

SIMULATION TREATMENT REPORT



Date 24-JUN-11 District Brighton F.Receipt 1001823124 Customer Noble Energy - Denver
 Lease GUTTERSEN #D22-24 Well Name GUTTERSEN #D22-24
 Field WATTENBERG Location 22-3N-64W
 County Weld State Colorado Stage No 1 Well API - API 05123329980000

WELL DATA		Well Type:	NEW	Well Class:	GAS	Depth TD/PB:	7046	Formation:	CODELL
Geometry Type	Tubular Type	OD	Weight	ID	Grade	Top	Bottom	Perf Intervals	
TUBULAR	CSG	4.5	11.6	4	M-80	0	7046	Top	Bottom
								SPF	Diameter
								6984	6996
								4	.41

Packer Type N/A Packer Depth 0 FT

TREATMENT DATA				LIQUID PUMPED AND CAPACITIES IN BBLs.			
Fluid Type	Fluid Desc	Pumped Volume(Gals)	Prop. Description	Volume Pumped(Lbs)			
PAD	Vistar 22	15.834	Sand, White, 20/40	245,740	Tubing Cap.	0	
PAD	Linear Gel	6.006			Casing Cap.	108.5	
TREATMENT FLUID	Vistar22	88.184			Annular Cap.	0	
				Total Prop Qty:	245,740	Open Hole Cap.	0
						Fluid to Load	0
						Pad Volume	520
						Treating Fluid	2052
						Flush	107
						Overflush	0
						Fluid to Recover	2679

Previous Treatment N/A Previous Production N/A
 Hole Loaded With Treated Water Treat Via: Tubing ☐ Casing ☐ Anul. ☒ Tubing & Anul. ☐
 Ball Sealers: 0 In 0 Stages Type
 Auxiliary Materials GW-45LF,XLW-14,BF-9L,INFLO/NE,CLAYCARE,GBW-21,GS-1A,HP CRB,GBW-5

PROCEDURE SUMMARY

Time AM/PM	Treating Pressure-Psi		Surface Slurry BBLs. Pumped		Slurry Rate BPM	Comments
	STP	Annulus	Stage	Total		
11:00	4918	0	0	0	0	safety meeting/ psi test
11:20	2096	0	0	0	0	open wellhead
11:20	4030	0	143	0	18.7	stg linear, break 3479 psi @ 3.2 bpm
11:31	3302	0	0	143	0	shutdown, 5 min. 2595 psi
11:36	3980	0	377	143	18.7	stg x-link
11:58	4111	0	200	520	18.7	stg 1.0 psa
12:08	4034	0	544	720	18.5	stg 2.0 psa
12:38	3797	0	1001	1264	18.6	stg 3.0 psa
13:31	3595	0	571	2265	18.6	stg 4.0 psa
14:03	3309	0	107	2836	8.6	stg acid/flush
14:16	3738	0	0	2943	0	shutdown

Treating Pressure		Injection Rates		Shut In Pressures		Customer Rep.	
Minimum	3450	Treating Fluid	18.6	ISDP	3738	BJ Rep.	KEVIN D REDD
Maximum	4117	Flush	8.6	5 Min.	0	Job Number	1001823124
Average	3727	Average	18.6	10 Min.	0	Rec. ID No.	
Operators Max. Pressure 5000				15 Min.	0	Distribution	
				Final	3738	In	0
				Flush Dens. lb./gal.	8.34		