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. 30-015-39355
2. Well Name: HAYDUKE 34 FEDERAL COM #003H
3. Well Number: 003H

HYDRAULIC FRACTURING FLUID DISCLOSURE

☒ Original

☐ Amendment

4. Surface Hole Location: Unit:I Lot:I Section:34 Township:25S Range:26E; Feet from:1880 N/S Line:S; Feet from:200 E/W Line:E
5. Bottom Hole Location: Unit:I Lot:I Section:34 Township:25S Range:26E; Feet from:1880 N/S Line:S; Feet from:200 E/W Line:E
6. latitude: 32.084239342437 longitude: -104.272868305347
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: 8/14/2014 Frac Performed by: Schlumberger
12. Production Type: G
13. Pool Code(s): 96890
14. Gross Fractured Interval: Confidential
15. True Vertical Depth (TVD): 9,639 ft
16. Total Volume of Fluid Pumped: 10,256,752 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)
Water	Schlumberger	Surfactant , Breaker, Gelling Agent, Friction Reducer, Clay Control Agent, Propping Agent	Water (Including Mix Water Supplied by Client)	NA	0%	93.60477%
			Crystalline silica	14808-60-7	96.88482%	6.17981%
			Cholinium chloride	67-48-1	1.28358%	0.08187%
			Acrylamide, 2-acrylamido-2-methylpropanesulfonic acid, sodium salt polymer	38193-60-1	0.33353%	0.02127%
			Distillates (petroleum), hydrotreated light	64742-47-8	0.30067%	0.01918%
			Sodium chloride	7647-14-5	0.14627%	0.00933%
			Guar gum	9000-30-0	0.11952%	0.00762%
			Alcohols, C9-11-iso-, C10-rich	68526-85-2	0.03129%	0.002%
			Alcohol, C11-14, ethoxylated	78330-21-9	0.03113%	0.00199%
			Sorbitan, (Z)-9-octadecenoate (2:3)	8007-43-0	0.02378%	0.00152%
			Polyethylene glycol monohexyl ether	31726-34-8	0.01877%	0.0012%
			Sorbitan monooleate, ethoxylated	9005-65-6	0.01377%	0.00088%
			Diammonium peroxidisulphate	7727-54-0	0.01158%	0.00074%
			Vinylidene chloride/methylacrylate copolymer	25038-72-6	0.00156%	0.0001%
			Dicoco dimethyl quaternary ammonium chloride	61789-77-3	0.00078%	5E-05%
			Non-crystalline silica	7631-86-9	0.00031%	2E-05%
			Tetrasodium ethylenediaminetetraacetate	Ge0eral	0.00016%	1E-05%
			Propan-2-ol	67-63-0	0.00016%	1E-05%
			Acetic acid, potassium salt	Ge0eral	0.00016%	1E-05%
			Magnesium silicate hydrate (talc)	14807-96-6	0.00016%	1E-05%
			poly(tetrafluoroethylene)	9002-84-0	0.00016%	1E-05%
			Acetic acid	64-19-7	0.00016%	1E-05%
HCL 15%	Petroplex	Acid	Hydrochloric Acid	7647-01-0	0.027%	0.00172%
Mud Acid 7.5%	Petroplex	Acid	Hydrochloric Acid	7647-01-0	0.05213%	0.00333%
ABF	Petroplex	Acid	Ammonium Hydrogen Fluoride	1341-49-7	0.12724%	0.00812%
			Ammonium Fluoride	12125-01-8	0.0067%	0.00043%
Cronox AK-50	Petroplex	Corrosion Inhibitor	Oxyalkylated Alkylphenol	Proprietary	0.00049%	3E-05%
			Heavy Aromatic Naptha	64742-94-5	0.00049%	3E-05%
			Isopropanol	67-63-0	0.00049%	3E-05%
			Fatty Acids	Proprietary	0.00016%	1E-05%
			Complex Alkylaryl Polyo-Ester	Proprietary	0.00016%	1E-05%
			Tar Bases, Quinoline Derivatives, Benzyl Chloride-Quaternized	72480-70-7	0.00016%	1E-05%
			Formaldehyde	50-00-0	0.00016%	1E-05%
			Acetylenic Alcohol	Proprietary	8E-05%	1E-05%
			Propargyl Alcohol	107-19-7	8E-05%	1E-05%
			Napthalene	91-20-3	8E-05%	1E-05%
Citric Acid	Petroplex	Iron Control	Citric Acid	77-92-9	0.04504%	0.00287%
EC9546A	Petroplex	Surfactant	Heavy Aromatic Naptha	64742-94-5	0.00016%	1E-05%
			Isopropanol	67-63-0	0.00093%	6E-05%
			Polyethylene Glycol	25322-68-3	8E-05%	0%
			Napthalene	91-20-3	2E-05%	0%
			Phosphoric Acid Ester	Proprietary	0.00016%	1E-05%
			Oxyalkylated Alcohol	Proprietary	0.00016%	1E-05%
			Oxyalkylated Alkyl Alcohol	Proprietary	0.00016%	1E-05%
ClO2	Bosque	Biocide	Chlorine Dioxide	10049-04-4	0.00255%	0.00016%
† Proprietary Technology					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: Skipper Herring Title: Manager Stimulation Operations

Date: 9/15/2014

E-mail Address: sherring@cimarex.com

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