

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	8/2/2016
Job End Date:	8/9/2016
State:	Texas
County:	Winkler
API Number:	42-495-33580-00-00
Operator Name:	XTO Energy/ExxonMobil
Well Name and Number:	University BLK 20-1305H
Latitude:	31.70608300
Longitude:	-103.26803700
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	11,767
Total Base Water Volume (gal):	9,628,241
Total Base Non Water Volume:	0



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	XTO Energy Inc - (Midland)	Carrier / Base Fluid					
			Carrier / Base Fluid - Water	7732-18-5	100.00000	88.50328	
Ottawa Sand 20/40 (2.63 sg)	WFT	Proppant					
			Crystalline Silica in the form of Quartz	14808-60-7	100.00000	7.55880	
Atlas CRC Premium 20/40 (2.55 sg)	WFT	Proppant					
			Quartz (SiO2) (Crystalline Silica)	14808-60-7	98.00000	2.02407	
			Phenolic Resin	9003-35-4	5.00000	0.10327	
			Hexamethylenetetramine	100-97-0	1.00000	0.02065	
40/70 Premium	WFT	Proppant					
			Crystalline Silica in the form of Quartz	14808-60-7	100.00000	1.51707	
15% HCL	WFT	Acid					
			Hydrochloric Acid	7647-01-0	15.00000	0.11872	
WXL-101LM	WFT	Crosslink Control					
			Distillates petroleum, hydrotreated light	64742-47-8	60.00000	0.02744	
			2-Butoxyethanol	111-76-2	1.00000	0.00046	

WPB-587L	WFT	ph Adjusting Agents					
			Sodium Hydroxide	1310-73-2	40.00000	0.01199	
WFR-54LA	WFT	Friction Reducer					
			Distillates (petroleum), hydrotreated light	64742-47-8	45.00000	0.01055	
WIC-641L	WFT	Iron Control					
			Citric acid	77-92-9	60.00000	0.00280	
WBK-139	WFT	Breaker					
			Potassium persulfate	7727-21-1	90.00000	0.00180	
WAI-251LC	WFT	Inhibitor					
			Ethylene Glycol	111-76-2	40.00000	0.00061	
			N,N-Dimethylformamide	68-12-2	20.00000	0.00031	
			Tar bases, quinoline derivs, benzyl chloride-quaternized	72480-70-7	10.00000	0.00015	
			2-Butoxyethanol	111-76-2	10.00000	0.00015	
			1-Decanol	112-30-1	5.00000	0.00008	
			1-Octanol	111-87-5	5.00000	0.00008	
			Ethoxylated Nonylphenol	68412-54-4	5.00000	0.00008	
			Isopropyl Alcohol	67-63-0	5.00000	0.00008	
			Triethylphosphate	78-40-0	5.00000	0.00008	
WNE-366LN	WFT	Surfactant					
			Methanol	67-56-1	45.00000	0.00030	
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.							
Other Ingredients		Other Chemicals					
			Guar Gum	9000-30-0		0.12506	
			Ulexite Powder	1319-33-1		0.02744	
			No ingredients as hazardous according to OSHA 29 CFR 1910.1200	NA		0.00365	
			Distilled Tall-Oil Fatty Acids	61790-12-3		0.00229	
			2-BUTENEDIAMIDE, (E)-, N,N'-BIS[2-(4,5-DIHYDRO-2-NORTALL OIL ALKYL-1H-IMIDAZOL-1-YL)ETHYL] DERIVATIV	68442-77-3		0.00229	
			Quaternary ammonium compounds, bis(hydrogenated tallow alkyl)dimethyl, salts with bentonite	68953-58-2		0.00229	
			Alcohol Ethoxylate	68002-97-1		0.00046	
			Propylene carbonate	108-32-7		0.00046	
			Alcohols, C12-16, Ethoxylated	68551-12-2		0.00046	
			Proprietary Ingredient	Proprietary		0.00030	
			Cinnamaldehyde	104-55-2		0.00008	
			Proprietary Surfactant Compound 2	Proprietary		0.00003	
			Proprietary Surfactant Compound 1	Proprietary		0.00003	
			Dioxane	123-91-1		0.00002	

		Ethylene Oxide	75-21-8		0.00002
		Acetaldehyde	75-07-0		0.00002

* 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%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)