965.3	2,922.7	2,827.8	9.1	0.0	-48.27	-373.6	-612.8	405.7	398.0	7.61	53.272		
3,100.0	3,063.6	3,019.9	2,917.2	9.4	0.0	-47.47	-390.5	-646.8	428.5	420.6	7.86	54.541		
3,200.0	3,162.0	3,117.0	3,006.7	9.8	0.0	-46.76	-407.5	-680.8	451.4	443.3	8.10	55.740		
3,300.0	3,260.3	3,214.2	3,096.1	10.2	0.0	-46.11	-424.5	-714.8	474.4	466.0	8.34	56.874		
3,400.0	3,358.7	3,311.4	3,185.6	10.5	0.0	-45.52	-441.5	-748.8	497.4	488.8	8.58	57.946		
3,500.0	3,457.0	3,408.6	3,275.1	10.9	0.0	-44.99	-458.5	-782.8	520.4	511.6	8.83	58.962		
3,600.0	3,555.4	3,505.8	3,364.5	11.3	0.0	-44.49	-475.4	-816.8	543.5	534.5	9.07	59.926		
3,700.0	3,653.7	3,603.0	3,454.0	11.6	0.0	-44.04	-492.4	-850.8	566.7	557.4	9.31	60.840		
3,800.0	3,752.1	3,700.2	3,543.4	12.0	0.0	-43.63	-509.4	-884.7	589.8	580.3	9.56	61.709		
3,900.0	3,850.4	3,797.4	3,632.9	12.4	0.0	-43.24	-526.4	-918.7	613.0	603.2	9.80	62.535		
4,000.0	3,948.7	3,894.6	3,722.4	12.7	0.0	-42.89	-543.4	-952.7	636.2	626.2	10.05	63.322		
4,100.0	4,047.1	3,991.8	3,811.8	13.1	0.0	-42.56	-560.3	-986.7	659.5	649.2	10.29	64.072		
4,200.0	4,145.4	4,089.0	3,901.3	13.5	0.0	-42.25	-577.3	-1,020.7	682.7	672.2	10.54	64.788		
4,300.0	4,243.8	4,186.2	3,990.7	13.8	0.0	-41.96	-594.3	-1,054.7	706.0	695.2	10.78	65.471		
4,400.0	4,342.1	4,283.4	4,080.2	14.2	0.0	-41.69	-611.3	-1,088.7	729.3	718.3	11.03	66.125		
4,500.0	4,440.5	4,380.6	4,169.7	14.5	0.0	-41.44	-628.2	-1,122.7	752.6	741.3	11.28	66.750		
4,600.0	4,538.8	4,477.8	4,259.1	14.9	0.0	-41.20	-645.2	-1,156.6	775.9	764.4	11.52	67.348		
4,700.0	4,637.2	4,575.0	4,348.6	15.3	0.0	-40.97	-662.2	-1,190.6	799.3	787.5	11.77	67.921		
4,800.0	4,735.5	4,672.2	4,438.0	15.6	0.0	-40.76	-679.2	-1,224.6	822.6	810.6	12.01	68.472		
4,900.0	4,833.9	4,769.3	4,527.5	16.0	0.0	-40.56	-696.2	-1,258.6	846.0	833.7	12.26	69.000		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 8 - Hz - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor	
5,000.0	4,932.2	4,866.5	4,617.0	16.4	0.0	-40.37	-713.1	-1,292.6	869.3	856.8	12.51	69.507	
5,100.0	5,030.6	4,963.7	4,706.4	16.7	0.0	-40.20	-730.1	-1,326.6	892.7	879.9	12.75	69.995	
5,200.0	5,128.9	5,060.9	4,795.9	17.1	0.0	-40.03	-747.1	-1,360.6	916.1	903.1	13.00	70.464	
5,300.0	5,227.3	5,158.1	4,885.3	17.5	0.0	-39.86	-764.1	-1,394.6	939.5	926.2	13.25	70.915	
5,400.0	5,325.6	5,255.3	4,974.8	17.8	0.0	-39.71	-781.1	-1,428.6	962.9	949.4	13.49	71.351	
5,500.0	5,424.0	5,352.5	5,064.3	18.2	0.0	-39.56	-798.0	-1,462.5	986.3	972.5	13.74	71.770	
7,500.0	6,790.0	6,939.5	6,517.2	39.8	0.0	-73.73	-1,073.7	-2,034.4	986.4	948.2	38.21	25.815	
7,600.0	6,790.0	6,989.3	6,556.5	42.1	0.0	-76.07	-1,081.2	-2,064.0	976.2	935.4	40.82	23.913	
7,700.0	6,790.0	7,051.1	6,601.9	44.4	0.0	-78.79	-1,089.7	-2,105.1	972.5	929.1	43.49	22.362	
7,714.2	6,790.0	7,061.0	6,608.8	44.7	0.0	-79.20	-1,091.0	-2,112.0	972.5	928.6	43.87	22.167	
7,800.0	6,790.0	7,128.1	6,652.6	46.7	0.0	-81.83	-1,099.3	-2,162.1	974.2	928.0	46.16	21.104	
7,900.0	6,790.0	7,223.4	6,705.5	49.0	0.0	-84.98	-1,109.1	-2,240.7	979.1	930.4	48.76	20.079	
8,000.0	6,790.0	7,338.7	6,753.2	51.3	0.0	-87.80	-1,118.0	-2,345.1	985.0	933.7	51.25	19.218	
8,100.0	6,790.0	7,470.9	6,784.1	53.7	0.0	-89.60	-1,123.6	-2,473.3	989.1	935.4	53.64	18.437	
8,200.0	6,790.0	7,595.8	6,790.0	56.1	0.0	-89.94	-1,124.4	-2,597.9	989.9	933.8	56.01	17.672	
8,300.0	6,790.0	7,695.8	6,790.0	58.4	0.0	-89.94	-1,124.1	-2,697.9	989.9	931.5	58.39	16.952	
8,400.0	6,790.0	7,795.8	6,790.0	60.8	0.0	-89.94	-1,123.9	-2,797.9	989.9	929.1	60.77	16.287	
8,500.0	6,790.0	7,895.8	6,790.0	63.2	0.0	-89.94	-1,123.6	-2,897.9	989.9	926.7	63.17	15.671	
8,600.0	6,790.0	7,995.8	6,790.0	65.6	0.0	-89.94	-1,123.4	-2,997.9	989.9	924.3	65.56	15.098	
8,700.0	6,790.0	8,095.8	6,790.0	68.0	0.0	-89.94	-1,123.1	-3,097.9	989.9	921.9	67.97	14.564	
8,800.0	6,790.0	8,195.8	6,790.0	70.4	0.0	-89.94	-1,122.9	-3,197.9	989.9	919.5	70.38	14.066	
8,900.0	6,790.0	8,295.8	6,790.0	72.8	0.0	-89.94	-1,122.7	-3,297.9	989.9	917.1	72.79	13.599	
9,000.0	6,790.0	8,395.8	6,790.0	75.2	0.0	-89.94	-1,122.4	-3,397.9	989.9	914.7	75.20	13.162	
9,100.0	6,790.0	8,495.8	6,790.0	77.7	0.0	-89.94	-1,122.2	-3,497.9	989.9	912.3	77.63	12.752	
9,200.0	6,790.0	8,595.8	6,790.0	80.1	0.0	-89.94	-1,121.9	-3,597.9	989.9	909.8	80.05	12.366	
9,300.0	6,790.0	8,695.8	6,790.0	82.5	0.0	-89.94	-1,121.7	-3,697.9	989.9	907.4	82.48	12.002	
9,400.0	6,790.0	8,795.8	6,790.0	84.9	0.0	-89.94	-1,121.4	-3,797.9	989.9	905.0	84.90	11.659	
9,500.0	6,790.0	8,895.8	6,790.0	87.4	0.0	-89.94	-1,121.2	-3,897.9	989.9	902.6	87.34	11.334	
9,600.0	6,790.0	8,995.8	6,790.0	89.8	0.0	-89.94	-1,120.9	-3,997.9	989.9	900.1	89.77	11.027	
9,700.0	6,790.0	9,095.8	6,790.0	92.2	0.0	-89.94	-1,120.7	-4,097.9	989.9	897.7	92.21	10.736	
9,800.0	6,790.0	9,195.8	6,790.0	94.7	0.0	-89.94	-1,120.4	-4,197.9	989.9	895.3	94.65	10.459	
9,900.0	6,790.0	9,295.8	6,790.0	97.1	0.0	-89.94	-1,120.2	-4,297.9	989.9	892.8	97.09	10.196	
10,000.0	6,790.0	9,395.8	6,790.0	99.6	0.0	-89.94	-1,119.9	-4,397.9	989.9	890.4	99.53	9.946	
10,100.0	6,790.0	9,495.8	6,790.0	102.0	0.0	-89.94	-1,119.7	-4,497.9	989.9	887.9	101.97	9.708	
10,200.0	6,790.0	9,595.8	6,790.0	104.4	0.0	-89.94	-1,119.5	-4,597.9	989.9	885.5	104.42	9.481	
10,300.0	6,790.0	9,695.8	6,790.0	106.9	0.0	-89.94	-1,119.2	-4,697.9	989.9	883.1	106.86	9.264	
10,400.0	6,790.0	9,795.8	6,790.0	109.3	0.0	-89.94	-1,119.0	-4,797.9	989.9	880.6	109.31	9.056	
10,500.0	6,790.0	9,895.8	6,790.0	111.8	0.0	-89.94	-1,118.7	-4,897.9	989.9	878.2	111.76	8.858	
10,600.0	6,790.0	9,995.8	6,790.0	114.2	0.0	-89.94	-1,118.5	-4,997.9	989.9	875.7	114.21	8.668	
10,700.0	6,790.0	10,095.8	6,790.0	116.7	0.0	-89.94	-1,118.2	-5,097.9	989.9	873.3	116.66	8.486	
10,800.0	6,790.0	10,195.8	6,790.0	119.1	0.0	-89.94	-1,118.0	-5,197.9	989.9	870.8	119.11	8.311	
10,900.0	6,790.0	10,295.8	6,790.0	121.6	0.0	-89.94	-1,117.7	-5,297.9	989.9	868.4	121.56	8.143	
11,000.0	6,790.0	10,395.8	6,790.0	124.0	0.0	-89.94	-1,117.5	-5,397.9	990.0	865.9	124.02	7.982	
11,100.0	6,790.0	10,495.8	6,790.0	126.5	0.0	-89.94	-1,117.2	-5,497.9	990.0	863.5	126.47	7.827	
11,200.0	6,790.0	10,595.8	6,790.0	128.9	0.0	-89.94	-1,117.0	-5,597.9	990.0	861.0	128.93	7.678	
11,300.0	6,790.0	10,695.8	6,790.0	131.4	0.0	-89.94	-1,116.7	-5,697.9	990.0	858.6	131.38	7.535	
11,400.0	6,790.0	10,795.8	6,790.0	133.9	0.0	-89.94	-1,116.5	-5,797.9	990.0	856.1	133.84	7.397	
11,500.0	6,790.0	10,895.8	6,790.0	136.3	0.0	-89.94	-1,116.3	-5,897.9	990.0	853.7	136.30	7.263	
11,600.0	6,790.0	10,995.8	6,790.0	138.8	0.0	-89.94	-1,116.0	-5,997.9	990.0	851.2	138.75	7.135	
11,700.0	6,790.0	11,095.8	6,790.0	141.2	0.0	-89.94	-1,115.8	-6,097.9	990.0	848.8	141.21	7.011	
11,800.0	6,790.0	11,195.8	6,790.0	143.7	0.0	-89.94	-1,115.5	-6,197.9	990.0	846.3	143.67	6.891	
11,900.0	6,790.0	11,295.8	6,790.0	146.1	0.0	-89.94	-1,115.3	-6,297.9	990.0	843.9	146.13	6.775	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 8 - Hz - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
12,000.0	6,790.0	11,395.8	6,790.0	148.6	0.0	-89.94	-1,115.0	-6,397.9	990.0	841.4	148.59	6.662	
12,100.0	6,790.0	11,495.8	6,790.0	151.1	0.0	-89.94	-1,114.8	-6,497.9	990.0	838.9	151.05	6.554	
12,200.0	6,790.0	11,595.8	6,790.0	153.5	0.0	-89.94	-1,114.5	-6,597.9	990.0	836.5	153.51	6.449	
12,300.0	6,790.0	11,695.8	6,790.0	156.0	0.0	-89.94	-1,114.3	-6,697.9	990.0	834.0	155.97	6.347	
12,400.0	6,790.0	11,795.8	6,790.0	158.5	0.0	-89.94	-1,114.0	-6,797.9	990.0	831.6	158.44	6.249	
12,500.0	6,790.0	11,895.8	6,790.0	160.9	0.0	-89.94	-1,113.8	-6,897.9	990.0	829.1	160.90	6.153	
12,600.0	6,790.0	11,995.8	6,790.0	163.4	0.0	-89.94	-1,113.5	-6,997.9	990.0	826.6	163.36	6.060	
12,700.0	6,790.0	12,095.8	6,790.0	165.8	0.0	-89.94	-1,113.3	-7,097.9	990.0	824.2	165.82	5.970	
12,800.0	6,790.0	12,195.8	6,790.0	168.3	0.0	-89.94	-1,113.1	-7,197.9	990.0	821.7	168.29	5.883	
12,900.0	6,790.0	12,295.8	6,790.0	170.8	0.0	-89.94	-1,112.8	-7,297.9	990.0	819.3	170.75	5.798	
13,000.0	6,790.0	12,395.8	6,790.0	173.2	0.0	-89.94	-1,112.6	-7,397.9	990.0	816.8	173.21	5.716	
13,100.0	6,790.0	12,495.8	6,790.0	175.7	0.0	-89.94	-1,112.3	-7,497.9	990.0	814.3	175.68	5.635	
13,200.0	6,790.0	12,595.8	6,790.0	178.2	0.0	-89.94	-1,112.1	-7,597.9	990.0	811.9	178.14	5.558	
13,300.0	6,790.0	12,695.8	6,790.0	180.6	0.0	-89.94	-1,111.8	-7,697.9	990.0	809.4	180.61	5.482	
13,400.0	6,790.0	12,795.8	6,790.0	183.1	0.0	-89.94	-1,111.6	-7,797.9	990.0	807.0	183.07	5.408	
13,500.0	6,790.0	12,895.8	6,790.0	185.6	0.0	-89.94	-1,111.3	-7,897.9	990.0	804.5	185.54	5.336	
13,600.0	6,790.0	12,995.8	6,790.0	188.0	0.0	-89.94	-1,111.1	-7,997.9	990.0	802.0	188.00	5.266	
13,700.0	6,790.0	13,095.8	6,790.0	190.5	0.0	-89.94	-1,110.8	-8,097.9	990.0	799.6	190.47	5.198	
13,800.0	6,790.0	13,195.8	6,790.0	192.9	0.0	-89.94	-1,110.6	-8,197.9	990.1	797.1	192.93	5.132	
13,900.0	6,790.0	13,295.8	6,790.0	195.4	0.0	-89.94	-1,110.3	-8,297.9	990.1	794.7	195.40	5.067	
14,000.0	6,790.0	13,395.8	6,790.0	197.9	0.0	-89.94	-1,110.1	-8,397.9	990.1	792.2	197.87	5.004	
14,100.0	6,790.0	13,495.8	6,790.0	200.3	0.0	-89.94	-1,109.8	-8,497.9	990.1	789.7	200.33	4.942	
14,200.0	6,790.0	13,595.8	6,790.0	202.8	0.0	-89.94	-1,109.6	-8,597.9	990.1	787.3	202.80	4.882	
14,300.0	6,790.0	13,695.8	6,790.0	205.3	0.0	-89.94	-1,109.4	-8,697.9	990.1	784.8	205.27	4.823	
14,400.0	6,790.0	13,795.8	6,790.0	207.7	0.0	-89.94	-1,109.1	-8,797.9	990.1	782.3	207.73	4.766	
14,500.0	6,790.0	13,895.8	6,790.0	210.2	0.0	-89.94	-1,108.9	-8,897.9	990.1	779.9	210.20	4.710	
14,600.0	6,790.0	13,995.8	6,790.0	212.7	0.0	-89.94	-1,108.6	-8,997.9	990.1	777.4	212.67	4.655	
14,700.0	6,790.0	14,095.8	6,790.0	215.1	0.0	-89.94	-1,108.4	-9,097.9	990.1	774.9	215.14	4.602	
14,800.0	6,790.0	14,195.8	6,790.0	217.6	0.0	-89.94	-1,108.1	-9,197.9	990.1	772.5	217.60	4.550	
14,900.0	6,790.0	14,295.8	6,790.0	220.1	0.0	-89.94	-1,107.9	-9,297.9	990.1	770.0	220.07	4.499	
15,000.0	6,790.0	14,395.8	6,790.0	222.6	0.0	-89.94	-1,107.6	-9,397.9	990.1	767.6	222.54	4.449	
15,100.0	6,790.0	14,495.8	6,790.0	225.0	0.0	-89.94	-1,107.4	-9,497.9	990.1	765.1	225.01	4.400	
15,200.0	6,790.0	14,595.8	6,790.0	227.5	0.0	-89.94	-1,107.1	-9,597.9	990.1	762.6	227.48	4.353	
15,300.0	6,790.0	14,695.8	6,790.0	230.0	0.0	-89.94	-1,106.9	-9,697.9	990.1	760.2	229.94	4.306	
15,400.0	6,790.0	14,795.8	6,790.0	232.4	0.0	-89.94	-1,106.6	-9,797.9	990.1	757.7	232.41	4.260	
15,500.0	6,790.0	14,895.8	6,790.0	234.9	0.0	-89.94	-1,106.4	-9,897.9	990.1	755.2	234.88	4.215	
15,600.0	6,790.0	14,995.8	6,790.0	237.4	0.0	-89.94	-1,106.2	-9,997.9	990.1	752.8	237.35	4.172	
15,700.0	6,790.0	15,095.8	6,790.0	239.8	0.0	-89.94	-1,105.9	-10,097.9	990.1	750.3	239.82	4.129	
15,800.0	6,790.0	15,195.8	6,790.0	242.3	0.0	-89.94	-1,105.7	-10,197.9	990.1	747.8	242.29	4.087	
15,900.0	6,790.0	15,295.8	6,790.0	244.8	0.0	-89.94	-1,105.4	-10,297.9	990.1	745.4	244.76	4.045	
16,000.0	6,790.0	15,395.8	6,790.0	247.2	0.0	-89.94	-1,105.2	-10,397.9	990.1	742.9	247.23	4.005	
16,100.0	6,790.0	15,495.8	6,790.0	249.7	0.0	-89.94	-1,104.9	-10,497.9	990.1	740.4	249.70	3.965	
16,200.0	6,790.0	15,595.8	6,790.0	252.2	0.0	-89.94	-1,104.7	-10,597.9	990.1	738.0	252.17	3.927	
16,300.0	6,790.0	15,695.8	6,790.0	254.6	0.0	-89.94	-1,104.4	-10,697.9	990.1	735.5	254.64	3.888	
16,400.0	6,790.0	15,795.8	6,790.0	257.1	0.0	-89.94	-1,104.2	-10,797.9	990.1	733.0	257.11	3.851	
16,500.0	6,790.0	15,895.8	6,790.0	259.6	0.0	-89.94	-1,103.9	-10,897.9	990.1	730.6	259.58	3.814	
16,600.0	6,790.0	15,995.8	6,790.0	262.1	0.0	-89.94	-1,103.7	-10,997.9	990.1	728.1	262.04	3.779	
16,700.0	6,790.0	16,095.8	6,790.0	264.5	0.0	-89.94	-1,103.4	-11,097.9	990.2	725.6	264.51	3.743	
16,800.0	6,790.0	16,195.8	6,790.0	267.0	0.0	-89.94	-1,103.2	-11,197.9	990.2	723.2	266.98	3.709	
16,900.0	6,790.0	16,295.8	6,790.0	269.5	0.0	-89.94	-1,103.0	-11,297.9	990.2	720.7	269.45	3.675	
17,000.0	6,790.0	16,395.8	6,790.0	271.9	0.0	-89.94	-1,102.7	-11,397.9	990.2	718.2	271.93	3.641	
17,100.0	6,790.0	16,495.8	6,790.0	274.4	0.0	-89.94	-1,102.5	-11,497.9	990.2	715.8	274.40	3.609	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

## Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S16-T6N-R67W - Breniman 8 - Hz - Plan #1													<b>Offset Site Error:</b> 0.0 usft
Survey Program:    0-													<b>Offset Well Error:</b> 0.0 usft
Reference		Offset		Semi Major Axis				Distance					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
17,200.0	6,790.0	16,595.8	6,790.0	276.9	0.0	-89.94	-1,102.2	-11,597.9	990.2	713.3	276.87	3.576	
17,300.0	6,790.0	16,695.8	6,790.0	279.3	0.0	-89.94	-1,102.0	-11,697.9	990.2	710.8	279.34	3.545	
17,353.0	6,790.0	16,748.8	6,790.0	280.7	0.0	-89.94	-1,101.8	-11,750.9	990.2	709.5	280.64	3.528	
17,390.1	6,790.0	16,783.6	6,790.0	281.6	0.0	-89.94	-1,101.8	-11,785.7	990.2	708.6	281.56	3.517 SF	

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 9 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor		
0.0	0.0	1.0	1.0	0.0	0.0	-149.15	-120.6	-72.0	140.5					
100.0	100.0	101.0	101.0	0.1	0.0	-149.15	-120.6	-72.0	140.5	140.3	0.13	1,057.370		
166.3	166.3	167.3	167.3	0.2	0.0	-149.15	-120.6	-72.0	140.5	140.2	0.25	565.001 CC		
200.0	200.0	200.0	200.0	0.3	0.0	-149.15	-120.6	-72.0	140.5	140.2	0.31	456.994 ES		
300.0	300.0	298.9	298.9	0.5	0.0	-52.14	-121.0	-72.8	140.7	140.2	0.48	291.588		
400.0	400.0	396.8	396.7	0.7	0.0	-52.45	-122.3	-75.0	141.3	140.7	0.66	214.022		
500.0	499.9	494.7	494.5	0.9	0.0	-52.97	-124.4	-78.6	142.4	141.6	0.84	168.815		
600.0	599.7	592.5	592.2	1.1	0.0	-53.68	-127.3	-83.7	143.9	142.9	1.03	139.078		
700.0	699.4	690.4	689.8	1.3	0.0	-54.57	-131.0	-90.2	145.9	144.7	1.24	117.933		
800.0	798.9	788.2	787.1	1.5	0.0	-55.64	-135.6	-98.2	148.4	146.9	1.45	102.061		
900.0	898.3	886.0	884.3	1.8	0.0	-56.84	-141.0	-107.6	151.3	149.7	1.69	89.674		
1,000.0	997.4	983.7	981.2	2.0	0.0	-58.17	-147.3	-118.4	154.8	152.9	1.94	79.723		
1,100.0	1,096.3	1,081.4	1,077.9	2.3	0.0	-59.61	-154.3	-130.7	158.9	156.7	2.22	71.561		
1,200.0	1,194.9	1,179.0	1,174.2	2.7	0.0	-61.12	-162.2	-144.4	163.6	161.1	2.53	64.763		
1,300.0	1,293.3	1,276.6	1,270.2	3.0	0.0	-62.64	-170.9	-159.4	169.0	166.1	2.85	59.302		
1,400.0	1,391.7	1,374.1	1,365.9	3.3	0.0	-63.76	-180.4	-175.9	175.7	172.5	3.18	55.268		
1,500.0	1,490.0	1,471.4	1,461.0	3.7	0.0	-64.45	-190.6	-193.8	183.8	180.3	3.51	52.344		
1,600.0	1,588.4	1,568.6	1,555.6	4.0	0.0	-64.75	-201.7	-213.0	193.1	189.2	3.84	50.266		
1,700.0	1,686.7	1,665.6	1,649.7	4.4	0.0	-64.71	-213.6	-233.6	203.7	199.5	4.17	48.849		
1,800.0	1,785.1	1,762.3	1,743.0	4.8	0.0	-64.37	-226.1	-255.5	215.5	211.0	4.49	47.963		
1,900.0	1,883.4	1,858.6	1,835.5	5.1	0.0	-63.80	-239.5	-278.7	228.5	223.7	4.81	47.510		
2,000.0	1,981.8	1,954.5	1,927.2	5.5	0.0	-63.03	-253.5	-303.1	242.9	237.8	5.12	47.422 SF		
2,100.0	2,080.1	2,050.0	2,018.0	5.8	0.0	-62.13	-268.2	-328.7	258.5	253.1	5.43	47.645		
2,200.0	2,178.5	2,145.0	2,107.9	6.2	0.0	-61.11	-283.7	-355.5	275.5	269.8	5.72	48.138		
2,300.0	2,276.8	2,239.5	2,196.7	6.6	0.0	-60.03	-299.7	-383.4	293.9	287.9	6.01	48.869		
2,400.0	2,375.2	2,333.4	2,284.4	6.9	0.0	-58.90	-316.4	-412.3	313.6	307.3	6.30	49.812		
2,500.0	2,473.5	2,427.7	2,372.1	7.3	0.0	-57.75	-333.8	-442.7	334.7	328.2	6.57	50.938		
2,600.0	2,571.9	2,525.2	2,462.4	7.6	0.0	-56.65	-352.1	-474.3	356.3	349.5	6.84	52.075		
2,700.0	2,670.2	2,622.6	2,552.7	8.0	0.0	-55.68	-370.3	-506.0	378.0	370.9	7.11	53.143		
2,800.0	2,768.6	2,720.0	2,643.0	8.4	0.0	-54.82	-388.5	-537.7	399.8	392.4	7.38	54.148		
2,900.0	2,866.9	2,817.5	2,733.3	8.7	0.0	-54.05	-406.7	-569.4	421.7	414.0	7.65	55.094		
3,000.0	2,965.3	2,914.9	2,823.6	9.1	0.0	-53.35	-424.9	-601.0	443.6	435.7	7.92	55.985		
3,100.0	3,063.6	3,012.3	2,914.0	9.4	0.0	-52.71	-443.2	-632.7	465.6	457.4	8.19	56.824		
3,200.0	3,162.0	3,109.7	3,004.3	9.8	0.0	-52.14	-461.4	-664.4	487.7	479.2	8.46	57.617		
3,300.0	3,260.3	3,207.2	3,094.6	10.2	0.0	-51.61	-479.6	-696.0	509.8	501.0	8.73	58.365		
3,400.0	3,358.7	3,304.6	3,184.9	10.5	0.0	-51.13	-497.8	-727.7	531.9	522.9	9.00	59.074		
3,500.0	3,457.0	3,402.0	3,275.2	10.9	0.0	-50.69	-516.0	-759.4	554.1	544.8	9.27	59.744		
3,600.0	3,555.4	3,499.4	3,365.5	11.3	0.0	-50.28	-534.3	-791.0	576.3	566.7	9.54	60.379		
3,700.0	3,653.7	3,596.9	3,455.9	11.6	0.0	-49.90	-552.5	-822.7	598.5	588.7	9.81	60.983		
3,800.0	3,752.1	3,694.3	3,546.2	12.0	0.0	-49.55	-570.7	-854.4	620.7	610.6	10.08	61.556		
3,900.0	3,850.4	3,791.7	3,636.5	12.4	0.0	-49.22	-588.9	-886.0	643.0	632.6	10.35	62.101		
4,000.0	3,948.7	3,889.2	3,726.8	12.7	0.0	-48.91	-607.1	-917.7	665.2	654.6	10.62	62.620		
4,100.0	4,047.1	3,986.6	3,817.1	13.1	0.0	-48.63	-625.4	-949.4	687.5	676.7	10.89	63.115		
4,200.0	4,145.4	4,084.0	3,907.4	13.5	0.0	-48.36	-643.6	-981.0	709.9	698.7	11.16	63.587		
4,300.0	4,243.8	4,181.4	3,997.8	13.8	0.0	-48.11	-661.8	-1,012.7	732.2	720.7	11.43	64.037		
4,400.0	4,342.1	4,278.9	4,088.1	14.2	0.0	-47.87	-680.0	-1,044.4	754.5	742.8	11.70	64.468		
4,500.0	4,440.5	4,376.3	4,178.4	14.5	0.0	-47.65	-698.2	-1,076.0	776.9	764.9	11.97	64.880		
4,600.0	4,538.8	4,473.7	4,268.7	14.9	0.0	-47.44	-716.5	-1,107.7	799.2	787.0	12.24	65.275		
4,700.0	4,637.2	4,571.1	4,359.0	15.3	0.0	-47.24	-734.7	-1,139.4	821.6	809.1	12.51	65.654		
4,800.0	4,735.5	4,668.6	4,449.4	15.6	0.0	-47.05	-752.9	-1,171.1	844.0	831.2	12.78	66.017		
4,900.0	4,833.9	4,766.0	4,539.7	16.0	0.0	-46.87	-771.1	-1,202.7	866.4	853.3	13.05	66.365		
5,000.0	4,932.2	4,863.4	4,630.0	16.4	0.0	-46.70	-789.3	-1,234.4	888.8	875.4	13.32	66.700		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



## Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S16-T6N-R67W - Breniman 9 - Hz - Plan #1													<b>Offset Site Error:</b> 0.0 usft
Survey Program: 0-													<b>Offset Well Error:</b> 0.0 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	5,030.6	4,960.8	4,720.3	16.7	0.0	-46.54	-807.6	-1,266.1	911.2	897.6	13.59	67.022	
5,200.0	5,128.9	5,058.3	4,810.6	17.1	0.0	-46.38	-825.8	-1,297.7	933.6	919.7	13.87	67.332	
5,300.0	5,227.3	5,155.7	4,900.9	17.5	0.0	-46.24	-844.0	-1,329.4	956.0	941.8	14.14	67.630	
5,400.0	5,325.6	5,253.1	4,991.3	17.8	0.0	-46.10	-862.2	-1,361.1	978.4	964.0	14.41	67.917	

## Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 4
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4820.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to 24' KB @ 4820.0usft (H&P 319)

Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: Breniman 4

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.39°

