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. 30-015-42820
2. Well Name: ADMIRAL FEDERAL COM #002H
3. Well Number: 002H

HYDRAULIC FRACTURING FLUID DISCLOSURE

☒ Original

☐ Amendment

4. Surface Hole Location: Unit:O Lot:O Section:28 Township:25S Range:29E; Feet from:190 N/S Line:S; Feet from:1980 E/W Line:E
5. Bottom Hole Location: Unit:B Lot:B Section:21 Township:25S Range:29E; Feet from:341 N/S Line:N; Feet from:1986 E/W Line:E
6. latitude: 32.0940460962434 longitude: -103.9871068537
7. County: Eddy

8. Operator Name and Address: COG OPERATING LLC, One Concho Center, 600 W. Illinois Ave, Midland 79701
9. OGRID: 229137
10. Phone Number: 432-685-4332
11. Last Fracture Date: 5/4/2016 Frac Performed by: Halliburton
12. Production Type: O
13. Pool Code(s): 98183
14. Gross Fractured Interval: 10,454 ft to 19,985 ft
15. True Vertical Depth (TVD): 10,291 ft
16. Total Volume of Fluid Pumped: 10,000,000 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%	79.56959%
HYDROCHLORIC ACID	Halliburton	Solvent	NA	NA	0%	0%
Cla-Web(TM) II, DCA-23003, FE-1A ACIDIZING COMPOSI	Halliburton	Additive, Breaker, Concentrate, Corrosion Inhibitor, Friction Reducer, Gelling Agent, Proppant, Scal	NA	NA	0%	0%
Scalechek(R) SCP-2 Scale Inhibitor, SP BREAKER, WG	Halliburton		NA	NA	0%	0%
Scaletrol	Baker Hughes	Scale Inhibitor	NA	NA	0%	0%
Parasorb	Baker Hughes	Scale Inhibitor	NA	NA	0%	0%
			Acetic acid	64-19-7	60%	0.0098%
			Acetic anhydride	108-24-7	100%	0.01634%
			Acrylamide	79-06-1	0.01%	1E-05%
			Acrylamide, sodium acrylate polymer	25987-30-8	30%	0.02817%
			Alcohols, C14-C15, ethoxylated	68951-67-7	30%	0.0004%
			Alkane	Confidential	1%	0.00079%
			Amine	Confidential	0.1%	0.00011%
			Amine salts	Confidential	1%	0.00191%
			Ammonium compound	Confidential	30%	0.02573%
			Bentonite, benzyl(hydrogenated tallow alkyl) dimethylammonium stearate complex	121888-68-4	5%	0.00326%
			C.I. Pigment Red 5	6410-41-9	1%	2E-05%
			Calcium chloride	10043-52-4	5%	0.00229%
			Chlorine compound	Confidential	30%	0.02573%
			Citric acid	77-92-9	60%	0.01017%
			Complex alkylamine	Proprietary	5%	0.00393%
			Crystalline silica	14808-60-7	1%	0.00012%
			Crystalline silica, quartz	14808-60-7	100%	18.28733%
			Crystalline Silica, Quartz	14808-60-7	0.1%	7E-05%
			Cured acrylic resin	Confidential	30%	0.00054%
			Diatomaceous earth, calcined	91053-39-3	60%	0.00703%
			Enzyme	Confidential	5%	9E-05%
			Ethoxylated branched C13 alcohol	78330-21-9	5%	0.0047%
			Ethylene glycol	107-21-1	30%	0.01371%
			Ethylenediaminetetraacetic acid, tetrasodium salt	64-02-8	0.01%	1E-05%
			Fatty acids, tall oil	Confidential	30%	0.0004%
			Glassy calcium magnesium phosphate	65997-17-3	100%	0.03046%
			Guar gum	9000-30-0	100%	0.06515%
			Hydrochloric acid	7647-01-0	60%	1.01318%
			Hydrotreated light petroleum distillate	64742-47-8	30%	0.02817%
			Methanol	67-56-1	60%	0.00081%
			Mineral Oil	8042-47-5	30%	0.00352%
			Olefins	Confidential	5%	0.00016%
			Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-	61827-42-7	30%	0.02355%
			Propargyl alcohol	107-19-7	10%	0.00014%
			Quaternary amine	Confidential	1%	0.00209%
			Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide	68527-49-1	30%	0.0004%
			Silica gel	112926-00-8	1%	0.00065%
			Sobitan, mono-9-octadecenoate, (Z)	1338-43-8	5%	0.0047%
			Sodium bicarbonate	144-55-8	0.01%	1E-05%
			Sodium chloride	7647-14-5	5%	0.00429%
			Sodium diacetate	126-96-5	5%	0.0047%
			Sodium perborate tetrahydrate	10486-00-7	100%	0.00384%
			Sodium persulfate	7775-27-1	100%	0.00358%
			Sodium sulfate	7757-82-6	0.1%	0%
			Sorbitan monooleate polyoxyethylene derivative	9005-65-6	5%	0.0047%
			Surfactant mixture	Confidential	1%	0.0013%
			Walnut hulls	NA	100%	0.00174%
			Water	7732-18-5	100%	1.89423%

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: Stormi Davis Title: Regulatory Analyst

Date: 6/21/2016

E-mail Address: sdavis@conchoresources.com

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