

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



BAKER HUGHES

	08/21/2012
Last Fracture Date	
State:	California
County:	Kern
API Number:	04-030-47744
Operator Name:	Aera Energy Llc
Well Name and Number:	927KR2-20
Longitude:	-119.7395498
Latitude:	35.4730685
Long/Lat Projection:	NAD83
Production Type:	Oil
True Vertical Depth (TVD):	2,160
Total Chemical Mass (lbs)*:	1,065,858
Total Max. Ingredient Mass (lbs)*:	1,066,488
Total Product Volume (gal)*:	104,895
Total Water Volume (gal)*:	90,426

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%	753,954	
GBW-5	Baker Hughes	Breaker	Ammonium Persulfate	7727-54-0	100.00%	60.000000	SmartCare Product
Enzyme G-I	Baker Hughes	Breaker	Hemicellulase Enzyme Concentrate	9025-56-3	3.00%	15.758442	SmartCare Product
			Water	7732-18-5	97.00%	509.522958	
Clay Master-5C (Tote)	Baker Hughes	Clay Control	Oxyakylated Amine Quat	138879-94-4	60.00%	637.463520	
XLW-10A	Baker Hughes	Crosslinker	Ethylene Glycol	107-21-1	30.00%	359.100000	SmartCare Product
			Sodium Hydroxide	1310-73-2	10.00%	119.700000	

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[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

* 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)