

Hydraulic Fracturing Fluid Product Component Information Disclosure	
Fracture Date State: County: API Number: Operator Name: Well Name and Number: Longitude: Latitude: Long/Lat Projection: Indian/Federal: Production Type: True Vertical Depth (TVD): Total Water Volume (gal)*:	2017-10-04
	Texas
	Reagan
	4238339829
	SABLE PERMIAN RESOURCES LLC-
	EBUS
	932HA
	-101.5
	31.22
	none
7,588	
8,613,906	

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)**	Ingredient Mass lbs	Comments	Company	First Name	Last Name	Email	Phone
Fresh Water	Operator	Base Fluid	Water	7732-18-5	100.00%	80.19522%	71753599	Density = 8.330					
Cla-Web(TM) II	Halliburton	Clay Stabilizer	Listed Below	Listed Below			0	NA					
FDP-S1226-15	Halliburton		Listed Below	Listed Below			0	NA					
HAI-OS ACID INHIBITOR	Halliburton	Corrosion Inhibitor	Listed Below	Listed Below			0	NA					
HCL >10%	Halliburton	Solvent	Listed Below	Listed Below			0	NA					
MC B-8614	Halliburton	Biocide	Listed Below	Listed Below			0	NA					
SAND-COMMON WHITE-100 MESH, SSA-2, 100 LB SACK (100002158)	Halliburton	Proppant	Listed Below	Listed Below			0	NA					
SAND-COMMON WHITE-100 MESH, SSA-2, BULK	Halliburton	Proppant	Listed Below	Listed Below			0	NA					
SAND-PREMIUM BROWN-40/70, BULK	Halliburton	Proppant	Listed Below	Listed Below			0	NA					
SAND-PREMIUM WHITE-40/70, BULK	Halliburton	Proppant	Listed Below	Listed Below			0	NA					
HIFLOW 5	Downhole Chemical Solutions	Friction Reducer	Listed Below	Listed Below			0	NA					
POLYBREAK 52	Downhole Chemical Solutions	Breaker	Listed Below	Listed Below			0	NA					
MSDS and Non-MSDS Ingredients are listed below the green line													
Ingredients	Listed Above	Listed Above	Amine	Proprietary	0.10%	0.00002%	19	Denise Tuck, Halliburton, 3000 N. Sam Houston Pkwy E., Houston, TX 77032, 281-871-6226	Halliburton	Denise	Tuck	Denise.Tuck@Halliburton.com	281-871-6226
			Amine salts	Proprietary	1.00%	0.00023%	209		Halliburton	Denise	Tuck	Denise.Tuck@Halliburton.com	281-871-6226
			Ammonium compound	Proprietary	30.00%	0.00636%	5695		Halliburton	Denise	Tuck	Denise.Tuck@Halliburton.com	281-871-6226

			Chlorine compound	Proprietary	30.00%	0.00636%	5695		Halliburton	Denise	Tuck	Denise.Tuck@Halliburton.com	281-871-6226
			Crystalline silica, quartz	14808-60-7	100.00%	18.87137%	16884904						
			Ethanol	64-17-5	1.00%	0.00034%	309						
			Ethoxylated alcohols	Proprietary	30.00%	0.00036%	318		Halliburton	Denise	Tuck	Denise.Tuck@Halliburton.com	281-871-6226
			Fatty acids, tall oil	Proprietary	30.00%	0.00036%	318		Halliburton	Denise	Tuck	Denise.Tuck@Halliburton.com	281-871-6226
			Glutaraldehyde	111-30-8	30.00%	0.01034%	9250						
			Hydrochloric acid	7647-01-0	30.00%	0.21327%	190817						
			Hydrogen Peroxide	7722-84-1	7.90%	0.00367%	3288						
			Methanol	67-56-1	60.00%	0.00076%	680						
			NFIDB:FDP-S1226-15	CAS Not Assigned	100.00%	0.00000%	0	Not Found in DB	Halliburton	Denise	Tuck	Denise.Tuck@Halliburton.com	281-871-6226
			Olefins	Proprietary	5.00%	0.00014%	128		Halliburton	Denise	Tuck	Denise.Tuck@Halliburton.com	281-871-6226
			Petroleum Distillate Hydrotreated Light	64742-47-8	28.00%	0.03337%	29854						
			Phosphoric acid	7664-38-2	0.10%	0.00003%	31						
			Propargyl alcohol	107-19-7	10.00%	0.00012%	106						
			Quaternary amine	Proprietary	1.00%	0.00042%	380		Halliburton	Denise	Tuck	Denise.Tuck@Halliburton.com	281-871-6226
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl chlorides	68424-85-1	5.00%	0.00172%	1542						
			Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide	68527-49-1	30.00%	0.00036%	318						
			Sodium chloride	7647-14-5	1.00%	0.00021%	190						
			Trade Secret	Proprietary	1.00%	0.00047%	417		Halliburton	Denise	Tuck	Denise.Tuck@halliburton.com	281-871-6226
			Water	7732-18-5	100.00%	0.80441%	719741						

* 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.

All component information listed was obtained from the supplier's Material Safety Data Sheets (MSDS). As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of the MSDS should be directed to the supplier who provided it. The Occupational Safety and Health Administration's (OSHA) regulations govern the criteria for the disclosure of this information. Please note that Federal Law protects "proprietary", "trade secret", and "confidential business information" and the criteria for how this information is reported on an MSDS is subject to 29 CFR 1910.1200(i) and Appendix D.