



ACAA 4 Well Pad Drilling Fluid Additives

Ingredients	Chemical Abstract Service Number (CAS #)	Weight %	Gallons Used	% of Total Usage
Water	7732-18-5	100	23940	14.95%
Foamer(s)			0	0.00%
Ammonium C6-10-alkyl polyoxyethylene sulfate	68037-05-8	10 - < 20		
Diethylene Glycol Monobutyl Ether	112-34-5	10 - < 20		
Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-(hexyloxy)-, ammonium salt	63428-86-4	10 - < 20		
Ammonium Cumene Sulfonate	37475-88-0	3 - < 5		
Sulfonic Acids, C14-16- Alkane Hydroxy and C14-16-Alkene, Sodium Salts	68439-57-6	1 - < 3		
2-Butoxyethanol	111-76-2	5-10		
Ammonium Laureth Sulfate	32612-48-9	90-95%		
Sodium Lauryl Sulfate	151-21-3			
Alpha Olefin Sulfonate	68439-57-6			
Defoamer			0	0.00%
Hydrophobic Silica	67762-90-7	<10		
Distillates (petroleum) Hydrotreated Light Napthenic	64742-53-6	60-80		
Corrosion Inhibitor			0	0.00%
Polyphosphoric acid, triethanolamine ester, sodium salt	68131-72-6	1-5		
Tripotassium Phosphate	7778-53-2	1-5		
Base Synthetic Oil			113148	70.65%
Distillates (petroleum), hydrotreated light	64742-47-8	100		
Barite			11433	7.14%
Barium sulfate	7727-43-7	84-98		
Silica, quartz	14808-60-7	1-5		
Calcium carbonate	471-34-1	1-5		
Clay	1332-58-7	.1-6		
Organophilic Clay			145	0.09%
Quaternary Ammonium Compd.,benzylbis(hydrogenated Tallow Alkyl)methyl, Salt With Bentonite	68153-30-0	97 - 100		
Quartz	14808-60-7	< 3		
Lime			820	0.51%
Calcium hydroxide	1305-62-0	>85		
Silica, quartz	14808-60-7	<0.1		
Emulsifier			3300	2.06%
Mixture of Fatty acids, tall oil	61790-12-3	10-50		
Distillates (petroleum), hydrotreated light	64742-47-8	10-50		
Fatty Amine	61791-26-2	2-3		
Blend of chemically modified tall oil derivative	68154,94-9	2-3		
Diethanolamine	111-42-2	.25-.75		
Calcium Chloride			644	0.40%
Calcium Chloride	10043-52-4	94-97		
Potassium Chloride	7447-40-7	2-3		
Sodium Chloride	7647-14-5	1-2		
Wetting Agent			6325	3.95%
Distillates (petroleum), hydrotreated middle	64742-46-7	30 - 60		
Fluid Loss Control			400	0.25%
Gilsonite	012002-43-6	100		

*Drilling fluids for horizontal drilled section only. Vertical portion drilled on air prior to Radical Transparency disclosures, and chemical volumes were not required to be kept.