

Hydraulic Fracturing Fluid Product Component Information Disclosure

Fracture Date	7/27/2011
State:	California
County:	Kern
API Number:	04-030-43767
Operator Name:	Occidental Petroleum Corp
Well Name and Number:	Nurseries 34-2H
Longitude:	-119.269336
Latitude:	35.528035
Long/Lat Projection:	NAD83
Production Type:	Oil
True Vertical Depth (TVD):	7,387
Total Water Volume (gal)*:	1,019,130

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
Frac Sand (All Meshes) [CWT]	BHI	Proppant	Crystalline Silica (Quartz)	14808-60-7	100.00%	8.45695%	
Enzyme G-I	BHI	Breaker	Hemicellulase Enzyme Concentrate	9025-56-3	3.00%	0.00535%	
			Water	7732-18-5	97.00%	0.17292%	
GLFC-1B	BHI	Gellant	Alkanes / Alkenes	Multiple	45.00%	0.32820%	
			Guar gum	9000-30-0	50.00%	0.36466%	
Alpha 125	BHI	Biocide	Glutaraldehyde	111-30-8	30.00%	0.00693%	
XLW-56	BHI	Crosslinker	Glyoxal	107-22-2	30.00%	0.06386%	
			Sodium Tetraborate	1330-43-4	10.00%	0.02129%	
			Sodium Hydroxide	1310-73-2	5.00%	0.01064%	
			D-Glucitol	50-70-4	10.00%	0.02129%	
BF-7L	BHI	Buffer	Potassium Carbonate	584-08-7	50.00%	0.18506%	
BC-3	BHI	Breaker Catalyst	Non-hazardous	-	100.00%	0.02025%	
Inflo 250W	BHI	Surfactant	Surfactants	CBI	80.00%	0.14038%	
			2-Butoxyethanol	111-76-2	20.00%	0.03509%	
			Methanol	67-56-1	30.00%	0.05264%	
Super LC	BHI	Proppant	Silicon Dioxide (Silica Sand)	14808-60-7	97.00%	3.91099%	
			Phenol Formaldehyde Resin	9003-35-4	5.00%	0.20160%	

