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. 30-015-43156
2. Well Name: WIGEON 23 FEDERAL COM #004H
3. Well Number: 004H

HYDRAULIC FRACTURING FLUID DISCLOSURE

☒ Original

☐ Amendment

4. Surface Hole Location:
Unit:A Lot:A Section:23 Township:25S Range:26E
Feet from:305 N/S Line:N
Feet from:757 E/W Line:E

5. Bottom Hole Location:
Unit:A Lot:A Section:23 Township:25S Range:26E
Feet from:305 N/S Line:N
Feet from:757 E/W Line:E

6. latitude: 32.1218289330122 longitude: -104.257372462343

7. County: Eddy

8. Operator Name and Address:
CIMAREX ENERGY CO. OF COLORADO
202 S. Cheyenne Ave, Ste 1000
Tulsa 74103

9. OGRID: 162683

10. Phone Number: 918-295-1763

11. Last Fracture Date: 9/15/2017 Frac Performed by: Halliburton

12. Production Type: O

13. Pool Code(s): 97916

14. Gross Fractured Interval: 9,595 ft to 9,747 ft

15. True Vertical Depth (TVD): 9,749 ft

16. Total Volume of Fluid Pumped: 17,840,360 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	Water	7732-18-5	100%	86.90095%
BA-20 BUFFERING AGENT	Halliburton	Buffer	Listed Below	Listed Below	0%	0%
Cla-Web(TM) II	Halliburton	Clay Stabilizer	Listed Below	Listed Below	0%	0%
OPTIFLO-III DELAYED RELEASE BREAKER	Halliburton	Breaker	Listed Below	Listed Below	0%	0%
OptiKleen-WF(TM)	Halliburton	Concentrate	Listed Below	Listed Below	0%	0%
SAND	Halliburton	Proppant	Listed Below	Listed Below	0%	0%
EXCelerateLX-1BackUp	Halliburton	Friction Reducer	Listed Below	Listed Below	0%	0%
FDP-S1226-15	Halliburton	Surfactant	Listed Below	Listed Below	0%	0%
FDP-S1281-17	Halliburton	Friction Reducer	Listed Below	Listed Below	0%	0%
MC B-86141	Halliburton	Biocide	Listed Below	Listed Below	0%	0%
MSDS and Non-MSDS Ingredients are listed below					0%	0%
Ingredients	Listed Above	Listed Above	Acetic acid	64-19-7	30%	0.00125%
			Alcohols, C-12-13, ethoxylated	66455-14-9	30%	0.02685%
			Alcohols, C12-16, ethoxylated	68551-12-2	5%	0.00447%
			Amine	Proprietary	0.1%	2E-05%
			Amine salts	Proprietary	1%	0.00025%
			Ammonium acetate	631-61-8	100%	0.00415%
			Ammonium compound	Proprietary	30%	0.00672%
			Ammonium persulfate	7727-54-0	100%	0.00506%
			Chlorine compound	Proprietary	30%	0.00672%
			Crystalline silica, quartz	14808-60-7	100%	12.85285%
			Cured acrylic resin	Proprietary	30%	0.00152%
			Glutaraldehyde	111-30-8	30%	0.01378%
			Hydrotreated light petroleum distillate	64742-47-8	30%	0.00029%
			Polyacrylate	Proprietary	30%	0.00029%
			Proprietary Component A	Proprietary	100%	0.07951%
			Quaternary amine	Proprietary	1%	0.00045%
			Quaternary amoonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	5%	0.0023%
			Sodium chloride	7647-14-5	1%	0.00022%
			Sodium perborate tetrahydrate	10486-00-7	100%	0.00022%
			Water	7732-18-5	100%	0.02365%

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 Title: Manager Stimulation Operations

Date: 11/9/2017

E-mail Address: sherring@cimarex.com

NMOCD does not require the reporting of information beyond MSDS data as described in 29 CFR 1910.1200. NMOCD does not require the reporting or disclosure of proprietary, trade secret or confidential business information.