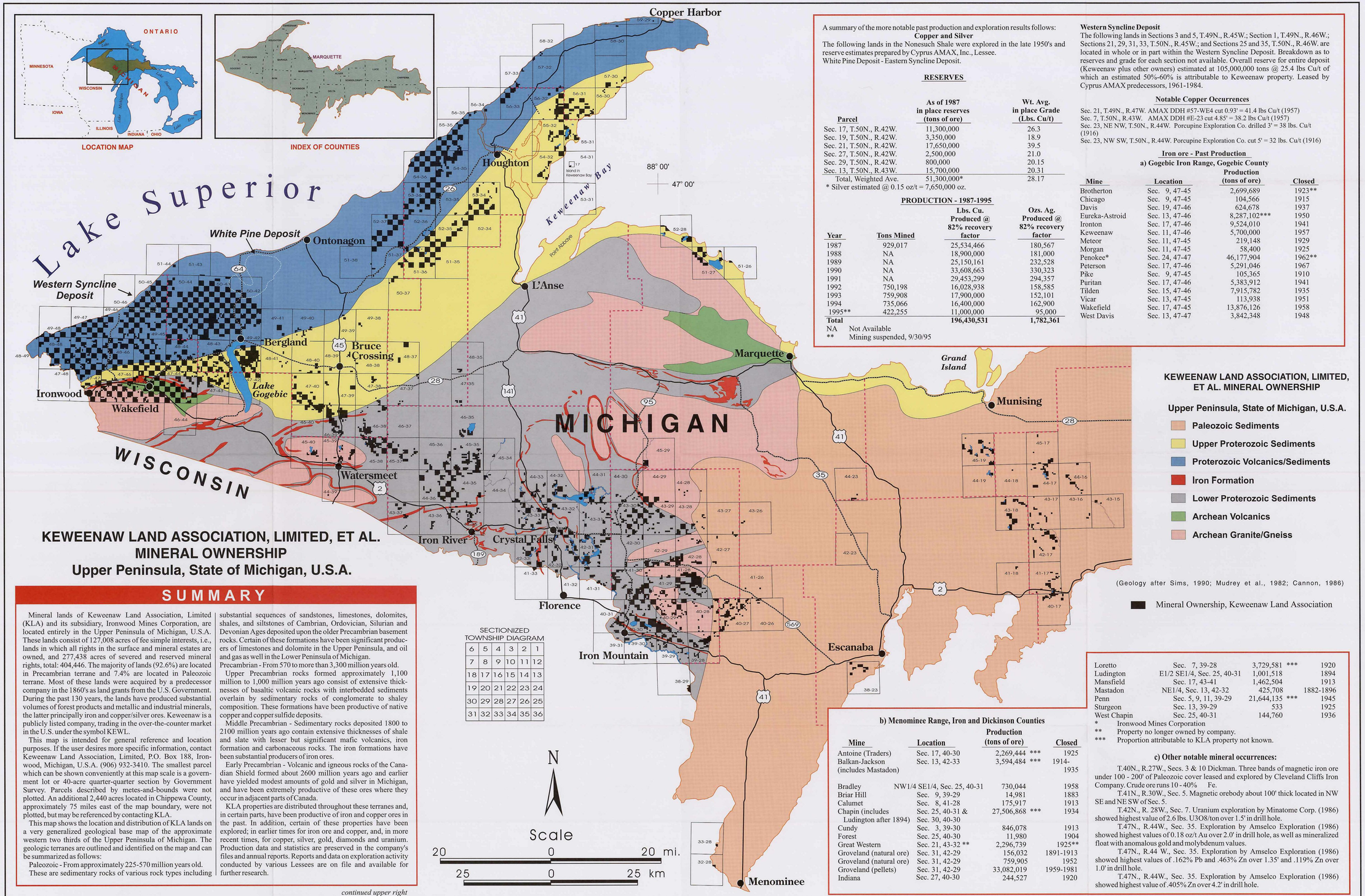
LOCATION MAP

INDEX OF COUNTIES



A summary of the more notable past production and exploration results follows:

Copper and Silver

The following lands in the Nonesuch Shale were explored in the late 1950's and reserve estimates prepared by Cyprus AMAX, Inc., Lessee.

White Pine Deposit - Eastern Syncline Deposit.

RESERVES

Parcel	As of 1987 in place reserves (tons of ore)	Wt. Avg. in place Grade (Lbs. Cu/t)
Sec. 17, T.50N., R.42W.	11,300,000	26.3
Sec. 19, T.50N., R.42W.	3,350,000	18.9
Sec. 21, T.50N., R.42W.	17,650,000	39.5
Sec. 27, T.50N., R.42W.	2,500,000	21.0
Sec. 29, T.50N., R.42W.	800,000	20.15
Sec. 13, T.50N., R.43W.	15,700,000	20.31
Total, Weighted Ave.	51,300,000*	28.17

* Silver estimated @ 0.15 oz/t = 7,650,000 oz.

PRODUCTION - 1987-1995

Year	Tons Mined	Lbs. Cu. Produced @ 82% recovery factor	Ozs. Ag. Produced @ 82% recovery factor
1987	929,017	25,534,466	180,567
1988	NA	18,900,000	181,000
1989	NA	25,150,161	232,528
1990	NA	33,608,663	330,323
1991	NA	29,453,299	294,357
1992	750,198	16,028,938	158,585
1993	759,908	17,900,000	152,101
1994	735,066	16,400,000	162,900
1995**	422,255	11,000,000	95,000
Total		**196,430,531**	**1,782,361**

NA Not Available

** Mining suspended, 9/30/95

Western Syncline Deposit

The following lands in Sections 3 and 5, T.49N., R.45W.; Section 1, T.49N., R.46W.; Sections 21, 29, 31, 33, T.50N., R.45W.; and Sections 25 and 35, T.50N., R.46W. are located in whole or in part within the Western Syncline Deposit. Breakdown as to reserves and grade for each section not available. Overall reserve for entire deposit (Keweenaw plus other owners) estimated at 105,000,000 tons @ 25.4 lbs Cu/t of which an estimated 50%-60% is attributable to Keweenaw property. Leased by Cyprus AMAX predecessors, 1961-1984.

Notable Copper Occurrences

Sec. 21, T.49N., R.47W. AMAX DDH #57-WE4 cut 0.93' = 41.4 lbs Cu/t (1957)
Sec. 7, T.50N., R.43W. AMAX DDH #E-23 cut 4.85' = 38.2 lbs Cu/t (1957)
Sec. 23, NE NW, T.50N., R.44W. Porcupine Exploration Co. drilled 3' = 38 lbs. Cu/t (1916)
Sec. 23, NW SW, T.50N., R.44W. Porcupine Exploration Co. cut 5' = 32 lbs. Cu/t (1916)

Iron ore - Past Production

a) Gogebic Iron Range, Gogebic County

Mine	Location	Production (tons of ore)	Closed
Brotherton	Sec. 9, 47-45	2,699,689	1923**
Chicago	Sec. 9, 47-45	104,566	1915
Davis	Sec. 19, 47-46	624,678	1937
Eureka-Astroid	Sec. 13, 47-46	8,287,102***	1950
Ironton	Sec. 17, 47-46	9,524,010	1941
Keweenaw	Sec. 11, 47-46	5,700,000	1957
Meteor	Sec. 11, 47-45	219,148	1929
Morgan	Sec. 11, 47-45	58,400	1925
Penokee*	Sec. 24, 47-47	46,177,904	1962**
Peterson	Sec. 17, 47-46	5,291,046	1967
Pike	Sec. 9, 47-45	105,365	1910
Puritan	Sec. 17, 47-46	5,383,912	1941
Tilden	Sec. 15, 47-46	7,915,782	1935
Vicar	Sec. 13, 47-45	113,938	1951
Wakefield	Sec. 17, 47-45	13,876,126	1958
West Davis	Sec. 13, 47-47	3,842,348	1948

b) Menominee Range, Iron and Dickinson Counties

Mine	Location	Production (tons of ore)	Closed
Antoine (Traders)	Sec. 17, 40-30	2,269,444 ***	1925
Balkan-Jackson (includes Mastadon)	Sec. 13, 42-33	3,594,484 ***	1914-1935
Bradley	NW1/4 SE1/4, Sec. 25, 40-31	730,044	1958
Briar Hill	Sec. 9, 39-29	14,981	1883
Calumet	Sec. 8, 41-28	175,917	1913
Chapin (includes Ludington after 1894)	Sec. 25, 40-31 & Sec. 30, 40-30	27,506,868 ***	1934
Cundy	Sec. 3, 39-30	846,078	1913
Forest	Sec. 25, 40-30	11,980	1904
Great Western	Sec. 21, 43-32 **	2,296,739	1925**
Groveland (natural ore)	Sec. 31, 42-29	156,032	1891-1913
Groveland (natural ore)	Sec. 31, 42-29	759,905	1952
Groveland (pellets)	Sec. 31, 42-29	33,082,019	1959-1981
Indiana	Sec. 27, 40-30	244,527	1920
Loretto	Sec. 7, 39-28	3,729,581 ***	1920
Ludington	E1/2 SE1/4, Sec. 25, 40-31	1,001,518	1894
Mansfield	Sec. 17, 43-41	1,462,504	1913
Mastadon	NE1/4, Sec. 13, 42-32	425,708	1882-1896
Penn	Sec. 5, 9, 11, 39-29	21,644,135 ***	1945
Sturgeon	Sec. 13, 39-29	533	1925
West Chapin	Sec. 25, 40-31	144,760	1936

* Ironwood Mines Corporation

** Property no longer owned by company.

*** Proportion attributable to KLA property not known.

c) Other notable mineral occurrences:

T.40N., R.27W., Secs. 3 & 10 Dickman. Three bands of magnetic iron ore under 100 - 200' of Paleozoic cover leased and explored by Cleveland Cliffs Iron Company. Crude ore runs 10 - 40% Fe.

T.41N., R.30W., Sec. 5. Magnetic orebody about 100' thick located in NW SE and NE SW of Sec. 5.

T.42N., R. 28W., Sec. 7. Uranium exploration by Minatome Corp. (1986) showed highest value of 2.6 lbs. U3O8/ton over 1.5' in drill hole.

T.47N., R.44W., Sec. 35. Exploration by Amselco Exploration (1986) showed highest values of 0.18 oz/t Au over 2.0' in drill hole, as well as mineralized float with anomalous gold and molybdenum values.

T.47N., R.44 W., Sec. 35. Exploration by Amselco Exploration (1986) showed highest values of .162% Pb and .463% Zn over 1.35' and .119% Zn over 1.0' in drill hole.

T.47N., R.44W., Sec. 35. Exploration by Amselco Exploration (1986) showed highest value of .405% Zn over 4.2' in drill hole.

KEWEENAW LAND ASSOCIATION, LIMITED, ET AL. MINERAL OWNERSHIP

Upper Peninsula, State of Michigan, U.S.A.

- Paleozoic Sediments
- Upper Proterozoic Sediments
- Proterozoic Volcanics/Sediments
- Iron Formation
- Lower Proterozoic Sediments
- Archean Volcanics
- Archean Granite/Gneiss

(Geology after Sims, 1990; Mudrey et al., 1982; Cannon, 1986)

Mineral Ownership, Keweenaw Land Association

KEWEENAW LAND ASSOCIATION, LIMITED, ET AL. MINERAL OWNERSHIP

Upper Peninsula, State of Michigan, U.S.A.

SUMMARY

Mineral lands of Keweenaw Land Association, Limited (KLA) and its subsidiary, Ironwood Mines Corporation, are located entirely in the Upper Peninsula of Michigan, U.S.A. These lands consist of 127,008 acres of fee simple interests, i.e., lands in which all rights in the surface and mineral estates are owned, and 277,438 acres of severed and reserved mineral rights, total: 404,446. The majority of lands (92.6%) are located in Precambrian terrane and 7.4% are located in Paleozoic terrane. Most of these lands were acquired by a predecessor company in the 1860's as land grants from the U.S. Government. During the past 130 years, the lands have produced substantial volumes of forest products and metallic and industrial minerals, the latter principally iron and copper/silver ores. Keweenaw is a publicly listed company, trading in the over-the-counter market in the U.S. under the symbol KEWL.

This map is intended for general reference and location purposes. If the user desires more specific information, contact Keweenaw Land Association, Limited, P.O. Box 188, Ironwood, Michigan, U.S.A. (906) 932-3410. The smallest parcel which can be shown conveniently at this map scale is a government lot or 40-acre quarter-quarter section by Government Survey. Parcels described by metes-and-bounds were not plotted. An additional 2,440 acres located in Chippewa County, approximately 75 miles east of the map boundary, were not plotted, but may be referenced by contacting KLA.

This map shows the location and distribution of KLA lands on a very generalized geological base map of the approximate western two thirds of the Upper Peninsula of Michigan. The geologic terranes are outlined and identified on the map and can be summarized as follows:

Paleozoic - From approximately 225-570 million years old.

These are sedimentary rocks of various rock types including substantial sequences of sandstones, limestones, dolomites, shales, and siltstones of Cambrian, Ordovician, Silurian and Devonian Ages deposited upon the older Precambrian basement rocks. Certain of these formations have been significant producers of limestones and dolomite in the Upper Peninsula, and oil and gas as well in the Lower Peninsula of Michigan.

Precambrian - From 570 to more than 3,300 million years old.

Upper Precambrian rocks formed approximately 1,100 million to 1,000 million years ago consist of extensive thicknesses of basaltic volcanic rocks with interbedded sediments overlain by sedimentary rocks of conglomerate to shaley composition. These formations have been productive of native copper and copper sulfide deposits.

Middle Precambrian - Sedimentary rocks deposited 1800 to 2100 million years ago contain extensive thicknesses of shale and slate with lesser but significant mafic volcanics, iron formation and carbonaceous rocks. The iron formations have been substantial producers of iron ores.

Early Precambrian - Volcanic and igneous rocks of the Canadian Shield formed about 2600 million years ago and earlier have yielded modest amounts of gold and silver in Michigan, and have been extremely productive of these ores where they occur in adjacent parts of Canada.

KLA properties are distributed throughout these terranes and, in certain parts, have been productive of iron and copper ores in the past. In addition, certain of these properties have been explored; in earlier times for iron ore and copper, and, in more recent times, for copper, silver, gold, diamonds and uranium. Production data and statistics are preserved in the company's files and annual reports. Reports and data on exploration activity conducted by various Lessees are on file and available for further research.

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