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 February 15, 2012

1. WELL API NO.
30-015-41412

2. Well Name:
JAMES RANCH UNIT #148H

3. Well Number:
148H

HYDRAULIC FRACTURING FLUID DISCLOSURE

☒ Original

☐ Amendment

4. Surface Hole Location:
Unit:H Lot:H Section:36 Township:22S Range:30E
Feet from:2455 N/S Line:N
Feet from:660 E/W Line:E

5. Bottom Hole Location:
Unit:H Lot:H Section:36 Township:22S Range:30E
Feet from:2455 N/S Line:N
Feet from:660 E/W Line:E

6. latitude: 32.3490499965591 longitude: -103.827762479688

7. County:
Eddy

8. Operator Name and Address:
BOPCO, L.P.
6 Desta Drive, Ste 3700
P. O. Box 2760
Midland 79702

9. OGRID: 260737

10. Phone Number: 432-683-2277

11. Last Fracture Date: 8/14/2013 Frac Performed by: Cudd Energy Services

12. Production Type:
O

13. Pool Code(s):
40295

14. Gross Fractured Interval:
Confidential

15. True Vertical Depth (TVD):
11,160 ft

16. Total Volume of Fluid Pumped:
2,263,367 gals

17. **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		Carrier / Base Fluid		7732-18-5	100%	82.84819%
Sand		Proppant	Silicon Dioxide	14808-60-7	100%	6.42481%
BF-200	ASK	Buffer	Potassium Hydroxide	1310-58-3	25%	0.02786%
			Water	7732-18-5	80%	0.08916%
AGA-380	Chemplex, L.C.	Acid Gellant	Acetic Acid	64-19-7	1%	7E-05%
			Sodium Bisulfite (Trade Secret)	7631-90-5	64%	0.00456%
			Petroleum Distillate	64742-47-8	35%	0.00249%
FR-601	SNF	Friction Reducer	Copolymer of acrylamide and sodium acrylate	25987-30-8	100%	0.04866%
			Isoparaffinic Solvent	64742-47-8	100%	0.04866%
			Water	7732-18-5	100%	0.04866%
			Nonylphenol	9016-45-9	100%	0.04866%
			Sorbitan Monooleate	1338-43-8	100%	0.04866%
CS-14	Chemplex, L.C.	Clay Control	Non-hazardous salts(Choline)	Proprietary	66%	0.03047%
			Water	7732-18-5	45%	0.02078%
15% Hydrochloric Acid	Reagent	Scale Dissolver	37% Hydrochloric Acid	7647-01-0	15%	1.11545%
			Water	7732-18-5	85%	6.32087%
I-122	Chemplex,L.C.	Acid Corrosion Inhibitor	Methonol	67-56-1	70%	0.00476%
			Propargyl alcohol	107-19-7	8%	0.00095%
			Alcohol Ethoxylate Surfactants	Trade Secret	30%	0.00357%
			n-olefins	Trade Secret	10%	0.00119%
			thiourea-formaldehyde copolymer	68527-49-1	30%	0.00357%
SG-15G	PfP Technology	Polymer	Guar Gum	9000-30-0	50%	0.22476%
			Petroleum Distillate (Mineral Oil)	64742-47-8	55%	0.24724%
			Bentonite Clay	14808-60-7	2%	0.00899%
			Surfactant	68439-51-0	2%	0.00899%
CX-10	Benchmark	Crosslinker	Sodium Borate Decahydrate	1303-96-4	29.9%	0.02516%
			Water	7732-18-5	69.1%	0.05815%
GB-2	Fritz Industries, Inc.	Breaker	Ammonium Persulfate	7727-54-0	99.9%	0.00053%
EGB-16LT	Fritz Industries, Inc.	Breaker	Ammonium Persulfate	7727-54-0	99.9%	0.0043%
			Silica, Crystalline-Quartz	14808-60-7	10%	0.00043%
NE-227	CESI	Non-emulsifier	Isopropanol	67-63-0	15%	0.00627%
			Methanol	67-56-1	15%	0.00627%
			Ethoxylated Nonylphenol	9016-45-9	20%	0.00836%
FE-4	Chemplex, L.C.	Iron Control Additive	Citric Acid Anhydrous	77-92-9	55%	0.02251%
			Water	7732-18-5	55%	0.02251%
Garnett,Pearl RCS	Preferred Sands	RCS Proppants	Quartz(SiO2)	14808-60-7	98%	2.32939%
			Polyurethane Resin	Proprietary	5%	0.11885%
			Colorant	Proprietary	1%	0.02377%
Parasorb 5000	Baker Hughes, Inc.	Paraffin Inhibitor	Diatomaceous earth, calcined	91053-39-3	60%	0.04034%
			Mineral Oil	8042-47-5	30%	0.02017%
			Crystalline silica: Quartz(SiO2)	14808-60-7	1%	0.00067%

18. 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: Rosie Cobos Title: Engineering Tech

Date: 9/17/2013

E-mail Address: rcobos@basspet.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.