

Hydraulic Fracturing Fluid Product Component Information Disclosure

Last Fracture Date	12/05/2012
State:	California
County:	Ventura
API Number:	04-111-22141
Operator Name:	Termo Co The
Well Name and Number:	Sence 43
Longitude:	-119.020185
Latitude:	34.317292
Long/Lat Projection:	NAD83
Production Type:	Oil
True Vertical Depth (TVD):	5,986
Total Water Volume (gal)*:	62,328

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		Carrier	Water	7732-18-5	100.00%	85.88439%	
Alpha 125	Baker Hughes	Biocide	Glutaraldehyde	111-30-8	30.00%	0.00786%	SmartCare Product
GBW-5	Baker Hughes	Breaker	Ammonium Phosphate	7727-54-0	100.00%	0.00909%	SmartCare Product
Enzyme G-I	Baker Hughes	Breaker	Hemicellulase Enzyme Concentrate	9025-56-3	3.00%	0.00508%	SmartCare Product
			Water	7732-18-5	97.00%	0.16440%	
BC-3	Baker Hughes	Breaker Catalyst	No Hazardous Ingredients	Trade Secret	100.00%	0.14837%	
BF-7L	Baker Hughes	Buffer	Potassium Carbonate	584-08-7	60.00%	0.13961%	SmartCare Product
			Potassium Hydroxide	1310-58-3	1.00%	0.00233%	
			Water	7732-18-5	60.00%	0.13961%	
Clay Master-5C (Tote)	Baker Hughes	Clay Control	Oxyakylated Amine Quat	138879-94-4	60.00%	0.07804%	
XLW-32, 260 gal tote	Baker Hughes	Crosslinker	Boric Acid (H3BO3)	10043-35-3	30.00%	0.03556%	
			Methanol	67-56-1	60.00%	0.07112%	
			Methyl Borate	121-43-7	30.00%	0.03556%	
GW-3LDF	Baker Hughes	Gelling Agent	1-Butoxy-2-Propanol	5131-66-8	5.00%	0.04009%	SmartCare Product
			Cyrstalline Silica, Quartz (SiO2)	14808-60-7	5.00%	0.04009%	
			Guar Gum	9000-30-0	60.00%	0.48112%	

