

Appendix 1

Viscometer readings for the formulated mud samples.

Barite Mud Samples	Viscometer readings		Hematite Mud Samples	Viscometer readings	
	θ_{600}	θ_{300}		θ_{600}	θ_{300}
B1	74	50	H1	94	71
B2	82	56	H2	131	100
B3	91	62	H3	145.5	112.5
B4	117	80	H4	205	161

Rheological properties of the formulated mud samples.

WBMs with Barite					
Mud Sample	Additive conc. (%)	Additive Weight (g)	Plastic Viscosity (cp)	Yield point	Gel Strength (Ibs/100ft ²)
				(Ibs/100ft ²)	
B1	5	17.5	24	26	7
B2	10	35	26	30	9
B3	15	52.5	29	33	11
B4	20	70	37	43	17
WBMs with Hematite					
H1	5	17.5	23	48	15
H2	10	35	31	69	16
H3	15	52.5	33	79.5	24
H4	20	70	44	117	57