

The State of Wyoming.
Office of State Geologist,
Cheyenne.

A PRELIMINARY REPORT.

ON

O I L L A N D S

of

THE INDEPENDENT OIL & REFINING COMPANY.

LANDER.

PREMONT COUNTY.

WYOMING.

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SITUATION.

These lands are situated in Sections 22, 23, 24, 25 and 26, Township 33 North, Range 99 West, about five miles east of the town of Lander, the county seat of Fremont County, Wyoming, and about four miles north of the famous Murphy Oil wells, where oil was discovered in 1833 and which shows flowing wells at the present time.

The Little Popo Agie River flows from the south through these lands, joining the Big Popo Agie at a point north east of Lander, where the Wyoming and NorthWestern Railroad, an extension of the Chicago and Northwestern R.R. now runs to Lander, the nearest railroad point. In the event of a south-western extension of this railroad, the natural route would be up the valley of the Little Popo Agie River and across this property, which would make it still more easy of access and further cut down transportation charges.

EXTENT.

At the present time, this property consists of 200 acres of patented land located on Sections 23 & 24 and 680 acres of land located in Sections 22, 23, 24, 25 & 26, all in T. 33 N., R. 99 W. as above and all

contiguous, as shown by the maps of the Company. This latter 680 acres are held as oil lands under the placer mining laws of the United States and the State of Wyoming.

ORGANIZATION.

This property is held, as above, by the INDEPENDENT OIL AND REFINING COMPANY, of Lander, Fremont, County, Wyoming, organized under the laws of the State of Wyoming, capitalixed for \$500,000.00, divided into 20,000 shares of a par value of \$25.00 each.

GENERAL GEOLOGY.

The geology of the POPOAGIE OIL FIELDS is very interesting and is a simple matter when certain facts are studied and brought to the attention of even a casual observer.

For a distance of four or five miles south of the lands of this Company, the Little Popo Agie River flows northerly through a valley lined with high hills and steep bluffs on either side, all of which show the different formations which compose and underlie this locality, as outcrops along the sides of these hills.

The line of the valley is along the longer axis and on the top of a huge anticline or dome, as it is sometimes called, in the formations, caused by the uplifting of these formations into their present position.

The upper portion of the formations have been eroded or scoured away by the river and other agencies leaving the present valley showing the red beds of the Triassic Period, with the later formations of the Dakota, Benton and later periods composing the adjacent hills.

The longer axis of this anticline is north-westerly and south-easterly and the whole formation dips at a slight angle along this line to the

north and towards the property of this Company at the northerly end of the anticline.

On each side the rocks dip under the hills, that of the west side being the most abrupt, but gradually flatten out under the Lander valley and other valleys of this vicinity.

The Pitts Ranch lies at the northern end of the anticline and here the rocks change from a slight dip to an abrupt dip to the north, forming the end of this anticline.

THE OIL SHOWINGS.

Hitherto all the wells of the POPO AGIE FIELD have been drilled in the southern end of the anticline, at the point near the original well or discoveries known as the Murphy Wells, and no attempt has yet been made to show the full extent of the oil fields.

The oil from the Murphy Wells has been analyzed by the State Chemist at the University of Wyoming, Laramie, Wyo. and complete analyses published, showing it to be a very high grade petroleum and all products from this oil can be utilized, so that there need be very little waste in utilizing it.

The commercial analysis of oil from the Popo Agie wells follows;

Naptha, (gasoline)	8 - 5%
Kerosene, .810-.830	30 - 40%
Lubricating Oil, .910-.940	35 - 50%
Parafin,	3 - 5%
Coke,	7 - 10%
Gas,	10 - 12%

Tests of this oil for fuel purposes show it to be a very high grade fuel oil and it is considered that this will be the greatest market for it when opened up and producing on a commercial scale.

A great gas pressure has been noted in the Murphy Wells, and oil spouted until it could be controlled and shut off.

The exact location of the source of the POPO AGIE OIL has not yet been determined but may be placed either the lower stratas of the Triassic or the upper Carboniferous, which underlies the red Triassic formations shown in the valley.

The depth of the wells hitherto drilled varies from 300 feet to 1600 feet, depending upon location on the anticline.

THE LANDS OF THE INDEPENDENT O. & R. CO.

As has been stated, these lands lie at the northern end of the above described anticline and are unproven lands, as all drilling for oil in this locality has been at the upper or southern end of the anticline.

At this point, the formations dip sharply to the west, north and east, leaving the southern end sloping gently upwards towards the oil wells at the southern of the anticline, some four or five miles away.

To prove these lands, a test well is recommended at a point indicated to the management by the Geologist, immediately north of the southern line of the property on Section 23.

The Formations here show the upper part of the Triassic, covered by the wash of the valley at the well site, but, showing the formations in the adjacent hill sides.

It is evident from a careful consideration of all points and data available that the well to be drilled here will be considerably deeper than the average wells at the southern end of the anticline, owing to the fact that the upper portion of the Triassic formations have been scoured away and that resulting formation is thinner at the southern end than at this northerly end but it is considered that a depth of 1500 feet should reach the oil at this point, at the site indicated.

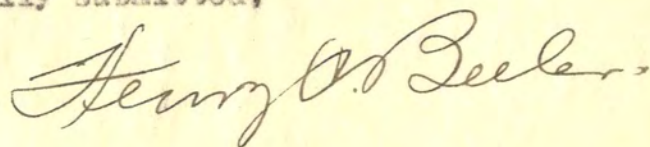
This is purely an estimate but is believed to be as accurate as may now be made in this unproven territory.

All consideration of oil in this locality must necessarily be based upon the results obtained by the actual work in the wells which show the oil in the POPO AGIE FIELD and it is believed that the conditions noted on the lands of this Company indicate that oil will be found on these lands and that the necessary expense of development of these lands is fully warranted by these showings and conditions.

This development expense should not be great, considering the close proximity of the railroad, town of Lander and favorable season when this work is commenced.

Drilling of the test well should be commenced at once and pushed as rapidly as possible, and the location of further wells considered in the light obtained by conditions noted in this first well.

Respectfully Submitted,



State Geologist.

Date of Examination,

March 15th, 1907.