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 November 6, 2013

1. WELL API NO. 30-045-35242

2. Well Name: RICHARDSON NAVAJO 27 13 10 #004H

3. Well Number: 004H

HYDRAULIC FRACTURING FLUID DISCLOSURE

☒ Original

☐ Amendment

4. Surface Hole Location:
Unit:N Lot:N Section:11 Township:27N Range:13W
Feet from:1282 N/S Line:S
Feet from:1386 E/W Line:W

5. Bottom Hole Location:
Unit:N Lot:N Section:11 Township:27N Range:13W
Feet from:1281 N/S Line:S
Feet from:1385 E/W Line:W

6. latitude: 36.5860329 longitude: -108.1928329

7. County: San Juan

8. Operator Name and Address:
ENERGEN RESOURCES CORPORATION
2010 Afton Place
Farmington 87401

9. OGRID: 162928

10. Phone Number: 505-324-4154

11. Last Fracture Date: 12/2/2015 Frac Performed by: Halliburton

12. Production Type: G

13. Pool Code(s): 97232

14. Gross Fractured Interval: Confidential

15. True Vertical Depth (TVD): 5,267 ft

16. Total Volume of Fluid Pumped: 1,416,440 gals

17. Total Volume of Re-Use Water Pumped: 0 gals

18. Percent of Re-Use Water in Fluid Pumped: %

19. **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)
Fresh Water	Operator	Base Fluid	Fresh Water	7732-18-5	100%	56.66117%
HCl > 10%	Halliburton				100%	0.55807%
SAND - PREMIUM WHITE	Halliburton	Proppant	Crystalline silica, quartz	14808-60-7	100%	22.28541%
SSA-2	Halliburton	Proppant	Crystalline silica, quartz	14808-60-7	100%	0.45154%
MC B-8520, 330 GAL TOTETANK	Multi-Chem	Biocide	4,4-Dimethyloxazolidine		100%	0.01107%
			3,4,4-Trimethyloxazolidine		5%	0.00055%
			2-Amino-2-methyl-1-propanol		1%	0.00011%
HC-2	Halliburton	Additive	Inner salt of alkyl amines	Confidential	30%	0.04542%
			Sodium chloride	7647-14-5	30%	0.04542%
Cla-Web(TM)	Halliburton	Additive	Ammonium salt	Confidential	60%	0.02035%
LOSURF-300D	Halliburton	Non-ionic Surfactant	1,2,4 Trimethylbenzene	95-63-6	1%	0.00027%
			Ethanol	64-17-5	60%	0.01619%
			Heavy aromatic petroleum naphtha	64742-94-5	30%	0.00809%
			Naphthalene	91-20-3	5%	0.00135%
			Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl) -omega-hydroxy-, branched	127087-87-0	5%	0.00135%
HAI-OS ACID INHIBITOR	Halliburton	Corrosion Inhibitor	Methanol	67-56-1	60%	0.00011%
			Propargyl alcohol	107-19-7	10%	2E-05%
WG-36 GELLING AGENT	Halliburton	Gelling Agent	Guar gum	9000-30-0	100%	0.0891%
GBW-30 BREAKER	Halliburton	Breaker	Hemicellulase enzyme	9012-54-8	30%	0.00136%
OPTIFLO-HTE	Halliburton	Breaker	Crystalline silica, quartz	14808-60-7	30%	0.00136%
			Walnut hulls	Mixture	100%	0.00454%
BE-3S BACTERICIDE	Halliburton	Biocide	2,2 Dibromo-3-nitrilopropionamide	10222-01-2	100%	0.00045%
			2-Monobromo-3-nitrilopropionamide	1113-55-9	5%	2E-05%
Parasorb	Baker Hughes	Paraffin Inhibitor	Diatomaceous earth, calcined	91053-39-3	60%	0.03022%
			Mineral oil	8042-47-5	30%	0.01511%
			Crystalline silica: Quartz (SiO2)	14808-60-7	1%	0.0005%
NITROGEN LIQUEFIED	Halliburton	Fluid	Nitrogen	7727-37-9	100%	19.67127%
Ingredients Listed Below This Line Are Part of the			Alcohols, C14-C15, ethoxylated	68951-67-7	0%	0%
			Amine salts	Confidential	0%	0%
			Amine salts	Confidential	0%	0%
			Bentonite, benzyl (hydrogenated tallow alkyl) dimethylammonium stearate complex	121888-68-4	0%	0%
			C.I. Pigment Red 5	6410-41-9	0%	0%
			Crystalline Silica, Quartz	14808-60-7	0%	0%
			Cured acrylic resin	Confidential	0%	0%
			Cured acrylic resin	Confidential	0%	0%
			Enzyme	Confidential	0%	0%
			Fatty acids, tall oil	Confidential	0%	0%
			Formaldehyde Amine Resin	56652-26-7	0%	0%
			Glycerine	56-81-5	0%	0%
			Lactose	63-42-3	0%	0%
			Olefins	Confidential	0%	0%
			Olefins	Confidential	0%	0%
			Olefins	Confidential	0%	0%
			Olefins	Confidential	0%	0%
			Oxyalkylated phenolic resin	Confidential	0%	0%
			Oxyalkylated phenolic resin	Confidential	0%	0%
			Quaternary amine	Confidential	0%	0%
			Quaternary amine	Confidential	0%	0%
			Quaternary amine	Confidential	0%	0%
			Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide	68527-49-1	0%	0%
			Silica gel	112926-00-8	0%	0%
			Sodium chloride	7647-14-5	0%	0%
			Surfactant mixture	Confidential	0%	0%
			Surfactant mixture	Confidential	0%	0%
			Water	7732-18-5	0%	0%

20. I, as Operator, hereby certify that the information shown on this disclosure form is true and complete to the best of my knowledge and belief.

Signature: Signed Electronically Printed Name: Anna Stotts Title: Regulatory Analyst

Date: 1/11/2016

E-mail Address: astotts@energen.com

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