# Northwest Micro Mineral

Study Group



# MICRO PROBE

SPRING, 1987

VOLUME VI Number 4

SPRING MEETING

2 (and 3) May, 1987

"The Heilmans", Raymond, Washington
10 am until late evening

#### PROGRAM:

- \*Update on the three potential new minerals for the Northwest
- \*Discussion of the material currently being collected at Goble, Oregon
- \*Planning for our Memorial Day trip to collect at the new Ritter quarry (See other side for more information)
- \*Business meeting and election of officers
- \*Pot luck dinner
- \*Slides in the evening -- bring some pictures to share with the group
- \*Sharing specimens and collecting localities -- there's always lots of time to visit and exchange info.

Bring your collecting tools in case we decide to collect at Goble on Sunday.

WILLAPA R.

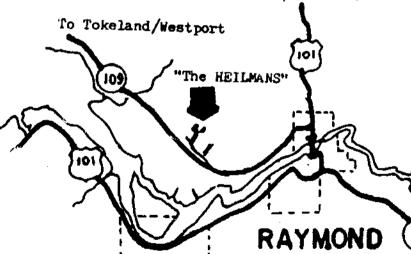
To Chehalis

To reach the HEILMANS (former Bayles Army Post), turn west off highway US 101 at the north end of the Bridge in Raymond, Washington. Follow highway toward Tokeland/Westport about 2 miles. A side road angles off to the right. Follow this road until you see the Buildings on your right (just before you come to a hill).

Turn into the driveway ....

Phone 942-5231

To Aberdeen/Montasano



SOUTH BEND

1

SPRING FIELD TRIP May 23, 24, 25, 1987 The Place: The new quarry on the road to Ritter Hot Springs Approximately 4 miles west of the turnoff from US 395. The quarry is on the north side of the road just east of the old quarry. It is currently being used for road gravel and may have a large pile in front of it. We will plan to collect at the quarry all day Saturday, May 23 Time: Plan to join the group that day. Trips to other nearby areas (3 mile school, Monument, etc.) will be planned that day for Sunday and Monday. Facilities: Campground with hookups, flush toilets, etc. at Ukiah-Dale (about 20 miles north on US 395). Campground at Beach Creek -- primative, Forest Service (about 25 miles south on US 395). Restaurant, Service Station, etc. at Long Creek (about 10 miles south on US 395). Heavy rock-breaking tools. Equipment. The quarry is easily accessable without a lot of carrying required. Bring cushioning TO Pendleton materials for delicate specimens. Collecting last fall included the following Minerals: Cowlesite (some with Heulandite) Offretite (thick coating on Levyne Ukinh-Dole and some single crystals) 🗖 Campground Chabazite - Thomsonite - Phillipsite -Mesolite combinations John Day R. Some native copper (For a complete list of minerals in the area see later pages of Dale this newsletter) 395 Quarry Monument Long Creek Hamilton

US 26

Fox

Campground 1 170 Mt Vernon

Beach Greek

ZEOLITE RESEARCH & EXPLORATION RUDY W. TECHERNICH 526 AVE. A, #A

SNOHOMISH, WASHINGTON 78290

AMICITE

**ANALCIME** 

BARRERITE

BREWSTERITE

CHABAZITE

CLINOPTILOLITE = 81-rich HEULANDITE

COWLESITE

DACHIARDITE

EDINGTONITE

**EPISTILBITE** 

**ERIONITE** 

**FAUJASITE** 

**FERRIERITE** 

BARRONITE

BISMONDINE

**GMELINITE** 

GOBBINSITE

GONNARDITE

BOOSECREEKITE

HARMOTOME

HERSCHELITE = Na-rich CHABAZITE

HEULANDITE

**HSIANGHUALITE** 

LAUMONTITE

LEVYNE

MAZZITE

MERLINGITE

MESOLITE

MORDENITE

NATROLITE

OFFRETITE

PARANATROLITE = disordered NATROLITE

PARTHEITE

PAULINGITE

PERLIALITE

**PHILLIPSITE** 

ROGGIANITE

SCOLECITE

STELLERITE

STILBITE.

SVETLOZARITE = disordered DACHIARDITE TETRANATROLITE = disordered NATROLITE

THOMSONITE

VISEITE

WAIRAKITE

WELLSITE = Ba-bearing PHILLIPSITE

WILLHENDERSONITE = K-rich CHABAZITE

YUGAWARALITE

All of the zeolite species in the left hand column are fully excepted species by IMA although considerable evidence indicates several of these species SHOULD become varieties of species on the right. Until some of these species are officially discredited they are still official mineral species. The tendency in IMA is to retain species because of the reputation of mineralogists describing a discredited species is involved, extent of published information using the old name, and like most governing groups, indecision, and lack of action. Some of these variations may be with us forever.

ş

25. Offretite x 15

New Ritter Quarry, Grant Co., Oregon

A single, needle-like crystal and a very thick, fibrous coating on hexagonal Levyne blades, mounted on a graywhite smectite. Specimen collected 9/86.

26. Unknown #2 x 18

Goble, Columbia Co., Oregon

A cluster of water-clear bipyramids in a tiny cavity lined with black smectite. This form is found in the unaltered basalt near the center of boulders. Specimen collected 2/87.

2₹. Unknown #2

Goble, Columbia Co., Oregon

X 12

A single crystal, clouded on the inside but clear along the outer margin, mounted on a brown-orange smectite. Larger crystals such as this, as well as the altered smectite, are found in the altered margins of the basalt boulders. Specimen collected 2/87.

The name "TSCHERNICHITE" is being proposed for this mineral.

28. Unknown #3 in Unknown #2 Goble, Columbia Co., Oregon x 10

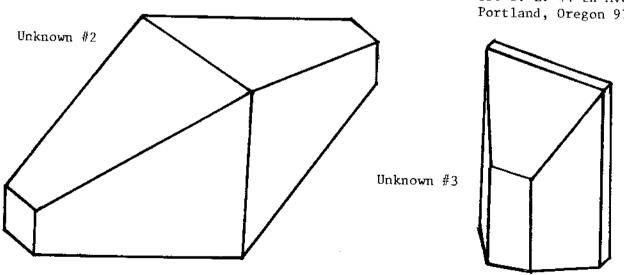
Yes, there appears to be another mineral present along Neer Road. It is usually embedded in fine-grained drusy Tschernichite and is much whiter in appearance, generally because of a white, compact, radial ball beneath. The surface of the ball shows terminations different from the Tschernichite. Specimen collected 3/87. So far quite rare (perhaps one to two dozen specimens known).

29. Unknown #3 and Unknown #2 Goble, Columbia Co., Oregon x 390

Scanning Electron Micrograph showing the newest mineral on the left against a background of Tschernichite crystals. Specimen collected 2/87. Both minerals seem to be hydrated calcium aluminum silicates (zeolites).

All pictures and specimens courtesy of the editor: Donald G. Howard

Donald G. Howard 356 S. E. 44 th Ave. Portland, Oregon 97215



#### SELECTED ZEOLITE LOCATIONS IN THE PACIFIC NORTHWEST

bу

Rudy W. Tschernich 526 Ave. A #A Snohomish, Washington 98290 206-568-2857 or 568-5369

January 29, 1987

C\* = Common at that location
S = Scarce at that location
VS = Very scarce at that location
Clay = clay/chlorite mineral undifferentiated

Locations are arranged from north to south along the coast, inland, and mastern areas. Information about additional locations and species would be appreciated.

WASHINGTON COAST ZEOLITE LOCATIONS

MATTS MATTS BAY QUARRY, PORT LUDLOW, WASHINGTON

LAUMONTITE (C) NATROLITE (S) CHALCOPYRITE(VS) PYRITE (VS)

CALCITE (C) ANALCIME (S) COPPER (VS) CHALCOCITE(VS)

THOMSONITE (S) STILBITE (S)

Chalcocite twins found with Chalcopyrite overgrowth.

STATUS: Difficult to get permission; productive with work.

SOUTH POINT GUARRY, HOODS CANAL BRIDGE, JEFFERSON CO., WASHINGTON

QUARTZ (C) CALCITE (C) CLAY (C) MORDENITE (S)

STATUS: Abandoned quarry; specimens can still be found.

RT 104 ROADCUT, HODDS CANAL BRIDGE, JEFFERSON CO., WASHINGTON

MESOLITE (C) ANALCIME (C) LAUMONTITE (C) CALCITE (C)

NATROLITE (C) STILBITE (S)

Mesolite needles with Natrolite on the tips.

STATUS: Exhausted after completion of road work.

QUILCENE, JEFFERSON CO., WASHINGTON

STILBITE (C) CALCITE (C) LAUMONTITE (S) QUARTZ (S)

STATUS: Abandonded quarry south of town; some specimens present

PIONEER QUARRY, BREMERTON, KITSAP CO., WASHINGTON

ANALCIME (C) CHABAZITE (C) LAUMONTITE (C) SCOLECITE (S)

STILBITE (C) APOPHYLLITE (C) CALCITE (C)

STATUS: Permission must be obtained; specimens are sporatic.

LAKE CUSHMAN, MASON CO., WASHINGTON

PREHNITE (S) ANALCIME (S) QUARTZ (S) FELDSPAR (S)

STATUS: UNKNOWN; amygdules in basalt along north shore of lake.

ICE BAR RIDGE, MASON CO., WASHINGTON

ANALCIME (C) STILBITE (C) SCOLECITE (C) HEULANDITE (C)

STATUS: UNKNOWN; found in pillow basalt south of ridge.

MOUNT-LINCOLN, MASON CO., WASHINGTON

LAUMONTITE (S) CALCITE (S)

STATUS: UNKNOWN; occurs in pillow basalt.

ROBERTSON QUARRY, SHELTON, MASON CO., WASHINGTON

ANALCIME (C) NATROLITE (C) CHLORITE (C) PYRITE (S) CALCITE (C)

STATUS: Active quarry, good collecting.

ROCK CANDY MOUNTAIN, THURSTON CO., WASHINGTON

CHABAZITE (C) MORDENITE (C) CLAY (C) CALCITE (C) STILBITE (C) LEVYNE (C) OFFRETITE-ERIONITE (S) Offertite-erionite intergrowth is present as an overgrowth on levyne.

STATUS: Open to collecting; productive with work.

KENNEDY CREEK, SHELTON, THURSTON CO., WASHINGTON

CHABAZITE (C) MESOLITE (C) ANALCIME (C) THOMSONITE (S) APOPHYLLITE (C) CALCITE (C)

STATUS: Open to collecting along logging road; specimens can be found.

CAPITOL PEAK, THURSTON CO., WASHINGTON

GARRONITE (C) COWLESITE (S) COWLESITE

STATUS: Collecting along logging road; specimens can be found.

VALE, THURSTON/LEWIS CO., WASHINGTON

EPISTILBITE (S)

STATUS: crystals in weathered basalt; some specimens can be found

ANALCIME	(C)	CALCITE	(C)	MESOLITE	(C)						
STATUS: UNK	NOWN	quarry alon	g HWY	' 8 NW of tow	n.						
LINCOLN CRE	LINCOLN CREEK, DOTY, LEWIS CO., WASHINGTON										
		ANALCIME CLAY		CHABAZITE	(C)	LAUMONTITE	(C)				
STATUS: Ab	undar	nt in old qua	rry L	sed for logg	ing r	oads.					
PE ELL, LEW	is co	)., WASHINGTO	<u>IN</u>								
		CLAY CALCITE		PYRITE	(8)	CHABAZITE	(8)				
STATUS: Ope	n to	collecting;	speci	mens present	with	hard work.					
MOUNT SOLO,	LONG	SVIEW, WASHIN	GTON								
	(C)	CHABAZITE CALCITE									
STATUS: Ope	n to	collecting;	produ	ctive when i	n ope	ration.					
<u>ALTODNA, WA</u>	HKIA	KUM CO., WASH	INGTO	<u>IN</u>							
CHALCEDONY	(C)	SIDERITÉ CLAY CLINOPTILOL	(C)	DACHIARDITE							
STATUS: Ope	n to	collecting a	long	dik <b>e;</b> produc	tiv <b>e</b>	with hard wo	rk.				
VESPER PEAK	, SNC	HOMISH CO.,	WASHI	NGTON							
GROSSULARIT PRENITE	E(C)		(C)		(C) (S)	LAUMONTITE	(S)				
STATUS: Ope	n to	collectors o	n min	ing clain; c	oll <b>e</b> c	ting product	ive.				
CHERRY CREE	K, Di	IVALL. WASHIN	BTON								
STILBITE HEULANDITE	. — .	MORDENITE	(C)	CHALCEDONY	(C)	COPPER-STAI	N(8)				
STATUS: Som	e spe	cimens are s	till	found.							
RAGING RIVE	R QUA	ARRY, PRESTON	, KIN	IG CO., WASHI	NGTON						
STILBITE MORDENITE	(C)	HEULANDITE	(C)	LAUMONTITE	(C)	CALCITE	(C)				
STATUS: Per	missi	on must be o	baine	d; collectio	g is	sporatic.					

DAKVILLE, GRAYS HARBOR CO., WASHINGTON

SQUAK MOUNTAIN, KING CO., WASHINGTON

LAUMONTITE (8) CALCITE (8)

STATUS: UNKNOWN; occurs in andesite.

CRATER LAKE, NORTH BEND, KING CO., WASHINGTON

CHABAZITE (S) QUARTZ (S) ADULARIA (S)

STATUS: UNKNOWN; lining fractures in metavolcanic rock.

LENNOX CREEK, NORTH BEND, KING CO., WASHINGTON

STILBITE (S) NATROLITE? (S) QUARTZ (S)

STATUS: depleted; in one miarolitic cavity.

RENTON, KING CO., WASHINGTON

CLINOPTILOLITE (C)

STATUS: UNKNOWN; sedimentary zeolites in Oligocene sediments.

WHITE RIVER, ENUMCLAW, KING CO., WASHINGTON

CHABAZITE (S) QUARTZ (S) CALCITE (S) LAUMONTITE (S)

STATUS: UNKNOWN; in altered basalt along logging road.

MUD MOUNTAIN DAM QUARRY, ENUMCLAW, KING CO., WASHINGTON

CHABAZITE (S) STILBITE (S) CALCITE (S)

STATUS: UNKNOWN; reported in vugs up to 6" in diameter.

MOUNT ROOSEVELT, SNOQUALMIE PASS, KING CO., WASHINGTON

LAUMONTITE (C) STILBITE (S) EPIDOTE (S) QUARTZ (S)

MAGNETITE (S) NATROLITE (S) TOURMALINE (S)

STATUS: UNKNOWN; occurs in joint openings.

BACKBONE RIDGE, MOUNT RAINIER NATIONAL PARK, PIERCE CO., WASHINGTON

CHABAZITE (C) STILBITE (C)

STATUS: UNKNOWN; common as joint fillings in andesite.

MOUNT RAINIER NATIONAL PARK, PIERCE CO., WASHINGTON

WAIRAKITE (5)

STATUS: UNKNOWN; in cavity fillings of Keechelus formation.

#### RAINIER, THURSTON CO., WASHINGTON

LAUMONTITE (C)

STATUS: UNKNOWN

SKOOKUMCHUCK DAM, TENINO, THURSTON CO., WASHINGTON

MESOLITE (C) QUARTZ (C) APOPHYLLITE (8) ANALCIME (S) STILBITE (C) CALCITE (C) THOMSONITE (8) LAUMONTITE (8) (C) (C) (VB) HEULANDITE CLAY CHABAZITE (8) OKENITE MORDENITE **(C)** 

STATUS: Closed to collecting after completion of the dam.

MOSSYROCK DAM, LEWIS CO., WASHINGTON

STILBITE (C) CHABAZITE (C) HEULANDITE (C) MESOLITE (8) QUARTZ (C) CALCITE (C) CLAY (C) LAUMONTITE **(S)** MORDENITE (C) LEVYNE (VS)

STATUS: Closed to collecting after completion of the dam.

KOSMOS LOGGING ROAD, RANDEL, LEWIS CO., WASHINGTON

(C) LAUMONTITE SCOLECITE (8) EPISTILBITE (C) CALCITE (S) STILBITE (C) QUARTZ (C) CHABAZITE (S) HEULANDITE (C) MORDENITE (C)

STATUS: Open to collecting along logging road; productive with work.

CANYON CREEK, TUM TUM MOUNTAIN, COWLITZ CO., WASHINGTON

LAUMONTITE (C)

STATUS: collecting in roadcuts; some specimens can be found.

TOUTLE RIVER, COWLITZ CO., WASHINGTON

STILBITE (C) MORDENITE (C) SCOLECITE (C) QUARTZ (C) HEULANDITE (C)

STATUS: Open to collecting along road; productive with work.

SIGNAL PEAK, SILVER LAKE, COWLITZ CO., WASHINGTON

SCOLECITE (8) MESOLITE (8) Mesolite is found on a scolecite base.

STATUS: UNKNOWN

			<del></del>	— — — — — — — — — — — — — — — — — — —			
SCOLECITE	(C)	CALCITE	(C)	LEVYNE	(C)	OFFRETITE	(VS)
		APOPHYLLITE					
LAUMONTITE	(C)	QUARTZ	(8)				
STATUS: Oper	1 to	collecting al	l ong	logging road,	pro	ductive with	work.
KALAMA I-5 F	ROAD	CUT, KALAMA,	COML	ITZ CO., WASH	HINGT	<u>DN</u>	
NESSI TT							- <b>-</b> .
MEROFILE	(6)	MORDENITE	(C)	ANALCIME	(C)	CELADONITE	(8)
CHABAZITE	(0)	HEULANDITE CALCITE	(C)	QUARTZ	(C)	EPISTILBITE	(VS)
RITERIF	(E)	LAUMONTITE	(C)	ARAGUNITE	(8)	PHILLIPSITE	(VS)
INCHOOKIIE	(6)	CHUMUNITIE	(C)				
STATUS: Clos	ed t	o collecting	afte	r completion	of r	oad.	
MUUDI AND IE	-W10	CO., WASHING	rmai				
WOODENING LE	-710	CO. 4 MCDC1140	UIN.			,	
STILBITE	(C)	CALCITE	(0)	MESOLITE?	(C)		
_,,,,,,,,				112002114,			
STATUS: UNKN	NWO						
LEWIS RIVER	/ PO	ISON CREEK, E	<u> KAMAI</u>	NIA CO., WASH	INGT	<u>ON</u>	
STILBITE	(C)	HEULANDITE	(C)	MORDENITE	(C)	QUARTZ	(C)
STATUS: Oper	ı to	collecting in	, coad	d cut; produc	tive	with work.	
LEUTO OTHES							
LEMIP KIVEK	/ 60	ARTZ CREEK, S	KAMAI	NIA CD., WASH	TNBT	N	
HELD AND THE	(C)	CALCITE	<b>/</b> E3	DATOLITE	<b>/</b> C\	COLCETT DITE	41105
OTTI DITE	(C)	CALCITE PYRITE	(6)	DHIDETE	(00)	ELIPITE	(42)
01142116	(4)	FIRITE	(5)	PLUURITE	(49)		
STATUS: Open	. to	collecting in	FOA	d cuti pendua	++	with work.	
ominant open		correcting to		a car, produc		WE CIT WORKS	
YACOLT, CLAF	k CO	. WASHINGTON	ı				
			•				
HEULANDITE	(C)	COWLESITE	(8)	THOMSONITE	(8)	LAUMONTITE	(8)
CALCITE	(C)	CHABAZITE	(8)	EPISTILBITE	(5)	LEVYNE	(8)
CLAY	(C)	STILBITE	(S)	PHILLIPSITE	(S)	MESOLITE	(S)
CHALCEDONY	(8)						
STATUS: UNK	NOWN	; collecting	in ro	pad cut; area	(dep)	leted.	
LACKAMAS LAK	Œ,	<u>CLARK CO., WA</u>	BHIN	3TON			
NATROLITE	(8)	CHABAZITE	(8)	STILBITE	(8)	CALCITE	(8)
CTATUO. INU	*****						
SIMIUSI UNK	NWUN.	; collect in	COAG	cuts north o	it lai	( <b>.</b>	
I TUTNERTON F		Y, ORCHARDS,		/ [] WYDUTE	IGTON		
FTATIODION P	WHITE	, orcheros,	LLHKI	/ FR. MHRHIV	IU I UN		
STILBITE	(C)	OPAL	(C)	LAUMONTITE	(C)	SCOI ECTTE	(8)
HEULANDITE			(C)	CHOUGHIIIC		JULIEU I IE	(3/
· ····································		UNDUITE	,				
STATUS: Diff	icul	t to get perm	issic	on: collection	a spr	oratic.	
<b> </b>		<b>w p</b> ***			, -p.	<b></b>	

ELK MOUNTAIN (ROAD 1440), COWLITZ CO., WASHINGTON

PARADISE RIDGE, STEVENSON, SKAMANIA CO., WASHINGTON

LAUMONTITE (B)

STATUS: UNKNOWN; druses lining fracture in altered basalt.

BUNKER HILL, STEVENSON, SKAMANIA CO., WASHINGTON

STILBITE (8)

STATUS: UNKNOWN; occurs in vesicules next to diabase intrusion.

BEAR CREEK, STEVENSON, SKAMANIA CO., WASHINGTON

STILBITE (S) MORDENITE (S) SCOLECITE (S)

STATUS: UNKNOWN; occurs in basalt amygdules.

ROCK CREEK, STEVENSON, SKAMANIA CO., WASHINGTON

MORDENITE (C) CHALCEDONY (C) STILBITE (S) ANALCIME (VS)

HEULANDITE (C) CLAY (C) CALCITE (S)

STATUS: Open to collecting in road cut; productive with work.

EASTERN WASHINGTON ZEOLITE LOCATIONS:

BOUNDARY MOUNTAIN, PEND OREILLE CO., WASHINGTON

THOMSONITE (S)

STATUS: UNKNOWN; occurs in lamprophyre dikes.

CHOPAKA MOUNTAIN, NIGHTHAWK AREA, OKANOGAN CO., WASHINGTON

SCOLECITE (S) EPIDOTE (S)

STATUS: UNKNOWN; occurs in veins cutting amphibolite country rock.

PHALEN LAKE . STEVENS CO. . WASHINGTON

ANALCIME (C)

STATUS: UNKNOWN; in Phalen Lake volcanics.

MIDNITE URANIUM MINE, WELLPINIT, STEVENS CO., WASHINGTON

AUTUNITE (C) CLAY (C) PYROLUSITE (C) STILBITE (V8)

STATUS: Permission must be obtained; specimens difficult to find.

WELLPINIT, STEVENS CO., WASHINGTON

CHABAZITE (S) STILBITE (S) HEULANDITE (S) MORDENITE? (S)

STATUS: vugs in andesite along road cuts west of town.

CAMAS LAND, BLEWETT, CHELAN CO., WASHINGTON

STILBITE (8)

STATUS: UNKNOWN: occurs in pockets of a chill zone of a diabase sill.

NUMBER 2 CANYON, WENATCHEE, CHELAN CO., WASHINGTON

PHILLIPSITE (8)

STATUS: UNKNOWN; occurs in andesite.

FAIRVIEW CANYON, WENATCHEE, DOUGLAS CO., WASHINGTON

STILBITE (S)

STATUS: UNKNOWN; amygdules up to 6" diameter are reported.

ROCK ISLAND DAM, ROCK ISLAND, DOUGLAS CO, WASHINGTON

PHILLIPSITE (C) ERIONITE (C) CALCITE (C) PAULINGITE (8) CLAY (C) OFFRETITE (8) PYRITE (S) CHABAZITE (V8) CLINOPTILOLITE (C)

STATUS: Open to collecting on dike in front of dam; very productive.

FIRST CREEK, KITTITAS CO., WASHINGTON

CHALCEDONY (C) EPISTILBITE (S) LAUMONTITE (S) STILBITE (S)

STATUS: Open to collecting on hills along creek; specimens scarce.

OREGON COAST ZEDLITE LOCATIONS

YOUNGS RIVER, ASTORIA, CLATSOP CO., OREGON

QUARTZ (C) MESOLITE (8) CALCITE (8) PYRRHOITE (8)

STATUS: Collecting in logging road cut; some material can be found.

NESTUCCA RIVER, TILLAMOOK CO., OREGON

NATROLITE (C) APOPHYLLITE (C)

STATUS: UNKNOWN

CAPE LOOKOUT QUARRY, TILLAMOOK CO., OREGON

ERIONITE (C) MORDENITE (C) CHALCEDONY (C) PHILLIPSITE (S)
DACHIARDITE (C) CALCITE (C) CLAY (C) PYRITE (S)
CLINOPTILOLITE (C)

STATUS: Open to collecting in old quarry; specimens excellent.

CASCADE HEAD, TILLAMOOK CO., OREGON

STATUS: UNKNOWN

GMELINITE (VS)

YAQUINA HEAD QUARRY, ABATE BEACH, LINCOLN CO., OREGON

ERIONITE (C) PHILLIPSITE (C) CLAY (C) BARITE (VS)

PYRITE (C) CALCITE (C) CHABAZITE (C) DACHIARDITE (VS)

MORDENITE (C) CLINOPTILOLITE (C)

STATUS: Permission should be obtained; specimens excellent.

ECKMAN QUARRY, WALDPORT, LINCOLN CO., OREGON

NATROLITE (C) ANALCIME (C) CALCITE (C)

STATUS: Permission must be obtained; sporadic collecting.

STRAWBERRY HILL, LANE CO., OREGON

NATROLITE (C) ANALCIME (C)

STATUS: Collecting on beach, basalt washed in from rock under water.

WESTERN DREGON ZEDLITE LOCATIONS:

GOBLE, COLUMBIA CO., OREGON

MESOLITE (C) HEULANDITE (C) PYROLUSITE (S) CLAY (C) THOMSONITE (C) CALCITE (C) PHILLIPSITE (S) CAVANSITE (V8)

STILBITE (C) APOPHYLLITE (C) CHALCEDONY (S) LEVYNE (S)

CHABAZITE (C) ANALCIME (8) CELADONITE (8) GARRONITE (5)

MORDENITE (8) COWLESITE (8) OKENITE (8) COPPER (V8)

NEW ZEOLITE (S) OFFRETITE-ERIONITE (VS) OPAL (C)

Offretite~erionite intergrowth found only on some levyne.

STATUS: Open to collecting along road; productive with alot of work.

SOUTH GOBLE, COLUMBIA CO., OREGON

MORDENITE (C) STILBITE (C) CHABAZITE (C) CALCITE (S)

STATUS: Location depleted.

RAINIER, COLUMBIA CO., OREGON

CALCITE (C) PYRITE (C) STILBITE (C) CHABAZITE (C)

STATUS: Permission to quarry difficult; material present at times.

HOOD RIVER, HOOD RIVER CO., GREGON

CLINOPTILOLITE (C)

SYATUS: Collecting in road cuts west of town; collecting good.

### MILWAUKIE, CLACKAMAS CO., OREGON

STILBITE (C) CALCITE (C) ERIONITE (VS) HEULANDITE (VB) Fe-SAPONITE (C) CHABAZITE (C) LEVYNE (VB) OFFRETITE (VS) Complex intergrowths of offretite-erionite with levyne.

STATUS: Site still open to collecting, specimens available with work.

ELK ISLAND, MILWAUKIE, CLACKAMAS CO., OREGON

CHABAZITE (C) CLAY (C) ANALCIME (C) LEVYNE (S) STILBITE (C) OFFRETITE-ERIONITE (C)

STATUS: Open to collecting when water is low; specimens can be found.

NEW ERA, CLACKAMAS CO., OREGON

STILBITE (C) CALCITE MESOLITE (C) CHABAZITE (5) (VS) NATROLITE (C) LAUMONTITE (C) THOMSONITE (S) SCOLECITE (VS)

Zoned needles scolecite at base, mesolite middle, natrolite tips.

STATUS: Open to collecting; specimens present with work.

CLACKAMAS RIVER, ESTACADA, CLACKAMAS CO., OREGON

SIDERITE (C) PYRITE (C) WELLSITE (8) OFFRETITE (VS) SELENITE (C) ARAGONITE (8) LEVYNE (VS) BARITE (VB) CLINOPTILOLITE (C) EPISTILBITE (VS)

STATUS: Many locations in cliffs & dikes along river; good collecting.

DAK GROVE FORK OF CLACKAMAS RIVER, CLACKAMAS CO., OREGON

GISMONDINE (C) CHABAZITE (C) THOMSONITE (S) PYRITE (S) CALCITE (C) LEVYNE (S) CLAY (C) **ERIONITE** ? (S)

STATUS: Specimens along road and over the bank; good collecting.

RICKREALL CREEK QUARRY, DALLAS, POLK CO., OREGON

APOPHYLLITE (C) STILBITE (C) QUARTZ (C) PYRITE (S) MORDENITE (C) CALCITE (C) CLAY (C) MAGNETITE (VS) HEULANDITE (C)

STATUS: Open to collecting; very good when quarry is active.

MILL CREEK QUARRY, MILL CREEK, BUELL, POLK CO., OREGON

STILBITE (C) QUARTZ (C) SMECTITE (C) APOPHYLLITE (VS) CALCITE (C)

STATUS: Abandoned quarry; collecting is excellent.

COFFIN BUTTE, CAMP ADAIR, BENTON CO., OREGON (C) NATROLITE ANALCIME (C) STATUS: UNKNOWN LAMBERT QUARRY, KINGS VALLEY, BENTON CO., OREGON APOPHYLLITE (C) CHABAZITE (C) STILBITE (C) ANALCIME (8) NATROLITE (C) CALCITE (C) HEULANDITE **(S)** STATUS: Inactive quarry; not productive now. NORTH-QUARRY, WREN, BENTON CO., OREBON (C) STILBITE CHABAZITE (C) CLAY (C) ANALCIME (8) APOPHYLLITE (C) LAUMONTITE (C) CALCITE (C) PYRITE (5) STATUS: Collecting good when quarry is active. SOUTH QUARRY, WREN, BENTON CO., DREGON NATROLITE (C) LAUMONTITE (C) CLAY (C) ANALCIME (B) MESOLITE (C) CALCITE (C) Zoned needles, primarily natrolite with various amounts of mesolite. STATUS: Permission must be obtained; specimens excellent. COX BUTTE, JUNCTION CITY, LANE CO., OREGON DATOLITE (C) MORDENITE (C) STILBITE (B) CHABAZITE CALCITE (C) QUARTZ (8) CLAY (8) STATUS: Old quarry open to collecting; good specimens still present. QUARTZVILLE, LINN CO., OREGON MESOLITE (C) PHILLIPSITE (C) STATUS: UNKNOWN GREEN PETER DAM, FOSTER, LINN CO., OREGON (C) HEULANDITE LEVYNE (C) SCOLECITE (8) GYROLITE **(S)** STILBITE (C) APOPHYLLITE (S) THOMSONITE (B) STATUS: Open to collecting along road north of dam: specimens present. CASCADIA, LINN CO., OREGON HEULANDITE (C) STILBITE (S) LAUMONTITE (C)

STATUS: Abandoned quarry along road; material can be found with work.

```
STILBITE
             (C)
                  HEULANDITE
                               CHABAZITE
                                                  (8) CALCITE
                                                                    (8)
MORDENITE
             (C)
                  QUARTZ
                               (C)
                                    MESOLITE
                                                  (8)
STATUS: Collecting when logging roads are open; sporadic occurrences.
SHOTGUN CREEK, LINN & LANE CO., OREGON
MESOLITE
             (C)
                  HEULANDITE (C)
                                    THOMSONITE
                                                 (S) CHABAZITE
                                                                    (8)
APOPHYLLITE (C)
STATUS: Old logging road open to collecting; specimens present.
BUCK MOUNTAIN, north of SPRINGFIELD, LANE CO., OREGON
THOMSONITE
              (C)
                   MESOLITE
                               (C)
                                    CALCITE
                                                  (C)
                                                                      (C)
                                                        STILBITE
HEULANDITE
              (C)
                   NONTRONITE (C)
                                    CHABAZITE
                                                  (C)
                                                        ANALCIME -
                                                                      (5)
STATUS:
         Old quarry, material scarce.
M-120, north of SPRINGFIELD, LANE CO., OREGON
                  MESOLITE
THOMSONITE
             (C)
                               (C)
                                    ANALCIME
                                                  (C)
                                                       CHABAZITE
                                                                      (C)
CALCITE
             (C)
                  NONTRONITE
                               (C)
                                    HEULANDITE
                                                  (8)
                                                       STILBITE
                                                                      (S)
COPPER
             (8)
STATUS: Old quarry, material scarce.
COBURG BUTTE, MCKENZIE RIVER, LANE CO., OREGON
ANALCIME
             (C)
                  NONTRONITE
                               (C)
                                    THOMSONITE
                                                  (C)
                                                       NATROLITE
                                                                    (5)
CALCITE
             (C)
                  STILBITE
                               (8)
                                    LAUMONTITE
                                                  (S)
                                                       PYRITE
                                                                    (8)
STATUS: Old quarry, material scarce.
SPRINGFIELD BUTTE QUARRY, SPRINGFIELD, LANE CO., OREGON
NATROLITE
             (C)
                  CALCITE
                               (C)
                                    COPPER
                                                  (5)
                                                       GMELINITE
                                                                      (S)
CHABAZITE
             (C)
                  HEULANDITE
                               (S)
                                    THOMSONITE
                                                  (S)
                                                       PHILLIPSITE
                                                                     (S)
PYROLUSITE
             (C)
                  MORDENITE
                               (S)
                                    ANALCIME
                                                  (S)
                                                       NONTRONITE
                                                                      (C)
STATUS: Old quarry depleted; new quarry not productive.
MOUNT PISGAH, SPRINGFIELD, LANE CO., ORESON
MESOLITE
             (C)
                  SCOLECITE
                               (C)
                                    STILBITE
                                                (C)
                                                     HEULANDITE
                                                                    (S)
CALCITE
             (C)
                  CHALCEDONY
                               (8)
                  mesolite with scolecite on the terminations.
Zoned crystals:
STATUS: UNKNOWN
LORANE QUARRY, LORANE, LANE CO., OREBON
STILBITE
              (C)
                   CHABAZITE
                               (C)
                                    LAUMONTITE
                                                 (S) DATOLITE
                                                                  (8)
PYRITE
              (8)
                   HEULANDITE (C)
                                    CALCITE
                                                 (S)
```

CALAPOOYA RIVER, DOLLAR, LINN CO., OREGON

STATUS: UKNOWN

DORENA DAM, COTTABE GROVE, LANE CO., OREGON

HEULANDITE (C) STILBITE (C) MORDENITE (S) LAUMONTITE (S)

STATUS: Productive only during construction of dam.

MCGOWAN CREEK, LANE CO., OREGON

HEULANDITE (C) CHABAZITE (C) CALCITE (C) ANALCIME (8)

MESOLITE (8) THOMSONITE (8)

STATUS: UNKNOWN

WHIPPLE QUARRY, DRAIN, DOUGLAS CO., OREGON

MESOLITE (C) THOMSONITE (C) ANALCIME (C) PYRITE (S)

LAUMONTITE (C) CALCITE (C) CLAY (S) HEMATITE-STAIN (B)

STATUS: Open to collecting with permission; collecting good when active.

LOST CREEK DAM, DOUGLAS CO., OREGON

STILBITE (C) CHABAZITE (C) HEULANDITE (C) MORDENITE (S)

CALCITE (C)

STATUS: UNKNOWN

DEAD INDIAN ROAD, ASHLAND, JACKSON CO., DREGON

HEULANDITE (C) STILBITE (C)

STATUS: UNKNOWN

CENTRAL OREGON ZEOLITE LOCATIONS:

NORTH FORK OF THE JOHN DAY RIVER, GRANT CO., OREGON

PHILLIPSITE (C) Ca-SILICATE (C) THOMSONITE (C) NATROLITE (C)

CHABAZITE (C) CALCITE (C) LEVYNE (8) COWLESITE (VS)

GYROLITE (C) APOPHYLLITE (C) GMELINITE (VS)

MESOLITE (C) OFFRETITE-ERIONITE (S)

Mesolite extending from natolite needles. Offretite-erionite intergrowth on levyne.

STATUS: Open to collecting along road; productive with hard work.

THREE MILE SCHOOL, RITTER, GRANT CO., DREGON

PAULINGITE (C) CHABAZITE (C) STILBITE (VS) HEULANDITE (VS)

SMECTITE (C) PHILLIPSITE (C)

STATUS: Open to collecting along road; excellent collecting.

# RITTER HOT SPRINGS, GRANT CO., ORESON

STELLERITE	(C)	MESOLITE	(C)	CHABAZITE	(C)	HEULANDITE	(S)
CALCITE	(C)	NATROLITE	(C)	THOMSONITE	(S)	HEMATITE	(8)
ANALCIME	(C)	PYRITE	(8)	MARCASITE	(8)	LAUMONTITE	(8)
GYROLITE	(C)						

Mesolite extending from natrolite needlas. Pseudomesolite not present.

STATUS: Fee to collect at Hot Springs: specimens can be found.

RITTER QUARRIES, MIDDLE FORK OF JOHN DAY RIVER, GRANT CD., DREGON

```
MESOLITE
            (C) CALCITE
                              (C)
                                   THOMSONITE
                                               (S)
                                                    PYRITE
                                                                 (S)
NATROLITE
            (C)
                 CHABAZITE
                              (C)
                                  LAUMONTITE
                                              (S)
                                                    MARCASITE
                                                                 (8)
ANALCIME
            (C)
                 GYROLITE
                                 LEVYNE
                              (C)
                                               (S)
                                                    COWLESITE
                                                                 (VS)
                                  APOPHYLLITE (C)
PHILLIPSITE (C)
                HEULANDITE
                              (C)
                                                    TACHARANITE (VS)
```

STILBITE (C) OFFRETITE-ERIONITE (S)

Mesolite occurs on natrolite needles. Offretite-erionite intergrowth over grows lavyne.

STATUS: Abandoned quarries; collecting good with hard work.

INDIAN ROCK LOOKOUT, MIDDLE FORK JOHN DAY RIVER, GRANT CO., OREGON

NATROLITE (C) ANALCIME (C) THOMBONITE (S) PHILLIPSITE (S)

STATUS: hard hike to area, specimens hard to find.

BEECH CREEK QUARRY, MT. VERNON, GRANT CO., OREGON

CHABAZITE	(C)	ANALCIME	(C)	ARAGONITE	(8)	HEUL AND I TE	(VS)
THOMSONITE	(C)	CALCITE	(C)	PHILLIPSITE	(S)	COPPER	(VS)
MESOLITE	(C)	LEVYNE	(C)	COWLEBITE	(8)	STILBITE	(VS)
OFFRETITE-ER	IONIT	E (C)					

No mordenite or apophyllite has been found. Offretite-erionite intergrowth overgrows levyne.

STATUS: Abandoned quarry; collecting is still good.

#### MONUMENT, GRANT CO., OREGON

NATROLITE (C) BYROLITE (C) ANALCIME (C) CHALCEDONY (C) APOPHYLLITE (C)

STATUS: Abandoned quary; productive with hard work.

#### BURNT CABIN CREEK, SPRAY, WHEELER CO., DREGON

MESOLITE	(C)	CALCITE	(C)	LEVYNE	(C)	STILBITE	(VS)
THOMSONITE	(C)	COWLESITE	(C)	PHILLIPSITE	(5)	GYROLITE	(VS)
CHABAZITE	(C)	CLAY	(C)	APOPHYLLITE	(8)	HEULANDITE	(VS)
ANALCIME	(C)	OFFRETITE-EF	RIONI	TE (C)			
Offretite-erionite is the white overgrowth on some levyne crystals.							

STATUS: Open to collecting along cliff & bank of road; productive.

EAST SPRAY, WHELLER CO., OREGON

MESOLITE (C) THOMSONITE (C) ANALCIME (C) CALCITE (C)

STILBITE (C)

STATUS: Depleted; covered over after completion of road work.

WEST SPRAY, WHEELER CO., OREGON

STILBITE (C) MESOLITE (C)

STATUS: Open to collecting along road; productive.

MITCHELL, WHEELER CO., OREGON

CHABAZITE (C) APOPHYLLITE (S) PHILLIPSITE (S)

STATUS: Collecting in roadcut east of town; some specimens found.

RICHARDSON'S RANCH, MADRAS, JEFFERSON CO., OREBON

CHALCEDONY (C) MORDENITE (C) CLINOPTILOLITE (C)

STATUS: Commercial collecting sites; collecting very good.

HAMPTON BUTTE, CROOK-DESCHUTES CO., OREGON

CHALCEDONY (C) STILBITE (S) APOPHYLLITE (VS)

STATUS: UNKNOWN; zeolites are found in green petrified wood.

DREWS RESERVOUR, LAKEVIEW CO., OREGON

LEVYNE (S) OFFRETITE-ERIONITE (S) COWLESITE (S)

STATUS: UNKNOWN

EASTERN OREGON ZEOLITE LOCATIONS:

PETE'S POINT, AMEROID LAKE, JOSEPH, WALLOWA CO., OREGON

THOMSONITE (C) CHABAZITE (C) NATROLITE? (8) APOPHYLLITE (8)

CALCITE (C) COWLESITE (C) ANALCIME (C) STILBITE (S)

LEVYNE (C) GARRONITE (C) PHILLIPSITE (8)

STATUE: Open to collecting; difficult hike to area.

ANERGID MOUNTAIN, ANERGID LAKE, JOSEPH, WALLOWA CO., OREGON

PHILLIPSITE (C) CHABAZITE (C)

STATUS: Open to collecting; difficult hike to area.

DOLLAR LAKE, JOSEPH, WALLOWA CO., OREGON

ERIONITE (C) HEULANDITE? (C) CALCITE (C)

STATUS: Open to collecting; difficult hike to area.

DURKEE OPAL MINE, SWAYZE CREEK, BAKER CO., OREGON

ERIONITE (C) OPAL (C) CLINOPTILOLITE (C)

STATUS: Abandoned open pit & dumps; some specimens can be found.

DURKEE, BAKER CO., OREGON

ERIONITE (C)

STATUS: UNKNOWN

OWYHEE DAM, MALHEUR CO., OREGON

HEULANDITE (C) CALCITE (C) ANALCIME (8) PENTAGONITE (VS)

CHABAZITE (C) CAVANSITE (8) APOPHYLLITE (9) OFFRETITE (V8)

STILBITE (C)

Gmelinite is not present.

STATUS: Collecting is not allowed in state park; very hard work.

SUCCOR CREEK, MALHEUR CO., OREGON

HEULANDITE (C) CHALCEDONY (C) MORDENITE (S) CLINOPTILOLITE (C) Crystals are zoned. Clinoptilolite in core covered by heulandite.

STATUS: Open to collecting; specimens abundant in thunder eggs.

ROME, MALHEUR CO., OREGON

ERIONITE (C)

STATUS: in sadimentary deposits; not good for specimens.

CROOKED CREEK, MALHEUR CO., OREGON

ERIONITE (C)

STATUS: in sedimentary deposits; not good for specimens.

IDAHO ZEOLITE LOCATIONS

POST FALLS, KOOTENAI CO., IDAHO

STILBITE (8) PREHNITE (8) LAUMONTITE (8)

STATUS: UNKNOWN; coating fractures in diabasic rock.

WARM SPRINGS CREEK, PAYETTE RIVER, BOISE, BOISE CO., IDAHO

CHABAZITE (C) THOMSONITE (S)

STATUS: UNKNOWN, in very vesicular basalt with other zeolites.

JUNCTION OF PAPOOSE CREEK & SQUAW CREEK?, RIGGINS, IDAHO CO., IDAHO

PAULINGITE (C) CLAY (C) PHILLIPSITE (S)

STATUS: Location is lost.

RIGGINS, IDAHO CO., IDAHO

HEULANDITE (C) CHABAZITE (C) ANALCIME (C)

STATUS: Collecting in logging roadcuts; specimens abundant.

RACE CREEK, RIGGINS, IDAHO CD., IDAHO

MESOLITE (C) STILBITE (8)

STATUS: Collected from one large pocket; depleted.

BLUE JACKET CLAIM, SEVEN DEVILS DISTRICT, ADAMS CO., IDAHD

CHABAZITE (C) STILBITE (S) HEULANDITE (S) BARNET (S)

STATUS: On joint surfaces of garnet in contact-metamorphic desposit.

CHALLIS, CUSTER CO., IDAHO

MORDENITE (C) ANALCIME (C) STILBITE (C) HEULANDITE (C)

CHALCEDONY (C) CLAY (C) CALCITE (C)

STATUS: South of town, location uncertain.

GALENA SUMMIT, NORTH BALMON RIVER, CUSTER CO., IDAHO

STILBITE (C)

STATUS: UNKNOWN; on andesite within 1,000 feet of summit.

GOLDEN BELL MINE, BELLEVUE, WOOD RIVER DISTRICT, BLAINE CO., IDAHO

ANALCIME (8)

STATUS: UNKNOWN, coating fractures on granite.

BELLEVUE KINB PROSPECT, BELLEVUE, BLAINE CO., IDAHO

LAUMONTITE (C) CALCITE (C) CLAY (C)

STATUS: UNKNOWN, veinlets in chloritized rock.

MINNIE MOORE MINE, BELLEVUE, BLAINE CO., IDAHO

STILBITE (C)

STATUS: UNKNOWN; severals locations within the mine.

LITTLE SMOKY CREEK, HAILEY, BLAINE CO., IDAHO

THOMSONITE? (8)

STATUS: UNKNOWN: fibrous zeolite in cavities of dense basalt.

GLENNS FERRY, ELMORE CO., IDAHO

CHABAZITE (C) THOMSONITE (S) CALCITE (C) PHILLIPSITE (S)

STATUS: UNKNOWN, abundant in vesicular basalt 5 miles below town.

BRITISH COLUMBIA COASTAL ZEOLITE LOCATIONS:

CAMPBELL RIVER, VANCOUVER ISLAND, BRITISH COLUMBIA

ANALCIME (S) CALCITE (S) NEEDLES? (S)

STATUS: Collecting along mouth of river near beach; specimens scarce.

CHEAKAMUS RIVER, BRACKENDALE, BRITISH COLUMBIA

HEULANDITE (C) STILBITE (S) EPIDOTE (S)

STATUS: Collecting along river dike and in quarry; specimens present.

HEMLOCK VALLEY, MISSION, BRITISH COLUMBIA

PUMPELLYITE (C) LAUMONTITE (C) QUARTZ (C) PREHNITE (S) CALCITE (C) EPIDOTE (C)

STATUS: Collecting in roadcuts; specimens are scarce.

SILICA BELL CLAIMS, FOUR BROTHERS MTN, south of HOPE, B.C.

QUARTZ (C) EPIDOTE (C) PREHNITE (C) CHABAZITE (S) PYRITE (B) TITANITE **(B)** APATITE (V8) SCHEELITE (VS) ANYHDRITE (CASTS?) LAUMONTITE (S) (8)

GOLD PAN CAMP, SPENCES BRIDGE, FRASER RIVER CANYON, BRITISH COLUMBIA

HEULANDITE (C) LAUMONTITE (C) CHABAZITE (VS) EPISTILBITE (VS) CLAY (C) STILBITE (S)

STATUS: Collecting in talus along railway; specimens scarce.

SKAGIT BLUFFS, SNASS MTN., HOPE/PRINCETON HIGHWAY, BRITISH COLUMBIA

STILBITE (S) LAUMONTITE (S) PREHNITE (S) AXINITE (S)

STATUS: Collecting in roadcut, specimens scarce.

#### SOOKE RIVER, BRITISH COLUMBIA

EPIDOTE (C) QUARTZ (C) LAUMONTITE (S) CHABAZITE (S)

PUMPELLYITE (C) PREHNITE (C) ANALCIME (8) STILBITE (S)

CALCITE (C)

STATUS: UNKNOWN; collecting in basalt on east side of river.

MIDWAY & ROCK CREEKS, SIMILKAMEEN DISTRICT, BRITISH COLUMBIA

ANALCIME (C)

STATUS: UNKNOWN, abundant in volcanic rock north of junction.

CENTRAL BRITISH COLUMBIA ZEOLITE LOCATIONS:

TCHESINKUT LAKE, BURNS LAKE, BRITISH COLUMBIA

CHALCEDONY (C) STILBITE (VS)

STATUS: Collecting in basalt on north side of lake, specimens scarce.

BURNS LAKE, BRITISH COLUMBIA

NATROLITE (C) CALCITE (C) ANALCIME (S) LEVYNE (VS)

CLAY (C) THOMSONITÉ (8) STILBITE (V8) CHABAZITE (V8)

HEULANDITE (C)

STATUS: Open to collecting along road; good specimens present.

FRANCOIS LAKE, BRITISH COLUMBIA

FERRIERITE (S) COLLINSITE (C) HEULANDITE (C) CHALCEDONY (C)

STATUS: Open to collecting; specimens can still be found.

BULL CANYON, ALEXIS CREEK, BRITISH COLUMBIA

PHILLIPSITE (C) THOMSONITE (C) MESOLITE? (C) CHABAZITE (S)

STATUS: Collect at top of talus; specimens are present.

HORSE LAKE, 100 MILE HOUSE, BRITISH COLUMBIA

CHABAZITE (C) GMELINITE (C) ANALCIME (C) CALCITE (C)

LEVYNE (C) GYROLITE (C) APOPHYLLITE (C) THOMBONITE (S)

TACHARANITE (C) ARAGONITE (8)

STATUS: Collecting along road in glacial boulders & surface flows.

GREEN LAKE, 70 MILE HOUSE, BRITISH COLUMBIA

CHABAZITE (C) GMELINITE (C) PHILLIPSITE (C) NEEDLES? (S)

ANALCIME (C) CALCITE (C) THOMBONITE (S)

STATUS: Open to collecting glacial float in gravel pit & along road.

PAINTED CHASM, NORTH OF CLINTON, BRITISH COLUMBIA

CHABAZITE (C) ARAGONITE (C) HEULANDITE (S) THOMSONITE (S)

PHILLIPSITE (C) ANALCIME (S)

STATUS: Collecting along road & railway cut near camping area.

BONAPARTE RIVER, CHASM, BRITISH COLUMBIA

CHABAZITE (C)

STATUS: UNKNOWN, in basalt cavities near the river.

HIGHLAND VALLEY MINES, SOUTH FORGE MTN., ASCHROFT, BRITISH COLUMBIA

CHABAZITE (C) STILBITE (S) LAUMONTITE (S) HEULANDITE (S)

PREHNITE (S) BORNITE (S) EPIDOTE (S) CHLORITE (S)

STATUS: UNKNOWN, on joints of White zone in the mine.

CRAIGMONT MINE, MERRITT, BRITISH COLUMBIA

HARMOTOME (8) HEULANDITE (8)

STATUS: Closed to collecting; found on 3500 foot level in mine.

OMINECA MOUNTAINS, BRITISH COLUMBIA

HARMOTOME? (S)

STATUS: In copper-moly prospect in granite; twinned xls.

FISHERMAIDEN MINE, FOUR MILE (SILVERTON) CREEK, SLOCAN DIVION, B.C.

HEULANDITE (S)

STATUS: UNKNOWN

CACHE CREEK, BRITISH COLUMBIA

NATROLITE (8)

STATUS: UNKNOWN; reported NE of town.

CRISS CREEK, DEADMANS RIVER, SAVONA, BRITISH COLUMBIA

ANALCIME (S) MESOLITE (S) NATROLITE (S) HEULANDITE (S)

STATUS: UNKNOWN, specimens collected 1/4 mile above junction.

PASS VALLEY, DEADMANS RIVER, SAVONA, BRITISH COLUMBIA

ERIONITE (C) CLAY (C) CLINOPTILOLITE (C) Offretite, reported from this location is not present.

STATUS: Collecting on hillside; good specimens with some work.

KAMLOOPS LAKE, KAMLOOPS. BRITISH COLUMBIA FERRIERITE (C) CHALCEDONY (C) QUARTZ (8) (8) GOETHITE CALCITE (C) CLINOPTILOLITE (8) STATUS: Collecting along railway & shore of lake; excellent collecting. TWIG CREEK, MONTE HILLS, WEST OF MONTE LAKE, BRITISH COLUMBIA ERIONITE (C) STILBITE (C) CHABAZITE (C) CLAY (C) OFFRETITE (E) HEULANDITE (C) PAULINGITE (8) STATUS: Collecting along logging road, good collecting. MONTE HILLS, MONTE LAKE, BRITISH COLUMBIA MESOLITE | (C) CHABAZITE (C) STILBITE (C) STATUS: in logging roadcuts northwest of lake; collecting good. MONTE LAKE, BRITISH COLUMBIA FERRIERITE (C) CALCITE (C) CHALCEDONY (C) **BOETHITE** (8) STATUS: Collecting in road cut & railway cut; specimens good. SOUTH MONTE LAKE LOGGING ROAD. BRITISH COLUMBIA LEVYNE ANALCIME (C) CLAY (C) HEULANDITE (C) (8) THOMSONITE STILBITE (C) (C) CALCITE (C) COWLESITE (5) CHABAZITE (C) STATUS: Collecting in logging roadcuts south of lake; specimens present. DOUGLAS LAKE ROAD, WESTWOLD, BRITISH COLUMBIA CHABAZITE (C) THOMSONITE (C) STILBITE (C) HEULANDITE (8) LEVYNE OFFRETITE **(C)** (C) CALCITE (5) (8) MESOLITE COWLESITE (C) PHILLIPSITE (8) Offretite is present as thick overgrowths on levyne. STATUS: Open to collecting along road & talus; specimens abundant. PINAUS LAKE, WESTWOLD, BRITISH COLUMBIA FERRIERITE (C) CALCITE (C) CLINOPTILOLITE (VS) STATUS: Collecting along road & along north shore of lake; good

CHASE CREEK, FALKLAND, BRITISH COLUMBIA

specimens.

ERIONITE (C) PAULINGITE (S) CLAY (C) HARMOTOME (VS)
HEULANDITE (C)

STATUS: Collecting on gravel bars along creek, good material.

#### YELLOW LAKE, OLALLA, BRITISH COLUMBIA

BREWSTERITE	(C)	HEULANDITE	(C)	MESOLITE	(C)	YUGAWARALITE	(VS)
FLUORITE	(C)	THOMSONITE	(C)	SCOLECITE	(8)	NEW MINERAL	(VS)
ANALCIME	(C)	GOETHITE	(C)	PYRITE	(8)	CHABAZITE	(5)
CALCITE		LAUMONTITE	(C)	STILBITE	(S)	NATROLITE	(5)
PHILLIPSITE	(8)	HARMOTOME	(VS)	APOPHYLLITE	(VS	)	

STATUS: Collecting along main road & in hills, specimens with hard wor

# BLAKEBURN, COALMONT, BRITISH COLUMBIA

THOMSONITE (C) CHABAZITE (C) GMELINITE (S) OFFRETITE (S) CALCITE (C) PHILLIPSITE (C) LEVYNE (S)

STATUS: Abandoned mines; collecting can produce some specimens.

EASTERN BRITISH COLUMBIA/ALBERTA LOCATIONS:

# ICE RIVER, YOHO NATIONAL PARK, GOLDEN, BRITISH COLUMBIA

EDINGTONITE	(C)	PYRITE	(VS)	PHLOGOPITE	(VS)	ACMITE	(VS)
CALCITE	(C)	ANCYLITE	(VS)	GALENA	(VS)	MAGNETITE	(VS)
NATROLITE	(C)	ZIRCON	(V\$)	ANALCIME	(8)	APATITE	(B)
SIDERITE	(8)	BARITE	(8)	CATAPLEITE	(5)	PHLOGOPITE	(S)
ILMENITE	(8)	THOMSONITE	(VS)				

STATUS: Closed to collecting in National Park; specimens very hard to find.

### WAR EAGLE MINE, ROSSLAND, BRITISH COLUMBIA

GMELINITE (S) NATROLITE (S) LAUMONTITE (S) CHABAZITE (S) PREHNITE (S) CHABAZITE (S) APOPHYLLITE (S) HEULANDITE (S)

STATUS: UNKNOWN, some specimens on the 7th level.

# CROWSNEST PASS, COLEMAN, ALBERTA

#### ANALCIME (C)

This is primary Analcime found in sold rock, not open spaces.

STATUS: Open to collecting in volcanics; good specimens with work.



#25 – OFFRETITE – NEW RITTER QUARRY, GRANT COUNTY, OREGON – 15X



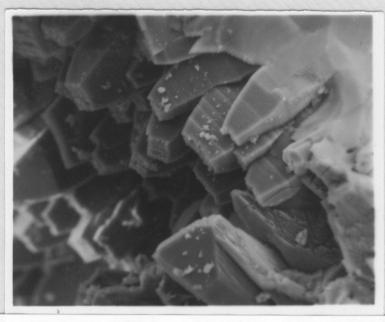
#26 – UNKNOWN #2 – GOBLE, COLUMBIA COUNTY, OREGON – 18X



#27 – UNKNOWN #2 – GOBLE, COLUMBIA COUNTY, OREGON – 12X



#28 – UNKNOWN #3, #2 – GOBLE, COLUMBIA COUNTY, OREGON – 10X



#29 – UNKNOWN #3, #2 – GOBLE, COLUMBIA COUNTY, OREGON – 390X