

20. Valuation Date.

The valuation date in this case, as previously determined by the Commission in its 1970 decision, is February 15, 1905, 23 Ind. Cl. Comm. 315, 336, aff'd 203 Ct. Cl. 426, 442-449 (1974).

21. Location and Description of the Subject Tract.

The tract to be valued herein is located in north central North Dakota and contains 8,104,040 acres. Its legal description, determined in an earlier decision of this Commission, 20 Ind. Cl. Comm. 336 (1971), is as follows:

- (1) Beginning at the International Boundary where it is intersected by the western boundary of the lands described in Article 2 of the Treaty of October 2, 1863, 13 Stat. 667, with the Red Lake and Pembina Bands of Chippewa Indians, southerly on that western boundary to the point at which it intersects the Middle Branch of the Forest or Salt River;
- (2) Then southwest to the northeasternmost point on Stump Lake, which is the point where Stump Lake is intersected by the stream running between Stump Lake and Coon Lake;
- (3) Then westerly through the Devils Lake Complex to the southeastern corner of the town of Minnewaukan;
- (4) Then in a southwesterly direction to Dog Den Butte, which is part of the Missouri Coteau;
- (5) Then in a northerly direction to the Souris or Mouse River;
- (6) Then westerly along the Souris River to a point due west of the southwest tip of Buffalo Lodge Lake (the point where that Lake is intersected by South Egg Creek);

(7) Then in a west-northwesterly direction along the northern boundary of the land described in call number (4) of finding number 26 entered in Docket Nos. 350-B, et al., March 30, 1971 (Three Affiliated Tribes of the Fort Berthold Reservation v. United States, 25 Ind. Cl. Comm. 179, 209), until it intersects the shoreline of Lower Lostwood Lake, in Township 158 1/ North, Range 91 West;

(8) Then due north to the International Boundary;

(9) Then east on the International Boundary to the point of beginning.

22. General Topography.

The subject tract lies between the Red River Valley on the east and the Missouri Plateau on the west, and, except for a small area on its western end, is entirely within a geological region known as the Drift Prairie. Nearly all the surface of the tract is from level to gently rolling. Its eastern edge, running along the Pembina Escarpment, is an area of steeper land, even hilly towards its north end. Steeper also are the Turtle Mountains, a moderately hilly area located about midway along the tract's common boundary with Canada. The Turtle Mountains rise as much as 800 feet above the surrounding plains. A small area at the western end is part of the Missouri Plateau, characterized by morainic deposits. The elevation of the entire area ranges from 1,300 feet to 1,650 feet above sea level, except for the moderate hills in the Turtle Mountains.

1/ A Commission errata sheet corrected the township number in this description reported in 26 Ind. Cl. Comm. 336, 346, 356, 361 from township 157 to township 158.

23. Drainage and Water.

The subject tract is well drained with some marshes and no large rivers. The Souris or Mouse River, the Des Lacs River, and their tributaries drain roughly the western half of the area. These rivers eventually empty into the Red River of the North, which in turn empties into Hudson Bay. Numerous sloughs, lakes, and intermittent streams, many of which in turn drain into Devils Lake on the southern edge of the tract, and tributaries of the Red River drain the eastern portion of the tract. The total water surface of the tract, containing 40 acres or more, is 121,068 acres.

24. Ground Cover.

Before being cultivated by settlers, the lands were covered with prairie grass. There were small stands of timber scattered along the streams and around lakes, with larger stands of timber along the shores of Devils Lake in Benson and Ramsey Counties. A large stand was located in northeast Cavalier County partly within the subject tract. The largest stand of timber was in the Turtle Mountains in Bottineau and Rolette Counties. However, that timber was partially burned or cut over by the late 1800's. The timberland near the shores of Devils Lake was intermingled with open farm land. The timber was generally of poor quality but had a local market for limited uses. The settlers used it mainly as fuel or in the building of prairie shelters. There was no separate commercial potential shown for this timber as of the time of the taking. By the date of taking most of the natural ground cover had been replaced by cultivated crops or pastures.

25. Climate.

The subject tract, like the rest of North Dakota, has a four-season climate with temperatures ranging from sub zero in winters to around 100 degrees, or above, in summers. Annual precipitation averages between 14 and 19 inches moving from west to east. Much of the precipitation falls near and during the growing season. Killing frosts end generally in May and return in September, leaving the subject tract a growing season averaging between 114 and 120 days.

26. Soils and Minerals Generally.

The Drift Prairie region was formed in glacial times from irregular and uneven glacial deposits. Over 90 percent of the topsoils in the area were derived chiefly from till that evolved from the glacial deposits. The soils were generally loamy in nature, forming a thick, black surface layer over most of the tract from one to three feet in depth. At the time of taking, these soils were considered highly fertile, arable, and capable of supporting large crops of grain.

The general region was known to have lignite coal deposits. There was, however, no commercial development of these deposits at the date of the taking, and their enhancement to value was minimal.

27. Classification and Description of Top Soils

The subject lands were surveyed by the defendant from 1882 through 1897. The surveyors described the subject tract as having good, arable land and indicated that almost the entire tract was adaptable for agricultural purposes as well as stock raising purposes.

The expert witness for plaintiffs in Dockets 113 and 246, was Mr. William H. Muske, a qualified appraiser, who divided the subject land into agricultural lands, timber lands, and inland water lands. For agricultural lands, he adapted the qualitative characteristics regarding top soils noted by the surveyors in their notes and descriptions, and then correlated these characteristics with latter day information. Mr. Muske then grouped together soil areas of identical or similar quality and in this fashion established four general top soil ratings as follows:

- 1st Rate Excellent cropland and excellent pastureland;
 good to excellent cropland and excellent
 pastureland.
- 2nd Rate Good cropland and excellent pastureland; medium
 cropland and excellent pastureland; fair crop-
 land and good pastureland.
- 3rd Rate Poor cropland and good pastureland; very poor
 cropland and excellent pastureland; unsuitable
 for cropland and medium pastureland.
- 4th Rate Unsuitable cropland and fair pastureland;
 unsuitable cropland and poor pastureland.

Imposing these four soil ratings in color on county soil maps, he computed the acreage in each rating. The results led him to conclude that (a) soils rated "1" and "2" represented fair to excellent cropland and good to excellent pastureland and that the highest and best use of such land was for crops; (b) soil rated "3" represented poor to unsuitable cropland and medium to excellent pastureland and that the highest and best use of such land was for pasture; and (c) soils rated "4" represented typically

marshes, areas of rough topography, and steep sloped lands along water-courses with no highest and best use. The conclusions drawn by Mr. Muske were in substantial conformity and a natural extension to the characteristics given the same lands by the surveyors years earlier, except that the surveyors made no claims with regard to timberlands.

Finally, Mr. Muske established acreages not only for each agricultural soil rating but also established acreages for water and timberland. Those acreages were as follows:

Agricultural Soil Ratings

1st	2,284,400 acres
2nd	4,068,600 acres
3rd	1,382,200 acres
4th	<u>119,800 acres</u>
Total Agricultural	7,855,000 acres
Timberland	174,000 acres
Inland water	<u>121,068 acres</u>
Total	8,150,068 ^{2/} acres

Dr. Raleigh Barlowe, an expert economic historian for plaintiffs in Dockets 191 and 221, classified the top soil from technical information

^{2/} The acreage figures include 46,029 acres in the Turtle Mountain Reservation, which lands are not included in the valuation.

contained in latter soil reports. He concluded that the subject tract contained about 90 percent chernozem soils which made excellent cropland. He estimated that there was at least 140,000 acres of timberland along streams and in the small, hilly areas in Cavalier County and in the Turtle Mountain area.

Defendant's expert, Dr. William G. Murray, a professional appraiser, classified the soil using the comments and descriptions of the surveyors. He combined the comments and descriptions into a grading system from "A" for the best soil to "G" for the poorest. Overall the soil quality was good to excellent. The number of lower grade townships, below C grade, totalled 52 while those in the A, B, and C grades totalled 226.

28. Historical Background to Settlement.

Congress created the Territory of Dakota on March 2, 1861, and specifically reserved all lands with unextinguished Indian rights from settlement. The Territory of Dakota was divided into the territories of North Dakota and South Dakota in 1863. During the decade of the 80's, the famous "Dakota Boom" was taking place to the south of the subject tract. Huge "Bonanza Farms" began growing large crops of grain to satisfy the growing demand in the eastern United States. Availability of good agricultural lands in the subject tract to meet market demands directly influenced the settlement of the area. Strong pressures began building for opening the lands to settlement. On October 4, 1882, the

Secretary of Interior directed that the subject lands be restored to the public domain and opened for settlement. Settlement was rapid in the territory generally, and North Dakota became a state in 1889. By the taking date over 90 percent of the subject tract had been expropriated for settlement, and it had been organized into counties.

29. Population and Land Disposal.

The population of North Dakota increased from 190,983 in 1890 (shortly after it had been admitted to the Union) to 319,146 in 1900 and to 577,056 in 1910. During each of those census periods the population of the United States increased by about 21 percent, while the population of North Dakota increased by 67.1 percent for the 1890-1900 period and by 80.8 percent for the 1900-1910 period. The population of the counties wholly or partially within the subject area increased at an even faster pace than North Dakota as a whole--121 percent for the 1890-1900 period and 97 percent for the 1900-1910 period. By the date of valuation about 95,000 people, exclusive of Indians, lived within the subject area. The land area of North Dakota is 44,910,000 acres. By 1904, the United States had disposed of all but 11,097,451 acres, or 24.7 percent, under the public land laws. Of the 8,104,039 acres of subject land, 95.4 percent had been disposed of by 1904, leaving only 375,980 acres undisposed of.

30. Economic Conditions.

North Dakota experienced rapid economic growth from about 1899 to a number of years beyond 1910. During that period the value of farm products

was progressively upward. Typical farm mortgages in North Dakota from about 1900 to shortly after 1910 ran for 5 years at about 8 percent interest. Both Mr. Muske, the plaintiffs' expert, and Mr. Murray, defendant's expert, concluded that a fair interest rate for a large, North Dakota land purchase in 1905 would have been 8 percent. We find that such an 8 percent rate would have been a reasonable and fair rate for a land purchase of the subject tract on the valuation date.

31. Transportation.

At the date of taking, February 15, 1905, the subject tract was extensively developed. It was thoroughly covered by a network of railroads, described as the most extensive rural system per population in the United States at that time. All but a small portion of the area was within eight to ten miles of a railroad. No farm was more than 18 miles from a railroad. The three major railroad companies in the area were the Great Northern Railway, the Northern Pacific Railroad, and the Minneapolis, St. Paul and Sault Ste. Marie Railroad (The "Soo Line").

32. Agricultural Development.

In 1905 there were about 14,000 to 15,000 operating farms in the tract, involving at least five million acres of land, of which four million acres were improved. Another two and a half million acres were estimated to be in farms, but not yet included in the existing data. The size of an average farm in North Dakota in 1905 was about 350 acres.

Wheat was the principal crop produced in the area. U. S. census figures showed that the acreage for wheat increased from

320,684 in 1890 to 686,123 in 1900 and 2,331,441 in 1910. Total wheat production was 2.0 million bushels in 1890, 9.3 million bushels in 1900, and 33.0 million bushels in 1910. Most wheat production in 1905 was still "No. 1 hard red spring wheat," although the shift to durum, later the top crop, had already begun. Durum is a hard wheat which has a production advantage.

Other important crops in the area were oats, barley, flaxseed, and hay. Significant areas were used to grow oats for animal feed. Barley was introduced both for malting and animal feed. Flax production was introduced into the area in the 1890's, and by 1905 North Dakota was the national center for flaxseed production.

33. Townsite Development.

As of February 15, 1905, approximately 6,303 acres of the subject tract has been platted into 69 townsites, 34 of which were populated at the time. These 34 towns, comprising 4,877 acres, were located in 13 of the 15 counties, or portions of counties, in the subject tract. The 34 populated townsites tabulated by county, area, and population as of February 15, 1905, are as follows:

<u>County and Town</u>	<u>Acreage Platted by 2/15/05</u>	<u>Population in 1905</u>
Benson		
Brinsmade	58.7	152
Esmond	114.7	531
Leeds	184.3	520
Minnewaukan	176.6	445

<u>County and Town</u>	<u>Acreage Platted by 2/15/05</u>	<u>Population in 1905</u>
Bottineau		
Bottineau	270.4	1,227
Lansford	36.4	272
Omeme	82.6	504
Souris	56.3	352
Westhope	101.6	626
Willow City	219.2	676
Burke		
Bowbells	140.0	547
Cavalier		
Langdon	209.0	1,544
Osnabrock	76.3	397
Milton	56.1	384
McHenry		
Balfour	64.5	522
Granville	71.1	500
Towner	125.6	535
McLean -- No towns in subject area.		
Mountrail -- No towns platted by February 15, 1905.		
Nelson		
Lakota	240.1	900
Pierce		
Rugby	205.3	1,072
Ramsey		
Bartlett	34.8	114
Church's Ferry	95.4	376
Crary	72.2	285
Devils Lake	608.6	2,367
Edmore	60.7	348
Renville		
Glenburn	49.7	195
Mohall	162.6	409
McKinney	17.6	299

<u>County and Town</u>	<u>Acreage Platted by 2/15/05</u>	<u>Population in 1905</u>
Rolette		
Rolla	219.3	561
St. John	122.1	229
Towner		
Bisbee	126.9	360
Cando	167.7	1,328
Walsh -- no towns platted by February 15, 1905.		
Ward		
Donnybrook	45.2	281
Kenmare	207.6	1,011
Minot	<u>397.8</u>	<u>4,125</u> ^{3/}
Totals	4,877 ac.	23,994

34. Highest and Best Use.

The overall highest and best use for the subject tract was for commercial agriculture. There were also 4,877 acres suitable for townsites. Taking into consideration the area covered by water, the acreages were:

Commercial agriculture	7,978,095
Water	121,068
Townsites	<u>4,877</u>
Total	8,104,040

^{3/} The population figure for Minot is for the entire city. The platted area estimate, however, is only for that part of the city located in the appraisal project area (north of the Souris River).

35. Sales Data on Agricultural and Timberland--Plaintiffs in Dockets 113 and 246.

Plaintiffs in Dockets 113 and 246 presented in evidence an analysis of 1,238 private sales of rural tracts for the period from 1901 through 1908. They were scattered throughout the subject area with one or more sales for each of the 400 townships in the subject area. All of the 1,238 sales were transfers of portions of the subject tract itself except for 30 sales on the outside fringes.

After eliminating 136 sales because they were not valid evidence of fair market value, there remained 1,102 sales. All of those sales were plotted on the plats of the subdivisional townships surveys and on the county soil maps of the area. Of the 1,102 sales, five were sales of land with a soil rating of 4. The remaining were sales of agricultural land rated 1, 2, or 3, and all of those transactions occurred during the years from 1903 through 1907. Since the land values decreased from east to west, the subject tract was divided by counties in value zones I, II, and III, moving from east to west. The county groups were also broken down by soil ratings. The per acre selling prices of the transactions by county groups and soil rating, with the applicable acreages of the subject land, were as follows:

	<u>Rate 1</u>	<u>Rate 2</u>	<u>Rate 3</u>
County Group I (Acreage)	\$21.75 (502,000)	\$19.25 (2,048,000)	\$15.00 (72,000)
County Group II (Acreage)	\$18.75 (842,000)	\$15.00 (1,254,000)	\$13.50 (480,000)
County Group III (Acreage)	\$14.75 (940,400)	\$13.50 (766,600)	\$13.50 (830,200)

By year the acreages and average prices per acre were:

<u>Year</u>	<u>Total Sale Price</u>	<u>Total Acreage</u>	<u>Acreage Price/Acre</u>
1903	\$ 234,831	16,669	\$ 14.08
1904	670,359	42,333	15.83
1905	1,559,581	89,021	17.51
1906	554,041	31,320	17.68
1907	<u>164,402</u>	<u>7,270</u>	<u>22.61</u>
	\$ 3,183,214	186,613	

Average price per acre \$17.06.

Average size per sale 180 acres.

There were 64 sales of land which was over 80 percent wooded. Mr. Muske considered those to have been sales of timberland, and he placed them in two group of counties which were similar in the location and type of forest area. The sales in Benson and Ramsey Counties indicated an average per acre value of \$14.00 while those in Cavalier, Bottineau and Rolette Counties indicated an average value of \$7.50 per acre.

During the years from 1904 through 1906 North Dakota sold large acreages of land granted to it for school purposes. There were sales of some 270,004.89 acres of such land located in the counties within the subject tract. The average price received for those state school lands was \$12.46 for 1904-1905 and \$14.57 for 1905-1906.

36. Sales Data on Agricultural and Timberland--Plaintiffs in Dockets 191 and 221.

Plaintiffs in Dockets 191 and 221 presented in evidence two analyses of recorded land sales in the subject area. One was a sample of sales between private owners selected from each of the counties within or partly within the subject area, and the other was a sample composed of all recorded private land sales in 25 townships selected at random from within the subject area.

The first analysis involved sales data for 1,411 transactions in 349 townships covering the period from 1899 through 1905. Those transactions involved 238,813 acres, and the average selling price was \$12.83 an acre.

On an annual basis the average prices per acre were:

1900	\$ 7.74
1901	9.25
1902	12.26
1903	13.47
1904	15.15
1905	15.81

The average for 1,166 tracts sold in the 4-year period from 1902 through 1905 was \$14.07 an acre. The average for the 889 sales in 1903, 1904, and 1905 was \$14.64 an acre.

A second analysis involved the sales in 25 townships, which Dr. Raleigh Barlowe selected as representative of the various types and locations of the land in the subject tract. The study involved 685 sales, and the average selling prices ranged from a high of \$18.36 an acre in Towner County to a low of \$9.26 an acre in McHenry County. The sales occurred

in the period from 1900 to February 1905, and the average selling price was \$13.09 an acre. However the average selling price for the 1903 to 1905 period was \$15.13 per acre.

A tabulation of North Dakota school land sales from 8 counties in the subject area reflected sales of some 145,333 acres in 1904 and 1905. The average per acre selling price was \$14.56.

37. Sales Data on Agricultural and Timberland--Defendant.

Defendant presented evidence of 217 sales of private lands located to the west of the subject tract in Divide County, North Dakota, and in Sheridan County, Montana. Defendant's appraiser, Dr. William G. Murray, found them to have certain physical similarities to the subject lands, concluding that the lands were comparable except for the extensive network of railroads that existed in the subject area.

The private sales data covered 143 sales from Divide County (part of Williams County prior to 1910) that took place between 1905 and 1917; and 74 sales from Sheridan County, Montana, that took place between 1903 and 1916. Defendant chose 12 of the sales as the basis for its valuation. One sale involved 160 acres in Divide County. That land was located in a fractional township in the northeast corner of the county, adjacent to the Canadian border and remote from any form of public transportation. That tract sold for \$13.13 an acre in 1905. The other 11 sales were from Sheridan County, Montana, in present day Roosevelt County. Those sales ranged from a high of \$15.62 an acre to a low of \$5.00 an acre. The average price per acre for the 12 sales was \$9.40.

38. Sales Data -- Townsites.

In 1905 there were 34 populated towns in the subject area. Plaintiffs in Dockets 113 and 246 selected 11 of the towns as a fair sample from which to examine sales data. One sale was recorded in 1901, and all the others occurred during the period from 1903 through 1907. Most of the sales were made after the valuation date. The sales were classified by Mr. Muske as either "residential" or "commercial." depending on their location with respect to the main street of the town as shown on the plats. All sales were computed at their price per square foot, and Mr. Muske stated that those in an extremely high range ^{4/} were eliminated from the analysis because the prices probably included building improvements. The analysis involved sales of 55 residential lots and 28 commercial lots. The overall average price per square foot was \$.030 for the residential lots and \$.098 for the commercial lots.

A large sample of sales was obtained from Towner in McHenry County. Towner was considered representative because of its medium sized population (535) and central location in the subject tract. There were 37 sales of residential lots and 26 sales of commercial lots in the Towner analysis. Nine of the sales were prior to the February 15, 1905, valuation date

^{4/} For the residential lots all those ranging from 11 cents to 71 cents per square foot were to have been eliminated. The commercial lots with prices from about 30 cents to over \$2.00 a square foot were also to have been rejected. However, an examination of the compilation reveals that several transactions in the higher range were included in the computations.

with all the remaining transactions occurring after the valuation date.

The average prices per square foot were:

<u>Years</u>	<u>No. of Sales</u>		<u>Residential</u>	<u>Commercial</u>
	<u>Residential</u>	<u>Commercial</u>		
1903 & 1904	6	/ 2	\$.022	\$.171
1905	7	/ 9	.031	.119
1906 & 1907	24	/ 15	.034	.183
Totals	37	/ 26	\$.030	\$.162

Neither the plaintiffs in Dockets 191 and 221 nor the defendant presented any evidence relating to sales of townsites.

39. Market Value Conclusions--Plaintiffs in Dockets 113 and 246.

Plaintiffs expert appraiser, Mr. William H. Muske, valued the subject tract at \$65,263,000.00 (without improvements) and at \$84,445,000.00 (with improvements). He considered the agricultural land, timberland, and townsites as follows:

Agricultural Land

Mr. Muske applied the results of his comparable sales analysis to the various categories of agricultural land within the area (see finding 35, supra). Since the five sales of land with a soil rating of "4" did not, in Mr. Muske's opinion, reflect a valid indication of fair market value, a per acre value of \$5.00 was assigned by him as a judgment factor for those lands. The amount of class 4 land was negligible--119,800 acres.

Applying the indicated per acre prices to the respective acreages of the subject tract which were in the three county groups and the four soil ratings, Mr. Muske computed an indicated value of \$128,527,000 for the agricultural lands. This was an average per acre value of \$16.36.

Since Mr. Muske's indicated value included improvements, he adjusted the figures to arrive at a value of the lands in an unimproved condition. He first applied a 12 percent reduction for the value of buildings on the lands. This figure was obtained from federal census data for 1900 and 1910 which allocated farm values between the land and buildings on the land. He then applied a 62.5 cents per acre adjustment for the value of fencing. And finally he estimated the added value for the initial breaking of the prairie land at \$1.468 per acre. He applied this figure to 3,529,000 acres, which was the amount of agricultural land which had been broken as of 1905. This represented an average of 66 cents per acre when allotted to the entire 7,855,000 acres of agricultural land. Thus the total indicated values for improvements on the agricultural land were:

	<u>Average per acre</u>	<u>Total</u>
Buildings	\$1.96	\$15,423,000
Fencing	.70	5,498,500
Breaking	<u>.66</u>	<u>5,180,500</u>
Total	\$3.32	\$26,102,000

These sums are 20 percent of the total values computed by Mr. Muske for the agricultural lands.

Deducting the value of the improvements reduced the indicated agricultural land value to \$102,425,000 or an average of \$13.04 per acre.

Timberland

In similar fashion Mr. Muske applied the results of his analysis of timberland sales to the respective acreages in the two groupings of the

forested areas. The resulting indicated value for the 174,000 acres of timberland was \$1,357,000.00 or an average of \$7.80 per acre. No allowance was made for breaking sod or for fencing. Since buildings were not commonly found on timberlands, Mr. Muske applied only one-fourth of the 12 percent adjustment applicable to building improvements on agricultural land. This adjustment of 3 percent reduced the indicated timberland value to \$1,316,000.00 or an average of \$7.57 an acre.

Townsites

Based on his comparable sales analysis Mr. Muske concluded that the indicated value for townsites was three cents per square foot for the residential lots and ten cents per square foot for the commercial lots. The townsite plats indicated that 60 percent of each townsite was in platted lots, with 7 percent of the lots being commercial and the remaining 93 percent residential. The 34 townsites contained a total of 4,877 acres, of which 2,926 acres were in platted lots. Mr. Muske computed the townsite value as follows:

Commercial lot area	
2,926 acres x 7% = 205 acres	
Residential lot area	
2,926 acres x 93% = 2,721 acres	
Commerical lot value	
205 ac. x 43,560 sq. ft. x 10¢/sq. ft. = \$ 892,980	
Residential lot value	
2,721 ac. x 43,560 sq. ft. x 3¢/sq. ft. = <u>3,555,803</u>	
Total	\$4,448,783
Rounded to	\$4,449,000

This represents an average per acre value of \$912.24.

Although the sales abstracts did not show whether the lots were unimproved or improved by structures or otherwise, Mr. Muske considered that because he had eliminated the group of sales in an extremely high range all the remaining sales involved unimproved lots. Therefore he concluded that his indicated value computation of \$4,449,000.00 represented the value of the unimproved townsite acreage.

To reach a value for the improvements on the town lots he used the local tax assessment records. While recognizing that such assessments are not evidence of fair market value, Mr. Muske used them for the purpose of computing a factor for the value relationship of town lots with and without improvements. The records indicated an improvement factor of 1.43 (143%). Applying that factor produced the following:

Indicated fair market value of townsites without improvements	\$ 4,449,000
\$4,449,000 x 1.43	<u>6,362,070</u>
Indicated fair market value of townsites with improvements	\$10,811,070
Rounded to	\$10,811,000

Adjustments for Size

Recognizing that there would have been substantial costs in holding and disposing of a tract of more than eight million acres, Mr. Muske applied adjustments for such factors and an allowance for a reasonable profit on such an undertaking. Those factors were:

a. Period of disposal

Mr. Muske considered that the entire tract could have been disposed of over a 9 year period. In 1905 there were people in the area and he estimated that about 62 percent of the agricultural land was in farms.^{5/} By 1910, 82.6 percent of the agricultural land in the subject tract was classified in the census report as land in farms. Mr. Muske estimated that disposal of all the agricultural and timberland could have been accomplished at the following rates:

<u>Year</u>	<u>Percentage of land sold</u>
1	35
2	25
3	15
4	15
5	2
6	2
7	2
8	2
9	2

He also assumed that all the townsite land could have been sold over the same 9 year period--but he calculated the disposals at an equal rate for each year.

b. Cost of preparing land for sale, survey, and classification

Mr. Muske considered that since the subject land already been surveyed according to the public land survey system only minor additional surveying would have been necessary to divide the land into economic units as

^{5/} This figure was obtained by interpolation from 1900 and 1910 census data.

distinguished from the arbitrary government survey divisions. Some classification work might have been necessary in order to define the economic units. The estimated cost of the additional survey and classification work as of 1905 was six cents per acre.

c. Cost of selling the land

The costs of advertising, compensation and expenses of the sales staff were estimated at 5 percent, which was in line with rates advertised by real estate agents. The cost would have been the same whether the prospective purchaser organized his own sales staff or contracted with sales agents.

d. Administrative costs

The costs of administration, including office, legal, accounting and contingency expenses, covering both home and field offices, plus all necessary personnel and allowance for contingencies, were estimated by Mr. Muske at 1 percent of the total receipts.

e. Taxes

(1) On Unimproved Agricultural and Timberland. Taxes on unimproved agricultural land during the life of the sales project would have averaged 9 cents per acre computed on the acreage unsold at the beginning of each year of the 9-year sales period. However, there would not have been any taxes the first year since the hypothetical purchaser would have acquired title free and clear of all encumbrances as of February 15, 1905.

The 9 cent figure was based on an adjustment of the indicated average tax of \$.145 per acre assessed at an average mill rate of 39.6 by the counties in which the subject land is located. Since the \$.145 per acre was based on the higher "retail" value of small tracts (\$103,741,000), Mr. Muske adjusted to the "wholesale" value of a single large tract (\$63,350,000). The total for taxes was \$1,155,475 over the 9-year period.

(2) On Unimproved Townsite Acreage. Near the date of valuation, unimproved town lots were assessed at an average of 24.1 percent of the indicated "retail" market value. This percentage, applied to the indicated value of \$912.24 per acre, would result in an assessed value of \$219.85 per unimproved townsite acre and a tax of \$8.71 per acre on unimproved townsite acreage.

f. Profit

The buyer would expect a reasonable profit to compensate him for his work and efforts in acquiring and accomplishing the sale of the land. Mr. Muske considered that a profit of 20 percent would be reasonable.

g. Discounted value of future income

Mr. Muske discounted to a 1905 value the income which would have been realized over the 9 year disposal period which he hypothesized for the entire tract. Considering the then prevailing interest rates and risk involved, Mr. Muske used an 8 percent discount rate.

The indicated adjusted value of agricultural land and timberland without improvements as of February 15, 1905, was \$63,350,000, computed as follows:

c. Retail value less direct expenses ("a" less "b")	\$ 3,990,906
d. Entrepreneur's profit (20% of "c")	<u>798,181</u>
e. Net value prior to discounting ("c" less "d")	\$ 3,192,725
f. Discounting to February 15, 1905 value (8% interest) \$3,192,725 x .7078 (factor)	\$ 2,259,811
Indicated fair market value (rounded)	<u>\$ 2,260,000</u>

This gives an indicated adjusted value of \$463.40 an acre. The overall reduction is 49 percent. Thus the total indicated fair market value is \$65,610,000. When adjusted to exclude the Turtle Mountain Reservation, the total value becomes \$65,263,000.

In similar fashion Mr. Muske applied his adjustments to his valuations with improvements to arrive at the following estimates, which he offered as his alternative appraisal of the subject area:

Indicated value of agricultural land and timberland with improvements	\$ 79,390,000
Indicated value of townsites with improvements	<u>5,490,000</u>
	\$ 84,880,000
Less adjustment for Turtle Mountain Reservation	<u>\$ 435,000</u>
Total	\$ 84,445,000

40. Market Value Conclusions--Plaintiffs in Dockets 191 and 221.

Plaintiffs' expert, Dr. Raleigh Barlowe, valued the subject lands at \$107,378,530.00 or an average of \$13.25 per acre for the entire 8,104,040 acres. Dr. Barlowe based his estimate on four "indications" of market value.

1. The U. S. Census of Agriculture for the years 1900 and 1910 listed the average per acre value of farm land in the area at \$8.99 and \$25.40, respectively. From this Dr. Barlowe interpolated an indicated average 1905 value of \$14.90 an acre.

2. Dr. Barlowe's study of school lands sold in eight counties within the ceded area in 1904 and 1905 revealed an average selling price of \$14.57.

3. The sales analysis of 889 sales in the area during the years 1903, 1904, and 1905 indicated an average price of \$14.64 an acre.

4. A survey of sales occurring in a selection of 25 representative townships in the area for a period from 1903 to early 1905 indicated a price of \$15.13 per acre.

Dr. Barlowe reduced the census farmland value by \$1.00 per acre as an adjustment to account for plowing as an element of improvement to the farmlands. Since he considered the school land sales to have involved unimproved lands, he made no adjustment to them. He found that the census data which separately valued farmland and buildings indicated that building improvement represented 11.6 percent of the combined value

of buildings and farmland. Accordingly, he reduced the results of his two sales analysis by 12 percent as an adjustment for building improvements.

After those adjustments, his average per acre figures were:

Interpolated census value	\$13.90
School land sales	14.57
Adjusted county sample	12.88
Adjusted 25-township sample	13.31

Dr. Barlowe considered the interpolated census value as an upper limit of value, the school land price as an acceptable measure, and the county and township values as low because of underrepresentation of 1905 sales. From this analysis he concluded that the fair market value ranged from \$13.00 to \$13.50 an acre--on an average of \$13.25 an acre.

41. Market Value Conclusions--Defendant.

Defendant's expert appraiser, Dr. William G. Murray, appraised the tract at an average of \$3.00 an acre or a total of \$24,312,117.00. Using its 12 sales analysis, referred to in finding 37, supra, defendant computed an average price per acre of \$9.40 for comparable lands to the west of the subject area. This figure was reduced by \$3.00 an acre to allow for improvements. Mr. Muske's adjustments were also applied to account for the expenses of surveying, advertising and sales, administrative, and taxes. There was also a 20 percent reduction for profit on the undertaking. Dr. Murray assumed a 12 year disposal period with a uniform percentage (8.33%) disposed of each year. Discounting the adjusted selling price over the 12 year period at an 8 percent rate, defendant computed an indicated value of \$22,225,385.00 or an average of \$2.74 an acre.

Defendant also computed an indicated market value based on the sales data of plaintiffs' experts, Dr. Barlowe and Mr. Muske. Since it was defendant's contention that 40 to 50 percent of the value of the lands was due to the extensive railroad network, the sales data was reduced by 40 percent. Adjustments were then applied for building improvements, plowing, and fencing. Then using the method employed by Mr. Muske, but substituting a 12 year uniform disposal projection, defendant arrived at an indicated market value of \$23,870,430.00 or an average of \$2.95 an acre.

42. Fair Market Value.

The Commission concludes that the February 15, 1905, fair market value of the subject tract was:

Agricultural land	\$ 51,825,705
Townsite land	<u>1,701,520</u>
Total	\$53,527,225

43. Consideration

The consideration paid for the cession under the McCumber Agreement was \$999,887.03

44. Conclusion.

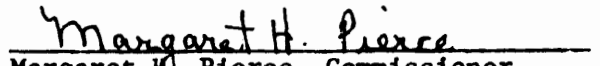
The payment of consideration in the amount of \$999,887.03 for the cession of lands having a fair market value of \$53,527,225.00 was so grossly inadequate as to render that consideration unconscionable within the meaning of Clause 3, Section 2 of the Indian Claims Commission Act, 60 Stat. 1049, 1050. The plaintiffs, on behalf of the American Pembina Chippewa group

(full and mixed bloods), including the subgroups of the Turtle Mountain Band, the Pembina Band, and the Little Shell Bands, are entitled to recover the sum of \$52,527,337.97, less such gratuitous offsets as defendant may be entitled under the provisions of the Indian Claims Commission Act.


Jerome K. Kuykendall, Chairman


John T. Vance, Commissioner


Richard W. Yarborough, Commissioner


Margaret H. Pierce, Commissioner


Brantley Blue, Commissioner