430507

10-0-1800

Halifax, N.S., March 29 1906.

J.H.Maugham,Esq.,

106 West 47th St.,

New York,

U.S.A.

Dear Sir:-

As requested by you I beg to hand you the following memo on the Richmond County Coal Field.

The coal mines of the Province which had been worked under a monopoly granted the Duke of York from 1827 to 1856,were thrown open to the public in the latter year. There was then a gradual development of new mines,principally in the Sydney and Pictou districts. On the outbreak of the Civil War in the United States,an abnormal demand arose for coal in that country,and sales increased,and many new mines were opened. The export to the United States rose to 465,000 tons in 1865. At the close of the war an impost of a duty of $1.25 per ton stopped this trade until in 1875 it fell to 90,000 tons. This cessation of demand led to the closing of many of the newly opened mines. Among these were the Little River and Seacoal Bay mines. Since that date there has been a steady increase in demand, and those mines opened under under the pressure of an unexpected demand and closed by its cessation,are now being reopened to meet the demand for coal.Owing to

their reopening as new and practically undeveloped mines, they are competing on specially favorable terms with the older mines.

The coal field in question has never had its area defined. Coal crops are known in the River Inhabitants Basin six miles to the east of its mouth and five miles to the west of its mouth, and at a distance of fifteen miles up the stream. It would appear, therefore as so far known, to be of a very considerable extent. No work has yet been done to connect the four known outcrops of coal bearing strata. At the Eastern end some work was done a few years ago showing two seams from 3 to 4 feet thick at Coal Brook. These seams appear to be on the Southern side of the coal field, dipping to the North, and are said to show on Rabbit and other islands in the Basin Inhabitants. The coal is of good quality and similar to that found in the Sydney coal field. Indications of other seams are present in this vicinity.

At Little River on the West side of the River Inhabitants about 2-3/4 miles from tide water, the following section is presented:

	Ft.	In
Coal.....	5	0
Strata.....	154	0
Coal.....	4	0
Strata.....	60	0
Coal.....	3-4	0
Strata.....	45	0
Coal.....	5	0

The two upper seams have been opened and worked to a small extent. The coal is firm,bright,and burns well. At the crop an analysis of the Second Seam gave:-

Volatile Matter.....30.25

Fixed Carbon.....56.40

Ash.....13.35

As the shafts were deepened the analysis gave:-

Volatile Matter.....32.20

Fixed Carbon.....60.17

Ash..... 7.63

The seams have a nearly vertical dip,but are presumed to connect with those at Seacoal Bay.

At Seacoal Bay,about five miles west of the Mouth of the Inhabitants River, there is an eleven feet, a seven feet, a four feet and two smaller seams of coal. The eleven feet seam as opened near the crop, contains a good deal of ash. The seven feet seam is of good quality and improves as followed to the dip. The outcrops of these seams incline at a heavy angle,but at a depth of about 200 feet the sinkings show that the seams, pitching to the North,dip at a much lessened angle,and will presumably become practically level at a slightly increased depth. The development work now being carried on will fully test all the seams found here at a depth which will permit of a proper test of their size, quality,etc.

The seven feet seam, as sunk on, improves in quality away from the crop,and should prove an excellent steam coal,as analyses show about 7 per cent. of ash and about 65 per cent. of fixed carbon.

The Glendale seams lie about fifteen miles from the mouth of the River. They comprise two beds from three to four feet in thickness. Little, however, is known of this locality. In the district between Glendale and the outcrops referred to there are other reported outcrops and indications of coal,but their value is yet unknown.

From these notes it would appear that these isolated outcrops represent an extensive coal field in the valley of the Inhabitants River. This opinion has been held by the most prominent Canadian geologists, among them, Sir William Dawson,and Sir William Logan. As I have explained,the district,having laid dormant for many years,for some time past has been recognised as deserving attention. Local capital being principally interested in fishing, lumbering, etc.,it has awaited other sources of capital for its development.

The present investigation by sinking at the Seacoal Cove is likely to afford data for the general exploration of the district,and if as seems probable at present,the coal lies at a moderate depth below the surface,a few drill holes should clear up all uncertainty.

The district is traversed by a railway starting from the Intercolonial Railway (Government) at Hawkesbury, on the Strait of Canso and running to St. Peter's Canal; ultimately to be continued to Louisburg, the terminus of the Sydney and Louisburg Railway. Good shipping facilities with an all winter port are present on the property in the Inhabitants Basin. If research proves the coal part of the problem as satisfactory as the situation of the district and its shipping facilities, it will prove the most valuable district on the Atlantic Coast.

I regret very much that I am unable to collect further information about this district.

and remain,

Yours very truly,

I enclose
sketch plan.

DEPT. OF MINES—MEMORANDUM

TO Deputy Minister of Trade & Industry

FROM Chief Mining Engineer

SUBJECT Re Whiteside Coal District, Rich.

DATE December 9, 1958.

COAL PROSPECTS

IN

WHITESIDE DISTRICT, RICHMOND COUNTY

430507

10-0-1800

From Geological Survey of Canada 1879:

"Coal has been largely wrought near Inhabitants Basin at Coal Brook, Caribacou and Little River, but the quantity and quality of the coal have disappointed the sanguine expectations of the explorers. As work had been suspended for many years at the time of our visit, the information here presented is derived largely from Brown's Coalfields of Cape Breton, the Reports of the Commissioners of Mines, and from private letters of Mr. Alexander McBean of the Vale Colliery, Pictou. The mining work was done principally between the years 1863 and 1868. Since then a good deal of exploration has been carried on by McBean and others, but no systematic mining.

At Coal Brook fine grey, greenish and reddish sandstone and shale, containing plants, appear associated with several beds of coal. These have been explored by pits and borings, but the thickness of the seam was not seen by us.

At the most northerly of these pits coal was obtained about ten feet from the surface. Thirty-five yards north of this a boring was made eighty-four feet deep, which struck no coal. Coal is indistinctly seen, with an underclay, in the bed of the brook just below. Only four inches was visible, although the seam is said to be three feet four inches in thickness. A tunnel was driven about seventy-five feet on the seam, and some twenty tons of coal taken out. The roof is crumbling, argillaceous rock, without fine lamination.

At another slope further down the brook a seam of three feet mixed coal and shale is said to have been discovered. The shale contains Cythere, Cordaites, fish teeth, etc. The coal detritus on the bank is not good. Ferruginous water comes from the level. Lower down is another level, driven to meet a shaft which was twenty feet deep and from which eighty tons of coal are said to have been extracted. On the shore a short distance to the eastward of the mouth of the brook a borehole is said to have cut about eight inches of dirty coal. Upwards of $5,000 were spent in exploring at Coal Brook and the neighborhood where, according to McBean, there are a three-feet seam, a four-feet seam and several small seams from six to eighteen inches. In two pits sunk by McBean on the east side of the brook, the coal was poor and irregular on account of an upthrow fault on the east side between the pits. The coal was very good on the west side. The eight-feet seam should crop in the pond to the south of and near the mouth of Coal Brook, and drift coal occurs on the surface at the south side of the pond. If the coal runs regularly with the strata it should be found by boring near the gypsum on Evans or Freeman Island. Between 1863 and 1878, about 8125 tons of coal were shipped from the Richmond mines, at Little River; and about $53,000 spent in building a tramway and sinking shafts.

A lease was taken out by Mr. Marmaud, who subsequently transferred his interest to an American company. An engine of thirty horsepower was erected for pumping and drawing.

McBean's section of the strata at this mine is as follows:

	Feet	Inches
Coal	3	0
Strata	154	0
Coal	4	0
Strata	60	0
Coal 2 - 4 feet	3	0
Strata	45	0
Coal 2 - 8 feet	5	0
Total Thickness	274	0

Separated from the four-feet seam by five feet of shale, another, ten inches thick, is said to occur by Dr. J. W. Dawson. Of these he says (Acadian Geology, p. 397): "The coal of the principal bed is hard, and very little injured by exposure. Its fracture is uneven and crystalline, with glistening surfaces; and its texture is very uniform, the lamination or reed being rather indistinct, and almost free from dull coal or mineral charcoal. Its specific gravity is 1.38. When burned in a stove or grate, it ignites readily, fuses, swells and cakes, giving a strong flame and a lasting fire. It leaves a rather large quantity of brownish ash. In a smith's forge it works well, its behaviour being similar to that of Pictou coal. On analysis it is found to contain:

Volatile matter	30.25
Fixed carbon	56.40
Ash	13.35
	100.00

"Compared with the coals of Pictou and Sydney, the Little River coal is more bituminous than either, or contains more volatile matter and less fixed carbon. It contains about the same quantity of earthy matter with Pictou coal; but in quality and color the ash resembles that of Sydney. Practically it will be found to be a serviceable coal for domestic fires, well adapted for smith's use, and, from the large quantity and high illuminating power of its gaseous matter, probably a good gas coal. There should be little waste in its extraction, and it will suffer little by being banked or kept in the open air. It contains more sulphur than the Pictou coal.

"The coal of the small bed (No. 2) is somewhat similar to that of No. 1, but it is more impure, and contains much bisulphuret of iron."

The two upper seams of McBean's section, which are

nearly vertical at the mine, have been opened in several places by slopes and shafts.

The first shaft was sunk to the depth of fifty feet in the three-feet seam (Mines Reports 1863 - 1868). East from it another shaft was sunk forty feet between the seams and connected with the first by drifts. From this depth the four-feet seam was worked to the west 250 feet and to the east 750 feet. This shaft was then sunk an additional forty feet, and a drift was put into the four-feet seam. Slopes were afterwards driven to the west of the shafts, 120 feet in the three-feet seam, and in the four-feet seam 150 feet. To the east of the eighty-feet shaft another one was sunk on the three-feet seam also eighty feet; and further east one 130 feet. The first eighty-feet shaft was continued in 1866 to a depth of 200 feet, and out of it at that depth a tunnel or stone drift was driven to cut the seam at a distance of 162 feet. On each side of this drift levels were driven.

A modification of the long wall system was adopted in working these seams. The coal was taken by rail to a shipping wharf, distant about 2 3/4 miles. The surface erections consisted of an agent's house and a block containing thirteen tenements. Few of these are now standing.

McBean tried to trace the Little River coal to the north-west of the mine, and found the surface over sixty feet deep. By running the course of the coal about half or three-quarters of a mile to the northwest, the limestone and plaster cross the strike of the coal at the mine. He also ran the course of the seams toward River Inhabitants, crossing the measures for over half a mile with pits and tunnels, close enough to prove every foot of the beds, but found no coal.

He does not think he went far enough to the dip.

Of this field Mr. Brown remarks: "Any attempts to ascertain the true position, extent and consequent value of the seams will be attended with much expense, as the country is low and there are few cliffs or natural sections. . . . . The outcrops of the strata also are concealed by a thick deposit of boulder clay. The seams all occur in situations favorable for shipment, but it is not likely that, unless they can be found in less highly inclined positions, they can be worked to any great depth, as in addition to the difficulty of working vertical seams, the expense of keeping the mines free from water will be a very serious obstacle and greatly increase the cost of production." If, however, the seams extend in workable form beneath Freeman and other islands, as indicated before, one of these difficulties would be to some extent overcome, as the strata are there less inclined and more accessible. Moreover, the railway lately finished to connect the Intercolonial with the Strait of Canso will render these seams of much greater value. "

From Mines Reports:

1928

TIDEWATER MINE

"On June 4th the Tidewater Fuel and Navigation Company commenced pumping out the slope driven some years ago at Whiteside, Richmond County and on June 17th the mine was entirely unwatered. The distance of face of slope from surface was 380 feet. After repairing the slope they commenced sinking and drove the deeps 140 feet, making a total distance of 520 feet. At 500 feet they broke off a level and drove it

in a distance of 130 feet, and broke off two rooms 18 feet wide leaving a pillar of 20 feet. Height of coal at face of deeps 3 feet 3 inches, having increased from 1 foot 7 inches. The dip is north, angle of pitch 28 degrees. The coal is of very good quality*. - - - - - - -

About a half mile from the first seam a second seam has been discovered. Height of seam 3 feet. The coal is of excellent quality* but extent of seam is not known at present date. "

1929

TIDEWATER MINE

"This mine was closed last December but it is the intention of the company to reopen it on December 1st when they will advance the deeps and develop the mine. Total tons of coal raised from October 1st 1928 to December 19th 1928 900 tons. "

1930

TIDEWATER MINE

"The Tidewater Mine located at Whiteside, Richmond County, is owned by Tidewater Fuel and Navigation Co. The mine ceased operations in December 1928 and did not resume operations during year. Considerable prospecting has been carried out on the No. 2 seam and during the year a trial slope was driven a distance of 120 feet but struck a trouble and was abandoned. They anticipate placing a diamond drill on the property in the near future."

* This appears to be at variance with the facts as presented by the Geological Survey.

1931

TIDEWATER MINE

"The Tidewater Mine located at Whiteside, Richmond County, is owned by Tidewater Fuel and Navigation Co. The mine ceased operations in December 1928 and did not resume operations during the past fiscal year."

No further reference made to this area in later Mines Reports.

M. G. Goudge,
Chief Mining Engineer