

NEW BRUNSWICK OIL SHALE.

Sample No. 1040
Shale from main dump at Albert Mines.

Proximate Analysis:—

Moisture.....	4.4%
Ash.....	73.9%
Volatile matter.....	17.8%
Fixed carbon.....	3.9%

Ultimate Analysis:—

Sulphur.....	0.2%
Nitrogen.....	0.8%

This nitrogen content theoretically corresponds to a yield of 81 pounds of ammonium sulphate per long ton.

Gross Calorific Value:—

Calories per gram.....	1170
B. Th. U. per lb.....	2110

Destructive Distillation.—In electrically heated retort with the temperature gradually raised to 665°C (1229°F.).

Yield of oil—4.6 per cent by weight of shale, or 12.2 imperial gallons per long ton.

The oil has a specific gravity of 0.85 at 15.5°C. (60°F.), and a gross calorific value of about 18700 B. Th. U. per pound.

Distillation with superheated steam gave results in agreement with these.

The shale was sampled with the primary object of determining whether it would be of value as a substitute for coal in case of a shortage. The dump had been made some 30 or 40 years previous during mining operations for Albertite, and there was a small amount of this substance mixed through the shale. The sample, of about 15 tons, was taken by J. H. H. Nicolls in June 1917.