

|                                                                                                                                                    |                                                                                                                                            |                                                                                                                                                       |                                                       |                                        |                                                                |                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|----------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------|
| Submit within 45 days of well completion                                                                                                           | State of New Mexico<br>Energy, Minerals and Natural Resources<br>Oil Conservation Division<br>1220 S. St Francis Dr.<br>Santa Fe, NM 87505 | Revised November 6, 2013                                                                                                                              |                                                       |                                        |                                                                |                                                                |
|                                                                                                                                                    |                                                                                                                                            | 1. WELL API NO:<br>30-041-20969                                                                                                                       |                                                       |                                        |                                                                |                                                                |
|                                                                                                                                                    |                                                                                                                                            | 2. Well Name:<br>ANNAPURNA 20 #001H                                                                                                                   |                                                       |                                        |                                                                |                                                                |
|                                                                                                                                                    |                                                                                                                                            | 3. Well Number:<br>001H                                                                                                                               |                                                       |                                        |                                                                |                                                                |
| HYDRAULIC FRACTURING FLUID<br>DISCLOSURE<br><br><input checked="" type="checkbox"/> Original<br><br><input type="checkbox"/> Amendment             |                                                                                                                                            | 4. Surface Hole Location:<br>Unit:P    Lot:P    Section:17    Township:08S    Range:34E<br>Feet from:170    N/S Line:S<br>Feet from:355    E/W Line:E |                                                       |                                        |                                                                |                                                                |
|                                                                                                                                                    |                                                                                                                                            | 5. Bottom Hole Location:<br>Unit:P    Lot:P    Section:17    Township:08S    Range:34E<br>Feet from:170    N/S Line:S<br>Feet from:355    E/W Line:E  |                                                       |                                        |                                                                |                                                                |
|                                                                                                                                                    |                                                                                                                                            | 6. latitude:    longitude:<br>33.614217    -103.479567                                                                                                |                                                       |                                        |                                                                |                                                                |
|                                                                                                                                                    |                                                                                                                                            | 7. County:<br>Roosevelt                                                                                                                               |                                                       |                                        |                                                                |                                                                |
| 8. Operator Name and Address:<br>ROCKCLIFF OPERATING NEW MEXICO LLC<br>1301 McKinney<br>Suite 1300<br>Houston 77010                                |                                                                                                                                            | 9. OGRID:                                                                                                                                             | 371115                                                | 10. Phone Number:                      | 713-351-0549                                                   |                                                                |
| 11. Last Fracture Date:    12/8/2016    Frac Performed by:    ProFrac Services                                                                     |                                                                                                                                            | 12. Production Type:<br>O                                                                                                                             |                                                       |                                        |                                                                |                                                                |
| 13. Pool Code(s):<br>46950                                                                                                                         |                                                                                                                                            | 14. Gross Fractured Interval:<br>Confidential                                                                                                         |                                                       |                                        |                                                                |                                                                |
| 15. True Vertical Depth (TVD):<br>4,594 ft                                                                                                         |                                                                                                                                            | 16. Total Volume of Fluid Pumped:<br>7,437,822 gals                                                                                                   |                                                       |                                        |                                                                |                                                                |
| 17. Total Volume of Re-Use Water Pumped:<br>N/A                                                                                                    |                                                                                                                                            | 18. Percent of Re-Use Water in Fluid Pumped:<br>Not Disclosed                                                                                         |                                                       |                                        |                                                                |                                                                |
| 19. HYDRAULIC FLUID COMPOSITION AND CONCENTRATION:                                                                                                 |                                                                                                                                            |                                                                                                                                                       |                                                       |                                        |                                                                |                                                                |
| Trade Name                                                                                                                                         | Supplier                                                                                                                                   | Purpose                                                                                                                                               | Ingredients                                           | (CAS #) Chemical Abstract<br>Service # | Maximum Ingredient<br>Concentration in Additive (% by<br>mass) | Maximum Ingredient<br>Concentration in HF Fluid (% by<br>mass) |
| Water                                                                                                                                              | Operator                                                                                                                                   | Base Fluid                                                                                                                                            | Water                                                 | 7732-18-5                              | 100%                                                           | 89.1%                                                          |
| Proppant                                                                                                                                           | ProFrac Services                                                                                                                           | Proppant                                                                                                                                              | Crystalline Silica                                    | 14808-60-7                             | 100%                                                           | 10.56351%                                                      |
| HCL > 10%, ProHib 100,<br>ProSurf 100, ProFE 105                                                                                                   | ProFrac Services                                                                                                                           | Solvent, Corrosion<br>Inhibitor, Iron<br>Chelator, Non-<br>Emulsifier                                                                                 | Hydrogen chloride                                     | 7647-01-0                              | 36%                                                            | 0.32984%                                                       |
|                                                                                                                                                    |                                                                                                                                            |                                                                                                                                                       | Methanol                                              | 67-56-1                                | 100%                                                           | 0.00209%                                                       |
|                                                                                                                                                    |                                                                                                                                            |                                                                                                                                                       | Fatty Acids, Tall-Oil,<br>Ethoxylated                 | Proprietary                            | 10%                                                            | 0.00021%                                                       |
|                                                                                                                                                    |                                                                                                                                            |                                                                                                                                                       | Fatty Acids, Tall-Oil                                 | Proprietary                            | 10%                                                            | 0.00021%                                                       |
|                                                                                                                                                    |                                                                                                                                            |                                                                                                                                                       | Thiourea, P/W<br>formaldehyde and<br>1-phenylethanone | 68527-49-1                             | 4.99%                                                          | 0.0001%                                                        |
|                                                                                                                                                    |                                                                                                                                            |                                                                                                                                                       | Hydrochloric Acid                                     | 7647-01-0                              | 5%                                                             | 0.0001%                                                        |
|                                                                                                                                                    |                                                                                                                                            |                                                                                                                                                       | Potassium Acetate                                     | 127-08-2                               | 5%                                                             | 0.0001%                                                        |
|                                                                                                                                                    |                                                                                                                                            |                                                                                                                                                       | Formaldehyde                                          | 50-00-0                                | 1%                                                             | 2E-05%                                                         |
|                                                                                                                                                    |                                                                                                                                            |                                                                                                                                                       | Sodium Hydroxide                                      | 1310-73-2                              | 1%                                                             | 1E-05%                                                         |
|                                                                                                                                                    |                                                                                                                                            |                                                                                                                                                       | Benzenesulfonic<br>Acid                               | Proprietary                            | 10%                                                            | 8E-05%                                                         |
|                                                                                                                                                    |                                                                                                                                            |                                                                                                                                                       | Glacial Acetic                                        | 64-19-7                                | 1%                                                             | 1E-05%                                                         |
|                                                                                                                                                    |                                                                                                                                            |                                                                                                                                                       | Sulfuric Acid                                         | 7664-93-9                              | 0.1%                                                           | 0%                                                             |
|                                                                                                                                                    |                                                                                                                                            |                                                                                                                                                       | Benzene, alkyl<br>Derivs                              | Proprietary                            | 0.1%                                                           | 0%                                                             |
|                                                                                                                                                    |                                                                                                                                            |                                                                                                                                                       | Sulphur Dioxide                                       | 7446-09-5                              | 0.1%                                                           | 0%                                                             |
|                                                                                                                                                    |                                                                                                                                            |                                                                                                                                                       | Acetic Acid                                           | 64-19-7                                | 50%                                                            | 0.00041%                                                       |
| APGel Break 100                                                                                                                                    | Apex Resources                                                                                                                             | Breaker                                                                                                                                               | Ammonium<br>Persulphate                               | 727-54-0                               | 100%                                                           | 0.15703%                                                       |
| APFR 60A                                                                                                                                           | Apex Resources                                                                                                                             | Friction Reducer                                                                                                                                      | Distillates, Hydro<br>Treated Light                   | 64742-47-8                             | 28%                                                            | 8.38216%                                                       |
|                                                                                                                                                    |                                                                                                                                            |                                                                                                                                                       | Alcohols, C12-16,<br>Ethoxylated                      | 68551-12-2                             | 3%                                                             | 0.89809%                                                       |
|                                                                                                                                                    |                                                                                                                                            |                                                                                                                                                       | Alcohols, C10-16,<br>Ethoxylated                      | 68002-97-1                             | 3%                                                             | 0.89809%                                                       |
|                                                                                                                                                    |                                                                                                                                            |                                                                                                                                                       | Alkyl (C12-C14)<br>alcohol, Ethoxylated<br>>2-10 EO   | 68439-50-9                             | 3%                                                             | 0.89809%                                                       |
| 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:    Brian Wood                                                                                 |                                                                                                                                            | Title:    Regulatory Consultant                                                                                                                       |                                                       |                                        |                                                                |                                                                |
| Date:    1/2/2017                                                                                                                                  |                                                                                                                                            |                                                                                                                                                       |                                                       |                                        |                                                                |                                                                |
| E-mail Address:    brian@permitswest.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.