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. 30-015-41811

2. Well Name: MARAUDER 31 FEDERAL #004H

3. Well Number: 004H

HYDRAULIC FRACTURING FLUID DISCLOSURE

☒ Original

☐ Amendment

4. Surface Hole Location:
Unit:A Lot:A Section:31 Township:19S Range:31E
Feet from:330 N/S Line:N
Feet from:660 E/W Line:E

5. Bottom Hole Location:
Unit:P Lot:P Section:31 Township:19S Range:31E
Feet from:336 N/S Line:S
Feet from:647 E/W Line:E

6. latitude: 32.6231858569529 longitude: -103.902140370958

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: 6/28/2014 Frac Performed by: Halliburton

12. Production Type: O

13. Pool Code(s): 96688

14. Gross Fractured Interval: 9,155 ft to 13,270 ft

15. True Vertical Depth (TVD): 8,962 ft

16. Total Volume of Fluid Pumped: 5,340,856 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				100%	85.78226%
FE ACID - <10% HCL	Halliburton		Hydrochloric acid	7647-01-0	10%	0.14335%
Premium White - 20/40	Halliburton				100%	10.06826%
CRC - 20/40	Halliburton				100%	2.36702%
LOSURF-360	Halliburton				100%	0%
BE-9	Halliburton	Biocide	Tributyl tetradecyl phosphonium chloride	81741-28-8	10%	0.00417%
SUPERSET W	Halliburton	Activator	Methanol	67-56-1	60%	0.03356%
			Ethoxylated nonylphenol	Confidential Business Information	60%	0.03356%
CLA-STA XP ADDITIVE	Halliburton	Clay Stabilizer	Polyepichlorohydrin, trimethyl amine quaternized	51838-31-4	60%	0.00653%
Cla-Web™	Halliburton	Additive	Ammonium salt	Confidential Business Information	60%	0.0277%
HpH BREAKER	Halliburton	Breaker	Sodium chloride	7647-14-5	30%	0.00011%
BC-140 X2	Halliburton	Initiator	Ethylene glycol	107-21-1	30%	0.00819%
			Monoethanolamine borate	26038-87-9	100%	0.0273%
Scaletrol	Halliburton				100%	0%
BE-6 MICROBIOCIDE	Halliburton	Biocide	2-Bromo-2-nitro-1,3-propanediol	52-51-7	100%	5E-05%
Scalechek® SCP-2 Scale Inhibitor	Halliburton	Scale Preventer	Glassy calcium magnesium phosphate	65997-17-3	100%	0.01387%
OPTIFLO-HTE	Halliburton	Breaker	Crystalline silica, quartz	14808-60-7	30%	0.00154%
			Walnut hulls	Mixture	100%	0.00512%
WG-36 GELLING AGENT	Halliburton	Gelling Agent	Guar gum	9000-30-0	100%	0.13416%
Parasorb	Halliburton				100%	0.01348%
Ingredients Listed Below This Line Are Part of the			1,2-Benzisothiazolin-3-one	2634-33-5	0%	0%
			2,7-Naphthalenedisulfonic acid, 3-hydroxy-4-[(4-sulfor-1-naphthalenyl) azo] -, trisodium salt	915-67-3	0%	0%
			Acetic acid	64-19-7	0%	0%
			Acetic anhydride	108-24-7	0%	0%
			Amine salts	Confidential Business Information	0%	0%
			Amine salts	Confidential Business Information	0%	0%
			Bentonite, benzyl (hydrogenated tallow alkyl) dimethylammonium stearate complex	121888-68-4	0%	0%
			C.I. Pigment Red 5	6410-41-9	0%	0%
			Calcium chloride	10043-52-4	0%	0%
			Citric acid	77-92-9	0%	0%
			Crystalline Silica, Quartz	14808-60-7	0%	0%
			Cured acrylic resin	Confidential Business Information	0%	0%
			Cured acrylic resin	Confidential Business Information	0%	0%
			Enzyme	Confidential Business Information	0%	0%
			Enzyme	Confidential Business Information	0%	0%
			Quaternary amine	Confidential Business Information	0%	0%
			Quaternary amine	Confidential Business Information	0%	0%
			Quaternary amine	Confidential Business Information	0%	0%
			Silica gel	112926-00-8	0%	0%
			Sodium chloride	7647-14-5	0%	0%
			Surfactant mixture	Confidential Business Information	0%	0%
			Surfactant mixture	Confidential Business Information	0%	0%
			Trimethylamine, N-oxide	1184-78-7	0%	0%
			Water	7732-18-5	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: Stormi Davis Title: Regulatory Analyst

Date: 9/16/2014

E-mail Address: sdavis@conchoresources.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.