

## Hydraulic Fracturing Fluid Product Component Information Disclosure

Last Fracture Date	05/03/2012
State:	California
County:	Kern
API Number:	04-030-46895
Operator Name:	Aera Energy Llc
Well Name and Number:	533A6-35
Longitude:	-119.77967
Latitude:	35.53353
Long/Lat Projection:	NAD83
Production Type:	Oil
True Vertical Depth (TVD):	1,480
Total Water Volume (gal)*:	66,024

### Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Operator	Carrier	Water	7732-18-5	100.00%	78.13344%	
GBW-5	Baker Hughes	Breaker	Ammonium Persulfate	7727-54-0	100.00%	0.00568%	SmartCare Product
Enzyme G-I	Baker Hughes	Breaker	Hemicellulase Enzyme Concentrate	9025-56-3	3.00%	0.00114%	SmartCare Product
			Water	7732-18-5	97.00%	0.03673%	
Clay Master-5C (Tote)	Baker Hughes	Clay Control	Oxyakylated Amine Quat	138879-94-4	60.00%	0.05027%	
XLW-10A	Baker Hughes	Crosslinker	Ethylene Glycol	107-21-1	30.00%	0.02593%	SmartCare Product
			Sodium Hydroxide	1310-73-2	10.00%	0.00864%	
			Sodium Tetraborate	1330-43-4	30.00%	0.02593%	
GW-3LDF	Baker Hughes	Gelling Agent	Acyclic Hydrocarbon Blend	Trade Secret	60.00%	0.12958%	SmartCare Product
			Alcohols, C12-14, Ethoxylated Propoxylated	68439-51-0	5.00%	0.01080%	
			Crystalline Silica, Quartz	14808-60-7	5.00%	0.01080%	
			Guar Gum	9000-30-0	60.00%	0.12958%	
Sand, White, 20/40	Baker Hughes	Proppant	Crystalline Silica (Quartz)	14808-60-7	100.00%	14.41472%	
Sand, Brown, 20/40	Baker Hughes	Proppant	Crystalline Silica (Quartz)	14808-60-7	100.00%	6.92350%	
ScaleSorb 3, (25# pail)	Baker Hughes	Scale Inhibitor	Amino Alkyl Phosphonic Acid	Trade Secret	30.00%	0.00745%	SmartCare Product

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]


\* Total Water Volume sources may include fresh water, produced water, and/or recycled water  
\*\* 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)