

Antrim Trust Fund

Antrim Mining Trust Fund

Initial Value of Trust = \$1,500,495.00 + \$28,000.00/yr for 10yr

Interest = 9%

Inflation = 3%

O&M Costs (today) \$57,298.00
 Target Amount of Trust (17.1 times O&M) \$979,544.26

End of Year	Treatment Costs	Target Value of Trust	Cash Value of Trust	
0		\$979,544.26	\$1,500,495.00	
1	\$57,298.00	\$1,005,248.43	\$1,606,241.55	(w/ \$28,000 cont.)
2	\$59,016.94	\$1,031,392.32	\$1,719,786.35	(w/ \$28,000 cont.)
3	\$60,787.45	\$1,057,959.31	\$1,841,779.67	(w/ \$28,000 cont.)
4	\$62,611.07	\$1,084,929.58	\$1,972,928.77	(w/ \$28,000 cont.)
5	\$64,489.40	\$1,112,279.79	\$2,114,002.96	(w/ \$28,000 cont.)
6	\$66,424.09	\$1,139,982.72	\$2,265,839.14	(w/ \$28,000 cont.)
7	\$68,416.81	\$1,168,006.84	\$2,429,347.85	(w/ \$28,000 cont.)
8	\$70,469.31	\$1,196,315.91	\$2,605,519.85	(w/ \$28,000 cont.)
9	\$72,583.39	\$1,224,868.44	\$2,795,433.24	(w/ \$28,000 cont.)
10	\$74,760.89	\$1,253,617.23	\$3,000,261.34	(w/ \$28,000 cont.)
11	\$77,003.72	\$1,282,508.72	\$3,193,281.14	
12	\$79,313.83	\$1,311,482.43	\$3,401,362.61	
13	\$81,693.25	\$1,340,470.21	\$3,625,791.99	
14	\$84,144.04	\$1,369,395.52	\$3,867,969.23	
15	\$86,668.37	\$1,398,172.60	\$4,129,418.09	
16	\$89,268.42	\$1,426,705.55	\$4,411,797.30	
17	\$91,946.47	\$1,454,887.40	\$4,716,912.59	
18	\$94,704.86	\$1,482,598.97	\$5,046,729.86	
19	\$97,546.01	\$1,509,707.72	\$5,403,389.54	
20	\$100,472.39	\$1,536,066.51	\$5,789,222.21	
21	\$103,486.56	\$1,561,512.15	\$6,206,765.65	
22	\$106,591.16	\$1,585,863.88	\$6,658,783.40	
23	\$109,788.89	\$1,608,921.73	\$7,148,285.01	
24	\$113,082.56	\$1,630,464.70	\$7,678,548.10	
25	\$116,475.04	\$1,650,248.73	\$8,253,142.39	
26	\$119,969.29	\$1,668,004.60	\$8,875,955.92	
27	\$123,568.37	\$1,683,435.49	\$9,551,223.58	
28	\$127,275.42	\$1,696,214.48	\$10,283,558.29	
29	\$131,093.68	\$1,705,981.67	\$11,077,984.86	
30	\$135,026.49	\$1,712,341.15	\$11,939,977.00	
31	\$139,077.29	\$1,714,857.61	\$12,875,497.65	
32	\$143,249.60	\$1,713,052.73	\$13,891,042.83	
33	\$147,547.09	\$1,706,401.14	\$14,993,689.60	
34	\$151,973.50	\$1,694,326.12	\$16,191,148.16	
35	\$156,532.71	\$1,676,194.82	\$17,491,818.78	
36	\$161,228.69	\$1,651,313.08	\$18,904,853.78	
37	\$166,065.55	\$1,618,919.81	\$20,440,225.07	

Antrim Trust Fund

38	\$171,047.52	\$1,578,180.80	\$22,108,797.81
39	\$176,178.94	\$1,528,182.02	\$23,922,410.66
40	\$181,464.31	\$1,467,922.30	\$25,893,963.31
41	\$186,908.24	\$1,396,305.33	\$28,037,511.77
42	\$192,515.49	\$1,312,130.92	\$30,368,372.34
43	\$198,290.95	\$1,214,085.57	\$32,903,234.90
44	\$204,239.68	\$1,100,732.01	\$35,660,286.35
45	\$210,366.87	\$970,498.01	\$38,659,345.25
46	\$216,677.88	\$821,663.94	\$41,922,008.45
47	\$223,178.21	\$652,349.44	\$45,471,810.99
48	\$229,873.56	\$460,498.71	\$49,334,400.42
49	\$236,769.77	\$243,864.54	\$53,537,726.69
50	\$243,872.86	(\$9.07)	\$58,112,249.23

Cap Costs

Antrim Mining Trust Fund

Capitalization Costs to replace Treatment System @ 25 & 50 Years

interest (decimals) = 0.09
inflation (decimals) = 0.03

Cost to replace Treatment System (today)	\$326,877.07
Cost to replace Treatment System in 25 years (% inflation)	\$684,407.99
Present Value of investment (% interest)	\$79,369.31
Cost to replace Treatment System in 50 years (% inflation)	\$1,432,998.35
Present Value of investment (% interest)	\$19,271.73
Total Present Value of investment	\$98,641.05

O&M Trust

Antrim Mining Trust Fund

Present Value (PV) of the future costs of Operations & Maintenance (O&M)

$$PV = A(1+i) \left[\frac{1 - \left(\frac{1+E}{1+i} \right)^n}{i-E} \right]$$

where:	A = annual O&M costs	(dollars)	=	\$57,298.00
	i = interest rate	(decimal)	=	0.09
	E = inflation rate	(decimal)	=	0.03
	n = Trust Period	(years)	=	50

$$PV = (A) \frac{(1+F6) \left(1 - \left(\frac{1+F7}{1+F6} \right)^n \right)}{(F6-F7)}$$

PV =	(A)	(1+i)	[(1-	((1+E) / (1+i))	**n)	/	(i-E)]
	\$57,298.00	1.09	1	1.03	1.09	50	0.06
	\$57,298.00	1.09	1		0.944954128	50	0.06
	\$57,298.00	1.09	1		0.058957131		0.06
	\$57,298.00	1.09		0.941043			0.06
	\$57,298.00	1.09			15.68404782		
	\$57,298.00		17.09561				

PV = \$979,544.38

Total Required

Trust = 979,544.38
Cap Costs = 98,641.05

\$1,078,185.43