Research & Development Department
P. O. Box 579, Niagara Falls, N.Y.
July 24, 1968

M E M O R A N D U M

SUBJECT: Drilling Fluids - Visbestos (S-G200) and Supervestos (S-G210) Should Make Good Additives in Clear Packer Fluids, Namely, Salt Solutions

FROM: E. J. Markiewicz

(1)"Packer fluids are those fluids, either clay-laden or without solids, which are left in the annular space between the tubing and casing. The primary purpose of a packer fluid is to maintain fluid pressure on the casing interior and tubing exterior for the purpose of preventing the development of potentially dangerous pressures on the casing."

In reviewing potential Calidria applications, my memorandum dated September 27, 1967 clearly shows the effect of High Purity Asbestos in five salt solutions. With all our experience and data, there is no reason why we cannot apply S-G200 and S-G210 to these salt systems in drilling fluids. Possibly we should furnish this information to Montello, Inc. for their field sales and development. We could evaluate S-G200 and S-G210 in applicable salt solutions as the information is required. We may also supply samples of these slurries for the A.I.M.E. display Montello is attending in September.

In summary, S-G200 and S-G210 should be compatible in clear packer fluids.

E J Markiewicz
E. J. Markiewicz

EJM:dmp

(1)"Composition and Properties of Oil Well Drilling Fluids" - Author: Walter F. Rogers, Domestic Production Dept., Technical Service, Gulf Oil Corporation Library of Congress Catalog Card No. 63-20671

A17292

DISTRIBUTION

J. A. Riddle ☐
L. F. Crow ☐
R. O. Marsten ☐
W. E. Holsapple ☐
A. A. Andrade ☐
G. C. Brice ☐
Shifters ☐
J. L. Myers ☐
K. A. Wood ☐
D. S. Kamens ☐
G. Vessels ☐
K. West ☐
File ☐

DISTRIBUTION

New York

W. S. Young

King City

J. L. Myers
J. A. Riddle ✓

Niagara Falls

R. E. Byrne
W. L. Carrick (2)
S. Chwastiak
G. L. Dickson
K. Park
H. B. Rhodes
J. E. Skvarla
R. G. Woolery

South Charleston

L. Pierce

A 17291

UC 149-2

UNION CARBIDE

INTERNAL CORRESPONDENCE

RECEIVED

AUG 21 1967

U.C.C. CHEM. & PLASTICS

CHEMICALS AND PLASTICS • OPERATING DIVISION P. O. BOX 579, NIAGARA FALLS, N.Y. 14302

To (Name) See Attached Distribution List

Division

Location

Date August 15, 1967

Originating Dept. Research and Development Department

Answering letter date

Copy to

Subject Technology Manager's Report

Gentlemen:

I have observed two errors which slipped by us in the Technology Manager's Highlights (Asbestos 453) for July 1967. These are:

First paragraph, line 3-4 - reads "electropositive"
This should read "electronegative"

First paragraph, line 7 reads "Vanadye". Should read "Vanadyl" Also page 3, line 2

If it is not too late, could these be corrected prior to issuance by your department.

Very truly yours,

R. G. Woolery

RGW/bsn

DISTRIBUTION

- J. A. Riddle
- L. F. Crow
- R. O. Marsten
- W. E. Holsapple
- A. A. Andrade
- G. C. Brice
- Shifters
- J. L. Myers
- K. A. Wood
- D. S. Kamens
- G. Vessels
- K. West
- File

A17293

A17294

DISTRIBUTION

New York

W. S. Young

South Charleston

L. Pierce

Niagara Falls

W. L. Carrick (2)
S. Chwastiak
K. Park
H. B. Rhodes
J. E. Skvarla (2)

King City

J. L. Myers
J. A. Riddle ✓

A17295

Research & Development Department
P. O. Box 579, Niagara Falls, N. Y.
August 2, 1968

M E M O R A N D U M

SUBJECT: Repulpability of Asbestos: Dispersibility of Asbestos Pellets in Aqueous Systems

FROM: E. J. Markiewicz

Program goals and objectives are covered in my memorandums of September 27, 1967 and July 10, 1968. To reiterate, an easily repulped pellet must be supplied to our customers to be repulped in their existing equipment.

The laboratory data attached show the various reagents that will aid in repulpability of Calidria asbestos pellets. S-G200 was used for all tests since we are presently concerned with supplying Montello, Inc. customers with repulpable S-G200. All repulping was done with a small laboratory-size magnetic stirrer. Our previous repulping problems have been discouraging only in the respect that customer and our approach to repulping missed one point. Mixing and repulping are defeated in any system that does not use proper baffling to control fluid flow to the point of agitation. The A.P.I. standard mixing cup should be baffled either at its base (the easiest method) or furnished with one obliquely mounted baffle similar to the baffles in the Hermann disintegrator mixing vessel. This was easily proved in the laboratory since all repulping done for this memorandum was with a magnetic stirrer utilizing one baffle. All pulping was done for only a period of 7 minutes except for Test 6 which was baroid filtered and needed 12 minutes of pulping time. The S-G200 pellets even repulped sufficiently for drilling fluid application. All our procedures were concerned with peripheral speed and not with the fluid flow to maximize the energy input.

These repulped products would meet the +65 mesh per cent retained test, but 100 mesh was picked to encourage our per cent repulpable material to meet a <1% + 100 mesh value. The wet attrition circuit at King City with the present set-up or very little modification could meet this quality control specification easily.

In summary, we could supply a more easily repulpable pellet, but we face problems of filtration, extrusion, and drying which could be answered by our pilot plant operation in Building 158. We also must examine the compatibility of the repulpable pellet in the drilling fluid system and the paper systems for H.P.P.

A17296

An interesting aspect from this study is the potential of producing specialty products that are more amenable to drilling fluid and paper mill systems. We could sell experimental tonnage shipments from Niagara which should help offset any expense this might entail. Also, we could furnish data to King City for plant production and the parameters involved.

E. J. Markiewicz

E.J. Markiewicz

EJM:dmp
Attach.

A17297

S-G200 Repulpability Data

Test	Treatment S-G200 grams	Reagent Type	Reagent Amt.	Amt. Repulped grams	Wet Screened % 100 Mesh Retained After Pulping
1	10	Ethylene Glycol	10 ml.	6	4.2
2	10	Tergitol Nonionic 9	2 drops	6	10.0
3	10	Quaker Oats Tetrahydrofuran	2 drops	6	11.5
4	10	*CME	2 drops	6	8.3
5	10	-12C-2	2 drops	6	6.7
6	10	Polyox WSRN-10	1% by wt. Asb.	6	6.7
7	10	None	-	6	33.3 Very punky and ~50% would pass +65 mesh

*CME Barquat CME-35% cetyl ethyl morpholinium ethosulfate) Baird Chemical Industries, Inc.

-12C-2 Barlol 12C-2 coco polyoxethylene amine)

Used * - since we have had success with Armour Arquad T-2C, which is an amine, in possible paper application.

All modified asbestos was made by adding the reagent to Waring Blendor opened S-G200 for 30 seconds agitation, filtered, dried, and added to water in 1/4 - 1/2 inch squares for a 2% repulped solids. All repulping was done with a laboratory magnetic stirrer in an 800 ml. beaker with a single point free-moving suspended baffle.

A17298