

UNITED STATES DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

LITERATURE POWDER DATA REFLECTIONS AND ABBREVIATED BIBLIOGRAPHY  
FOR SELECTED ZEOLITES

Computer Formatted Data File

By  
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This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards.

## C O N T E N T S

Summary .....	1
Species Index .....	3
Alphabetical Index by Species .....	13
Data File Listing .....	21
References .....	88

## S U M M A R Y

This report contains the indices to and listing of zeolite mineral X-ray diffraction data compiled into a computer-accessible data file.

## Sources

The data were taken from literature sources. The U.S. Geological Survey takes no responsibility for the accuracy of the data itself. The detailed bibliographic citations for this data file are contained in Hayhurst and Mathias (1982). The references are listed by species in the "Species Index" section of this report. They are cross-referenced by species name and identification number in the "Alphabetical Index by Species" of this report.

## Format

The computer listing of the data file is formatted according to the standard input code described in VanTrump and Hauff (1976).

Each record contains mineral name, formula, identification number, source code (L=literature), group code

(SIZ=zeolite), crystallographic and unit cell information when available, and powder diffraction data (reflection, intensities, and hkl's).

#### Purpose

This data file was compiled for mineralogical research and reference by U.S. Geological Survey scientists. It is accessed by the C.O.M.I.T. (Computer Oriented Mineral Identification Techniques) system of mineral identification and characterization programs of VanTrump and Hauff (1977).

SPECIES INDEX

# Z E O L I T E   A N D   R E L A T E D   S P E C I E S   I N D E X

S P E C I E S	F O R M U L A	R E F E R E N C E
ANICITE	K4 NA4 AL8 Si8 O32 10H2O	ALBERTI AND OTHERS, 1979
ANALCINE	NA AL Si2 O6 H2O	COOMBS, 1955 GRIVAKOV AND SUPRYCHEV, 1965 KLITCHENKO AND SUPRICHOV, 1974 KNOWLES AND OTHERS, 1965 UTADA AND MINATO, 1971
ASHTONITE (SR-MORDENITE)	(CA SR NA2 K2)4 AL8 Si40 O96 28H2O	REAY AND COOMBS, 1971
DARRERITE	NA8 AL8 Si28 O72 26H2O	PASSAGLIA AND PONGILUPPI, 1974
BIKITAITE	Li2 AL2 Si4 O12 2H2O	HURLBUT, 1957 PHINNEY AND STEWART, 1961
BREUNSTERITE	(SR BA CA) AL2 Si6 O16 5H2O	KHOMYAKOV AND OTHERS, 1970 PERKOTTA AND SMITH, 1964 STRUNZ AND TENNYSON, 1956

CHABAZITE

CA AL2 SI4 O12 6H20

CERNY AND FOVONORA, 1965  
GUDE AND SHEPPARD, 1966  
ISHIBASHI, 1974  
NAKAO AND OTHERS, 1969  
PASSAGLIA, 1970  
SEKI AND OTHERS, 1971  
SHEPPARD AND GUDE, 1970

CLINOPTILOLITE

(NA K)4 CA AL6 SI30 O72 24H20

AOKI, 1974  
BROWN AND OTHERS, 1969  
FUJIWARA AND SHOYA, 1975  
HATHAWAY AND SACHS, 1965  
HAWKINS AND ORDOÑEZ, 1972  
KASIKAI AND DABAEV, 1976  
HASON AND SAND, 1960  
HUMPTON, 1960  
OGAWA, 1967  
SEKI AND OTHERS, 1968  
SHEPPARD AND OTHERS, 1965  
UTADA AND MINATO, 1969  
WISE AND OTHERS, 1969

COWLESITE

CA AL2 SI3 O10 6H20

WISE AND TSCHERNICH, 1975

DACHIARDITE

(K2 NA2 CA)2.5 AL5 SI19 O48 18H20

ALBERTI, 1975  
CALLI, 1965

EDINGTONITE

BA AL2 SI3 O10 4H20

NOVAK, 1970

**EPISTILBITE**

CA AL2 S16 016 5H20

PERROTTA, 1967  
SEKI AND OTHERS, 1968  
SLAUGHTER AND KANE, 1969

**ERIONITE**

(NA2 K2 CA)4.5 AL9 S127 072 27H20

DELITSKIY AND BUKIN, 1968  
BERNETT AND GROSE, 1978  
DEFFEYES, 1959  
SHEPPARD AND GUDE, 1969A  
SHEPPARD AND OTHERS, 1965

**EUCRYPTITE**

LI AL S1 04

HURLBUT, 1962  
ROSSOVSKIY, 1971

**FAUJASITE**

(NA2 CA)1.75 AL3.5 S18.5 024 16H20

BARRER AND OTHERS, 1959B  
BRECK AND FLANIGEN, 1968

**FERRIERITE**

(NA K)4 NG2 AL6 S130 072 (OH)2 18H20

HAYAKAWA AND SUZUKI, 1970  
KLITCHENKO AND SUPRICHOV, 1974  
STAPLES, 1955  
WISE AND OTHERS, 1969  
YAJIMA AND OTHERS, 1971  
ZIRKL, 1973

**GARRONITE**

NA CA2.5 AL6 S110 032 14H20

BARRER AND OTHERS, 1959  
FEOKTISTOV AND OTHERS, 1969  
TAYLOR AND ROY, 1964



GISHMORDINE

CA AL2 SI2 O8 4H2O

FISCHER, 1963  
IJIMA AND HARADA, 1969

GMELINITE

(NA2 CA) AL2 SI4 O12 6H2O

BARRER AND OTHERS, 1959B  
KUHIL AND MIALE, 1978  
STRUNZ, 1956

GONNARDITE

NA2 CA AL4 SI6 O20 5H2O

HEIXNER AND OTHERS, 1958

GOOSECREEKITE

CA AL2 SI6 O16 5H2O

DUNN AND OTHERS, 1980

GYROLITE

CA4 (SI6 O15) (OH)2 3H2O

ASSARSSON, 1957

HARMOTONE

BA2 AL4 SI12 O32 12H2O

SAHANA AND LEHTINEN, 1968  
SHEPPARD AND GUDE, 1971

HERSCHELITE  
(NA-CHABAZITE)

NA4 AL4 SI8 24O 11H2O

GUDE AND SHEPPARD, 1966  
ISHIDASHI, 1974

HEULANDITE

(CA NA2)4 AL8 SI28 O72 24H2O

CERNY AND POVONDRA, 1969  
GRANGE AND WATELLE-MARION, 1966  
MERKLE AND SLAUGHTER, 1968  
MILLER AND GHENT, 1973  
MUMFORD, 1960  
OGAWA, 1967  
SIMONOT GRANGES, 1970

KEHOEITE

ZN-CA AL02 PO2 32H2O

MCCONNELL, 1964

LAUMONTITE

CA AL2 SI4 O12 4H2O

BARTL AND FISCHER, 1967  
KOPORULIN, 1972  
LAPIAN, 1963  
LIOU, 1971  
MILLER AND GHENT, 1973  
SEKI AND OTHERS, 1968  
SEKI AND OTHERS, 1971  
YOSHITANI, 1965

LEONHARDITE

CA AL2 SI4 O12 3.5H2O

COOMBS, 1952  
LAPIAN, 1963  
HADSEN AND MURATA, 1970  
NATIEL, 1974

LEVYNE

CA AL2 SI4 O12 6H2O

FEOKTISTOV AND OTHERS, 1971  
SHEPPARD AND OTHERS, 1974  
STRUNZ, 1956

MAZZITE

K2 H02 CA1.5 AL9 SI27 O72 28H2O

GALLI AND OTHERS, 1974

MERLINOITE	K5 CA2 AL9 SI23 O64 24H20	PASSAGLIA AND OTHERS, 1977
MESOLITE	NA2 CA2 AL6 SI9 O32 8H20	HARADA AND OTHERS, 1968 PENG, 1955
MORDENITE	(NA2 K2 CA) AL2 SI10 O24 7H20	DUBININ, 1968 FUJIWARA AND SHOYA, 1973 HARRIS AND BRINDLEY, 1954 MOIOLA, 1964 NEGISHI, 1972 PASSAGLIA, 1975 SEKI AND OTHERS, 1968 TOMITA AND OTHERS, 1970 YOSHITANI, 1965
MOUNTAINITE	(CA NA2 K2)2 SI4 O10 3H20	BUSSEN AND OTHERS, 1973 GARD AND OTHERS, 1938
NATROLITE	NA4 AL4 SI6 O20 4H20	ANDERSEN, 1969 CERNY AND POVONDRA, 1966 ISHIDASHI, 1974 MEIER, 1960
OFFRETITE	(K2 HG CA NA2)2.5 AL5 SI13 O36 15H20	DENNETT AND GROSE, 1978 SHEPPARD AND GUDE, 1969A SHEPPARD AND OTHERS, 1974

OKENITE	CA S12 05 2H20	HELLER AND TAYLOR, 1956
PAULINGITE	(K2 NA2 CA BA)76 AL152 SI525 01354 700H20	GORDON AND OTHERS, 1966 KAMB AND OKE, 1960
PECTOLITE	NA CA2 SI3 08 OH	HIILDEBRAND, 1953 HAJER AND BARIE, 1971 STOYNOVA AND STOYNOVA, 1973
PHILLIPSITE	(K2 NA2 CA)3 AL6 SI10 032 12H20	DARRER AND OTHERS, 1959D DEER AND OTHERS, 1963 GALLI AND GHITTONI, 1972 HARADA AND OTHERS, 1967 HAY, 1964 STEINFINK, 1962
POLLUCITE	(CS NA) AL SI2 06 XH20	SAKURI AND OTHERS, 1972
SCOLECITE	CA2 AL4 SI6 020 6H20	HARADA AND OTHERS, 1968 SMITH AND WALLS, 1971
STELLERITE	CA4 AL8 SI28 072 28H20	GALLI AND PASSAGLIA, 1973 PASSAGLIA AND PONGILUPPI, 1974

STILBITE	(CA NA2 K2)4 AL8 SI28 O72 28H20	AUMENTO, 1966 HARADA AND OTHERS, 1967 JUAN AND LO, 1973 NEVES AND NUNES, 1968 SEKI AND OTHERS, 1968 SEKI AND OTHERS, 1971 SIMONOT-GRANGES, 1970 TAKASHIMA AND KERIJIRO, 1973 YOSHITANI, 1965
SVETLOZARITE	(CA K2 NA2) AL2 SI12 O28 6H20	MALEYEV, 1977
THOMSONITE	NA CA2 AL5 SI5 O20 6H20	ISHIBASHI, 1974 JUAN AND LO, 1966 MULLER AND DEISINGER, 1971
TRUSCOTTITE	CA14 SI24 O58 (OH)8 2H20	JUAN AND OTHERS, 1970 MINATO AND KATO, 1967
VISEITE	NA CA5 AL10 (SI04)3 (PO4)5 (OH)14 16H20 (?)	MCCONNELL, 1952
VAIRAKITE	CA AL2 SI4 O12 2H20	AMES AND SAND, 1958 COOMBS, 1955 CUEROD AND MARTINI, 1966 DONNELLY, 1962 SEKI AND OTHERS, 1968

WELLSITE

CA1.5 BA0.5 K AL5 SI11 032 12H20

CERNY, 1960

XONOLITE

CA6 (SI6 017) (OH)2

JUAN AND OTHERS, 1970  
HAJER AND BARIE, 1971

YUGAWARALITE

CA AL2 SI6 016 4H20

DARRER AND MARSHALL, 1965  
EDERLEIN AND OTHERS, 1971  
LEIMER AND SLAUGHTER, 1969  
SEKI AND OKUNURA, 1968

ALPHABETICAL INDEX BY SPECIES

# ALPHABETICAL INDEX BY SPECIES - ZEOLITE DATA BASE

IDENTIFICATION NUMBER	SPECIES	REFERENCE
650245	AMICITE	ALBERTI AND OTHERS, 1979
650243	ANALCINE	COOMBS, 1955
650120	ANALCINE	GRIVAKOV AND SUPRYCHIEV, 1965
650192	ANALCINE	KLITCHENKO AND SUPRICHOV, 1974
650257	ANALCINE	KNOWLES AND OTHERS, 1965
650119	ANALCINE	UTADA AND MINATO, 1971
650117	ASHTONITE (SR-NORDENITE)	REAY AND COOMBS, 1971
650174	BARRERITE*	PASSAGLIA AND PONGILUPPI, 1974
650242	BIKITAITE	HURLBUT, 1957
650126	BIKITAITE*	PHINNEY AND STEWART, 1961
650127	BREUSTERITE	KHONYAKOV AND OTHERS, 1970
650270	BREUSTERITE	PERROTTA AND SMITH, 1964
650241	BREUSTERITE	STRUNZ AND TENNYSON, 1956
650234	CHABAZITE-SR	CERNY AND POVONDRA, 1965
650158	CHABAZITE-SI*	GUDE AND SHEPPARD, 1966
650266	CHABAZITE*	GUDE AND SHEPPARD, 1966
650133	CHABAZITE	ISHIBASHI, 1974
650156	CHABAZITE-SR	NAKAO AND OTHERS, 1969
650149	CHABAZITE	PASSAGLIA, 1970
650150	CHABAZITE	PASSAGLIA, 1970
650151	CHABAZITE	PASSAGLIA, 1970
650231	CHABAZITE	SEKI AND OTHERS, 1971
650125	CHABAZITE	SHEPPARD AND GUDE, 1970



650215	CLINOPTILOLITE	AOKI, 1974
650208	CLINOPTILOLITE	BROWN AND OTHERS, 1969
650209	CLINOPTILOLITE	BROWN AND OTHERS, 1969
650251	CLINOPTILOLITE*	BROWN AND OTHERS, 1969
650197	CLINOPTILOLITE	FUJIWARA AND SHOYA, 1975
650214	CLINOPTILOLITE	HAATHAWAY AND SACHS, 1965
650187	CLINOPTILOLITE	HAWKINS AND ORDONEZ, 1972
650188	CLINOPTILOLITE-BA (SYN)	HAWKINS AND ORDONEZ, 1972
650236	CLINOPTILOLITE	KASHKAI AND DABAIEV, 1976
650237	CLINOPTILOLITE	KASHKAI AND DABAIEV, 1976
650210	CLINOPTILOLITE	NASON AND SAND, 1960
650199	CLINOPTILOLITE	NUMPTON, 1960
650111	CLINOPTILOLITE	OGAWA, 1967
650262	CLINOPTILOLITE	SEKI AND OTHERS, 1968
650161	CLINOPTILOLITE	SHEPPARD AND OTHERS, 1965
650194	CLINOPTILOLITE-K	UTADA AND MINATO, 1969
650152	CLINOPTILOLITE	WISE AND OTHERS, 1969
650177	COULESITE*	WISE AND TSCHERNICH, 1975
650122	DACHIARDITE-NA	ALBERTI, 1975
650223	DACHIARDITE*	GALLI, 1965
650169	EDINGTONITE	NOVAK, 1970
650274	EPISTILBITE	PERROTTA, 1967
650137	EPISTILBITE	SEKI AND OTHERS, 1968
650207	EPISTILBITE	SLAUGHTER AND KANE, 1969
650121	ERIONITE	BELTSKIY AND BUKIN, 1968
650103	ERIONITE	BENNETT AND GROSE, 1978
650256	ERIONITE*	DEFEYES, 1959
650213	ERIONITE*	SHEPPARD AND GUDE, 1969A
650162	ERIONITE	SHEPPARD AND OTHERS, 1965
650179	EUCRYPTITE+	HURLBUT, 1962
650211	EUCRYPTITE+	ROSSOVSKIY, 1971

650216	FAUJASITE*	BARRER AND OTHERS, 1959B
650263	FAUJASITE*	BARRER AND OTHERS, 1959
650264	FAUJASITE*	BARRER AND OTHERS, 1959
650240	FAUJASITE	BRECK AND FLANIGEN, 1968
650163	FERRIERITE	HIYAKAWA AND SUZUKI, 1970
650193	FERRIERITE	KLITCHENKO AND SUFRICHON, 1974
650128	FERRIERITE*	STAPLES, 1955
650153	FERRIERITE*	WISE AND OTHERS, 1969
650154	FERRIERITE	WISE AND OTHERS, 1969
650155	FERRIERITE	YAJIMA AND OTHERS, 1971
650195	FERRIERITE	ZIRKL, 1973
650224	GARRONITE*	BARRER AND OTHERS, 1959
650124	GARRONITE	FEDTISTOV AND OTHERS, 1969
650225	GARRONITE(SYN)*	TAYLOR AND ROY, 1964
650273	GISHONDITE	FISCHER, 1963
650178	GISHONDINE*	IJIMA AND HARADA, 1969
650253	GNELINITE*	BARRER AND OTHERS, 1959
650180	GNELINITE	KUHL AND NIALE, 1978
650181	GNELINITE-CA-NH4	KUHL AND NIALE, 1978
650221	GNELINITE*	STRUNZ, 1956
650217	GONNARDITE*	MEIXNER AND OTHERS, 1958
650247	GOOSECREEKITE	DUNN AND OTHERS, 1980
650222	GYROLITE**	ASSARSSON, 1957
650219	HARNOTONE*	SAHANA AND LEHTINEN, 1968
650131	HARNOTONE-NA	SHEPPARD AND GUDE, 1971
650157	HERSCHELITE(NA-CHABAZITE)*	GUDE AND SHEPPARD, 1966
650136	HERSCHELITE	ISHIBASHI, 1974

650106	HEULANDITE-SR	CERNY AND FOVONDRA, 1969
650147	HEULANDITE	GRANGE AND WATELLE-MARION, 1966
650206	HEULANDITE*	MERKLE AND SLAUGHTER, 1968
650105	HEULANDITE-BA, SR	MILLER AND GHENT, 1973
650200	HEULANDITE	MUMFORD, 1960
650110	HEULANDITE	OGAWA, 1967
650112	HEULANDITE-BA	OGAWA, 1967
650258	HEULANDITE*	SIMONOT-GRANGE AND OTHERS, 1970
650239	KEHOEITE+	MCCONNELL, 1964
650272	LAUMONTITE	BARTL AND FISCHER, 1967
650201	LAUMONTITE	KOPORULIN, 1972
650254	LAUMONTITE*	LAPHAM, 1963
650226	LAUMONTITE*	LIU, 1971
650107	LAUMONTITE	MILLER AND GHENT, 1973
650259	LAUMONTITE	SEKI AND OTHERS, 1968
650232	LAUMONTITE	SEKI AND OTHERS, 1971
650171	LAUMONTITE	YOSHITANI, 1965
650143	LEONHARDITE	COOMBS, 1952
650130	LEONHARDITE	LAPHAM, 1963
650142	LEONHARDITE	HADSEN AND HURATA, 1970
650184	LEONHARDITE	NATIVEL, 1974
650165	LEVYNE	FEOKTISTOV AND OTHERS, 1971
650166	LEVYNE	FEOKTISTOV AND OTHERS, 1971
650104	LEVYNITE*	SHEPPARD AND OTHERS, 1974
650164	LEVYNE	STRUNZ, 1956
650129	MAZZITE	GALLI AND OTHERS, 1974
650248	NERLINOITE*	PASSAGLIA AND OTHERS, 1977
650140	NESOLITE*	HARADA AND OTHERS, 1968
650267	NESOLITE*	PENG, 1955

650249	MORDENITE*	DUBININ AND OTHERS, 1968
650250	MORDENITE*	DUBININ AND OTHERS, 1968
650198	MORDENITE	FUJIWARA AND SHOYA, 1975
650109	MORDENITE*	HARRIS AND BRINDLEY, 1954
650108	MORDENITE	MOIOLA, 1964
650168	MORDENITE	NEGISHI, 1972
650118	MORDENITE*	PASSAGLIA, 1975
650260	MORDENITE	SEKI AND OTHERS, 1968
650146	MORDENITE	TOMITA AND OTHERS, 1970
650173	MORDENITE	YOSHITANI, 1965
650159	MOUNTAINITE*	DUSSEN AND OTHERS, 1973
650220	MOUNTAINITE**	GARD AND OTHERS, 1958
650268	NATROLITE*	ANDERSEN AND OTHERS, 1969
650230	NATROLITE*	CERNY AND POVONDRA, 1966
650135	NATROLITE	ISHIDASHI, 1974
650275	NATROLITE	MEIER, 1960
650102	OFFRETITE	BERNETT AND GROSE, 1978
650212	OFFRETITE*	SHEPPARD AND GUDE, 1969A
650113	OFFRETITE	SHEPPARD AND OTHERS, 1974
650218	OKENITE**	HELLER AND TAYLOR, 1956
650269	PAULINGITE	GORDON AND OTHERS, 1966
650202	PAULINGITE*	KAMB AND OKE, 1960
650255	PECTOLITE**	HILDEBRAND, 1953
650176	PECTOLITE*	HAJER AND BARIE, 1971
650190	PECTOLITE*	STOYNOVA AND STOYNOVA, 1973
650265	PHILLIPSITE*	BARRER AND OTHERS, 1959
650189	PHILLIPSITE	DEER AND OTHERS, 1963
650227	PHILLIPSITE*	GALLI AND GIITTONI, 1972
650139	PHILLIPSITE	HARADA AND OTHERS, 1967
650115	PHILLIPSITE	HAY, 1964
650114	PHILLIPSITE	STEINFINK, 1962
650167	POLLUCITE*	SAKURI AND OTHERS, 1972

650141	SCOLECITE	HARADA AND OTHERS, 1968
650116	SCOLECITE*	SMITH AND WALLS, 1971
650138	STELLERITE*	GALLI AND PASSAGLIA, 1973
650160	STELLERITE-NA*	PASSAGLIA AND PONGILUPPI, 1974
650228	STILBITE*	AUMENTO, 1966
650123	STILBITE	HARADA AND OTHERS, 1967
650182	STILBITE	JUAN AND LO, 1973
650170	STILBITE	NEVES AND NUNES, 1968
650261	STILBITE	SEKI AND OTHERS, 1968
650233	STILBITE	SEKI AND OTHERS, 1971
650238	STILBITE*	SIMONOT-GRANGES, 1970
650132	STILBITE	TAKASHIMA AND KERIJIRO, 1973
650172	STILBITE	YOSHITANI, 1965
650246	SVETLOZARITE*	MALEYEV, 1977
650134	THOMSONITE	ISHIBASHI, 1974
650183	THOMSONITE	JUAN AND LO, 1966
650185	THOMSONITE-SR	MULLER AND DEISINGER, 1971
650203	TRUSCOTTITE+	JUAN AND OTHERS, 1970
650191	TRUSCOTTITE+	MINATO AND KATO, 1967
650244	VISEITE+	MCCONNELL, 1952
650252	WAIRAKITE*	AMES AND SAND, 1958
650229	WAIRAKITE*	COONDS, 1955
650186	WAIRAKITE	CUENOD AND MARTINI, 1966
650235	WAIRAKITE	DONNELLY, 1962
650148	WAIRAKITE	SEKI AND OTHERS, 1968
650196	WELLSITE*	CERNY, 1960
650204	XONOTLITE+	JUAN AND OTHERS, 1970
650175	XONOTLITE+	HAJER AND DARIE, 1971

650205 YUGAWARALITE\*  
 650144 YUGAWARALITE  
 650145 YUGAWARALITE  
 650271 YUGAWARALITE  
 650100 YUGAWARALITE  
 650101 YUGAWARALITE

BARRER AND MARSHALL, 1965  
 EDERLEIN AND OTHERS, 1971  
 EDERLEIN AND OTHERS, 1971  
 LEIHER AND SLAUGHTER, 1969  
 SEKI AND OKUMURA, 1968  
 SEKI AND OKUMURA, 1968

- \* INDICATES THAT DATA IN THIS RECORD CORRESPONDS TO A JCPDS LITERATURE REFERENCE
- + INDICATES THAT SPECIES ARE NOT CONSIDERED TO BE LEGITIMATE ZEOLITES, BUT ARE LISTED WITH ZEOLITES IN MANY PUBLICATIONS.

DATA FILE LISTING

650100001SIZ	YUGAWARALITE	CA AL2	Si6	016	4H20	L
650100201	MONOCLINIC					
650100301	REF:SEKI,YOTARO, AND OKUMURA,KIMIO, 1968, YUGAWARALITE FROM ONIKODE					
650100302	ACTIVE GEOTHERMAL AREA, NORTHEAST JAPAN, JAP. ASSOC. MINERAL.,					
650100303	PETROLOGISTS. ECON. GEOL. JOURNAL, VOL.60,NO.1, PP.27-33.					
650100401	7.76	10	6.99	45	6.27	5
650100402	4.66	95	4.44	5	4.41	10
650100403	4.17	20	3.89	10	3.86	5
650100404	3.27	5	3.236	20	3.196	7
650100405	3.054	100	2.997	5	2.938	10
650100406	2.865	5	2.763	15	2.716	10
650100407	2.683	10	2.649	10	2.638	5
650100408	2.574	5	2.561	5	2.514	10
650100409	2.424	10	2.411	5	2.368	5
650101001SIZ	YUGAWARALITE	CA AL2	Si6	016	4H20	L
650101201	MONOCLINIC					
650101301	REF:SEKI AND OKUMURA, 1968 - TANZAWA					
650101401	7.8	4	6.99	25	6.25	3
650101402	5.17	3	4.66	85	4.41	12
650101403	4.17	15	3.89	6	3.76	10
650101405	2.931	15	2.900	30	2.856	4
650101406	2.712	10	2.678	9	2.643	9
650101407	2.570	4	2.510	6	2.469	5
650101408	2.398	2	2.362	6		
650102001SIZ	OFFREITE	(CA-NG-NA-K-AL)	Si12	036	NIH20	L
650102201						
650102301	REF:BERNETT AND GROSE, 1976					
650102401	11.33	100100	7.50	001 21	6.58	110 39
650102402	5.70	200 16	4.53	201 32	4.30	210 46
650102403	3.73	211 83	3.57	102 58	3.39	301 2
650102404	3.27	112 6	3.16	310 12	3.14	202 22
650102405	2.92	311 6	2.84	400 56	2.83	212 67



650103001SIZ ERIONITE	(NA2 K2 CA)4.5 AL9 SI27 O72 27H2O	L
650103201HEXAGONAL		
650103301REF:BENNETT AND GROSE, 1976, ROME, OREGON		
650103401 11.12	100100 8.93 101 7 7.40	002 12 6.52 110 55
650103402 6.22	102 7 5.66 200 15 5.29	201 15 4.55 103 10
650103403 4.52	202 12 4.29 210 57 4.12	211 21 3.79 300 32
650103404 3.72	212 55 3.56 104 27 3.38	302 3 3.29 220 24
650103405 3.26	114 13 3.26 213 13 3.20	221 4 3.15 310 11
650103406 3.13	204 15 3.10 311 4 3.05	303 2 3.02 222 2
650103407 2.91	312 7 2.85 400 42 2.83	214 39 2.80 401 32
650104001SIZ LEVYNITE	CA AL2 SI4 O12 6H2O	L
650104201HEXAGONAL	13.348 7.59	
650104301REF:SHEPPARD AND OTHERS, 1974- DEECH CREEK OREGON		
650104401 10.36	101 11 8.15 102 20 6.69	110 24 5.17 202 11
650104402 5.03	113 1 4.30 211 4 4.25	105 15 4.08 212100
650104403 3.85	300 18 3.81 006 4 3.80	301 4 3.79 213 7
650104404 3.66	302 1 3.59 205 5 3.47	214 7 3.44 303 2
650104405 3.34	220 16 3.31 116 2 3.20	304 2 3.16 215 17
650104406 3.09	312 7 2.89 216 15 2.87	401 9 2.84 207 10
650104407 2.80	402 60	
650105001SIZ HEULANDITE-BA,SR	(NA K)-(CA SR BA)-(AL FE)-SI-072 NH2O	L
650105201MONOCLINIC		
650105301REF:MILLER AND GHENT, 1973 - BLAIRMORE, ALBERTA		
650105401 8.99	020100 7.93 200 4 6.67	001 3 5.96 220 3
650105402 5.26	3-11 7 5.12 111 8 4.664	-131 17 4.496 040 17
650105403 4.363	-401 7 3.989 131 12 3.976	400 12 3.914 240 15
650105404 3.752	-241 7 3.709 -202 6 3.567	-312 6 3.427 -222 5
650105405 3.324	002 5 3.184 -422 8 3.132	-441 9 3.079 -132 4
650105406 3.034	-512 8 2.997 060 22 2.997	331 22 2.976 440 19
650105407 2.976	350 19 2.800 -621 5 2.742	-261 11 2.536 170 11
650105408 2.247	-462 7 1.929 -191 3 1.797	-771 8 1.770 10.02 2
650105409 1.734	462 3	

650106001SIZ HEULANDITE-SR (NA K)-(CA BA MG)-AL SI27 072 25H20 L

650106201MONOCLINIC

650106301REF: CERNY AND POVONDRA, 1969 - N. BOHEMIA

650106401	8.952	020 30	7.949	200 70	6.831	20-1 10	6.652	001 10
650106402	5.930	220 10	5.598	130 10	5.334	021 10	5.268	31-1 30
650106403	5.131	111 70	5.073	310 30	4.656	13-1 30	4.461	040 50
650106404	4.368	40-1 50	4.270	201 30	4.044	33-1 30	3.940	400100
650106405	3.940	421100	3.892	240 10	3.853	221 10	3.731	20-2 30
650106406	3.626	420 10	3.576	31-2 50	3.534	11-2 10	3.490	150 10
650106407	3.437	22-2 50	3.413	40-2 30	3.181	42-2 50	3.126	510 30
650106408	3.079	241 10	3.046	53-1 10	3.002	331 10	2.971	440 70
650106409	2.888	401 10	2.801	530 80	2.724	26-1 10	2.672	042 10
650106410	2.633	62-2 10	2.557	35-2 10	2.534	620 10	2.509	55-1 10
650106411	2.487	351 10	2.423	441 50	2.365	312 10		

650107001SIZ LAUMONTITE CA (NA K) AL2 SI6 O12 4H20 L

650107201MONOCLINIC

650107301REF: MILLER AND GHENT, 1973 - BLAIRMORE, ALBERTA

650107401	9.45	110100	6.84	200 75	6.55	020 1	6.17	201 8
650107402	6.17	011 8	5.05	111 13	4.73	220 25	4.49	221 23
650107403	4.17	130100	4.17	201100	3.77	131 8	3.65	401 38
650107404	3.51	002 58	3.51	221 58	3.42	400 17	3.42	131 17
650107405	3.35	312 17	3.35	012 17	3.27	040 48	3.20	331 25
650107406	3.20	311 25	3.15	330 23	3.03	420 40	3.03	112 40
650107407	2.95	240 5	2.95	041 5	2.18	060 9		

650108001SIZ MORDENITE (NA2 K2 CA) AL2 SI10 O24 7H20 L

650108201ORTHORHOMBIC

650108301REF: MOIOLA, 1964 - ESHERALDA, NEVADA

650108401	13.40	60	9.10	90	6.60	90	6.10	20
650108402	5.79	50	4.89	10	4.54	60	4.00	100
650108403	3.86	50	3.78	40	3.48	100	3.39	50
650108404	3.22	100	3.10	10	2.94	30	2.89	60
650108405	2.70	10	2.70	20	2.51	60		



650112001SIZ HEULANDITE-BA										(CA NA2 BA) AL2 SI7 O18 6H20										L
650112201MONOCLINIC										7.46 18.08 15.91 91.433										
650112301REF:OGAWA, 1967 - MATSUE CITY, JAPAN																				
650112401	8.97	020100	7.948	002	3	6.810	110	2	6.653	101	1									
650112402	5.972	022	2	5.626	031	1	5.270	11-2	1	5.128	112	1								
650112403	4.661	130	5	4.507	040	3	4.366	10-3	1	3.974	004	8								
650112404	3.907	042	8	3.758	14-1	12	3.732	141	2	3.555	211	2								
650112405	3.511	051	2	3.449	220	1	3.413	20-2	1	3.187	22-2	1								
650112406	3.135	222	1	3.115	23-1	2	2.991	060	17	2.979	044	15								
650112407	2.900	105	2	2.737	16-1	8	2.687	242	1	2.535	071	3								
650112408	2.456	163	2																	
650113001SIZ OFFRETITE										CA - HG-NA-K-AL-SI12 O36 NH20										L
650113201HEXAGONAL										13.348 7.59										
650113301REF:SHEPPARD AND OTHERS, 1974 - BEECH CREEK, OREGON																				
650113401	11.56	100100	7.58	001	15	6.69	110	79	5.79	200	34									
650113402	4.369	210	76	3.852	300	65	3.787	211	13	3.600	102	5								
650113403	3.338	220	35	3.201	310	10	2.889	400	71	2.869	212	12								
650113404	2.703	401	4	2.522	410	31	2.225	330	18	2.097	421	3								
650113405	1.849	520	5	1.669	440	20														
650114001SIZ PHILLIPSITE										(K2 NA2 CA)3 AL6 SI10 O32 12H20										L
650114201ORTHORHOMBIC										9.96 14.25 14.25										
650114301REF:STEINFINK, 1962 - PACIFIC OCEAN SEDIMENTS																				
650114401	8.167	101	19	7.126	002	88	5.369	121	19	5.039	022	11								
650114402	4.982	200	34	4.288	103	12	4.106	113	7	4.083	220	26								
650114403	3.674	123	3	3.266	141	15	3.235	301	13	3.187	024	100								
650114404	3.155	311	16	2.946	321	20	2.898	240	5	2.740	105	23								
650114405	2.685	224	31	2.558	125	6	2.543	323	4	2.519	044	6								
650114406	2.395	341	5	2.343	016	7	2.248	244	5	2.053	226	6								
650115001SIZ PHILLIPSITE										(K2 NA2 CA)3 AL6 SI10 O32 12H20										L
650115201ORTHORHOMBIC																				
650115301REF:HAY, 1964 - CHINA LAKE																				
650115401	8.15	20		7.08	100		5.34	30		4.99	40									
650115402	4.28	10		4.08	25		3.65	10		3.24	50									
650115403	3.10	100		2.93	25		2.73	25		2.54	10									

650116001SIZ SCOLECITE	9.85	18.98	CA AL2 SI3 O10 3H20	6.52	110.02	L
650116201MONOCLINIC						
650116301REF:SMITH AND WALLS, 1971 - THAILAND						
650116401	6.590	5.848	120 90	5.848	011100	040 60
650116402	4.608	4.387	200 50	4.208	140 30	220 20
650116403	3.633	3.304	131 20	3.221	051 30	31-1 30
650116404	3.151	3.078	211 30	3.078	122 20	002 10
650116405	2.987	2.929	160 10	2.929	320 60	25-1 10
650116406	2.882	2.851	33-1100	2.684	14-2 5	260 5
650116407	2.578	2.578	32-2 15	2.549	122 5	071 15
650116408	2.440	2.416	41-1 10	2.366	080 5	171 10
650116409	2.315	2.291	400 10	2.291	43-1 10	16-2 10
650116410	2.248	2.248	40-2 10	2.204	26-2 40	360 40
650116411	2.204	2.191	062 40	2.169	222 5	21-3 5
650116412	2.143	2.106	11-3 5	2.076	440 5	37-1 5
650116413	2.030	2.030	13-3 5	2.030	013 5	19-1 5
650116414	1.991	1.954	091 5	1.954	33-3 10	411 5
650116415	1.943	1.904	033 5	1.899	0.10.0 5	082 10
650116416	1.877	1.877	41-3 10	1.866	431 10	460 10
650116417	1.855	1.839	113 10	1.814	520 15	371 15
650116418	1.804	1.765	43-3 15	1.765	39-1 10	54-2 10
650116419	1.754	1.746	2.10.0 10	1.746	342 10	540 10

650117001SIZ ASHTONITE	18.12	20.44	(CA SR NA2 K2)4 ALB SI4O 28H2O	7.52	L	
650117201ORTHORHOMBIC						
650117301REF:REAY AND COONES, 1971 - BRITISH COLUMBIA						
650117302ACTUALLY SR-NORDENITE						
650117401	13.5	9.12	110 50	6.63	111 50	130 20
650117402	6.09	5.79	021 20	5.05	221 10	131 10
650117403	4.530	4.148	330 50	4.009	150 80	241 20
650117404	3.773	3.619	002 10	3.524	151 10	202 90
650117405	3.389	3.293	060 80	3.221	530100	441 10
650117406	2.938	2.894	531 10	2.741	152 10	621 20
650117407	2.641	2.561	370 10	2.522	442 40	641 5
650117408	2.349	2.285	223 5	2.161	191 10	390 5
650117409	2.053	2.020	513 20	1.999	841 10	680 5
650117410	1.929	1.885	2.10.1 5	1.852	392 5	1.809 4.10.1 5
650117411	1.797	1.718	1.11.1 5	1.695	6.10.0 5	1.663 514 10
650117412	1.648	1.622	753 5	1.598	843 10	1.544 6.10.2 10
650117413	1.527	1.477	593 20	1.428	405 10	

650118001SIZ NORDENITE		18.114		20.514		(NA2 K2 CA)4 AL8 SI4O 096 20H2O		L			
650118201ORTHORHOMBIC		18.114		20.514		7.527					
650118301REF:PASSAGLIA, 1975 - ELBA, ITALY		18.114		20.514		7.527					
650118401	13.58	110	18	10.26	020	5	9.06	200100	6.585	111	14
650118402	6.402	130	17	6.073	021	4	5.796	310	18	131	3
650118403	4.602	311	2	4.528	330	31	4.461	240	2	420	8
650118404	4.003	150	70	3.842	241	7	3.765	002	4	421	3
650118405	3.568	510	4	3.532	022	2	3.476	202	43	060	11
650118406	3.394	350	33	3.291	222	3	3.221	511	40	530	34
650118407	3.155	312	2	3.101	061	4	3.101	441	4	042	1
650118408	3.017	600	2	2.942	261	5	2.895	402	13	152	2
650118409	2.715	550	2	2.701	171	5	2.633	370	3	512	1
650118410	2.565	080	10	2.521	352	7	2.459	641	4	532	2
650118411	2.436	262	2	2.294	622	1	2.279	570	1	2.263	800
650118412	2.232	480	2	2.166	441	2	2.117	082	1	2.052	0.10.0
650118413	2.035	732	2	2.019	443	2	1.997	841	2	1.974	533
650118414	1.954	680	5	1.935	911	3	1.932	930	3	1.920	482
650118415	1.882	004	4	1.878	771	2	1.864	114	1	1.851	1.11.0
650118416	1.811	10.0.0	10	1.807	950	6	1.795	713	3	1.697	880
650118417	1.479	10.8.0	2	1.447	5.13.0	4					2

650119001SIZ ANALCINE		18.114		20.514		(CA-K-NA) NG-AL SI2 O6 H2O		L	
650119201CUBIC		18.114		20.514		7.527			
650119301REF:UTADA AND MINATO, 1971		18.114		20.514		7.527			
650119401	5.61	80	80	4.85	30	3.66	20	3.42	100
650119402	2.921	80	80	2.788	10	2.683	30	2.501	30
650119403	2.420	20	20	2.014	20	1.899	30	1.738	40
650119404	1.711	20	20	1.686	10	1.613	10	1.594	10

650120001SIZ ANALCITE	(K-NA) (CA-FE-AL) SI4 O12 2H2O				L	
650120201CUBIC	13.70					
650120301REF:GRIVAKOV AND SUPRYCHEV, 1965	MT KUDALACH, CRIMEA USSR					
650120401 6.2	50	5.7	80	4.8	30 3.795	60
650120402 3.65	20	3.433	100	3.22	30 2.92	90
650120403 2.79	20	2.69	50	2.51	50 2.42	30
650120404 2.22	50	2.17	10	2.10	10 1.924	50
650120405 1.902	50	1.868	50	1.743	80 1.725	30
650120406 1.690	10	1.618	10	1.599	40 1.567	10
650120407 1.498	40	1.483	40	1.462	10 1.438	20
650120408 1.421	60	1.372	20	1.360	60 1.348	10
650120409 1.309	50	1.287	50	1.263	50 1.250	10
650120410 1.240	80	1.187	50	1.179	10 1.169	50
650120411 1.132	10	1.120	50	1.103	10 1.080	10
650120412 1.072	22	1.065	20	1.052	10 1.041	10
650120413 1.032	10	1.023	60	1.006		

650121001SIZ ERIONITE	(CA-NG-K-NA) AL-SI O72 3H2O				L	
650121201HEXAGONAL	15.14					
650121301REF:BELITSKIY AND BUKIN, 1968	SIBERIAN PLATFORM USSR					
650121401 11.68	100	6.68	45	5.78	38 5.41	22
650121402 4.73	10	4.61	20	4.37	70 4.24	20
650121403 4.19	30	3.83	65	3.78	30 3.60	8
650121404 3.33	30	3.19	13	3.13	12 2.88	70
650121405 2.85	37	2.83	42	2.70	14 2.51	73
650121406 2.29	5	2.22	13	2.13	8 2.09	10
650121407 1.956	7	1.843	7	1.776	8 1.752	5
650121408 1.704	5					

DACHIARDITE-NA			CA-HG-BA-NA-K-AL-FE			SI20 048 13H20			L
18.647			7.506			10.296			108.37
BOLZANO			ITALY						
650122001SIZ	001 16	8.84	200100	6.88	110 4	4.997	202 15		
650122201MONOCLINIC	002100	4.614	40-1 12	4.426	400 5	3.957	402 30		
650122301REF:ALBERTI, 1975	202 40	3.755	020 10	3.627	401 11	3.454	220 85		
650122401	22-1 8	3.332	51-1 4	3.251	003 9	3.199	510 7		
650122402	221 4	3.131	403 4	2.971	022 37	2.971	602 37		
650122403	420 23	2.865	402 23	2.726	422 7	2.673	222 8		
650122404	20-4 8	2.462	712 4	2.462	023 4	2.305	80-2 3		
650122405	33-1 3	2.305	330 3	2.186	33-2 2	2.186	204 2		
650122406	331 2	2.186	711 2	2.053	20-5 3	2.053	024 3		
650122407	91-2 2	1.985	31-5 2	1.985	91-1 2	1.969	82-1 2		
650122408	314 2	1.969	82-2 2	1.879	040 7	1.849	10.0-1 2		
650122409	532 6	1.774	10.0.0 6	1.671	31-6 2	1.671	10.2-2 2		
650122410									
650122411									
650122412									
650122413									
650123001SIZ	13.62	18.16	11.31	129.17					
650123201MONOCLINIC	-110100	6.85	-201 1	6.39	021 1	5.31	200 5		
650123301REF:HARADA AND OTHERS, 1967	130 3	4.67	-222 11	4.56	220 2	4.56	-220 2		
650123401	-312 8	4.07	45	4.02	041 7	3.75	-203 5		
650123402	5	3.48	-242 6	3.40	-402 7	3.20	403 10		
650123403	-401 4	3.02	152 32	3.02	060 32	3.02	-423 32		
650123404	151 11	2.974	-421 3	2.811	-352 2	2.744	023 12		
650123405	-442 3	2.566	-334 5	2.532	350 1	2.489	-153 2		
650123406	062 2	2.350	-263 3	2.350	444 3	2.229	-371 2		
650123407	063 2	2.09	335 2	2.048	-154 2	2.029	-464 3		
650123408	-641 8	1.807	-316 2	1.782	173 2	1.728	620 2		
650123409	045 1	1.594	-844 3	1.584	-116 3	1.554	462 3		
650123410	1	1.470	865 1	1.448	-801 1	1.438	-207 2		
650123411	5113								
650123412									
650123413									



650124001SIZ	GARRONITE	CA3 AL6 SI10 032 12H20	L
650124201HEXAGONAL	10.04	9.92	
650124301REF:FEOKTISTOV AND OTHERS, 1969	ANGARA R.	SIBERIA	USSR
650124401	7.17	110 90	4.97
650124402	3.14	103100	2.67
650124403	2.33	303 40	2.21
650124404	1.983	005 40	1.937
650124405	1.745	522 40	1.710
650124406	1.611	116 40	1.565
650124407	1.463	316 40	1.383
650124408	1.307	731 40	1.307
650124409	1.200	427 40	
650124401		002100	4.15
650124402		213100	2.58
650124403		204 40	2.13
650124404		511 40	1.813
650124405		433 40	1.674
650124406		540 20	1.537
650124407		406 50	1.383
650124408		713 40	1.261
650124409		516 50	1.200
			003 40
			400 30
			422 40
			440 40
			610 40
			630 30
			336 40
			653 40

650125001SIZ	CHABAZITE	CA-MG-NA-K-AL-FE-SI 012 5H20	L
650125201HEXAGONAL	13.721	14.795	
650125301REF:SHEPPARD AND GUDE, 1970	JOHN DAY FORMATION	OREGON	
650125401	9.27	101 45	6.86
650125402	5.51	201 38	4.929
650125403	3.964	300 10	3.839
650125404	3.428	220 24	3.213
650125405	3.007	312 7	2.911
650125406	2.815	223 10	2.758
650125407	2.594	410 24	2.559
650125408	2.286	330 5	2.265
650125409	1.837	603 6	
650125401		110 14	6.28
650125402		003 35	4.631
650125403		212 17	3.532
650125404		311 11	3.112
650125405		401 54	2.871
650125406		402 5	2.680
650125407		322 9	2.473
650125408		502 8	2.079
650125409		107 9	1.853
			102 10
			202 5
			104 45
			222 4
			105 30
			321 5
			215 18
			107 9
			111 10
			211100
			302 3
			303 3
			214 42
			205 9
			116 6
			505 10

650126001SIZ	BIKITAITE	LI AL SI2 06 H20	L
650126201MONOCLINIC	8.611	4.960	7.610
650126301REF:PHINNEY AND OTHERS, 1961	BIKITA, SOUTHERN RHODESIA	114.433	
650126401	7.865	100 80	6.930
650126402	4.265	-201 10	4.195
650126403	3.926	200 10	3.806
650126404	3.284	111 40	3.215
650126405	2.93	201 10	2.870
650126406	2.629	300 10	2.523
650126407	2.364	120 20	2.364
650126408	2.316	310 10	2.240
650126409	2.097	220 10	2.094
650126410	2.005	103 10	1.996
650126411	1.959	400 10	1.959
650126412	1.877	-321 10	1.855
650126401		001 50	6.732
650126402		110 90	4.022
650126403		-102 30	3.462
650126404		-211 40	3.076
650126405		-301 20	2.794
650126406		211 20	2.479
650126407		-312 20	2.337
650126408		-113 10	2.167
650126409		013 10	2.077
650126410		212 10	1.996
650126411		-411 10	1.947
650126412		-403 10	1.900
			-101 30
			011 20
			002100
			210 40
			-212 10
			020 90
			021 10
			301 10
			-122 20
			-222 10
			-403 10
			101 40
			-111 10
			-202100
			-112 10
			102 10
			112 10
			-121 10
			-221 10
			022 10
			311 10
			-204 30

650127001SIZ BREWSTERITE	6.82	17.51	7.75	(SR-DA-CA-NA-K)	AL2	016	6H20	L
650127201MONOCLINIC							94.267	
650127301REF:KHONYAKOV AND OTHERS, 1970								
650127401	8.81	020 3	7.78	001 2	7.13	011 3	6.79	100 46
650127402	6.31	110 84	5.29	-101 2	5.06	-111 60	4.92	101 4
650127403	4.65	111 70	4.65	031 70	4.52	-121 60	4.28	121 2
650127404	3.92	-131 46	3.86	002 5	3.77	131 39	3.68	140 9
650127405	3.53	022 46	3.40	200 32	3.27	141 60	3.19	112 39
650127406	3.11	150 16	3.05	122 42	2.979	-132 4	2.922	060100
650127407	2.848	151 4	2.798	-231 5	2.724	-142 42	2.677	160 17
650127408	2.616	142 16	2.575	033 39	2.509	161 16	2.459	202 16
650127409	2.414	-232 10	2.373	222 5	2.345	170 32	2.265	300 32
650127410	2.187	080 19	2.146	242 27	2.107	330 23	2.069	-331 27
650127411	2.016	-153 50	1.973	341 10	1.950	153 20	1.888	302 23
650127412	1.831	163 3	1.816	-272 3	1.791	073 5	1.751	0.10.0 35
650127413	1.737	092 7	1.717	173 19	1.691	1.10.0 17	1.662	-371 50
650127414	1.637	282 14	1.619	371 16	1.570	-292 7	1.556	17
650127415	1.525	17	1.478	4	1.463	9	1.448	17
650127416	1.430	9	1.404	17	1.368	17	1.338	23
650127417	1.318	17	1.286	10	1.280	17	1.271	14
650127418	1.252	17						

650128001SIZ FERRIERITE	19.12	14.14	7.48	(NA K)4	H62	SI30	AL6	072	18H20	L
650128201ORTHORHOMBIC										
650128301REF:STAPLES, 1955										
650128401	11.33	110 20	9.61	200100	7.00	020 30	7.00			101 30
650128402	6.61	011 20	5.84	310 50	4.96	121 10	4.80			301 10
650128403	4.80	400 10	4.58	130 10	3.99	321 90	3.99			031 90
650128404	3.88	411 10	3.79	330 20	3.79	002 20	3.69			510 20
650128405	3.54	112 80	3.54	040 80	3.49	202 80	3.42			501 20
650128406	3.31	240 20	3.20	600 10	3.15	141 30	3.15			312 30
650128407	3.07	521 30	3.07	431 30	2.97	530 30	2.90			620 20
650128408	2.90	132 20	2.72	422 20	2.64	051 20	2.58			042 30

650129001SIZ NAZZITE		18.392		NA-K-CA-MG (AL10 SI26) 072 28H20		L		
650129201HEXAGONAL		7.646						
650129301REF: GALLI AND OTHERS, 1974		LOIRE, FRANCE						
650129401	15.93	100 35	9.20	110 60	7.96	200 35	6.89	101 25
650129402	6.02	210 53	5.53	201 12	5.31	300 17	4.729	211 50
650129403	4.423	310 12	3.986	400 20	3.824	311 95	3.824	002 95
650129404	3.717	102 25	3.655	320 47	3.531	112 90	3.474	410 12
650129405	3.452	202 10	3.185	500100	3.102	302 30	3.065	330 38
650129406	3.010	420 40	2.941	501100	2.941	222100	2.865	510 10
650129407	2.681	511 12	2.643	322 16	2.552	520 20	2.511	601 5
650129408	2.446	502 1	2.442	203 9	2.442	521 9	2.393	332 1
650129409	2.302	440 22	2.298	303 22	2.210	620 9	2.210	313 9
650129410	2.147	403 10	2.123	621 17	2.123	522 17	2.037	540 10
650129411	2.037	711 10	2.006	630 7	1.991	800 10	1.991	503 10
650129412	1.971	541 3	1.971	442 3	1.910	004 18	1.886	721 1
650129413	1.839	550 17	1.839	603 17	1.777	641 6	1.777	632 6
650129414	1.697	12	1.670	20	1.618	13	1.582	7
650129415	1.516	1	1.504	1	1.444	10		

650130001SIZ LEONHARDITE		14.75		13.083		7.57		(CA-NA-K) (AL-MG-FE) SI15 048 16H20		L	
650130201MONOCLINIC		112.00									
650130301REF: LAPHAM, 1963		DILLSBURG, PENNSYLVANIA									
650130401	9.49	100	6.86	50	6.54	2	6.19	15			
650130402	5.91	2	5.052	20	4.731	18	4.500	30			
650133403	4.314		4.156	95	3.768	3	3.667	30			
650130404	3.510	90	3.411	8	3.367	15	3.272	25			
650130405	3.205	8	3.152	16	3.033	35	2.950	4			
650130406	2.881	38	2.798	18	2.629	3	2.575	20			
650130407	2.521	10	2.463	3	2.439	40	2.361	25			
650130408	2.278	3	2.268	2	2.217	2	2.180	5			
650130409	2.153	10	2.082	2	2.060	2	2.042	2			
650130410	1.991	1	1.955	5	1.887	1	1.870	4			
650130411	1.851	5	1.800	3	1.760	2	1.710	1			
650130412	1.683	2	1.634	1	1.623	1	1.589	2			
650130413	1.573	2	1.563	1	1.539	7	1.521	4			
650130414	1.517	3									

650131001SIZ	HARNOTONE-NA	9.921	14.135	8.685	124.91	NA-K BA-SR-CA-MG-AL4-FE-SI11 032 11H20 L
650131201MONOCLINIC						
650131301REF: SHEPPARD AND GUDE, 1971	MOHAVE CO., ARIZONA					
650131401	8.13	100 71	7.13	001100	6.36	011 68 5.33 120 11
650131402	5.02	021 47	4.959	-201 12	4.279	101 39 4.079 -131 66
650131403	3.904	210 19	3.452	012 20	3.237	140 53 3.217 -301 38
650131404	3.168	131 83	3.134	-311 61	3.078	230 19 2.923 -321 31
650131405	2.742	-103 26	2.727	-142 40	2.675	221 48 2.672 -151 61
650131406	2.532	320 23				

650132001SIZ	STILBITE					(K NA CA ) (NG FE AL) SI 072 29H20 L
650132201MONOCLINIC		13.60	18.25	11.31	128.7	
650132301REF: TAKASHIMA AND OTHERS, 1972	TAKENYU, JAPAN					
650132401	9.15	-110 95	5.27	200 10	4.66	-222 30 4.30 -312 30
650132402	4.06	100	3.74	-203 10	3.49	10 3.39 -402 20
650132403	3.18	403 10	3.10	5	3.03	152 50 2.88 5
650132404	2.77	20	2.70	5	2.57	8 2.24 5
650132405	2.04	5	1.82	-641 10	1.79	5

650133001SIZ	CHABAZITE					(NG CA NA NG K) (SI AL)35 072 38H20 L
650133201HEXAGONAL						
650133301REF: ISHIBASHI, 1974	SAGA PREFECTURE, JAPAN					
650133401	9.39	90	6.91	20	6.37	10 5.57 20
650133402	5.03	10	4.67	25	4.31	100 3.98 5
650133403	3.88	15	3.60	25	3.45	25 3.24 5
650133404	3.18	20	3.03	10	2.93	100 2.90 25
650133405	2.78	5	2.69	10	2.61	35 2.51 25
650133406	2.30	2	2.09	7	1.91	2 1.87 15
650133407	1.81	15	1.79	5	1.72	50 1.69 2
650133408	1.56	15				

650134001SIZ	THONSONITE					(NG CA NA K12 (SI AL FE)40 080 24H20 L
650134201ORTHORHOMBIC						
650134301REF: ISHIBASHI, 1974	SAGA PREFECTURE, JAPAN					
650134401	9.30	10	6.55	80	5.90	20 4.64 100
650134402	4.37	30	4.13	40	3.50	40 3.28 15
650134403	3.18	30	2.94	50	2.86	90 2.79 10
650134404	2.67	80	2.58	20	2.43	20 2.25 20
650134405	2.18	40	2.13	10	2.07	10 1.95 10
650134406	1.81	30	1.72	20	1.46	30

650135001SIZ NATROLITE	(HG CA NA K)16 (SI AL FE)40 080 16H20	L
650135201ORTHORHOMBIC		
650135301REF: ISHIBASHI, 1974 SAGA PREFECTURE, JAPAN		
650135401 6.51	80 5.96 20 4.69	100
650135402 4.37	30 4.13 70 3.78	5
650135403 3.50	20 3.28 30 3.17	6
650135404 2.92	50 2.86 65 2.79	45
650135405 2.57	10 2.43 10 2.31	15
650135406 2.25	15 2.18 70 2.13	20
650135407 1.95	5 1.81 30 1.72	20
650136001SIZ HERSCHELITE	(TI FE HG CA NA K)13(SI AL)35 072 37H20L	
650136201HEXAGONAL		
650136301REF: ISHIBASHI, 1974 SAGA PREFECTURE, JAPAN		
650136302 (NA-RICH CHABAZITE)		
650136401 9.42	80 6.91 15 5.57	40
650136402 4.72	25 4.35 75 4.00	50
650136403 3.64	50 3.46 30 3.25	20
650136404 3.16	5 2.94 100 2.91	10
650136405 2.70	20 2.62 30 2.59	40
650136406 2.32	8 2.31 10 2.17	5
650136407 2.10	30 2.07 5 2.04	5
650136408 1.92	10 1.88 15 1.82	5
650136409 1.73	30 1.71 10 1.69	15
650136410 1.57	15	
650137001SIZ EPISTILBITE	CA AL2 SI6 O16 5H20	L
650137201MONOCLINIC		
650137301REF: SEKI AND OTHERS, 1968 HANAWA MINING DISTRICT, N. JAPAN		
650137401 8.77	80 6.84 24 4.76	11
650137402 4.31	14 3.85 34 3.69	49
650137403 3.20	100 2.912 24	



(NA-CA) (FE-AL-SI)15 030 6H20										L
650140001SIZ MESOLITE										
650140201MONOCLINIC										
650140301REF: HARADA AND OTHERS, 1968										
650140401										
650140402										
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650141001SIZ SCOLECITE	(NA-K-CA-MG) (AL-FE-SI)10 020 6H20										L	
650141201MONOCLINIC	18.48		18.96		6.54		90.75					
650141301REF: HARADA AND OTHERS, 1968	HUDAKAKE, JAPAN											
650141401	6.64	220100	6.64	-220100	5.88	-111 34	5.28	201 2				
650141402	4.63	221 33	4.44	-131 98	4.40	131 37	4.22	240 25				
650141403	4.22	-240 25	4.16	420 16	4.16	-420 16	3.65	331 9				
650141404	3.51	250 3	3.51	-250 3	3.31	440 5	3.31	-440 5				
650141405	3.23	151 15	3.19	-511 10	3.16	060 14	3.09	022 8				
650141406	2.993	260 12	2.993	-260 12	2.940	441 28	2.894	-351 79				
650141407	2.861	132 41	2.588	-242 9	2.481	171 9	2.446	-512 7				
650141408	2.446	551 7	2.423	461 8	2.370	080 4	2.321	-371 7				
650141409	2.298	-532 8	2.273	731 7	2.254	-602 7	2.208	262 25				
650141410	2.173	-830 5	2.148	113 2	2.113	821 3	2.083	661 5				
650141411	2.036	-642 5	2.036	313 5	1.995	580 4	1.995	-580 4				
650141412	1.961	-403 6	1.961	333 6	1.906	-391 5	1.880	-282 5				
650141413	1.869	931 6	1.845	822 8								

650142001SIZ LEONHARDITE	CA AL2 S14 012 3.5H20	L
650142201MONOCLINIC	14.72 13.07 7.56 111.9	
650142301REF:MAUSEN AND MURATA, 1970	COAST RANGES, CALIFORNIA	
650142401	9.44 110100 6.83 200 75 6.18 -201 10 5.040	111 20
650142402	4.724 220 14 4.489 -221 22 4.300 310 1 4.149	130100
650142403	3.767 -131 18 3.654 -401 56 3.505 002 60 3.407	131 16
650142404	3.358 -312 40 3.267 040 60 3.194 -331 60 3.148	330 32
650142405	3.027 420 40 2.900 240 4 2.873 -511 25 2.790	-422 22
650142406	2.641 -512 4 2.628 331 1 2.571 241 30	
650143001SIZ LEONHARDITE	CA AL2 S14 012 3.5H20	L
650143201MONOCLINIC		
650143301REF:COOMBS, 1952		
650143401	6.88 60 6.21 20 5.07 20 4.75 10	
650143402	4.51 30 4.18 100 3.77 1 3.67 40	
650143403	3.52 100 3.42 1 3.36 10 3.28 30	
650143404	3.21 20 3.16 10 3.09 1 3.04 40	
650143405	2.95 1 2.88 30 2.80 20 2.73 1	
650143406	2.64 1 2.58 30	
650144001SIZ YUGAWARALITE	(K-NA-CA-SR) (AL-SI)032 8H20	L
650144201MONOCLINIC	10.043 13.997 6.725 111.18	
650144301REF:EBERLAIN AND OTHERS, 1971	CHENA, ALASKA	
650144401	13.90 010 6 7.78 110 5 6.99 020 60 6.26 001 5	
650144402	5.81 -111 64 5.62 120 3 4.668 021 73 4.642 -201 64	
650144403	4.439 210 8 4.402 -211 13 4.293 111 32 4.177 130 20	
650144404	3.890 220 8 3.867 -221 4 3.768 -131 10 3.740 031 3	
650144405	3.301 230 6 3.290 -231 6 3.263 -112 7 3.231 201 30	
650144406	3.191 -202 5 3.131 002 5 3.108 -212 5 3.056 041100	
650144407	2.996 -321 5 2.936 221 17 2.906 -222 19 2.860 022 5	
650144408	2.846 320 2 2.765 141 14 2.715 -213 12 2.682 051 18	
650144409	2.657 132 5 2.644 211 9	



650145001SIZ YUGAWARALITE		CA AL2 SI6 O16 4H20		L
650145201MONOCLINIC	10.050	14.008	6.729	111.18
650145301REF:EBERLEIN AND OTHERS, 1971			YUGAWARA, JAPAN	
650145401	14.0	010 6	7.80	110 4
650145402	5.81	-111 52	4.672	021 70
650145403	4.410	-211 10	4.295	111 26
650145404	3.770	-131 7	3.237	201 29
650145405	3.110	-212 5	3.057	041100
650145406	2.904	-222 22	2.856	320 3
650145407	2.686	051 13	2.648	211 9
650146001SIZ MORDENITE		(NG-MN-CA-NA-K)(AL-FE)(SI-TI) O48 13H20L		
650146201ORTHORHOMBIC	18.24	20.36	7.54	
650146301REF:TONITA AND OTHERS, 1970			KAGOSHIMA PREFECTURE JAPAN	
650146401	13.7	110 20	9.12	200 43
650146402	6.09	021 2	5.82	201 20
650146403	3.990	150100	3.840	241 7
650146404	3.576	510 4	3.480	202 20
650146405	3.209	530 40	3.100	441 3
650146406	2.740	152 2	2.706	621 6
650146407	2.522	422 7		
650147001SIZ HEULANDITE		(CA NA2)4 AL8 SI28 O72 24H20		L
650147201MONOCLINIC	7.45	17.80	15.85	91.40
650147301REF:GRANGE AND WATELLE-NARION, 1966			FRANCE	
650147401	9.01	020100	8.03	002 2
650147402	4.66	130 10	4.48	-131 2
650147403	3.97	132 25	3.91	042 15
650147404	3.49	13-3 5	3.439	220 10
650147405	3.346	202 2	3.177	22-2 5
650147406	3.025	203 4	2.968	060 40
650148001SIZ WAIRAKITE		(CA-K-NG-NA)(FE-AL) SI4 O12 2H20		L
650148201MONOCLINIC	13.65	13.66	13.56	90.39
650148301REF:SEKI AND OTHERS, 1968				
650148401	6.83	200 35	5.57	211100
650148402	3.41	400 81	3.39	004 70
650148403	2.916	-332 46	2.903	332 35
650148404	2.680	-431 18	2.665	431 13
650148405	2.414	440 14		



650152001SIZ CLINOPTILOLITE	(K NA)4 CA AL6 SI30 072 24H20	L
650152201MONOCLINIC	7.41 17.89 15.85 91.48	
650152301REF:WISE AND OTHERS, 1969	AGOURA CALIFORNIA	
650152401 8.92	020100 7.97 002 3 6.78 10-1 2 5.61	031 2
650152402 5.15	112 7 4.65 130 14 4.35 10-3 2 3.964	132 55
650152403 3.964	004 55 3.897 042 57 3.74 14-1 7 3.55	21-1 6
650152404 3.48	051 3 3.419 220 16 3.324 202 4 3.168	22-2 14
650152405 3.119	222 15 3.07 231 8 2.974 044 80 2.793	035 15
650152406 2.793	12-5 15 2.728 16-1 33	
650153001SIZ FERRIERITE	(NA K)4 MG2 AL6 SI30 072 (OH)2 18H20	L
650153201ORTHORHOMBIC	19.015 14.135 7.486	
650153301REF:WISE AND OTHERS, 1969	AGOURA, CALIFORNIA	
650153401 11.33	110 3 9.47 200 50 7.07 020 38 6.59	011 3
650153402 5.75	310 15 5.64 220 14 4.75 400 2 4.56	130 1
650153403 3.977	031 35 3.943 420 35 3.778 330 65 3.661	510 12
650153404 3.537	040100 3.480 202 18 3.313 240 35 3.140	312 12
650153405 3.048	431 12 2.945 402 11 2.644 051 7 2.582	350 10
650154001SIZ FERRIERITE	(NA K)4 MG2 AL6 SI30 072 (OH)2 18H20	L
650154201ORTHORHOMBIC	19.177 14.137 7.490	
650154301REF:WISE AND OTHERS, 1969	SONORA PASS, CALIFORNIA	
650154401 9.56	80 7.06 12 6.61 8 5.83	21
650154402 5.71	8 3.99 29 3.971 60 3.794	55
650154403 3.700	37 3.533 100 3.489 50 3.317	13
650154404 3.151	9 3.073 13 2.976 22	
650155001SIZ FERRIERITE	(NA K) MG (SI AL FE)36 072 19H20	L
650155201ORTHORHOMBIC		
650155301REF:YAJIMA AND OTHERS, 1971	HOKKAIDO, JAPAN	
650155401 11.47	110 20 9.60 200100 7.07 020 30 6.67	011 25
650155402 5.84	310 20 5.71 220 10 4.99 121 10 4.80	400 15
650155403 4.58	130 10 4.00 031 35 3.88 411 15 3.79	330 55
650155404 3.70	510 30 3.54 040 50 3.50 202 20 3.42	501 20
650155405 3.32	240 30 3.20 600 10 3.16 312 25 3.07	431 12
650155406 2.97	530 15 2.90 620 20 2.72 422 10 2.69	710 2
650155407 2.64	051 10 2.58 350 15	

650156001SIZ	CHABAZITE-SR	CA-SR-NA-K AL-FE	S14	012	7H20	L
650156201HEXAGONAL	13.779	15.000				
650156301REF:NAKAO AND OTHERS, 1969		TOKYO, JAPAN				
650156401	9.38	101100	6.89	110 10	6.39	102 8
650156402	5.02	003 38	4.67	202 25	4.32	211100
650156403	3.89	212 27	3.59	104 40	3.45	220 17
650156404	3.18	204 12	2.927	401100	2.89	214 28
650156405	2.775	402 9	2.686	205 13	2.603	410 25
650156406	2.502	215 28	2.347	501 1	2.297	330 10
650156407	2.227	315 1	2.122	405 1	2.087	333 17
650156408	1.870	505 8	1.806	108 18	1.786	523 1
650156409	1.722	440 14	1.693	336 12	1.640	614 3
650157001SIZ	HERSCHELITE	NA4 AL4 Si8 O24	12H20			L
650157201HEXAGONAL	13.799	15.102				
650157301REF:GUDE AND SHEPPARD, 1966		ACI REALE, SICILY				
650157401	9.361	101 51	6.894	110 22	6.379	102 3
650157402	5.032	003 40	4.679	202 6	4.322	211 67
650157403	3.976	300 8	3.877	212 23	3.600	104 21
650157404	3.235	311 11	3.193	204 7	3.125	303 2
650157405	2.930	401100	2.897	214 29	2.852	223 9
650157406	2.695	205 11	2.606	410 18	2.576	322 4
650157407	2.364	116 2	2.316	413 7	2.300	330 5
650157408	2.163	422 2	2.128	306 5	2.125	511 4
650157409	2.064	512 2	2.020	504 1	1.947	217 2
650157410	1.875	505 5	1.812	416 20	1.808	317 12
650157411	1.771	612 3	1.742	218 2	1.725	440 10
650157412	1.677	009 5	1.645	435 5	1.630	119 1
650157413	1.559	427 5				

650158001SIZ	CHABAZITE-SI	CA-MG-NA-K	AL-SI	024	10H20	L
650158201	HEXAGONAL	13.712	14.882			
650158301	REF: GUDE AND SHEPPARD, 1966					
650158401	9.263	101 70	6.846	110 22	6.298	102 8
650158402	4.959	003 38	4.643	202 4	4.293	211 00
650158403	3.957	300 5	3.844	212 20	3.549	104 47
650158404	3.217	311 10	3.152	204 11	3.056	303 2
650158405	2.911	401 62	2.885	105 22	2.864	214 34
650158406	2.756	402 3	2.681	321 2	2.662	205 6
650158407	2.557	322 3	2.481	215 12	2.322	404 1
650158408	2.286	330 2	2.263	502 4	2.149	422 1
650158409	2.076	333 6	2.002	504 2	1.979	600 1
650158410	1.920	217 2	1.901	520 5	1.856	505 9
650158411	1.792	416 12	1.775	208 2	1.759	612 8
650158412	1.681	336 4	1.654	009 4	1.636	621 6
650158413	1.547	607 5				

650159001SIZ	MOUNTAINITE	CA NA K	10 (SI AL)	16	040	OH	11H20	L
650159201	MONOCLINIC	13.6	13.2	13.6	104.00			
650159301	REF: BUSSEN AND OTHERS, 1973							
650159401	8.9	10	6.6	100	5.9	30	5.4	10
650159402	5.1	20	4.67	60	4.36	5	4.14	50
650159403	3.96	5	3.77	10	3.64	10	3.50	10
650159404	3.35	20	3.27	70	3.17	30	3.01	10
650159405	2.951	10	2.862	10	2.793	40	2.723	5
650159406	2.681	5	2.631	30	2.580	30	2.515	30
650159407	2.441	10	2.382	10	2.305	40	2.209	5
650159408	2.159	10	2.110	10	2.071	10	2.028	5
650159409	1.970	40	1.940	20	1.915	10	1.883	40
650159410	1.849	5	1.822	10	1.797	10	1.765	5
650159411	1.741	5	1.722	50	1.698	5	1.683	10
650159412	1.669	10	1.644	10	1.628	10	1.606	5
650159413	1.585	10	1.569	5				

650160001SIZ STELLERITE-NA		(CA-MG-NA-K) (AL-FE) SI27 072 26H20		L
650160201ORTHORHOMBIC 13.643 18.200 17.842				
650160301REF:PASSAGLIA AND PONGILUPPI, 1974 CAPO PULA SARDINIA				
650160401	9.10 020 99 9.10 002 99 6.83 200 4 5.301	131	6	
650160402	5.227 113 5 4.659 222 21 4.552 040 6 4.461	004	3	
650160403	4.285 311 12 4.054 133100 4.054 042100 4.006	024	13	
650160404	3.732 204 12 3.566 051 1 3.566 331 1 3.483	242	12	
650160405	3.408 400 11 3.393 115 11 3.189 420 16 3.189	402	16	
650160406	3.103 333 7 3.028 060 78 3.028 153 78 3.004	422	25	
650160407	2.974 006 4 2.885 244 2 2.871 062 3 2.824	026	3	
650160408	2.805 351 3 2.773 315 22 2.773 260 22 2.727	440	3	
650160409	2.709 404 3 2.609 344 4 2.609 424 4 2.563	353	6	
650160410	2.524 017 1 2.507 064 5 2.507 155 5 2.487	046	3	
650160411	2.354 264 3 2.347 037 3 2.274 600 1 2.267	460	1	
650160412	2.225 008 3 2.204 317 2 2.164 028 1 2.122	066	4	
650160413	2.096 282 3 2.084 337 1 2.075 175 1 2.062	228	3	
650160414	2.039 535 2 2.034 640 3 2.025 084 3 2.018	464	2	
650160415	2.012 446 1 1.893 480 3 1.870 571 1 1.864	139	2	
650160416	1.859 555 2 1.855 384 2 1.837 391 1 1.819	077	17	
650160417	1.804 319 4			

650161001SIZ CLINOPTILOLITE		(NA K)4 CA AL6 SI30 072 24H20		L
650161201MONOCLINIC				
650161301REF:SHEPPARD AND OTHERS, 1965		KERN COUNTY, CALIFORNIA		
650161401	9.00 100 7.935 50 6.784 19 6.652	7		
650161402	5.937 10 5.243 13 5.126 30 4.656	18		
650161403	4.347 13 3.965 100 3.914 78 3.787	36		
650161404	3.708 19 3.553 13 3.456 20 3.423	39		
650161405	3.078 26 3.042 12 2.978 58 2.798	33		
650161406	2.729 17 2.715 15 2.681 6 2.454	18		
650161407	2.426 20 2.169 10 2.121 9 2.089	6		
650161408	2.059 10 2.015 14 1.996 8 1.958	15		

650162001SIZ ERIONITE		(NA2 CA K2)4.5 AL9 SI27 O72 27H2O		L
650162201HEXAGONAL				
650162301REF:SHEPPARD AND OTHERS, 1965 SAN BERNARDINO COUNTY, CALIFORNIA				
650162401	11.47	100	9.10	22 7.538 25 6.657 63
650162402	6.294	15	5.731	14 5.350 16 4.559 19
650162403	4.326	50	4.158	20 3.813 29 3.752 74
650162404	3.576	33	3.305	29 3.275 30 3.178 17
650162405	3.144	19	3.108	16 2.923 14 2.860 40
650162406	2.843	63	2.815	52 2.679 13 2.485 20
650162407	2.205	9	2.111	8 2.082 5 2.038 2
650162408	1.983	4	1.957	3 1.885 9 1.834 6
650162409	1.772	12	1.704	6 1.654 17 1.585 10
650162410	1.577	6	1.556	3 1.469 6 1.464 5
650163001SIZ FERRIERITE				
650163201ORTHORHOMBIC				
650163301REF:HAYAKAWA AND SUZUKI, 1970 TADAMI-MACHI, JAPAN				
650163401	9.61	100	7.08	28 6.66 29 5.87 22
650163402	4.55	14	4.00	53 3.88 22 3.80 44
650163403	3.69	22	3.55	41 3.49 59 3.41 21
650163404	3.33	33	3.15	25 3.08 16 2.89 17
650163405	2.71	8	2.59	19 2.51 16
650164001SIZ LEVYNE				
650164201HEXAGONAL				
650164301REF:STRUNZ, 1956				
650164401	10.3	101	60	8.12 012 90 7.50 003 30 6.61 110 50
650164402	5.126	104	80	5.126 202 80 4.671 20 4.270 211 80
650164403	4.04	024	100	4.04 122100 3.818 300 60 3.453 214 40
650164404	3.278	116	40	3.132 125 90 3.048 223 40 2.858 401 30
650164405	2.780	134	100	2.780 042100 2.690 306 20 2.599 217 90
650164406	2.599	315	90	2.495 40 2.380 50 2.287 40
650164407	2.212	40		2.117 50 2.045 40 1.941 30
650164408	1.870	30		1.824 20 1.781 60 1.741 517 30
650164409	1.656	70		1.616 30 1.570 40 1.537 624 50
650164410	1.461	40		1.421 633 50 1.421 544 50 1.389 40
650164411	1.365	20		1.337 811 40 1.308 20 1.287 40

650165001SIZ LEVYNE		K2 CA10 AL22 SI32 0108 45H20		L				
650165201HEXAGONAL		22.6						
650165301REF:FEOKTISTOV AND OTHERS, 1971		SIBERIAN PLATFORM, USSR						
650165401	10.3	50	8.06	100	7.52	20	6.61	40
650165402	5.58	50	5.14	50	4.74	20	4.24	60
650165403	4.03	100	3.80	50	3.45	80	3.40	80
650165404	3.31	30	3.14	100	3.07	80	2.82	40
650165405	2.78	100	2.70	10	2.61	80	2.51	40
650165406	2.38	40	2.28	30	2.21	40	2.12	40
650165407	2.05	30	1.967	20	1.943	20	1.898	20
650165408	1.862	20	1.838	20	1.789	60	1.742	40
650165409	1.666	70	1.623	40	1.588	50	1.552	60
650165410	1.536	40	1.499	30	1.474	40	1.426	50
650165411	1.395	40	1.356	40	1.346	40	1.308	30
650165412	1.296	40	1.284					

650166001SIZ LEVYNE		K2 CA10 AL22 SI32 0108 45H20		L				
650166201HEXAGONAL								
650166301REF:FEOKTISTOV AND OTHERS, 1971		SIBERIAN PLATFORM		USSR				
650166401	10.2	90	8.07	100	7.44	40	6.63	40
650166402	5.52	20	5.12	80	4.93	10	4.19	40
650166403	4.04	100	3.84	20	3.54	20	3.43	40
650166404	3.33	20	3.08	80	2.79	80	2.58	50
650166405	2.51	30	2.38	20	2.26	20	2.21	20
650166406	2.12	30	2.09	20	2.03	10	1.952	20
650166407	1.872	40	1.836	30	1.800	10	1.771	40
650166408	1.745	10	1.662	50	1.582	40	1.542	30
650166409	1.502	30	1.468	20	1.430	20	1.401	50
650166410	1.388	10	1.342	40	1.315	40	1.294	30
650166411	1.283	40						

650167001SIZ POLLUCITE		(CS RB)(NA K LI MN CA)(AL FE)SI2 06 H20L									
650167201CUBIC		13.674									
650167301REF:SAKURI AND OTHERS, 1972		NAGATARE, FUKUOKA PREFECTURE, JAPAN									
650167401	5.56	211	2	4.83	222	2	3.65	321	30	3.416	400100
650167402	3.225	330	2	3.225	411	2	3.058	420	3	2.913	332 45
650167403	2.791	422	1	2.682	510	7	2.682	431	7	2.497	521 4
650167404	2.416	440	24	2.218	611	17	2.162	620	1	2.015	631 6
650167405	1.973	444	4	1.897	640	3	1.860	633	18	1.827	642 1
650167406	1.736	651	22	1.709	800	10	1.683	811	3	1.658	644 2
650167407	1.634	653	3	1.589	750	3	1.548	752	4	1.529	840 7



650168001SIZ	NORDENITE	18.304	20.390	7.501	(NA-K-CA) AL2 SI10 (TI-FE) 024 NH20	L
650168201	ORTHORHOMBIC	18.304	20.390	7.501		
650168301	REF:NEGISHI, 1972	AKIU FORMATION., JAPAN				
650168401	13.777	110 10	9.148	200 30	6.607	111 30 6.411 130 10
650168402	6.108	021 10	5.828	201 10	4.534	330 40 4.149 420 10
650168403	4.003	150 60	3.840	241 10	3.768	002 10 3.479 202100
650168404	3.393	060 60	3.289	222 10	3.230	530 60 2.939 531 10
650168405	2.897	402 20	2.561	461 10	2.519	442 10
650169001SIZ	EDINGTONITE	9.524	9.620	6.500	2(BA AL2 SI3 O10) 7H20	L
650169201	ORTHORHOMBIC	9.524	9.620	6.500		
650169301	REF:NOVAK, 1970	STARE RANSKO BOHENIA				
650169401	6.76	110 20	6.50	001 35	5.364	101 40 4.804 020 80
650169402	4.760	200 80	4.695	111 55	4.294	120 25 3.868 021 5
650169403	3.582	121100	3.383	220 45	3.245	002 10 3.079 012 25
650169404	3.038	130 60	3.005	221 5	2.931	112 15 2.754 131 90
650169405	2.737	311 90	2.659	230 20	2.591	122 45 2.461 231 15
650169406	2.281	032 40	2.256	330 90	2.195	141 25 2.178 411 20
650169407	2.146	240 40	2.132	331 45	2.059	232 20 2.037 241 15
650169408	1.977	023 10	1.934	123 15	1.916	340 5 1.895 142 5
650169409	1.887	150 10	1.838	341 35	1.826	223 30 1.784 250 5
650169410	1.764	133 10	1.691	440 40	1.645	350 35 1.603 060 5
650169411	1.588	531 25	1.555	522 5	1.520	260 30 1.505 620 20
650169412	1.469	352 15	1.437	343 25	1.398	361 5 1.354 550 25
650169413	1.329	460 30				
650170001SIZ	STILBITE				(K-NA-CA)(MG-FE-AL) SI 072 29H20	L
650170201	ORTHORHOMBIC					
650170301	REF:NEVES AND NUNES, 1968	CORUMANA BRAZIL				
650170401	9.110	100	6.347	2	5.393	5 5.285 6
650170402	4.642	30	4.543	6	4.453	2 4.051 87
650170403	3.993	12	3.720	9	3.476	5 3.393 19
650170404	3.179	18	3.093	5	3.027	50 2.993 20
650170405	2.871	3	2.824	2	2.770	17 2.700 5
650170406	2.604	5	2.560	7	2.506	2 2.483 3
650170407	2.349	5	2.314	2	2.280	3 2.262 2
650170408	2.233	4	2.199	2	2.162	1 2.100 2
650170409	2.063	5	2.027	5	1.977	3 1.890 4
650170410	1.821	10				

650171001SIZ LAUMONTITE	CA AL2 SI4 O12 4H2O	L
650171201MONOCLINIC		
650171301REF:YOSHITANI, 1965	GREEN TUFF, TANZAWA MOUNTAINS, JAPAN	
650171401 9.501	100 6.910 60 6.553 13 6.146	19
650171402 6.146	19 5.035 19 4.844 24 4.716	25
650171403 4.480	25 4.287 13 4.149 74 3.767	13
650171404 3.660	37 3.517 55 3.437 60 3.348	21
650171405 3.276	33 3.195 37 3.151 22 3.035	37
650171406 2.919	63 2.873 27 2.795 21 2.576	19
650171407 2.520	15 2.440 21 2.366 13 2.274	9
650171408 2.241	8 2.220 17 2.179 10 2.154	19
650171409 2.088	9 1.992 7 1.959 12 1.865	17
650171410 1.826	8 1.799 7 1.763 8 1.711	11
650171411 1.633	9 1.622 10 1.567 10	

650172001SIZ STILBITE	(CA NA2 K2)4 AL8 SI28 O72 28H2O	L
650172201MONOCLINIC		
650172301REF:YOSHITANI, 1965	GREEN TUFF, TANZAWA MOUNTAINS, JAPAN	
650172401 10.155	5 9.017 100 5.400 5 5.304	6
650172402 4.643	18 4.572 7 4.458 5 4.287	11
650172403 4.055	60 3.751 8 3.559 4 3.490	8
650172404 3.398	14 3.288 4 3.195 16 3.118	6
650172405 3.087	7 3.035 44 3.005 17 2.882	5
650172406 2.778	20 2.728 5 2.605 5 2.569	9
650172407 2.513	5 2.486 5 2.460 4 2.453	4
650172408 2.354	5 2.319 3 2.268 3 2.225	4
650172409 2.199	3 2.125 4 2.102 4 2.065	6
650172410 2.030	5 1.901 5 1.872 3 1.823	11
650172411 1.809	4 1.779 5 1.726 4 1.638	4
650172412 1.609	3 1.594 7 1.584 5 1.555	5

650173001SIZ NORDENITE		(NA2 K2 CA) AL2 SI10 O24 7H20		L
650173201	ORTHORHOMBIC			
650173301	REF:YOSHITANI , 1965	GREEN TUFF, TANZAWA MOUNTAINS, JAPAN		
650173401	13.798	17 12.617	11 11.936	11 9.205
650173402	6.910	28 6.602	46 6.458	33 6.104
650173403	5.824	28 4.979	17 4.897	14 4.525
650173404	4.019	53 3.897	29 3.847	30 3.767
650173405	3.477	100 3.373	96 3.000	30 2.901
650173406	2.803	9 2.569	20 2.520	28 2.453
650173407	2.360	7 2.285	11 2.225	8 2.159
650173408	2.083	3 2.052	8 2.017	9 1.951
650173409	1.879	12 1.812	11 1.796	12 1.739
650173410	1.717	7 1.654	4 1.622	4 1.601
650173411	1.569	3 1.548	9	4

650174001SIZ BARRERITE		(NA K CA)2 (SI AL) O18 7H20		L
650174201	ORTHORHOMBIC	13.643	18.200	17.842
650174301	REF:PASSAGLIA AND PONGLIUPPI, 1974	SARDINIA	ITALY	
650174401	9.10	020100	9.10	002100 6.83
650174402	5.227	113 5	4.659	222 21 4.552
650174403	4.285	311 12	4.054	133100 4.006
650174404	3.566	051 1	3.483	242 12 3.408
650174405	3.189	420 16	3.103	333 7 3.028
650174406	2.974	006 4	2.885	244 2 2.871
650174407	2.805	351 3	2.773	315 22 2.727
650174408	2.609	226 4	2.563	353 6 2.524
650174409	2.487	046 3	2.353	264 3 2.347
650174410	2.267	460 1	2.225	008 3 2.204
650174411	2.122	066 4	2.097	166 3 2.084
650174412	2.062	228 3	2.039	455 2 2.034

650175001SIZ XONOLITE		CA6 SI6 017 (OH)2		L
650175201				
650175301REF:MAJER AND BARIE, 1971				
650175401	8.51	20	7.71	60
650175402	3.98	20	3.87	70
650175403	3.42	30	3.24	100
650175404	2.83	70	2.69	40
650175405	2.336	50	2.258	20
650175406	1.949	70	1.864	60
650175407	1.779	10	1.755	60
650175408	1.648	40	1.640	30
650175409	1.523	50	1.430	60
650175410	1.356	20	1.336	30

CA4 NA2 SI6 016 (OH)2

650176001SIZ PECTOLITE		CA4 NA2 SI6 016 (OH)2		L
650176201				
650176301REF:MAJER AND BARIE, 1971				
650176401	7.73	40	6.96	50
650176402	4.03	20	3.88	40
650176403	3.41	40	3.31	60
650176404	3.07	90	2.90	60
650176405	2.422	50	2.330	70
650176406	2.182	50	2.163	20
650176407	1.993	40	1.946	30
650176408	1.827	40	1.779	50
650176409	1.710	60	1.671	40
650176410	1.568	30	1.549	30
650176411	1.471	50	1.460	30
650176412	1.355	40	1.310	20

650177001SIZ COMLESITE		CA AL2 SI3 010 6H20		L
650177201ORTHORHOMBIC 11.271 15.251 12.613				
650177301REF:WISE AND TECHERNICH, 1975 GOBLE, OREGON				
650177401	15.2	010100	12.6	001 5 11.3 100 5
650177402	7.62	020 15	5.67	121 7 5.52 102 5
650177403	4.70	031 7	4.50	122 3 4.16 202 5
650177404	3.75	300 15	3.65	310 10 3.25 321 5
650177405	3.052	050 20	2.964	051 35 2.934 331 25

650178001SIZ GISHONDINE		(CA NA K) (FE AL SI) 4 08 4 H2O		L
650178201MONOCLINIC		10.02	10.63	9.85
650178301REF:IJINA AND HARADA, 1969		OAHU, HAWAII		
650178401	7.26	110 56	5.96	111 10
650178402	4.67	021 15	4.46	121 71
650178403	4.07	211 24	3.44	212 51
650178404	3.28	031 34	3.19	131 61
650178405	2.968	-222 19	2.779	321 54
650178406	2.644	040 34	2.556	322 32
650178407	2.407	033 17	2.373	240 24
650178408	2.281	-142 12	2.191	323 15
650178409	1.981	-333 39	1.914	115 24
650178410	1.820	440 24	1.800	215 12
650178411	1.727	522 15	1.709	352 10
650178412	1.615	611 10	1.585	360 10
650178413	1.488	036 22	1.436	-640 12

650179001SIZ EUCRYPTITE		K-NA-LI-AL-SI-O		L
650179201HEXAGONAL		13.48	9.01	
650179301REF:HURLBUT, 1962		BIKITA, SOUTHERN RHODESIA		
650179401	6.736	30	4.220	20
650179402	3.555	20	3.362	100
650179403	2.733	70	2.545	60
650179404	2.244	10	2.141	5
650179405	1.943	10	1.873	20
650179406	1.632	10	1.544	20
650179407	1.471	5	1.469	10
650179408	1.229	5	1.182	5

650180001SIZ GNELINITE		NA-CA-AL-SI-O-H2O		L
650180201HEXAGONAL		13.766	10.067	
650180301REF:KUHL AND NIALE, 1978		PROSPECT PARK, NEW JERSEY		
650180401	11.93	100 42	7.70	101 27
650180402	5.135	201 27	5.045	002 43
650180403	4.11	21100	3.97	300 5
650180404	3.23	103 48	2.981	400 93
650180405	2.691	213 59	2.601	410 20

650181001SIZ	GHELINITE-CA-NH4	CA-NH4 (AL-SI) 0 H2O	L
650181201HEXAGONAL	13.789	10.044	
650181301REF:KUHL AND MIALE, 1978		PROSPECT PARK NEW JERSEY	
650181401 11.945	100 38 7.694	101 56 6.915	110 40 5.985
650181402 5.140	201 22 5.025	002100 4.634	102 10 4.518
650181403 4.123	211 93 3.986	300 3 3.850	202 3 3.446
650181404 3.357	212 3 3.311	310 4 3.226	103 85 3.142
650181405 3.110	302 3 2.986	400 49 2.921	203 19 2.862
650181406 2.690	213 47 2.644	321 4 2.606	410 9 2.500
650182001SIZ	STILBITE	CA-HG-NA-K (AL-FE) SI26 072 28H2O	L
650182201MONOCLINIC			
650182301REF:JUAN AND LO, 1973		CHINET, TAIWAN	
650182401 9.12	001100 9.12	020100 5.31	-221 5 5.31
650182402 5.31	200 5 4.62	220 11 4.62	222 11 4.27
650182403 4.06	041 35 4.06	-132 35 3.74	-202 3 3.39
650182404 3.16	-403 4 3.03	-422 21 3.03	152 21 2.77
650182405 2.77	351 8		-314 8
650183001SIZ	THOMSONITE	(NA CA)10 AL16 SI22 080 21H2O	L
650183201HEXAGONAL	13.07	13.23	
650183301REF:JUAN AND LO, 1966		TAIWANITE, TAIWAN	
650183401 9.50	100 5 6.50	220100 6.50	020100 6.50
650183402 5.90	102 30 5.37	112 5 4.61	220 57 4.61
650183403 4.35	122 39 4.35	212 39 4.14	130 42 4.14
650183404 3.81	222 2 3.43	132 12 3.43	321 12 3.27
650183405 3.27	400 7 3.18	322 32 2.97	240 12 2.97
650183406 2.92	042 6 2.92	402 6 2.86	142 77 2.86
650183407 2.79	332 5 2.68	242 15 2.68	422 15 2.50
650183408 2.50	314 11 2.43	12 2.18	20 2.00

650184001SIZ LEONHARDITE (CA -NA-K) (AL-NG-FE) SI16 048 14H20 L

650184201MONOCLINIC

650184301REF:NATIVEL, 1974 ILE DE LA REUNION

650184402	5.080	111	7	4.751	220	25	4.507	221	12	4.171	130	58
650184403	4.171	-201	58	3.782	131	2	3.674	-401	12	3.517	002	32
650184404	3.517	-221	32	3.418	400	12	3.418	-131	12	3.373	-312	13
650184405	3.373	-012	13	3.275	040	24	3.215	-331	22	3.161	320	27
650184406	3.040	420	31	3.040	-112	31	2.970	240	4	2.970	-041	4
650184407	2.882	-511	12	2.882	-241	12	2.801	5	5	2.630	4	4
650184408	2.578		12	2.520	6	6	2.444	19	19	2.365	14	14
650184409	2.273		7	2.215	2	2	2.183	7	7	2.154	15	15
650184410	2.082		2	2.040		2						

650185001SIZ THONSONITE-SR

650185201ORTHORHOMBIC 13.0 13.1 13.2

650185301REF:MULLER AND DEISINGER, 1971 DARNSTADT, GERMANY

650185401	6.32	200	40	6.32	020	40	5.94	102	30	5.43	112	20
650185402	4.62	220	100	4.62	022	100	4.39	122	30	4.39	212	30
650185403	4.15	130	30	4.15	310	30	3.50	132	100	3.50	312	100
650185404	3.21	232	60	2.947	240	100	2.947	420	100	2.855	332	100
650185405	2.665	242	100	2.665	422	100	2.590	134	50	2.590	314	50
650185406	2.440	20	20	2.258	40	40	2.184	60	60	1.816	50	50
650185407	1.620	40	40	1.466		50						

650186001SIZ WAIRAKITE

650186201MONOCLINIC

650186301REF:CUENOD AND MARTINI, 1966 WESTERN PANAMA

650186401	6.82	200	29	5.565	211	100	4.825	220	31	3.630	321	17
650186402	3.406	400	96	3.388	400	81	3.212	411	3	3.212	330	3
650186403	3.052	420	9	2.908	332	45	2.899	332	37	2.771	422	4
650186404	2.676	341	15	2.487	521	14	2.412	440	10	2.341	530	2
650186405	2.341	433	2	2.276	600	2	2.276	442	2	2.211	611	8
650186406	2.211	532	8	2.108	541	2	2.088	541	2	1.996	631	2
650186407	1.931	543	2	1.890	640	8	1.854	633	6	1.854	721	6
650186408	1.817	642	2	1.728	732	11	1.728	651	11	1.705	800	2
650186409	1.677	741	2	1.657	820	2	1.611	822	2	1.611	660	2
650186410	1.585	831	3	1.585	743	3						

650187001SIZ CLINOPTILOLITE	(NA2 CA) AL2 SI7 O18 6H2O	L
650187201MONOCLINIC	15.85 17.84 7.46.	
650187301REF: HAWKINS AND ORDONEZ, 1972	PRESTON, IDAHO	
650187401 8.93	60 6.80 20 5.910	10
650187402 5.25	20 5.09 20 4.35	10
650187403 4.25	30 4.67 100 3.88	50
650187404 3.710	10 3.450 20 3.400	30
650187405 3.34	30 3.16 20 2.96	40
650187406 2.79	10	
650188001SIZ CLINOPTILOLITE-BA	(NA K)4(BA-CA) AL6 SI30 O72 24H2O	L
650188201		
650188301REF: HAWKINS AND ORDONEZ, 1972	SYNTHETIC	
650188401 8.97	100 5.95 70 5.37	40
650188402 5.10	50 4.35 40 3.97	100
650188403 3.71	60 3.40 70 3.16	70
650188404 3.07	50 2.97 90 2.80	60
650188405 2.72	40	
650189001SIZ PHILLIPSITE	(CA NA K)3 AL3 SI5 O16 6H2O	L
650189201MONOCLINIC		
650189301REF: DEER AND OTHERS, 1963		
650189401 7.64	100 6.34 20 5.24	50
650189402 4.91	20 4.25 70 4.07	70
650189403 3.54	100 2.94 50 2.71	70
650189404 2.52	50 2.16 20 2.07	20
650189405 1.97	20 1.84 20 1.78	50
650189406 1.72	20 1.610 20 1.550	20
650189407 1.490	50 1.340 50 1.280	50
650190001SIZ PECTOLITE	CA-NA-MN-FE-AL-SI-O H2O	L
650190201ORTHORHOMBIC		
650190301REF: STOYNova AND STOYNOV, 1973	BURGAS, BULGARIA	
650190401 3.85	30 3.62 10 3.29	60
650190402 3.21	10 3.06 100 2.73	30
650190403 2.580	30 2.430 50 2.157	50
650190404 1.950	10 1.881 30 1.769	50
650190405 1.711	40 1.553 20 1.468	40
650190406 1.427	10 1.169 30 1.102	30



650191001SIZ	IRUSCOTTITE	9.720	SHIZUOKA, JAPAN	18.84	CA-MN-MG-FE SI-AL O OH	L
650191201HEXAGONAL						
650191301REF:KATO, 1967	60	9.45	100	7.69	5	25
650191401	18.8					
650191402	5.03	2	4.70	4.33	2	10
650191403	4.12	5	3.84	3.77	70	10
650191404	3.44	10	3.35	3.14	60	2
650191405	2.98	2	2.942	2.839	20	1
650191406	2.690	20	2.639	2.562	5	5
650191407	2.434	5	2.268	2.235	10	5
650191408	1.920	5	1.892	1.838	10	5
650191409	1.759	10	1.751	1.716	5	1
650191410	1.620	5	1.588	1.569	2	2
650191411	1.544	1	1.508	1.450	10	5

650192001SIZ	ANALCINE	13.70	NA AL SI2 O6 H2O	L
650192201CUBIC				
650192301REF: KLITCHENKO AND SUPRICHOV, 1974	211 30	5.61	211 70	4.86
650192401	6.21			
650192402	3.68	321 20	400100	3.24
650192403	2.93	332 90	422 20	2.69
650192404	2.42	440 20	530 10	2.35
650192405	2.22	532 40	620 10	2.016
650192406	1.862	552 60	732 80	1.738
650192407	1.685	741 30	554 30	1.660
650192408	1.615	822 10	660 10	1.595
650192409	1.560	932 10	763 10	1.498
650192410	1.467	921 30	664 10	1.439
650192411	1.413	932 60	763 60	1.383
650192412	1.357	10.1 60	772 60	1.309
650192413	1.284	871 50	855 50	1.260
650192414	1.221	963 60	11.3.2 40	1.184
650192415	1.165	875 30	1.126 10.5.5 10	1.165

650193001SIZ FERRIERITE		14.14	19.12	7.48	(NA-K)4 NG2 AL6 SI30 O72 (OH)2 18H2O	L
650193201ORTHORHOMBIC		14.14	19.12	7.48		
650193301REF: KLITCHENKO AND SUPRICHON, 1974		14.14	19.12	7.48	S. DONBASU, USSR	
650193401	9.60	110100	7.03	020 50	7.03	101 50
650193402	3.96	321 80	3.96	031 80	3.88	411 20
650193403	3.75	002 50	3.65	510 80	3.52	112100
650193404	3.44	202 20	3.30	240 30	3.12	141 30
650193405	3.04	521 20	3.04	431 20	2.96	530 20
650193406	2.87	132 10	2.41	10	2.21	10
650193407	2.03	10	1.922	10	1.867	10
650193408	1.624	10	1.545	10	1.493	10
650193409	1.416	10				
650194001SIZ CLINOPILOLITE-K					NA-K-CA-NG-AL-FE-SI O72 15H2O	L
650194201MONOCLINIC						
650194301REF: UTADA AND MINATO, 1969					ITAYA, JAPAN	
650194401	9.06	60	7.99	30	6.82	10
650194402	5.27	10	5.12	20	4.54	20
650194403	3.85	20	3.467	70	3.347	40
650194404	3.184	40	2.990	40	2.976	40
650194405	2.742	10	2.528	10		
650195001SIZ FERRIERITE					NA-K-NG-AL-SI O72 (OH)2 18H2O	L
650195201ORTHORHOMBIC						
650195301REF: ZIRKL, 1973					STYRIA, AUSTRIA	
650195401	11.41	110 30	9.61	200 90	7.05	202 50
650195402	5.82	310 40	4.56	130 10	3.98	321100
650195403	3.79	330 50	3.71	510 40	3.55	112 90
650195404	3.39	501 10	3.31	240 40	3.15	141 50
650196001SIZ WELLSITE*					(BA CA K2) AL2 SI3 O10 3H2O	L
650196201						
650196301REF: CERNY, 1960					VEZNA, CZECHOSLOVAKIA	
650196401	8.10	30	7.20	30	6.40	30
650196402	4.07	80	3.153	100	2.903	20
650196403	2.501	30	2.342	30	2.217	10
650196404	2.040	30	1.939	30	1.802	10
650196405	1.699	50	1.667	10	1.635	10
650196406	1.528	30	1.474	20	1.420	10
650196407	1.321	20	1.263	20	1.209	10

650197001SIZ CLINOPTILOLITE				(NA-K) CA AL SI 072 24H20				L	
650197201MONOCLINIC									
650197301REF:FUJIWARA AND SHOYA, 1975				SOUTHWEST HOKKAIDO, JAPAN					
650197401	9.02	60	7.97	40	6.76	35	6.66	34	
650197402	5.91	29	5.25	35	5.12	40	4.65	39	
650197403	4.48	30	4.33	37	3.98	100	3.75	35	
650197404	3.56	35	3.48	35	3.43	50	3.12	34	
650197405	3.09	34	3.04	27	2.98	50	2.90	24	
650197406	2.81	36	2.75	27	2.68	23	2.52	27	
650197407	2.44	24	2.40	20	2.36	19	2.29	17	
650198001SIZ MORDENITE				NA-K-CA AL2 SI10 024 7H20				L	
650198201ORTHORHOMBIC									
650198301REF:FUJIWARA AND SHOYA, 1975				SOUTHWEST HOKKAIDO, JAPAN					
650198401	13.60	20	9.03	15	6.61	47	6.37	25	
650198402	6.07	22	5.79	25	5.09	17	4.87	14	
650198403	4.53	50	4.13	25	4.00	80	3.84	30	
650198404	3.77	25	3.62	20	3.56	24	3.48	100	
650198405	3.38	58	3.30	28	3.22	75	3.13	24	
650198406	2.98	24	2.89	35	2.74	15	2.68	12	
650198407	2.63	13	2.56	16	2.52	30	2.49	20	
650198408	2.43	12	2.34	10					
650199001SIZ CLINOPTILOLITE				NA-K-CA-MG AL SI 0 7H20				L	
650199201MONOCLINIC									
650199301REF:NUMPTON, 1960				HECTOR, CALIFORNIA					
650199401	9.00	100	7.94	40	6.77	30	6.64	20	
650199402	5.91	10	5.24	30	5.11	10	4.69	20	
650199403	4.48	20	4.34	20	3.96	100	3.90	80	
650199404	3.83	10	3.73	10	3.55	20	3.46	20	
650199405	3.42	60	3.12	30	3.07	20	3.04	20	
650199406	2.97	50	2.87	10	2.82	30	2.80	10	
650199407	2.73	10	2.72	10	2.68	10	2.44	10	
650199408	2.42	10	2.38	10	2.29	10			

6502000001SIZ HEULANDITE		(CA NA2)4 AL8 SI28 072 24H20		L
650200201MONOCLINIC				
650200301REF:NUMPTON, 1960				
650200401	8.90	100	7.94	20 6.80 10 6.63 10
650200402	5.92	10	5.58	10 5.24 10 5.09 10
650200403	4.89	10	4.69	20 4.45 20 4.36 10
650200404	3.97	20	3.89	30 3.83 10 3.71 20
650200405	3.56	20	3.47	10 3.40 20 3.12 10
650200406	3.07	10	3.03	10 2.97 40 2.80 10
650200407	2.72	10	2.67	10 2.48 10 2.43 10
650200408	2.35	10	2.28	20
650201001SIZ LAUNONTITE				
650201201MONOCLINIC				
650201301REF:KOPORULIN, 1972 KANCHATKA, USSR				
650201401	9.10	100	7.70	5 6.7 70 6.10 20
650201402	5.00	40	4.68	20 4.42 50 4.14 100
650201403	3.91	5	3.62	20 3.47 100 3.36 30
650201404	3.23	30	3.12	30 3.00 50 2.86 30
650201405	2.86	30	2.76	30 2.56 40 2.51 30
650201406	2.419	50	2.337	30 2.248 20 2.195 10
650201407	2.136	50	2.081	20 2.032 5 1.990 20
650201408	1.943	40		

650202001SIZ PAULINGITE	NA-MG-BA-FE-CA AL SI O 14H2O										L
650202201CUBIC	35.10										
650202301REF:KAMB AND OKE, 1960	VENATCHEE, WASHINGTON										
650202401	12.37	220 10	9.45	321 10	8.29	411100	8.29	330100			
650202402	7.86	420 10	7.14	422 20	6.88	510100	6.88	431100			
650202403	6.21	440 40	5.86	600 50	5.86	442 50	5.70	611 50			
650202404	5.70	532 50	5.42	541 30	4.96	710 50	4.96	550 50			
650202405	4.96	543 50	4.78	721 90	4.78	633 90	4.78	552 90			
650202406	4.68	642 30	4.385	800 40	4.25	820 40	4.25	644 40			
650202407	4.08	831 40	4.08	750 40	4.08	743 40	3.875	910 40			
650202408	3.875	833 40	3.694	930 20	3.694	851 20	3.694	754 20			
650202409	3.582	844 80	3.440	10.2.0 10	3.440	862 10	3.346	10.3.1 80			
650202410	3.346	952 80	3.346	765 80	3.261	10.4.0 90	3.261	864 90			
650202411	3.176	11.1.0 20	3.176	954 20	3.176	873 20	3.129	11.2.1 70			
650202412	3.129	10.5.1 70	3.129	963 70	3.078	11.3.0 90	3.078	970 90			
650202413	2.983	80	2.851	20	2.789	20	2.725	60			
650202414	2.615	70	2.574	10	2.520	20	2.484	10			
650202415	2.448	10	2.046	30	2.010	30	1.774	60			
650202416	1.290	30	1.286	10	1.253	10	1.181	20			
650202417	1.168	10	1.068	20	1.030	20	1.017	10			
650202418	.979	20									

650203001SIZ TRUSCOTTITE	CA-MG-K-NA AL SI O (OH)										L
650203201HEXAGONAL	9.72 18.71										
650203301REF:JUAN AND OTHERS, 1970	KUANSHAN, TAITUNG, JAPAN										
650203401	18.80	31	9.40	78	6.32	9	5.06	2			
650203402	4.74	10	4.13	2	3.80	44	3.46	6			
650203403	3.16	100	2.84	6	2.65	4					
650204001SIZ XONOTILITE	CA6 (SI6 O17) (OH)										L
650204201MONOCLINIC											
650204301REF:JUAN AND OTHERS, 1970											
650204401	7.02	001 52	4.26	211 56	3.64	020 72	3.64	410 72			
650204402	3.24	202100	3.24	021100	3.08	302100	2.83	321 60			
650204403	2.70	420 56	2.51	022 28	2.51	412 28	2.34	003 20			
650204404	2.26	203 12	2.26	701 12	2.04	40	1.95	40			

650205001SIZ YUGAWARALITE		CA (AL2 Si5 O14) 4H2O				L
650205201MONOCLINIC		6.73	13.95	10.03	111.50	
650205301REF:BARRER AND MARSHALL, 1965 SOUTHEAST ICELAND						
650205401	7.79	011 20	6.99	020 60	6.26	100 25 5.82 11-1 90
650205402	5.62	021 5	4.68	002 85	4.65	10-2 85 4.45 012 10
650205403	4.41	11-2 30	4.30	111 65	4.18	031 30 3.89 022 15
650205404	3.87	12-2 5	3.78	121 20	3.75	130 5 3.75 13-1 5
650205405	3.30	032 5	3.27	041 5	3.235	131 55 3.198 20-2 10
650205406	3.135	200 20	3.056	140100	2.997	12-3 10 2.937 122 30
650205407	2.907	22-2 60	2.864	220 10	2.763	141 30 2.720 21-3 35
650205408	2.706	13-3 5	2.680	051 25	2.650	132 20 2.638 23-2 15
650205409	2.603	230 5	2.573	22-3 15	2.562	15-1 5 2.513 10-4 15
650205410	2.513	221 15	2.474	11-4 15	2.428	24-1 15 2.407 14-3 10
650205411	2.368	142 20	2.360	24-2 10	2.338	004 10 2.197 31-1 5
650205412	2.153	25-1 5	2.138	15-3 5	2.106	25-2 10 2.092 300 25
650205413	2.018	33-2 10	2.005	33-1 15	1.977	11-5 10 1.977 25-3 10
650205414	1.958	30-4 15	1.934	24-4 20	1.934	31-4 20 1.909 330 10
650205415	1.900	170 25	1.883	26-2 5		

650206001SIZ HEULANDITE*		CA-SR-K-AL-SI 072 26H2O				L
650206201MONOCLINIC		17.73	17.82	7.43	116.33	
650206301REF:NERKLE AND SLAUGHTER, 1968 GIEBELSBACH, WALLIS, SWITZERLAND 21-131						
650206401	8.845	020 80	7.796	200 70	6.631	001 60 5.945 220 10
650206402	5.277	-311 50	5.096	310 70	4.646	-131 60 4.364 -401 20
650206403	3.917	421100	3.723	-241 20	3.562	-321 20 3.420 -222 70
650206404	3.320	004 10	3.186	-422 50	3.132	510 40 2.959 350 90
650206405	2.805	530 70	2.805	-621 70	2.730	-532 40 2.667 042 10
650206406	2.529	-152 20	2.430	261 30	2.430	441 30 2.430 -712 30
650206407	2.350	-223 10	2.270	-603 10	2.196	-623 10 2.120 730 20
650206408	2.078	-172 20	2.010	-752 20	2.010	-753 20 1.963 -841 30
650206409	1.963	-572 30	1.850	082 10	1.814	840 10 1.770 -102 30
650206410	1.770	243 30	1.722	-2101 10	1.722	0101 10 1.698 -951 20
650206411	1.698	-1-021 20	1.662	004 10	1.639	-554 10 1.639 024 10
650206412	1.608	713 10	1.608	-2102 10	1.585	-143 10 1.561 -154 10
650206413	1.561	-881 10	1.561	-882 10	1.512	-193 10 1.512 -1-131 10
650206414	1.473	-5111 10	1.473	-1-063 10	1.449	-793 10 1.449 0121 10
650206415	1.431	-1-151 10	1.401	1060 10	1.401	-6103 10 1.360 -1-105 10

650207001SIZ EPISTILBIIE		CA-NA-K-MG-AL-SI 048 15H20		L	
650207201MONOCLINIC		9.04	17.73	9.08	
650207301REF:SLAUGHTER AND KANE, 1969		BERUFJORD, ICELAND DISORDERED			
650207401	8.84	020 57	8.453	110 2 6.930 -111 37 4.920	111 59
650207402	4.630	-131 9	4.490	-201 13 4.340 -112 22 4.013	-221 9
650207403	3.917	041 5	3.878	131 68 3.818 003 5 3.749	-202 5
650207404	3.541	-132 5	3.446	-222100 3.332 201 14 3.270	-150 22
650207405	3.214	-151 54	3.063	240 9 3.063 042 9 2.958	060 10
650207406	2.920	151 39	2.860	-242 33 2.793 061 9 2.690	023 18
650207407	2.554	202 16	2.554	330 16 2.460 222 7 2.425	152 16
650207408	2.425	170 16	2.220	080 7 2.220 242 7 2.193	172 4
650207409	2.193	350 4	2.095	-403 5 2.052 420 6 2.052	420 6
650207410	2.000	351 9	2.000	153 9 1.961 280 3 1.961	082 3
650207411	1.942	-371 5	1.942	-173 5 1.910 -282 1 1.872	-404 9
650207412	1.839	191 4	1.776	-225 17	

650208001SIZ CLINOPTILOLITE		CA-NA-K AL-FE-SI 072 23H20		L	
650208201MONOCLINIC		17.6	17.9	7.4	
650208301REF:BROWN AND OTHERS, 1969		BUCKINGHAMSHIRE, ENGLAND			
650208401	12.0	20	8.98	90 7.96 80 6.84	60
650208402	6.65	40	5.95	40 5.59 20 5.25	60
650208403	5.12	70	4.66	70 4.49 20 4.36	60
650208404	3.97	100	3.91	50 3.83 20 3.72	50
650208405	3.56	60	3.43	70 3.41 30 3.17	60
650208406	3.12	50	3.07	50 3.02 10 2.97	70
650208407	2.89	10	2.804	70 2.735 50 2.674	40
650208408	2.561	30	2.528	30 2.455 20 2.423	40
650208409	2.392	10	2.356	30 2.318 10	

650209001SIZ CLINOPTILOLITE		CA-NA-K AL-SI-FE 072 23H20		L	
650209201MONOCLINIC		17.6	17.9	7.4	
650209301REF:BROWN AND OTHERS, 1969		KENT, ENGLAND			
650209401	9.06	80	7.96	70 6.82 50 6.68	40
650209402	5.97	30	5.59	10 5.27 60 5.11	60
650209403	4.67	60	4.36	40 3.97 100 3.92	60
650209404	3.72	50	3.56	60 3.43 70 3.17	70
650209405	3.12	40	3.07	40 2.97 70 2.89	10
650209406	2.805	70	2.743	60 2.679 40 2.557	30
650209407	2.528	30	2.464	50 2.429 50 2.358	30

650210001SIZ CLINOPTILOLITE	(NA K)5 (CA NG) AL6 SI31 072 19H20	L
650210201MONOCLINIC	7.46 17.84 15.88 91.433	
650210301REF:NASON AND SAND, 1960	PATAGONIA, ARGENTINA	
650210401 8.96	100 7.94 60 6.80 40 5.13	60
650210402 4.65	40 4.35 40 3.97 100 3.72	40
650210403 3.55	40 3.43 60 3.33 20 3.18	40
650210404 2.98	80 2.81 60 2.74 40 2.68	20
650210405 2.54	40 2.44 40 2.36 20	
650211001SIZ EUCRYPTITE	LI-FE-NG AL-SI -0	L
650211201HEXAGONAL		
650211301REF:ROSSOVSKIY, 1971	U S R	
650211401 4.15	60 3.72 30 3.34 100 3.04	10
650211402 2.77	30 2.54 30 2.26 10 2.12	10
650211403 1.988	20 1.821 30 1.797 30 1.546	30
650211404 1.500	20 1.377 70 1.321 10 1.293	20
650211405 1.232	10 1.200 10 1.183 20 1.153	10
650211406 1.119	10 1.082 20 1.050 20 1.037	10
650211407 1.016	20 0.989 20	
650212001SIZ OFFREITE	K-CA-NG AL-SI-0 H20	L
650212201HEXAGONAL	13.291 7.582	
650212301REF:SHEPPARD AND GUDE, 1969-A	MONTBRISON, FRANCE	
650212401 11.50	100100 6.64 110 20 5.76 200 35 4.581 201 4	
650212402 4.352	210 59 3.837 300 43 3.774 211 11 3.600 102 3	
650212403 3.429	301 2 3.322 220 22 3.190 310 17 2.942 311 3	
650212404 2.880	400 64 2.858 212 15 2.693 401 3 2.642 320 4	
650212405 2.510	410 20 2.300 500 5 2.214 330 22 2.177 420 2	
650212406 2.126	331 4 2.110 303 2 2.091 421 2 2.068 510 2	
650212407 1.995	511 2 1.967 502 2 1.893 430 1 1.844 520 3	
650212408 1.838	431 5	



650213001S1Z ERIONITE	(NA-K-CA) AL-SI 072 27H20	L
650213201HEXAGONAL	13.214	
650213301REF:SHEPPARD AND GUDE, 1969-A	15.041	
650213301REF:SHEPPARD AND GUDE, 1969-A	TECOPA, CALIFORNIA	
650213401 11.41	100100 9.07	101 11 7.51 002 7 6.61 110 73
650213402 6.28	102 5 5.72	200 16 5.34 201 14 4.595 103 8
650213403 4.551	202 12 4.322	210 67 4.156 211 24 3.813 300 37
650213404 3.746	212 65 3.570	104 24 3.402 302 4 3.303 220 39
650213405 3.276	213 25 3.271	114 25 3.106 311 12 2.923 312 10
650213406 2.910	105 10 2.860	400 60 2.839 214 50 2.812 401 52
650213407 2.680	402 12 2.676	304 15 2.673 205 8 2.496 410 20
650213408 2.480	224 17 2.200	330 11 2.113 107 6 2.079 422 5
650213409 1.982	512 4 1.882	430 6 1.834 520 8
650214001S1Z CLINOPTILOLITE	(NA-K) CA-AL-SI 072 24H20	L
650214201MONOCLINIC		
650214301REF:HATHAWAY AND SACHS, 1965	MID ATLANTIC RIDGE	
650214401 9.0	100 7.96	61 6.78 14 5.92 14
650214402 5.25	12 5.12	31 4.65 18 4.49 10
650214403 4.35	6 3.96	71 3.91 34 3.83 4
650214404 3.70	9 3.55	11 3.50 9 3.42 25
650214405 3.16	21 3.12	10 3.07 10 3.035 18
650214406 2.965	31 2.900	4 2.795 22 2.730 9
650214407 2.430	6	
650215001S1Z CLINOPTILOLITE	(NA-K) CA-AL-SI 072 24H20	L
650215201MONOCLINIC		
650215301REF:AOKI, 1974	KUROKO, JAPAN	
650215401 9.00	100 7.94	40 6.80 20 6.64 10
650215402 5.92	10 5.24	20 5.12 30 4.65 20
650215403 4.50	10 4.36	10 3.97 100 3.90 60
650215404 3.85	10 3.73	10 3.56 20 3.43 40
650215405 3.16	40 3.08	20 2.97 50 2.80 40
650215406 2.73	20 2.68	10 2.44 10 2.02 10
650215407 1.96	10 1.77	10 1.69 10

650216001SIZ FAUJASITE	24.65	NA2 AL2 SI5 013 NH20	L
650216201CUBIC			
650216301REF:BARRER AND OTHERS, 1959	111100 8.70	SASBACH KAISERSTUHL, GERMANY	11-672
650216401 14.3	111100 8.70	220 80 7.38 311 80 5.66	331100
650216402 4.76	511 80 4.36	440 80 4.16 531 20 3.90	620 20
650216403 3.76	533100 3.44	551 20 3.29 642 80 3.19	731 20
650216404 3.01	733 20 2.93	660 80 2.81 555 80 2.75	840 60
650216405 2.69	842 20 2.61	664 60 2.58 931 40 2.51	844 20
650216406 2.37	1022 70 2.29	1040 20 2.17 880 60 2.15	955 20
650217001SIZ GONNARDITE		CA NA4 SI6 AL4 020 7H20	L
650217201ORTHORHOMBIC	13.38 13.38 6.66		
650217301REF:NEIXNER AND OTHERS, 1956		CHAUX DE BERGONNE FRANCE 10-473	
650217401 6.70	001 60 6.70	200 60 5.93 210 80 5.93	101 80
650217402 5.25	111 20 4.74	220 50 4.74 201 50 4.44	300 60
650217403 4.44	211 60 4.22	310 30 3.69 301 10 3.52	311 5
650217404 3.23	410 50 3.23	321 50 3.23 102 50 3.12	112 40
650217405 2.92	41100 2.92	212100 2.61 510 40 2.61	312 40
650217406 2.48	520 40 2.48	501 40 2.36 440 20 2.33	521 5
650217407 2.28	20 2.22	40 2.16 5 2.12	10
650217408 2.07	20 1.98	20 1.895 30 1.851	20
650217409 1.818	30 1.759	30 1.697 20 1.647	40
650217410 1.607	20 1.548	20 1.486 30 1.442	20
650217411 1.398	20 1.348	10 1.323 30 1.291	10
650217412 1.262	5 1.237	30 1.202 10 1.178	5
650218001SIZ OKENITE		CA SI2 05 2H20	L
650218201TRICLINIC	9.84 7.20 21.33 90.00 103.9 111.5		
650218301REF:HELLER AND TAYLOR, 1956		BOMBAY INDIA 9-469	
650218401 21.0	001100 10.30	002 20 8.80 200 80 7.40	201 40
650218402 6.80	110 20 6.19	20-3 30 5.79 11-2 10 5.22	004 30
650218403 4.42	400 30 4.27	311 10 4.08 401 20 3.90	114 20
650218404 3.56	405 80 3.56	021 80 3.34 22-1 10 3.34	220 10
650218405 3.22	510 10 3.22	51-3 10 3.07 -602 60 3.07	20-7 60
650218406 3.05	60-1 60 2.98	50 2.93 80 2.80	30
650218407 2.77	50 2.68	20 2.53 30 2.44	10
650218408 2.38	20 2.30	20 2.24 30 2.20	30
650218409 2.15	40 1.98	20 1.91 20 1.89	30
650218410 1.84	20 1.80	60 1.77 20 1.74	10
650218411 1.71	10		

650219001SIZ HARNOTONE	9.87	14.14	8.71	(BA NA) (SI AL)8 016 6H20	L
650219201MONOCLINIC				124.75	
650219301REF:SAHAMA AND LEHTINEN, 1968				KORSNAS NINE, FINLAND	20-468
650219401	8.10	100 40	7.16	001 50 6.38	011100 5.03
650219402	4.30	-102 40	4.30	101 40 4.08	200 60 4.08
650219403	3.90	-212 30	3.90	210 30 3.47	012 10 3.24
650219404	3.20	-301 10	3.17	131 60 3.17	041 60 3.13
650219405	3.13	-311 80	3.08	-232 40 3.08	230 40 2.920
650219406	2.847		20 2.751	20 2.730	60 2.698
650219407	2.670		70 2.630	20 2.527	20 2.470
650219408	2.374		20 2.315	20 2.148	20 2.058
650219409	1.953		10 1.713	20 1.675	20

650220001SIZ MOUNTAINITE	13.51	13.10	13.51	(CA NA2 K2)2 SI4 010 3H20	L
650220201MONOCLINIC				104.0	
650220301REF:GARD AND OTHERS, 1957				KIMBERLEY, SOUTH AFRICA	25-676
650220401	13.10	001 80	6.60	20-1 90 6.60	200 90 5.90
650220402	5.90	120 20	5.40	201 20 5.4	20-2 20 4.67
650220403	4.67	22-1 80	4.18	221 60 4.18	22-2 60 3.74
650220404	3.66	023 40	3.66	320 40 3.36	123 50 3.30
650220405	3.30	20-4 40	3.28	400 50 3.28	040 50 3.18
650220406	3.04	12-4 20	2.94	420100 2.94	024100 2.80
650220407	2.65	40	2.54	40 2.42	20 2.32
650220408	2.23	20	2.11	50 1.967	70 1.882
650220409	1.820	40	1.719	60 1.678	20 1.639
650220410	1.578	20	1.495	10 1.463	50 1.436
650220411	1.391	20	1.363	10 1.342	10 1.323
650220412	1.261	40	1.226	20 1.187	20 1.162

650221001SIZ GHELINITE		(NA2 CA) AL2 Si4 O12 6H2O				L
650221201HEXAGONAL		9.95				
650221301REF:STRUNZ, 1956		9-419				
650221401 12.00		101 60 6.81				110 40 5.99 200 10
650221402 5.07		102 20 4.53				210 20 4.10 211100
650221403 3.44		220 20 3.22				302 5 2.96 400 80
650221404 2.96		113 80 2.85				222 60 2.67 213 60
650221405 2.57		402 10 2.292				20 2.196 5 2.076 40
650221406 1.989		5 1.941				10 1.807 40
650221407 1.722		40 1.678				20 1.631 5 1.598 5
650221408 1.580		20 1.519				5 1.482 20 1.465 20
650221409 1.435		5 1.412				30 1.388 20 1.370 5
650221410 1.349		5 1.324				40 1.296 30 1.282 10
650221411 1.245		20 1.236				

650222001SIZ GYROLITE		CA4 (Si6 O15) (OH)2 3H2O				L
650222201HEXAGONAL		9.72				
650222301REF:ASSARSSON, 1957		12-217				
650222401 22.00		006 90 11.10 0.0.12 70 9.50 0.0.14 10				6.13 1.0.15 30
650222402 8.36		100 40 7.87 106 40 7.67 107 40				4.45 1.1.12 30
650222403 5.49		1.0.18 10 4.76 116 40 4.67 117 30				3.902 1.0.30 30
650222404 4.34		1.1.14 10 4.20 200 70 4.06 1.1.18 10				3.475 30
650222405 3.800		2.0.15 10 3.724 50 3.551 30				2.834 70
650222406 3.160		0.0.42100 3.097 90 3.005 10				2.555 30
650222407 2.795		50 2.679 50 2.643 50				2.189 10
650222408 2.424		50 2.384 10 2.283 10				1.919 30
650222409 2.128		10 2.063 30 2.016 30				1.740 30
650222410 1.830		60 1.800 50 1.765 30				

650223001SIZ DACHIARDITE*		(CA NA K)4 (SI AL)24 048 13H20		L
650223201MONOCLINIC		18.685	7.495	10.26
650223301REF:GALLI, 1965 ELBA, ITALY		18-467		
650223401	9.79	001 10	8.90	200 50
650223402	5.35	111 20	4.97	-202 50
650223403	4.45	400 10	4.23	-112 10
650223404	3.801	202 50	3.773	112 20
650223405	3.498	021 20	3.452	220100
650223406	3.328	-511 35	3.204	510100
650223407	3.077	-113 10	3.018	-313 20
650223408	2.862	402 50	2.862	420 50
650223409	2.607	421 10	2.550	-204 50
650223410	2.449	-712 20	2.449	023 20
650223411	2.387	512 20	2.387	-621 20
650223412	2.273	-713 10	2.273	-514 10

650224001SIZ GARRONITE*		NA2 CA5 AL12 SI20 064 27H20		L
650224201TETRAGONAL		9.90	10.17	
650224301REF:BARRER AND OTHERS, 1959		16-148		
650224401	7.15	101 80	4.95	200 80
650224402	3.22	103 60	3.14	301100
650224403	2.68	213 10	2.66	312100
650224404	2.34	411 20	2.34	330 20
650224405	2.05	224 10	2.03	422 6
650224406	1.805	512 20	1.805	521 20
650224407	1.730	305 10	1.730	441 10
650224408	1.665	424 10	1.645	116 40

650225001SIZ GARRONITE*		CA3 (SI AL)16 032 13H20		L
650225201TETRAGONAL		9.88	10.30	
650225301REF:TAYLOR AND ROY, 1964 SYNTHETIC		16-905		
650225401	7.13	101 80	4.95	200 60
650225402	3.24	103 40	3.14	301100
650225403	2.674	312 60	2.573	004 8
650225404	2.125	332 4	2.072	224 6
650225405	1.940	431 6	1.940	501 6
650225406	1.782	404 6	1.746	305 6
650225407	1.674	244 2	1.647	600 4
650225408	1.505	316 2	1.463	613 4
650225409	1.367	525 4	1.353	633 2

650226001SIZ LAUMONTITE*		CA AL2 Si4 O12 4H2O		L				
650226201MONOCLINIC		14.761	13.077	7.561	112.02			
650226301REF:LIQU, 1971		SYNTHETIC 16-1047						
650226401	9.50	110 60	6.84	200 40	6.19	-201 9	5.04	111 12
650226402	4.72	220 17	4.49	-221 25	4.16	130100	3.77	-131 7
650226403	3.66	-401 35	3.51	002 80	3.40	131 13	3.36	-312 30
650226404	3.27	040 55	3.20	311 30	3.10	-402 2	3.03	420 35
650226405	2.95	240 7	2.880	-511 25	2.798	-422 25	2.649	-512 2
650226406	2.631	331 2	2.579	241 25	2.539	132 3	2.520	222 4
650226407	2.519	-203 10	2.457	-601 8	2.441	-441 25	2.392	-403 3
650226408	2.359	151 13	2.271	350 9	2.219	-622 10	2.180	060 9
650226409	2.154	620 13	2.090	332 6	1.992	-533 5	1.961	601 11
650226410	1.890	-731 2						

650227001SIZ PHILLIPSITE*		K2 CA2 (AL SI)16 O32 14 H2O		L				
650227201MONOCLINIC		9.874	14.306	14.362	90.0			
650227301REF:GALLI AND GHITTONI, 1972		ROME, ITALY 26-1310						
650227401	8.14	101 40	7.18	002100	7.16	020100	6.43	012 60
650227402	5.38	121 60	5.07	022 60	4.94	200 70	4.30	103 60
650227403	4.12	113 80	4.12	131 80	4.07	202 60	4.07	220 60
650227404	3.69	123 20	3.48	014 40	3.28	141 80	3.21	301100
650227405	3.21	024100	3.13	311100	3.09	232 40	2.930	321 70
650227406	2.900	204 40	2.900	240 40	2.870	034 20	2.848	214 20
650227407	2.754	105 80	2.754	143 80	2.706	115100	2.700	151100
650227408	2.693	224 80	2.688	242 80	2.660	313 70	2.660	331 70
650227409	2.573	125 40	2.537	323 50	2.532	044 50	2.470	400 40
650227410	2.340	252 60	2.298	412 40	2.238	054 40	2.158	343 50
650227411	2.076	325 20	2.056	226 20	2.056	262 20	2.006	107 20
650227412	1.954	501 20	1.910	361 40	1.885	521 20	1.835	056 20
650227413	1.788	008 80	1.719	406 60	1.714	460 60	1.684	066 60
650227414	1.668	426 60	1.665	462 60	1.644	600100	1.603	365 80
650227415	1.538	472 60	1.489	193 60	1.465	624 60	1.441	149 20
650227416	1.409	0210 60	1.403	50	1.379	644 40	1.375	0310 60
650227417	1.372	393 70	1.284	2410 60				

650228001SIZ STILBITE*		NA CA2 AL5 SI13 036 14H20		L	
650228201MONOCLINIC		13.681	18.128	11.300	129.13
650228301REF:AUMENTO,1966		NOVA SCOTIA, CANADA 18-1203			
650228401	9.04	001100	9.04	020100	5.43
650228402	5.30	-131 12	4.65	220 40	4.28
650228403	4.07	041 95	3.73	-203 14	3.40
650228404	3.19	-403 18	3.04	-152 70	3.04
650228405	2.826	241 4	2.780	-314 35	2.704
650228406	2.567	-441 12	2.516	170 8	2.483
650228407	2.317	360 4	2.270	072 2	2.167
650228408	2.065	-173 8	2.029	-464 10	1.899
650228409	1.873	054 2	1.826	-606 18	1.811
650228410	1.667	-575 4	1.667	204 4	1.640
650228411	1.591	-466 8	1.555	-537 8	1.517
650228412	1.442	4	1.412	2	1.392
650228413	1.305	4	1.279	2	1.255
650228414	1.225	2	1.208	2	1.141
650228415	1.066	2			

650229001SIZ WAIRAKITE*		CA AL2 (SI 08)4 2H20		L	
650229201MONOCLINIC		13.69	13.68	13.56	90.5
650229301REF:COOMBS, 1955		NORTH ISLAND, NEW ZEALAND 7-326			
650229401	6.85	200 40	5.57	211 80	4.84
650229402	3.42	400 60	3.39	100	3.21
650229403	3.06	420 10	2.909	332 50	2.897
650229404	2.770	422 10	2.680	431 40	2.670
650229405	2.489	521 40	2.418	440 30	2.35
650229406	2.215	611 40	2.215	532 40	2.17
650229407	2.115	541 10	2.095	541 5	1.996
650229408	1.867	633 10	1.857	633 30	1.844
650229409	1.708	800 5	1.695	800 5	1.680

650230001SIZ NATROLITE*	18.284	18.620	6.592	NA2 AL2 Si3 O10 2H2O	L
650230201ORTHORHOMBIC	18.284	18.620	6.592		
650230301REF: CERNY AND POVONDRÁ, 1966				N.E. MORAVIA, CZECHOSLOVAKIA 19-1185	
6502303401	6.49	220100	5.90	111 65 4.65	040 40 4.56 400 25
6502303402	4.37	131 25	4.35	311 30 4.15	240 50 4.10 420 25
6502303403	3.63	331 4	3.27	440 10 3.20	151 20 3.15 511 25
6502303404	3.10	022 14	3.10	202 14 2.945	260 18 2.945 222 18
6502303405	2.860	351 45	2.837	531 35 2.569	460 10 2.569 422 10
6502303406	2.441	171 12	2.406	711 18 2.321	080 8 2.321 442 8
6502303407	2.288	800 6	2.256	280 6 2.231	602 4 2.189 262 10
6502303408	2.174	660 18	2.071	480 4 2.048	840 6 2.048 313 6
6502303409	1.960	333 4	1.907	911 4 1.872	513 6 1.824 822 6
6502303410	1.797	533 10	1.793	771 16 1.754	482 4 1.737 842 6
6502303411	1.724	951 12	1.701	12 1.677	4 1.648 004 6
650231001SIZ CHABAZITE				(CA NA2) AL2 Si4 O12 6H2O	L
650231201HEXAGONAL					
650231301REF: SEKI AND OTHERS, 1971				TANZANIA MTS., JAPAN	
650231401	9.30	55	6.90	20 6.34	10 5.55 25
650231402	4.99	35	4.317	100 3.864	20 3.571 45
650231403	3.440	20	3.025	10 2.922	100 2.774 10
650231404	2.678	10	2.603	15 2.497	20
650232001SIZ LAUNONTITE				CA AL2 Si4 O12 4H2O	L
650232201MONOCLINIC					
650232301REF: SEKI AND OTHERS, 1971				TANZANIA MOUNTAINS, JAPAN	
650232401	9.56	100	6.94	60 6.23	10 5.12 10
650232402	4.77	15	4.49	10 4.185	70 3.663 30
650232403	3.527	20	3.443	10 3.290	30 3.204 30
650232404	3.068	20	2.890	15 2.784	10 2.567 5
650233001SIZ STILBITE				(CA NA2 K2)4 AL8 Si28 O72 28H2O	L
650233201MONOCLINIC					
650233301REF: SEKI AND OTHERS, 1971				TANZANIA MOUNTAINS, JAPAN	
650233401	9.10	100	8.90	15 5.30	10 4.65 30
650233402	4.286	15	4.143	100 4.000	5 3.732 15
650233403	3.451	15	3.407	5 3.184	50 3.021 70
650233404	2.770	25	2.653	15 2.593	10 2.258 30



650234001SIZ	CHABAZITE-SR	NA-K-CA-SR AL SI 024 1H20	L
650234201HEXAGONAL	13.73	15.10	
650234301REF:CERNY AND POVONDRÁ, 1965		BOJKOVICE, MOROVIA, CZECHOSLOVAKIA	
650234401	9.36	100 6.97	50
650234402	5.01	50 4.64	50
650234403	3.58	60 3.42	100
650234404	2.775	5 2.677	100
650234405	2.291	20 2.225	50
650234406	2.017	5 1.941	30
650234407	1.805	40 1.765	10
650234408	1.671	5 1.640	5
650234409	1.517	20 1.479	30
650234410	1.387	5 1.360	20
650234411	1.308	10 1.281	10
650234412	1.224	10 1.200	10
650234413	1.154	10	10

650235001SIZ	UAIKAKITE	CA AL2 SI4 O12 2H20	L
650235201MONOCLINIC			
650235301REF:DONNELLY, 1962		ST THOMAS, VIRGIN ISLANDS	
650235401	6.84	40 5.57	95
650235402	3.202	20 3.061	30
650235403	2.783	10 2.766	10
650235404	2.414	10 2.000	10
650235405	1.889	10 1.855	5
650235406	1.673	5	

650236001SIZ	CLINOPTILOLITE	TI-FE-MG-K-NA-CA AL-SI O72 16H20	L
650236201MONOCLINIC			
650236301REF:KASHKAI AND BABAEV, 1976		AZERBAIDZHAN, USSR	
650236401	8.90	60 7.40	10
650236402	4.61	20 4.40	60
650236403	2.98	70 2.430	10
650236404	1.729	20 1.690	30

650237001SIZ CLINOPTILOLITE	TI-FE-MG-K-NA-CA AL-SI 072 19H20	L
650237201MONOCLINIC		
650237301REF:KASHKAI AND BABAEV, 1976	AZERBAIDZHAN, USSR	
650237401 8.90	60 7.90	10 6.00 10
650237402 5.10	20 4.36	50 4.26 20 3.96 100
650237403 3.33	40 3.18	20 2.96 50 2.83 10
650237404 2.78	40 2.58	30 2.46 20 2.335 10
650237405 2.127	20 1.978	40 1.818 70 1.693 10
650237406 1.545	60	
650238001SIZ STILBITE*	(CA NA) (SI AL)3 018 8H20	L
650238201MONOCLINIC	13.64 18.24 11.27 128.0	
650238301REF:SIMONT-GRANGE AND OTHERS, 1970	ICELAND 24-894	
650238401 9.11	020 90 8.88	001 80 6.80 -201 40 6.36 021 40
650238402 5.43	-202 50 5.38	200 40 5.29 -131 50 5.29 130 50
650238403 5.23	-112 20 4.66	-222 80 4.63 220 80 4.55 040 5
650238404 4.44	002 50 4.28	-312 70 4.26 -311 50 4.06 -132100
650238405 4.06	041100 4.04	131100 3.99 022 60 3.74 -203 60
650238406 3.70	201 60 3.48	240 40 3.48 -223 40 3.40 402 80
650238407 3.40	-113 80 3.37	112 20 3.18 042 90 3.16 -401 40
650238408 3.11	-333 20 3.08	330 10 3.02 151 70 3.02 -152 70
650238409 2.996	-133 70 2.996	132 70 2.962 003 40 2.869 061 40
650238410 2.869	241 40 2.816	023 40 2.816 -352 40 2.771 -261 60
650238411 2.771	-314 60 2.713	-404 40 2.713 202 40 2.687 400 5
650238412 2.605	-424 20 2.605	-441 20 2.558 350 40 2.558 -353 40
650239001SIZ KEHOEITE	ZN-CA (AL02)16(P02)16(H302)16 32H20	L
650239201CUBIC	13.7	
650239301REF:MCCONNELL, 1964		
650239401 7.63	111 30 5.68	211 30 4.85 220 10 4.28 310 50
650239402 3.91	222 10 3.49	321 30 3.35 400100 3.13 330100
650239403 3.13	411100 2.96	332 10 2.816 422 20 2.708 431 30
650239404 2.708	510 30 2.223	532 20 2.223 611 20 2.078 541 10
650239405 1.993	631 20 1.916	543 70 1.916 550 70 1.816 642 20
650239406 1.749	651 10 1.749	732 10 1.669 644 10 1.669 820 10
650239407 1.633	653 60	

650240001SIZ FAUJASITE										NA2 AL2 SI5 O13 NH20										L
650240201CUBIC										24.67										
650240301REF:BRECK AND FLANIGEN, 1968										KAISERSTUHL, GERMANY										
650240401	14.418	111100	8.784	220	9	7.487	311	5	7.173	222	2									
650240402	5.695	331	30	5.062	422	1	4.772	333	13	4.772	511	13								
650240403	4.387	440	32	3.915	620	4	3.779	533	32	3.580	444	2								
650240404	3.468	711	5	3.468	551	5	3.311	642	16	3.227	731	5								
650240405	3.227	553	5	3.025	733	6	2.919	822	10	2.919	660	10								
650240406	2.860	751	22	2.860	555	22	2.767	840	5	2.719	911	3								
650240407	2.719	753	3	2.641	664	7	2.600	931	4	2.382	10.2.2	5								
650240408	2.382	666	5	2.189	880	3														
650241001SIZ BREUSTERITE										(SR BA CA)2 (AL O2)4(SI O2)12 10H20										L
650241201MONOCLINIC										6.77 17.51 7.74 94.3										
650241301REF:STRUNZ AND TENNYSON, 1956																				
650241401	6.81	100	30	6.15	110	90	4.98	-111	40	4.98	101	40								
650241402	4.53	-121	100	3.87	-131	70	3.71	140	10	3.71	131	10								
650241403	3.48	050	10	3.35	-141	10	3.35	-112	10	3.21	112	80								
650241404	3.02	201	10	2.885	060	90	2.885	-151	90	2.667	160	30								
650241405	2.667	240	30	2.549	003	30	2.549	-242	30	2.442	30	30								
650241406	2.309	30	30	2.243	30	2.191	20	2.103	30	2.103	30	30								
650241407	1.989	40	40	1.933	20	1.866	10	1.824	10	1.824	10	10								
650241408	1.771	10	10	1.728	10	1.642	40	1.595	20	1.595	20	20								
650241409	1.542	20	20	1.514	10	1.471	10	1.435	20	1.435	20	20								
650241410	1.386	20	20	1.359	20	1.324	20	1.302	20	1.302	20	20								
650241411	1.272	20	20																	
650242001SIZ BIKITAITE										LI2 (AL O2)2 (SI O2)4 2H20										L
650242201MONOCLINIC										8.61 4.96 7.61 114.43										
650242301REF:HURLBUT, 1957										SOUTHERN RHODESIA										
650242401	7.865	100	80	6.930	001	50	6.732	-101	30	4.374	101	40								
650242402	4.265	-201	10	4.195	110	90	4.022	001	20	3.991	-111	10								
650242403	3.926	200	10	3.806	-102	30	3.462	002	100	3.371	-202	100								
650242404	3.284	111	40	3.215	-211	40	3.076	210	40	3.023	-112	10								
650242405	2.930	201	10	2.870	-301	20	2.794	-212	10	2.739	102	10								
650242406	2.629	300	10	2.523	211	20	2.479	020	90	2.423	112	10								
650242407	2.364	120	20	2.364	312	20	2.337	021	10	2.323	-121	10								
650242408	2.316	310	10	2.240	-113	10	2.167	301	10	2.141	-221	10								
650242409	2.097	220	10	2.094	013	10	2.077	-122	20	2.012	022	10								
650242410	2.005	103	10																	

650243001SIZ ANALCINE										NA16 (AL 02)16 (SI 02)32 16H20										L
650243201CUBIC																				
650243301REF:COOMBS, 1955										13.72										
650243401	6.87	200 10	5.61	211 80	4.86	220 40	3.67	321 20												
650243402	3.43	400 100	2.925	332 80	2.801	422 20	2.693	431 50												
650243403	2.505	521 50	2.426	440 30	2.226	611 40	2.226	532 40												
650243404	2.168	620 10	2.115	541 10	2.022	631 10	1.940	543 10												
650243405	1.903	640 50	1.867	633 40	1.833	642 10	1.743	732 60												
650243406	1.743	651 60	1.716	800 30	1.689	741 40	1.664	820 10												
650243407	1.618	822 20	1.618	660 20	1.596	831 30	1.596	743 30												
650243408	1.498	842 20	1.480	761 20	1.463	664 10	1.447	754 10												
650243409	1.415	932 40	1.415	763 40	1.386	941 10	1.386	853 10												
650243410	1.372	860 10	1.359	1011 40	1.308	1031 10	1.285	871 20												
650243411	1.263	1033 20	1.220	963 30																
650244001SIZ VISEITE										NA CA5 AL10 (SI 04)3(P04)5(OH)14 16H20 L										
650244201CUBIC										13.65										
650244301REF:MCCONNELL, 1952																				
650244401	5.68	211 40	4.98	220 10	3.46	400 50	2.92	332100												
650244402	2.20	532 20	2.20	611 20	2.11	541 10	2.014	631 10												
650244403	1.886	640 30	1.740	651 60	1.740	732 60	1.380	10												
650244404	1.323	10	1.282	10	1.196	20	1.155	20												
650244405	1.138	10	1.105	10																
650245001SIZ ANICITE										K4 NA4 (AL8 SI8 O32) 10H20										L
650245201MONOCLINIC										10.226 10.422 9.884 88.32										
650245301REF:ALBERTI AND OTHERS, 1979										HOWENEGG, GERMANY										
650245401	7.295	110 55	7.195	101 10	7.195	011 10	5.108	200 40												
650245402	4.939	002 28	4.220	121 90	4.180	-121 40	4.120	-211 8												
650245403	4.050	-112 4	3.647	220 7	3.585	022 5	3.289	130 30												
650245404	3.238	310 45	3.141	013 80	2.965	222 10	2.759	321 35												
650245405	2.722	-321100	2.704	123 50	2.674	-312 20	2.605	040 40												
650245406	2.470	004 5	2.424	411 8	2.390	033 7	2.355	114 3												
650245407	2.324	-114 7	2.305	402 7	2.249	204 5	2.243	-402 7												
650245408	2.183	233 4	2.165	-332 3	2.112	242 10	2.090	-242 10												
650245409	2.025	431 5	2.006	510 3	1.997	314 3	1.941	015 3												
650245410	1.878	521 8	1.878	512 8	1.825	440 14	1.809	-125 5												
650245411	1.797	-215 2	1.778	350 5	1.762	530 12	1.752	334 7												
650245412	1.728	-433 2	1.724	442 4	1.715	-334 4	1.703	244 8												
650245413	1.686	-161 4	1.681	352 4																

650246001SIZ SVETLOZARITE (CA K2 NA2) AL2 SI12 028 6H20 L  
650246201ORTHORHOMBIC 19.482 20.963 7.554  
650246301REF: MALEYEV, 1977 RHODOPES, BULGARIA  
650246401 9.74 200 23 9.24 120 25 8.83 210 50 4.87 400100  
650246402 4.616 240 11 4.418 420 6 3.941 241 17 3.777 002 24  
650246403 3.592 341 13 3.440 160 39 3.322 032 9 3.246 600 18  
650246404 3.030 142 8 2.961 170 25 2.854 550 20 2.762 640 4  
650246405 2.708 502 9 2.587 730 6 2.476 081 5 2.230 642 6  
650246406 2.114 472 6 2.070 911 7 1.978 2.10.1 9 1.960 543 9  
650246407 1.870 832 10 1.870 2.11.0 10

650247001SIZ GOOSECREEKITE CA AL2 SI6 016 5H20 L  
650247201MONOCLINIC 7.52 17.56 7.35 105.71  
650247301REF: DUNN AND OTHERS, 1980 LOUDOUN COUNTY, VIRGINIA  
650247401 8.75 020 5 7.19 100 50 5.59 -120 50 4.91 -121 50  
650247402 4.53 -130100 4.53 031100 4.36 111 5 4.17 -131 15  
650247403 4.00 121 10 3.75 -140 5 3.617 200 5 3.617 -102 5  
650247404 3.526 002 25 3.526 -141 25 3.526 -112 25 3.35 -221 40  
650247405 3.35 -220 40 3.277 022 25 3.147 141 20 3.147 051 20  
650247406 3.147 -150 20 3.073 -230 25 3.073 -132 25 3.022 032 25  
650247407 3.022 -151 25 2.925 -212 10 2.866 211 5 2.866 112 5  
650247408 2.775 -142 20 2.775 211 20 2.698 20 2.610 231 15  
650247409 2.501 5 2.438 10 2.395 5 2.351 20

650248001SIZ MERLINOITE	14.116	14.229	9.946	NA K4 CA BA FE (AL9 SI23 O64) 23H20	L
650248201ORTHORHOMBIC	110 12	8.145	011 12	8.145	
650248301REF: PASSAGLIA AND OTHERS, 1977 RIETA, ITALY	200 88	5.359	121 40	5.359	
650248401 10.02	002 20	4.475	130 37	4.475	101 12
650248402 7.080	031 28	4.067	022 8	4.067	202 8
650248403 4.977	321 18	3.556	040 5	3.526	222 4
650248404 4.285	330 2	3.336	132 2	3.336	312 2
650248405 3.655	411 41	3.226	013 38	3.226	103 38
650248406 3.336	420100	2.935	123 34	2.935	213 34
650248407 3.241	510 16	2.730	051 27	2.730	341 27
650248408 3.176	033 30	2.720	501 30	2.670	242 11
650248409 2.770	251 16	2.540	521 12	2.535	233 12
650248410 2.720	440 11	2.435	350 8	2.435	152 8
650248411 2.552	143 4	2.386	413 3	2.354	600 2
650248412 2.507	134 6	2.065	253 4	2.065	631 4
650248413 2.391	701 4	1.972	015 4	1.972	105 4
650248414 2.181	730 2	1.855	712 2	1.843	453 2
650248415 1.977	035 3	1.787	561 6	1.787	363 6
650248416 1.855	080 14	1.764	444 6	1.764	800 6
650248417 1.838	732 3	1.739	181 3	1.735	534 3
650248418 1.780	073 3	1.723	280 5	1.723	811 5
650248419 1.739	703 5	1.717	415 5	1.717	064 5
650248420 1.735	604 5	1.683	273 2	1.671	660 5
650248421 1.723	563 5	1.592	653 5	1.592	255 5
650248422 1.711	662 4	1.582	840 4	1.558	910 3
650248423 1.592	714 3	1.515	165 2	1.515	921 2
650248424 1.582	406 2	1.499	390 2	1.499	192 2
650248425 1.558	581 4	1.488	912 4	1.488	734 4
650248426 1.499	491 2	1.428	093 2	1.428	932 2
650248427 1.488	516 3	1.422	075 3	1.422	941 3
650248428 1.428	107 2	1.412	1000 2	1.412	824 2
650248429 1.422	664 2	1.385	217 2	1.385	1020 2
650248430 1.412	590 3	1.371	754 2	1.371	583 2
650248431 1.385	781 6	1.321	914 6	1.321	871 6
650248432 1.381	4100 6	1.317	475 7	1.317	943 7
650248433 1.321					
650248434 1.321					

650249001SIZ	MORDENITE*	17.84	20.00	7.43	NA-AL-SI-O H2O	L
6502492010RTHORHOBIC						
650249301REF:DUBININ AND OTHERS, 1968						
650249302	SYNTHETIC	22-1339				
650249401	8.82	200 50	6.51	111 20	5.74	310 10
650249402	3.90	150 70	3.71	002 5	3.43	202100
650249403	3.34	060 50	3.20	511 40	3.20	132 40
650249404	2.485	062 10	2.485	442 10	2.019	513 15
650249405	1.993	0100 5	1.993	063 5	1.930	0101 10
650250001SIZ	MORDENITE*					
6502502010RTHORHOBIC		18.097	20.404	7.491	NA-AL-SI-O H2O	L
650250301REF:DUBININ AND OTHERS, 1968						
650250302	SYNTHETIC	22-1340				
650250401	8.96	200 50	6.55	111 20	5.74	310 10
650250402	3.98	150 70	3.75	002 10	3.45	202100
650250403	3.39	060 50	3.21	511 60	3.04	042 40
650250404	2.526	442 30	2.048	513 20	2.048	282 20
650250405	2.013	443 5	1.948	680 20	1.916	482 10
650251001SIZ	CLINOPTILOLITE*					
650251201MONOCLINIC		7.392	17.883	15.811	(NA K)4 CA AL6 SI3O 072 24H2O	L
650251301REF:BROWN AND OTHERS, 1969						
650251302	PATAGONIA	24-319				
650251401	11.9	011 40	8.94	020 90	7.92	002 80
650251402	5.93	022 50	5.57	031 10	5.25	11-2 20
650251403	4.63	130 60	4.34	10-3 60	4.11	113 30
650251404	3.93	004100	3.71	141 40	3.55	21-1 50
650251405	3.42	220 70	3.33	50	3.17	50
650251406	2.96	70	2.789	60	2.718	40
650251407	2.520	40	2.427	50	2.353	30
650251408	2.077	3	2.016	4	1.956	4
650251409	1.760	4	1.691	3	1.583	3
650251410	1.451	3	1.432	3	1.413	3

650252001SIZ WAIKAKITE*		CA (AL2 SI4) 012 2H2O		L
650252201CUBIC	13.641			
650252301REF:AMES AND SAND, 1958				
650252302 11-156				
650252401 6.81	200 40	5.57	211 90	4.83
650252402 3.41	400 100	3.21	330 20	3.21
650252403 2.90	332 80	2.784	422 10	2.675
650252404 2.488	521 50	2.414	440 30	2.275
650252405 2.214	611 30	2.214	532 30	2.115
650252406 1.987	444 30	1.856	552 20	1.822
650252407 1.706	800 10	1.680	554 10	1.653
650252408 1.586	743 20	1.489	842 10	1.473
650252409 1.409	932 30	1.352	772 30	1.304
650252410 1.258	961 20	1.239	766 10	1.217
				30

650253001SIZ GNELINITE*		NA2 (AL SI)6 012 6H2O		L
650253201HEXAGONAL	13.72			
650253301REF:BARRER AND OTHERS, 1959				
650253302 SYNTHETIC 12-229				
650253401 11.8	100 80	9.5	001 5	6.85
650253402 4.46	210 40	3.962	300 40	3.431
650253403 3.167	103 10	3.167	302 10	2.970
650253404 2.829	222 40	2.595	410 100	2.284
650253405 2.113	304 20	2.083	332 100	1.901
650253406 1.800	414 100	1.716	440 100	1.687
650253407 1.646	106 20	1.646	620 20	1.636
				116 20



650254001SIZ LAUMONTITE\* CA AL2 S14 012 4H20 L  
 650254201MONOCLINIC 14.75 13.083 7.57  
 650254301REF:LAPHAN, 1963  
 650254302 DILLSBURG PA 15-276  
 650254401 9.49 110100 6.86 200 35 6.54 020 2 6.19 201 2  
 650254402 6.19 011 2 5.91 120 2 5.052 111 6 4.731 220 20  
 650254403 4.500 -221 8 4.314 310 2 4.156 130 60 4.156 201 60  
 650254404 3.768 131 2 3.667 -401 14 3.510 002 30 3.510 221 30  
 650254405 3.411 400 8 3.411 131 8 3.367 -312 4 3.367 012 4  
 650254406 3.272 040 20 3.205 -331 8 3.205 311 8 3.152 330 16  
 650254407 3.033 420 25 3.033 112 25 2.950 240 4 2.950 041 4  
 650254408 2.881 511 14 2.881 241 14 2.798 2 2.629 4  
 650254409 2.575 14 2.521 4 2.463 4 2.439 14  
 650254410 2.361 12 2.278 600 2 2.268 6 2.217 4  
 650254411 2.180 060 6 2.153 18 2.082 2 2.060 2  
 650254412 2.042 2 1.991 4 1.955 12 1.887 4

650255001 PECTOLITE\*\* NA CA2 S13 08 OH L  
 650255201TRICLINIC 7.99 7.04 7.02 90.05 95.28 102.47  
 650255301REF:HILDEBRAND, 1953  
 650255302 BERGEN HILL, NEW JERSEY 12-238  
 650255401 7.83 100 50 7.03 001 50 5.50 -101 50 4.98 101 10  
 650255402 4.55 -111 10 4.00 -1-11 20 3.90 200 60 3.77 111 20  
 650255403 3.52 -201 50 3.43 020 40 3.33 -102 60 3.28 201 60  
 650255404 3.16 2-11 50 3.10 210 80 3.10 -121 80 2.921 120100  
 650255405 2.921 21-1100 2.739 12-1 60 2.600 60 2.430 50  
 650255406 2.338 50 2.298 60 2.227 20 2.191 60  
 650255407 2.166 60 2.090 20 2.053 30 2.002 30  
 650255408 1.945 20 1.926 40 1.877 40 1.831 40  
 650255409 1.781 30 1.752 60 1.716 60 1.675 20  
 650255410 1.661 40 1.603 40 1.570 20 1.554 50  
 650255411 1.521 20

650256001SIZ ERIONITE*	K NA CA AL4 SI14 O36 14H2O				L
650256201HEXAGONAL	13.20				
650256301REF:DEFFEYES, 1959	15.07				
650256302	JERSEY VALLEY, NEVADA 12-275				
650256401 11.43	100100	7.54	002 3	6.60	110 60 6.32 102 4
650256402 5.73	200 28	5.35	201 15	4.56	202 8 4.32 120 90
650256403 4.16	121 30	3.81	300 60	3.75	122 45 3.58 104 12
650256404 3.30	220 40	3.28	123 8	3.17	310 25 3.15 204 25
650256405 3.10	311 12	2.924	312 8	2.920	105 8 2.858 400 75
650256406 2.843	124 25	2.808	401 40	2.673	402 14 2.493 410 22
650256407 2.477	322 12	2.287	500 4	2.200	330 12 2.112 332 7
650256408 2.078	422 4	2.035	511 1	1.981	512 4 1.956 504 1
650256409 1.831	520 10	1.772	416 5	1.744	610 2 1.699 612 5
650256410 1.650	440 30	1.585	620 10	1.576	621 10 1.551 622 2
650256411 1.514	710 3	1.464	540 8	1.462	624 8 1.429 800 4
650256412 1.270	900 12				

650257001	NALCIME				L
650257201CUBIC	13.73				
650257301REF:KNOWLES AND OTHERS, 1965					
650257302CYCLOPEAN ISLANDS, GREECE	MEN 122 DISORDERED				
650257401 5.605	211 78	4.854	220 15	3.669	321 8 3.432 400100
650257402 2.927	332 46	2.803	422 5	2.693	431 14 2.507 521 10
650257403 2.427	440 5	2.227	611 7	2.024	631 1 1.942 543 1
650257404 1.904	640 10	1.868	721 7	1.744	651 14 1.716 800 4
650257405 1.690	741 5	1.596	831 4	1.481	921 3 1.416 932 5

650258001SIZ HEULANDITE*	CA AL2 SI7 O18 6H2O				L
650258201MONOCLINIC	17.61 17.80 7.37 116.33				
650258301REF:SIMONOT-GRANGE AND OTHERS, 1970					
650258302	FRANCE 24-182				
650258401 8.90	020 80	7.89	200100	6.75	-201 80 6.61 201 80
650258402 5.30	021 20	5.22	-311 80	5.09	111 80 5.04 310 40
650258403 4.62	-131 40	4.34	-401 70	3.95	400 70 3.95 330 70
650258404 3.90	-421 40	3.87	240 40	3.81	221 40 3.69 041 40
650258405 3.54	312 70	3.50	-112 40	3.45	-511 40 3.41 -222 70
650258406 3.38	311 70	3.38	-402 70	3.30	002 40 3.16 -422 70
650258407 3.10	510 40	3.10	-441 40	3.06	241 40 3.06 -132 40
650258408 3.02	-531 40	3.02	-512 40	2.97	060 20 2.97 151 20
650258409 2.95	440 40	2.95	350 40	2.94	112 30 2.94 -601 30
650258410 2.87	401 20	2.78	530 80	2.78	-621 80

650259001SIZ LAUMONTITE	CA AL2 SI4 O12 4H20	L
650259201MONOCLINIC		
650259301REF:SEKI AND OTHERS, 1968		
650259302 HANAWA MINE AREA JAPAN		
650259401 9.55	100 6.90	
650259402 4.74	13 4.50	11
650259403 3.67	32 3.52	51
650259404 3.062	20 2.884	30
650260001SIZ NORDENITE	(NA2 K2 CA) AL2 SI10 O24 7H20	L
650260201ORTHORHOMBIC		
650260301REF:SEKI AND OTHERS, 1968		
650260302 HANAWA MINE AREA JAPAN		
650260401 13.4	15 8.87	22
650260402 5.78	11 4.96	100
650260403 4.10	22 3.99	9
650260404 3.61	9 3.54	75
650260405 3.300	4 3.210	
650261001SIZ STILBITE	(CA NA2 K2)4 AL8 SI28 O72 28H20	L
650261201MONOCLINIC		
650261301REF:SEKI AND OTHERS, 1968		
650261302 HANAWA MINE AREA JAPAN		
650261401 9.03	100 5.40	13
650261402 4.26	7 4.04	9
650261403 3.391	15 3.180	35
650261404 2.998	16	
650262001SIZ CLINOPTILOLITE	(NA K)4 CA AL6 SI30 O72 24H20	L
650262201MONOCLINIC		
650262301REF:SEKI AND OTHERS, 1968		
650262302 HANAWA MINE AREA JAPAN		
650262401 8.94	100 7.91	4
650262402 5.92	3 5.58	8
650262403 4.70	7 4.64	6
650262404 3.97	34 3.88	8
650262405 3.56	7 3.47	10
650262406 3.067	4	

650263001SIZ FAUJASITE*	NA2 0 AL2 03 SI 02 7H20				L
650263201CUBIC	24.96				
650263301REF:BARRER AND OTHERS, 1959					
650263302 SYNTHETIC 12-246					
650263401 14.5	111100	8.84	220 60	7.56	311 60
650263402 4.81	511 40	4.42	440 60	4.20	531 1
650263403 3.813	533 60	3.769	622 20	3.621	444 1
650263404 3.36	642 5	3.25	731 5	3.048	733 40
650263405 2.881	555 80	2.790	480 40	2.745	753 10
650263406 2.662	664 40	2.617	931 20	2.545	844 20
650263407 2.206	880 40	2.181	955 40		
				5.74	331 80
				3.954	620 10
				3.515	551 1
				2.941	660 40
				2.725	842 5
				2.403	40
650264001SIZ FAUJASITE*	NA2 0 AL2 03 SI 02 7H20				L
650264201CUBIC	24.83				
650264301REF:BARRER AND OTHERS, 1959					
650264302 SYNTHETIC 12-228					
650264401 14.3	111100	8.75	220 80	7.51	311 80
650264402 4.78	511 40	4.39	440 80	3.931	620 40
650264403 3.746	622 20	3.580	444 10	3.475	551 10
650264404 3.231	731 10	3.034	733 20	2.926	660 40
650264405 2.775	480 40	2.729	753 10	2.711	842 1
650264406 2.603	931 20	2.534	844 10	2.391	20
650264407 2.193	880 20	2.168	955 20		
				5.71	331100
				3.789	533 80
				3.321	642 40
				2.867	555 60
				2.650	664 40
				2.29	5
650265001SIZ PHILLIPSITE*	NA2 0 AL2 03 SI 02 7H20				L
650265201ORTHORHOMBIC	14.1	14.0	9.8		
650265301REF:BARRER AND OTHERS, 1959					
650265302 12-195 SYNTHETIC 12-195					
650265401 9.5	001 60	8.20	101 40	7.20	200 80
650265402 5.60	201 40	5.40	211 20	5.00	220 80
650265403 4.50	310 20	4.34	112 80	4.08	311 80
650265404 3.58	400 60	3.45	222 60	3.35	312 60
650265405 3.19	420100	2.93	203 80	2.73	223 60
650265406 2.60	313 60	2.51	60	2.42	5
				7.00	020 40
				4.68	102 20
				3.88	212 40
				3.24	013 60
				2.68	422 60
				2.24	10

650266001SIZ CHABAZITE\* L

650266201HEXAGONAL 13.786 CA2 AL4 S18 024 12H20  
 650266301REF:GUDE AND SHEPPARD, 1966 15.065  
 650266302 19-208 TABLE MTN, GOLDEN, COLO  
 650266401 9.351 101 50 6.894 110 10 6.384 102 5 5.555 201 9  
 650266402 5.021 003 30 4.677 202 6 4.324 211 76 4.044 113 1  
 650266403 3.976 300 2 3.870 212 28 3.590 104 23 3.448 220 13  
 650266404 3.235 311 6 3.190 204 5 3.033 312 2 2.925 401100  
 650266405 2.890 214 30 2.842 223 3 2.776 402 4 2.690 205 7  
 650266406 2.605 410 10 2.574 322 2 2.507 215 11 2.361 116 2  
 650266407 2.358 501 2 2.310 413 3 2.299 330 4 2.278 502 1  
 650266408 2.233 421 1 2.123 306 2 2.119 107 2 2.090 333 6  
 650266409 2.016 504 1 1.941 217 1 1.911 520 3 1.871 505 3  
 650266410 1.807 611 8 1.805 317 8 1.786 523 1 1.771 612 2  
 650266411 1.740 434 12 1.721 440 5 1.695 701 5 1.675 009 1  
 650266412 1.647 621 4 1.643 435 3 1.626 119 1 1.597 507 2

650267001SIZ MESOLITE\* L

650267201MONOCLINIC 56.8 NA2 CA2 AL6 S19 030 8H20  
 650267301REF:PENG, 1955 18.82 90.72  
 650267302 NOVA SCOTIA 11-173  
 650267401 6.44 110 40 5.79 -311 70 5.79 311 70 5.46 -1001 10  
 650267402 5.46 -511 10 4.66 30 4.35 911 50 4.16 10  
 650267403 3.89 10 3.18 420 30 3.08 022 20 2.86 100  
 650267404 2.57 10 2.47 10 2.41 10 2.34 10  
 650267405 2.27 10 2.19 30 2.05 10 1.95 10  
 650267406 1.86 10 1.81 30 1.75 10 1.72 10  
 650267407 1.68 10 1.64 10 1.59 10 1.54 10  
 650267408 1.52 10 1.47 .30 1.43 10 1.40 10  
 650267409 1.39 10 1.35 10 1.30 10 1.24 10  
 650267410 1.21 10 1.19 10 1.15 10

650268001SIZ NATROLITE\* L

650268201TETRAGONAL 18.446 NA2 AL2 S13 010 2H20  
 650268301REF:ANDERSEN AND OTHERS, 1969 6.619 GREENLAND 22-1224  
 650268401 6.53 220 50 5.90 111100 4.61 400 25 4.38 311 50  
 650268402 4.12 420 25 3.17 511 50 3.11 202 25 2.949 222 25  
 650268403 2.914 620 5 2.851 531100 2.580 422 25 2.424 711 25  
 650268404 2.322 442 5 2.250 602 5 2.187 622 15 2.061 840 10  
 650268405 1.881 513 15 1.807 25 1.792 771 5 1.749 842 10

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(K CA NA DA) (SI AL) 7 014 7H20

650269001 PAULINGITE

650269201CUBIC 35.093

650269301REF:GORDON AND OTHERS, 1966

650269302WENATCHEE WASHINGTON MEN 122

650269401	17.546	200 81	14.327	211 4	12.407	220 16	11.097	310 34
650269402	9.379	321 14	8.773	200 3	8.271	330100	7.847	420 3
650269403	7.482	332 9	7.163	422 11	6.882	510 83	6.204	440 13
650269404	5.849	600 21	5.693	611 28	5.415	541 9	5.290	622 4
650269405	5.174	631 4	4.963	710 24	4.689	642 9	4.608	730 2
650269406	4.457	651 2	4.387	800 13	4.256	820 4	4.136	822 1
650269407	3.699	930 5	3.620	932 8	3.377	6	3.346	34
650269408	3.258	36	3.126	25	3.078	970 54	2.987	22
650269409	2.966	12	2.904	2	2.865	3	1.773	14

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(SR BA CA) AL2 SI6 016 5H20

650270001 BREWSTERITE

650270201MONOCLINIC

650270301REF:PERROTTA AND SMITH, 1964

650270302STRONTIAN ARGYLL SCOTLAND MEN 122

	6.772	17.51	7.744	94.30				
650270401	8.755	020 3	7.718	001 4	7.063	011 22	6.751	100 32
650270402	6.299	110100	5.790	021 3	5.281	-101 18	5.056	-111 63
650270403	4.903	101 26	4.721	111 33	4.655	031 75	4.522	-121 71
650270404	4.415	130 2	4.377	040 2	4.278	121 4	3.916	-131 32
650270405	3.859	002 18	3.808	041 11	3.769	012 28	3.673	140 11
650270406	3.531	022 24	3.464	-102 2	3.398	-112 24	3.314	210 4
650270407	3.265	141 57	3.193	112 26	3.130	-211 6	3.109	150 23
650270408	3.044	122 34	3.011	201 11	2.990	-221 10	2.979	-132 11
650270409	2.967	211 19	2.922	230 84	2.850	151 10	2.838	132 9
650270410	2.793	-231 13	2.730	061 12	2.716	-142 21	2.679	160 15
650270411	2.611	-212 13	2.573	003 18	2.528	-222 4	2.508	161 10
650270412	2.481	241 8	2.468	023 6	2.463	-152 6	2.451	202 5
650270413	2.442	-113 5	2.406	-232 9	2.381	152 5	2.374	-123 6
650270414	2.355	-251 8	2.346	170 14	2.328	062 5	2.266	123 17
650270415	2.232	310 5	2.218	043 8	2.208	260 7	2.189	080 8
650270416	2.179	320 6	2.139	242 14	2.118	301 7	2.109	-213 7
650270417	2.100	330 9	2.068	143 7	2.016	-153 17	2.011	-302 14
650270418	1.969	-341 9	1.949	153 10	1.752	-313 10	1.718	-263 8
650270419	1.662	11	1.657	420 10				

YUGAWARALITE		CA AL2 Si6 O16 4H2O			L	
		6.73	13.95	10.03	111.50	
650271001	MONOCLINIC					
650271201	REF:LEIMER AND SLAUGHTER, 1969					
650271301	REF:KANAGAWA PREFECTURE, JAPAN					
650271302	MEM 122					
650271401	010 4	7.757	011 1	6.975	020 31	6.262
650271402	-111 85	5.587	021 4	4.666	002100	4.407
650271403	111 27	4.162	031 9	3.878	022 5	3.761
650271404	130 4	3.294	032 5	3.269	-211 7	3.222
650271405	112 6	3.117	-212 6	3.055	210 65	2.991
650271406	122 11	2.907	-222 20	2.856	220 2	2.841
650271407	042 2	2.755	141 10	2.719	-213 10	2.673
650271408	211 9	2.414	113 5	2.326	231 6	2.087
650271409	124 6					

LAUNONTITE		CA AL2 Si4 O12 4H2O			L	
		14.75	13.10	7.57	112.00	
650272001	MONOCLINIC					
650272201	REF:BARTL AND FISCHER, 1967					
650272301	REF:GREAT BRITAIN					
650272302	MEM 122					
650272401	9.460	110100	6.838	200 38	-201 6	5.046
650272402	4.730	220 8	4.500	-221 13	201 20	3.772
650272403	3.661	-401 16	3.509	002 40	131 5	3.365
650272404	3.275	040 10	3.203	-331 7	330 4	3.096
650272405	3.031	420 7	2.878	-511 5	-422 5	2.633
650272406	2.577	241 6	2.543	132 3	222 4	2.465
650272407	2.444	-531 6	2.365	440 3	-622 3	2.167
650272408	2.153	620 4	2.149	-152 4		

GISHONDITE		CA AL2 SI2 O8 4H2O			L			
		10.02	10.62	9.84	92.41			
650273001	MONOCLINIC	100 8	7.285	110100	5.941	-111 11	5.769	111 22
650273201	REF:FISCHER, 1963	020 9	5.006	200 20	4.916	002 60	4.672	021 16
650273301	REF:FISCHER, 1963	-102 12	4.461	012 15	4.340	102 7	4.267	-121 95
650273302	HOHENBERG, GERMANY	121 43	4.174	-211 40	4.134	-112 11	4.054	211 24
650273401	10.011	112 10	3.642	220 9	3.607	022 8	3.584	-202 6
650273402	5.310	-122 10	3.382	221 5	3.361	122 7	3.337	130 23
650273403	4.488	212 2	3.184	310 60	3.131	013 54	3.065	-311 2
650273404	4.202	-113 5	2.994	311 12	2.873	032 3	2.825	320 6
650273405	4.018	023 4	2.779	-132 4	2.743	132 44	2.712	-123 43
650273406	3.428	321 48	2.662	123 43	2.624	312 15	2.608	213 7
650273407	3.269	-232 8	2.465	232 6	2.458	004 5	2.405	033 7
650273408	3.024	014 6	2.388	-411 6	2.351	-114 5	2.345	240 5
650273409	2.789	042 8	2.271	241 5	2.264	420 5	2.244	-204 6
650273410	2.690	-214 9	2.044	-341 6	2.031	-143 7	2.027	422 6
650273411	2.518	-431 7	1.914	511 6	1.854	-521 6	1.850	234 6
650273412	2.395	440 8	1.756	351 10	1.669	260 11	1.642	-325 7

EPISTILBITE		(CA NA K) (AL SI) O48 16H2O			L			
		9.08	17.74	10.25	124.54			
650274001	MONOCLINIC	020 39	8.407	001 11	7.651	-111 13	6.867	110 67
650274201	REF:PERROTTA, 1967	-112 75	4.851	-131 19	4.631	130 10	4.485	-201 20
650274301	REF:PERROTTA, 1967	040 6	4.318	111 41	4.240	-202 3	4.002	-221 18
650274302	TEIGERHORN, ICELAND	041 17	3.873	-132100	3.826	-222 20	3.798	022 35
650274401	8.870	200 14	3.557	131 2	3.433	220 83	3.337	-203 11
650274402	4.923	-151 25	3.203	150 42	3.065	-242 6	2.983	-312 12
650274403	4.435	112 8	2.917	-152 52	2.852	240 43	2.792	-313 16
650274404	3.923	-332 12	2.675	132 20	2.562	-204 13	2.462	-224 6
650274405	3.723	-153 19	2.400	241 5	2.219	-244 17	2.213	-263 16
650274406	3.273	2.694	2.425	133 5	2.005	-282 5	1.936	-264 7
650274407	2.957	2.091	2.091	190 6	1.899	400 14	1.774	14
650274408	2.694	1.906	1.677	-284 6	1.641	-116 8	1.532	-484 5



650275001 NATROLITE		NA2 AL2 SI3 O10 2H2O		L				
650275201ORTHORHOMBIC		18.30	18.63	6.60				
650275301REF:NEIER, 1960								
650275302AUSSIG BOHEMIA		MEM 122						
650275401	6.528	220 55	5.890	111100	4.657	040 23	4.575	400 16
650275402	4.391	131 43	4.356	311 49	4.151	240 22	4.106	420 16
650275403	3.633	331 1	3.264	440 4	3.195	151 30	3.155	511 33
650275404	3.111	022 20	2.945	222 29	2.899	620 5	2.865	351 51
650275405	2.845	531 48	2.583	242 6	2.572	422 10	2.446	171 12
650275406	2.410	711 12	2.329	080 3	2.321	442 6	2.288	371 3
650275407	2.261	062 5	2.240	602 3	2.221	820 2	2.195	262 10
650275408	2.178	622 11	2.061	133 3	1.964	191 3	1.876	513 5
650275409	1.809	353 6	1.804	533 9	1.796	8	1.725	5
650275410	1.703	5	1.625	733 5	1.600	1		

## R E F E R E N C E S

Hayhurst, Barry A. and Mathias, Richard W., 1982, Zeolite Mineral Group -- Bibliography, U.S. Geological Survey Open File Report 82-715, 28 p.

VanTrump, George Jr., and Hauff, Phoebe L., 1976, The Mineral X-Ray Diffraction File: U.S. Geological Survey Open-File Report 76-406, 144 p.

VanTrump, George Jr., and Hauff, Phoebe L., 1977, "Computer Identification Techniques for Crystalline Compounds using the JCPDS Powder Diffraction File as a Data Reference," in Advances in X-Ray Analysis, Vol. 20: Plenum Press, New York, p. 103-113.