



Lease Review All  
Well Name: WILDHORSE 02-0214AH

API Number 051233595800			WPC ID 1CO076852			Well Permit Number			Field Name DJ Horizontal Niobrara			County Weld			State CO		
Well Configuration Type Lateral/Horizontal					Orig KB Elv (ft) 5,019.50		Ground Elevation (ft) 5,003.00		Casing Flange Elevation (ft)		Tubing Head Elevation (ft)			Total Depth (ftKB) 10,174.0			
Original Spud Date 8/24/2012		Completion Date 10/29/2012		Asset Group Central Rockies Asset Group			Responsible Engineer Gary Nordlander			N/S Dist (ft) 391.0		N/S Ref FNL		E/W Dist (ft) 781.0		E/W Ref FWL	
Lot		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section 2	Section Suffix	Section Type		Township 9 N	Township N/S Dir	Range 59 W	Range E/W Dir		Meridian 6TH		

Lateral/Horizontal - Original Hole, 3/20/2013 10:23:51 AM

MD (ftKB)	TV D (ftKB)	In cl (°)	Vertical schematic (actual)	Logs
16.4	16.4	0.1		
23.0	23.0	0.1		
93.5	93.5	0.5		
1,466.5	1,466.5	2.1		
1,513.1	1,513.1	2.2		
1,524.9	1,524.9	2.2		
4,820.5	4,763.7	1.6		
4,914.7	4,857.8	0.7		
4,979.3	4,922.5	0.7		
4,983.3	4,926.4	0.7		
5,014.4	4,957.6	0.8		
5,020.7	4,963.8	0.8		
5,250.7	5,193.8	0.5		
5,259.2	5,202.3	0.5		
6,560.0	6,067.8	87.6		
6,579.7	6,058.4	88.9		
6,607.0	6,058.5	90.1		
6,669.9	6,057.3	92.1		
6,772.3	6,054.2	91.8		
6,874.7	6,052.0	91.4		
6,886.8	6,051.7	91.5		
6,977.0	6,050.7	91.2		
7,079.1	6,050.9	91.2		
7,090.9	6,050.7	91.4		
7,181.8	6,048.6	90.7		
7,283.1	6,046.8	92.0		
7,295.9	6,046.3	92.5		
7,398.3	6,041.7	91.7		
7,488.8	6,041.5	89.8		
7,501.0	6,041.5	90.2		
7,603.0	6,041.1	88.8		
7,693.2	6,045.1	86.9		
7,705.4	6,045.8	87.1		
7,807.4	6,050.2	87.7		
7,898.0	6,052.0	90.2		
7,910.1	6,052.0	90.4		
8,012.1	6,051.9	89.4		
8,102.4	6,053.5	89.2		
8,115.2	6,053.7	89.3		
8,216.9	6,055.3	89.8		
8,307.1	6,055.6	89.4		
8,409.1	6,057.6	88.1		
8,511.2	6,060.9	88.1		
8,523.6	6,061.2	88.3		
8,613.8	6,063.8	87.8		
8,715.9	6,068.1	89.8		
8,728.0	6,068.2	90.4		
8,818.6	6,068.1	90.5		
8,920.6	6,069.4	88.8		
8,932.7	6,069.8	88.3		
9,023.0	6,074.1	87.2		
9,125.0	6,077.5	89.2		
9,137.5	6,077.7	89.4		
9,227.7	6,076.0	92.3		
9,330.1	6,071.4	93.6		
9,342.2	6,070.6	94.0		
9,444.2	6,062.4	94.3		
9,535.1	6,065.1	94.0		
9,546.9	6,064.1	94.9		
9,649.0	6,046.7	92.6		
9,739.2	6,042.9	93.4		
9,751.3	6,042.2	93.6		
9,853.7	6,038.2	90.7		
9,910.8	6,038.0	89.6		
10,001.3	6,038.5	90.3		
10,058.1	6,037.9	90.5		
10,070.5	6,037.9	90.0		
10,115.5	6,038.5	88.4		
10,161.7	6,040.0	88.1		
10,173.9	6,040.4	88.1		

Wellbore Sections						
Wellbore Name			Start Date	Size (in)	Act Top (ftKB)	Act Btm (ftKB)
Original Hole			8/24/2012	13 1/2	16.5	1,525.0
Original Hole			8/26/2012	8 3/4	1,525.0	6,620.0
Original Hole			8/30/2012	6	6,620.0	10,174.0
Surface Csg, 1,514.5ftKB						
OD (in)	Wt (lb/ft)	Grade	Top (ftKB)	Btm (ftKB)	Len (ft)	Item Des
9 5/8	36.00	J-55	16.6	1,466.4	1,449.85	Casing Joints
9 5/8	36.00	J-55	1,466.4	1,467.9	1.50	Float Collar
9 5/8	36.00	J-55	1,467.9	1,513.0	45.10	Casing Joints
9 5/8	36.00	J-55	1,513.0	1,514.5	1.50	Guide Shoe
Intermediate Csg, 6,607.0ftKB						
OD (in)	Wt (lb/ft)	Grade	Top (ftKB)	Btm (ftKB)	Len (ft)	Item Des
7	29.00	HCL-80	16.5	16.5	0.00	Landing Joint
7	29.00	HCL-80	16.5	18.0	1.50	Casing Hanger
7	29.00	HCL-80	18.0	23.0	5.00	Pup Joint
7	29.00	HCL-80 BAD	23.0	23.0	0.00	Casing Joints
7	29.00	HCL-80	23.0	6,558.7	6,535.69	Casing Joints
7	29.00	HCL-80	6,558.7	6,560.2	1.50	Float Collar
7	29.00	HCL-80	6,560.2	6,605.5	45.33	Casing Joints
7	29.00	HCL-80	6,605.5	6,607.0	1.50	Guide Shoe
Liner, 10,164.0ftKB						
OD (in)	Wt (lb/ft)	Grade	Top (ftKB)	Btm (ftKB)	Len (ft)	Item Des
			5,221.9	5,221.9	0.00	
6.184	11.60	P-110	5,221.9	5,250.8	28.86	Casing Hanger
4 1/2	11.60	P-110	5,250.8	5,253.8	3.00	Cross Over
4 1/2	11.60	P-110	5,253.8	5,259.3	5.53	Casing PUP Joint
4 1/2	11.60	SeAH-90	5,259.3	6,567.7	1,308.41	Casing Joints
4 1/2	11.60	P-110	6,567.7	6,579.8	12.10	Swell Packer
4 1/2	11.60	SeAH-90	6,579.8	6,670.0	90.20	Casing Joints
4 1/2	11.60	P-110	6,670.0	6,682.1	12.10	Frac Sleeve 3.625"
4 1/2	11.60	SeAH-90	6,682.1	6,772.5	90.32	Casing Joints
4 1/2	11.60	P-110	6,772.5	6,784.6	12.10	Swell Packer
4 1/2	11.60	SeAH-90	6,784.6	6,874.6	90.04	Casing Joints
4 1/2	11.60	P-110	6,874.6	6,886.7	12.10	Frac Sleeve 3.500"
4 1/2	11.60	SeAH-90	6,886.7	6,977.0	90.27	Casing Joints
4 1/2	11.60	P-110	6,977.0	6,989.1	12.10	Swell Packer
4 1/2	11.60	SeAH-90	6,989.1	7,079.3	90.21	Casing Joints
4 1/2	11.60	P-110	7,079.3	7,091.4	12.10	Frac Sleeve 3.375"
4 1/2	11.60	SeAH-90	7,091.4	7,181.6	90.23	Casing Joints
4 1/2	11.60	P-110	7,181.6	7,193.7	12.10	Swell Packer
4 1/2	11.60	SeAH-90	7,193.7	7,283.9	90.22	Casing Joints
4 1/2	11.60	P-110	7,283.9	7,296.0	12.10	Frac Sleeve 3.250"
4 1/2	11.60	SeAH-90	7,296.0	7,386.3	90.22	Casing Joints
4 1/2	11.60	P-110	7,386.3	7,398.4	12.10	Swell Packer
4 1/2	11.60	SeAH-90	7,398.4	7,488.6	90.23	Casing Joints
4 1/2	11.60	P-110	7,488.6	7,500.7	12.10	Frac Sleeve 3.125"
4 1/2	11.60	SeAH-90	7,500.7	7,590.9	90.25	Casing Joints
4 1/2	11.60	P-110	7,590.9	7,603.0	12.10	Swell Packer
4 1/2	11.60	SeAH-90	7,603.0	7,693.3	90.29	Casing Joints
4 1/2	11.60	P-110	7,693.3	7,705.4	12.10	Frac Sleeve 3.000"
4 1/2	11.60	SeAH-90	7,705.4	7,795.4	90.01	Casing Joints
4 1/2	11.60	P-110	7,795.4	7,807.5	12.10	Swell Packer
4 1/2	11.60	SeAH-90	7,807.5	7,897.8	90.26	Casing Joints
4 1/2	11.60	P-110	7,897.8	7,909.9	12.10	Frac Sleeve 2.750"
4 1/2	11.60	SeAH-90	7,909.9	8,000.1	90.20	Casing Joints
4 1/2	11.60	P-110	8,000.1	8,012.2	12.10	Swell Packer
4 1/2	11.60	SeAH-90	8,012.2	8,102.4	90.23	Casing Joints
4 1/2	11.60	P-110	8,102.4	8,114.5	12.10	Frac Sleeve 2.750"
4 1/2	11.60	SeAH-90	8,114.5	8,204.8	90.23	Casing Joints
4 1/2	11.60	P-110	8,204.8	8,216.9	12.10	Swell Packer
4 1/2	11.60	SeAH-90	8,216.9	8,306.8	89.95	Casing Joints
4 1/2	11.60	P-110	8,306.8	8,318.9	12.10	Frac Sleeve 2.625"
4 1/2	11.60	SeAH-90	8,318.9	8,409.1	90.20	Casing Joints
4 1/2	11.60	P-110	8,409.1	8,421.2	12.10	Swell Packer
4 1/2	11.60	SeAH-90	8,421.2	8,511.4	90.20	Casing Joints
4 1/2	11.60	P-110	8,511.4	8,523.5	12.10	Frac Sleeve 2.500"
4 1/2	11.60	SeAH-90	8,523.5	8,613.7	90.24	Casing Joints
4 1/2	11.60	P-110	8,613.7	8,625.8	12.10	Swell Packer
4 1/2	11.60	SeAH-90	8,625.8	8,716.1	90.25	Casing Joints
4 1/2	11.60	P-110	8,716.1	8,728.2	12.10	Frac Sleeve 2.375"
4 1/2	11.60	SeAH-90	8,728.2	8,818.4	90.22	Casing Joints



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API Number 051233595800			WPC ID 1CO076852			Well Permit Number			Field Name DJ Horizontal Niobrara			County Weld			State CO
Well Configuration Type Lateral/Horizontal					Orig KB Elv (ft) 5,019.50		Ground Elevation (ft) 5,003.00		Casing Flange Elevation (ft)		Tubing Head Elevation (ft)		Total Depth (ft)KB 10,174.0		
Original Spud Date 8/24/2012		Completion Date 10/29/2012		Asset Group Central Rockies Asset Group			Responsible Engineer Gary Nordlander			N/S Dist (ft) 391.0		N/S Ref FNL	E/W Dist (ft) 781.0		E/W Ref FWL
Lot	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section 2	Section Suffix	Section Type	Township 9 N	Township N/S Dir	Range 59	Range E/W Dir W	Meridian 6TH			

Lateral/Horizontal - Original Hole, 3/20/2013 10:23:53 AM				OD (in)	Wt (lb/ft)	Grade	Top (ft)KB	Btm (ft)KB	Len (ft)	Item Des		
MD (ft)KB	TV D (ft)KB	In cl (°)	Vertical schematic (actual)	Logs	4 1/2	11.60	P-110	8,818.4	8,830.5	12.10	Swell Packer	
16.4	16.4	0.1		Logs	4 1/2	11.60	SeAH-90	8,830.5	8,920.7	90.22	Casing Joints	
23.0	23.0	0.1		4 1/2	11.60	P-110	8,920.7	8,932.8	12.10	Frac Sleeve 2.250"		
93.5	93.5	0.5		4 1/2	11.60	SeAH-90	8,932.8	9,023.0	90.21	Casing Joints		
1,466.5	1,466.9	2.1		4 1/2	11.60	P-110	9,023.0	9,035.1	12.10	Swell Packer		
1,513.1	1,512.5	2.2		4 1/2	11.60	SeAH-90	9,035.1	9,125.4	90.21	Casing Joints		
1,524.9	1,524.3	2.2		4 1/2	11.60	P-110	9,125.4	9,137.5	12.10	Frac Sleeve 2.125"		
4,820.5	4,763.7	1.6		4 1/2	11.60	SeAH-90	9,137.5	9,227.7	90.21	Casing Joints		
4,914.7	4,857.8	0.7		4 1/2	11.60	P-110	9,227.7	9,239.8	12.10	Swell Packer		
4,979.3	4,922.5	0.7		4 1/2	11.60	SeAH-90	9,239.8	9,330.0	90.21	Casing Joints		
4,983.3	4,926.4	0.7		4 1/2	11.60	P-110	9,330.0	9,342.1	12.10	Frac Sleeve 2.000"		
5,014.4	4,957.6	0.8		4 1/2	11.60	SeAH-90	9,342.1	9,432.3	90.20	Casing Joints		
5,020.7	4,963.8	0.8		4 1/2	11.60	P-110	9,432.3	9,444.4	12.10	Swell Packer		
5,250.7	5,193.8	0.5		4 1/2	11.60	SeAH-90	9,444.4	9,534.6	90.20	Casing Joints		
5,259.2	5,202.3	0.5		4 1/2	11.60	P-110	9,534.6	9,546.7	12.10	Frac Sleeve 1.875"		
6,560.0	6,057.8	87.6		4 1/2	11.60	SeAH-90	9,546.7	9,636.9	90.23	Casing Joints		
6,579.7	6,058.4	88.9		4 1/2	11.60	P-110	9,636.9	9,649.0	12.10	Swell Packer		
6,607.0	6,058.5	90.1		4 1/2	11.60	SeAH-90	9,649.0	9,739.3	90.26	Casing Joints		
6,669.9	6,057.3	92.1		4 1/2	11.60	P-110	9,739.3	9,751.4	12.10	Frac Sleeve 1.750"		
6,772.3	6,058.5	90.1		4 1/2	11.60	SeAH-90	9,751.4	9,841.6	90.22	Casing Joints		
6,874.7	6,057.3	92.1		4 1/2	11.60	P-110	9,841.6	9,853.7	12.10	Swell Packer		
6,886.8	6,054.2	91.8		4 1/2	11.60	SeAH-90	9,853.7	9,898.8	45.13	Casing Joints		
6,977.0	6,052.0	91.4		4 1/2	11.60	P-110	9,898.8	9,910.9	12.10	Frac Sleeve 1.625"		
7,079.1	6,051.7	91.5		4 1/2	11.60	SeAH-90	9,910.9	10,001.2	90.25	Casing Joints		
7,090.9	6,050.7	89.2		4 1/2	11.60	P-110	10,001.2	10,013.3	12.10	Swell Packer		
7,181.8	6,050.9	91.2		4 1/2	11.60	SeAH-90	10,013.3	10,058.4	45.12	Casing Joints		
7,283.1	6,050.7	91.4		4 1/2	11.60	P-110	10,058.4	10,070.5	12.10	Frac Sleeve 1.500'		
7,295.9	6,048.6	90.7		4 1/2	11.60	SeAH-90	10,070.5	10,115.6	45.12	Casing Joints		
7,398.3	6,048.8	92.0		4 1/2	11.60	P-110	10,115.6	10,116.6	1.00	S/V Float Collar		
7,488.8	6,048.9	92.5		4 1/2	11.60	SeAH-90	10,116.6	10,161.7	45.13	Casing Joints		
7,501.0	6,041.5	91.7		4 1/2	11.60	P-110	10,161.7	10,164.0	2.27	D/V Float Collar		
7,603.0	6,041.5	89.8		Cement Stages								
7,693.2	6,041.5	90.2		Des		Pump Start Date		Drill Out Date		Top (ft)KB	Btm (ft)KB	Top Meas Meth
7,705.4	6,041.1	88.8		Surface Casing Cement		8/25/2012				16.5	1,514.5	Returns to Surface
7,807.4	6,045.1	86.9		Intermediate Casing Cement		8/30/2012				16.5	6,607.0	Volume Calculations
7,898.0	6,045.8	87.1		Perforations								
7,910.1	6,045.8	87.7		Type of Hole		Date		Top (ft)KB		Btm (ft)KB	Zone	
8,012.1	6,050.2	87.7										
8,102.4	6,050.2	90.2		Stim/Treat Stages								
8,115.2	6,051.9	89.4		Stage Type		Start Date		Top (ft)KB		Btm (ft)KB	Stim/Treat Fluid	
8,216.9	6,051.9	89.2		Frac		10/28/2012		6,670.0		6,682.0	8657# 40/70 sd, 71393# 20/70 sd, 15950# 20/40 CRC, Slick Water	
8,307.1	6,053.7	89.3		Frac		10/28/2012		6,875.0		6,887.0	11002# 40/70 sd, 71278# 20/70 sd, 15985# 20/40 CRC, Slick Water	
8,409.1	6,055.3	89.8		Frac		10/28/2012		7,079.0		7,091.0	19662# 40/70 sd, 85238# 20/70 sd, 23156# 20/40 CRC, Slick Water	
8,511.2	6,055.6	89.4		Frac		10/28/2012		7,283.0		7,296.0	18953# 40/70 sd, 80467# 20/70 sd, 24791# 20/40 CRC, Slick Water	
8,523.6	6,057.6	88.1		Frac		10/27/2012		7,489.0		7,501.0	21077# 40/70 sd, 86147# 20/70 sd, 25328# 20/40 CRC, Slick Water	
8,613.8	6,057.6	88.1		Frac		10/27/2012		7,693.0		7,705.0	20431# 40/70 sd, 84764# 20/70 sd, 23699# 20/40 CRC, Slick Water	
8,715.9	6,061.2	88.3		Frac		10/27/2012		7,898.0		7,910.0	19456# 40/70 sd, 83345# 20/70 sd, 22975# 20/40 CRC, Slick Water	
8,728.0	6,063.8	87.8		Frac		10/27/2012		8,102.0		8,115.0	21372# 40/70 sd, 85439# 20/70 sd, 19967# 20/40 CRC, Slick Water	
8,818.6	6,068.1	89.8		Frac		10/27/2012		8,307.0		8,319.0	22528# 40/70 sd, 87713# 20/70 sd, 24413# 20/40 CRC, Slick Water	
8,920.6	6,068.2	90.4		Frac		10/27/2012		8,511.0		8,524.0	21765# 40/70 sd, 87884# 20/70 sd, 19126# 20/40 CRC, Slick Water	
8,932.7	6,068.1	89.5		Frac		10/27/2012		8,716.0		8,728.0	263# 40/70 sd, 0# 20/70 sd, 0# 20/40 CRC, Slick Water	
9,023.0	6,068.2	90.5		Frac		10/27/2012						
9,125.0	6,069.4	88.8		Frac		10/27/2012						
9,137.5	6,069.8	88.3		Frac		10/27/2012						
9,227.7	6,074.1	87.2		Frac		10/27/2012						
9,330.1	6,077.5	89.2		Frac		10/27/2012						
9,342.2	6,077.7	89.4		Frac		10/27/2012						
9,444.2	6,077.7	89.4		Frac		10/27/2012						
9,535.1	6,076.0	92.3		Frac		10/27/2012						
9,546.9	6,071.4	93.6		Frac		10/27/2012						
9,649.0	6,070.6	94.0		Frac		10/27/2012						
9,739.2	6,070.6	94.0		Frac		10/27/2012						
9,751.3	6,070.6	94.0		Frac		10/27/2012						
9,853.7	6,070.6	94.0		Frac		10/27/2012						
9,910.8	6,070.6	94.0		Frac		10/27/2012						
10,001.3	6,070.6	94.0		Frac		10/27/2012						
10,058.1	6,070.6	94.0		Frac		10/27/2012						
10,070.5	6,070.6	94.0		Frac		10/27/2012						
10,115.5	6,070.6	94.0		Frac		10/27/2012						
10,161.7	6,070.6	94.0		Frac		10/27/2012						
10,173.9	6,040.4	88.1	Frac		10/27/2012							

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