15-155-21207 8-24s-4w

GEOLOGICAL REPORT

Excalibur Production Co. #6 Brawner
C NE Sec 8-24S-4W
Reno Co., Kansas

Elevation : 1480 KB 1477DF (Est.)
Contractor: Glaves Drilling Co.
Commenced: 7/14/92
Surface casing - 8 5/8 @ 305'

Drilling Completed: 7/23/92
Rotary Total Depth - 3362'
No Log Run

Remarks: Samples and drilling time were saved from 1100' to TD. Geological supervision from 1100' to 1350', 1700' to 1750', 1900' to 1940', 2570' to 3130' and 3300' to TD @ 3362. All measurements from kelly bushing.

FORMATION	SAMPLE TOPS
Elmont	1715 - 235
Reading	1728 - 248
Heebner	2401 - 921
Lansing KC	2620 -1140
Base Kansas City	3039 -1559
Reworked Mississippi	3320 -1840
Mississippi "Lime"	3328 -1848
Mississippi "Chat"	3356 -1876
Total Depth	3362

ZONES OF INTEREST

Porosity - 1253'-58': Limestone, tan to fine to medium crystalline poor to fair pinpoint and minor vuggy porosity. It contained a trace of light stain but no discernable indication of gas except for a trace of fleeting fluorescence. This zone was tested.

Drillstem Test #1 - 1242' to 1270'
Tool would not open.
Drillstem Test #2 - 1242' to 1270' (rerun)
Very weak blow. Recovered 61' of drilling mud and 61' of salt water. IFP 30-65/30", FFP 75-75/15", ISIP 420/30", no FSIP taken.

Red Eagle - 1320'-1330': slightly sandy limestone, tan rubbly, medium crystalline, fossiliferous with fair intercrystalline and minor vuggy porosity. No Show.

Elmont - 1715' -20': limestone, light creamy tan, fine crystalline with minor medium crystalline fracture edges, poor porosity with no show. This section tested along with the Reading below.

Reading - 1728' - 36': limestone, light creamy tan, dense to fine

crystalline with fair pinpoint and intercrystalline porosity. Scattered good, light brown stain yielding good fluorescence and cut. This section tested along with the Elmont.

Drillstem Test #3 - 1709'- 1735'
Very weak blow on initial opening and no blow on final opening. Recovered 20' of oil spotted drilling mud. IFP 20-20/20", FFP 20-20/5", ISIP 640/30"

Porosity- 1920'-30' limestone, light grayish tan, fine crystalline with sucrosic intercrystalline porosity. No shows.

Lansing, Kansas City: The samples of the very top of the Lansing KC as well as the top of the Kansas City plus other porosity zones including the Swope and Hertha were examined. Only very minor traces of shows and none worth testing.

Marmaton porosity 3090'-3120': limestone, light tan to buff and light brown, slightly chalky and oolite. Relatively poor porosity and no shows.

Mississippian - 3320'-62': Reworked Mississippian between 3320' and 3328' consists of light gray and tan limestone containing much weathered chert with red staining and spicular gray chert. The Mississippi Limestone 3328'-3355' consists of white to creamy white fine crystalline to dense to sucrosic limestone with much white chert. This latter section contained good dark brown staining in the top few feet which exhibited a bright gold to bluish gold fluorescence. The balance of the limestone section contains a good scattering of very light staining with very lively bright blue fluorescence down to a 3' hard, dense limestone resting on the "chat". The very light staining could be easily overlooked and could be indicative of gassy hydrocarbons. The samples and drilling characteristics indicate that the porosity occurs in thin seams. It consists of sucrosic edges on limestones and cherts with some pinpoint and some frothy cherty limestone. Individually the porosities are rather poor for the most part but must be considered significant in aggregate. The Mississippi "chat" encountered at 3356' consists of white siliceous limestone containing much white weathered chert. It exhibits fair vugular, pinpoint and intercrystalline porosity with good light brown staining and bright golden fluorescence.

RECOMMENDATIONS: It is recommended that the Mississippi Limestone section above the "chat" be evaluated further sometime in the future. I would suggest regularly spaced perforations between 3328'- 3350' followed by acid treatment. This section reacts very favorably to acid.

Respectfully submitted,

Clemens Brauer

P.S. The samples of the Mississippi limestone had a fair odor and the "chat" a strong odor.