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.
30-039-31181

2. Well Name:
NCRA STATE #007A

3. Well Number:
007A

HYDRAULIC FRACTURING FLUID DISCLOSURE

☒ Original

☐ Amendment

4. Surface Hole Location:
Unit:A Lot:A Section:16 Township:24N Range:06W
Feet from:1181 N/S Line:N
Feet from:666 E/W Line:E

5. Bottom Hole Location:
Unit:A Lot: Section:16 Township:24N Range:06W
Feet from:1181 N/S Line:N
Feet from:666 E/W Line:E

6. latitude: 36.31675 longitude: -107.46696

7. County:
Rio Arriba

8. Operator Name and Address:
LOGOS OPERATING, LLC
4001 N. Butler, Bldg 7101
Farmington 87401

9. OGRID: 289408

10. Phone Number: 832-794-1355

11. Last Fracture Date: 6/21/2013 Frac Performed by: Calfrac

12. Production Type:
O

13. Pool Code(s):
17610

14. Gross Fractured Interval:
5,278 ft to 5,783 ft

15. True Vertical Depth (TVD):
5,704 ft

16. Total Volume of Fluid Pumped:
389,250 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)
Sand (Proppant)	CWS	Propping Agent	Silicon Dioxide	14808-60-7	100%	8.06899%
DWP-621	CWS	Friction Reducer	No Hazardous Materials	NA	100%	0.08194%
DWP-913	CWS	Clay Control	No Hazardous Materials	NA	100%	0.0782%
DWP-942	CWS	Foamer	Ammonium C-10 alkyl ether sulphate	68891-29-2	60%	0.09378%
			Hexylene Glycol	107-41-5	30%	0.04689%
			Ethoxylated alcohols	71060-57-6	3%	0.00469%
			Ammonium sulphate	7783-20-2	1.5%	0.00234%
BioClear 2000	CWS	Biocide	2,2-Dibromo-3-Nitrilopropionamide	10222-01-2	40%	0.00897%
DAP-901	CWS	Scale Inhibitor	Methanol	67-56-1	30%	0.00605%
			Phosphoric Acid ammonium salt	Proprietary	5%	0.00101%
			Ammonium Chloride	12125-02-9	10%	0.00202%
			Organic phosphonate	Proprietary	30%	0.00605%
			Amine salt	Proprietary	5%	0.00101%
			Oxyalkylated polyamine	Proprietary	5%	0.00101%
DAP-925	CWS	Acid Corrosion Inhibitor	Modified Thiourea Polymer	68527-49-1	30%	0.00018%
			Fatty Acids	Proprietary	30%	0.00018%
			Methanol	67-56-1	60%	0.00035%
			Propargyl Alcohol	107-19-1	10%	6E-05%
			Olefin	Proprietary	5%	3E-05%
			Polyoxyalkylenes	Proprietary	30%	0.00018%
Hydrochloric Acid	CWS	Acid	Hydrochloric Acid	7647-01-0	37%	0.52955%
Water	Customer	Base Fluid	Water	7732-18-5	100%	90.14017%

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: Tamra Sessions Title: Operations Technician

Date: 11/13/2013

E-mail Address: tsessions@logosresourcesllc.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.