

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	7/8/2015
Job End Date:	7/19/2015
State:	Texas
County:	Crockett
API Number:	42-105-42216-00-00
Operator Name:	Henry Resources LLC
Well Name and Number:	University BL 7265NH
Longitude:	-101.61358800
Latitude:	31.06001200
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	14,151
Total Base Water Volume (gal):	13,001,142
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	Operator	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	87.61212	None
RAW - White/Brown Sand	Santrol	Proppant					
			Silica	14808-60-7	100.00000	11.29425	None
HA04-10-15% HCL	Reagent Chemical	Acidizing					
			Water	7732-18-5	85.00000	0.64211	None
			Hydrogen Chloride	7647-01-0	15.00000	0.11331	None
NE-601-N/E Surfactant	EES	Surfactant					
			Diethanolamide	Proprietary	70.00000	0.06659	None
			Methanol	67-56-1	70.00000	0.06659	None
			Ethylene Glycol Monobutyl Ether	111-76-2	50.00000	0.04757	None
CS01-Clay Stabilizer	Colossal Chemical	Clay Stabilizer					
			Methanol	67-56-1	100.00000	0.08717	None
K205-KCL Substitute	Colossal Chemical	KCL Substitute					
			Ammonium Acetate	631-61-8	40.00000	0.03609	None
			Benzenemethanaminium	56-93-9	13.00000	0.01173	None
			Methanol	67-56-1	10.00000	0.00902	None
			Sulfuric Acid	7664-93-9	1.50000	0.00135	None

FR02-Cationic Friction Reducer	Economy Polymers	Cationic Friction Reducer					
			Trade Secret	Proprietary	100.00000	0.03667	None
			Petroleum Distillates	Proprietary	25.00000	0.00917	None
BC1058-Liquid Biocide	Buckman Lab.	Liquid Biocide					
			Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione	533-74-4	24.00000	0.00583	None
			Sodium Hydroxide	1310-73-2	11.00000	0.00267	None
IC5-Iron Control	Economy Polymers	Iron Control					
			Acetic Acid	64-19-7	60.00000	0.00217	None
			Water	7732-18-5	60.00000	0.00217	None
			Citric Acid	77-92-9	30.00000	0.00109	None
CI200-Corrosion Inhibitor	Economy Polymers	Corrosion Inhibitor					
			Methanol	67-56-1	60.00000	0.00065	None

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)