

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	8/12/2018
Job End Date:	8/23/2018
State:	New Mexico
County:	Eddy
API Number:	30-015-44865-00-00
Operator Name:	Devon Energy Production Company L. P.
Well Name and Number:	Ko Lanta 9-4 Fed Com 528H
Latitude:	32.30804800
Longitude:	-103.77162000
Datum:	NAD27
Federal Well:	YES
Indian Well:	NO
True Vertical Depth:	8,850
Total Base Water Volume (gal):	10,202,178
Total Base Non Water Volume:	35,072

30.015-44865



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	Supplied by Operator	Base Fluid					
			Water	7732-18-5	100.00000	85.10780	
Other Chemical (s)	Listed Above	See Trade Name (s) List					
			Water	7732-18-5	80.00000	0.01255	

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			Water	7732-18-5	30.00000	0.00716	
			Water	7732-18-5	85.00000	0.06976	
			Water	7732-18-5	50.00000	0.02471	
HVG-1 4.0	FTSI	Water gelling agent					
				Listed Below			
B-3	FTSI	High pH buffer					
				Listed Below			
SHALE SURF 1000	FTSI	Surfactant					
				Listed Below			
BXL-5	FTSI	Instant Borate Crosslinker					
				Listed Below			
LTB-1	FTSI	Breaker					
				Listed Below			
FRW-920	FTSI	Friction Reducer - Zwitter ionic					
				Listed Below			
SI-680	FTSI	Scale Inhibitor					
				Listed Below			

APB-1	FTSI	Gel breaker					
				Listed Below			
40/70 White	FTSI	Proppant					
				Listed Below			
100 Mesh Sand	FTSI	Proppant					
				Listed Below			
Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.							
			Silica, Quartz	14808-60-7	100.00000	10.15962	
			Silica, Quartz	14808-60-7	100.00000	4.41787	
			Raffinates, Sorption Process	64741-85-1	55.00000	0.06067	
			Petroleum Distillate	64742-47-8	55.00000	0.06067	
			Guar gum	9000-30-0	55.00000	0.06067	
			Ammonium Persulfate	7727-54-0	84.00000	0.01641	
			Copolymer of 2-Propenamide	Proprietary	30.00000	0.01483	
			Potassium Hydroxide	1310-58-3	60.00000	0.01432	
			Diethylenetriamine	111-40-0	100.00000	0.01382	
			Hydrotreated Petroleum Distillate	64742-47-8	25.00000	0.01236	
			Ethoxylated alcohol	Proprietary	13.00000	0.01067	
			Poly-(oxy-1,2-ethanediyl)-alpha-undecyl-omega	34398-01-1	11.00000	0.00903	
			Suspending Agent	1302-78-9	5.00000	0.00552	
			Sodium chloride	7647-14-5	10.00000	0.00494	
			Potassium Metaborate	16481-66-6	20.00000	0.00477	
			Quartz	14808-60-7	4.00000	0.00441	
			Cured acrylic resin	25085-19-2	22.00000	0.00430	

			2-Propanol	67-63-0	5.00000	0.00410	
			2-Butoxyethanol	111-76-2	5.00000	0.00410	
			Methanol	67-56-1	5.00000	0.00410	
			ORGANIC PHOSPHONIC ACIDS SALTS	15827-60-8	20.00000	0.00314	
			Methyl Alcohol	67-56-1	15.00000	0.00235	
			Isotridecanol, ethoxylated	9043-30-5	2.00000	0.00221	
			Alcohol Ethoxylate Surfactants	68551-12-2	2.50000	0.00124	
			Oleic Acid Diethanolamide	93-83-4	2.50000	0.00124	
			Cyclohexene	5989-27-5	1.00000	0.00082	
			Sodium Chloride	7647-14-5	5.00000	0.00078	
			Ammonium Chloride	12125-02-9	1.00000	0.00049	
			Sorbitan, mono-(9Z)-9- octadecenoate, poly(oxy- 1,2-ethanediyl) derivs	9005-65-6	1.00000	0.00049	
			Talc	14807-96-6	0.60000	0.00012	
			Glycine, N,N'-1,2- ethanediylbis[N- (carboxymethyl)-, sodium salt (1:4)	64-02-8	0.10000	0.00005	
			Phenol, 4-methoxy	150-76-5	0.10000	0.00005	
			Ammonium Persulfate	7727-54-0	100.00000		

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

*** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

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)