

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



BAKER HUGHES

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|------------------------------------|-----------------|
| | 07/06/2012 |
| Last Fracture Date | |
| State: | California |
| County: | Kern |
| API Number: | 04-030-47149 |
| Operator Name: | Aera Energy Llc |
| Well Name and Number: | Ellis 65X-19 |
| Longitude: | -119.7484427 |
| Latitude: | 35.4742494 |
| Long/Lat Projection: | NAD83 |
| Production Type: | Oil |
| True Vertical Depth (TVD): | 1,930 |
| Total Chemical Mass (lbs)*: | 993,955 |
| Total Max. Ingredient Mass (lbs)*: | 994,303 |
| Total Product Volume (gal)*: | 96,410 |
| Total Water Volume (gal)*: | 82,236 |

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% | 685,667 | |
| GBW-5 | Baker Hughes | Breaker | Ammonium Persulfate | 7727-54-0 | 100.00% | 40.000000 | SmartCare Product |
| Enzyme G-I | Baker Hughes | Breaker | Hemicellulase Enzyme Concentrate | 9025-56-3 | 3.00% | 11.005896 | SmartCare Product |
| | | | Water | 7732-18-5 | 97.00% | 355.857304 | |
| Clay Master-5C (Tote) | Baker Hughes | Clay Control | Oxyakylated Amine Quat | 138879-94-4 | 60.00% | 413.170800 | |
| XLW-10A | Baker Hughes | Crosslinker | Ethylene Glycol | 107-21-1 | 30.00% | 239.400000 | SmartCare Product |
| | | | Sodium Hydroxide | 1310-73-2 | 10.00% | 79.800000 | |

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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)