

# Hydraulic Fracturing Fluid Product Component Information Disclosure

Fracture Date:	06/22/2011
State:	California
County:	Kern
API Number:	04-030-43346
Operator Name:	Vintage Prod Of Cal
Well Name and Number:	Tulare 3-18H
Longitude:	-119.27588899
Latitude:	35.53005425
Long/Lat Projection:	NAD83
Production Type:	Oil
True Vertical Depth (TVD):	8,488
Total Water Volume (gal)*:	534,492

## 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%	82.86467%	0
12% HCl - 3% HF (ABF30)	Baker Hughes	Acidizing	Hydrochloric Acid	7647-01-0	12.00%	0.08932%	0
0	0	0	Hydrofluoric Acid	7664-39-3	3.00%	0.02233%	0
Superset-W, 55 gal drum	Baker Hughes	Activator	Methanol	67-56-1	50.00%	0.03125%	0
0	0	0	Poly (Oxyethylene) Nonylphenol Ether	9016-45-9	50.00%	0.03125%	0
X-Cide 207	Baker Hughes	Biocide	2-Methyl-4-Isothiazolin-3-One	2682-20-4	5.00%	0.00010%	0
0	0	0	5-Chloro-2-Methyl-4-Isothiazolin-3-One	26172-55-4	10.00%	0.00020%	0
0	0	0	Crystalline Silica: Cristobalite	14464-46-1	1.00%	0.00002%	0
0	0	0	Crystalline Silica: Quartz (SiO2)	14808-60-7	1.00%	0.00002%	0
0	0	0	Diatomaceous Earth, Calcined	91053-39-3	60.00%	0.00120%	0
0	0	0	Magnesium Chloride	7786-30-3	5.00%	0.00010%	0
0	0	0	Magnesium Nitrate	10377-60-3	10.00%	0.00020%	0
Alpha 125	Baker Hughes	Biocide	Glutaraldehyde	111-30-8	30.00%	0.00599%	0
Enzyme G-I	Baker Hughes	Breaker	Hemicellulase Enzyme Concentrate	9025-56-3	3.00%	0.00667%	0
0	0	0	Water	7732-18-5	97.00%	0.21580%	0
BC-3	Baker Hughes	Breaker Catalyst	Non-Hazardous Ingredient	N.A.	100.00%	0.02693%	0
BF-7L, Tote	Baker Hughes	Buffer	Potassium Carbonate	584-08-7	50.00%	0.31396%	0

Clay Master-5C	Baker Hughes	Clay Control	Oxyakylated Amine Quat	138879-94-4	60.00%	0.05817%	0
CI-27	Baker Hughes	Corrosion Inhibitor	Alkenes^ C>10 Alpha-	64743-02-8	5.00%	0.00014%	0
0	0	0	Ethoxylated Alcohols^ C14-15	68951-67-7	30.00%	0.00084%	0
0	0	0	Methanol	67-56-1	60.00%	0.00168%	0
0	0	0	Propargyl Alcohol	107-19-7	10.00%	0.00028%	0
0	0	0	Tall Oil Acid	61790-12-3	30.00%	0.00084%	0
0	0	0	Thiourea Polymer	68527-49-1	30.00%	0.00084%	0
XLW-56, 330 gal tote	Baker Hughes	Crosslinker	D-Glucitol	50-70-4	10.00%	0.02269%	0
0	0	0	Glyoxal	107-22-2	30.00%	0.06808%	0
0	0	0	Sodium Hydroxide	1310-73-2	5.00%	0.01135%	0
0	0	0	Sodium Tetraborate	1330-43-4	10.00%	0.02269%	0
XLW-32	Baker Hughes	Crosslinker	Boric Oxide	1303-86-2	20.00%	0.00475%	0
0	0	0	Methanol	67-56-1	90.00%	0.02136%	0
FRW-16A (drum)	Baker Hughes	Friction Reducer	Non-Hazardous Ingredient	N.A.	100.00%	0.02989%	0
GLFC-1B	Baker Hughes	Gelling Agent	Alkanes / Alkenes	Multiple	45.00%	0.33884%	0
0	0	0	Guar Gum	9000-30-0	50.00%	0.37649%	0
GW-3LDF	Baker Hughes	Gelling Agent	Guar Gum	9000-30-0	40.00%	0.09889%	0
0	0	0	Petroleum Distillate Blend	CBI	70.00%	0.17306%	0
Ferrotrol 300L	Baker Hughes	Iron Control	Citric Acid	77-92-9	70.00%	0.00889%	0
Ferrotrol 210	Baker Hughes	Iron Control	Erythorbic Acid	89-65-6	100.00%	0.00112%	0
NE-118, 330 gal tote	Baker Hughes	Non-emulsifier	Aromatic Hydrocarbon Solvent	64742-94-5	35.00%	0.00023%	0
0	0	0	Isopropyl Alcohol	67-63-0	65.00%	0.00043%	0
0	0	0	Naphthalene	91-20-3	5.00%	0.00003%	0
0	0	0	Xylene	1330-20-7	5.00%	0.00003%	0
Sand, White, 20/40	Baker Hughes	Proppant	Crystalline Silica (Quartz)	14808-60-7	100.00%	8.30676%	0
Sand, White, 100 mesh	Baker Hughes	Proppant	Crystalline Silica (Quartz)	14808-60-7	100.00%	0.17664%	0
Sand, Brown, 30/70	Baker Hughes	Proppant	Crystalline Silica (Quartz)	14808-60-7	100.00%	0.44626%	0
SinterBlast Bauxite, 40/120, bulk	Baker Hughes	Proppant	Alfa-Alumina	1344-28-1	100.00%	0.12272%	0
0	0	0	Hematite	1317-60-8	15.00%	0.01841%	0
0	0	0	Maghemite	1309-38-2	2.00%	0.00245%	0
Super LC, 20/40	Baker Hughes	Proppant	Hexamethylenetetramine	1009-7-0	0.01%	0.00057%	0
0	0	0	P/F Resin	9003-35-4	5.00%	0.28269%	0
0	0	0	Silicon Dioxide (Silica Sand)	14808-60-7	97.00%	5.48413%	0
InFlo 250W	Baker Hughes	Surfactant	2-Butoxyethanol	111-76-2	20.00%	0.04735%	0

