

Hydraulic Fracturing Fluid Product Component Information Disclosure

Last Fracture Date	07/09/2012
State:	California
County:	Kern
API Number:	04-030-47642
Operator Name:	Vintage Prod Of Cal
Well Name and Number:	Sill 3-14H
Longitude:	-119.25013
Latitude:	35.49747
Long/Lat Projection:	NAD27
Production Type:	Oil
True Vertical Depth (TVD):	8,101
Total Water Volume (gal)*:	314,160

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%	68.09908%	
Alpha 125	Baker Hughes	Biocide	Glutaraldehyde	111-30-8	30.00%	0.00412%	SmartCare Product
Enzyme G-I	Baker Hughes	Breaker	Hemicellulase Enzyme Concentrate	9025-56-3	3.00%	0.00455%	SmartCare Product
			Water	7732-18-5	97.00%	0.14718%	
High Perm CRB	Baker Hughes	Breaker	Ammonium Persulphate	7727-54-0	60.00%	0.00140%	SmartCare Product
			Crystalline Silica Quartz	14808-60-7	30.00%	0.00070%	
BC-3	Baker Hughes	Breaker Catalyst	No Hazardous Ingredients	Trade Secret	100.00%	0.02948%	
BF-7L	Baker Hughes	Buffer	Potassium Carbonate	584-08-7	60.00%	0.26686%	SmartCare Product
			Potassium Hydroxide	1310-58-3	1.00%	0.00445%	
			Water	7732-18-5	60.00%	0.26686%	
XLW-56, 330 gal tote	Baker Hughes	Crosslinker	D-Glucitol	50-70-4	10.00%	0.01949%	
			Glyoxal	107-22-2	30.00%	0.05848%	
			Sodium Hydroxide	1310-73-2	5.00%	0.00975%	
			Sodium Tetraborate	1330-43-4	10.00%	0.01949%	
GW-4LBF	Baker Hughes	Gelling Agent	Guar Gum	9000-30-0	60.00%	0.39514%	SmartCare Product
			Paraffinic Petroleum Distillate	64742-55-8	60.00%	0.39514%	
			Petroleum Distillate	64742-47-8	60.00%	0.39514%	

