

Tulsa, Oklahoma,
February 19, 1934.

Mr. W. B. Wilson,
Building.

Dear Sir:

Subject: Characteristics of Mississippian lime section producing in our #1 and #2 Krehbiel, 55-238-4W, Kansas.

Gypsy #1 Krehbiel. Tops and drilling data from Price, Weekly Letter #48-1932.

- 3236' Top Mississippian lime.
3236-3255 White lime and 50% weathered chert. Hard. 8" pipe at 3242'. Rotated ahead.
3255-3270 Weathered chert and white lime. About 70% chert. Soft.
3270-3295 Weathered chert and light brown, finely crystalline, oilstained dolomite. Appears to be an unbedded mass of chert with lenses and streaks of dolomite. The interstitial porosity of the dolomite is too fine to produce oil, but the staining of the dolomite indicates that oil is associated with it, probably along seams and crevices of the dolomite-chert contacts.
3295-3310 Chert, less weathered than above; with 30%-60% dolomite. Drilled soft, with a few hard shells. This material suggests that the more solid, bedded, less weathered, Mississippian was topped at 3295'. Dolomite beds should be more continuous horizontally than above 3295'.
3310-3315 Chert and white crystalline lime. Hard from 3310-13'. No oilstain. A solid bed, non-porous.
3315-3326 Chert and finely crystalline, oilstained, dolomite. Dolomite, 30-70%. Apparently solid and bedded. Porosity appears to be low and is probably confined to seams and crevices.

Gypsy #2 Krehbiel. Samples still in Wichita. Descriptions by Price, Weekly Letter #43-1933.

- 3252' Top Mississippian lime.
3252-3326 Weathered chert and lime.
3326-3370 No data. Judging from Price's description, the #2 did not, at 3326', reach the chert and dolomite zone topped at 3270' in the #1. The section 3326-3370', in the #2, probably includes the unbedded dolomite and chert and some part of the solid, bedded, dolomite and chert.

Acidization should increase production from the chert and dolomite zones. In the #1 the beds 3295-3310'

material from 3295-3326', solidly bedded chert and dolomite, highly favorable because the dolomite layers may be expected to be horizontally continuous. The #2 should be in this latter zone at 3370'.

The high percentage of insoluble material, mainly chert, may result in an accumulation of loose chert after acidization. This is coarse material and should not be expected to be entirely removed by oilflow.

Although the soluble material is dolomite rather than lime, it is not probable that stronger acid should be used. More time might be allowed for the reaction to be completed.

Very truly yours,

cc Mr. Copeland.