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

Last Fracture Date	10/05/2012
State:	California
County:	Kern
API Number:	04-030-48366
Operator Name:	Aera Energy Lic
Well Name and Number:	533A1-33
Longitude:	-119.7197662
Latitude:	35.4502985
Long/Lat Projection:	NAD83
Production Type:	Oil
True Vertical Depth (TVD):	860
Total Chemical Mass (Ibs)*:	302,779
Total Max. Ingredient Mass (Ibs)*:	302,925
Total Product Volume (gal)*:	28,782
Total Water Volume (gal)*:	24,108



## 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 (Ibs mass)	Comments
Water	Operator	Carrier	Water	7732-18-5	100.00%	201,008	
Enzyme G-I	Baker Hughes	Breaker	Hemicellulase Enzyme Concentrate	9025-56-3	3.00%	3.501876 Sr	martCare Product
			Water	7732-18-5	97.00%	113.227324	
Clay Master-5C (Tote)	Baker Hughes	Clay Control	Oxyakylated Amine Quat	138879-94-4	60.00%	141.658560	
XLW-10A	Baker Hughes	Crosslinker	Ethylene Glycol	107-21-1	30.00%	59.850000 Sr	martCare Product
			Sodium Hydroxide	1310-73-2	10.00%	19.950000	
			Sodium Tetraborate	1330-43-4	30.00%	59.850000	

GW-3LDF	Baker Hughes	Gelling Agent	1-Butoxy-2-Propanol	5131-66-8	5.00%	29.188500 SmartCare Product		
			Cyrstalline Silica, Quartz (SiO2)	14808-60-7	5.00%	29.188500		
			Guar Gum	9000-30-0	60.00%	350.262000		
			Isotridecanol, ethoxylated	9043-30-5	5.00%	29.188500		
			Paraffinic Petroleum Distillate	64742-55-8	30.00%	175.131000		
			Petroleum Distillates	64742-47-8	30.00%	175.131000		
Sand, White, 20/40	Baker Hughes	Proppant	Crystalline Silica (Quartz)	14808-60-7	100.00%	100,460.000000		
ScaleSorb 3, (25# pail)	Baker Hughes	Scale Inhibitor	Amino Alkyl Phosphonic Acid	Trade Secret	30.00%	52.500000 SmartCare Product		
			Crystalline Silica: Quartz (SiO2)	14808-60-7	1.00%	1.750000		
			Diatomaceous Earth, Calcined	91053-39-3	100.00%	175.000000		
			Phosphonic Acid	13598-36-2	1.00%	1.750000		
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.								
			2-Butoxy-1-Propanol	15821-83-7		0.467016		
			Water	7732-18-5		39.900000		

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

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

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

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

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

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