

# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	3/29/2019
Job End Date:	5/3/2019
State:	Texas
County:	Reagan
API Number:	42-383-40472-00-00
Operator Name:	Sable Permian Resources
Well Name and Number:	Boothe 236-6 08HK
Latitude:	31.17197900
Longitude:	-101.29562100
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,335
Total Base Water Volume (gal):	32,515,260
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	Sable Permian Resources	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	87.66777	
Sand	Sable Permian Resources	Proppant					
			Crystalline Silica, quartz	14808-60-7	100.00000	11.95916	
HCL Acid (12.6%-17.5%)	U.S. Well Services	Bulk Acid					
			Water	7732-18-5	87.40000	0.17275	
			Hydrogen Chloride	7647-01-0	17.50000	0.04016	
NE-70	U.S. Well Services	Surfactant					
			DI Water	7732-18-5	90.00000	0.07970	
			Alcohols, C10-16, ethoxylated	68002-97-1	20.00000	0.01771	
			2-Hydroxypropanol	57-55-6	10.00000	0.00886	
			Other ingredients	Proprietary	1.00000	0.00089	
ECO-FLEX	U.S. Well Services	Friction Reducer					
			Distillates, petroleum, hydrotreated middle	64742-46-7	50.00000	0.02980	
CC-2500	U.S. Well Services	Clay Control Additives					
			Sodium Chloride	7647-14-5	30.00000	0.01568	

			Sodium Formate	141-53-7	5.00000	0.00290	
SI-1100s	U.S. Well Services	Scale Inhibitor					
			Copolymer of Maleic and Acrylic acid	52255-49-9	10.00000	0.00202	
			Potassium salt of diethylene triamine penta (methylene phosphonic acid)	15827-60-8	3.00000	0.00069	
			Phosphino carboxylic acid polymer	71050-62-9	3.00000	0.00067	
			Hexamethylene tramine penta (methylene phosphonic acid)	34690-00-1	3.00000	0.00067	
LT FLUSH SYSTEM I	U.S. Well Services	Other					
			Mineral oil, petroleum distillates, hrdotreated light naphthenic	64742-53-6	100.00000	0.00026	
AI-303	U.S. Well Services	Acid Corrosion Inhibitors					
			Ethylene glycol	107-21-1	40.00000	0.00011	
			Cinnamaldehyde	104-55-2	20.00000	0.00004	
			Formic acid	64-18-6	20.00000	0.00004	
			Butyl cellosolve	111-76-2	20.00000	0.00004	
			Polyether	60828-78-6	10.00000	0.00002	
			Acetophenone,thiourea,formaldehyde polymer	68527-49-1	5.00000	0.00001	
OB-2L	U.S. Well Services	Breaker					
			Sodium Chlorite	7758-19-2	20.00000	0.00007	

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.

\* 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)