

Hydraulic Fracturing Fluid Product Component Information Disclosure

Fracture Date:	2/19/2011
State:	WEST VIRGINIA
County:	WETZEL
API Number:	4710302565
Operator Name:	CHESAPEAKE APPALACHIA LLC
Well Name and Number:	HOHMAN HBP S 8H
Longitude:	-80.70673
Latitude:	39.68083
Long/Lat Projection:	NAD27
Production Type:	GAS
True Vertical Depth (TVD):	7,285
Total Water Volume (gal)*:	6,372,912

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
Fresh Water		Carrier/Base Fluid				73.59264%	
Recycled Produced Water		Carrier/Base Fluid				15.44717%	
Sand (Proppant)		Proppant				10.30625%	
ACID, HYDROCHLORIC, 15 PCT	WEATHERF ORD	Acid	Water	007732-18-5	85.00%	0.44198%	
			Hydrochloric Acid	007647-01-0	15.00%	0.07800%	
WIC-641L	WEATHERF ORD	Iron Control Agent	Citric Acid	000077-92-9	50.00%	0.00299%	
WAI-251LC	WEATHERF ORD	Corrosion Inhibitor	Ethylene Glycol	000107-21-1	40.00%	0.00041%	
			Dimethyl Formamide	000068-12-2	30.00%	0.00031%	
			Proprietary	N/A	13.00%	0.00013%	
			Decanol	000112-30-1	7.00%	0.00007%	
			Isopropanol (Isopropyl Alcohol, Propan-2-ol)	000067-63-0	7.00%	0.00007%	
			Octanol	000111-87-5	7.00%	0.00007%	
ALPHA 1427	BJ SERVICES COMPANY U S A	Anti-Bacterial Agent	Water	007732-18-5	60.00%	0.00808%	
			Glutaraldehyde (Pentanediol)	000111-30-8	30.00%	0.00404%	
			Didecyl Dimethyl Ammonium Chloride	007173-51-5	10.00%	0.00135%	
			Quaternary Ammonium Compound	068424-85-1	7.00%	0.00094%	

SCALETROL 720	BJ SERVICES COMPANY U S A	Scale Inhibitor	Ethylene Glycol	000107-21-1	35.00%	0.00780%	
			Diethylene Glycol	000111-46-6	5.00%	0.00111%	
WGA-15L	WEATHERF ORD	Gelling Agent	Petroleum Distillate Hydrotreated Light	064742-47-8	60.00%	0.01361%	
			Proprietary Polymer	N/A	60.00%	0.01361%	
WBK-133 OXIDIZER	WEATHERF ORD	Breaker	Ammonium Persulfate	007727-54-0	100.00%	0.01253%	
WFR-55LA	WEATHERF ORD	Friction Reducer	No Hazardous Components	NONE		0.00000%	

* 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%

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.