SYSTEMATIC WATER FLOOD MAY REVIVE OLDER ILLINOIS FIELDS

Recent Developments Discussed by Engineer Of State Survey

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Will water power revive our oil fields? This is the question that has been raised by the recent evidence of natural floods on the state's recently discovered fields by Mr. M. C. McArdle of the Illinois State Geological Survey.

FIGURE 1: A typical McCardle production in Lawrence county. This picture shows a typical well arrangement, which is similar to those used in the oil-producing areas of Illinois, and is designed to make the most efficient use of the available water power.

Water power is produced when water flows through a series of pipes and turbines, generating electricity. The amount of power produced depends on the head of water and the flow rate. In the case of the McCardle production, the head of water is approximately 15 feet, and the flow rate is about 100 gallons per minute.

FIGURE 2: A diagram showing the McCardle production. The well is shown on the left, and the turbine is shown on the right. The water flows from the well to the turbine, where it is converted into electricity.

In the McCardle production, the water flow is directed through a series of pipes, which are attached to the turbine. The water then flows back into the ground, completing the cycle.

FIGURE 3: A diagram showing the McCardle production. The well is shown on the left, and the turbine is shown on the right. The water flows from the well to the turbine, where it is converted into electricity.

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WOODHULL OPENING LED DEVELOPMENTS IN ORISKIAN AREAS

Completion in Past Year
As Numerous As Those
Of Previous Year

TOTAL INITIAL OPEN
FLOW IS MUCH LESS

Extensive Wildcatting
In Prospect For 1938, It
Is Indicated

Coudreuper, Pa., Jan. 26.—From the long-sustained drilling operations in the deep sand gas and
township, good for 5,000,000 cubic
feet, extended the field northwest and
toward the southwest. The town of
Leopard hills in Western township, good
township, both extensions approx-
imated the parallelism of the townships.
New production was also developed
in the Vineyard field in Pennsylvania,
county, northeast of the Harriett
camp, which has always been consid-ered a well on the Hendricks farm that
to the northwest. The field has an initial open flow of 1,500 cubic feet per hour and is
rich rock pressure of 1,240 pounds. Two
wells were drilled in this area at the
close of the year, a new oil discovery

A well drilled by the Moss Syndi-
ticate in the Moss farm in Howard
township, Bradford county, and a
field in the Oilrich area which it
reached in April and which produced
20,000 feet after shut in.

Further development of the Harriett
field in Potter county accounted
for $700,000 of new production and gave this field a second year in development worth
for 1937. Eleven wells were completed
in the field, ten of which were producers.

The Brine Lake field of Allegany
county, N.Y., ranked third with
$540,000 of new production, the field
area of 30,000 acres, and has a number of
30,000 feet wells, all in the Brine Lake
field area. Eleven wells were completed
and were unexceeded by any of the producers completed last year.

Woodhull Leads
The discovery and subsequent de-
velopments of the Woodhull, Woodhull
township, southern central Pennsylvania, a mile north of the New York-Penn-
sylvania border, has been the outstanding development of the year in the Pennsylvania area.

The discovery well was completed on Jan. 25 by Atwater and south-
wood, and the field had an initial open flow of 12,000 cubic feet per hour at a test pressure of
3,420 pounds and was completed at a total depth of 5,460 feet, two feet in the Oilrich sand. The field is about 50 miles southwest of the Vineland, with a northeast, south-
west trend and is one of the most interesting developments in the Oilrich field area. The field has a number of 30,000 feet wells, all in the Brine Lake
township, Bradford county, and are of great interest.

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west trend and is one of the most interesting developments in the Oilrich field area. The field has a number of 30,000 feet wells, all in the Brine Lake

Westfield Production

Field Camp. G. M. Dry Initial
Stake, 47 10 47 Stake, 47 10
State Line, 8 8 8
Levan, 3 3 3
Pitts, 3 3 3
Woodhull, 10 10 10

Total, 30 30 30

Total, 20 17 13 150,000

Wells

Field Camp. G. M. Dry Initial
Stake, 47 10 47 Stake, 47 10
State Line, 8 8 8
Levan, 3 3 3
Pitts, 3 3 3
Woodhull, 10 10 10

Total, 30 30 30

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Wells

This test well completed in the
fields during the year was that of
G. L. Cotter, Inc., on the River
Township farm in Woodhull which
was tested on an initial flow of 12,000
cubic feet per hour. Thirty-five
5,000 foot wells were drilled, one sand in the Woodhull, State Line and State
line sands by Hanley & Sock, G. L. Cotter, Inc., and New York State Natural Gas Co. respectively, and 26,000 and 25,000 cubic feet
wells were completed in the Woodhull field by New York State Natural Gas Co. and Syrahk Corp. Four other twenty million feet wells were drilled in the Woodhull field and one in the Harriett field. The 50,000 foot test was made
of 25,000 feet and had a displace
25,000 foot well flowing 350 feet at the

Woodhull Wildcat

A wildcat drilled by the H. C.
van Suykerang farm in Hamilton
township, western McK
er County, the G. L. Cotter, Inc.
test in that immediate area, struck a 5,000 foot sand at the
18 feet of Oilrich sand at 4,700 feet and flowed 350 feet at a
several hundred thousand feet per hour and when developed
end it was plugged back to make a dry hole. Later, when it was
decided that producing it as a gas well was impossible,
the wildcat including the Woodhull discovery and five wells
were drilled in Allegany county, three in northwestern Pennsylvania, and one in Allegany county.