

# Hydraulic Fracturing Fluid Product Component Information Disclosure: Maximum Ingredient Weight in Pounds Format



# BAKER HUGHES

|                                    |                 |
|------------------------------------|-----------------|
|                                    | 07/09/2012      |
| Last Fracture Date                 |                 |
| State:                             | California      |
| County:                            | Kern            |
| API Number:                        | 04-030-46760    |
| Operator Name:                     | Aera Energy Llc |
| Well Name and Number:              | 521R3-1         |
| Longitude:                         | -119.7763327    |
| Latitude:                          | 35.526445       |
| Long/Lat Projection:               | NAD83           |
| Production Type:                   | Oil             |
| True Vertical Depth (TVD):         | 1,590           |
| Total Chemical Mass (lbs)*:        | 1,014,287       |
| Total Max. Ingredient Mass (lbs)*: | 1,014,859       |
| Total Product Volume (gal)*:       | 98,702          |
| Total Water Volume (gal)*:         | 84,252          |

## Hydraulic Fracturing Fluid Composition:

| Trade Name | Supplier     | Purpose | Ingredients                            | Chemical Abstract Service Number (CAS #) | Maximum Ingredient Concentration in Additive (% by mass)** | Maximum Ingredient Weight in HF Fluid (lbs mass) | Comments |
|------------|--------------|---------|--|--|--|--|----------|
| Water      | Operator     | Carrier | Water                                  | 7732-18-5                                | 100.00%  | 702,476  |          |
| X-Cide 207 | Baker Hughes | Biocide | 2-Methyl-4-Isothiazolin-3-One          | 2682-20-4                                | 5.00%  | 1.800000   |          |
|            |              |         | 5-Chloro-2-Methyl-4-Isothiazolin-3-One | 26172-55-4                               | 10.00%   | 3.600000   |          |
|            |              |         | Crystalline Silica: Cristobalite       | 14464-46-1                               | 1.00%  | 0.360000   |          |
|            |              |         | Crystalline Silica: Quartz (SiO2)      | 14808-60-7                               | 1.00%  | 0.360000   |          |
|            |              |         | Diatomaceous Earth, Calcined           | 91053-39-3                               | 60.00%   | 21.600000  |          |
|            |              |         | Magnesium Chloride                     | 7786-30-3                                | 5.00%  | 1.800000   |          |

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\* Total Chemical Mass is the total amount of Trade Name volume, supplied to the customer, converted to pounds.

\* Total Max. Ingredient Mass is the summation of all masses listed in the Maximum Ingredient Weight (pounds) column.

\* Total Product Volume is the total amount of Water plus Trade Name volume in gallons supplied to the customer or Baker Hughes.

\* Total Water Volume is the total amount of water volume in gallons used on the hydraulic fracture treatment.

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

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