



The Western Company—Treatment Report

Date 3-23-92 District FMCF N.M. F. Receipt L217406 Operator B.H.P. Petrocelli
 Lease G.C.U. #13 Well No. S.W.D #1 Field Basin Mesa Verde Location 13-29-13
 County SAN JUAN State N.M. Stage Number — This Zone ☒ This Well ☒

WELL DATA OG ☐ NG ☐ NO ☐ OO ☐ WD ☒ IW ☐ Misc. ☐ Depth TD/PB 3762' Formation Mesa Verde
 Tubing Size 2 7/8 WT. — Set at: — Type Packer Ann. Set At 2769'
 Casing Size 5 1/2 WT. 15.5 Set From SURFACE To T.O. Liner Size — Wt. —
 Liner Set From — To — Open Hole: Size — From — To — Casing Perforations: Size .4
 Holes Per Foot 2.4 Intervals 2870' - 3762'
 Previous Treatment — Prior Production —

TREATMENT DATA Pad Used: Yes ☐ No ☒ Pad Type —
 Treating Fluid Type: Foam ☐ Water ☒ Acid ☐ Oil ☐ Treat. Fluid Vol. 15,330 Gal.
 Base Fluid Type PRODUCED WATER Base Fluid Vol. 15,330 Gal.
 Foam Qual.: — % Mitchell ☐ Slurry ☐ Surface ☐ Downhole ☐ Total Prop Qty. — Lbs.
 Prop Type: Sand ☐ WP-1 ☐ WP-3 ☐ Baux. ☐ Other —
 Prop Mesh Sizes, Types and Quantities —
 Hole Loaded With PRODUCED WATER Treat Via: Tubing ☒ Casing ☐ Anul. ☐ Tubing & Anul. ☐
 Ball Sealers: — In — Stages of —
 Types and Number of Pumps Used 1. ACIOFRAC-700
 Auxiliary Materials —
PERFORM STEP RATE TEST WITH 15,330 gal PRODUCED WATER

LIQUID/GAS PUMPED AND CAPACITIES IN BBLs.
 Tubing Cap. 2769' = 16.0
 Casing Cap. 2870' = 18.4
 Annular Cap. —
 Open Hole Cap. —
 Fluid to Load 1.0
 Pad Volume —
 Treating Fluid 364
 Flush —
 Overflush —
 Fluid to Recover 364
 Total N₂ —
 Total CO₂ —

PROCEDURE SUMMARY WATER

Time AM/PM	Treating Pressure-Psi	Surface Slurry BBLs. Pumped	Slurry Rate BPM	Surface CO ₂ BBLs. Pumped	CO ₂ Rate BPM	Surface N ₂ MSCF Pumped	N ₂ Rate SCFM	Comments
	STP	Annulus	Stage	Total	Stage	Total	Stage	Total
8:56	0→660→800	-	-	-	0→.7			
9:26+	800→910	-	20.0	21.0	1.0			START TEST 1/2 TO 3/4 BPM
10:00	910→1020	-	30.0	51.0	1.6			1.0 BPM @ 910 AV. 7 @ 800 AV.
10:05	1020→770→760	-	8.0	59.0	2.0→2.1			1.6 BPM @ 1000→780
10:31	760→910	-	64.0	123.0	2.6→2.7			2.0 BPM @ 760 AV.
11:01+	910→950	-	77.0	200.0	3.0			2.6-2.7 BPM @ 910 AV.
11:06+	950→1010	-	47.0	247.0	3.6			3.0 BPM @ 950 AV.
11:32+	1010→1020	-	57.0	304.0	4.0			3.6 BPM @ 1010 AV.
11:48+	620	-	63.0	365.0	0			4.0 BPM @ 1020 AV.
								SHUT DOWN 620 KOP
								5 MIN - 530 PSI
								10 MIN - 420 PSI
								15 MIN - 370 PSI

Treating Pressure: Min. 800 Max. 1020 Avg. — Customer Representative JIM GRAVES
 Inj. Rate on Treating Fluid — Rate on Flush — Western Representative VIC MONTORAY
 Avg. Inj. Rate — I.S.D.P. 620 Flush Dens. lb./gal. — Distribution —
 Final Shut-in Pressure 370 PSI in 15 Minutes
 Operator's Maximum Pressure 2000 PSI

Job Number — Recommendation ID # —