

Hydraulic Fracturing Fluid Product Component Information Disclosure

Last Fracture Date	01/28/2012
State:	California
County:	Ventura
API Number:	04-111-21861
Operator Name:	Vintage Prod Of Cal
Well Name and Number:	Dryden 27
Longitude:	-118.92169
Latitude:	34.35838
Long/Lat Projection:	NAD27
Production Type:	Oil
True Vertical Depth (TVD):	3,974
Total Water Volume (gal)*:	238,308

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%	87.67512%	
Alpha 125, 263 gl tote	Baker Hughes	Biocide	Glutaraldehyde	111-30-8	30.00%	0.00688%	SmartCare Product
GBW-5	Baker Hughes	Breaker	Ammonium Persulfate	7727-54-0	100.00%	0.00154%	SmartCare Product
Enzyme G-I	Baker Hughes	Breaker	Hemicellulase Enzyme Concentrate	9025-56-3	3.00%	0.00340%	SmartCare Product
			Water	7732-18-5	97.00%	0.10992%	
BF-7L, Tote	Baker Hughes	Buffer	Potassium Carbonate	584-08-7	60.00%	0.05080%	SmartCare Product
			Potassium Hydroxide	1310-58-3	1.00%	0.00085%	
			Water	7732-18-5	60.00%	0.05080%	
Clay Master-5C (Tote)	Baker Hughes	Clay Control	Oxyakylated Amine Quat	138879-94-4	60.00%	0.06147%	
GW-3LDF	Baker Hughes	Gelling Agent	Guar Gum	9000-30-0	40.00%	0.16605%	SmartCare Product
			Petroleum Distillate Blend	Trade Secret	70.00%	0.29059%	
Sand, White, 20/40	Baker Hughes	Proppant	Crystalline Silica (Quartz)	14808-60-7	100.00%	10.02082%	
Sand, White, 100 mesh	Baker Hughes	Proppant	Crystalline Silica (Quartz)	14808-60-7	100.00%	1.41201%	
FSA-1	Baker Hughes	StimPlus	Ethanol	64-17-5	5.00%	0.00553%	
GasFlo G, 330 gal	Baker	Surfactant	Methanol	67-56-1	30.00%	0.02721%	SmartCare Product

tote	Hughes						
			Mixture of Surfactants	Trade Secret	60.00%	0.05442%	
			Water	7732-18-5	50.00%	0.04535%	
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.							
			Crystalline Silica	14808-60-7			
			Ethylene Glycol Monobutyl Ether	111-76-2			
			Methanol	67-56-1		0.0000573052%	
			Poly (oxy-1,2-ethanediyl)	24938-91-8			
			Quaternary Ammonium Compounds bis[Hydrogenated Tallow Alkyl] Dimethyl Salts With Bentonite	68953-58-2			
			Water	7732-18-5		0.0171915534%	
<p>* Total Water Volume sources may include fresh water, produced water, and/or recycled water</p> <p>** Information is based on the maximum potential for concentration and thus the total may be over 100%</p> <p>Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)</p>							