

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:
30-015-43454

2. Well Name:
COTTONBERRY 20 FEDERAL COM #003H

3. Well Number:
003H

HYDRAULIC FRACTURING FLUID DISCLOSURE

☒ Original

☐ Amendment

4. Surface Hole Location:
Unit:O Lot:O Section:17 Township:25S Range:27E
Feet from:195 N/S Line:S
Feet from:2185 E/W Line:E

5. Bottom Hole Location:
Unit:O Lot:O Section:17 Township:25S Range:27E
Feet from:195 N/S Line:S
Feet from:2185 E/W Line:E

6. latitude:
32.072336 longitude:
-104.123735

7. County:
Eddy

8. Operator Name and Address:
CIMAREX ENERGY CO.
600 N MARIENFELD STREET
SUITE 600
MIDLAND 79701

9. OGRID:
215099

10. Phone Number:

11. Last Fracture Date: 1/29/2016 Frac Performed by: Halliburton

12. Production Type:
O

13. Pool Code(s):
97316

14. Gross Fractured Interval:
7,390 ft to 7,471 ft

15. True Vertical Depth (TVD):
7,471 ft

16. Total Volume of Fluid Pumped:
4,072,993 gals

17. Total Volume of Re-Use Water Pumped:
N/A

18. Percent of Re-Use Water in Fluid Pumped:
Not Disclosed

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%	83.80811%
BA-40L, BC-140 X2, LOSURF-360W, OPTIFLO-III , Opti	Halliburton	Breaker, Buffer, Concentrate, Friction Reducer, Gelling Agent, Initiator, Proppant, Surfactant	Crystalline silica, quartz	14808-60-7	100%	15.90233%
			Water	7732-18-5	100%	0.07772%
			Guar gum	9000-30-0	100%	0.07503%
			Poly(oxy-1,2-ethanediyl), ,alpha.-isodecyl-,omega.-hydroxy-	61827-42-7	30%	0.01876%
			Hydrotreated light petroleum distillate	64742-47-8	30%	0.00942%
			Inorganic salt	Proprietary	30%	0.00942%
			Polyacrylate	Proprietary	30%	0.00942%
			Monoethanolamine borate	26038-87-9	100%	0.00938%
			Glycerine	56-81-5	10%	0.00625%
			Bentonite, benzy(l)(hydrogenated tallow alkyl) dimethylammonium stearate complex	121888-68-4	5%	0.00375%
			Alcohols, C12-16, ethoxylated	68551-12-2	10%	0.00314%
			Ammonium chloride	12125-02-9	10%	0.00314%
			Complex alkylamine	Proprietary	5%	0.00313%
			Potassium carbonate	584-08-7	60%	0.00296%
			Ethylene glycol	107-21-1	30%	0.00281%
			Sodium perborate tetrahydrate	10486-00-7	100%	0.0027%
			Ammonium persulfate	7727-54-0	100%	0.0023%
			9-Octadecenamide, n,n-bis-2-(hydroxy-ethyl)-,-(Z)	93-83-4	5%	0.00157%
			Fatty acid ester	Proprietary	5%	0.00157%
			Surfactant mixture	Proprietary	1%	0.0015%
			Sodium persulfate	7775-27-1	100%	0.00111%
			Silica gel	112926-00-8	1%	0.00075%
			Cured acrylic resin	Proprietary	30%	0.00069%
			Alkane	Proprietary	1%	0.00063%
			Crystalline Silica, Quartz	14808-60-7	0.1%	8E-05%
			2,7-Naphthalenedisulfonic acid, 3-hydroxy-4-[(4-sulfor-1-naphthalenyl) azo] -, trisodium salt	915-67-3	0.1%	1E-05%
			Ethylenediaminetetraacetic acid, tetrasodium salt	64-02-8	0.01%	1E-05%
			Hydrogen peroxide	7722-84-1	0.01%	1E-05%
			Nitrotriactic acid, trisodium salt monohydrate	5064-31-3	0.01%	1E-05%
			Sodium bicarbonate	144-55-8	0.01%	1E-05%
			Sodium glycolate	2836-32-0	0.01%	1E-05%
			Sodium hydroxide	1310-73-2	0.01%	1E-05%
HCL 15%	Petroplex	Acid	Hydrochloric Acid	7647-01-0	15%	0.006%
Cronox AK-50	Petroplex	Corrosion Inhibitor	Oxyalkylated Alkylphenol	Proprietary	30%	2E-05%
			Heavy Aromatic Naptha	64742-94-5	30%	2E-05%
			Isopropanol	67-63-0	30%	2E-05%
			Fatty Acids	Proprietary	10%	1E-05%
			Complex Alkylaryl Polyo-Ester	Proprietary	10%	1E-05%
			Tar Bases, Quinoline Derivatives, Benzyl Chloride-Quaternized	72480-70-7	10%	1E-05%
			Formaldehyde	50-00-0	10%	1E-05%
			Acetylenic Alcohol	Proprietary	5%	0%
			Propargyl Alcohol	107-19-7	5%	0%
			Napthalene	91-20-3	5%	0%
Citric Acid	Petroplex	Iron Control	Citric Acid	77-92-9	100%	0.002%
EC9546A	Petroplex	Surfactant	Heavy Aromatic Naptha	64742-94-5	10%	1E-05%
			Isopropanol	67-63-0	60%	4E-05%
			Polyethylene Glycol	25322-68-3	5%	0%
			Napthalene	91-20-3	1%	0%
			Phosphoric Acid Ester	Proprietary	10%	1E-05%
			Oxyalkylated Alcohol	Proprietary	10%	1E-05%
			Proprietary	Proprietary	10%	1E-05%
ClO2	Bosque	Biocide	Chlorine Dioxide	10049-04-4	100%	0.00014%

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: Skipper Herring

Manager Stimulation

Date: 2/22/2016 Title: Operations

E-mail Address: sherring@cimarex.com

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