Research & Development Department
P.O. Box 579, Niagara Falls, N.Y.
July 10, 1968



M E M O R A N D U M

Date: July 10, 1968

Notebook No.: 2310

TO: Dr. S. Chwastiak

FROM: E. J. Markiewicz

SUBJECT: Polyox WSRN-10 and Tergitol TP-9 Treated S-G200 for Drilling Fluid Application

Since both Polyox WSRN-10 and Tergitol TP-9 treated asbestos exhibited such good dry bulk values upon opening, samples of S-G200 were treated with 1 and 10 parts per hundred of both chemicals. These products were both treated in a laboratory Waring Blendor at 2% solids, baroid filtered at 80 psig, dried, and slurried with the multi-mixer for 5 and 10 minutes. Readings were taken with both a Fann 35 model viscometer at 600 and 300 RPM and an LVT Brookfield viscometer with T-Bar and helipath at 0.3, 0.6, 1.5, 3.0, 6.0, and 12.0 RPM.

Essentially their application was to find an easier wet opening drilling fluid additive. From the data attached, obviously the polyox treated asbestos opens no better than untreated asbestos. No testing was done on the Tergitol TP-9 treated asbestos since excessive frothing, even at the low loading, didn't allow any high shear mixing. The slurry foamed right out of the multi-mixer cup.

Possibly high-purity polyox treated asbestos may wet open better than untreated high-purity, but this won't be checked unless you so desire.

E J Markiewicz
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EJM:jai

A.17075

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POLYOX TREATED AND UNTREATED S-G200
WET OPENING EVALUATION
DATA

Multi-Mixer Pulped	S-G200 Polyox Treated 1 Part/100 RPM	Viscosity cps	S-G200 Untreated RPM	Viscosity cps	S-G200 Polyox Treated 10 Parts/100
5 Min.	0.3	176,490	0.3	149,850	128,205
	0.6	42,330	0.6	45,645	45,650
	1.5	18,914	1.5	20,646	16,850
	3.0	10,889	3.0	10,390	10,023
	6.0	5,993	6.0	5,312	4,997
	12.0	3,324	12.0	2,599	2,716
10 Min.	0.3	156,510	0.3	169,830	139,860
	0.6	44,820	0.6	42,828	37,516
	1.5	21,245	1.5	19,047	15,052
	3.0	11,056	3.0	9,657	10,057
	6.0	6,474	6.0	4,797	5,694
	12.0	3,374	12.0	2,641	2,999

	PV	YP	AV	PV	YP	AV	PV	YP	AV
5 Min.	14	18	23.0	12	16	20.0	13	17	21.5
10 Min.	14	18	23.0	12	17	20.5	16	16	24.0

PV - Plastic Viscosity (cps)$_2$
YP - Yield Point (lb./100ft.^{2})
AV - Apparent Viscosity (cps)

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