

At Obompa (Obongkpa) twenty-four miles north-west of Asaba, a seam, 20 feet thick, of good lignite is seen in the bed of the Iyiokolo about 35 yards below its source. Within 100 yards of its source the Iyiokolo flows into the Iyiawku, in the bed of which five other seams of lignite outcrop, giving rise in some cases to low waterfalls. These seams measure 10, 9, 8, 20 (approximately) and 10 feet in thickness, making a total of about 77 feet of lignite in some 250 feet of mudstone and shales. These outcrops are distant only some six or eight miles from the Otor, a navigable tributary of the Niger, and it is probable that extensions of the deposits, at present undisclosed, will be found even nearer. The configuration of the ground will allow the lignite to be worked by means of adits.

Three analyses made at the Imperial Institute of lignite from the Iyiawku stream gave the following results:

Volatile matter.....	48.13%	39.25%	35.94%
Fixed carbon.....	35.68	29.38	22.52
Water.....	11.92	9.12	7.50
Ash.....	4.27	22.25	34.04
Sulphur.....	1.24	2.14	4.63
Calorific value, small calories.....	5,963	4,682	3,654
Evaporative power.....	11.13%	8.74%	6.82%

The percentage of ash is somewhat high in two of the samples.

Still farther to the north-west, lignite is found in the valley of the Adaji stream, Ubiaja, latitude 6° 40' N. and longitude 6° 20' E. The largest seam is 5 feet in thickness, and the quality is mostly good. It should be useful for local purposes at least.

The extent of the lignite deposits under the Benin Sands must remain a matter of conjecture until the area over which this formation occurs is properly tested by boring. The lignite is met with again more than two hundred miles further west, in latitude 7° 1' N., longitude 3° 20' E., on the left bank of the river Ogun, in the district of Abeokuta just to the north of the village of Moroko, to the south of Oba and of the town of Abeokuta. At this point the river has cut a vertical cliff in a ridge raised above the surrounding country. The higher portion consists of red, sandy beds referred to the Benin Sands. At the foot of these and covered unconformably by them is a shelf containing the following succession:

5—Grey sandy clay, carbonaceous at the top.....	7 feet 9 inches
4—Red and yellow sand.....	10 inches
3—Brown carbonaceous shale.....	2 feet 11 inches
2—Lignite.....	2 feet 3 inches
1—Grey carbonaceous shale with plant remains, mica- ceous towards the bottom.....	1 foot 1 inch
(Base not seen.)	