

Submit within 45 days of well completion		State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505						Revised February 15, 2012	
								1. WELL API NO: 30-045-24720	
								2. Well Name: FEDERAL #001R	
								3. Well Number: 001R	
HYDRAULIC FRACTURING FLUID DISCLOSURE ☒ Original ☐ Amendment		4. Surface Hole Location:						Township:25N Range:09W	
		Unit:O Lot:O Section:21 Feet from:1030 Feet from:1810						N/S Line:S E/W Line:E	
		5. Bottom Hole Location:						Township:25N Range:09W	
		Unit:O Lot:O Section:21 Feet from:1030 Feet from:1810						N/S Line:S E/W Line:E	
		6. Latitude: 36.3825395636917						Longitude: -107.791998483796	
		7. County: San Juan							
8. Operator Name and Address: ENERGEN RESOURCES CORPORATION 2010 Alton Place Farmington 87401						9. OGRID: 162928		10. Phone Number: 505-324-4154	
11. Last Fracture Date: 9/6/2013 Frac Performed by: Baker Hughes						12. Production Type: G			
13. Pool Code(s): 97232						14. Gross Fractured Interval: 5,340 ft to 5,542 ft			
15. True Vertical Depth (TVD): 6,590 ft						16. Total Volume of Fluid Pumped: 53,029 gals			
17. HYDRAULIC FLUID COMPOSITION AND CONCENTRATION:									
Trade Name	Supplier	Purpose	Ingredients	(CAS #) Chemical Abstract Service #	Maximum Ingredient Concentration in Additive (% by mass)	Maximum Ingredient Concentration in HF Fluid (% by mass)			
Water	Operator	Carrier	Water	7732-18-5	100%	52.60583%			
HCl, 10.1 - 15%	Baker Hughes	Acidizing	Hydrochloric Acid	7647-01-0	15%	0.34507%			
			Water	7732-18-5	85%	1.95537%			
Alpha 1427	Baker Hughes	Biocide	Didecyl Dimethyl Ammonium Chloride	7773-51-5	10%	0.00073%			
			Ethanol	64-17-5	5%	0.00036%			
			Glutaraldehyde	111-30-8	30%	0.00219%			
			Quaternary Ammonium Compound	68424-85-1	5%	0.00036%			
Enzyme G-I	Baker Hughes	Breaker	Contains non-hazardous ingredients which are listed in the non-MSDS section of the report	NA	100%	0.124%			
Enzyme G HT-I	Baker Hughes	Breaker	Tryptone	73049-73-7	5%	0.00347%			
			Water	7732-18-5	100%	0.06944%			
			Yeast Extract	08013-01-2	5%	0.00347%			
BF-7L	Baker Hughes	Buffer	Potassium Carbonate	584-08-7	60%	0.10844%			
ClayCare, tote	Baker Hughes	Clay Control	Choline Chloride	67-48-1	75%	0.04789%			
			Water	7732-18-5	30%	0.01916%			
CI-27	Baker Hughes	Corrosion Inhibitor	Fatty Acids	Trade Secret	30%	0.00159%			
			Methanol	67-56-1	60%	0.00318%			
			Olefin	Trade Secret	5%	0.00026%			
			Polyoxyalkylenes	Trade Secret	30%	0.00159%			
			Propargyl Alcohol	107-19-7	10%	0.0053%			
			Thiourea Polymer	68527-49-1	30%	0.00152%			
XLW-32, 260 gal tote	Baker Hughes	Crosslinker	Boric Acid	10043-35-3	30%	0.00782%			
			Methanol	67-56-1	60%	0.01563%			
			Methyl Borate	121-43-7	30%	0.00782%			
XLW-4	Baker Hughes	Crosslinker	Sodium Tetraborate	1303-96-4	30%	0.02877%			
FAW-22	Baker Hughes	Foamer	Alkyl Sulfate (1 of 3)	Trade Secret	1%	0.00279%			
			Alkyl Sulfate (2 of 3)	Trade Secret	1%	0.00279%			
			Alkyl Sulfate (3 of 3)	Trade Secret	1%	0.00279%			
			Ammonium Alkyl Ether Sulfate	Trade Secret	10%	0.02787%			
			Ethoxylated Alcohol	Trade Secret	1%	0.00279%			
			Isopropanol	67-63-0	30%	0.08361%			
			Sodium Sulfonate	68439-57-6	30%	0.08361%			
GW-3LDF	Baker Hughes	Gelling Agent	1-butoxy-2-propanol	5131-06-8	5%	0.01588%			
			Crystalline Silica: Quartz	14808-60-7	5%	0.01588%			
			Guar Gum	9000-30-0	60%	0.19061%			
			Isotridecanol, ethoxylated	9043-30-5	5%	0.01588%			
			Paraffinic Petroleum Distillate	64742-55-8	30%	0.0953%			
			Petroleum Distillates	64742-47-8	30%	0.0953%			
Ferrotrol 300L	Baker Hughes	Iron Control	Citric Acid	77-92-9	60%	0.0075%			
Nitrogen	Baker Hughes	Nitrogen	Liquid Nitrogen	77					