Brunei's Oil Industry, 1906-1929: The Early Years

by

Jatswan S. Sidhu

It is a well-established fact today that the hydrocarbon industry of Brunei Darussalam (Abode of Peace) is the artery of the state's economy and that Royal Dutch/Shell remains an important contributor, since 1932, to Brunei's economic prosperity. However, little is known that substantial quantities of oil were only found after some two decades of vigorous exploratory work. This change in Brunei's fortunes began in 1929, when while exploring for oil around Seria¹ the British Malayan Petroleum Company (BMPC) discovered large oil reserves. So great was the impact of the discovery of oil on Brunei that it transformed this once impoverished state into "a little rich kingdom."

Although the petroleum industry of Brunei has received much attention from researchers, but there is still little light on earlier development.³ What have interested most scholars particularly, is the impact of the oil industry on Brunei's economy especially since 1932 when the latter began exporting its oil. Unfortunately, very little is known about the companies as well as the men who braved through the malaria-infested jungles and mangrove swamps of Brunei in search of oil.⁴ This is mainly due to the fact that very little attention has been

given to the economic history of Brunei particularly for the period between 1906 till 1959, which saw the introduction of the British Residential system.⁵

This article is, therefore, an attempt to trace the historical development of the oil industry in Brunei at the beginning of the twentieth century and especially during the British Residential system from 1906. Although most of the companies (except the BMPC) eventually aborted their efforts for prospecting oil, however, they laid the foundation for infra-structural developments such as the building of bridle paths, townships and railways in a country where even the early British administrators found it difficult to communicate and govern. This fact was confirmed in an official report prepared by the first British Resident of Brunei, Malcolm Stewart Hannibal McArthur, who was Resident from January 1906 till April 1908. In his very first report on the state, McArthur noted of "the absence of roads in the country."6 So difficult was communication within the country that the first map of Brunei was only completed in 1914, some eight years after the introduction of the Residential system in Brunei. This map was principally based on survey work undertaken by H. M. S. Merlin and a revenue survey by Brunei's government officials and was supplement by time and compass surveys carried out by prospectors employed by oil companies.7

Hence, this article will not only trace the historical development of the oil industry but would also discuss the contributions made by the companies prospecting for oil namely in infrastructure development and financially towards Brunei's then impoverished economy.

As early as 1866, there was already some activities by oil companies in vicinity of Brunei when in that year a shallow well was drilled in Labuan, at that time a British protectorate. In Brunei, the first oil well had been drilled as early as 1899, but it was not until 1906, with the introduction of the Residential system, that serious efforts were undertaken to realize Brunei's oil potential. This was because the first oil well at Ayer Bekunchi near Brunei Town met with no success despite exploratory works at a depth of 850 feet. However, oil prospectors continued their search for this "black gold" throughout the coast of Borneo. According to Harper, the disappointment at the result of the well drilled in 1899 at Ayer Bekunchi had discouraged early explorers such that no oil exploration activities were undertaken from 1898 till 1911 in Brunei.8 However, the information below clearly demonstrates that Harper's view needs modification because despite the failure at Ayer Bekunchi, exploration activities continued in Brunei.

Further, in the first annual report on the State of Brunei prepared by McArthur, the first British Resident in 1906, oil was mentioned as one of the prospective minerals of the state in addition to coal. This clearly indicates that the British were aware of the prospects of obtaining oil in Brunei even before the introduction of the Residential system. This was soon followed with the granting of six licenses by the Resident to some companies, for the purpose of oil exploration in the state. In the same year, it was also reported that the company exploring for oil built a bridle path of about seven miles from the Tajau River, a tributary of the Brunei River in the district of Limau Manis, to a place called Rumah Panjang. The maintenance of this bridle path, was a year later, in December 1907, taken over by the Brunei Government and extended to a further three miles to the Madang River, a tributary of the Tutong. In

In addition, various licenses extensions to oil prospecting companies were further granted in 1907.12 Following this, in 1908, a fresh license, covering an area of eleven square miles was granted to one Mr. Gadelius, owner of the Maatschappij Tot Mijn Bosch-en Landbouwexploitatie to prospect for oil at Jerudong in the Tutong district. 13 Unfortunately, due to the proximity of Jerudong to the coast, it was reported that this made boring rather difficult.14 Apart from this, another Dutch company that undertook some exploratory work was the Koloniale Petroleum Maatschappij in the Belait District.15 In view of the increased interest in prospecting for oil, the Brunei government in 1908, passed the Brunei Mining Act of 1908 as measure to extend strict control over the industry. Apart from making the distinction between 'prospecting' and 'mining' leases, the act also stipulated that at least 60 per cent of the subscribed capital of potential mining companies had to be held by British subjects, the majority of directors were to be British and the company had to be registered in Britain.16 However, the act never was never implemented strictly because exploratory rights were also given to Dutch and American companies. In fact, even a Japanese company, Kuhara, had explored for oil after 1909 although it finally abandoned the field.17

On the other hand, it was also reported that oil had been discovered and was being exported, to be used for lubricating purposes, in considerable quantities from the Rajah of Sarawak's coal mines at Buang Tawar in the Muara District. Although no prospecting was undertaken by the grantees of earlier concessions in 1909, the Anglo-Saxon Petroleum Company (ASPC), a Shell Group Company, which had applied for concessions to prospect for oil withdrew its

application. It is highly likely that the ASPC's decision to withdrew its application was mainly connected to the fact that none of the companies exploring for oil had made any discovery thus far. Meanwhile, the Maatchappij Tot Mijn Bosch-en Landbouwexploitatie which was boring at a depth of 600 feet in Jerudong abandoned work temporarily due to an accident.¹⁸

Further, by 1911, the Borneo Burma Petroleum Company had entered the scramble for oil in Brunei and was already prospecting for oil in Belait while the Brooke's coal mine at Buang Tawar produced some 13,680 gallons of oil that year, which was used mainly in the construction of roads in Labuan. In addition, several applications for oil prospecting were also received and approved by the Brunei Government. One of which was the mining rights over an area of 169 square miles leased to the British Borneo Petroleum Syndicate (BBPS) in the Belait District. Between 1912 and 1916, the drilled four wells at Bukit Puan and near Labi.

Two years later, in 1913, the Shanghai Langkat Petroleum Company (SLPC) was also already prospecting for oil in Jerudong while the Anglo-Saxon Petroleum Company (ASPC) undertook boring at a stretch along the northeast of the Tutong River. Both the SLPC and ASPC were Shell-owned companies based in Singapore. The ASPC had obtained concessions rights over an area of 273 square miles in the Tutong District and undertook its first geological survey. On the other hand, between 1913 and 1917, the SLPC drilled five exploratory wells around Jerudong but failed to discover oil. The Borneo Burma Petroleum Company (BBPC) that was prospecting at Belait, however, surrendered its rights to the British Borneo Petroleum Syndicate. For the purpose of prospecting, the latter began constructing earth roads across swamps in the Belait District.

Unfortunately, the output of oil from the Brooke's coal mine at Buang Tawar, the only place in Brunei producing some relatively considerable quantities of oil, witnessed an decrease in production from 5,710 gallons in 1912 to only 3,700 gallons in 1913.²⁴ In another direction and for the first time since 1906, the government also recorded an increase in Customs Revenue that was mainly due to payment of minimum royalty on oil.²⁵ Perhaps due to this, Harvey "prospects of finding oil are favourable, and future developments will be awaited in eagerness."²⁶ At the same time, the former also praised the undaunting efforts of the men who were undertaking exploratory work by stating that "it is

impossible to overstate the courage with which the manager and geologist have faced immense difficulties of transport and investigation."27

Events took a turn for the better in 1914, when the government reported in that year that "payable oil has been found for the first time in the State at Belait No. 2 well," situated in Labi. 28 This effort was not an easy task for boring had to be undertaken at a depth of 1,820 feet and for about a week some 25 tons of oil was produced daily but this amount soon fell to some six tons daily. The event took place three weeks after the ASPC, which was prospecting in the same area, moved northwards along the Tutong River basin near to Demaun to prospect. For reasons unknown, the SLPC, on the other hand, ceased its operations for the year in 1914 although it still held the concessions. 29 The discovery in Labi had turned Brunei into "the pivot of immediate interest" especially amongst companies prospecting for oil in the Borneo region. By the end of 1914, it was reported that: 31

The British Borneo holds the petroleum rights between the Baram and the Tutong rivers, over a territory consisting of 19 square miles, held on lease, and 150 square miles held on prospecting leases. The rights for the rest of Brunei belong to the Royal Dutch and Shell Companies.

At the same time, using the same tracks followed by the oil companies, the government conducted a trial trace of some 60 miles for a road to link Brunei Town with Kuala Belait.³² Obviously due to the discovery made in 1914 and to concentrate it activities around the area, the BBPC, in 1915, leased out its concessions at Rempayoh in the Belait District to the Nederlandsche Koloniale Petrol Maatschappij for the period of a year. However, the daily production of oil from well No. 2 at Labi had further decreased to some four tons. Similarly, the SLPC abandoned its activities around Jerudong in 1915.³³

By 1916, it was reported that four oil companies were prospecting for oil in Brunei. The ASPC further moved its operations to Sembatang, although still along the Tutong River, after an unsuccessful venture at Demaun.³⁴ The SLPC, on the other hand, which was also working along the eastern parts of the Tutong River abandoned the field by 1917.³⁵ Even at a depth of some 2,500 feet, the ASPC had still failed to discover any oil at its well No. 2 in Sembatang until 1918. There was, however, some indication of deposits of natural gas in that

area which prompted the company to start boring well No. 3.36 However, this venture was rather short-lived when exploration was finally abandoned by 1920.37

Still unsatisfied with its results, by 1921, the ASPC continued exploratory works vigorously boring at a depth of some 3,000 feet at its well No. 3 in Sembatang.³⁸ Meanwhile, the BBPS, in 1918, reached an agreement with the D'Aray Exploration Syndicate to further examine its field in Belait.³⁹

By 1922, the ASPC was still continuing its operations at Sembatang but changed its name to become the British Malayan Petroleum Company Ltd. (BMPC). 40 In meantime, in 1922, another Shell-owned company, the Asiatic Petroleum Company (Federated Malay States) acquired concessions rights which were later transferred to the BMPC in February 1924. 41 On 28 July 1923, the BMPC purchased all the interests of the BBPC at Belait as well and began aggressively prospecting in that area. By doing so, the BMPC started, on an extensive scale, constructing roads, railways, bungalows, wharves and offices, which were near completion by the end of 1923. This was done to solve the problems of poor communications from the BMPC headquarters at Labi to its oil fields, a distance of about 100 miles. 42 On the other hand, the BMPC's efforts in the Tutong district proved futile because until 1923 it had completed eight exploratory wells but all were dry hole. 43

As a result of these developments, the small town of Labi began to witness growth when it was reported, a year later in 1924, that a small village had sprung-up around the BMPC headquartes. It was also stated that most of the newcomers to Labi were Chinese from Jesselton (Kota Kinabalu), Labuan, Miri as well as from Brunei Town. In addition, Brunei also saw the completion of its very first 7 ½ mile long railway line at Belait, built mainly through swamps. In addition to its operations in the Belait District, the BMPC was also prospecting in Tutong District. All these operations were not altogether unsuccessful for Brunei's annual oil production in 1924 was at some 238 gallons. This also included some 3,228 gallons of oil produced by Rajah Charles Brooke's oilfield at Berembang Island, on the mouth of the Brunei River. In view of such developments and realizing the potential of the Belait District, the Brunei authorities were, in 1924, already contemplating of appointing a European district of-ficer.

The Belait District continued to witness further growth when in 1925, the railway line was extended to a further nine miles. In the same year, the district also saw the completion a hospital, an effort solely undertaken by the BMPC

The well No. 2 at Belait was still producing some quantities of oil while the well No. 4 was producing natural gas. 46

In the meantime, to alleviate the problem of labour shortage, the BMPC was reported to have sent its *kanganis* to South India in 1925, for the purpose of recruiting Tamil labour. ⁴⁷ However, the scheme never materialised as the quantity of oil was too small for the recruitment of large numbers of Indian labour. In fact, as early as 1913, Harvey Chevallier stated that should the oil industry progress, the government will embark on a plan to recruit labour. ⁴⁸ However, even until the late-1920s this did not happen due to the small quantities of oil discovered.

The oil production of Rajah Charles Brooke's oil field at Berembang Island too, at least until 1925, was witnessing an increase in output when some 6,382 gallons of oil was exported,⁴⁹ although it had seriously declined to a level of 4,400 gallons by 1926.⁵⁰

Despite such impressive developments in the Belait District, the official opinion at the capital in Brunei Town, in 1927, was however rather pessimistic when it was noted that "it is early to prophesy as yet but high hopes are entertained that one day there will be a big oil field here [Belait]."51

A year later, in 1928, hopes were still being entertained on discovering a vast oil field in Belait although prospecting work was already moving towards the sea shore, eastwards of the Belait River. This was basically due to the discovery of natural gas fields in the area. In another direction and in addition to the growth at Labi and Kuala Balai, the village of Kuala Belait continued to expand due to the activities of the BMPC in that area.⁵²

The high hopes of both the BMPC and the government were not in vain because in April 1929, the former did strike oil some ten miles northwest of Kuala Belait, at Seria. In addition, the BMPC, prospecting for oil almost all over the Belait District, was also found to be drilling for oil at a place in the interior parts of the Belait River, very near to the Sarawak frontier.⁵³

The BMPC, eventually hit the jackpot in 1930, when it was noted that "an oil field of great value has been found." This was because several oil wells at Seria were said to be producing large quantities of oil and in view of this the BMPC was certain that its long awaited commercial oil field had been discovered. However, much of the oil was not, as yet, being exported mainly due to the economic slump as a result of the Great Depression of the 1930s. 55

In relation to this convincing development, the BMPC approached the government in 1931, to establish an English School at Kuala Belait- this being the first English School in Brunei. It was reported that some 21 students enrolled for classes and these were mainly children of BMPC staff. The school was under the charge of one Mr. Synott, who was also Chaplain of the district. So

In December 1930, some six years after it was first speculated, the Brunei Government appointed an Assistant Resident for the Belait District because of the rapid development of the oil industry.⁵⁷ By September 1931, a pipeline was already in the process of being constructed from Seria to the oil refinery at Lutong, Sarawak.⁵⁸ In the same year, Kuala Belait could also boast of having the best equipped hospital in the state.⁵⁹

In contrast to the positive developments in the Belait District, the Muara District's oil and coal output was, however, short-lived because in 1931. the Rajah Charles Brooke surrendered all his concessions to the Brunei Government.⁶⁰

From a mere figure of \$72,115 in 1906, Brunei's national income saw a quantum leap in 1933, to a level of \$580,750 when compared to its level in 1932 which was at \$362,403. This showed an increase of \$218,347 or 37.5% in just a year when compared to 1932 and was mainly due to the exportation of Brunei's oil. This meant that oil began to become more important overtaking the prominence of rubber, cutch and sago that formed the backbone of the state's economy at least until 1932. Beginning from 1933, Brunei's national income increased steadily and this was mainly due to the income obtained from oil namely in the form of royalty payments and exports duties. Royalty payments from oil alone constituted almost one-half of the state's income (see Table 1 and Table 2). Contributing to this new acclaimed wealth was an increasing number of productive wells which numbered 30 in 1934 and by 1938 saw a dramatic increase to become 111 oil wells (see Table 3).

Table 1
Royalties from Oil and Its Contribution to Brunei's National Income.

(Not inclusive of revenue obtained as customs duties from the exportation of oil)

Year	Value of Oil Royalties	National Income	% of Oil Royalties over National Income
1933	\$230,000	\$580,750	39.6
1934	\$287,000	\$645,201	44.4
1935	\$383,000	\$813,532	47
1936	\$399,929	\$928,000	43
1937	\$487,335	\$1,049,293	46.4

Source: Brunei Annual Reports, 1933-1937, C.O. 824/2.

Table 2 Brunei's Oil and Natural Gas Production, 1912-1938

Year	Oil Production (in tons)	Natural Gas Production (in cubic foot)
1911	13,680*	n. a.
1912	5,710*	n. a.
1913	3,700*	n. a.
1914	25	n. a.
1924	238	n. a.
1933	276,845	66,766,726
1934	371,591	792,453,863
	400,044	464,703,917
1935	448,836	245,000,000
1936	566,908	283,000,000
1937	695,904	319,500,000
1938	695,904	

^{*}In gallons (namely from Rajah Charles Brooke's coal mines at the Berembang Island in the Muara District).

Source: Brunei Annual Reports, 1911-1938, C.O. 824/1-2.

Table 3 Number of Productive Oil Wells in Brunei, 1933-1938

Year	No. of Productive Oil Wells	
1934	30	
1935	36	
1936	53	
1937	65	
1938	111	

Source: Brunei Annual Reports, 1933-1938, C.O. 824/2

In addition to its contribution as a new source of wealth for Brunei, another important contribution of this industry was towards growth in the Belait District especially around Kuala Belait and Seria. Both Kuala Belait and Seria which were described, in 1909, as "a little fishing hamlet"64 eventually, at least by the late 1930s, had become important centres of the oil industry in Brunei. Whilst Kuala Belait assumed its role as the headquarters for the BMPC, Seria on the other hand, was the centre of its oil production. In fact, when the Residential System was first introduced in Brunei, the centre of administration for the Belait District was established at Kuala Balai in 1907. Only in 1928 was the centre of administration for this district transferred to Kuala Belait, that is only after the Brunei government began to realise its importance with regards to oil production.65 The rapidity in Kuala Belait's transformation was described as follows, "what was once a six-hutted [sic] swamp, was transformed by the magic of 'black gold' into a widespread district headquarters."66 In fact, not only was the first English school in the state founded in Kuala Belait in 1931 by the BMPC but the first and best equipped hospital in the state established in 1925 by the BMPC was also in Kuala Belait.⁶⁷ On the other hand, the Brunei government only established its first hospital situated in Brunei Town in 1929.68

In conclusion, it can be noted that Brunei's road to prosperity generated by the oil industry was indeed a long and difficult one. Although the BMPC eventually succeeded in discovering large oil reserves, it was only done after some three decades of futile and frustrating exploratory work by various companies. The Seria discovery too was not an easy task as was noted by one Gravity Observer working there in 1926:⁶⁹

With the exception of river banks and a strip of sand along the sea, the whole of Padang Berawa is a swamp. Walking here means really climbing and jumping over naked roots, and struggling and cutting through air roots of mangroves of more than man's height... Another great difficulty is the lack of drinking water. The water hidden in the depth of the roots is muddy, dark red and has a sour taste. Boiling does not alter its bad taste... Not even the Dayaks are able to use it... During the rainy season, and especially after a very heavy rainfall, the whole of Padang Berawa are is submerged by water...

NOTES

- The local name for Seria prior to discovery of oil was Padang Berawa (Wild Pigeon's Field) and covered an area between the Seria and Bera rivers, see G. C. Harper, The Discovery and Development of the Seria Oilfield, Special Publication No. 5, Bandar Seri Begawan: Brunei Museum, 1975, p. 4.
- 2. See Marcel Barang, "Little Big Kingdom," South, March 1988.
- 3. To cite a few examples: A. V. M. Horton, The British Residency in Brunei, 1906-1959, Hull: The University of Hull, Centre for South-East Asian Studies, Occasional Paper, No. 6, 1984; Jatswan S. Sidhu, Sejarah Sosioekonomi Brunei, 1906-1959 (Sosio-economic History of Brunei, 1906-1959), Kuala Lumpur: Dewan Bahasa & Pustaka, 1995; B. A. Hamzah, Oil and Economic Development Issues in Brunei, Singapore: Institute of Southeast Asian Studies, 1980. While Horton and Sidhu wrote on the Residential system in Brunei from 1906-1959, Hamzah's study, on the other hand, pertains to more contemporary issues regarding the oil industry. None, especially Horton and Sidhu, however, does not provide any information on the beginnings of this industry.
- 4. Due to its swampy geographical nature especially around the coastal areas, malaria remained a major disease in Brunei at least until 1927, see Brunei Medical Department Report (hereafter BMDR), 1927, p. 6, C.O. 824/2, f. 266. Beginning from 1932, the BMPC carried out regular anti-malarial operations regularly so as to reduce the dangers posed by this disease, see BMDR, 1932, p. 5, C.O. 824/2, f. 112.
- Till late only two studies are available on this period. These are Horton, The British Residency in Brunei, 1906-1959; and; Sidhu, Sejarah Sosioekonomi Brunei, 1906-1959. In addition, for a general work on Brunei see, D. S. Ranjit Singh and Jatswan S. Sidhu, Historical Dictionary of Brunei Darussalam, Lanham: Scarecrow Press, 1997.
- 6 See Brunei Annual Report (hereafter BAR), 1906, p. 4, C.O. 824/1, f. 6.
- 7 BAR, 1914, p. 6, C.O. 824/1, f. 75.
- 8 Harper, The Discovery and Development of the Seria Oilfield, p. 1.
- In fact, according one source oil was amongst the reasons behind the Britain's decision to offer Brunei its protection in 1905/1906, see D. S. Ranjit Singh, Brunei, 1839-1983, The Problems of Political Survival, Singapore: Oxford University Press, 1984, pp. 95-96.
- 10 BAR, 1906, p. 11, C.O. 824/1, f. 9.
- 11 BAR, 1907, p. 9, C.O. 824/1, f. 18.
- 12 Ibid., p. 7-8, f. 17-18.

- 13 B4R, 1908, p. 1, C.O. 824/1, f. 32.
- 14 Ibid., p. 6, f. 25.
- 15 Harper. The Discovery and Development of the Seria Oilfield, p. 1.
- 16 Mark Cleary and Shuang Yann Wong, Oil, Economic Development and Diversification in Brunei Darussalam, London: St. Martin's Press, 1994, pp. 35-36.
- 17 Ibid., p. 36.
- 18 BAR, 1909, p. 2, C.O. 824/1, f. 33. See also, Ibid., p. 7, f. 35.
- 19 BAR, 1911, p. 7-8, C.O. 824/1, f. 54-55.
- 20 This company was also prospecting for oil almost all over North Borneo during this time, see Harper, The Discovery and Development of the Seria Oilfield, p. 1.
- 21 Ibid.
- 22 Ibid.
- 23 BAR, 1913, pp. 8-9, C.O. 824/1, f. 69.
- 24 Ibid., p. 5, f. 67.
- 25 *Ibid.*, p. 1, f. 65.
- 26 The Malay Mail, 27 December 1913.
- 27 Ibid.
- 28 BAR, 1914, p. 4, C.O. 824/1, f. 74.
- 29 Ibid.
- 30 The Malay Mail, 12 January 1914.
- 31 Ibid.
- 32 BAR, 1914, p. 16, C. O. 824/1, f. 75.
- 33 BAR, 1915, p. 6, C.O. 823/1, f. 81.
- 34 BAR, 1916, pp. 4-5, C.O. 824/1, f. 90.
- 35 BAR, 1917, p. 4, C.O. 824/1, f. 100.
- 36 BAR, 1918, p. 2, C.O. 824/1, f. 107.
- 37 BAR, 1920, p. 2, C.O. 824/1, f. 124.
- 38 BAR, 1921, p. 3, C.O. 824/1, f. 132.
- 39 BAR, 1918, p. 2, C.O. 824/1, f. 107.
- 40 BAR, 1922, p. 4, C.O. 824/1, f. 143.
- 41 Harper, The Discovery and Development of the Seria Oilfield, p.1.
- 42 BAR, 1923, p. 4, C.O. 824/1, f. 161.
- 43 Harper, The Discovery and Development of the Seria Oilfield, p. 1.
- 44 BAR, 1924, p. 5-6, C.O. 824/1, f. 177-178.
- 45 Ibid., p. 14, f. 182.
- 46 BAR, 1925, p. 6, C.O. 824/1, f. 199.
- 47 Ibid., p. 9, f. 200.

- 48 The Malay Mail, 27 December 1913.
- 49 BAR, 1925, p. 6, C. O. 824/1, f. 199.
- 50 BAR, 1926, p. 7, C.O. 824/1, f. 223.
- 51 BAR, 1927, p. 7, C.O. 824/1, f. 249.
- 52 BAR, 1928, p. 9, C.O. 824/1, f. 274.
- 53 BAR, 1929, p. 8, C.O. 824/1, f. 297.
- 54 BAR, 1930, p. 3, C.O. 824/2, f. 6.
- 55 BAR, 1930, p. 9, C.O. 824/2, f. 9.
- 56 BAR, 1931, p. 21, C.O. 824/2, f. 15.
- 57 BAR, 1931, p. 3, C.O. 824/2, f. 41.
- 58 Ibid., p. 8, f. 44.
- 59 Ibid., p. 5, f. 42.
- 60 Ibid., p. 29, f. 54.
- 61 Horton, The British Residency in Brunei, p. 84.
- 62 Cutch (Acacia Catechu) is obtained from the bark of mangrove tree and used in the tanning industry. See, J. H. Burkhill, W. Britwistle, F. W. Foxworthy and J. B. Scrivenor, A Dictionary of the Economic Products of the Malay Peninsula, Vol. 1: A-H, Kuala Lumpur: Ministry of Agriculture and Cooperatives, Malaysia, 1966, pp. 15-17. See also, Sidhu, Sejarah Sosioekonomi Brunei, 1906-1959, pp. 22-24.
- 63 See Sidhu, Sejarah Sosioekonomi Brunei, 1906-1959, pp. 24-25.
- 64 "From Rags to Riches- Brunei Story," The Borneo Bulletin, 23 May 1953, p. 8.
- 65 BAR, 1928, p. 24, C.O. 824/1, f. 282.
- 66 "From Rags to Riches- Brunei Story," p. 8.
- 67 BAR, 1931, p. 5, C.O. 824/2, f. 42.
- 68 BAR, 1929, p. 17, C. O. 824/1, f. 301.
- 69 Harper, The Discovery and Development of the Seria Oilfield, p. 4.