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.
30-015-33130

2. Well Name:
WILLIAMS A FEDERAL #004T

3. Well Number:
004T

HYDRAULIC FRACTURING FLUID DISCLOSURE

☒ Original

☐ Amendment

4. Surface Hole Location:
Unit:L Lot:L Section:29 Township:17S Range:28E
Feet from:1650 N/S Line:S
Feet from:330 E/W Line:W

5. Bottom Hole Location:
Unit:L Lot:L Section:29 Township:17S Range:28E
Feet from:1650 N/S Line:S
Feet from:330 E/W Line:W

6. latitude: 32.8023872512026 longitude: -104.20532194138

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: 2/7/2014 Frac Performed by: ELITE

12. Production Type:
O

13. Pool Code(s):
51300

14. Gross Fractured Interval:
1,780 ft to 2,600 ft

15. True Vertical Depth (TVD):
3,570 ft

16. Total Volume of Fluid Pumped:
145,698 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	ELITE	PROPPANT	SILICON DIOXIDE	14808-60-7	100%	7.11072%
RCS	ELITE	PROPPANT	SILICON DIOXIDE	14808-60-7	100%	2.46792%
AMA-398	CHEMPLEX, LC	BIOCIDE	TETRAHYDRO-3, 5-DIMETHYL-2H-1,3,5-THIADAZINE-2-THIONE	533-74-4	98%	0.01531%
SODIUM PERSULFATE	CHEMPLEX, LC	BREAKER	SODIUM PERSULFATE	7775-27-1	98%	0.00589%
CLAYMAS	CHEMPLEX, LC	CLAY CONTROL	CHOLINE CHLORIDE	67-48-1	62%	0.06485%
PLEXBOR 101	CHEMPLEX, LC	CROSSLINKER	ETHYLENE GLYCOL	107-21-1	9.99%	0.00967%
			POTASSIUM METABORATE	13709-94-9	30%	0.02906%
			POTASSIUM HYDROXIDE	1310-58-3	5%	0.00484%
PLEXGEL BREAKER 10L	CHEMPLEX, LC	BREAKER	MANNANASE ENZYMES	TRADE SECRET	2%	0.00069%
			SODIUM CHLORIDE	7647-14-5	15%	0.00518%
PLEXSET 730	CHEMPLEX, LC	ACTIVATOR	SECONDARY ALCOHOL ETHOXYLATE	TRADE SECRET	2%	0.00069%
			METHYL ALCOHOL	67-56-1	50%	0.04224%
15% HYDROCHLORIC ACID	CNR	ACID	36% HYDROCHLORIC ACID	7647-01-0	18.8%	0.10755%
PLEXGEL 907 LE	PFP TECHNOLOGY	GEL	GUAR GUM	9000-30-0	50%	0.2464%
			MINERAL OIL	64742-47-8	55%	0.27104%
			BENTONITE CLAY	14808-60-7	2%	0.00986%
			SURFACTANT	68439-51-0	2%	0.00986%
PLEXSURF 580 ME	CHEMPLEX, LC	SURFACTANT	METHYL ALCOHOL	67-56-1	10%	0.01002%
			2-BUTOXYETHANOL	111-76-7	50%	0.05009%
4-N-1	CHEMPLEX, LC	ACIDIZING AGENT	2-ETHYLHEXANOL	104-76-7	10%	0.0039%
			ACITIC ACID	64-19-7	85%	0.03314%
			ALCOHOL ETHOXYLATE SURFACTANTS	TRADE SECRET	2%	0.00078%
			COCAMIKE DIETHANOLAMINE SALT	68603-42-9	2%	0.00078%
			DIETHANOLAMINE	111-42-2	2%	0.00078%
			METHYL ALCOLHOL	67-56-1	0.1%	0.0039%
			N-OLEFINS	TRADE SECRET	0.01%	0.00039%
			PROPARGYL ALCOHOL	107-19-7	0.01%	0.00039%
			THIOUREA-FORMALDEHYDE COPOLYMER	68527-49-1	0.02%	0.00078%

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: 2/19/2014

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.