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.
30-015-41637

2. Well Name:
HORSESHOE STATE #002

3. Well Number:
002

HYDRAULIC FRACTURING FLUID DISCLOSURE

☒ Original

☐ Amendment

4. Surface Hole Location:
Unit:F Lot:F Section:30 Township:17S Range:28E
Feet from:1655 N/S Line:N
Feet from:2310 E/W Line:W

5. Bottom Hole Location:
Unit:F Lot:F Section:30 Township:17S Range:28E
Feet from:1655 N/S Line:N
Feet from:2310 E/W Line:W

6. latitude: 32.8077575161759 longitude: -104.216132381721

7. County:
Eddy

8. Operator Name and Address:
LRE OPERATING, LLC
1111 Bagby
Suite 4600
Houston 77002

9. OGRID: 281994

10. Phone Number: 713-292-9517

11. Last Fracture Date: 11/7/2013 Frac Performed by: ELITE

12. Production Type:
O

13. Pool Code(s):
96836

14. Gross Fractured Interval:
3,280 ft to 4,490 ft

15. True Vertical Depth (TVD):
4,918 ft

16. Total Volume of Fluid Pumped:
270,354 gals

17. Total Volume of Re-Use Water Pumped:
0 gals

18. Percent of Re-Use Water in Fluid Pumped:
%

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	US SILICA	PROPPANT	SILICON DIOXIDE	14808-60-7	100%	9.84395%
RCS	MOMENTIVE	PROPPANT	SILICON DIOXIDE	14808-60-7	100%	2.40564%
15% HYDROCHLORIC ACID	CNR	ACID	HYDROCHLORIC ACID	7647-01-0	38.8%	1.86717%
CLAYMAX	CHEMPLEX, LC	CLAY CONTROL	CHOLINE CHLORIDE	67-48-1	62%	0.05136%
4-N-1 PLUS	CHEMPLEX, LC	IRON CONTROL	ACETIC ACID	64-19-7	80%	1E-05%
			METHANOL	67-56-1	10%	1E-05%
PLEXCIDE 24L	CHEMPLEX, LC	BIOCIDE	TETRAHYDRO-3, 5-DIMETHYL-2H-1,3,5-THIADAZINE-2-THIONE	533-74-4	24%	0.0071%
PLEXSET 730	CHEMPLEX, LC	ACTIVATOR	SECONDARY ALCOHOL ETHOXYLATE	84133-50-6	50%	1E-05%
PLEXSURF 580 ME	CHEMPLEX, LC	SURFACTANT	METHYL ALCOHOL	67-56-1	10%	0.00785%
			2-BUTOXYETHANOL	111-76-7	50%	0.03924%
FERRIPLEX 66	CHEMPLEX, LC	IRON CONTROL	ACETIC ACID	64-19-7	50%	0.01314%
			CITRIC ACID	77-92-9	30%	0.00789%
AMA-398	CHEMPLEX, LC	BIOCIDE	TETRAHYDRO-3, 5-DIMETHYL-2H-1,3,5-THIADAZINE-2-THIONE	533-74-4	98%	0.00147%
PLEXGEL 907 LE	CHEMPLEX, LC	POLYMER	GUAR GUM	9000-30-0	50%	0.21291%
			MINERAL OIL	64742-47-8	55%	0.23421%
			BENTONITE CLAY	14808-60-7	2%	0.00852%
			SURFACTANT	68439-51-0	2%	0.00852%
PLEXBOR 101	CHEMPLEX, LC	CROSSLINKER	ETHYLENE GLYCOL	107-21-1	9.99%	0.01102%
			POTASSIUM METABORATE	13709-94-9	30%	0.03309%
			POTASSIUM HYDROXIDE	1310-58-3	5%	0.00552%
PLEXGEL BREAKER 10L	CHEMPLEX, LC	BREAKER	MANNANASE ENZYMES	TRADE SECRET	2%	0.0004%
			SODIUM CHLORIDE	7647-14-5	15%	0.00302%
SODIUM PERSULFATE	CHEMPLEX, LC	BREAKER	SODIUM PERSULFATE	7775-27-1	98%	0.00297%
PLEXBREAK 150	CHEMPLEX, LC	NON-EMULSIFIER	COCAMIKE DIETHANOLAMEN	68603-42-9	30%	0.00012%
			DIETHANOLAMINE	111-42-2	20%	8E-05%
			METHYL ALCOHOL	67-56-1	50%	0.0002%
			TRADE SECRET	TRADE SECRET	5%	2E-05%
PLEXHIB 256	CHEMPLEX, LC	CORROSION INHIBITOR	METHYL ALCOHOL	67-56-1	70%	0.00536%
			PROPARGYL ALCOHOL	107-19-7	8%	0.00061%
			THIOUREA-FORMALDEHYDE COPOLYMER	68527-49-1	30%	0.0023%
			ALCOHOL ETHOXYLATE SURFACTANTS	TRADE SECRET	30%	0.0023%
			N-OLEFINS	TRADE SECRET	10%	0.00077%
PLEXSURF 240 E	CHEMPLEX, LC	SURFACTANT	METHYL ALCOHOL	67-56-1	20%	0.00086%
			ALCOHOL ETHOXYLATE SURFACTANTS	TRADE SECRET	20%	0.00086%

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: Mike Pippin Title: Consultant

Date: 2/20/2014

E-mail Address: mike@pippinllc.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.