

Hydraulic Fracturing Fluid Product Component Information Disclosure

Fracture Date	8/1/2011
State:	CA
County:	Kern
API Number:	04-030-43343
Operator Name:	Occidental Petroleum Corp
Well Name and Number:	Timeless #28-7H
Longitude:	-119.289489
Latitude:	35.56515
Long/Lat Projection:	NAD83
Production Type:	Oil
True Vertical Depth (TVD):	8,106
Total Water Volume (gal)*:	1,501,920

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%	81.80986%	
Frac Sand (All Meshes) [CWT]	BHI	Proppant	Crystalline Silica (Quartz)	14808-60-7	100.00%	13.63756%	
Enzyme G-I	BHI	Breaker	Hemicellulase Enzyme Concentrate	9025-56-3	3.00%	0.00491%	
			Water	7732-18-5	97.00%	0.15885%	
GLFC-1B	BHI	Gellant	Alkanes / Alkenes	Multiple	45.00%	0.30411%	
			Guar gum	9000-30-0	50.00%	0.33790%	
Alpha 125	BHI	Biocide	Glutaraldehyde	111-30-8	30.00%	0.00653%	
XLW-56	BHI	Crosslinker	Glyoxal	107-22-2	30.00%	0.05559%	
			Sodium Tetraborate	1330-43-4	10.00%	0.01853%	
			Sodium Hydroxide	1310-73-2	5.00%	0.00927%	
			D-Glucitol	50-70-4	10.00%	0.01853%	
BF-7L	BHI	Buffer	Potassium Carbonate	584-08-7	50.00%	0.16493%	
BC-3	BHI	Breaker Catalyst	Non-hazardous	-	100.00%	0.01613%	
Inflo 250W	BHI	Surfactant	Surfactants	CBI	80.00%	0.12218%	
			2-Butoxyethanol	111-76-2	20.00%	0.03055%	
			Methanol	67-56-1	30.00%	0.04582%	

Super LC	BHI	Proppant	Silicon Dioxide (Silica Sand)	14808-60-7	97.00%	3.09872%	
			Phenol Formaldehyde Resin	9003-35-4	5.00%	0.15973%	
			Hexamethylenetetramine	1009-7-0	0.01%	0.00032%	

* 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%

All component information listed was obtained from the supplier’ s Material Safety Data Sheets (MSDS). As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of the MSDS should be directed to the supplier who provided it. The Occupational Safety and Health Administration’ s (OSHA) regulations govern the criteria for the disclosure of this information. Please note that Federal Law protects "proprietary", "trade secret", and "confidential business information" and the criteria for how this information is reported on an MSDS is subject to 29 CFR 1910.1200(i) and Appendix D.