

SCHEDULE 13G
(12/31/99)

CLEVELAND CLIFFS INC
Cusip # 185896107
New Filing

Cusip # 185896107

Item 1: REPORTING PERSONS
Dimensional Fund Advisors Inc. (Tax ID: 22-2370029)

Item 4: CITIZENSHIP
Delaware Corporation

Item 5: SOLE VOTING POWER
629,736 ** see Note 1 **

Item 6: SHARED VOTING POWER --
None

Item 7: SOLE DISPOSITIVE POWER --
629,736 ** see Note 1 **

Item 8: SHARED DISPOSITIVE POWER --
0

Item 9: AGGREGATE AMOUNT BENEFICIALLY OWNED --
629,736 ** see Note 1 **

Item 11: PERCENT OF CLASS REPRESENTED BY LINE 9 --
5.70

Item 12: TYPE OF REPORTING PERSON --
IA

ITEM 1(A). NAME OF ISSUER
CLEVELAND CLIFFS INC

ITEM 1(B). ADDRESS OF ISSUER
1100 Superior Avenue
Cleveland, OH 44114

ITEM 2(A). NAME OF PERSON FILING
Dimensional Fund Advisors

ITEM 2(B). ADDRESS OF PRINCIPAL BUSINESS OFFICE
1299 Ocean Avenue, 11th Floor, Santa Monica, CA 90401

ITEM 2(C). CITIZENSHIP
A Delaware Corporation

ITEM 2(D). TITLE OF CLASS OF SECURITIES
Common Stock

ITEM 2(E). CUSIP NUMBER
185896107

ITEM 3. This statement is filed pursuant to Rule 13d-1 (b), or
13d-2 (b) and the person filing is an investment advisor
registered under section 203 of the Investment Advisors
Act of 1940.

- ITEM 4. OWNERSHIP
- ITEM 4(a). AMOUNT BENEFICIALLY OWNED
629,736 ** see Note 1 **
- ITEM 4(b). PERCENT OF CLASS
5.70
- ITEM 4(c). NUMBER OF SHARE AS TO WHICH SUCH PERSON HAS:
- (i). SOLE POWER TO VOTE OR DIRECT THE VOTE --
629,736 ** see Note 1 **
 - (ii). SHARED POWER TO VOTE OR TO DIRECT THE VOTE --
None
 - (iii). SOLE POWER TO DISPOSE OR TO DIRECT DISPOSITION OF --
629,736 ** see Note 1 **
 - (iv). SHARE POWER TO DISPOSE OR TO DIRECT DISPOSITION OF --
None

** Note 1 **

Dimensional Fund Advisors Inc. ("Dimensional"), an investment advisor registered under Section 203 of the Investment Advisors Act of 1940, furnishes investment advice to four investment companies registered under the Investment Company Act of 1940, and serves as investment manager to certain other commingled group trusts and separate accounts. These investment companies, trusts and accounts are the "Funds". In its role as investment adviser or manager, Dimensional possesses voting and/or investment power over the securities of the Issuer described in this schedule that are owned the Funds. All securities reported in this schedule are owned by the Funds. Dimensional disclaims beneficial ownership of such securities.

- ITEM 5. OWNERSHIP OF FIVE PERCENT OR LESS OF A CLASS
If this statement is being filed to report the fact that as of 12/31/99 the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following: []
- ITEM 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON
All Securities reported in this schedule are owned by advisory clients of Dimensional Fund Advisors Inc., no one of which to the knowledge of Dimensional Fund Advisors Inc. owns more than 5% of the class. Dimensional Fund Advisors Inc disclaims beneficial ownership of all such securities.
- ITEM 7. IDENTIFICATION AND CLASSIFICATION OF THE SUBSIDIARY WHICH ACQUIRED THE SECURITY BEING REPORTED ON BY THE PARENT HOLDING COMPANY:
Not Applicable
- ITEM 8. IDENTIFICATION AND CLASSIFICATION OF MEMBERS OF THE GROUP
Not Applicable
- ITEM 9. NOTICE OF DISSOLUTION OF GROUP
Not Applicable
- ITEM 10. CERTIFICATION
By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired in the ordinary course of business and were not acquired for the purpose of and do not have the effect of changing or influencing the control of the issuer of such securities and were not acquired in connection with or as a participant in any transaction having such purposes or effect.

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete are correct.

Signature

Friday, February 4, 2000

Michael T. Scardina
Vice President and Chief Financial Officer