

MICROMOUNTERS OF NEW ENGLAND

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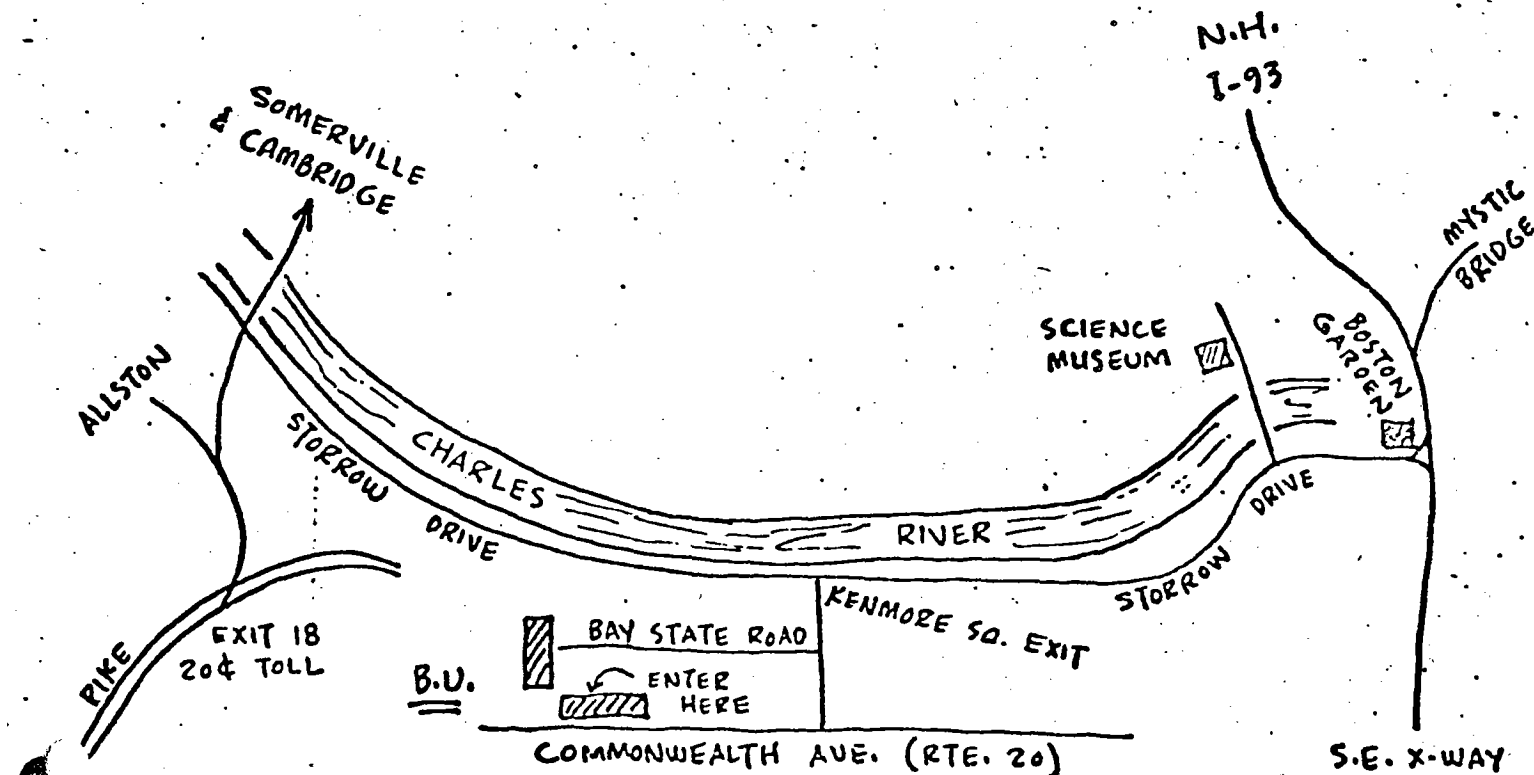
TREASURER AND
SECRETARY

John Anderson
17 Ginley Road
Walpole, MA 02081
617-668-2008
Norman Biggart
4 Baron Park Lane
Burlington, MA 01803
617-272-1537
Ralph Carr, Jr.
25 Farnum Road
Warwick, RI 02888
401-467-3823

NEWSLETTER #42

APRIL 20, 1978

The next regular meeting of the Micromounters will be on
Saturday, May 6, 1978, at Boston University, from 10 AM to 4 PM.



NOT TO SCALE

The New Haven Mineral Club will tentatively have a trip to St. Hilaire on the May 13-14, 1978 weekend. Last year we were allowed to attend as their guests, and could probably do so again this year. Information on the trip will be available at our meeting.

Our exchange package from the Nassau (Long Island) Mineral Club has arrived and will be ready for our meeting.

Nominations for Club Officers will be accepted at this meeting with the election held at our next regular meeting.

The following information on Babingtonite was taken from the "Natural History of New York", by Lewis C. Beck, copyright 1842.

It is interesting to note the only known location the mineral had been found at that time.

BABINGTONITE.

[In compliment to Dr. BABINGTON.]

Babingtonite. *Levy, Phillips and Thomson.* — Axelotom Augit-Spath. *Molz.*

DESCRIPTION. Colour dark greenish black. It occurs regularly crystallized. The primary form, according to Levy, is a doubly oblique prism. Fig. 481. P on M $92^{\circ} 34'$; P on T 88° ; M on T $112^{\circ} 30'$. But it usually crystallizes in eight-sided prisms. Fig. 482. g on m $132^{\circ} 15'$; h on m $137^{\circ} 05'$; h on t $155^{\circ} 25'$ (Levy). Sometimes the faces m are wanting. Cleavage perfect parallel to P; less so to t.

Fracture imperfect conchoidal. Lustre vitreous. Thin splinters faintly translucent. Hardness from 5.5 to 6.0. Specific gravity from 3.40 to 3.50. Before the blowpipe alone, it fuses into a black enamel; with borax, it gives a transparent violet globule, which in the reducing flame becomes bluish green.

This mineral resembles some dark varieties of pyroxene, from which it was first distinguished by Mr. Levy. Mr. Children found it to contain silica, iron, manganese, lime, and a minute quantity of titanium.

LOCALITY.

ST. LAWRENCE COUNTY. The only known locality of babingtonite in the United States, is at Gouverneur in this county, where it was first noticed by Prof. Shepard, coating crystals of feldspar.

Collecting at the Big Chief Mine, Glendale, South Dakota

By: David Lehecka

The Big Chief Mine is approximately $\frac{1}{2}$ mile south of Glendale, South Dakota. This mine is known for the phosphate minerals which occur in corroded triphyllite. Many of the minerals that occur here, also occur at the Palermo #1, North Groton, New Hampshire as the paragenetic settings are practically identical. The exceptions are the last five listed.

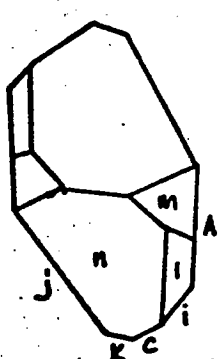
1. Ludlamite - monoclinic - pale apple green and colorless thin to thick tabular crystals.
2. Hureaulite - monoclinic - colorless to pink short prismatic crystals.
3. Vivianite - monoclinic - blue short to long prismatic crystals occurring on ludlamite.
4. Whitmoreite - monoclinic - pale tan to deep brown thin acicular crystals. Mainly found in granular siderite.
5. Jahnsite - monoclinic - tabular brown, yellow, and yellow-orange short to long striated prismatic crystals.
6. Rockbridgeite - orthorhombic - black, greenish-black and red-brown minute slender prismatic crystals and botryoidal crusts.
7. Strunzite - tan to greenish yellow fibers.
8. Laueite - triclinic - orange striated prismatic crystals.
9. Schoonerite - orthorhombic - thin tabular laths and scales. Brown to reddish-brown. Occurs associated with jahnsite, whitmoreite, and siderite in oxidized masses of ludlamite, messelite and vivianite. Described from Palermo #1. Has been reported from Big Chief.
10. Olmsteadite - orthorhombic - thin tabular brown to black crystals. Occurs in granular siderite.
11. Robertsite - monoclinic - black to reddish-brown plates, fibers and wedge shaped crystals.
12. Perloffite - monoclinic - black spear shaped crystals occurring in vuggy ludlamite. Fe⁺³ analogue of bjarebyite.

taken from Canadian Micromineralogists
January 1978

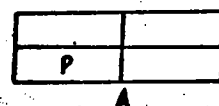
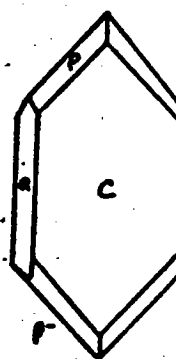
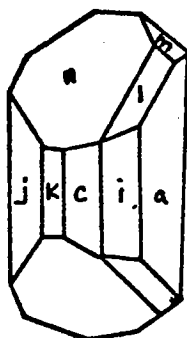
13. Kryzhanovskite - orthorhombic - deep red-brown to greenish-brown prismatic crystals.
14. Phosphoferrite - orthorhombic - colorless to pale green octahedral or tabular crystals.

References

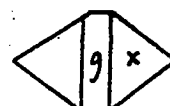
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- _____, and Kampf, A.R. (1977) Schoonerite, a new zinc - manganese-iron phosphate mineral. Am. Mineral., 62, 246-249.
- Kampf, A.R. (1977) Perloffite, the Fe +3 analogue of Bjarebyite. Mineral. Rec. 8, 119-120.



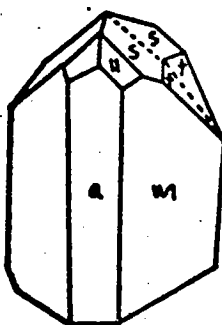
Jahnsite



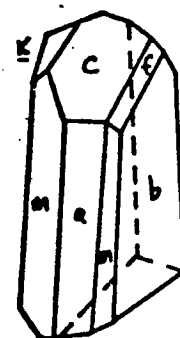
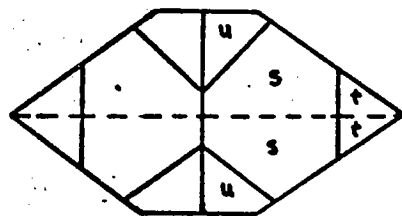
Olmsteadite



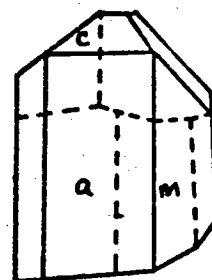
Perloffite



Whitmoreite



Laueite



Hureaulite

Acmite (Aegirine)	12, <u>26</u>	Gaidonnayite (UK 23)	<u>44</u>	Palygorskite	13, <u>33</u>
Actinolite	<u>12</u>	Galena	<u>11</u>	Parisite	11, <u>17</u>
Aegirine=Acmite		Genthelvite	13, <u>31</u>	Pectolite	<u>12</u>
Albite	<u>13</u>	Gmelinite		Phillipsite	
Ammandine	<u>12</u>	Goethite	<u>11</u>	Phlogopite	<u>13</u>
Analcime	<u>13</u>	Götsenite	12, <u>23</u>	Polyolithionite	13, <u>30</u>
Anatase	<u>11</u>	Grossular	<u>12</u>	POSSIBLES	40, 41, 44, 45
Ancylite	11, <u>18</u>	Grunerite	12, <u>26</u>	Pyrite	<u>11</u>
Andradite	<u>12</u>	Gypsum	<u>11</u>	Pyrochlore	11, <u>16</u>
Anglesite	<u>11</u>	Hackmanite=Sodalite		Pyrolusite	<u>11</u>
Ankerite	<u>11</u>	Harmotome	<u>45</u>	Pyrophanite	11, <u>16</u>
Apatite	11, <u>19</u>	Hedenbergite	12, <u>25</u>	Pyrrhotite	<u>11</u>
Apophyllite	<u>13</u>	Heikolite=Arfvedsonite		Quartz	<u>13</u>
Aragonite	<u>11</u>	Helvite	13, <u>31</u>	?Raite (Possible)	<u>44</u>
Arfvedsonite (Heikolite)	12, <u>27</u>	Hematite	<u>11</u>	Ramsayite=Lorenzenite	
Arsenopyrite	<u>11</u>	Hibschite=Hydrogrossular		Rhodesite	<u>32, 45</u>
Ashcroftine	<u>45</u>	Hilairite (UK 20)	14, <u>35</u>	Rhodochrosite	<u>11</u>
ASSOCIATIONS	6-10	Hornblende	<u>12</u>	Richterite (Fluor-	
Astrophyllite	12, <u>23</u>	Hydrogrossular (Hib-		edenite	12, <u>27</u>
Augite	<u>12</u>	schite)	12, <u>20</u>	Riebeckite (Crocido-	
Barite	<u>11</u>	Ilmenite	<u>11</u>	lite)	<u>12</u>
Bastnaesite	11, <u>18</u>	Joaquinite	<u>45</u>	Rinkite=Mosandrite	
?Batisite (UK 17?)	<u>34</u>	Labuntsovite (UK 5)	14, <u>33</u>	Ripidolite	13, <u>31</u>
Behoite		Lavenite	12, <u>22</u>	Rutile	<u>11</u>
Biotite	<u>13</u>	Leifite (Karpinskyite)	13, <u>31</u>	Sanidine=Orthoclase	
Birnessite	11, <u>16</u>	Lemoynite (UK 13)	13, <u>29</u>	Scheelite	<u>11</u>
Britholite (Lessingite)	11, <u>20</u>	Lessingite=Britholite		*Semenovite (Possible)	<u>45</u>
Brockite	11, <u>20</u>	Leucophanite	13, <u>28</u>	Sepiolite	<u>45</u>
Brookite	11, <u>16</u>	Leucosphenite	12, <u>24</u>	Serandite	12, <u>27</u>
Brookbankite	11, <u>19</u>	Limonite	<u>11</u>	?Shcherbakovite (UK 17?)	<u>34</u>
Calcite	<u>11</u>	Lorenzenite (Ramsayite)	12, <u>28</u>	Siderite	<u>11</u>
Cancrinite	<u>13</u>	Magnetite	<u>11</u>	Sodalite	<u>13</u>
Carletonite (UK 15)	14, <u>34</u>	Malachite	<u>11</u>	Sphalerite	<u>11</u>
Catapleiite	12, <u>24</u>	Manganneptunite	<u>25</u>	Steenstrupine	<u>45</u>
Cerussite		Marcasite	<u>11</u>	Stillwellite	
Chabazite		Melanterite	11, <u>19</u>	Strontianite	
Chalcopyrite	<u>11</u>	Meliphanite		Strontiumapatite	
CHEMICAL FORMULAS	11-13, 40-41	Microcline	<u>13</u>	Synchysite	11, <u>18</u>
Chlorite (Ripidolite)	13, <u>31</u>	Minnesotaite	13, <u>30</u>	Taeniolite	13, <u>30</u>
Cordylite (UK 12)	14, <u>33</u>	Molybdenite	<u>11</u>	Talc	<u>13</u>
Crocidolite=Riebeckite		Monteregianite (UK 6)	13, <u>32, 42</u>	Tetranatrolite	
DANA LISTING	11-13, 40-41	Montmorillonite	<u>13</u>	Thaumasite	<u>45</u>
Datolite	<u>12</u>	Mosandrite (Rinkite)	12, <u>21</u>	Thomsonite	<u>13</u>
Dawsonite	11, <u>17</u>	Mountainite	13, <u>33</u>	Thorite	12, <u>45</u>
Delhayelite	13, <u>32, 45</u>	Muscovite	<u>13</u>	Thorogummite	
Diopside	<u>12</u>	Narsarsukite	13, <u>29</u>	Titanite	12, <u>21</u>
Dolomite	<u>11</u>	Natrolite	<u>13</u>	Tobermorite	12, <u>28</u>
Edenite		Nenadkevichite (UK 19)	12, <u>22</u>	Tundrite	14, <u>34</u>
Ekanite (UK 4)	12, <u>25</u>	Nepheline	<u>13</u>	UNIDENTIFIED (UK)	14, <u>35</u>
Elpidite	12, <u>23</u>	Neptunite	12, <u>25</u>	Uvarovite	
Epididymite	13, <u>28</u>	?Noonkanbahite (UK 17?)	<u>34</u>	Vesuvianite (Idocrase)	<u>12</u>
Eudialyte	12, <u>25</u>	Nordstrandite	11, <u>45</u>	Villiaumite	11, <u>17</u>
Fluorite	<u>11</u>	OCCURRENCES	6-10	Willemite	12, <u>20</u>
fluoredenite=Richterite		Orthoclase	<u>13</u>	Wöhlerite	12, <u>21</u>
				Wurtzite	<u>15</u>
				Zircon	<u>12</u>
				?Zorite (Possible)	<u>45</u>

Numbers refer to pages in Worcester Mineral Club book.

Underlined page numbers indicate descriptive information.

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