



Lease Review All - Frac Summary

Well Name: HORSETAIL 30F-1942

API Number 051233874000		WPC ID 1CO0761017		Well Permit Number		Field Name DJ Horizontal Niobrara		County Weld		State CO									
Well Configuration Type Lateral/Horizontal				Orig KB Elv (ft) 4,800.00		Ground Elevation (ft) 4,783.00		Casing Flange Elevation (ft)		Tubing Head Elevation (ft)		Total Depth (ftKB) 13,777.0							
Original Spud Date 10/13/2014		Completion Date 2/3/2015		Asset Group Redtail		Responsible Engineer Charles Ohlson			N/S Dist (ft) 2,323.0		N/S Ref FNL	E/W Dist (ft) 1,890.0	E/W Ref FWL						
Lot		Quarter 1 SE	Quarter 2 NW	Quarter 3	Quarter 4	Section 30	Section Suffix	Section Type	Township 10 N		Township N/S Dir	Range 57	Range E/W Dir W	Meridian					
Lateral/Horizontal - Original Hole, 7/29/2015 3:06:11 PM						Wellbore Sections													
MD (ftKB)	D (ft K B)	n (K B)	c (K B)	l (K B)	Vertical schematic (actual)	Logs	Wellbore Name							Start Date	Size (in)	Act Top (ftKB)	Act Btm (ftKB)		
							Original Hole							4/23/2014	20	17.0	97.0		
							Original Hole							10/13/2014	14 3/4	97.0	1,597.0		
							Original Hole							10/14/2014	9 7/8	1,597.0	6,080.0		
							Original Hole							10/18/2014	6 3/4	6,080.0	13,777.0		
Conductor Pipe, 97.0ftKB																			
OD (in)							Wt (lb/ft)		Grade		Top (ftKB)		Btm (ftKB)		Len (ft)		Item Des		
16							84.00		K-55		17.0		97.0		80.00		Casing Joints		
Surface Csg, 1,580.2ftKB																			
OD (in)							Wt (lb/ft)		Grade		Top (ftKB)		Btm (ftKB)		Len (ft)		Item Des		
10 3/4							40.50		J-55		17.0		17.0		0.00		Landing Joint		
10 3/4							40.50		J-55		17.0		24.5		7.50		Wellhead/PUP		
10 3/4							40.50		J-55		24.5		1,535.0		1,510.50		Casing Joints		
10 3/4							40.50		J-55		1,535.0		1,536.5		1.50		Float Collar		
10 3/4							40.50		J-55		1,536.5		1,578.7		42.16		Casing Joints		
10 3/4							40.50		J-55		1,578.7		1,580.2		1.50		Float Shoe		
Intermediate Csg, 6,064.7ftKB																			
OD (in)							Wt (lb/ft)		Grade		Top (ftKB)		Btm (ftKB)		Len (ft)		Item Des		
7 5/8							29.70		P-110		17.0		17.0		0.00		Landing Joint		
7 5/8							29.70		P-110		17.0		22.0		5.00		Hanger		
7 5/8							29.70		P-110		22.0		6,017.6		5,995.58		Casing Joints		
7 5/8							29.70		P-110		6,017.6		6,019.1		1.50		Float Collar		
7 5/8							29.70		P-110		6,019.1		6,063.7		44.65		Casing Joints		
7 5/8							29.70		P-110		6,063.7		6,064.7		1.00		Float Shoe		
Liner, 13,195.0ftKB																			
OD (in)							Wt (lb/ft)		Grade		Top (ftKB)		Btm (ftKB)		Len (ft)		Item Des		
5							23.20		N-80		17.0		4,217.9		4,200.89		Casing Joints		
4 1/2							11.60		HCP-110		4,217.9		4,264.2		46.34		Cross Over		
4 1/2							11.60		HCP-110		4,264.2		4,266.3		2.10		Cross Over		
4 1/2							11.60		HCP-110		4,266.3		5,488.8		1,222.55		Casing Joints		
4 1/2							11.60		HCP-110		5,488.8		5,507.1		18.28		Gauge Mandrel Hel		
4 1/2							11.60		HCP-110		5,507.1		7,997.6		2,490.51		Casing Joints		
4 1/2							11.60		HCP-110		7,997.6		8,015.9		18.25		Gauge Mandrel Mid Lat #2		
4 1/2							11.60		HCP-110		8,015.9		10,554.3		2,538.44		Casing Joints		
4 1/2							11.60		HCP-110		10,554.3		10,572.6		18.23		Gauge Mandrel Mid Lat		
4 1/2							11.60		HCP-110		10,572.6		12,475.5		1,902.94		Casing Joints		
4 1/2							11.60		HCP-110		12,475.5		12,496.6		21.13		Fiber Optic Mandrel		
4 1/2							11.60		HCP-110		12,496.6		13,038.8		542.19		Casing Joints		
5.92							11.60		HCP-110		13,038.8		13,057.1		18.30		Guage Mandrel Toe		
4 1/2							11.60		HCP-110		13,057.1		13,147.5		90.40		Casing Joints		
4 1/2							11.60		HCP-110		13,147.5		13,148.4		0.90		Float Collar		
4 1/2							11.60		HCP-110		13,148.4		13,193.8		45.34		Casing Joints		
5									P110		13,193.8		13,195.0		1.25		Float Shoe		
Cement Stages																			
Des							Pump Start Date		Drill Out Date		Top (ftKB)		Btm (ftKB)		Top Meas Meth				
Conductor Cement							4/23/2014				17.0		97.0		Returns to Surface				
Surface Casing Cement							10/14/2014				17.0		1,580.2		Returns to Surface				
Intermediate Casing Cement							10/17/2014				17.0		6,064.7		Returns to Surface				
Liner Cement							10/28/2014				4,200.0		13,195.0		Volume Calculations				
Perforations																			
Type of Hole							Date		Top (ftKB)		Btm (ftKB)		Zone						
Perforated Liner							2/3/2015		6,089.0		6,091.0		Niobrara, Original Hole						
Perforated Liner							2/3/2015		6,153.0		6,155.0		Niobrara, Original Hole						
Perforated Liner							2/3/2015		6,217.0		6,219.0		Niobrara, Original Hole						
Perforated Liner							2/3/2015		6,285.0		6,287.0		Niobrara, Original Hole						
Perforated Liner							2/3/2015		6,345.0		6,347.0		Niobrara, Original Hole						
Perforated Liner							2/3/2015		6,409.0		6,411.0		Niobrara, Original Hole						
Perforated Liner							2/3/2015		6,473.0		6,475.0		Niobrara, Original Hole						
Perforated Liner							2/3/2015		6,537.0		6,539.0		Niobrara, Original Hole						
Perforated Liner							2/3/2015		6,601.0		6,603.0		Niobrara, Original Hole						
Perforated Liner							2/2/2015		6,665.0		6,667.0		Niobrara, Original Hole						
Perforated Liner							2/2/2015		6,738.0		6,740.0		Niobrara, Original Hole						
Perforated Liner							2/2/2015		6,793.0		6,795.0		Niobrara, Original Hole						
Perforated Liner							2/2/2015		6,857.0		6,859.0		Niobrara, Original Hole						
Perforated Liner							2/2/2015		6,921.0		6,923.0		Niobrara, Original Hole						
Perforated Liner							2/2/2015		6,984.0		6,986.0		Niobrara, Original Hole						
Perforated Liner		2/2/2015		7,055.0		7,057.0		Niobrara, Original Hole											
Perforated Liner		2/2/2015		7,112.0		7,114.0		Niobrara, Original Hole											
Perforated Liner		2/2/2015		7,176.0		7,178.0		Niobrara, Original Hole											
13,776.9																			



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Original Spud Date 10/13/2014		Completion Date 2/3/2015		Asset Group Redtail			Responsible Engineer Charles Ohlson		N/S Dist (ft) 2,323.0		N/S Ref FNL		E/W Dist (ft) 1,890.0		E/W Ref FWL	
Lot		Quarter 1 SE	Quarter 2 NW	Quarter 3	Quarter 4	Section 30	Section Suffix	Section Type	Township 10	Township N/S Dir N	Range 57	Range E/W Dir W	Meridian			

Lateral/Horizontal - Original Hole, 7/29/2015 3:06:13 PM						Perforations						
MD (ftKB)	D (ft K B)	n (K B)	c (K B)	l (K B)	Vertical schematic (actual)	Logs	Type of Hole	Date	Top (ftKB)	Btm (ftKB)	Zone	
54.1	04.1	12					Perforated Liner	2/2/2015	7,240.0	7,242.0	Niobrara, Original Hole	
1,578.7	1386.0	142					Perforated Liner	2/2/2015	7,304.0	7,306.0	Niobrara, Original Hole	
2,785.4	2372.0	144					Perforated Liner	2/2/2015	7,370.0	7,372.0	Niobrara, Original Hole	
3,538.0	3041.0	121					Perforated Liner	2/2/2015	7,432.0	7,434.0	Niobrara, Original Hole	
4,266.4	4162.0	112					Perforated Liner	2/2/2015	7,505.0	7,507.0	Niobrara, Original Hole	
5,488.8	5386.0	104					Perforated Liner	2/2/2015	7,560.0	7,562.0	Niobrara, Original Hole	
5,598.1	5495.0	102					Perforated Liner	2/2/2015	7,624.0	7,626.0	Niobrara, Original Hole	
5,673.9	5564.0	102					Perforated Liner	2/2/2015	7,688.0	7,690.0	Niobrara, Original Hole	
6,019.0	5903.0	91					Perforated Liner	2/2/2015	7,752.0	7,754.0	Niobrara, Original Hole	
6,090.9	5971.0	91					Perforated Liner	2/1/2015	7,824.0	7,826.0	Niobrara, Original Hole	
6,285.1	6195.0	84					Perforated Liner	2/1/2015	7,880.0	7,882.0	Niobrara, Original Hole	
6,411.1	6303.0	81					Perforated Liner	2/1/2015	7,880.0	7,882.0	Niobrara, Original Hole	
6,601.0	6527.0	81					Perforated Liner	2/1/2015	7,943.0	7,945.0	Niobrara, Original Hole	
6,740.2	6634.0	82					Perforated Liner	2/1/2015	8,071.0	8,073.0	Niobrara, Original Hole	
6,920.9	6857.0	84					Perforated Liner	2/1/2015	8,135.0	8,137.0	Niobrara, Original Hole	
7,057.1	6965.0	84					Perforated Liner	2/1/2015	8,205.0	8,207.0	Niobrara, Original Hole	
7,240.2	7188.0	84					Perforated Liner	2/1/2015	8,263.0	8,265.0	Niobrara, Original Hole	
7,372.0	7296.0	84					Perforated Liner	2/1/2015	8,327.0	8,329.0	Niobrara, Original Hole	
7,560.0	7519.0	84					Perforated Liner	2/1/2015	8,391.0	8,393.0	Niobrara, Original Hole	
7,690.0	7627.0	84					Perforated Liner	1/31/2015	8,455.0	8,457.0	Niobrara, Original Hole	
7,779.9	7695.0	84					Perforated Liner	1/31/2015	8,521.0	8,523.0	Niobrara, Original Hole	
8,015.7	7918.0	81					Perforated Liner	1/31/2015	8,583.0	8,585.0	Niobrara, Original Hole	
8,205.1	8141.0	84					Perforated Liner	1/31/2015	8,658.0	8,660.0	Niobrara, Original Hole	
8,329.1	8249.0	84					Perforated Liner	1/31/2015	8,711.0	8,713.0	Niobrara, Original Hole	
8,521.0	8472.0	84					Perforated Liner	1/31/2015	8,775.0	8,777.0	Niobrara, Original Hole	
8,660.1	8580.0	84					Perforated Liner	1/31/2015	8,839.0	8,841.0	Niobrara, Original Hole	
8,838.9	8799.0	84					Perforated Liner	1/31/2015	8,902.0	8,904.0	Niobrara, Original Hole	
8,977.0	8917.0	84					Perforated Liner	1/31/2015	8,975.0	8,977.0	Niobrara, Original Hole	
9,158.1	9136.0	84					Perforated Liner	1/31/2015	9,030.0	9,032.0	Niobrara, Original Hole	
9,294.9	9254.0	84					Perforated Liner	1/31/2015	9,094.0	9,096.0	Niobrara, Original Hole	
9,478.0	9473.0	84					Perforated Liner	1/31/2015	9,158.0	9,160.0	Niobrara, Original Hole	
9,612.9	9591.0	84					Perforated Liner	1/31/2015	9,222.0	9,224.0	Niobrara, Original Hole	
9,796.9	9810.0	84					Perforated Liner	1/31/2015	9,293.0	9,295.0	Niobrara, Original Hole	
9,929.1	9928.0	84					Perforated Liner	1/31/2015	9,350.0	9,352.0	Niobrara, Original Hole	
10,117.1	10146.0	84					Perforated Liner	1/30/2015	9,414.0	9,416.0	Niobrara, Original Hole	
10,247.0	10264.0	84					Perforated Liner	1/30/2015	9,478.0	9,480.0	Niobrara, Original Hole	
10,437.0	10482.0	84					Perforated Liner	1/30/2015	9,542.0	9,544.0	Niobrara, Original Hole	
10,554.5	10600.0	84					Perforated Liner	1/30/2015	9,611.0	9,613.0	Niobrara, Original Hole	
10,630.9	10676.0	84					Perforated Liner	1/30/2015	9,670.0	9,672.0	Niobrara, Original Hole	
10,819.9	10894.0	84					Perforated Liner	1/30/2015	9,733.0	9,735.0	Niobrara, Original Hole	
10,950.1	11012.0	84					Perforated Liner	1/30/2015	9,797.0	9,799.0	Niobrara, Original Hole	
11,213.9	11270.0	84					Perforated Liner	1/30/2015	9,861.0	9,863.0	Niobrara, Original Hole	
11,334.0	11388.0	84					Perforated Liner	1/30/2015	9,927.0	9,929.0	Niobrara, Original Hole	
11,587.9	11641.0	84					Perforated Liner	1/29/2015	9,999.0	9,991.0	Niobrara, Original Hole	
11,716.9	11770.0	84					Perforated Liner	1/29/2015	10,063.0	10,065.0	Niobrara, Original Hole	
11,907.2	11988.0	84					Perforated Liner	1/29/2015	10,117.0	10,119.0	Niobrara, Original Hole	
12,037.1	12117.0	84					Perforated Liner	1/29/2015	10,181.0	10,183.0	Niobrara, Original Hole	
12,227.0	12306.0	84					Perforated Liner	1/29/2015	10,245.0	10,247.0	Niobrara, Original Hole	
12,357.0	12435.0	84					Perforated Liner	1/29/2015	10,309.0	10,311.0	Niobrara, Original Hole	
12,475.4	12553.0	84					Perforated Liner	1/29/2015	10,380.0	10,382.0	Niobrara, Original Hole	
12,612.9	12690.0	84					Perforated Liner	1/29/2015	10,437.0	10,439.0	Niobrara, Original Hole	
12,801.8	12879.0	84					Perforated Liner	1/29/2015	10,501.0	10,503.0	Niobrara, Original Hole	
12,932.1	13010.0	84					Perforated Liner	1/29/2015	10,585.0	10,587.0	Niobrara, Original Hole	
13,100.1	13178.0	84					Perforated Liner	1/29/2015	10,629.0	10,631.0	Niobrara, Original Hole	
13,129.9	13207.0	84					Perforated Liner	1/29/2015	10,693.0	10,695.0	Niobrara, Original Hole	
13,778.9	13856.0	84					Perforated Liner	1/29/2015	10,761.0	10,763.0	Niobrara, Original Hole	
							Perforated Liner	1/29/2015	10,820.0	10,822.0	Niobrara, Original Hole	
							Perforated Liner	1/29/2015	10,884.0	10,886.0	Niobrara, Original Hole	
							Perforated Liner	1/28/2015	10,948.0	10,950.0	Niobrara, Original Hole	
							Perforated Liner	1/28/2015	11,012.0	11,014.0	Niobrara, Original Hole	
							Perforated Liner	1/28/2015	11,140.0	11,142.0	Niobrara, Original Hole	
							Perforated Liner	1/28/2015	11,214.0	11,216.0	Niobrara, Original Hole	
							Perforated Liner	1/28/2015	11,268.0	11,270.0	Niobrara, Original Hole	
							Perforated Liner	1/28/2015	11,332.0	11,334.0	Niobrara, Original Hole	
							Perforated Liner	1/28/2015	11,396.0	11,398.0	Niobrara, Original Hole	
							Perforated Liner	1/28/2015	11,460.0	11,462.0	Niobrara, Original Hole	
							Perforated Liner	1/27/2015	11,588.0	11,590.0	Niobrara, Original Hole	
							Perforated Liner	1/27/2015	11,652.0	11,654.0	Niobrara, Original Hole	
							Perforated Liner	1/27/2015	11,715.0	11,717.0	Niobrara, Original Hole	
							Perforated Liner	1/27/2015	11,779.0	11,781.0	Niobrara, Original Hole	
							Perforated Liner	1/27/2015	11,847.0	11,849.0	Niobrara, Original Hole	



Lease Review All - Frac Summary
Well Name: HORSETAIL 30F-1942

API Number	WPC ID	Well Permit Number	Field Name	County	State
051233874000	1CO0761017		DJ Horizontal Niobrara	Weld	CO
Well Configuration Type	Orig KB Elv (ft)	Ground Elevation (ft)	Casing Flange Elevation (ft)	Tubing Head Elevation (ft)	Total Depth (ftKB)
Lateral/Horizontal	4,800.00	4,783.00			13,777.0
Original Spud Date	Completion Date	Asset Group	Responsible Engineer	N/S Dist (ft)	N/S Ref
10/13/2014	2/3/2015	Redtail	Charles Ohlson	2,323.0	FNL
				E/W Dist (ft)	E/W Ref
				1,890.0	FWL
Lot	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section
	SE	NW			30
			Section Suffix	Section Type	Township
					10 N
			Township N/S Dir	Range	Range E/W Dir
				57	W
			Meridian		

Lateral/Horizontal - Original Hole, 7/29/2015 3:06:15 PM					Perforations				
MD (ftKB)	D (ft K B)	n c l (Vertical schematic (actual)	Logs	Type of Hole	Date	Top (ftKB)	Btm (ftKB)	Zone
					Perforated Liner	1/27/2015	11,907.0	11,909.0	Niobrara, Original Hole
					Perforated Liner	1/27/2015	12,000.0	12,002.0	Niobrara, Original Hole
					Perforated Liner	1/27/2015	12,035.0	12,037.0	Niobrara, Original Hole
54.1	0.61	12			Perforated Liner	1/27/2015	12,099.0	12,101.0	Niobrara, Original Hole
1,578.7	1.0860	112			Perforated Liner	1/27/2015	12,165.0	12,167.0	Niobrara, Original Hole
2,785.4	2.0722	184			Perforated Liner	1/27/2015	12,227.0	12,229.0	Niobrara, Original Hole
3,538.0	3.0941	121			Perforated Liner	1/27/2015	12,301.0	12,303.0	Niobrara, Original Hole
4,266.4	4.1622	112			Perforated Liner	1/27/2015	12,355.0	12,357.0	Niobrara, Original Hole
5,488.8	5.3968	104			Perforated Liner	1/27/2015	12,419.0	12,421.0	Niobrara, Original Hole
5,598.1	5.4452	80			Perforated Liner	1/27/2015	12,465.0	12,467.0	Niobrara, Original Hole
5,673.9	5.5862	80			Perforated Liner	1/27/2015	12,550.0	12,552.0	Niobrara, Original Hole
6,019.0	5.8023	81			Perforated Liner	1/27/2015	12,611.0	12,613.0	Niobrara, Original Hole
6,090.9	5.8213	81			Perforated Liner	1/26/2015	12,683.0	12,685.0	Niobrara, Original Hole
6,285.1	5.8954	84			Perforated Liner	1/26/2015	12,738.0	12,740.0	Niobrara, Original Hole
6,411.1	5.9223	81			Perforated Liner	1/26/2015	12,802.0	12,804.0	Niobrara, Original Hole
6,601.0	5.9823	81			Perforated Liner	1/26/2015	12,866.0	12,868.0	Niobrara, Original Hole
6,740.2	5.9844	81			Perforated Liner	1/26/2015	12,930.0	12,932.0	Niobrara, Original Hole
6,920.9	5.9841	81			Perforated Liner	1/26/2015	12,930.0	12,932.0	Niobrara, Original Hole
7,057.1	5.9852	81			Perforated Liner	1/26/2015	13,000.0	13,002.0	Niobrara, Original Hole
7,240.2	5.9867	84			Perforated Liner	12/12/2014	13,100.0	13,102.0	Niobrara, Original Hole
7,372.0	5.9872	84			Perforated Liner	12/12/2014	13,120.0	13,122.0	Niobrara, Original Hole
7,560.0	5.9883	84			Perforated Liner	12/12/2014	13,120.0	13,122.0	Niobrara, Original Hole
7,690.0	5.9884	84			Perforated Liner	12/12/2014	13,128.0	13,130.0	Niobrara, Original Hole
7,879.9	5.9874	84							
8,015.7	5.9844	81							
8,205.1	5.9854	81							
8,329.1	5.9867	84							
8,521.0	5.9883	84							
8,660.1	5.9883	84							
8,838.9	5.9883	81							
8,977.0	5.9874	84							
9,158.1	5.9864	81							
9,294.9	5.9872	84							
9,478.0	5.9883	81							
9,612.9	5.9872	81							
9,796.9	5.9859	81							
9,929.1	5.9848	81							
10,117.1	5.9841	81							
10,247.0	5.9852	81							
10,437.0	5.9867	81							
10,554.5	5.9867	84							
10,630.9	5.9878	81							
10,819.9	5.9852	81							
10,950.1	5.9847	81							
11,213.9	5.9822	81							
11,334.0	5.9814	81							
11,587.9	5.9854	81							
11,716.9	5.9884	81							
11,907.2	5.9851	81							
12,037.1	5.9819	81							
12,227.0	5.9834	81							
12,357.0	5.9874	81							
12,475.4	5.9883	81							
12,612.9	5.9822	81							
12,801.8	5.9841	81							
12,932.1	5.9851	81							
13,100.1	5.9822	81							
13,129.9	5.9822	81							
13,778.9	5.9883	81							

Stimulations & Treatments

Sand Frac on 1/26/2015 06:00

Comment
Treatment End Date: 2/3/2015; Number of staged intervals: 36; Min Frac Gradient: .75; # of Perfs: 1308; SlickWater: 95434 bbl; pHaserFrac #22 XL Gel: 45682 bbl; #22 Linear Gel: 6904 bbl; 15% HCL:1000 bbl; Fresh Water:8176 bbl; stages 20 & 21 have been combined.

Total Clean Volu...	Vol Slurry Tot (bbl)	Proppant Desig...	Proppant Frm (lb)	P Max (psi)	Avg Treat...	Avg Treat...	Max Tre...	Frac Gr...
157196.10		5,306,500.0	5,162,980.0	8,015.0	4,538.0	56.80	71.10	0.77

Total Add Amount
Proppant 20/40 Ottawa 3411598 lb; Proppant 30/50 Ottawa 1657080 lb; Proppant 40/70 Ottawa 94302 lb

Stim/Treat Fluids

Fluid Name
pHaserFrac 22 XL Gel; 22 Linear Gel; 15% HCL
pHaserFrac22 XLGel;22Linear Gel;15%HCL;FreshWater
15% HCL; Fresh Water

Stim/Treat Stages

Interval 1

Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment
1	1/26/2015	13,100.0	13,130.0	4010.81		SlickWater:931 bbl; pHaserFrac #22 XL Gel:2759 bbl;#22 Linear Gel:297 bbl;15% HCL:24bbl;Fresh Water:0bbl

Stim/Treat Additives

Stg #	Add	Type	Amount	Units	Sand Size
1	Proppant	20/40 Ottawa	106,449.0	lb	20/40
1	Proppant	40/70 Ottawa	2,891.0	lb	40/70

Interval 2

Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment
2	1/26/2015	12,866.0	13,002.0	3343.93		SlickWater:709 bbl; pHaserFrac #22 XL Gel:1757 bbl;#22 Linear Gel:298 bbl;15% HCL:24bbl;Fresh Water:557bbl

Stim/Treat Additives

Stg #	Add	Type	Amount	Units	Sand Size
2	Proppant	20/40 Ottawa	106,143.0	lb	20/40
2	Proppant	40/70 Ottawa	2,009.0	lb	40/70

Interval 3

Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment
3	1/26/2015	12,683.0	12,804.0	3311.98		SlickWater:693 bbl; pHaserFrac #22 XL Gel:1760 bbl;#22 Linear Gel:304 bbl;15% HCL:24bbl;Fresh Water:531bbl

Stim/Treat Additives

Stg #	Add	Type	Amount	Units	Sand Size
3	Proppant	20/40 Ottawa	103,058.0	lb	20/40
3	Proppant	40/70 Ottawa	2,107.0	lb	40/70

Interval 4

Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment
4	1/26/2015	12,465.0	12,613.0	3489.10		SlickWater:746 bbl; pHaserFrac #22 XL Gel:2144 bbl;#22 Linear Gel:301 bbl;15% HCL:24bbl;Fresh Water:275bbl

Stim/Treat Additives

Stg #	Add	Type	Amount	Units	Sand Size
4	Proppant	20/40 Ottawa	167,972.0	lb	20/40
4	Proppant	40/70 Ottawa	2,245.0	lb	40/70

Interval 5

Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment
5	1/27/2015	12,301.0	12,421.0	3497.43		SlickWater:720 bbl; pHaserFrac #22 XL Gel:2141 bbl;#22 Linear Gel:314 bbl;15% HCL:24bbl;Fresh Water:298bbl



Lease Review All - Frac Summary
Well Name: HORSETAIL 30F-1942

API Number 051233874000		WPC ID 1CO0761017		Well Permit Number		Field Name DJ Horizontal Niobrara			County Weld		State CO				
Well Configuration Type Lateral/Horizontal				Orig KB Elv (ft) 4,800.00		Ground Elevation (ft) 4,783.00		Casing Flange Elevation (ft)		Tubing Head Elevation (ft)		Total Depth (ftKB) 13,777.0			
Original Spud Date 10/13/2014		Completion Date 2/3/2015		Asset Group Redtail			Responsible Engineer Charles Ohlson			N/S Dist (ft) 2,323.0		N/S Ref FNL	E/W Dist (ft) 1,890.0		E/W Ref FWL
Lot	Quarter 1 SE	Quarter 2 NW	Quarter 3	Quarter 4	Section 30	Section Suffix	Section Type	Township 10	Township N/S Dir N	Range 57	Range E/W Dir W	Meridian			

Lateral/Horizontal - Original Hole, 7/29/2015 3:06:17 PM						Stim/Treat Additives							
MD (ftKB)	D (ft K B)	n (K B)	c (K B)	l (K B)	Vertical schematic (actual)	Logs	Stg #	Add	Type	Amount	Units	Sand Size	
							5	Proppant	20/40 Ottawa	163,455.0	lb	20/40	
							5	Proppant	40/70 Ottawa	2,736.0	lb	40/70	
54.1	04.1	12.1					Interval 6						
1,578.7	1.084.0	13.2					Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment
2,785.4	2.072.2	14.1					6	1/27/2015	12,099.0	12,229.0	3473.10		SlickWater:688 bbl; pHaserFrac #22 XL Gel:2164 bbl;#22 Linear Gel:297 bbl;15% HCL:24bbl;Fresh Water:300bbl
3,938.0	3.091.0	15.1					Stim/Treat Additives						
4,266.4	4.102.2	15.2					Stg #	Add	Type	Amount	Units	Sand Size	
5,488.8	5.386.8	16.8					6	Proppant	20/40 Ottawa	169,558.0	lb	20/40	
5,598.1	5.496.0	17.0					6	Proppant	40/70 Ottawa	2,324.0	lb	40/70	
5,673.9	5.582.2	17.2					Interval 7						
6,019.0	6.000.0	17.1					Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment
6,090.9	6.013.0	17.2					7	1/27/2015	11,907.0	12,037.0	3535.05		SlickWater:807 bbl; pHaserFrac #22 XL Gel:2131 bbl;#22 Linear Gel:297 bbl;15% HCL:24bbl;Fresh Water:276bbl
6,285.1	6.054.4	18.4					Stim/Treat Additives						
6,411.1	6.000.0	18.4					Stg #	Add	Type	Amount	Units	Sand Size	
6,601.0	6.000.0	18.1					7	Proppant	20/40 Ottawa	169,337.0	lb	20/40	
6,740.2	6.044.4	18.2					7	Proppant	40/70 Ottawa	1,383.0	lb	40/70	
6,920.9	6.044.4	18.2					Interval 8						
7,057.1	6.080.0	18.1					Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment
7,240.2	6.080.0	18.2					8	1/27/2015	11,715.0	11,849.0	3547.10		SlickWater:755 bbl; pHaserFrac #22 XL Gel:2131 bbl;#22 Linear Gel:357 bbl;15% HCL:24bbl;Fresh Water:280bbl
7,372.0	6.080.0	18.2					Stim/Treat Additives						
7,560.0	6.080.0	18.1					Stg #	Add	Type	Amount	Units	Sand Size	
7,690.0	6.084.4	18.4					8	Proppant	20/40 Ottawa	160,678.0	lb	20/40	
7,879.9	6.084.4	18.4					8	Proppant	40/70 Ottawa	2,083.0	lb	40/70	
8,015.7	6.080.0	18.2					Interval 9						
8,205.1	6.080.0	18.4					Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment
8,329.1	6.080.0	18.4					9	1/27/2015	11,460.0	11,654.0	3581.67		SlickWater:758 bbl; pHaserFrac #22 XL Gel:2134 bbl;#22 Linear Gel:310 bbl;15% HCL:24bbl;Fresh Water:355bbl
8,521.0	6.080.0	18.2					Stim/Treat Additives						
8,660.1	6.080.0	18.4					Stg #	Add	Type	Amount	Units	Sand Size	
8,838.9	6.080.0	18.1					9	Proppant	20/40 Ottawa	172,785.0	lb	20/40	
8,977.0	6.084.4	18.2					9	Proppant	40/70 Ottawa	2,491.0	lb	40/70	
9,158.1	6.084.4	18.2					Interval 10						
9,294.9	6.080.0	18.4					Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment
9,478.0	6.080.0	18.4					10	1/28/2015	11,268.0	11,398.0	3406.57		SlickWater:670 bbl; pHaserFrac #22 XL Gel:2156 bbl;#22 Linear Gel:296 bbl;15% HCL:24bbl;Fresh Water:261bbl
9,612.9	6.080.0	18.1					Stim/Treat Additives						
9,796.9	6.080.0	18.2					Stg #	Add	Type	Amount	Units	Sand Size	
9,929.1	6.084.4	18.2					10	Proppant	20/40 Ottawa	172,665.0	lb	20/40	
10,117.1	6.084.4	18.1					10	Proppant	40/70 Ottawa	2,461.0	lb	40/70	
10,247.0	6.080.0	18.2					Interval 11						
10,437.0	6.084.4	18.2					Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment
10,554.5	6.080.0	18.1					11	1/28/2015	11,012.0	11,216.0	3494.38		SlickWater:752 bbl; pHaserFrac #22 XL Gel:2135 bbl;#22 Linear Gel:311 bbl;15% HCL:24bbl;Fresh Water:272bbl
10,630.9	6.084.4	18.2					Stim/Treat Additives						
10,819.9	6.080.0	18.2					Stg #	Add	Type	Amount	Units	Sand Size	
10,950.1	6.084.4	18.2					11	Proppant	20/40 Ottawa	169,595.0	lb	20/40	
11,213.9	6.080.0	18.1					11	Proppant	40/70 Ottawa	2,206.0	lb	40/70	
11,334.0	6.080.0	18.1					Interval 12						
11,587.9	6.084.4	18.1					Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment
11,716.9	6.084.4	18.2					12	1/29/2015	10,820.0	10,950.0	3678.98		SlickWater:665 bbl; pHaserFrac #22 XL Gel:2138 bbl;#22 Linear Gel:298 bbl;15% HCL:24bbl;Fresh Water:554bbl
11,907.2	6.080.0	18.2					Stim/Treat Additives						
12,037.1	6.080.0	18.2					Stg #	Add	Type	Amount	Units	Sand Size	
12,227.0	6.080.0	18.4					12	Proppant	20/40 Ottawa	171,456.0	lb	20/40	
12,357.0	6.084.4	18.4					12	Proppant	40/70 Ottawa	2,935.0	lb	40/70	
12,475.4	6.080.0	18.2					Interval 13						
12,612.9	6.080.0	18.4					Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment
12,801.8	6.084.4	18.2					13	1/29/2015	10,629.0	10,763.0	3487.48		SlickWater:754 bbl; pHaserFrac #22 XL Gel:2149 bbl;#22 Linear Gel:298 bbl;15% HCL:24bbl;Fresh Water:262bbl
12,932.1	6.080.0	18.1					Stim/Treat Additives						
13,100.1	6.080.0	18.1					Stg #	Add	Type	Amount	Units	Sand Size	
13,129.9	6.080.0	18.1					13	Proppant	20/40 Ottawa	170,287.0	lb	20/40	
13,778.9	6.080.0	18.2					13	Proppant	40/70 Ottawa	2,508.0	lb	40/70	
							Interval 14						
							Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment
							14	1/29/2015	10,473.0	10,587.0	3331.21		SlickWater:656 bbl; pHaserFrac #22 XL Gel:2136 bbl;#22 Linear Gel:297 bbl;15% HCL:24bbl;Fresh Water:217bbl
							Stim/Treat Additives						
							Stg #	Add	Type	Amount	Units	Sand Size	
							14	Proppant	20/40 Ottawa	173,295.0	lb	20/40	



Lease Review All - Frac Summary

Well Name: HORSETAIL 30F-1942

API Number 051233874000		WPC ID 1CO0761017		Well Permit Number		Field Name DJ Horizontal Niobrara			County Weld		State CO					
Well Configuration Type Lateral/Horizontal				Orig KB Elv (ft) 4,800.00		Ground Elevation (ft) 4,783.00		Casing Flange Elevation (ft)		Tubing Head Elevation (ft)		Total Depth (ftKB) 13,777.0				
Original Spud Date 10/13/2014		Completion Date 2/3/2015		Asset Group Redtail			Responsible Engineer Charles Ohlson		N/S Dist (ft) 2,323.0		N/S Ref FNL		E/W Dist (ft) 1,890.0		E/W Ref FWL	
Lot		Quarter 1 SE	Quarter 2 NW	Quarter 3	Quarter 4	Section 30	Section Suffix	Section Type	Township 10	Township N/S Dir N	Range 57	Range E/W Dir W	Meridian			

Lateral/Horizontal - Original Hole, 7/29/2015 3:06:19 PM						Stim/Treat Additives												
MD (ftKB)	D (ft K B)	n (K B)	c (K B)	l (K B)	Vertical schematic (actual)	Logs	Stg #	Add		Type	Amount	Units	Sand Size					
							14	Proppant		40/70 Ottawa	2,278.0	lb	40/70					
Interval 15																		
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment												
15	1/29/2015	10,245.0	10,382.0	3476.91		SlickWater:760 bbl; pHaserFrac #22 XL Gel:2138 bbl;#22 Linear Gel:307 bbl;15% HCL:24bbl;Fresh Water:248bbl												
Stim/Treat Additives																		
Stg #	Add		Type		Amount		Units		Sand Size									
15	Proppant		20/40 Ottawa		174,744.0		lb		20/40									
15	Proppant		40/70 Ottawa		2,807.0		lb		40/70									
Interval 16																		
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment												
16	1/29/2015	10,063.0	10,183.0	3563.24		SlickWater:689 bbl; pHaserFrac #22 XL Gel:2333 bbl;#22 Linear Gel:298 bbl;15% HCL:24bbl;Fresh Water:219bbl												
Stim/Treat Additives																		
Stg #	Add		Type		Amount		Units		Sand Size									
16	Proppant		20/40 Ottawa		210,134.0		lb		20/40									
16	Proppant		40/70 Ottawa		2,883.0		lb		40/70									
Interval 17																		
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment												
17	1/29/2015	9,861.0	9,991.0	5211.86		SlickWater:1831 bbl; pHaserFrac #22 XL Gel:2475 bbl;#22 Linear Gel:596 bbl;15% HCL:48bbl;Fresh Water:262bbl												
Stim/Treat Additives																		
Stg #	Add		Type		Amount		Units		Sand Size									
17	Proppant		20/40 Ottawa		171,779.0		lb		20/40									
17	Proppant		40/70 Ottawa		1,760.0		lb		40/70									
Interval 18																		
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment												
18	1/30/2015	9,670.0	9,799.0	4221.95		SlickWater:1519 bbl; pHaserFrac #22 XL Gel:2201 bbl;#22 Linear Gel:265 bbl;15% HCL:36bbl;Fresh Water:202bbl												
Stim/Treat Additives																		
Stg #	Add		Type		Amount		Units		Sand Size									
18	Proppant		20/40 Ottawa		172,808.0		lb		20/40									
18	Proppant		40/70 Ottawa		3,806.0		lb		40/70									
Interval 19																		
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment												
19	1/30/2015	9,478.0	9,613.0	4862.91		SlickWater:1879 bbl; pHaserFrac #22 XL Gel:2157 bbl;#22 Linear Gel:308 bbl;15% HCL:71bbl;Fresh Water:448bbl												
Stim/Treat Additives																		
Stg #	Add		Type		Amount		Units		Sand Size									
19	Proppant		20/40 Ottawa		167,000.0		lb		20/40									
19	Proppant		40/70 Ottawa		2,479.0		lb		40/70									
Interval 20																		
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment												
20	1/31/2015	9,293.0	9,416.0	4609.62		SlickWater:1687 bbl; pHaserFrac #22 XL Gel:2152 bbl;#22 Linear Gel:415 bbl;15% HCL:48bbl;Fresh Water:307bbl												
Stim/Treat Additives																		
Stg #	Add		Type		Amount		Units		Sand Size									
20	Proppant		20/40 Ottawa		150,414.0		lb		20/40									
20	Proppant		40/70 Ottawa		3,514.0		lb		40/70									
Interval 21																		
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment												
21	1/31/2015	9,293.0	9,416.0	5001.69		SlickWater:2136 bbl; pHaserFrac #22 XL Gel:2392 bbl;#22 Linear Gel:438 bbl;15% HCL:36bbl;Fresh Water:0bbl; this interval is combined with interval 20.												
Stim/Treat Additives																		
Stg #	Add		Type		Amount		Units		Sand Size									
21	Proppant		20/40 Ottawa		187,986.0		lb		20/40									
21	Proppant		40/70 Ottawa		2,554.0		lb		40/70									
Interval 22																		
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment												
22	1/31/2015	9,094.0	9,224.0	4911.10		SlickWater:4751 bbl; pHaserFrac #22 XL Gel:0 bbl;#22 Linear Gel:0 bbl;15% HCL:24bbl;Fresh Water:136bbl												
Stim/Treat Additives																		
Stg #	Add		Type		Amount		Units		Sand Size									
22	Proppant		30/50 Ottawa		103,001.0		lb		30/50									
22	Proppant		40/70 Ottawa		2,994.0		lb		40/70									
Interval 23																		
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment												
23	1/31/2015	8,902.0	9,032.0	4932.50		SlickWater:4776 bbl; pHaserFrac #22 XL Gel:0 bbl;#22 Linear Gel:0 bbl;15% HCL:24bbl;Fresh Water:133bbl												
Stim/Treat Additives																		
Stg #	Add		Type		Amount		Units		Sand Size									
23	Proppant		30/50 Ottawa		104,082.0		lb		30/50									



Lease Review All - Frac Summary
Well Name: HORSETAIL 30F-1942

API Number 051233874000		WPC ID 1CO0761017		Well Permit Number		Field Name DJ Horizontal Niobrara			County Weld		State CO			
Well Configuration Type Lateral/Horizontal				Orig KB Elv (ft) 4,800.00		Ground Elevation (ft) 4,783.00		Casing Flange Elevation (ft)		Tubing Head Elevation (ft)		Total Depth (ftKB) 13,777.0		
Original Spud Date 10/13/2014		Completion Date 2/3/2015		Asset Group Redtail			Responsible Engineer Charles Ohlson		N/S Dist (ft) 2,323.0		N/S Ref FNL	E/W Dist (ft) 1,890.0		E/W Ref FWL
Lot	Quarter 1 SE	Quarter 2 NW	Quarter 3	Quarter 4	Section 30	Section Suffix	Section Type	Township 10	Township N/S Dir N	Range 57	Range E/W Dir W	Meridian		

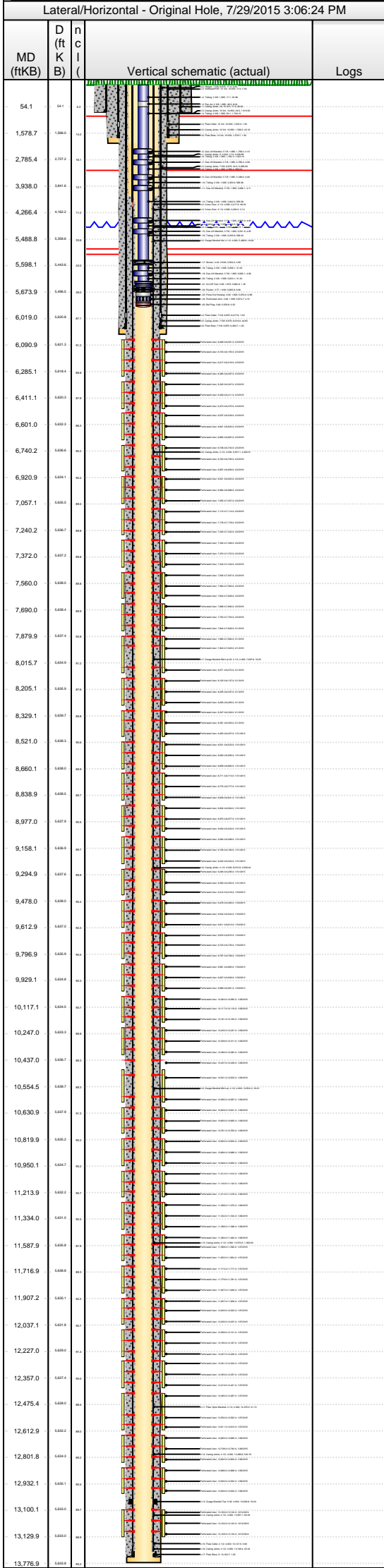
Lateral/Horizontal - Original Hole, 7/29/2015 3:06:22 PM						Stim/Treat Additives							
MD (ftKB)	D (ft K B)	n (K B)	c (K B)	l (K B)	Vertical schematic (actual)	Logs	Stg #	Add		Type	Amount	Units	Sand Size
							23	Proppant		40/70 Ottawa	3,085.0	lb	40/70
Interval 24													
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment							
24	1/31/2015	8,711.0	8,841.0	4787.83		SlickWater:4447 bbl; pHaserFrac #22 XL Gel:0 bbl;#22 Linear Gel:0 bbl;15% HCL:24bbl;Fresh Water:317bbl							
Stim/Treat Additives													
Stg #	Add		Type		Amount		Units		Sand Size				
24	Proppant		30/50 Ottawa		107,574.0		lb		30/50				
24	Proppant		40/70 Ottawa		2,552.0		lb		40/70				
Interval 25													
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment							
25	1/31/2015	8,521.0	8,660.0	4935.79		SlickWater:4612 bbl; pHaserFrac #22 XL Gel:0 bbl;#22 Linear Gel:0 bbl;15% HCL:24bbl;Fresh Water:300bbl							
Stim/Treat Additives													
Stg #	Add		Type		Amount		Units		Sand Size				
25	Proppant		30/50 Ottawa		103,407.0		lb		30/50				
25	Proppant		40/70 Ottawa		2,985.0		lb		40/70				
Interval 26													
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment							
26	2/1/2015	8,327.0	8,457.0	5847.05		SlickWater:5716 bbl; pHaserFrac #22 XL Gel:0 bbl;#22 Linear Gel:0 bbl;15% HCL:24bbl;Fresh Water:107bbl							
Stim/Treat Additives													
Stg #	Add		Type		Amount		Units		Sand Size				
26	Proppant		30/50 Ottawa		102,934.0		lb		30/50				
26	Proppant		40/70 Ottawa		1,986.0		lb		40/70				
Interval 27													
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment							
27	2/1/2015	8,135.0	8,265.0	6066.17		SlickWater:5798 bbl; pHaserFrac #22 XL Gel:0 bbl;#22 Linear Gel:0 bbl;15% HCL:24bbl;Fresh Water:244bbl							
Stim/Treat Additives													
Stg #	Add		Type		Amount		Units		Sand Size				
27	Proppant		30/50 Ottawa		101,485.0		lb		30/50				
27	Proppant		40/70 Ottawa		2,991.0		lb		40/70				
Interval 28													
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment							
28	2/1/2015	7,880.0	8,073.0	4554.36		SlickWater:4393 bbl; pHaserFrac #22 XL Gel:0 bbl;#22 Linear Gel:0 bbl;15% HCL:24bbl;Fresh Water:137bbl							
Stim/Treat Additives													
Stg #	Add		Type		Amount		Units		Sand Size				
28	Proppant		30/50 Ottawa		103,426.0		lb		30/50				
28	Proppant		40/70 Ottawa		3,037.0		lb		40/70				
Interval 29													
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment							
29	2/1/2015	7,688.0	7,826.0	4580.67		SlickWater:4457 bbl; pHaserFrac #22 XL Gel:0 bbl;#22 Linear Gel:0 bbl;15% HCL:24bbl;Fresh Water:100bbl							
Stim/Treat Additives													
Stg #	Add		Type		Amount		Units		Sand Size				
29	Proppant		30/50 Ottawa		106,570.0		lb		30/50				
29	Proppant		40/70 Ottawa		3,107.0		lb		40/70				
Interval 30													
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment							
30	2/2/2015	7,505.0	7,626.0	4463.41		SlickWater:4376 bbl; pHaserFrac #22 XL Gel:0 bbl;#22 Linear Gel:0 bbl;15% HCL:24bbl;Fresh Water:63bbl							
Stim/Treat Additives													
Stg #	Add		Type		Amount		Units		Sand Size				
30	Proppant		30/50 Ottawa		102,140.0		lb		30/50				
30	Proppant		40/70 Ottawa		2,693.0		lb		40/70				
Interval 31													
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment							
31	2/2/2015	7,304.0	7,434.0	4623.21		SlickWater:4524 bbl; pHaserFrac #22 XL Gel:0 bbl;#22 Linear Gel:0 bbl;15% HCL:24bbl;Fresh Water:76bbl							
Stim/Treat Additives													
Stg #	Add		Type		Amount		Units		Sand Size				
31	Proppant		30/50 Ottawa		107,264.0		lb		30/50				
31	Proppant		40/70 Ottawa		2,376.0		lb		40/70				
Interval 32													
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment							
32	2/2/2015	7,112.0	7,242.0	4590.33		SlickWater:4411 bbl; pHaserFrac #22 XL Gel:0 bbl;#22 Linear Gel:0 bbl;15% HCL:24bbl;Fresh Water:156bbl							
Stim/Treat Additives													
Stg #	Add		Type		Amount		Units		Sand Size				
32	Proppant		30/50 Ottawa		103,214.0		lb		30/50				
32	Proppant		40/70 Ottawa		1,481.0		lb		40/70				



Lease Review All - Frac Summary

Well Name: HORSETAIL 30F-1942

API Number 051233874000		WPC ID 1CO0761017		Well Permit Number		Field Name DJ Horizontal Niobrara			County Weld		State CO					
Well Configuration Type Lateral/Horizontal				Orig KB Elv (ft) 4,800.00		Ground Elevation (ft) 4,783.00		Casing Flange Elevation (ft)		Tubing Head Elevation (ft)		Total Depth (ftKB) 13,777.0				
Original Spud Date 10/13/2014		Completion Date 2/3/2015		Asset Group Redtail			Responsible Engineer Charles Ohlson		N/S Dist (ft) 2,323.0		N/S Ref FNL		E/W Dist (ft) 1,890.0		E/W Ref FWL	
Lot		Quarter 1 SE	Quarter 2 NW	Quarter 3	Quarter 4	Section 30	Section Suffix	Section Type	Township 10	Township N/S Dir N	Range 57	Range E/W Dir W	Meridian			



Stim/Treat Stages													
Interval 33													
Stg #	33	Start Date	2/2/2015	Top (ftKB)	6,921.0	Btm (ftKB)	7,057.0	Vol Clean...	4753.12	Vol Slurry...		Comment	
												SlickWater:4677 bbl; pHaserFrac #22 XL Gel:0 bbl;#22 Linear Gel:0 bbl;15% HCL:24bbl;Fresh Water:53bbl	
Stim/Treat Additives													
Stg #	Add			Type			Amount		Units		Sand Size		
33	Proppant			30/50 Ottawa			105,526.0		lb		30/50		
33	Proppant			40/70 Ottawa			1,497.0		lb		40/70		
Interval 34													
Stg #	34	Start Date	2/3/2015	Top (ftKB)	6,738.0	Btm (ftKB)	6,859.0	Vol Clean...	4171.10	Vol Slurry...		Comment	
												SlickWater:4012 bbl; pHaserFrac #22 XL Gel:0 bbl;#22 Linear Gel:0 bbl;15% HCL:24bbl;Fresh Water:135bbl	
Stim/Treat Additives													
Stg #	Add			Type			Amount		Units		Sand Size		
34	Proppant			30/50 Ottawa			99,364.0		lb		30/50		
34	Proppant			40/70 Ottawa			3,232.0		lb		40/70		
Interval 35													
Stg #	35	Start Date	2/3/2015	Top (ftKB)	6,537.0	Btm (ftKB)	6,667.0	Vol Clean...	4518.74	Vol Slurry...		Comment	
												SlickWater:4456 bbl; pHaserFrac #22 XL Gel:0 bbl;#22 Linear Gel:0 bbl;15% HCL:24bbl;Fresh Water:39bbl	
Stim/Treat Additives													
Stg #	Add			Type			Amount		Units		Sand Size		
35	Proppant			30/50 Ottawa			98,098.0		lb		30/50		
35	Proppant			40/70 Ottawa			2,982.0		lb		40/70		
Interval 36													
Stg #	36	Start Date	2/3/2015	Top (ftKB)	6,345.0	Btm (ftKB)	6,475.0	Vol Clean...	4536.02	Vol Slurry...		Comment	
												SlickWater:4482 bbl; pHaserFrac #22 XL Gel:0 bbl;#22 Linear Gel:0 bbl;15% HCL:24bbl;Fresh Water:31bbl	
Stim/Treat Additives													
Stg #	Add			Type			Amount		Units		Sand Size		
36	Proppant			30/50 Ottawa			102,620.0		lb		30/50		
36	Proppant			40/70 Ottawa			2,506.0		lb		40/70		
Interval 37													
Stg #	37	Start Date	2/3/2015	Top (ftKB)	6,089.0	Btm (ftKB)	6,287.0	Vol Clean...	4787.79	Vol Slurry...		Comment	
												SlickWater:4740 bbl; pHaserFrac #22 XL Gel:0 bbl;#22 Linear Gel:0 bbl;15% HCL:24bbl;Fresh Water:24bbl	
Stim/Treat Additives													
Stg #	Add			Type			Amount		Units		Sand Size		
37	Proppant			30/50 Ottawa			106,375.0		lb		30/50		
37	Proppant			40/70 Ottawa			2,338.0		lb		40/70		
Tubing - Production set at 5,677.3ftKB on 4/9/2015 06:00													
Set Depth (ftKB)		Comment							Run Date		Pull Date		
5,677.3									4/9/2015				
Item Des				OD (in)		ID (in)		Len (ft)		Top (ftKB)		Btm (ftKB)	
Cross Over				2 3/8		1.995		0.05		17.0		17.1	
Tubing				2 3/8		1.995		30.98		17.1		48.0	
Pup Jts				2 3/8		1.995		6.04		48.0		54.1	
Tubing				2 3/8		1.995		1,704.10		54.1		1,758.2	
Gas Lift Mandrel				3 7/8		1.995		4.10		1,758.2		1,762.3	
Tubing				2 3/8		1.995		1,023.10		1,762.3		2,785.4	
Gas Lift Mandrel				3 7/8		1.995		4.06		2,785.4		2,789.4	
Tubing				2 3/8		1.995		556.54		2,789.4		3,346.0	
Gas Lift Mandrel				3 7/8		1.995		4.06		3,346.0		3,350.0	
Tubing				2 3/8		1.995		588.06		3,350.0		3,938.1	
Gas Lift Mandrel				3 7/8		1.995		4.11		3,938.1		3,942.2	
Tubing				2 3/8		1.995		558.08		3,942.2		4,500.3	
Gas Lift Mandrel				3 7/8		1.995		4.05		4,500.3		4,504.3	
Tubing				2 3/8		1.995		527.56		4,504.3		5,031.9	
Gas Lift Mandrel				3 7/8		1.995		4.05		5,031.9		5,035.9	
Tubing				2 3/8		1.995		558.04		5,035.9		5,594.0	
Sensor				4.4		2.630		4.08		5,594.0		5,598.1	
Tubing				2 3/8		1.995		31.00		5,598.1		5,629.1	
Gas Lift Mandrel				3 7/8		1.995		4.06		5,629.1		5,633.1	
Tubing				2 3/8		1.995		31.45		5,633.1		5,664.6	
On-Off Tool				3.65		1.870		1.35		5,664.6		5,665.9	
Packer				3.771		1.930		8.06		5,665.9		5,674.0	
Pump Out Housing				3.06		1.600		0.68		5,674.0		5,674.7	
Perforated Joint				3.06		1.995		2.10		5,674.7		5,676.8	
Bull Plug				3.06				0.52		5,676.8		5,677.3	
Rod Strings													
<des> on <dtmrun>													
Rod Description								Run Date			Pull Date		

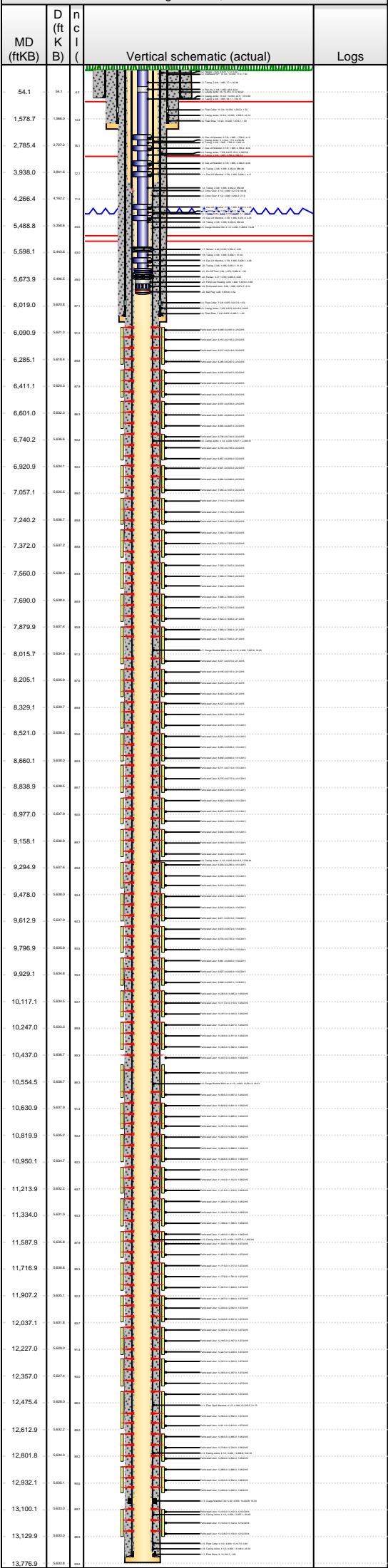


Lease Review All - Frac Summary

Well Name: HORSETAIL 30F-1942

API Number	WPC ID	Well Permit Number	Field Name	County	State
051233874000	1CO0761017		DJ Horizontal Niobrara	Weld	CO
Well Configuration Type	Orig KB Elv (ft)	Ground Elevation (ft)	Casing Flange Elevation (ft)	Tubing Head Elevation (ft)	Total Depth (ftKB)
Lateral/Horizontal	4,800.00	4,783.00			13,777.0
Original Spud Date	Completion Date	Asset Group	Responsible Engineer	N/S Dist (ft)	N/S Ref
10/13/2014	2/3/2015	Redtail	Charles Ohlson	2,323.0	FNL
				E/W Dist (ft)	E/W Ref
				1,890.0	FWL
Lot	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section
	SE	NW			30
			Section Suffix	Section Type	Township
					10 N
				Range	Range E/W Dir
				57	W
					Meridian

Lateral/Horizontal - Original Hole, 7/29/2015 3:06:26 PM



Item Des		OD (in)		Len (ft)		Top (ftKB)		Btm (ftKB)		
Other Strings										
Set Depth (ftKB)		Comment				Run Date		Pull Date		
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		4		10/29/2014				4,800.0		4,794.1
CFP		4		2/3/2015		4/6/2015		6,253.0		6,255.0
CFP		4		2/3/2015		4/6/2015		6,443.0		6,445.0
CFP		4		2/3/2015		4/6/2015		6,635.0		6,637.0
CFP		4		2/2/2015		4/6/2015		6,827.0		6,829.0
CFP		4		2/2/2015		4/6/2015		7,022.0		7,024.0
CFP		4		2/2/2015		4/6/2015		7,210.0		7,212.0
CFP		4		2/2/2015		4/6/2015		7,403.0		7,405.0
CFP		4		2/2/2015		4/6/2015		7,597.0		7,599.0
CFP		4		2/2/2015		4/6/2015		7,790.0		7,792.0
CFP		4		2/1/2015		4/6/2015		7,985.0		7,987.0
CFP		4		2/1/2015		4/6/2015		8,236.0		8,238.0
CFP		4		2/1/2015		4/6/2015		8,425.0		8,427.0
CFP		4		1/31/2015		4/6/2015		8,623.0		8,625.0
CFP		4		1/31/2015		4/6/2015		8,809.0		8,811.0
CFP		4		1/31/2015		4/6/2015		9,005.0		9,007.0
CFP		4		1/31/2015		4/6/2015		9,192.0		9,194.0
CFP		4		1/31/2015		4/6/2015		9,579.0		9,581.0
CFP		4		1/30/2015		4/6/2015		9,760.0		9,762.0
CFP		4		1/30/2015		4/6/2015		9,767.0		9,769.0
CFP		4		1/30/2015		4/6/2015		9,960.0		9,962.0
CFP		4		1/29/2015		4/6/2015		10,151.0		10,153.0
CFP		4		1/29/2015		4/6/2015		10,347.0		10,349.0
CFP		4		1/29/2015		4/6/2015		10,542.0		10,544.0
CFP		4		1/29/2015		4/6/2015		10,729.0		10,731.0
CFP		4		1/29/2015		4/6/2015		10,918.0		10,920.0
CFP		4		1/28/2015		4/6/2015		11,112.0		11,114.0
CFP		4		1/28/2015		4/6/2015		11,302.0		11,304.0
CFP		4		1/28/2015		4/6/2015		11,498.0		11,500.0
CFP		4		1/27/2015		4/6/2015		11,686.0		11,688.0
CFP		4		1/27/2015		4/6/2015		11,879.0		11,881.0
CFP		4		1/27/2015		4/6/2015		12,069.0		12,071.0
CFP		4		1/27/2015		4/6/2015		12,266.0		12,268.0
CFP		4		1/27/2015		4/6/2015		12,444.0		12,446.0
CFP		4		1/27/2015		4/6/2015		12,649.0		12,651.0
CFP		4		1/26/2015		4/6/2015		12,836.0		12,838.0
CFP		4		1/26/2015		4/6/2015		13,052.0		13,054.0
Bottom Hole Cores										
Date		Core #		Top (ftKB)		Btm (ftKB)		Recov (ft)		