Wichita, Kansas,
January 11, 1938.

Mr. W. B. Wilson,
Box 661,
Tulsa, Oklahoma.

Dear Sir:

In regard to Helmerich and Payne, No. 1 Hoeme, SE NE Sec. 20, T.26S., R.12W., the statement was made in my Weekly Letter No. 1 - 1938 that "A gap in the samples from 4100 to 4135 feet prevented the exact determination of the base of the Kansas City group, and the top of the next formation below, which, by correlation with other logs in the area, should be Viola cherty limestone." I was of the opinion at the time that the cherty limestone referred to, the top of which I thought was in the missing samples, and the middle and lower portions of which were found from 4135 to 4340 feet, was Mississippian in age, rather than Ordovician, but I did not say so in the Weekly Letter, since my determinations of the age of the cherty limestone was questioned by Mr. Folger, and since I wished to see the missing samples (from 4100 to 4135 feet) before making a definite statement in the Weekly Letter.

It appears now, however, that the missing samples cannot be supplied, but I have reexamined the samples throughout the doubtful interval and am willing now to place the base of the Kansas City group at 4090 feet, where it rests upon eroded, dark gray to black, oil-stained chert, and black shale. This chert is enough like the chert found below the gap in the samples that I assume now that the missing samples are chert similar to that found below and that there is no basal conglomerate, although I did find a piece or two of jasper chert in the sample from 4135 to 4140 feet (the first sample below the gap). The top of the cherty limestone section therefore is placed in contact with the base of the Kansas City group of limestones at 4090 feet.

Below the gap in the samples there are 205 feet of chert, cherty limestone, and at the bottom some pink limestone and a bed of dolomite, which may be subdivided as follows:

50 feet	white chert and weathered white chert. (4135 to 4185 feet)
100 feet	greenish-gray to brownish nodular limestones and creamy-white compact limestones, with a little dull creamy-white chert. (4185 to 4285 feet)
25 feet	pale green and white hard chert and some porous pale green chert, with a little crinoidal limestone at base. (4285 to 4310 feet)
20 feet	coarsely crystalline soft pure pink limestone. (4310 to 4330 feet)

Wichita, Kansas,
February 16, 1938.

Dr. Max Littlefield,
303 North Cincinnati,
Tulsa, Oklahoma.

Dear Max:

We are forwarding you samples by Southern Kansas as follows:

1. Helmerich and Payne, No. 1 Hoeme, Sec. 20, T.26S., R.12W. Samples from 4050 to 4447 feet. Total depth 4470 feet. Samples from 4447 to 4470 feet never received. This test has two bad gaps, one from 4100 to 4135 feet and one from 4375 to 4397 feet, which were lost.

2. Colonial, No. 1 Phelps, Sec. 4, T.26S., R.12W. Samples from 3900 to 4325 feet, total depth.

3. Pem Drilling, No. 1 Holland, Sec. 6, T.26S., R.12W. Samples from 3950 to 4330 feet. Total depth 4340 feet. No samples received of the last 10 feet.

4. Stanolind, No. 1 Hartzell, Sec. 14, T.26S., R.12W. Samples from 4000 to 4415 feet, total depth.

Samples on Helmerich and Payne, No. 1 Hoeme are being sent at the request of Mr. Wilson and have been considerably delayed, inasmuch as they were lost. Samples on the other three tests in this township are being sent as an aid to the identification of the stratigraphic section in the Hoeme test. You will recall that this is relative to which I wrote Mr. Wilson at the request of Dr. Honess and sent you a carbon copy. Dr. Honess, in the Hoeme test, identified Mississippi lime from 4090 to 4340 feet, Simpson from 4340 to 4421 feet, and Arbuckle from 4421 to 4447 feet. I felt that much, if not all, of this Mississippian should be Viola and Dr. Honess felt that he had Mississippian fossils, and thus the problem will be referred to you for settlement.

In the meantime, Mr. Carmody has returned to Wichita and has worked the samples on the Hoeme test, which appear to be an unusually poor set of rotary cuttings. Inasmuch as he also had difficulty with this test, it was decided to work the other three wildcat wells in this same township. This Mr. Carmody has done with the utmost care and the whole problem has been discussed and thrashed out. However, even yet some of the correlations are still questionable.

Mr. Carmody's best correlations on these four tests are herewith forwarded for your convenience:

1. Helmerich and Payne, No. 1 Hoeme, SE/c NE Sec. 20, T.26S., R.12W. Elevation 1911 feet.

4138 to 4170 feet	Mississippian chert
4170 to 4270 feet	Chert, lime, and shale of probable Kinderhook age.
4270 to 4306 feet	Viola chert
4306 to 4314 feet	Lower white crystalline Viola limestone
4314 to 4330 feet	Simpson limestone and sand
4330 to 4340 feet	Simpson dolomite
4340 to 4360 feet	Simpson sand and dolomite
4360 to 4420 feet	Simpson sand and green shale
4420 to 4447 feet	Arbuckle dolomite

The samples on this test are extremely poor.

Colonial, No. 1 Phelps, SE/c SW Sec. 4, T.26S., R.12W. Elevation 1881 feet.

3900 to 3975 feet	Kansas City limestone
3975 to 4030 feet	Kansas City lime and chert
4030 to 4050 feet	Marmaton red and grey shales. Some chert and some lime in top 10 feet.
4050 to 4055 feet	Pennsylvanian basal conglomerate
4055 to 4090 feet	Mississippian chert
4090 to 4125 feet	Limestone, chert and shale of probable Kinderhook age
4125 to 4195 feet	Viola chert, limestone and dolomite
4195 to 4210 feet	Lower white crystalline Viola limestone
4210 to 4299 feet	Simpson, and irregular mixture of sand, green shale, limestone and dolomite
4299 to 4325 feet	Total Depth - Arbuckle dolomite

Pem Drilling Company, No. 1 Holland, SW/c NW SE Sec. 6, T.26S., R.12W. Elevation 1898 feet.

3950 to 4010 feet	Kansas City limestone
4010 to 4040 feet	Kansas City lime and chert
4040 to 4070 feet	Marmaton red and grey shales
4070 to 4080 feet	Pennsylvanian basal conglomerate
4080 to 4120 feet	Mississippian chert
4120 to 4140 feet	Shale, probably of Kinderhook age
4140 to 4205 feet	Viola chert and limestone
4205 to 4220 feet	Lower white crystalline Viola limestone
4220 to 4240 feet	Simpson sand and green shale
4240 to 4255 feet	Simpson dolomite and sand
4255 to 4320 feet	Simpson sand and green shale
4320 to 4330 feet	Arbuckle dolomite.

Stanolind, No. 1 Hartsell, NW/c SW Sec. 14, T.26S., R.12W. Elevation 1887 feet.

4070 to 4105 feet	Mississippian chert
4105 to 4145 feet	Mostly shale, some lime and chert--probably Kinderhook
4145 to 4170 feet	Mostly lime and chert--probably Kinderhook
4170 to 4187 feet	Mostly shale, some lime and chert--probably Kinderhook
4187 to 4260 feet	Viola chert, lime and dolomite
4260 to 4275 feet	Lower white crystalline Viola limestone
4275 to 4293 feet	Simpson dolomite, green shale and sand (Price)
4293 to 4315 feet	Simpson sand (Price)
4315 to 4340 feet	Simpson green shale (Price)
4340 to 4364 feet	Simpson green shale and sand (Price)
4364 to 4415 feet	Arbuckle dolomite (Price)

Mr. Carmody has prepared a statement on these four wells as part of his Weekly Letter. I am asking Miss Shirley to make an extra copy of this letter and it will be enclosed herewith, since it may contain additional information which you may find useful.

Very truly yours,

/s/ Anthony Folger

Anthony Folger

AF:AS

1 Enc.