



Lease Review All
Well Name: WILDHORSE 18-1844H

API Number 051233612700			WPC ID 1CO076866			Well Permit Number			Field Name DJ Horizontal Niobrara				County Weld		State CO
Well Configuration Type Lateral/Horizontal					Orig KB Elv (ft) 5,042.50		Ground Elevation (ft) 5,026.00		Casing Flange Elevation (ft)		Tubing Head Elevation (ft)		Total Depth (ftKB) 10,333.0		
Original Spud Date 2/5/2013		Completion Date 3/8/2013		Asset Group Central Rockies Asset Group			Responsible Engineer Gary Nordlander			N/S Dist (ft) 320.0		N/S Ref FNL	E/W Dist (ft) 660.0		E/W Ref FEL
Lot	Quarter 1 NE	Quarter 2 NE	Quarter 3	Quarter 4	Section 18	Section Suffix	Section Type		Township 9 N	Township N/S Dir	Range 59	Range E/W Dir W	Meridian 6TH		

Lateral/Horizontal - Original Hole, 6/13/2013 2:18:00 PM

MD (ftKB)	TV D (ftKB)	In cl (°)	Vertical schematic (actual)	Logs
1,774.9	1,773.8	1.7		
1,820.2	1,819.1	1.8		
1,891.1	1,889.9	1.4		
5,389.4	5,387.4	0.3		
5,408.5	5,406.5	0.4		
5,540.0	5,538.0	0.7		
5,559.1	5,557.0	0.7		
6,578.4	6,287.7	86.0		
6,629.9	6,288.8	91.7		
6,747.7	6,283.7	91.0		
6,845.1	6,282.3	90.9		
6,942.6	6,280.1	91.5		
6,954.7	6,279.7	91.6		
7,054.5	6,277.1	90.7		
7,152.9	6,277.8	87.9		
7,249.3	6,281.3	89.2		
7,261.5	6,281.4	89.8		
7,361.5	6,280.0	90.7		
7,459.0	6,278.5	91.5		
7,556.1	6,278.9	88.5		
7,568.2	6,279.2	88.6		
7,668.3	6,279.2	91.0		
7,767.1	6,278.2	90.3		
7,863.2	6,278.4	89.6		
7,875.3	6,278.4	89.7		
7,975.7	6,279.6	89.3		
8,072.8	6,280.6	89.6		
8,170.3	6,281.1	90.1		
8,182.4	6,281.1	90.3		
8,282.2	6,281.1	89.6		
8,380.9	6,281.6	90.1		
8,477.4	6,279.2	92.2		
8,489.2	6,278.8	91.8		
8,589.6	6,276.6	91.6		
8,686.7	6,274.9	90.7		
8,784.1	6,276.7	87.8		
8,796.3	6,276.2	87.7		
8,896.3	6,280.1	88.2		
8,994.8	6,281.4	90.4		
9,001.0	6,281.4	90.5		
9,101.0	6,280.9	90.6		
9,199.5	6,279.4	90.7		
9,295.9	6,278.3	89.7		
9,308.1	6,278.4	89.5		
9,408.1	6,280.4	88.0		
9,505.6	6,280.9	92.0		
9,603.0	6,279.8	89.2		
9,615.2	6,279.9	89.0		
9,714.9	6,280.8	89.9		
9,813.6	6,280.3	90.1		
9,910.1	6,279.5	91.2		
9,922.2	6,279.3	91.4		
10,022.3	6,276.8	91.7		
10,119.8	6,274.9	90.5		
10,217.2	6,274.4	90.2		
10,227.0	6,274.3	90.4		
10,274.3	6,274.1	90.1		
10,323.2	6,274.0	90.0		

Wellbore Sections							
Wellbore Name			Start Date		Size (in)	Act Top (ftKB)	Act Btm (ftKB)
Original Hole			2/4/2013		13 1/2	16.5	1,830.0
Original Hole			2/8/2013		8 3/4	1,830.0	6,630.0
Original Hole			2/12/2013		6	6,630.0	10,333.0
Surface Csg, 1,820.3ftKB							
OD (in)	Wt (lb/ft)	Grade	Top (ftKB)	Btm (ftKB)	Len (ft)	Item Des	
9 5/8	36.00	J-55	16.5	1,775.0	1,758.54	Casing Joints	
9 5/8	36.00	J-55	1,775.0	1,776.5	1.50	Float Collar	
9 5/8	36.00	J-55	1,776.5	1,819.3	42.80	Casing Joints	
9 5/8	36.00	J-55	1,819.3	1,820.3	1.00	Float Shoe	
Frac String, 5,553.5ftKB							
OD (in)	Wt (lb/ft)	Grade	Top (ftKB)	Btm (ftKB)	Len (ft)	Item Des	
Intermediate Csg, 6,619.7ftKB							
OD (in)	Wt (lb/ft)	Grade	Top (ftKB)	Btm (ftKB)	Len (ft)	Item Des	
7	29.00		16.5	16.5	0.00	Landing Joint	
7	29.00	HCP-110	16.5	6,577.4	6,560.89	Casing Joints	
7	29.00	HCP-110	6,577.4	6,578.3	0.90	Float Collar	
7	29.00	HCP-110	6,578.3	6,618.2	39.92	Casing Joints	
7	29.00	HCP-110	6,618.2	6,619.7	1.50	Float Shoe	
Liner, 10,323.0ftKB							
OD (in)	Wt (lb/ft)	Grade	Top (ftKB)	Btm (ftKB)	Len (ft)	Item Des	
4 1/2	11.60		5,528.5	5,539.9	11.42	TIEBACK EXTENSION	
4 1/2	11.60		5,539.9	5,549.2	9.32	ZXP LINER TOP PACKER	
4 1/2	11.60		5,549.2	5,556.0	6.79	Liner Hanger	
4 1/2	11.60		5,556.0	5,559.0	3.00	VAMTOP X LTC	
4 1/2	11.60	P-110	5,559.0	5,564.5	5.51	Casing Joints	
4 1/2	11.60	SeAH-90	5,564.5	6,737.8	1,173.30	Casing Joints	
4 1/2	11.60	P-110	6,737.8	6,743.9	6.08	Casing Joints	
4 1/2	11.60		6,743.9	6,747.8	3.89	Frac Sleeve	
4 1/2	11.60	P-110	6,747.8	6,749.9	2.10	Casing Joints	
4 1/2	11.60	SeAH-90	6,749.9	6,840.2	90.27	Casing Joints	
4 1/2	11.60	P-110	6,840.2	6,845.2	5.00	Casing Joints	
4 1/2	11.60		6,845.2	6,849.8	4.66	Swell Packer	
4 1/2	11.60	P-110	6,849.8	6,852.3	2.43	Casing Joints	
4 1/2	11.60	SeAH-90	6,852.3	6,942.5	90.28	Casing Joints	
4 1/2	11.60	P-110	6,942.5	6,948.6	6.07	Casing Joints	
4 1/2	11.60		6,948.6	6,952.5	3.89	Frac Sleeve	
4 1/2	11.60	P-110	6,952.5	6,954.6	2.09	Casing Joints	
4 1/2	11.60	SeAH-90	6,954.6	7,044.9	90.30	Casing Joints	
4 1/2	11.60	P-110	7,044.9	7,049.9	5.00	Casing Joints	
4 1/2	11.60		7,049.9	7,054.5	4.66	Swell Packer	
4 1/2	11.60	P-110	7,054.5	7,057.0	2.43	Casing Joints	
4 1/2	11.60	SeAH-90	7,057.0	7,147.0	89.99	Casing Joints	
4 1/2	11.60	P-110	7,147.0	7,153.0	6.08	Casing Joints	
4 1/2	11.60		7,153.0	7,156.9	3.90	Frac Sleeve	
4 1/2	11.60	P-110	7,156.9	7,159.0	2.10	Casing Joints	
4 1/2	11.60	SeAH-90	7,159.0	7,249.3	90.29	Casing Joints	
4 1/2	11.60	P-110	7,249.3	7,254.3	5.00	Casing Joints	
4 1/2	11.60		7,254.3	7,259.0	4.66	Swell Packer	
4 1/2	11.60	P-110	7,259.0	7,261.4	2.43	Casing Joints	
4 1/2	11.60	SeAH-90	7,261.4	7,351.7	90.23	Casing Joints	
4 1/2	11.60	P-110	7,351.7	7,357.7	6.08	Casing Joints	
4 1/2	11.60		7,357.7	7,361.6	3.89	Frac Sleeve	
4 1/2	11.60	P-110	7,361.6	7,363.7	2.09	Casing Joints	
4 1/2	11.60	SeAH-90	7,363.7	7,453.9	90.23	Casing Joints	
4 1/2	11.60	P-110	7,453.9	7,458.9	4.99	Casing Joints	
4 1/2	11.60		7,458.9	7,463.6	4.67	Swell Packer	
4 1/2	11.60	P-110	7,463.6	7,466.0	2.42	Casing Joints	
4 1/2	11.60	SeAH-90	7,466.0	7,556.3	90.23	Casing Joints	
4 1/2	11.60	P-110	7,556.3	7,562.3	6.09	Casing Joints	
4 1/2	11.60		7,562.3	7,566.2	3.89	Frac Sleeve	
4 1/2	11.60	P-110	7,566.2	7,568.3	2.09	Casing Joints	
4 1/2	11.60	SeAH-90	7,568.3	7,658.6	90.27	Casing Joints	
4 1/2	11.60	P-110	7,658.6	7,663.6	5.00	Casing Joints	
4 1/2	11.60		7,663.6	7,668.3	4.67	Swell Packer	
4 1/2	11.60	P-110	7,668.3	7,670.7	2.41	Casing Joints	
4 1/2	11.60	SeAH-90	7,670.7	7,760.9	90.26	Casing Joints	
4 1/2	11.60	P-110	7,760.9	7,767.0	6.07	Casing Joints	
4 1/2	11.60		7,767.0	7,770.9	3.89	Frac Sleeve	
4 1/2	11.60	P-110	7,770.9	7,773.0	2.10	Casing Joints	
4 1/2	11.60	SeAH-90	7,773.0	7,863.3	90.28	Casing Joints	



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Well Configuration Type Lateral/Horizontal						Orig KB Elv (ft) 5,042.50				Ground Elevation (ft) 5,026.00				Casing Flange Elevation (ft)				Tubing Head Elevation (ft)				Total Depth (ftKB) 10,333.0									
Original Spud Date 2/5/2013				Completion Date 3/8/2013				Asset Group Central Rockies Asset Group				Responsible Engineer Gary Nordlander				N/S Dist (ft) 320.0				N/S Ref FNL		E/W Dist (ft) 660.0		E/W Ref FEL							
Lot		Quarter 1 NE		Quarter 2 NE		Quarter 3		Quarter 4		Section 18		Section Suffix		Section Type		Township 9 N		Township N/S Dir		Range 59		Range E/W Dir W		Meridian 6TH							
Lateral/Horizontal - Original Hole, 6/13/2013 2:18:02 PM										OD (in)		Wt (lb/ft)		Grade		Top (ftKB)		Btm (ftKB)		Len (ft)		Item Des									
MD (ftKB)		TV D (ftKB)		In cl (°)		Vertical schematic (actual)						Logs						4 1/2		11.60		P-110		7,863.3		7,868.3		5.00		Casing Joints	
																		4 1/2		11.60				7,868.3		7,872.9		4.66		Swell Packer	
1,774.9		1,773.8		1.7														4 1/2		11.60		P-110		7,872.9		7,875.4		2.43		Casing Joints	
1,820.2		1,819.1		1.8														4 1/2		11.60		SeAH-90		7,875.4		7,965.6		90.26		Casing Joints	
1,891.1		1,889.9		1.4														4 1/2		11.60		P-110		7,965.6		7,971.7		6.08		Casing Joints	
5,389.4		5,387.4		0.3														4 1/2		11.60		SeAH-90		7,971.7		7,975.6		3.90		Frac Sleeve	
5,408.5		5,406.5		0.4														4 1/2		11.60		P-110		7,975.6		7,977.7		2.10		Casing Joints	
5,540.0		5,538.0		0.7														4 1/2		11.60		P-110		8,068.0		8,073.0		5.00		Casing Joints	
5,559.1		5,557.0		0.7														4 1/2		11.60		SeAH-90		8,068.0		8,077.6		4.66		Swell Packer	
6,578.4		6,287.7		86.0														4 1/2		11.60		P-110		8,077.6		8,080.1		2.43		Casing Joints	
6,629.9		6,288.8		91.7														4 1/2		11.60		SeAH-90		8,080.1		8,170.3		90.24		Casing Joints	
6,747.7		6,283.7		91.0														4 1/2		11.60		P-110		8,170.3		8,176.4		6.06		Casing Joints	
6,845.1		6,282.3		90.9														4 1/2		11.60		SeAH-90		8,176.4		8,180.2		3.89		Frac Sleeve	
6,942.6		6,280.1		91.5														4 1/2		11.60		P-110		8,180.2		8,182.3		2.06		Casing Joints	
6,954.7		6,279.7		91.6														4 1/2		11.60		SeAH-90		8,182.3		8,272.5		90.24		Casing Joints	
7,054.5		6,277.1		90.7														4 1/2		11.60		P-110		8,272.5		8,277.5		4.99		Casing Joints	
7,152.9		6,277.8		87.9														4 1/2		11.60		P-110		8,277.5		8,282.2		4.66		Swell Packer	
7,249.3		6,281.3		89.2														4 1/2		11.60		SeAH-90		8,282.2		8,284.6		2.43		Casing Joints	
7,261.5		6,281.4		89.8														4 1/2		11.60		SeAH-90		8,284.6		8,374.9		90.28		Casing Joints	
7,361.5		6,280.0		90.7														4 1/2		11.60		P-110		8,374.9		8,381.0		6.07		Casing Joints	
7,459.0		6,278.5		91.5														4 1/2		11.60		P-110		8,381.0		8,384.9		3.89		Frac Sleeve	
7,556.1		6,278.9		88.5														4 1/2		11.60		P-110		8,384.9		8,387.0		2.09		Casing Joints	
7,568.2		6,279.2		88.6														4 1/2		11.60		SeAH-90		8,387.0		8,477.2		90.27		Casing Joints	
7,668.3		6,279.2		91.0														4 1/2		11.60		P-110		8,477.2		8,482.2		4.99		Casing Joints	
7,767.1		6,278.2		90.3														4 1/2		11.60		P-110		8,482.2		8,486.9		4.66		Swell Packer	
7,863.2		6,278.4		89.6														4 1/2		11.60		SeAH-90		8,486.9		8,489.3		2.44		Casing Joints	
7,875.3		6,278.4		89.7														4 1/2		11.60		SeAH-90		8,489.3		8,579.5		90.22		Casing Joints	
7,975.7		6,279.6		89.3														4 1/2		11.60		P-110		8,579.5		8,585.6		6.09		Casing Joints	
8,072.8		6,280.6		89.6														4 1/2		11.60		P-110		8,585.6		8,589.5		3.90		Frac Sleeve	
8,170.3		6,281.1		90.1														4 1/2		11.60		P-110		8,589.5		8,591.6		2.10		Casing Joints	
8,182.4		6,281.1		90.3														4 1/2		11.60		SeAH-90		8,591.6		8,681.8		90.22		Casing Joints	
8,282.2		6,281.1		89.6														4 1/2		11.60		P-110		8,681.8		8,686.8		4.99		Casing Joints	
8,380.9		6,281.6		90.1														4 1/2		11.60		P-110		8,686.8		8,691.5		4.66		Swell Packer	
8,477.4		6,279.2		92.2														4 1/2		11.60		SeAH-90		8,691.5		8,693.9		2.43		Casing Joints	
8,489.2		6,278.8		91.8														4 1/2		11.60		P-110		8,693.9		8,784.2		90.27		Casing Joints	
8,589.6		6,276.6		91.6														4 1/2		11.60		P-110		8,784.2		8,790.3		6.08		Casing Joints	
8,686.7		6,274.9		90.7														4 1/2		11.60		SeAH-90		8,790.3		8,794.2		3.89		Frac Sleeve	
8,784.1		6,275.7		87.8														4 1/2		11.60		P-110		8,794.2		8,796.3		2.10		Casing Joints	
8,796.3		6,276.2		87.7														4 1/2		11.60		P-110		8,796.3		8,886.5		90.25		Casing Joints	
8,896.3		6,280.1		88.2														4 1/2		11.60		SeAH-90		8,886.5		8,891.5		5.00		Casing Joints	
8,994.8		6,281.4		90.4														4 1/2		11.60		P-110		8,891.5		8,896.2		4.67		Swell Packer	
9,001.0		6,281.4		90.5														4 1/2		11.60		P-110		8,896.2		8,898.6		2.43		Casing Joints	
9,101.0		6,280.9		90.6														4 1/2		11.60		SeAH-90		8,898.6		8,988.9		90.25		Casing Joints	
9,199.5		6,279.4		90.7														4 1/2		11.60		P-110		8,988.9		8,994.9		6.08		Casing Joints	
9,295.9		6,278.3		89.7														4 1/2		11.60		P-110		8,994.9		8,998.8		3.90		Frac Sleeve	
9,308.1		6,278.4		89.5														4 1/2		11.60		P-110		8,998.8		9,000.9		2.10		Casing Joints	
9,408.1		6,280.4		88.0														4 1/2		11.60		SeAH-90		9,000.9		9,091.2		90.29		Casing Joints	
9,505.6		6,280.9		92.0														4 1/2		11.60		P-110		9,091.2		9,096.2		5.00		Casing Joints	
9,603.0		6,279.8		89.2														4 1/2		11.60		P-110		9,096.2		9,100.9		4.66		Swell Packer	
9,615.2		6,279.9		89.0														4 1/2		11.60		SeAH-90		9,100.9		9,103.3		2.43		Casing Joints	
9,714.9		6,280.8		89.9														4 1/2		11.60		SeAH-90		9,103.3		9,193.5		90.22		Casing Joints	
9,813.6		6,280.3		90.1														4 1/2		11.60		P-110		9,193.5		9,199.6		6.06		Casing Joints	
9,910.1		6,279.5		91.2														4 1/2		11.60		P-110		9,199.6		9,203.5		3.90		Frac Sleeve	
9,922.2		6,279.3		91.4														4 1/2		11.60		P-110		9,203.5		9,205.6		2.08		Casing Joints	
10,022.3		6,276.8		91.7														4 1/2		11.60		SeAH-90		9,205.6		9,295.9		90.31		Casing Joints	
10,119.8		6,274.9		90.5														4 1/2		11.60		P-110		9,295.9		9,300.9		5.00		Casing Joints	
10,217.2		6,274.4		90.2														4 1/2		11.60		P-110		9,300.9		9,305.6		4.66		Swell Packer	
10,227.0		6,274.3		90.4														4 1/2		11.60		P-110		9,305.6		9,308.0		2.42		Casing Joints	
10,274.3		6,274.1		90.1														4 1/2		11.60		SeAH-90		9,308.0		9,398.2		90.26		Casing Joints	
10,323.2		6,274.0		90.0														4 1/2		11.60		P-110		9,398.2		9,404.3		6.08		Casing Joints	
																		4 1/2		11.60				9,404.3		9,408.2		3.90		Frac Sleeve	
																		4 1/2		11.60		P-110		9,408.2		9,410.3		2.09		Casing Joints	
																		4 1/2		11.60		SeAH-90		9,410.3		9,500.5		90.23		Casing Joints	
																		4 1/2		11.60		P-110		9,500.5		9,505.5		5.01		Casing Joints	
																		4 1/2		11.60		P-110		9,505.5		9,510.2		4.64		Swell Packer	
																		4 1/2		11.60		P-110		9,510.2		9,512.6		2.43		Casing Joints	
																		4 1/2		11.60		SeAH-90		9,512.6		9,602.9		90.28		Casing Joints	
																		4 1/2		11.60		P-110		9,602.9		9,609.0		6.09		Casing Joints	
																		4 1/2		11.60		P-110		9,609.0		9,612.9		3.91		Frac Sleeve	
																		4 1/2		11.60		P-110		9,612.9		9,615.0		2.11		Casing Joints	



Lease Review All
Well Name: WILDHORSE 18-1844H

API Number 051233612700			WPC ID 1CO076866			Well Permit Number			Field Name DJ Horizontal Niobrara			County Weld			State CO					
Well Configuration Type Lateral/Horizontal					Orig KB Elv (ft) 5,042.50			Ground Elevation (ft) 5,026.00			Casing Flange Elevation (ft)			Tubing Head Elevation (ft)			Total Depth (ftKB) 10,333.0			
Original Spud Date 2/5/2013			Completion Date 3/8/2013		Asset Group Central Rockies Asset Group				Responsible Engineer Gary Nordlander				N/S Dist (ft) 320.0		N/S Ref FNL		E/W Dist (ft) 660.0		E/W Ref FEL	
Lot		Quarter 1 NE	Quarter 2 NE	Quarter 3	Quarter 4	Section 18	Section Suffix	Section Type		Township 9 N		Township N/S Dir		Range 59 W		Range E/W Dir		Meridian 6TH		
Lateral/Horizontal - Original Hole, 6/13/2013 2:18:04 PM								OD (in)	Wt (lb/ft)	Grade	Top (ftKB)	Btm (ftKB)	Len (ft)	Item Des						
MD (ftKB)	TV D (ftKB)	In cl (°)	Vertical schematic (actual)	Logs	4 1/2	11.60	SeAH-90	9,615.0	9,705.3	90.28	Casing Joints									
					4 1/2	11.60	P-110	9,705.3	9,710.3	5.00	Casing Joints									
					4 1/2	11.60		9,710.3	9,715.0	4.67	Swell Packer									
					4 1/2	11.60	P-110	9,715.0	9,717.4	2.42	Casing Joints									
					4 1/2	11.60	SeAH-90	9,717.4	9,807.7	90.31	Casing Joints									
					4 1/2	11.60	P-110	9,807.7	9,813.8	6.08	Casing Joints									
					4 1/2	11.60		9,813.8	9,817.7	3.90	Frac Sleeve									
					4 1/2	11.60	P-110	9,817.7	9,819.8	2.10	Casing Joints									
					4 1/2	11.60	SeAH-90	9,819.8	9,910.1	90.30	Casing Joints									
					4 1/2	11.60	P-110	9,910.1	9,915.1	5.00	Casing Joints									
					4 1/2	11.60		9,915.1	9,919.7	4.66	Swell Packer									
					4 1/2	11.60	P-110	9,919.7	9,922.1	2.42	Casing Joints									
					4 1/2	11.60	SeAH-90	9,922.1	10,012.4	90.29	Casing Joints									
					4 1/2	11.60	P-110	10,012.4	10,018.5	6.09	Casing Joints									
					4 1/2	11.60		10,018.5	10,022.4	3.90	Frac Sleeve									
					4 1/2	11.60	P-110	10,022.4	10,024.5	2.09	Casing Joints									
					4 1/2	11.60	SeAH-90	10,024.5	10,114.8	90.26	Casing Joints									
					4 1/2	11.60	P-110	10,114.8	10,119.8	5.00	Casing Joints									
					4 1/2	11.60		10,119.8	10,124.4	4.66	Swell Packer									
					4 1/2	11.60	P-110	10,124.4	10,126.9	2.42	Casing Joints									
					4 1/2	11.60	SeAH-90	10,126.9	10,217.2	90.31	Casing Joints									
					4 1/2	11.60	P-110	10,217.2	10,223.3	6.09	Casing Joints									
					4 1/2	11.60		10,223.3	10,227.2	3.90	Frac Sleeve									
					4 1/2	11.60	P-110	10,227.2	10,229.3	2.10	Casing Joints									
					4 1/2	11.60	SeAH-90	10,229.3	10,274.4	45.14	Casing Joints									
					4 1/2	11.60	SeAH-90	10,274.4	10,275.4	0.96	Float Collar									
					4 1/2	11.60	SeAH-90	10,275.4	10,320.5	45.12	Casing Joints									
					4 1/2	11.60	SeAH-90	10,320.5	10,323.0	2.53	Float Shoe									
Cement Stages																				
Des					Pump Start Date			Drill Out Date			Top (ftKB)			Btm (ftKB)			Top Meas Meth			
Surface Casing Cement					2/6/2013						16.5			1,820.3			Returns to Surface			
Intermediate Casing Cement					2/11/2013						16.5			6,619.7			Returns to Surface			
Perforations																				
Type of Hole					Date			Top (ftKB)			Btm (ftKB)			Zone						
Open Hole					2/21/2013			1,890.0			1,891.0			Pierre, Original Hole						
Stim/Treat Stages																				
Stage Type		Start Date			Top (ftKB)		Btm (ftKB)		Stim/Treat Fluid					Vol Clean Pump (bbl)						
Frac		3/6/2013			6,743.9		6,747.8		16775# 40/70 sd,240069# 20/40 sd,25042# 20/40 CRC, Slick Water					4706.00						
Frac		3/6/2013			6,948.6		6,952.5		13732# 40/70 sd,254791# 20/40 sd,20970# 20/40 CRC, Slick Water					4735.00						
Frac		3/6/2013			7,153.0		7,156.9		13057# 40/70 sd,245670# 20/40 sd,20492# 20/40 CRC, Slick Water					4744.00						
Frac		3/6/2013			7,357.7		7,361.6		14488# 40/70 sd,238305# 20/40 sd,24296# 20/40 CRC, Slick Water					4749.00						
Frac		3/6/2013			7,562.3		7,566.2		17070# 40/70 sd,252347# 20/40 sd,22024# 20/40 CRC, Slick Water					4780.00						
Frac		3/5/2013			7,767.0		7,770.9		19598# 40/70 sd,257637# 20/40 sd,21057# 20/40 CRC, Slick Water					4927.00						
Frac		3/5/2013			7,971.7		7,975.6		16731# 40/70 sd,257531# 20/40 sd,22254# 20/40 CRC, Slick Water					4770.00						
Frac		3/5/2013			8,176.4		8,180.2		13788# 40/70 sd,240130# 20/40 sd,23470# 20/40 CRC, Slick Water					4783.00						
Frac		3/5/2013			8,381.0		8,384.9		9809# 40/70 sd,238064# 20/40 sd,20921# 20/40 CRC, Slick Water					4783.00						
Frac		3/4/2013			8,585.6		8,589.5		9683# 40/70 sd,192425# 20/40 sd,19409# 20/40 CRC, Slick Water					4405.00						
Frac		3/4/2013			8,790.3		8,794.2		13881# 40/70 sd, 196606# 20/40 sd, 0# 20/40 CRC, Slick Water					4502.00						
Frac		3/4/2013			8,994.9		8,998.8		14727# 40/70 sd,199610# 20/40 sd,22248# 20/40 CRC, Slick Water					4424.00						



Lease Review All
Well Name: WILDHORSE 18-1844H

API Number 051233612700			WPC ID 1CO076866			Well Permit Number			Field Name DJ Horizontal Niobrara				County Weld		State CO
Well Configuration Type Lateral/Horizontal					Orig KB Elv (ft) 5,042.50		Ground Elevation (ft) 5,026.00		Casing Flange Elevation (ft)		Tubing Head Elevation (ft)		Total Depth (ftKB) 10,333.0		
Original Spud Date 2/5/2013		Completion Date 3/8/2013		Asset Group Central Rockies Asset Group			Responsible Engineer Gary Nordlander			N/S Dist (ft) 320.0		N/S Ref FNL	E/W Dist (ft) 660.0		E/W Ref FEL
Lot	Quarter 1 NE	Quarter 2 NE	Quarter 3	Quarter 4	Section 18	Section Suffix	Section Type		Township 9 N	Township N/S Dir	Range 59	Range E/W Dir W	Meridian 6TH		

Lateral/Horizontal - Original Hole, 6/13/2013 2:18:05 PM				
MD (ftKB)	TV D (ftKB B)	In cl (°)	Vertical schematic (actual)	Logs
1,774.9	1,773.8	1.7		
1,820.2	1,819.1	1.8		
1,891.1	1,889.9	1.4		
5,389.4	5,387.4	0.3		
5,408.5	5,406.5	0.4		
5,540.0	5,538.0	0.7		
5,559.1	5,557.0	0.7		
6,578.4	6,287.7	86.0		
6,629.9	6,288.8	91.7		
6,747.7	6,283.7	91.0		
6,845.1	6,282.3	90.9		
6,942.6	6,280.1	91.5		
6,954.7	6,279.7	91.6		
7,054.5	6,277.1	90.7		
7,152.9	6,277.8	87.9		
7,249.3	6,281.3	89.2		
7,261.5	6,281.4	89.8		
7,361.5	6,280.0	90.7		
7,459.0	6,278.5	91.5		
7,556.1	6,278.9	88.5		
7,568.2	6,279.2	88.6		
7,668.3	6,279.2	91.0		
7,767.1	6,278.2	90.3		
7,863.2	6,278.4	89.6		
7,875.3	6,278.4	89.7		
7,975.7	6,279.6	89.3		
8,072.8	6,280.6	89.6		
8,170.3	6,281.1	90.1		
8,182.4	6,281.1	90.3		
8,282.2	6,281.1	89.6		
8,380.9	6,281.6	90.1		
8,477.4	6,279.2	92.2		
8,489.2	6,278.8	91.8		
8,589.6	6,276.6	91.6		
8,686.7	6,274.9	90.7		
8,784.1	6,275.7	87.8		
8,796.3	6,276.2	87.7		
8,896.3	6,280.1	88.2		
8,994.8	6,281.4	90.4		
9,001.0	6,281.4	90.5		
9,101.0	6,280.9	90.6		
9,199.5	6,279.4	90.7		
9,295.9	6,278.3	89.7		
9,308.1	6,278.4	89.5		
9,408.1	6,280.4	88.0		
9,505.6	6,280.9	92.0		
9,603.0	6,279.8	89.2		
9,615.2	6,279.9	89.0		
9,714.9	6,280.8	89.9		
9,813.6	6,280.3	90.1		
9,910.1	6,279.5	91.2		
9,922.2	6,279.3	91.4		
10,022.3	6,276.8	91.7		
10,119.8	6,274.9	90.5		
10,217.2	6,274.4	90.2		
10,227.0	6,274.3	90.4		
10,274.3	6,274.1	90.1		
10,323.2	6,274.0	90.0		

Stim/Treat Stages						
Stage Type	Start Date	Top (ftKB)	Btm (ftKB)	Stim/Treat Fluid	Vol Clean Pump (bbl)	
Frac	3/4/2013	9,199.6	9,203.5	12767# 40/70 sd,199811# 20/40 sd,20766# 20/40 CRC, Slick Water	4370.00	
Frac	3/4/2013	9,404.3	9,408.2	9462# 40/70 sd,192689# 20/40 sd,21259# 20/40 CRC, Slick Water	4398.00	
Frac	3/4/2013	9,609.0	9,612.9	11510# 40/70 sd, 199817# 20/40 sd, 0# 20/40 CRC, Slick Water	4334.00	
Frac	3/4/2013	9,813.8	9,817.7	11643# 40/70 sd,194227# 20/40 sd,20150# 20/40 CRC, Slick Water	4411.00	
Frac	3/4/2013	10,018.5	10,022.4	5350# 40/70 sd,101265# 20/40 sd,12616# 20/40 CRC, Slick Water	2976.00	
Frac	3/4/2013	10,223.3	10,227.2	24580# 40/70 sd,200172# 20/40 sd,21175# 20/40 CRC, Slick Water	6101.00	
Tubing - Production set at 5,409.0ftKB on 4/5/2013 00:00						
Set Depth (ftKB) 5,409.0		Comment		Run Date 4/5/2013	Pull Date	
Item Des		OD (in)	ID (in)	Len (ft)	Top (ftKB)	Btm (ftKB)
Tubing		2 7/8	2.441	5,380.40	0.1	5,380.5
Tubing Sub		2 7/8	2.441	6.00	5,380.5	5,386.5
Hydraulic Pump		2 7/8		3.00	5,386.5	5,389.5
Tubing Sub		2 7/8	2.441	6.00	5,389.5	5,395.5
Packer		6 1/8	2.441	7.00	5,395.5	5,402.5
Tubing Sub		2 7/8	2.441	6.00	5,402.5	5,408.5
Barred Collar		2 7/8		0.50	5,408.5	5,409.0
<des> on <dtmrun>						
Rod Description			Run Date		Pull Date	
Item Des		OD (in)	Len (ft)	Top (ftKB)	Btm (ftKB)	
Other String Components						
Item Des		OD (in)	Len (ft)	Top (ftKB)	Btm (ftKB)	
Other In Hole						
Des		OD (in)	Run Date	Pull Date	Top (ftKB)	Btm (ftKB)
Retrievable Bridge Plug		6.4	2/21/2013	2/20/2013	5,470.0	5,472.0
Bottom Hole Cores						
Date		Core #	Top (ftKB)	Btm (ftKB)	Recov (ft)	