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. 30-025-41438
2. Well Name: BETTIS 20 STATE COM #004H
3. Well Number: 004H

HYDRAULIC FRACTURING FLUID DISCLOSURE

☒ Original

☐ Amendment

4. Surface Hole Location: Unit:N Lot:N Section:20 Township:24S Range:33E Feet from:200 N/S Line:S Feet from:1670 E/W Line:W
5. Bottom Hole Location: Unit:C Lot:3 Section:20 Township:24S Range:33E Feet from:330 N/S Line:N Feet from:1690 E/W Line:W
6. latitude: 32.196453083905 longitude: -103.597478774976
7. County: Lea

8. Operator Name and Address: MURCHISON OIL & GAS INC, 1100 Mira Vista Blvd., Plano 75093
9. OGRID: 15363
10. Phone Number: 972-931-0700
11. Last Fracture Date: 7/31/2014 Frac Performed by: Baker Hughes
12. Production Type: O
13. Pool Code(s): 96674
14. Gross Fractured Interval: Confidential
15. True Vertical Depth (TVD): 11,179 ft
16. Total Volume of Fluid Pumped: 3,672,396 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)
Water	Operator	Carrier	Water	7732-18-5	100%	86.75093%
HCl, 7.6 - 10%	Baker Hughes	Acidizing	Hydrochloric Acid	7647-01-0	10%	0.12104%
			Water	7732-18-5	90%	1.08933%
Activator, 330 gal tote	Baker Hughes	Activator	Alcohols, C12-14-Secondary, Ethoxylated	84133-50-6	70%	0.02503%
			Methanol	67-56-1	50%	0.01788%
Alpha 125	Baker Hughes	Biocide	Glutaraldehyde	111-30-8	30%	0.00769%
GBW-5	Baker Hughes	Breaker	Ammonium persulphate	7727-54-0	100%	0.00044%
High Perm CRB	Baker Hughes	Breaker	Ammonium Persulphate	7727-54-0	100%	0.00697%
Clay Master-5C	Baker Hughes	Clay Control	Oxyakylated Amine Quat	Trade Secret	60%	0.03516%
ClayCare, ClayTreat-2C, 330 gl tote	Baker Hughes	Clay Control	Choline Chloride	67-48-1	75%	0.07861%
			Water	7732-18-5	30%	0.03144%
CI-27	Baker Hughes	Corrosion Inhibitor	Fatty Acids	Trade Secret	30%	0.00071%
			Methanol	67-56-1	60%	0.00142%
			Olefin	Trade Secret	5%	0.00012%
			Polyoxyalkylenes	Trade Secret	30%	0.00071%
			Propargyl Alcohol	107-19-7	10%	0.00024%
			Thiourea Polymer	68527-49-1	30%	0.00071%
XLW-10A	Baker Hughes	Crosslinker	Ethylene Glycol	107-21-1	30%	0.02567%
			Sodium Hydroxide	1310-73-2	10%	0.00856%
			Sodium Tetraborate Decahydrate	1303-96-4	30%	0.02567%
MaxPerm-20A, 265 gallon tote	Baker Hughes	Friction Reducer	Oxyalkylated Alcohol	Trade Secret	5%	0%
			Petroleum Distillates	64742-47-8	30%	2E-05%
			Polyacrylate	Trade Secret	60%	5E-05%
			Sodium Chloride	7647-14-5	3%	0%
AG-12, 330 gl tote	Baker Hughes	Gelling Agent	Acrylic Polymers	Trade Secret	60%	0.0052%
			Distillates, Petroleum, Hydrotreated middle	64742-47-8	30%	0.0026%
GW-4D	Baker Hughes	Gelling Agent	Guar Gum	9000-30-0	100%	0.22429%
NE-35, 330 gl tote	Baker Hughes	Non-emulsifier	Mixture of Surfactants	Trade Secret	50%	0.04484%
			Propylene Glycol	57-55-6	30%	0.0269%
Parasorb 5000, bag	Baker Hughes	Paraffin Inhibitor	Calcined Diatomaceous Earth	91053-39-3	60%	0.01367%
			Silica, Crystalline-Quartz	14808-60-7	1%	0.00023%
			White Mineral Oil	8042-47-5	30%	0.00684%
Sand, White, 30/50	Baker Hughes	Proppant	Crystalline Silica (Quartz)	14808-60-7	100%	9.23865%
Sand, White, 100 mesh	Baker Hughes	Proppant	Crystalline Silica (Quartz)	14808-60-7	100%	0.3025%
OilPlus Bulk (30/50)	Baker Hughes	Proppant	Quartz (Silica)	14808-60-7	100%	1.80147%
Scaletrol 720, 330 gl tote	Baker Hughes	Scale Inhibitor	Calcium Chloride	10043-52-4	5%	0.00161%
			Ethylene Glycol	107-21-1	30%	0.00968%
Ingredients shown above are subject to 29 CFR 1910			Cured Resin	Trade Secret	0%	0.0016722%
			Diester of Sulfosuccinic Acid Sodium Salt	2673-22-5	0%	8.66E-05%
			Fatty Acid Esters	67701-32-0	0%	0.0001732%
			Fatty Acid Oxyalkylate	70142-34-6	0%	8.66E-05%
			Formaldehyde	50-00-0	0%	1.2E-06%
			Methanol	67-56-1	0%	6.41E-05%
			Oleate Ester	1338-43-8	0%	2.3E-06%
			Oxyalkylated alkylphenol	Trade Secret	0%	0.0004329%
			Polyacrylate	Trade Secret	0%	0.0064521%
			Polysorbate	9005-65-6	0%	2.3E-06%
			Potassium Chloride	7447-40-7	0%	1.61E-05%
			Sodium Chloride	7647-14-5	0%	0.0013694%
			Vinyl Acetate Ethalene Copolymer	24937-78-8	0%	0.0045578%
			Water	7732-18-5	0%	0.0781378%
			Xylene	1330-20-7	0%	8.66E-05%

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: Cindy Cottrell Title: Regulatory Coordinator

Date: 9/9/2014

E-mail Address: ccottrell@jdmii.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.