FLD SUMMARY OF J. MICHAEL VERON'S CORBEL CASE EVIDENCE AND AMERICAN PETROLEUM INSTITUTE ADVISORY ABOUT PROPER DISPOSAL ...

DISPOSAL OF PRODUCTION DIVISION WASTES BY V.L. MARTIN (The Prairie Oil & Gas Company, Independence, Kansas)

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- 1. Paper should be construed as a recommendation from the API committee on waste disposal.
- 2. Serious consequences always attend waste disposal.
- 3. Discusses in a general way, merits and faults of present practices
- 4. Four Groups of Production Wastes: (1) Waste Oil; (2) Saline Waters; (3) Drilling Mud; and (4) Gases and Vapors.
- 5. Predicts most aggravating will not receive attention until those most affected by waste oil and saline waters force the solution. Noted: Wastewater ought to someday become a revenue producing product (See Bill Bontrager's case from Colorado.) (Page 1 & 2)
- 6. Only a question of time until the industry can no longer escape its moral responsibility. I must incorporate waste management into the process. After all we are all part of the affected public. (Page 2)
- 7. Old Days field man was in charge of problem and disposed of it at minimum cost dumping it in high water intervals when detrimental consequences were not obvious.
- 8. Tables on salts and diagrams of oil/water separators.
- 9. In 1935 he believed returning brines to subsurface formations was prohibitively expensive.

- 10. On Page 6, he noted that depending upon character of clay some ions such as sodium and potassium render clay relatively impervious to infiltration of water but calcium and magnesium have the opposite effect.
- 11. Page 7 "We are only 'kidding' ourselves when we think we can dispose of salt water by solar evaporation from earthen ponds...what we have attributed to evaporation was due to seepage...eventually such seepage might either follow a impervious stratum to the surface where it may effect vegetation or may find its way to fresh water sources, either surface or sub surface and in such quantities as to be objectionable. The theory that seepage tends to filter out the objectionable salt has been thoroughly disproven. (Schmidt and Divine in Bureau of Mine Bulletins, R.I. 2945.)
- 12. Page 8 end of second paragraph, "Therefore, we cannot expect to successfully impound salt water without seepage and that disposal by seepage is not as practical as methods which will confine the water to definite and known channels." HE WAS RECOMMENDING DISPOSAL AT TIMES OF HIGH WATER WHEN DILUTION WAS THE SOLUTION.
- 13. CONCLUSION INFLUENCED BY VERON: The industry knew 20 years before they came to ND that evaporation pits leaked and would poison farm and ranch lands.