SPECIAL NOTICE TO ALL MEMBERS = = = IMMEDIATE ATTENTION = PLEASE!

Surely every member of our group has heard of the "ENERGY CRISIS" - (Sorry, it's a "PROBLEN" now) but some of you may not have had the news that the "PROBLEM" is now being felt as a shortage of the plastic boxes which we have all used for our crystal specimens. The shortage seems to be much more pronounced in the area of our m/m boxes and the so-called t/n (1¼ X 1¼) sizes. As a matter of fact, we are told, most jobbers simply will not take orders for either the m/m or the t/n boxes.

Sometimes, tho, it helps to "know a feller" and in this case I just happen to know a "feller" who stocks m/m boxes. I contacted him and was informed that he had only 5000 + of "our" size left and had no hopes of getting more in the forseeable future. I asked him to please lay the 5000 boxes aside for me until April 15; that I would contact our members, inform them that this number of boxes are now available and ask them to let me know how many they wish to order. My friend promised that he would do as I asked.

SO- - - - It seems that if you need m/m boxes, either now or in the future, this is a very good time to order. On this order we get the 1000-box price - - 7.5¢ each, plus .5¢ postage (this will include the postage to my address and the reshipping charges when necessary; we should have them in time for the Spring meeting at Heilman's home, the balance can be delivered either at Forest Grove or by mail. Please let me know if you can wait until the Spring or the Falls meeting.

BUT I WILL HAVE TO RECEIVE YOUR ORDER BEFORE APRIL 15, 1974, AND SINCE THE NUMBER OF BOXES AVAILABLE IS LIMITED, IT WILL HAVE TO BE ON A "FIRST COME - FIRST SERVED" BASIS. AND WE WILL HAVE TO HAVE YOUR CHECK WITH YOUR ORDER.

AND - - - We seem to be somewhat "up in the air" about the date of our Spring Meeting at the STAN & EDITH HEILMAN home, Raymond, WA.

It was suggested (following the business meeting at Forest Grove last Fall, that the April dates for the Spring meeting be changed to May because of a possible conflict with a show in B.C.

Checking the calendar for available dates - and then the Show Dates schedule in the NWNewsletter we found that the first weekend in May is the dates for the Eugene Mineral Club show - so that is out.

The following week end in Mothers Day - - not a good day for our meeting.

Anyway, it seems that the most acceptable date would be the first weekend in June but we are not entirely certain that this date will be acceptable for Stan and Edith.

It seems best to name that date, June 1, as the tentative date for the meeting and to plan the next issue of the bulletin for sometime before May 15, so that all member will have time to make plans to attend the meeting. No further information or agenda is available.

Bob H. SEC.- TREAS.

REGULAR MEETING OF THE NORTHWEST MICRO-MINERAL STUDY GROUP,

WASHBURN HALL, PACIFIC UNIVERSITY, FOREST GROVE, OR. 3 NOVEMBER 1973

The regular meeting of the N rthwest Micro-mineral Study Group was called to order by President Claire Kennedy on November 3rd, 1973, at Washburn Hall, Pacific University, Forest Grove, Oregon.

Minutes of the April 28 meeting were approved as published in the July 10, 1973, bulletin.

Motion was made by Russ Kanaga to authorize payment for the handout sheets prepared by Rudy Tschernichand printed by Bob Hagglund, Motion seconded and carried.

The Nominat ng Committee report was made by George Williams. The nominees were: President - Norman Steele; Secretary-Treasurer - Bob Hagglund; Field Trip Chairman, Rudy Tschernich. Nelles Fairley moved that we accept the recommendation of the Nominating Committee and declare them elected. Seconded/carried.

There was no old business.

Bob Hagglund moved that our Newsletter be published as material is available, but not oftener that every two months. Seconded/carried.

Stan & Edith Heilman offered their place at Raymond, WA, for a meeting place for April 27 - 28, 1974. *

Don & Lee Kendall were thanked for obtaining a meeting hall and making the arrangements for the banquet, etc.

Following some discussion, the motion was made, S/C, that we affiliate with the Northwest Federation of Mineralogical Societies. The Secretary - Treasurer was instructed to make proper application for membership.

Rudy Tschernich moved that the President be our Federation Director and the SEC. - TREAS. be Federation Delegate.

Field Trip Chairman Rudy Tschernich wanted suggestions for places to go on field trips. Rudy does have a place in mind for a trip on Sunday after the Spring meeting. He will appreciate information you may have about such and such a location producing, is closed or ??? The bulletin will not publish maps of locations, however.

Photo techniques will be the program featured at this meeting.

Meeting adjourned by President Claire Kennedy.

Lee Kendall, Secretary-Treasurer

NORTHWEST MICRO-MINERAL STUDY GROUP.

NORTHWEST MICRO MINERAL STUDY GROUP, INC. VOL. I, NO. 1

ZEOLITES: SOURCES OF NAMES, WITH BRIEF QUOTES FROM SOME OF THEIR EARLIEST REFERENCES

A Compilation by Ford E. and D. Alice Wilson

(No. 7 in a series of Microscopy Notes, Oct., 1973) 1973

FOREWORD: It is hoped that the following compilation may be of interest to members of this Study Group. Most of the zeolites were known and named before 1850. Several others were described before 1900, and a few since 1900.

Information came from dictionaries, mineral reference books and mineral journals. Only in the case of stellerite has the source of the name eluded us.

TYPISTS NOTE: Sorry, Ford and Alice Wilson, but I just can not handle those Greek characters so I will just have to substitute the English words "for", "to", etc., as appropriate for the Greek. Bob H.

ZEOLITE: From Greek words (for) "to boil" and "stone".

ANALCIME: From the Greek word for "weak"
1803: Edin. Rev. III, 50. Many mineralogists will be amazed to find zeolites subdivided into mesolite, stilbite, analcime, and chabazite.
1831: Brewster, Optics, XVII, 155. In analcime there are several planes along which, if the refracted ray passes, it will not suffer double refraction.

BREWSTERITE: From name of Sir David Brewster (1781 - 1868)
1843: Portlock Geol. 223. Brewsterite has been stated to occur at the Causeway.

CHABAZITE: A "blundered name; originally named for the Greek for "hailstone", but in error changed to the word for stone.
but in error changed to the word for "stone"
1780: Bosc d'Antic. Jour. d'Hist. N., II, 181.
1804: Edin. Rev. III, 311. The chabasie (corresponds) to the zeolytes called cubic.
1814: Alan., Min. Nomen. Chabasie, cubic zeolite.

CLINOPTILOLITE: From the Greek words (for) "sloping, or inclining, and "wing down".
1923: Schaller, W.T. Am. Min. 17, 128-134: The mordenite-ptilolite group - clinoptilolite, a new species.

DACHIARDITE: From the name of Antonio d'Achiard, (- - - 1902) Italian Mineralogist.
1925: Berman, H., Am. Min. 10, 421-28. Notes on dachiardite.

EDINGTONITE: From the name of Mr. Edington, who found it in 1823.
1825: Haidinger, Edin. Jour. Sci., III, 317. It is in compliment to that gentleman (Mr. Edington in whose collection Haidinger first saw the mineral) that the name is here proposed.

EPISTILBITE: From the Greek words (for) "upon", and "luster".
1826: Edin. Jour. Sci. IV, 286. The cleavage of epistilbite is quite perfect.

ERIONITE: From the Greek word (for) "wool". Erionite,
1898: Eakle, A.S., Am. Jour. Sci. 6, 66. Erionite, a new zeolite.

FAUJASITE: After name of Faujas de Saint-Fond, French mineralogist, by Damour.
1842: Damour. Ann. Mines. 1, 395
1844: Dana, Min., 524. Faujasite occurs in square octahedrons.

ZEOLITES: SOURCES OF NAMES, ETC., (continued from page 1)

FERRIERITE: After Dr. W.F. Ferrier, (1865 - 1950) Canadian Mineralogist.
1918: Graham, R.P.D., Royal Soc. of Canada, Proc. & Trans. 3rd Ser, 12. Sec. IV, 185 - 190. On ferrierite, a new zeolite mineral from British Colu
1972: Stevenson, Louise S., Min. Rec., 3, No. 5, Sept./Oct. 232

GARRONITE: From the name of locality, Garron Point, Antrim, N. Ireland.
1960: Walker, G.P.L., Min. Mag., 32, 503-27. The amygdule minerals in the Tertiary lavas of Ireland. III, Regional Distribution. The list includes a probably new zeolite, related to phillipsite, for which the name "garronite" is proposed. (should be "Tentatively suggested" . . my error-Bob H.)
1961: Am. Min. 46, Mar./Apr. 466

GISMONDINE: From the name of C.G. Gismondi, (. . . -1824) Italian Mineralogist, by Leonard in 1817
1923: Phillips, W.P., Min. (ED.3) 211. Gismondine is of a greyish white color.

GMELINITE: From the name of Prof. C.A. Gmelin, 1792 - 1860), by Brewster.
1825: Brook. Edin. Jour. Sci. II, 262. Gmelinite, a new mineral species.

GONNARDITE: From the name of M. Gonnard, of Lyons, France.
1871: Gonnard, C.R. 73, 1448. Analysis by Pisani.
1896: LaCroix, A. Bull. Soc. Min. 19, 426

HARMOTOME: From Greek words (for) (armos) "joint", and (tomos) "cutting".
1801: Hauy, Tr. III, 1801
1804: Jameson, R. Syst. Min. I, 222. Cross stone, Harmotome.

HWESCHELITE: From the name os Sir John Herschel.
1825: Thomson, T., Ann. Philos II, x 262. Dr. Wollaston has examined chemically a small quantity of herschelite.

HEULANDITE: From the name of H. Heulandite, English Mineralogist.
1822: Brook. Edin. Phil. Jour. IV, 112. The stilbite and heulandite.

LAUMONTITE: From the name of Gillet de Laumont, the discoverer, by Werner, 1805.
1805: Jameson, Sys. Min. 71, 539 Lomonite
1808: Allan, T. Alphabetical list 42. Laumonite.
1868: Dana., Min. Ed. 5, 400. Laumontite occurs in cavities of trap.

LEVYNE: From the name of Prof. Armond Levy.
1822: Brewster, D., Edin. Jour. Sci. II,334. I propose to distinguish this species by the name levyne.

MESOLITE: So named because it is chemically intermediate between natrolite and scolecite.
1822: Berzelius: Edin. Philos. Jour. VIII, 88. Mesolite or needlestone from Faroe.

MORDENITE: From the name of locality, Morden, Kings co., Nova Scotia.
1864: How, H., Jour. Chem. Soc. XVII, 100. on mordenite, a new mineral from the trap of Nova Scotia.

NATROLITE: From the Latin word, Natron (soda)by Klaproth, in 1803
1805: Jameson, Sys. Min. II, 541
1811: Smithson. Phil. Trans., CL, 171. The natrolite has been lately met with under a regular crystalline form.

OFFRETITE: From the name of Prof. Offret, Lyons, France.
1896: Gonnard, M.F., C.R. III, 1002. Sur l'offretite, espece minerale nouvelle.

(Page 2)

ZEOLITES: SOURCES OF NAMES, ETC. (continued from page 2)

PAULINGITE: From the name of Dr. Linus C. Pauling, Calif. Inst. Tech.
1960: Kamb, W.B. and Oke, W.C. Paulingite, a new zeolite in association with erionite and filiform pyrite. Am. Min. Jan. - Feb., 1960. 45, 79

PHILLIPSITE: From the name of J.W. Phillips, English Mineralogist, (. . -1828)
1825: Thomson, T. Ann. Philos., Ser. II, X, 362. I propose the name phillipsite.

SCOLECITE: From the Greek word "scolex" (for) "worm"
1813: Gehlen and Fuchs. Schw. Jour. 8, 361
1823: Phillips, W. Min. (Ed. 3) 40. scolezite
1857: Dana. Man. Min. 1862, 167. Scolecite resembles natrolite.

STELLERITE:
1909: Morojwicz, J. Bull. Int. de L'Acad. Sc. de Cracovig, Part 2, 344. Uber stellerite ein neues zeothmineral.
1967: Erd, Eberlein, Pabst. Geol. Soc. Am., Program Ann. meet, 1967, 58 - 59. Stellerite, a valid orthorhombic memberof a continuous series with monoclinic stilbite.
1927: Wheeler, E.P. Am. Min. 12, 360. Stelleritefrom near Juneau, Alaska.

STILBITE: From the Greek word (for) "luster", by A.F. Hauy, in 1796
1815 : Aikin, Min. (ED.2) 209. Stilbite occurs chrystallized, lamelliform, massive and in fasculated acicular prisms.

THOMSONITE: From the name of Dr. Thomas Thomson, (1773 - 1852), Professor of chemistry at Glasgow.
1820: Brooke, H.J., Ann. Philos. Sept. 16,193. I shall call the Aun - vergne variety mesotype, that from Iceland and Ferro. Needlestone, and that from Dumbarton, thomsonite, after the editor of the Journal.

WAIRAKITE: From the name of the locality, Wairakei, New Zealand.
1955: Steiner, A.S., Min. Mag. 30, 691
1955: Coombs, D.S., Min. Mag. 30,699
1965: Whetten, J.T., Am. Min. 50, 752. May - June 1965

YOGAWARALITE: From the name of the locality, Yogawara Hot Spring, Kanagawa Pref., Japan.
1952: Sakurai, K., Hayashi, A., Sci. Repts. Yokohama Nat. Univ. Sect. II, No. 1, 69 - 77
For Abstract see: 1953 Am. Min., No. 3 - 4, Mar.- Apr., 38,426th

Ford E. Wilson furnishes three useful references mentioned at the Nov. 4, 1972 Study Group meeting:

METEORITES ON YOUR ROOF. A.C. Carpenter. ROCKS & MINERALS, NO. 243. Dec. 1957. Page 42.

(TINY METEORITES) Phil F. Brogan. Portland Oregonian, Aug. 11, 1968 Quoting from NATIONAL GEOGRAPHIC NEWS BULLETIN.

MINERALOGY OF SOME BLACK SANDS FROM IDAHO, with a descriptionof the methods used for their study. No. 2398, Proceedings U.S. National Museum, Vol. 60, Art. 3. By Earl V. Shannon. (Xerox, 6 pages)

NORTHWEST MICRO-MINERAL STUDY GROUP, INC. VOL. I, NO.1

ZEOLITE COLLECTING AT GOBLE, OREGON.

History and Minerals,

by Rudy Tschernich

Goble, Oregon, is one of the oldest and best known zeolite locations in the Northwest. Having been known for over 74 years, Goble is still producing specimens of rare and unusual minerals.

One of the earliest references to zeolites at Goble is made in Dana's Text, 4th Edition, 1932, listing Goble under locations for chabazite and thomsonite, yet no reference to Goble is found in Dana's 6th Edition of the System, 1898. Apparently specimens were found in the years between 1890 and 1906 when the railroad was put through the Goble area and again in 1917 - 1918 when the main road was built. By 1932 Goble was important enough to be mentioned in Dana.

Early collecting was done by Al Mcguinness from 1949 to 1956, Eleanor Thompson, and several others from the Portland area. Collecting was concentrated at what is known as the "original" Goble location, situated between the railroad and the highway, near the Goble store. Very fine chabazite, thomsonite, and levyne were found. Chabazite crystals were present up to ¾ inch, along with thomsonite balls over ¾ inch. Some of the worlds largest levyne crystals were found as singles up to ¾ inch in diameter and 1/8 inch thick. At that time levyne had not been found in the Northwest, therefore the levyne found at the Goble area was believed to be phacolite, the twinned variety of chabazite. Large 1 inch okenite balls were common but little of it was saved; collectors thought the okenite was just altered thomsonite balls and threw it away! Acicular zeolites like mordenite and mesolite were noticeably absent. The "original" Goble location was wiped out in 1958 - 1959 when the hiway was widened to it's present size.

John Cowles first started collecting at Goble in 1958 when work started on the hiway about one mile south of Goble; some mordenite and mesolite were found.

In 1959 the "original" location was buried and work on a side road ¼ mile north of Goble, where we collect today, was started. A small access road led up the hill from the old hiway. With the widening of the new hiway producing a cliff in the lower part of the hill, the old access road was cut off and a new access road was built. The old road is now overgrown with trees and grass but can still be seen about 20 feet up hill from where we now collect. The exposures made during the construction of the new access road produced the area we collect at today.

Construction of the new access road started at the up hill end, furtherest away from the highway. During construction collecting was very easy and material must have been extremely abundant. Judging from the amount of good specimens that collectors have been able to remove with hand tools in the past few years, collecting while construction was going on would have been a mineral collectors paradise. Yet few collectors were there at the right time. John Cowles did not collect there until construction had been completed. Many large pockets were found during construction of the side road. A zone which may have been a contact between basalt flows produced many pockets up to 3 x 3 feet. When the road was made this zone was opened up and large pockets were easy to get at for collecting. In these pockets were many of the common Goble minerals - mesolite, chabazite, stilbite and thomsonite but a few contained spectaculat specimens of okenite. Botryoidal layers of okenite over 2 inches thick and balls of white hair were removed. Some of the plates reached dimensions of several feet.

A tremendous amount of good specimens must have been wasted at that time be - cause of the lack of people present to collect the material at the right time, lack of knowledge of what they were collecting (only saving the large, im - pressive specimens), by calling everything "zeolites", not knowing that there are different zeolites; some only forming small but outstanding specimens. The final problem was the failure to preserve the specimens, once they were collected. This has always been one of John Cowles "pet peeves", and rightly so; "rockhounds" collecting zeolites as if they were agates, throwing specimens in a bucket or sack, then taking them home to be stored in a corner to collect dust and be ruined. It was not until 1962 that the use of "Perky" boxes became popular and zeolites could be stored in a manner that would protect them.

In February, 1963, John Cowles discovered an unknown blue mineral at the Chapman quarry, one-half mile further up the access road from where we collect today. This mineral was later found to be identical with material found at Owyhee Dam in Eastern Oregon. In 1967 the blue mineral was named Cavansite. Rock in the Chapman quarry consists of both a brown vesicular basalt and an unusual altered red tuff brecia. Cavansite was very scarce when the quarry was active. Today the quarry is overgrown with brush and blackberry vines, making it unlikely that more cavansite will be found at this locality.

In 1964 John Cowles held his first crystal sale at the Odd Fellows Hall in Rainier. This was an event for mineral collectors to obtain fine specimens at reasonable prices. Most of the material was from new locations found by John, including Cape Lookout, Altoona, Road 1440, Mt Solo, and others.

In 1966 John Cowles found some exceptional mordenite specimens in a big, lone rock , weighing 15 to 20 tons, beside the road about 1½ miles south of Goble. It had been passed up by many collectors for it was a fine-grained, hard rock with a few weathered mordenite veins showing. It took 5 days to break the big boulder down to expose pockets containing beautiful stalactitic growths cov - ered with undamaged, clean mordenite that resembled soft, white rabbit hair. Good crystals of stilbite were found suspended in the white hair. Due to the extremely delicate nature of the mordenite, we are lucky John Cowles found the material. The time and patience used to collect and preserve these exceptional specimens is appreciated by everyone. A month after the boulder had been broken up the highway department pushed it into the railroad fill. Where the boulder had come from was never known; it was unlike the surrounding rock.

I first collected at Goble in 1969. At this time most of the collecting was done on the right side of the road and average Goble material was found. In 1971, during a Snohomish Club field trip, we started new workings on the left, or canyon, side of the road. Many very fine specimens were found, equal to those of the past. Several 4 to 12 inch pockets with fine chabazite crystals of ¾ to 1 inch were found. Many pockets with ½ to 1 inch white apophyllite and good thomsonite balls were also found. The abundance and quality of specimens found made this an exciting weekend. Dean Hubbard, on his first mineral collecting trip, got "hooked" on minerals. Aside from the large pockets that excite everyone, a small zone of rock on the point produced many very unusual micro minerals: analcime, Unk. #1, garronite, levyne, apophyllite.

In 1972 several large pockets were found on the right-hand side of the road. These pockets were concentrated along the flow contact that produced the fine specimens when construction of the road was going on. Here pockets over 3 by 2 by 1 feet were found lined with 1½ inch mesolite balls covered with thomsonite and micro chabazite. Future collecting mmy turn up other interesting specimens.

ZEOLITE COLLECTING AT GOBLE, OREGON. (continued from page 2)

The rock in the Goble area is assigned to the late Eocene Goble Volcanic Series and is probably 38 to 42 million years old. It correlates with the Nestucca Formation and the Colestin Formation of Oregon. Rock of the same type is found across the Columbia River at Kalama. At the present day collecting site north of Goble the rock is a vesicular, brownish basalt, much darker black - ish-green when fresh. The basalt flows are nearly horizontal with red oxidation zones at the surface of several of the flows. At other locations in the Goble area the rock is a fine-grained black massive basalt with fewer vesicules.

The Goble locality is unique because of the unusually large number of species present (about 21), the many rare species and crystal forms, plus the variety of associations. "Typical" Goble specimens are composed of drusy heulandite lining a pocket on which are small stilbite crystals, thomsonite balls, masses of "curved", hair-like thomsonite, and micro chabazite sprinkled here and there. THE SPECIES PRESENT AT GOBLE INCLUDE:

Heulandite	Thomsonite	Stilbite
Chabazite	Mesolite	apophyllite

These are common minerals at Goble.

Phillipsite	Garronite	Levyne
Offretite	Unknown #1	Analcime
Calcite	Copper	Chalcocite
Cavansite	Okenite	Mordenite
Quartz, var.Chalcedony	Pyrolusite	Celadonite
Malachite-azurite (stains)		

These minerals are scarce at the Goble locality.

HEULANDITE is the most common mineral at Goble but rarely forms impressive specimens. It is a drusy lining in nearly all the vugs; a few crystals reach ½"

STILBITE is the second most common mineral at Goble, often forming crystals up to ½ inch; some reaching ¾ inch but rarely any larger. Crystals are often doubly-termonated with simple pointed termination and a small, flat face on the tip.

THOMSONITE occurs in a wide variety of habits and associations. The basic form of ALL thomsonite in the U.S. is a thin blade shaped like a flattened brick. All other habits we find are developed from that basic crystal form. White balls and masses of thomsonite that appear like curved, interwoven needles are composed of elongated, flat blades, off-set or growing out of alignment with eachnother. Thomsonite often grows on mesolite needles. To dis - tinguish between the two minerals - - mesolite forms long, straight needles; thomsonite forms short, flattened blades. A flat blade at the base with a long, straight needle extending from it is usually mesolite growing on thomsonite. Thomsonite also forms smooth-surfaced balls composed of very small thomsonite blades radiating from a common center. All the crystals are oriented with the flat terminal faces pointing outward to form a smooth ball.

Mesolite is common but not as abundant as the above named minerals. It forms straight needles up to 1½ inches long. Most of the mesolite at Goble is covered with thomsonite of chabazite. Often the mesolite needles are so heavily coated with thomsonite that the mesolite becomes stiff, semicompact balls that are quite attractive. If the thomsonite overgrowth is extremely dense a large thomsonite ball will result from a simple overgrowth on mesolite. Many of the rough-surfaced thomsonite balls over ¾ inch are formed in this manner.

ZEOLITE COLLECTING AT GOBLE, OREGON. (continued from page 3)

Chabazite occurs at Goble as small micro crystals scattered on most of the other zeolites and commonly as crystals up to ½ inch. Exceptional specimens with well formed crystals from ¾ to 1 inch are highly prized and are some of the best chabazite known anywhere. Crystal form is a simple rhombohedron near the cube in angle. The presence of two sets of striations (intersecting) is useful in identification. The twinned phacolite habit has never been found at Goble; but across the river, at Kalama, in the same rock type, the phacolite habit is dominant.

Apophyllite, while not a zeolite, is found with many of the zeolites at Goble. It is usually white from dehydration but addition of water or mineral oil will reverse the dehydration and produce translucent crystals. Blocky crystals with a large "c" face is a dominant habit. Often the crystals are so shaped with all faces approximately the same size that apophyllite might be mistaken for analcime. Proper orientation, presence of striations and cleavage parallel to the "c" face makes it possible to identify apophyllite.

In a small zone of rock on the canyon side of the road some unusual apophyllite crystals were found. The crystals are small (2mm) double-terminated dipyramidal; often with a small "c" face. These crystals have unusually steep pyramidal faces corresponding to a Miller Index of 221; a new face for the mineral apophyllite. These unusual apophyllite crystals are associated with analcime, thomsonite and Unk. #1. They are found in small vugs not over ½ inch in diameter.

MORDENITE is scarce at the present collecting location and when found does not form good specimens. All of the good specimens of the mineral came from the 20-ton boulder that John Cowles found south of Goble. The specimens from that boulder are some of the finest mordenite in the world. Mordenite is a common zeolite but normally when found it looks like matted-down, wet "cat's fur". Mordenite is composed of very thin hair-like needles that, when wet, collapse to form a tangled, matted mass. Because of its very soft nature it can not be cleaned and is damaged upon touch. The mordenite at Goble formed stalactite-like growths the size of the little finger, covered with delicate, undamaged, white hair. On broken specimens a hollow core can be seen in the center of each "finger. The mineral that was present for the mordenite to grow on, and was later etched away, is not known. Stilbite crystals up tp 1 inch were found suspended on the mordenite "fur". Micro crystals of stilbite and chabazite appear like frost on the white mordenite.

OKENITE is a rare mineral found with zeolites. It is not a zeolite. It forms white, hair-like crystals which, like mordenite, is usually matted down. The two minerals can be difficult to tell apart. Massive portions of okenite are always chalky appearing while mordenite masses will be composed of silky needles. Okenite "hair, when large enough to see, forms needles or blades that are flattened in one direction. Okenite was abundant at the "original" location but little was saved because it was thought to be altered thomsonite. Large plates of botryoidal mordenite, over 2 inches thick, balls up to 2 inches in diameter and (one specimen) with 2-inch terminated crystals were found during construction of the access road. Apophyllite and chabazite are commonly associated with okenite. Very little okenite has been collected in the past several years.

LEVYNE is scarce at Goble. Large, hexagonal plates with a flat "c" face and up to ¾ inch in diameter and 1/8 inch thick were found at the "original" location but most levyne found today, on the canyon side of the road, is quite small, colorless, and glass-clear. Clear levyne is highly heat-sensitive. Microscope lights must be used with great care to keep the crystals from "exploding". Most specimens will crack after removal from the ground.

(Page 4)

ZEOLITE COLLECTING AT GOBLE, OREGON. (continued from page 4)

OFFRETITE is a rare zeolite often found as oriented growths on the "c" face of levyne at nearly all levyne locations in the world. Offretite is very rare at Goble; it has been found on only one specimen, collected by the author. The offretite overgrowth on levyne makes the levyne more resistant to heat.

UNKNOWN #1 is a material found at Goble that very likely is a new mineral and, therefore, a new zeolite. It has an approximate composition of : $Ca_{2.3}Na_{0.2}Al_{4.8}Si_{7.2}O_{24}\cdot xH_2O$, which is very near that of scolecite. The ratio of Al, Si/O is 1 : 2, a ratio common in tectosilicates; a group based on structure which includes quartz, the feldspars and the zeolites. With the presence of water (and Al), the mineral must be a zeolite. X-ray data shows a very good pattern which corresponds to no known zeolite OR any other mineral. I believe this is a new mineral which, when work os completed, I hope to have named "COWLESITE" , after John Cowles who has done so much to stimulate zeolite collecting in the Northwest.

Unknown # 1 looks like thomsonite, forming blue to gray appearing linings and groups. The mineral is actually colorless, the specimen color resulting from the color of the vug walls showing through the colorless crystals. Thom - sonite and Unknown #1 can be differentiated by careful observation of the surface of the balls or linings. Thomsonite balls are smooth because they are made up of the flat tips of crystal blades. Unk.#1 is rough surfaced because it is composed of many sharply-pointed blades; at least 25X is needed to see the terminations - but the two minerals can easily be differentiated in the field. Thomsonite does not form pointed crystals at any known U.S. location. Unk.#1 is found only in small vugs (up to 3/8") and is usually the only mineral in the vug. Levyne, apophyllite, analcime and thomsonite have been found in association with Unknown #1.

ANALCIME is a common zeolite but very scarce at Goble. Crystals are generally micro but a few up to 3/8" have been seen. The typical habit is that of a trapezohedron. Unusual aggregates of analcime are present, forming balls which show the edges of numerous trapezohedrons in one ball. Also, there is a very unusual aggregate or twin which has notches where the normal edges of the trapezohedron should be (see Fig. 411, Page 181, Dana's 4th Ed.-Text)

GARRONITE is a rare zeolite found previously to the Goble occurance only in Ireland and Iceland. It is fairly common at Goble but is overlooked due to its similarity to other white zeolites. Massive garronite is most distinctive. White amygdules of garronite possess a concentric conchoidal parting which is useful in identification. Garronite found in open pockets is ALWAYS covered with an oriented overgrowth of phillipsite which usually forms a transparent thin layer over the milky-white garronite ball. Terminated garronite has not yet been described altho I believe it is present at Table Mt., Golden, Colo.

PHILLIPSITE is scarce at Goble. Nearly all of the phillipsite specimens from Goble are micro-crystals that occur oriented on garronite balls with the terminations pointing outward from the ball. Very little isolated individuals or twinned phillipsite is present. Both phillipsite and garronite are asso - ciated with all other minerals at Goble.

CELADONITE forms small sprays of green needles associated with many minerals. It alters to various shades of green and, finally, to yellow.

NATIVE COPPER is present as shiny, isolated filaments, crystals, and in sheets often enclosed in calcite, okenite, and other minerals. Exposed copper often alters to a black coating on the surface or to blue or green mala - chite - azurite stains. These stains often color other minerals in the pocket, leading collectors to believe the material is cavansite.

(Page 5)

ZEOLITE COLLECTING AT GOBLE, OREGON (continued from page 5)

CHALCOCITE is very rare at Goble, forming small, well-formed, dull-gray, hexagonal crystals. The only specimens I have seen were found by Russ Kenaga. Alteration of chalcocite could also yield the blue-green stains.

CAVANSITE is rare at Goble. Most of the specimens were found up the road from where we now collect. It occurs as poorly-formed, partly altered, radiating aggregates; rarely, if ever, terminated. It is intergrown with heulandite, calcite, and thomsonite, making poor specimens for micro collectors. A couple of small vugs containing beautiful, bright blue terminated sprays of cavansite were found by Dean Hubbard at the present collecting location. As far as I know this is the only authentic cavansite to be found where we are now collecting. Nearly all other blue-green, blue or green colors are from copper minerals.

PYROLUSITE forms black dendrites on many of the minerals at Goble.

QUARTX crystals have not been found at Goble but chalcedony and agate linings and nodules are present.

CALCITE is abundant in many crystal forms and associated with many other minerals. It often encloses native copper and makes beautiful specimens when perched on mesolite needles.

(NOTE: The following rightly belongs on an earlier page of this account but, somehow, when typing the copy I managed to skip the paragraph. - - Bob H.)

In 1960 - 1961 rock was removed by barge from the settlement of Trojan (named after the Trojan Powder Co., located there in 1930), now the site of the Trojan Nuclear Power Plant. Good specimens of calcite were found there.

If anyone has more information about the collecting history at Goble, with exact dates - what was found, etc., or information on minerals found at Goble which should be added to this list, please contact:

Rudy W. Tschernich
532 Avenue "A",
Snohomish, WA 98290

FIELD TRIP REPORT - - by Rudy Tschernich

As we all know, availability of gas will determine what kind of collecting trips we will have this year. If gas shortages are the same as they are now we will have to limit ourselves to short trips and combine collecting trips with general meeting dates.

Secondly, for both field trips and travel to meetings we will have to form car pools with members that have extra gas tanks on their vechcles so that we will not have to get gas on Sunday.

A trip is planned for the Sunday of the Raymond meeting. The trip will be to Kosmos, WA, for the rare zeolite, EPISTILBITE. Other minerals present are: Stilbite, stellerite, mordenite, heulandite, scolecite, laumontite, phillipsite, chabazite, calcite, quartz and, very,very rarely, phenakite. Most minerals are micro but excellent cabinet specimens of stilbite, heulandite, epistilbite and scolecite have been found. Collecting will be along the road; material is good and should be plentiful.

We will leave Raymond Sunday A.M., drive to Chehalis, then east to Kosmos. Return will be easy for those going to Portland and those going to Seattle.

Be sure to make arrangements with someone so that we will have space in vehicles making the trip. * * *

A trip to Stevenson, WA, might be planned later in the summer. Excellent mordenite and heulandite is present at that location.

* * * NOTE: Since the above was written the gas situation has eased up considerably and it seems likely that we will have no great desl af trouble in that regard.

+!+!+!+!+!+!+!+!+!+!+!+!+!+!+!+!+!+!+

SHORTAGE OF PLASTIC BOXES; "PERKY BOXES" and MICRO BOXES.

Shortage of raw plastic and price increases from 7¢ per pound last year to over 77¢ per pound this year has caused manufacturers of plastic boxes to discontinue certain sizes, raise prices and limit the amounts ordered. I am sorry to say that the mineral collectors have lost out to the bigger users of plastic boxes.

"PERKY BOX" 1¼ X 1¼ inch (standard t/n) and 2 X 2 inch are discontinued.

"PERKY BOX" 2 X 3 and the big cube are still available.

Most retailers and wholesalers of plastic boxes are out or are using what they have to mount their own specimens for sale. The 1¼ X 1¼ and the 2 X 2 inch boxes may be made again sometime later.

Try writing to: Industrial Plastics & Manufacturing Co.
18228 Ponciana Avenue,
Cleveland, Ohio 44135

They are the only makers of plastic boxes left and may still have some sizes. Prices are below normal wholesale and will sell to anyone. Order takes abo t 2 months - - - GOOD LUCK.

If YOU know of a source for these boxes please let the Secretary know so the information can be published in the next bulletin. R.T.

THIS IS THE FIRST EDITION OF " THE MICRO-PROBE" ,, the (proposed) title of the official BULLETIN of

THE NORTHWEST MICRO-MINERAL STUDY GROUP

Your comments and suggestions are solicited and will be most welcome.

IT WAS DECIDED AT THE MEETING IN FOREST GROVE LAST FALL THAT AN ATTEMPT WOULD BE MADE TO PUBLISH AN ISSUE ABOUT EVERY TWO MONTHS. THIS WILL DEPAEND, HOWEVER, UPON THE AMOUNT OF COOPERATION WE GET FROM THE MEMBERSHIP. WE CAN NOT EXPECT FORD WILSON AND RUDY TSCHERNICH TO CONTINUE AS THE ONLY CONTRIBUTORS. WE NEED INTERESTING ONFORMATION ON THE HOBBY, THE MINERALS WE COLLECT, HELPFUL HINTS AND ADVICE TO IMPROVE OUR KNOWLEDGE AND ENJOYMENT OF MINERALS AND OUR SKILL IN PREPARING THEM FOR OUR INTERESTED FRIENDS.

Bob Hagglund, Secretary
2412 Chestnut Street,
Everett, WA 98201

THIRD CLASS MAIL