condition of borehole VIII, which was partly choked with debris from electrolinking. Borehole IX at this time had been redrilled, but borehole VIII was not yet repaired. During the first part of the period, air was lost by leakage from the underground system, and in the latter part the underground system had opened up enough to remedy this effect.

On September 4 the direction of flow was reversed because of the rising temperature at the outlet, and until the 18th the system was operated with the outlet at borehole VIII and the inlet at IX. The calorific value of the product gases averaged 87 B.t.u. per cubic foot, the system leakage was high as a result of the resistance at borehole VIII. From September 18 until October 30, the system was operated by alternating the direction of flow. During a total of 17 days, the air input was at VIII, with the output at IX. The calorific value of the effluent gases averaged 88 B.t.u. per cubic foot, and good contact between the reactants was maintained. The pressure drop over the system increased, and paralleling this effect leakage increased.

In the immediate future it is planned to open up the system between boreholes IX and XI by inserting new electrodes and applying the electrolinking technique. The experiment has shown that the electrolinking technique can be employed and a system set up for underground gasification whereby underground mining can be eliminated. Further, where good reactant contact is maintained good quality gaseous products can be produced. Better electrode installation, it is believed, will materially decrease the time required for development and result in larger throughputs than have been obtained.

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