

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	5/17/2014
Job End Date:	5/17/2014
State:	Texas
County:	Reagan
API Number:	42-383-38628-00-00
Operator Name:	Devon Energy Production Company L. P.
Well Name and Number:	University 49-1 6H
Longitude:	-101.38982000
Latitude:	31.13121000
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	7,082
Total Base Water Volume (gal):	2,106,289
Total Base Non Water Volume:	26,569



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	Customer	Carrier					
			Water	7732-18-5	100.00000	98.67524	
7 1/2% HCL	Trican	Carrier					
			Hydrochloric acid	7647-01-0	7.50000	0.09682	
FR-12 (Anionic Acrylamide)	Trican	Friction Reducer					
			Mineral oil/ light hydrotreated pet. distillate	64742-47-8	60.00000	0.00694	
			Anionic polyacrylamide copolymer	25987-30-8	40.00000	0.00463	
			Ammonium Chloride	12125-02-9	2.00000	0.00023	
Bio Clear 5000 (Biocide)	Trican	Biocide					
			Polyethylene glycol	25322-68-3	70.00000	0.00479	
			2,2-dibromo-3-nitrilopropionamide	10222-01-2	10.00000	0.00068	
S-15 (Surfactant)	Trican	Surfactant					
			Alcohol alkoxylate	Proprietary	20.00000	0.00213	
			Methanol	67-56-1	20.00000	0.00213	
AI-9 (Acid Inhibitor)	Trican	Acid Inhibitor					
			Methanol	67-56-1	60.00000	0.00030	

			Polyoxyalkylenes	68951-67-7	30.00000	0.00015	
			modified thiourea polymer	68527-49-1	30.00000	0.00015	
			Prop-2-yn-1-ol	107-19-7	10.00000	0.00005	
			olefin	64743-02-8	5.00000	0.00003	
FEAC-30	Trican	Iron Control					
			Acetic acid	64-19-7	60.00000	0.00010	
			Citric acid	77-92-9	30.00000	0.00005	
WBO-11	Trican	Breaker					
			Sodium chlorite	7758-19-2	2.50000	0.00010	
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 Chemicals					
			Potassium chloride	7447-40-7			
			Sorbitan monooleate	1338-43-8			
			Fatty acids	61790-12-3			
			Water	7732-18-5			
			Sodium Chloride	7647-14-5			
			Trade Secret Ingredient	Proprietary			
			Glass, Oxide	65997-17-3			

* 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)