

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. 30-015-43847								
		2. Well Name: CRESCENT HALE 10 FEDERAL COM #004H								
		3. Well Number: 004H								
HYDRAULIC FRACTURING FLUID DISCLOSURE ☒ Original ☐ Amendment		4. Surface Hole Location: Unit:O Lot:O Section:11 Township:19S Range:30E Feet from:1257 N/S Line:S Feet from:1974 E/W Line:E								
		5. Bottom Hole Location: Unit:O Lot:O Section:11 Township:19S Range:30E Feet from:1257 N/S Line:S Feet from:1974 E/W Line:E								
		6. latitude: longitude: 32.6710593 -103.9404981								
		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: 4/19/2017 Frac Performed by: Halliburton				12. Production Type: O						
13. Pool Code(s): 5200				14. Gross Fractured Interval: 8,112 ft to 8,530 ft						
15. True Vertical Depth (TVD): 8,530 ft				16. Total Volume of Fluid Pumped: 7,235,913 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%	77.59827%				
BC-140 X2	Halliburton	Initiator	Listed Below	Listed Below	0%	0%				
FDP-S1176-15	Halliburton	Friction Reducer	Listed Below	Listed Below	0%	0%				
FDP-S1226-15	Halliburton	Surfactant	Listed Below	Listed Below	0%	0%				
MC B-8614	Halliburton	Biocide	Listed Below	Listed Below	0%	0%				
MO-67	Halliburton	pH Control Additive	Listed Below	Listed Below	0%	0%				
Sand	Halliburton	Proppant	Listed Below	Listed Below	0%	0%				
OPTIFLO-III	Halliburton	Breaker	Listed Below	Listed Below	0%	0%				
OptiKleen-WF	Halliburton	Concentrate	Listed Below	Listed Below	0%	0%				
SP BREAKER	Halliburton	Breaker	Listed Below	Listed Below	0%	0%				
WG-36	Halliburton	Gelling Agent	Listed Below	Listed Below	0%	0%				
MSDS and Non-MSDS Ingredients are listed below					0%	0%				
Ingredients	Listed Above	Listed Above	2,7-Naphthalenedisulfonic acid, 3-hydroxy-4-[(4-sulfor-1-naphthalenyl)azo] -, trisodium salt	915-67-3	0.1%	3.5E-05%				
			9-Octadecenamide, n,n-bis-2(hydroxy-ethyl)-,(Z)	93-83-4	5%	0.000779%				
			Alcohols, C12-13, ethoxylated	66455-14-9	30%	0.02301%				
			Alcohols, C12-16, ethoxylated	68551-12-2	5%	0.003835%				
			Ammonium chloride	12125-02-9	5%	0.000779%				
			Ammonium persulfate	7727-54-0	100%	0.002909%				
			Castor oil, ethoxylated	61791-12-6	5%	0.000779%				
			Crystalline silica, quartz	14808-60-7	30%	0.000873%				
			Cured acrylic resin	Proprietary	30%	0.000873%				
			Ethanol	64-17-5	1%	0.000206%				
			Ethylene glycol	107-21-1	30%	0.010595%				
			Ethylene oxide	75-21-8	0.01%	8E-06%				
			Glutaraldehyde	111-30-8	30%	0.006172%				
			Guar gum	9000-30-0	100%	0.090577%				
			Hydrotreated light petroleum distillate	64742-47-8	30%	0.004676%				
			Methanol	67-56-1	0.14%	2.9E-05%				
			Monoethanolamine borate	26038-87-9	100%	0.035316%				
			Crystalline silica, quartz	14808-60-7	100%	22.210802%				
			Phosphoric acid	7664-38-2	0.1%	2.1E-05%				
			Polyacrylate	Proprietary	30%	0.004676%				
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl chlorides	68424-85-1	5%	0.001029%				
			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8	5%	0.000779%				
			Sodium chloride	7647-14-5	5%	0.000786%				
			Sodium hydroxide	1310-73-2	30%	0.000213%				
			Sodium perborate tetrahydrate	10486-00-7	100%	0.001319%				
			Sodium persulfate	7775-27-1	100%	0.00065%				
			Sodium sulfate	7757-82-6	0.1%	1E-06%				
			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 Title: Operations			
			Date: 6/15/2017							
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.