

Hydraulic Fracturing Fluid Product Component Information Disclosure

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|--------------------------------|--------------------------------|
| Job Start Date: | 2/14/2017 |
| Job End Date: | 2/21/2017 |
| State: | Texas |
| County: | Loving |
| API Number: | 42-301-33030-00-00 |
| Operator Name: | Anadarko Petroleum Corporation |
| Well Name and Number: | YOKUM UL UNIT 19-4 3H |
| Latitude: | 31.72169500 |
| Longitude: | -103.44152400 |
| Datum: | NAD27 |
| Federal Well: | NO |
| Indian Well: | NO |
| True Vertical Depth: | 11,686 |
| Total Base Water Volume (gal): | 11,316,638 |
| Total Base Non Water Volume: | 0 |



Hydraulic Fracturing Fluid Composition:

| Trade Name | Supplier | Purpose | Ingredients | Chemical Abstract Service Number (CAS #) | Maximum Ingredient Concentration in Additive (% by mass)** | Maximum Ingredient Concentration in HF Fluid (% by mass)** | Comments |
|--|----------|--------------------|---|--|--|--|----------|
| WATER | ANADARKO | CARRIER/BASE FLUID | | | | | |
| | | | WATER | 7732-18-5 | 100.00000 | 88.39555 | |
| WHITE NORTHERN WHITE SANDS CORP 100 MESH | PUMPCO | PROPPING AGENT | | | | | |
| | | | CRYSTALLINE SILICA, QUARTZ | 14808-60-7 | 100.00000 | 11.20144 | |
| 15% HCL | PUMPCO | ACID | | | | | |
| | | | WATER | 7732-18-5 | 91.00000 | 0.24544 | |
| | | | HYDROCHLORIC ACID (HYDROGEN CHLORIDE) | 7647-01-0 | 36.00000 | 0.09710 | |
| PLEXSLICK 957 | PUMPCO | FRICTION REDUCER | | | | | |
| | | | PETROLEUM HYDROTREATED LIGHT DISTILLATE | 64742-47-8 | 20.00000 | 0.01700 | |
| PAYZONE 845 BCD | CATALYST | BIOCIDE | | | | | |
| | | | DIDECYL DIMETHYL AMMONIUM CHLORIDE | 7173-51-5 | 52.00000 | 0.00860 | |
| | | | ETHANOL | 64-17-5 | 12.00000 | 0.00198 | |
| PAYZONE 217SI-W | CATALYST | SCALE INHIBITOR | | | | | |

| | | | | | | | |
|------------------|----------|---------------|---|-------------|----------|---------|--|
| | | | METHYL ALCOHOL | 67-56-1 | 15.00000 | 0.00273 | |
| | | | PHOSPHONATE | Proprietary | 15.00000 | 0.00273 | |
| PAYZONE 850 THPS | CATALYST | BIOCIDE | | | | | |
| | | | TETRAKIS(HYDROXYMETHYL) PHOSPHONIUM SULFATE | 55566-30-8 | 50.00000 | 0.00427 | |
| STIM741 GEL | CATALYST | GELLING AGENT | | | | | |
| | | | SOLVENT NAPHTHA, PETROLEUM, HEAVY ALIPHATIC | 64742-96-7 | 55.00000 | 0.00202 | |
| | | | GUAR GUM | 9000-30-0 | 50.00000 | 0.00184 | |
| | | | ALCOHOL ETHOXYLATE | Proprietary | 5.00000 | 0.00018 | |
| CHEMPLEX 4-N-1 | PUMPCO | ACID | | | | | |
| | | | ACETIC ACID | 64-19-7 | 85.00000 | 0.00116 | |
| | | | METHANOL | 67-56-1 | 10.00000 | 0.00014 | |
| | | | WATER | 7732-18-5 | 5.00000 | 0.00007 | |

Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

* Total Water Volume sources may include fresh water, produced water, and/or recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)