

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



**BAKER  
HUGHES**

	10/02/2012
Last Fracture Date	
State:	California
County:	Kern
API Number:	04-030-47529
Operator Name:	Aera Energy Llc
Well Name and Number:	Lost Hills One 6188A
Longitude:	-119.716497
Latitude:	35.6113255
Long/Lat Projection:	NAD83
Production Type:	Oil
True Vertical Depth (TVD):	2,640
Total Chemical Mass (lbs)*:	2,147,485
Total Max. Ingredient Mass (lbs)*:	2,149,632
Total Product Volume (gal)*:	234,091
Total Water Volume (gal)*:	219,030

## 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%	1,826,228	
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	

			Magnesium Nitrate	10377-60-3	10.00%	3.600000	
Enzyme G-I	Baker Hughes	Breaker	Hemicellulase Enzyme Concentrate	9025-56-3	3.00%	18.259782	SmartCare Product
			Water	7732-18-5	97.00%	590.399618	
BF-7L	Baker Hughes	Buffer	Potassium Carbonate	584-08-7	60.00%	2,369.892000	SmartCare Product
			Potassium Hydroxide	1310-58-3	1.00%	39.498200	
			Water	7732-18-5	60.00%	2,369.892000	
Clay Master-5C (Tote)	Baker Hughes	Clay Control	Oxyakylated Amine Quat	138879-94-4	60.00%	301.024440	
XLW-32, 260 gal tote	Baker Hughes	Crosslinker	Boric Acid (H3BO3)	10043-35-3	30.00%	144.960000	
			Methanol	67-56-1	60.00%	289.920000	
			Methyl Borate	121-43-7	30.00%	144.960000	
GW-3LDF	Baker Hughes	Gelling Agent	1-Butoxy-2-Propanol	5131-66-8	5.00%	198.577500	SmartCare Product
			Cyrstalline Silica, Quartz (SiO2)	14808-60-7	5.00%	198.577500	
			Guar Gum	9000-30-0	60.00%	2,382.930000	
			Isotridecanol, ethoxylated	9043-30-5	5.00%	198.577500	
			Paraffinic Petroleum Distillate	64742-55-8	30.00%	1,191.465000	
			Petroleum Distillates	64742-47-8	30.00%	1,191.465000	
Ferrotrol 300L	Baker Hughes	Iron Control	Citric Acid	77-92-9	60.00%	283.695210	SmartCare Product
Ferrotrol 300L (Totes)	Baker Hughes	Iron Control	Citric Acid	77-92-9	60.00%	31.521690	SmartCare Product
Sand, Brown, 8/40	Baker Hughes	Proppant	Crystalline Silica (Quartz)	14808-60-7	100.00%	311,080.000000	
ScaleSorb 3, (25# pail)	Baker Hughes	Scale Inhibitor	Amino Alkyl Phosphonic Acid	Trade Secret	30.00%	30.000000	SmartCare Product
			Crystalline Silica: Quartz (SiO2)	14808-60-7	1.00%	1.000000	
			Diatomaceous Earth, Calcined	91053-39-3	100.00%	100.000000	
			Phosphonic Acid	13598-36-2	1.00%	1.000000	
<b>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.</b>							
			2-Butoxy-1-Propanol	15821-83-7		3.177240	
			Water	7732-18-5		210.144600	

\* 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)