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. 30-015-43468

2. Well Name: TONY FEDERAL #049

3. Well Number: 049

HYDRAULIC FRACTURING FLUID DISCLOSURE

☒ Original

☐ Amendment

4. Surface Hole Location:
Unit:J Lot:J Section:18 Township:17S Range:31E
Feet from:1815 N/S Line:S
Feet from:1535 E/W Line:E

5. Bottom Hole Location:
Unit:J Lot:J Section:18 Township:17S Range:31E
Feet from:1815 N/S Line:S
Feet from:1535 E/W Line:E

6. latitude: 32.832105 longitude: -103.904941

7. County: Eddy

8. Operator Name and Address:
APACHE CORP
303 Veterans Airpark Lane
Suite 3000
Midland 79705

9. OGRID: 873

10. Phone Number: 432-818-1062

11. Last Fracture Date: 8/8/2016 Frac Performed by: ROCK PILE

12. Production Type: O

13. Pool Code(s): 96831

14. Gross Fractured Interval: 4,652 ft to 5,994 ft

15. True Vertical Depth (TVD): 6,445 ft

16. Total Volume of Fluid Pumped: 4,940,144 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	Carrier Fluid	Water	7732-18-5	100%	85.5840872%
Proppant (Sand)	RockPile Energy	Propping Agent	Crystalline Silica, quartz	14808-60-7	100%	9.5920272%
Ecopol-NE601	RockPile Energy	Non-emulsifying Agent	Coconut Diethanolamide	68603-42-9	25%	0.0003437%
Ecopol-NE601	RockPile Energy	Non-emulsifying Agent	Methanol	64-17-5	50%	0.0006873%
Ecopol-NE601	RockPile Energy	Non-emulsifying Agent	Triethylene Glycol	112-27-6	15%	0.0002062%
Ecopol-NE601	RockPile Energy	Non-emulsifying Agent	Water	7732-18-5	30%	0.0004124%
15% HCl	RockPile Energy	Acid	Hydrochloric Acid	7647-01-0	15%	0.2543613%
15% HCl	RockPile Energy	Acid	Water	7732-18-5	85%	1.4413809%
Citric Acid	Univar	Acid Additive	Water	7732-18-5	65%	0.0023826%
Citric Acid	Univar	Acid Additive	Citric Acid	77-92-9	50%	0.0018328%
Clayplex 650	Chemplex	Clay Contol	Ethananminium, 2-hydroxy-N, N, N-trimethyl-, chloride	67-48-1	35%	0.0031276%
Clayplex 650	Chemplex	Clay Contol	Water	7732-18-5	55%	0.0049148%
Plexslick 953	Chemplex	Friction Reducer	Distillates, Petroleum, Hydrotreated Light	64742-47-8	19%	0.0063414%
Plexgel 907L-EB	Chemplex	Gel	Guar Gum	9000-30-0	55%	0.0606796%
Plexgel 907L-EB	Chemplex	Gel	Distillates, Petroleum, Hydrotreated Light	64742-47-8	35%	0.0386143%
Plexcide 15g	Chemplex	Biocide	Glutaraldehyde	111-30-8	20%	0.0020132%
Plexcide 15g	Chemplex	Biocide	Didecyldimethylammonium Chloride	7173-51-5	3%	0.000302%
Plexcide 15g	Chemplex	Biocide	Quarternary Ammonium Compounds, Benzyl-C12-C16-alkyldimethyl, Chlorides	68424-85-1	3%	0.000302%
AP Surf 2	Blentech	Surfactant	isopropyl alcohol	67-63-0	45%	0.0156363%
Plexbor 101	Chemplex	Instant Crosslinker	Ethylene Glycol	107-21-1	10%	0.0027011%
Plexbor 101	Chemplex	Instant Crosslinker	Potassium Hydroxide	1310-58-3	3.2%	0.0008508%
Plexbor 101	Chemplex	Instant Crosslinker	Diethylene glycol	111-46-6	50%	0.0135053%
Plexbor 101	Chemplex	Instant Crosslinker	Potassium Metaborate	13709-94-9	25%	0.0067527%
Greenhib 679	Chemplex	Scale Inhibitor	Scale inhibitor	Proprietary	40%	0.011034%
Greenhib 679	Chemplex	Scale Inhibitor	Glycerine	56-81-5	30%	0.0082755%
Ammonium Persulfate	Chemplex	Breaker	Ammonium Persulfate	7727-54-0	98%	0.0003372%

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: Emily Follis Title: Sr Prod Dept Asst

Date: 8/30/2016

E-mail Address: emily.follis@apachecorp.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.