

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 8, 2013

1. WELL API NO:
30-015-43033

2. Well Name:
BOSE IKARD 4 STATE COM #015H

3. Well Number:
015H

HYDRAULIC FRACTURING FLUID DISCLOSURE

☒ Original

☐ Amendment

4. Surface Hole Location:
Unit:L Lot:L Section:4 Township:17S Range:29E
Feet from:2140 N/S Line:S EW Line:W
Feet from:150

5. Bottom Hole Location:
Unit:L Lot:L Section:4 Township:17S Range:29E
Feet from:2289 N/S Line:S E/W Line:E
Feet from:382

6. latitude: 32.8623404725193 longitude: -104.087956659274

7. County:
Eddy

8. Operator Name and Address:
COG OPERATING LLC
One Concho Center
800 W. Illinois Ave
Midland 79701

9. OGRID:
229137

10. Phone Number:
432-685-4332

11. Last Fracture Date: 1/29/2016 Frac Performed by: Halliburton

12. Production Type:
O

13. Pool Code(s):
96610

14. Gross Fractured Interval:
4,325 ft to 8,637 ft

15. True Vertical Depth (TVD):
4,030 ft

16. Total Volume of Fluid Pumped:
3,655,371 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%	77.15912%
HYDROCHLORIC ACID	Halliburton	Base Fluid	Hydrochloric acid	NA	0%	0%
BE-9W, FE-1A ACIDIZING COMPOSITION, FE-2A, FR-66,	Halliburton	Additive, Biocide, Breaker, Concentrate, Corrosion Inhibitor, Friction Reducer, Gelling Agent, Propp	NA	NA	0%	0%
Scalechek(R) SCP-2 Scale Inhibitor, WG-36 GELLING	Halliburton		NA	NA	0%	0%
CAT 106 SI	Catalyst	Activator	NA	NA	0%	0%
			1,2-Benzisothiazolin-3-one	2634-33-5	0.1%	0%
			Acetic acid	64-19-7	60%	0.01001%
			Acetic anhydride	108-24-7	100%	0.01669%
			Alcohols ethoxylated	Confidential	5%	0.00148%
			Alcohols, C14-C15, ethoxylated	68951-67-7	30%	0.00083%
			Alkane	Confidential	1%	0.0004%
			Amide	Confidential	5%	0.00148%
			Ammonium chloride	12125-02-9	5%	0.00148%
			Bentonite, benzyl(hydrogenated tallow alkyl) dimethylammonium stearate complex	121888-68-4	5%	0.00441%
			C.I. Pigment Red 5	6410-41-9	1%	1E-06%
			Calcium chloride	10043-52-4	0.1%	0%
			Citric acid	77-92-9	60%	0.01039%
			Complex alkylamine	Confidential	5%	0.002%
			Crystalline silica, quartz	14808-60-7	100%	7.79119%
			Crystalline Silica, Quartz	14808-60-7	0.1%	9E-05%
			Cured acrylic resin	Confidential	30%	0.00038%
			Enzyme	Confidential	5%	8E-05%
			Ethylenediaminetetraacetic acid, tetrasodium salt	64-02-8	0.01%	0%
			Fatty acids, tall oil	Confidential	30%	0.00083%
			Glassy calcium magnesium phosphate	65997-17-3	100%	0.01435%
			Glycerine	56-81-5	10%	0.004%
			Guar gum	9000-30-0	100%	0.08811%
			Hexamethylenetetramine	100-97-0	2%	0.01916%
			Hydrochloric acid	7647-01-0	60%	8.85924%
			Hydrogen peroxide	7722-84-1	0.01%	0%
			Hydrotreated light petroleum distillate	64742-47-8	30%	0.00885%
			Methanol	67-56-1	60%	0.00166%
			Nitrotriactic acid, trisodium salt monohydrate	5064-31-3	0.01%	0%
			Olefins	Confidential	5%	0.00033%
			Phenol / formaldehyde resin	9003-35-4	5%	0.0479%
			Phosphate	Proprietary	15%	0.00485%
			Poly(oxy-1,2-ethanediyl), alpha -isodecyl- omega -hydroxy-	61827-42-7	30%	0.01201%
			Polyacrylamide copolymer	Confidential	30%	0.00885%
			Propargyl alcohol	107-19-7	10%	0.00028%
			Propylene glycol	57-55-6	60%	0.02333%
			Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide	68527-49-1	30%	0.00083%
			Silica gel	112926-00-8	1%	0.00088%
			Sodium bicarbonate	144-55-8	0.01%	0%
			Sodium chloride	7647-14-5	30%	0.00151%
			Sodium glycolate	2836-32-0	0.01%	0%
			Sodium hydroxide	1310-73-2	0.01%	0%
			Sodium perborate tetrahydrate	10486-00-7	100%	0.00332%
			Sorbitan monooleate	9005-65-6	1%	0.0003%
			polyoxyethylene derivative			
			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8	1%	0.0003%
			Surfactant mixture	Confidential	1%	0.00176%
			Tributyl tetradecyl phosphonium chloride	81741-28-8	10%	0.00389%
			Walnut hulls	NA	100%	0.00123%
			Water	7732-18-5	100%	14.87682%

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: Chasity Jackson Title: Regulatory Analyst

Date: 3/3/2016

E-mail Address: cjackson@conchoresources.com

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