UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

Lead Isotope Data Bank:

2,624 Samples and Analyses Cited

By

Bruce R. Doe

Open-File Report 76-201

1976

PROLOG

The Lead Isotope Data Bank (LIDB) was initiated to facilitate plotting data. Therefore, the Bank reflects data most often used in plotting rather than comprises a comprehensive tabulation of lead isotope data. Up until now, plotting was done using card decks processed by computer with tapes plotted by a Gerber plotter and more recently a CRT using a batch mode. Lack of a uniform format for sample identification was not a great impediment. With increase in the size of the bank, hand sorting is becoming prohibitive and plans are underway to put the bank into a uniform format on DISK with a card backup so that it may be accessed by use of IRIS on the DECK 10 computer at the U.S.G.S. facility in Denver. Plots will be constructed on a CRT. Entry of the bank into the IRIS accessing program is scheduled for completion in FY 1976.

The compact nature of the Bank allows easy inspection of data but referencing remains obscure. Sufficient information on references is given, however, so that they may be located in sources such as the U.S.G.S. Open File Reports--B. R. Doe "A List of References on Lead Isotope Geochemistry through 1966", 97 p., 1968; B. R. Doe "A List of References on Lead Isotope Geochemistry 1967-1969 (with an addendum to the List through 1966)", 27 p., 1971--and more recent individual years 1970-73 in L. Cahen (Ed.) "Abstracts of Geochronology and Isotope Geology".

The basic alignment of the LIDB is:

Characters	Item
1-4	Major political or geographic designation
6-7	Minor political or geographic designation
9-16	Other political or geographic location information
18-20	Age by era or erathem
22-30	Sample number and type of sample
31-36	Type of analysis
38-44	$^{206}Pb/^{204}Pb$
49-55	$^{207}Pb/^{204}Pb$
59-65	$^{208}Pb/^{204}Pb$
69-71	Rock type
73-76	Author abbreviation
77-80	Year and abbreviation of publication

Thanks are extended to M. H. Delevaux and M. Gallego of the U.S. Geological Survey who each entered several hundred analyses and to Matti Vaasjoki of the Geological Survey of Finland who entered the unpublished data on Finland and Svecokarelia.

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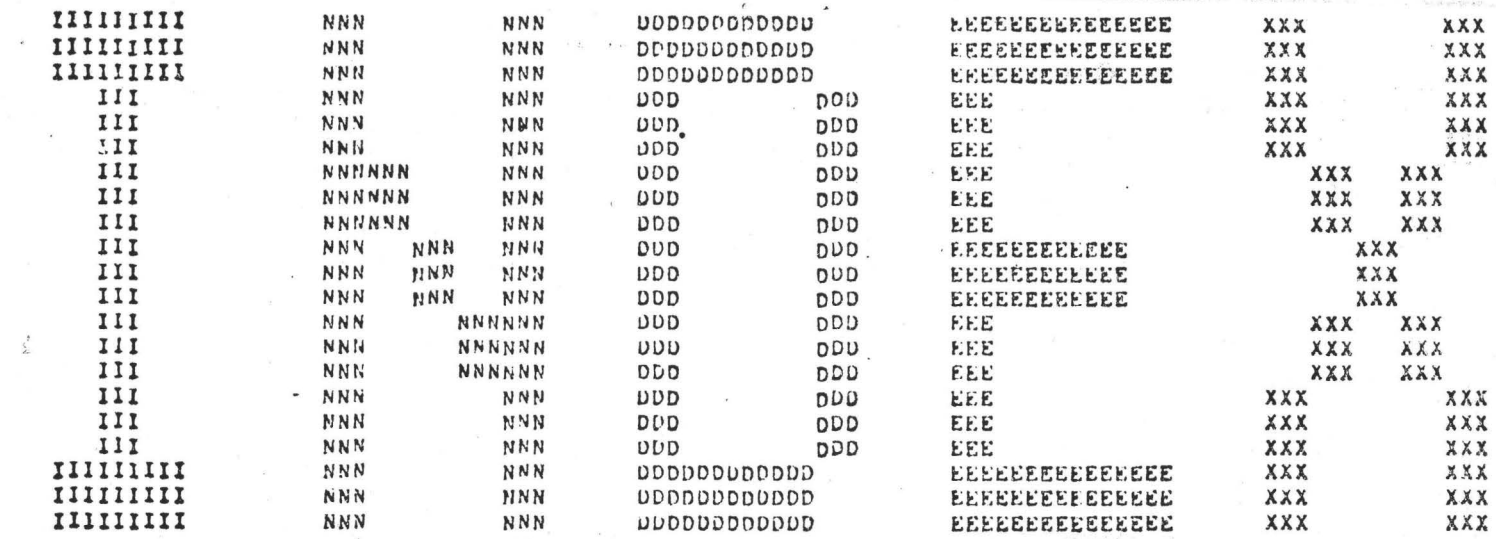

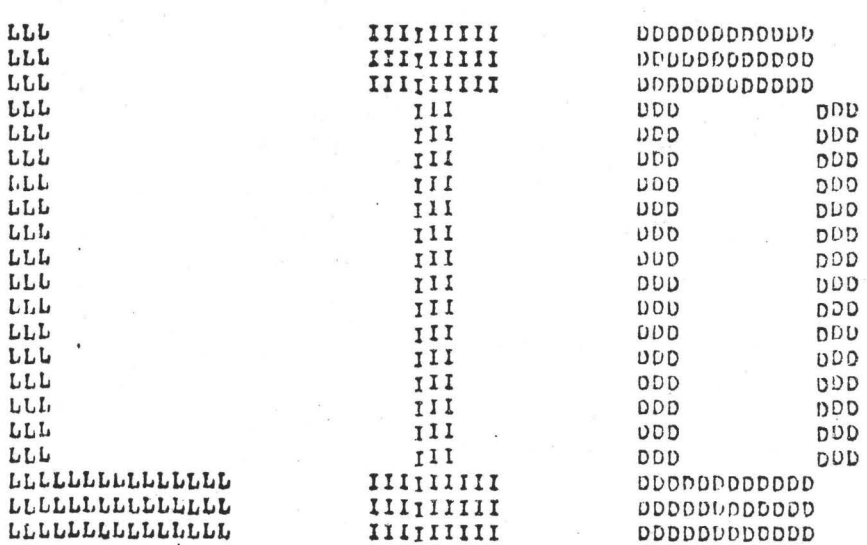

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AUS.=AUSTRIA
AUST=AUSTRALIA
CA=CENTRAL AUSTRALIA
NS=NEW SOUTH WALES
QU=QUEENSLAND
TA=TASMANIA
WA=WESTERN AUSTRALIA
AOB =ATLANTIC OCEAN BASIN
CA=CANARY ARCHIPELAGO
CB=CARIBBEAN ISLANDS
CV=CAPE VERDE ARCHIPELAGO
FA=FAIAL
IC=ICELAND
MA=MID ATLANTIC RIDGE
RE=REYKJANES
S.=SOUTH
TC=TRISTAN DE CUNHA
TR=TRINDADE
BOLI=BOLIVIA
CAN.=CANADA
AL=ALBERTA
BC=BRITISH COLUMBIA
HB=HUDSON BAY
NF=NEWFOUNDLAND
NT=NORTHWEST TERRITORIES
ON=ONTARIO
QB=QUEBEC
SA=SASKATCHEWAN
DDR =EAST GERMANY
EGYP=EGYPT
EUR.=EUROPE
BS=BALTIC SEA
FIN.=FINLAND
EC=EAST CENTRAL
C.=CENTRAL
N.=NORTH
SE=SOUTHEAST
SW=SOUTHWEST
W.=WEST
WC=WEST CENTRAL
FRA.=FRANCE
CM=CENTRAL MASSIF
G.B.=GREAT BRITAIN
SC=SCOTLAND
GER.=GERMANY
E.=EAST
HZ=HARZ MOUNTAINS
NW=NORTHWEST
W.=WEST
WU=WURZBURG
GRE.=GREECE
LA=LAURIA
GRNL=GREENLAND
FI=FISKENAESSET

IS-ISUA IRON FORMATION
NO-NORDLAND
SU-SUKKERTOPPEN
HU-HUNGARY
INDI-INDIA
INDO-INDONESIA
BE-BELITUNG
JA-JAVA
SL-SULAWESI
SU-SUMATRA
IOB -INDIAN OCEAN BASIN
W.-WESTERN
ITAL-ITALY
MEX.-MEXICO
HI-HIDALGO
ZA-ZACATECAS
MORO-MOROCCO
N.Z.-NEW ZEALAND
NI-NORTH ISLAND
RS-RED SEA
NIH -JAPAN
HK-HOKKAIDO
HO-HONSHU
KY-KYUSHU
NOR.-NORWAY
AA-AUST-AGDER
BA-BALLANGEN
BM-BAMBLE
DR-DRAMMEN
EN-ENGOERDAL
FE-FEMUND
FI-FINNMARK
GR-GKUA
HA-HARDANGERVIDDA
KO-KONGSBERG
LI-LIERDALEN
MJ-MJOSA
ND-NORDLAND
NR-NARVIK
OS-OSLO
SU-SULITJELMA
TR-TROMS
NETH-NETHERLANDS
N.AF-NORTH AFRICA
RS-RED SEA
PERU-PERU
C.-CENTRAL ANDES
NC-NORTH CENTRAL ANDES
SC-SOUTH CENTRAL ANDES
POB -PACIFIC OCEAN BASIN
EA-EASTER ISLAND
ER-EAST PACIFIC RISE
GU-GUADALUPE ISLANDS
JF-JUAN DE FUCA RISE
KE-KERMADEC ISLANDS
N-NORTH PACIFIC
NE-NORTHEAST PACIFIC
NW-NORTHWEST PACIFIC
NZ-NAZCA PLATE

S.=SOUTH PACIFIC
TO=TONGA ISLANDS
POL.=POLAND
RHOD=RHODESIA
LB=?
RUMA=RUMANIA
CA=CARPATHIAN
(RUSSIA=SEE SOV.)
SAUD=SAUDI ARABIA
S.AF=SOUTH AFRICA
BA=BARBARTON
ME=MESSINA
SOV.=SOVIET UNION
AK=SVECOKARELIA
UK=UKRAINE
SPAI=SPAIN
JA=JAEN PROVINCE
SWED=SWEDEN
DA=DALARNA
LP=LAPPLAND
SE=SOUTHEAST
SM=SMALAND
VA=VASTERBOTTEN
VS=VASTMANLAND
SWIT=SWITZERLAND
TURK=TURKEY
YEM.=YEMEN
YUGO=YUGOSLAVIA
UGAN=UGANDA
E.=EAST
U.S.=UNITED STATES
GL=GREAT LAKES
XX=TWO SYMBOL ABBREVIATION FOR STATES
W.AS=WESTERN ASIA
BK=BLACK SEA
ZAI.=ZAIRE
KA=KATANGA
KB=KIBALI
KI=KIVU
UE=UELE
ZAM.=ZAMBIA
LU=?
ND=?

(18 DECEMBER 1974)

SAMPLE NO.(MEANING OF LAST LETTERS)

BI: BIOTITE
CH: CHALCOPYRITE
F : K-FELDSPAR
HO:HORNBLENDE
I : INITIAL LEAD
L : LEACH
M : MUSCOVITE
MG: MAGNETITE
MU: MUSCOVITE
P : PLAGIOCLASE
PO: PYRRHOTITE

R : RESIDUE
SIL: SILICATE FRACTION
W : WHOLE ROCK

(MEANING OF FIRST LETTER FOR SAMPLES TAKEN FROM RUSSELL AND FARQUHAR,1960)

B :BERN
C :COLUMBIA
M :MINNESOTA
T :TORONTO

(18 JULY 1975)

METHOD

DBL.SP.:DOUBLE SPIKE
GEL-N: SILICA GEL METHOD NORMALIZED TO ABSOLUTE
GEL-NC: SILICA GEL TECHNIQUE BOTH NORMALIZED AND CORRECTED
3FIL.-N: TRIPLE FILAMENT TECHNIQUE NORMALIZED TO ABSOLUTE
PBS-N: PBS-NH4OH METHOD NORMALIZED TO ABSOLUTE
PBSV-N:SAME AS PBS-N BUT LEAD EXTRACTED BY VOLATILIZATION THROUGH MELTING
PUBL.: PUBLISHED
PUBL.-C: CORRECTED FOR INSITU DECAY OF U &TH
PUBL.V:PUBLISHED,VOLATILIZATION

(30 NOVEMBER 1975)

TYPE

AER-AEROSOL
AND-ANDESITE
ANG-ANGLESITE
ANK-ANKARAMITE
ANO-ANORTHOSITE
AMP-AMPHIBOLITE
APL-APLITE
AU-GOLD
BAS-BASALT
BOU-BOULANGERITE
BSN-BASANITE
BSS-BASALTIC SS
CAR-CARBONATITE
CER-CERRUSSITE
CC-CHALCOCITE
CHE-CHEMICALS
CRY-CRYOLITE
COA-COAL

Q : QUARTZ

DAC=DACITE
DIA=DIABASE
DIO=DIORITE
ECL=ECLOGITE
GAB=GABBRO
GAL=GALENA
GAS=GASOLINE
GGN=GRANITE GNEISS
GLA=GLASS
GN=GNEISS
GNG=GRANULITIC GN.
GRA=GRANITE
HAW=HAWAIITE
IF =IRON FORMATION
INC=INCLUSION
INT=INTEMEDIATE
KER=KERATOPHYRE
KIM=KIMBERLITE
LIM=LIMESTONE
MAF=MAFIC FRACTION
MAR=MARBLE
MEG=MEGACRYST
MEL=MELILITE BASALT
MN=MANGANESE NODULE
MON=MONAZITE
MUG=MUGEARITE
NEP=NEPHELINITE
OBS=OBSIDIAN
ORE=ORE MINERALS
OX=OXIDE
PEG=PEGMATITE
PER=PERIDOTITE
PGN=PARAGNEISS
PHO=PHONOLITE
PO=PYRRHOTITE
PYR=PYROMORPHUTE
PY=PYRITE
Q-L=QUARTZ LATITE
RDC=RHYODACITE
RHY=RHYOLITE
SED=SEDIMENT
SEG=SEGREGATION
SH=SHALE
SHO=SHOSHONITE
SIN=SINTER,SILIC.
SNO=SNOW
SPI=SPILITE
SS=SANDSTONE
SYN=SYENITE
TON=TONALITE
TRA=TRACYTE
TRB=TRACHYBASALT
TRN=TRONDHJEMITE
WAC=GREYWACKE
XEN=XENOCRYST

(18 DECEMBER 1975)

REFERENCES-

REFER.

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AUTHOR CONVENTION IS FIRST THREE OR FOUR INITIALS ON SINGLE AUTHORED PAPERS, FIRST INITIALS OF LAST NAMES SEPARATED BY HYPHEN ON TWO AUTHOR PAPERS, FIRST INITIALS OF LAST NAMES ON MULTIPLE AUTHOR PAPERS, NKOMO IS ALWAYS NK.

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LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION	(AGE)SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE	REFER,
ATLANTIC OCEAN BASIN						
CANARY ISLANDS						
AOB ,CI,HARZBURG	(CEN)LAN,-(W) GEL-N	18,90	15,56	38,84	PER Z-T	73L
AOB ,CI,HARZBURG	(CEN)LAN,-R GEL-N	18,90	15,56	38,86	PER Z-T	73L
AOB ,CI,HARZBURG	(CEN)LAN,,-L GEL-N	18,68	15,60	38,71	PER Z-T	73L
PACIFIC OCEAN BASIN						
HAWAIIAN ISLANDS						
U,S,,HI,OAHU,HON	(CEN)LHER,(W) GEL-N	18,23	15,52	38,03	PER Z-T	73L
U,S,,HI,OAHU,HON	(CEN)LHER,-R GEL-N	18,23	15,52	38,06	PER Z-T	73L
U,S,,HI,OAHU,HON	(CEN)LHER,-L GEL-N	18,22	15,53	37,96	PER Z-T	73L
NORTH AMERICA						
ALASKA						
U,S,,AK,NUN,IS,	(CEN)LHER,(W) GEL-N	18,50	15,57	38,48	PER Z-T	73L
U,S,,AK,NUN,IS,	(CEN)LHER,-R GEL-N	18,50	15,57	38,50	PER Z-T	73L
U,S,,AK,NUN,IS,	(CEN)LHER,-L GEL-N	18,39	15,56	37,93	PER Z-T	73L
ARIZONA						
U,S,,AZ,SAN CARL	(CEN)LHER,(W) GEL-N	18,52	15,61	38,40	PER Z-T	73L
U,S,,AZ,SAN CARL	(CEN)LHER,-R GEL-N	18,51	15,61	38,50	PER Z-T	73L
U,S,,AZ,SAN CARL	(CEN)LHER,-L GEL-N	18,54	15,60	38,24	PER Z-T	73L
U,S,,AZ,SAN CARL	(CEN)LHER,EN GEL-N	18,56	15,63	38,21	PER Z-T	73L
U,S,,AZ,SAN CARL	(CEN)LHER,DI GEL-N	18,58	15,61	38,24	PER Z-T	73L
NEW MEXICO						
U,S,,NM,POTRIL,	(CEN)LHER,(W) GEL-N	18,31	15,56	38,41	PER Z-T	73L
U,S,,NM,POTRIL,	(CEN)LHER,-R GEL-N	18,37	15,56	38,53	PER Z-T	73L
U,S,,NM,POTRIL,	(CEN)LHER,-L GEL-N	18,01	15,55	37,80	PER Z-T	73L
OTHER AREAS						
SOUTH AFRICA						
S,AF, ,	(PHA)64(MELT) PBS-N	14,72	14,78	34,86	ECL M-T	71L
S,AF, ,	(PHA)71(MELT) PBS-N	15,26	14,82	34,90	ECL M-T	71L
S,AF, ,	(PHA)R17(96%R)PBS-N	17,18	15,48	37,76	KIM M-T	71L
S,AF, ,	(PHA)22 (CD) PBS-N	17,33	15,46	37,83	ECL M-T	71L
S,AF, ,	(PHA)R7 (CD) PBS-N	17,54	15,39	38,09	ECL M-T	71L
S,AF, ,	(PHA)14 (CD) PBS-N	18,40	15,46	37,83	ECL M-T	71L
S,AF, ,	(PHA)R81(84%R)PBS-N	18,74	15,61	38,88	PER M-T	71L
AFRICA, EQUITORIAL						

UGANDA

UGAN,E.,TORO HIL(CEN)P37	GEL-R	20.77	15.79	39.36	CAR L-A	74L
UGAN,E.,LIME KIL(CEN)P38	GEL-R	20.56	15.74	40.16	CAR L-A	74L
UGAN,E.,LOKUPOI (CEN)P39	GEL-R	20.85	15.77	40.37	CAR L-A	74L
UGAN,E.,BUSUMBU (CEN)P40	GEL-R	19.80	15.68	39.51	CAR L-A	74L
UGAN,E.,SUKULU H(CEN)P41	GEL-R	20.07	15.70	39.62	CAR L-A	74L

AFRICA, NORTHERN

MOROCCO

MORO, ,TAMAZERT(CEN)P27	GEL-R	18.57	15.59	38.58	CAR L-A	74L

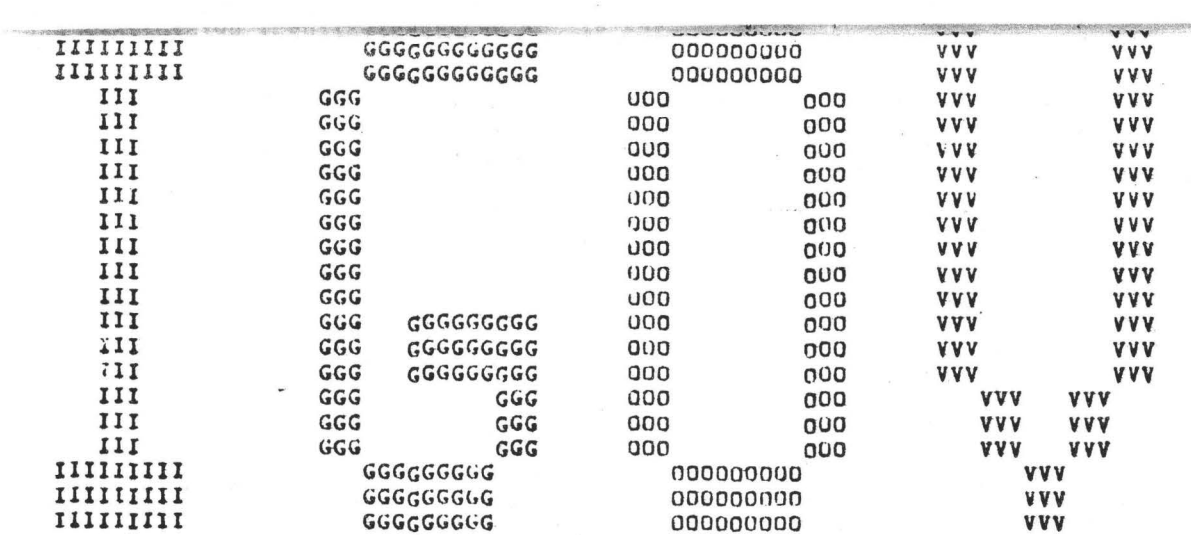
ATLANTIC OCEAN BASIN

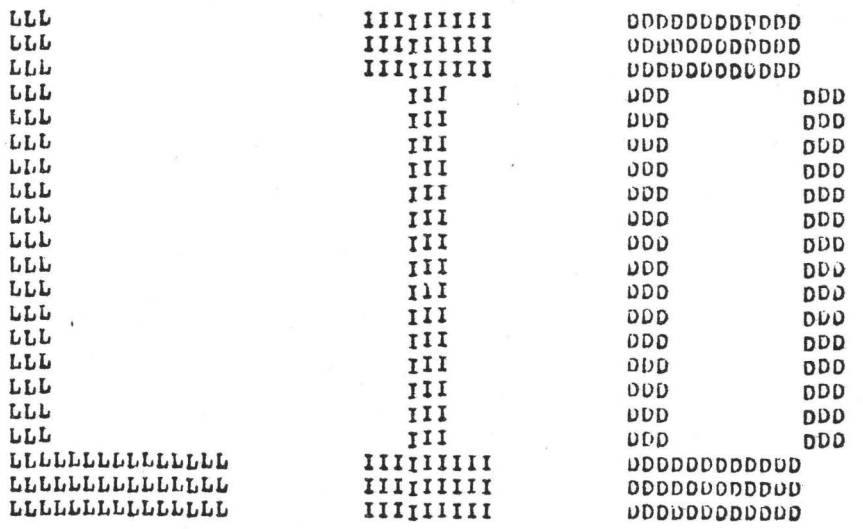
CANARY ARCHIPELAGO

AOB ,CA,FUERT.I.(CEN)P58	GEL-R	18.71	15.51	38.22	CAR L-A	74L
AOB ,CA,FUERT.I.(CEN)P62	GEL-R	19.69	15.57	38.48	CAR L-A	74L

CAPE VERDE ARCHIPELAGO

AOB ,CV,BRAVA I.(CEN)P50	GEL-R	19.01	15.82	33.06	CAR L-A	74L





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IGNEOUS ROCKS, OCEANIC: CENOZOIC-MESOZOIC(IGOV,LID) (29 OCTOBER 1975)

IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION	(AGE)SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE	REFER,
ATLANTIC OCEAN BASIN						
RIDGE THOLEIITES						
AOB ,MA,RIDGE TH(CEN)AD-3W	PBS-N	17.70	15.39	37.03	BAS TATS	66S
AOB ,RE,REYKJANE(CEN)GLJ-10W	GEL-N	18.195	15.449	37.725	BAS STS	75S
AOB ,RE,REYKJANE(CEN)1-26D11DW	GEL-N	18.205	15.453	37.778	BAS STS	75S
AOB ,RE,REYKJANE(CEN)101-31D9W	GEL-N	18.217	15.447	37.794	BAS STS	75S
AOB ,RE,REYKJANE(CEN)41-19DW	GEL-N	18.259	15.443	37.820	BAS STS	75S
AOB ,RE,REYKJANE(CEN)41-20D3BW	GEL-N	18.283	15.471	37.880	BAS STS	75S
AOB ,RE,REYKJANE(CEN)41-20D3AW	GEL-N	18.288	15.463	37.821	BAS STS	75S
AOB ,RE,REYKJANE(CEN)GLJ-7W	GEL-N	18.289	15.445	37.778	BAS STS	75S
AOB ,RE,REYKJANE(CEN)D22-W	GEL-N	18.30	15.48	37.88	BAS D-S	74E
AOB ,RE,REYKJANE(CEN)101-29D5W	GEL-N	18.349	15.466	37.926	BAS STS	75S
AOB ,MA,RIDGE TH(CEN)AD-2W	PBS-N	18.35	15.39	37.51	BAS TATS	66S
AOB ,RE,REYKJANE(CEN)1-30D10AW	GEL-N	18.361	15.451	37.896	BAS STS	75S
AOB ,RE,REYKJANE(CEN)101-27D7W	GEL-N	18.460	15.453	37.998	BAS STS	75S
AOB ,RE,REYKJANE(CEN)101-24D6W	GEL-N	18.466	15.466	38.017	BAS STS	75S
AOB ,RE,REYKJANE(CEN)41-46D1W	GEL-N	18.475	15.476	38.038	BAS STS	75S
AOB ,RE,REYKJANE(CEN)01-22D1AW	GEL-N	18.516	15.486	38.104	BAS STS	75S
AOB ,RE,REYKJANE(CEN)101-34D6W	GEL-N	18.521	15.487	38.090	BAS STS	75S
AOB ,RE,REYKJANE(CEN)01-22D1BW	GEL-N	18.522	15.478	38.060	BAS STS	75S
AOB ,RE,REYKJANE(CEN)101-1DW	GEL-N	18.665	15.502	38.262	BAS STS	75S
AOB ,RE,REYKJANE(CEN)101-23D1W	GEL-N	18.674	15.479	38.229	BAS STS	75S
AOB ,RE,REYKJANE(CEN)101-11DW	GEL-N	18.680	15.495	38.284	BAS STS	75S
AOB ,MA,RIDGE TH(CEN)AD-5W	PBS-N	18.70	15.53	38.15	BAS TATS	66S
ISLAND VOLCANICS, RIDGES						
CANARY ISLANDS						
AOB ,CA,LANZARAT(CEN)AD3-(3F)W	GEL-N	19.090	15.568	38.875	BAS	
ICELAND						
AOB ,IC,ICELAND (CEN)I-169W	GEL-N	18.466	15.485	38.178	BAS S-J	75N
AOB ,IC,ICELAND (CEN)I-32W	GEL-N	18.473	15.474	38.198	BAS S-J	75N
AOB ,IC,ICELAND (CEN)I-38W	GEL-N	18.478	15.476	38.222	BAS S-J	75N
AOB ,IC,ICELAND (CEN)IC17W	GEL-N	18.629	15.488	38.207	BAS STS	75S
AOB ,IC,ICELAND (CEN)I-115W	GEL-N	18.640	15.501	38.294	BAS S-J	75N
AOB ,IC,ICELAND (CEN)I-103W	GEL-N	18.670	15.510	38.307	BAS S-J	75N
AOB ,IC,ICELAND (CEN)I-17W	GEL-N	18.751	15.503	38.337	BAS S-J	75N
AOB ,IC,ICELAND (CEN)I-92W	GEL-N	18.760	15.486	38.306	BAS S-J	75N
AOB ,IC,ICELAND (CEN)IC58W	GEL-N	18.777	15.502	38.387	BAS STS	75S
AOB ,IC,ICELAND (CEN)I-136AW	GEL-N	19.010	15.508	38.511	BAS S-J	75N
AOB ,IC,ICELAND (CEN)SN-1W	GEL-N	19.119	15.528	38.711	BAS S-J	75N
AOB ,IC,ICELAND (CEN)I-48W	GEL-N	19.254	15.554	38.916	BAS S-J	75N
TRISTAN DE CUNHA						
AOB ,TC,TRISTAN (CEN)TR232-1-W	DBL SP	18.484	15.600	38.936	AND O-G	70J
AOB ,TC,TRISTAN (CEN)TR232-2-W	DBL SP	18.492	15.609	38.972	AND O-G	70J
AOB ,TC,TRISTAN (CEN)TR230-W	DBL SP	18.298	15.523	38.567	AND O-G	70J
AOB ,TC,TRISTAN (CEN)TR518-W	DBL SP	18.220	15.543	38.459	AND O-G	70J
AOB ,TC,TRISTAN (CEN)TR527-W	DBL SP	18.479	15.541	38.872	AND O-G	70J
AOB ,TC,TRISTAN (CEN)TR516-1-W	DBL SP	18.608	15.574	39.075	AND O-G	70J

ST. HELENA

AOB	,MA,HELENA	(CEN)2878-W	DBL SP	20.711	15.832	40.217	BAS O-G	70J
AOB	,MA,HELENA	(CEN)2882-1-W	DBL SP	20.828	15.857	40.173	BAS O-G	70J
AOB	,MA,HELENA	(CEN)2882-2-W	DBL SP	20.870	15.834	40.252	BAS O-G	70J
AOB	,MA,HELENA	(CEN)2892-W	DBL SP	20.851	15.876	40.380	BAS O-G	70J
AOB	,MA,HELENA	(CEN)2894-W	DBL SP	20.334	15.650	39.446	BAS O-G	70J
AOB	,MA,HELENA	(CEN)2924-W	DBL SP	20.475	15.662	39.572	PHO O-G	70J
AOB	,MA,HELENA	(CEN)2933-W	DBL SP	20.659	15.708	39.787	PHO O-G	70J
AOB	,MA,HELENA	(CEN)2935-1-W	DBL SP	20.724	15.701	39.848	PHO O-G	70J
AOB	,MA,HELENA	(CEN)2935-2-W	DBL SP	20.671	15.654	39.736	PHO O-G	70J

FAIAL

AOB	,FA,FAIAL	(CEN)MAF-I-1W	DBL SP	19.240	15.663	39.130	BAS OVER	71L
AOB	,FA,FAIAL	(CEN)MAF-I-2W	DBL SP	19.248	15.677	39.147	BAS OVER	71L
AOB	,FA,FAIAL	(CEN)MAF-III1W	DBL SP	19.219	15.621	38.963	BAS OVER	71L
AOB	,FA,FAIAL	(CEN)MAF-III2W	DBL SP	19.235	15.653	39.006	BAS OVER	71L
AOB	,FA,FAIAL	(CEN)MAF-IV-W	DBL SP	19.244	15.649	39.110	BAS OVER	71L

TRINDADE

AOB	,TR,TRINDADE	(CEN)UCTD3-W	DBL SP	19.155	15.561	39.077	PHO OVER	71L
AOB	,TR,TRINDADE	(CEN)UCTD6-W	DBL SP	19.188	15.575	39.130	PHO OVER	71L
AOB	,TR,TRINDADE	(CEN)UCTD18-W	DBL SP	19.085	15.561	39.008	PHO OVER	71L
AOB	,TR,TRINDADE	(CEN)UCTD12-W	DBL SP	18.966	15.546	38.702	BAS OVER	71L
AOB	,TR,TRINDADE	(CEN)UCTD5-W	DBL SP	18.950	15.554	38.809	BAS OVER	71L

ASCENSION(.45‰/MASS UNIT FRACTIONATION CORRECTION)

AOB	,MA,ASCENSIO	(CEN)2765-W	PBS-N	19.26	15.46	38.51	BAS GAST	69L
AOB	,MA,ASCENSIO	(CEN)2740-W	PBS-N	19.38	15.47	38.35	BAS GAST	69L
AOB	,MA,ASCENSIO	(CEN)2700-W	PBS-N	19.53	15.48	38.74	TRA GAST	69L
AOB	,MA,ASCENSIO	(CEN)2716-W	PBS-N	19.54	15.50	38.74	TRA GAST	69L
AOB	,MA,ASCENSIO	(CEN)2775-W	PBS-N	19.34	15.44	38.53	OBS GAST	69L
AOB	,MA,ASCENSIO	(CEN)2776-W	PBS-N	19.60	15.50	38.72	TRA GAST	69L
AOB	,MA,ASCENSIO	(CEN)2809-W	PBS-N	19.41	15.49	38.68	INC GAST	69L

GOUGH ISLAND(.45‰/MASS UNIT FRACTIONATION CORRECTION)

AOB	,MA,GOUGH IS	(CEN)G132-W	PBS-N	18.21	15.47	38.29	BAS GTH	64S
AOB	,MA,GOUGH IS	(CEN)G95-W	PBS-N	18.27	15.53	38.56	BAS GTH	64S
AOB	,MA,GOUGH IS	(CEN)G15-W	PBS-N	18.39	15.48	38.46	BAS GTH	64S
AOB	,MA,GOUGH IS	(CEN)G-19D-W	PBS-N	18.46	15.59	38.99	TRA GTH	64S
AOB	,MA,GOUGH IS	(CEN)G-3-W	PBS-N	18.55	15.49	38.79	TRA GTH	64S

PACIFIC OCEAN BASIN

RIDGE THOLEIITES

GORDA RISE

POB	,GR,GORDA R.	(CEN)1154-W	GEL-N	18.274	15.445	37.625	BAS C-T	75?
POB	,GR,GORDA R.	(CEN)4Z-W	DBL.SP.	18.346	15.475	37.812	BAS C-T	75?
POB	,GR,GORDA R.	(CEN)11A-W	GEL-N	18.362	15.434	37.732	BAS C-T	75?
POB	,GR,GORDA R.	(CEN)13A-W	GEL-N	18.380	15.465	37.795	BAS C-T	75?
POB	,GR,GORDA R.	(CEN)13E-W	GEL-N	18.408	15.488	37.903	BAS C-T	75?
POB	,GR,GORDA R.	(CEN)KD-9-W	DBL.SP.	18.410	15.481	37.859	BAS C-T	75?
POB	,GR,GORDA R.	(CEN)5A-W	DBL.SP.	18.570	15.511	37.929	BAS C-T	75?
POB	,GR,GORDA R.	(CEN)7T-W	GEL-N	18.621	15.490	38.016	BAS C-T	75?
POB	,GR,GORDA R.	(CEN)7F-W	DBL.SP.	18.649	15.486	38.037	BAS C-T	75?

JUAN DE FUCA RISE

JUAN DE FUCA RISE

POB	,JF,EXPLORER(CEN)C10-D3W	DBL,SP.	18.447	15.480	37.859	BAS C-T	75?
POB	,JF,DE FUCA (CEN)3A-W	DBL,SP.	18.339	15.462	37.714	BAS C-T	75?
POB	,JF,DE FUCA (CEN)3E-W	DBL,SP.	18.347	15.445	37.742	BAS C-T	75?
POB	,JF,DE FUCA (CEN)1A-W	DBL,SP.	18.518	15.492	37.893	BAS C-T	75?

EAST PACIFIC RISE

POB	,ER,RIDGE TH(CEN)AMPH-3M-WGEL-N		18.15	15.49	37.87	BAS D-S	74E
POB	,ER,RIDGE TH(CEN)PD-1-W	PBS-N	18.07	15.39	37.44	BAS TATS	66S
POB	,ER,RIDGE TH(CEN)PD-3-W	PBS-N	18.12	15.38	37.53	BAS TATS	66S
POB	,ER,RIDGE TH(CEN)PD-4-W	PBS-N	18.38	15.43	37.84	BAS TATS	66S

NAZCA PLATE

THOLEIITE (RELATED TO GALAPAGOS RISE ?)

POB	,NZ,NAZCA PL(CEN)S319C13S1GEL-N		18.540	15.525	38.064	BAS U-T	75D
POB	,NZ,NAZCA PL(CEN)S319AC1S1GEL-N		18.517	15.541	38.110	BAS U-T	75D
POB	,NZ,NAZCA PL(CEN)S319AC2S1GEL-N		18.540	15.550	38.114	BAS U-T	75D
POB	,NZ,NAZCA PL(CEN)S319AC3S5GEL-N		18.584	15.500	38.038	BAS U-T	75D
POB	,NZ,NAZCA PL(CEN)S319AC5S1GEL-N		18.593	15.496	38.035	BAS U-T	75D
POB	,NZ,NAZCA PL(CEN)S319AC6S1GEL-N		18.587	15.510	38.065	BAS U-T	75D
POB	,NZ,NAZCA PL(CEN)S321C14S1GEL-N		18.558	15.502	38.077	BAS U-T	75D
POB	,NZ,NAZCA PL(CEN)S321C14S2GEL-N		18.616	15.530	38.157	BAS U-T	75D
POB	,NZ,NAZCA PL(CEN)S321C14S3GEL-N		18.786	15.525	38.496	BAS U-T	75D
POB	,NZ,NAZCA PL(CEN)S321C14S4GEL-N		18.771	15.528	38.209	BAS U-T	75D
POB	,NZ,NAZCA PL(CEN)S321C14S4GEL-N		18.720	15.534	38.216	BAS U-T	75D

OTHERS

MARSHALL ISLANDS DRILLING

POB	,MA,RIDGE TH(M-C)169-6-4W	PUBL.	19.515	15.674	39.271	DIA BAS	73D
POB	,MA,RIDGE TH(MES)169-6-4W	PUBL.	19.46	15.67	39.21	DIA BAS	73D
POB	,MA,RIDGE TH(M-C)169-12-1W	PUBL.	18.532	15.547	38.376	BAS BAS	73D
POB	,MA,RIDGE TH(CRE)169-12-1W	PUBL.	18.40	15.54	38.23	BAS BAS	73D
POB	,MA,RIDGE TH(CRE)170-10-CC	PUBL.	19.888	15.580	39.454	MUG BAS	73D

INITIAL FOR 65MY AGE

POB	,MA,RIDGE TH(CRE)170-10-CC	PUBL.-C	19.56	15.56	39.07	MUG BAS	73D

INITIAL FOR 95MY AGE

POB	,MA,RIDGE TH(CRE)170-10-CC	PUBL.-C	19.36	15.56	38.89	MUG BAS	73D

INTRAPLATE VOLCANICS

HAWAIIAN ISLANDS

U.S.,	HA,HAWAII (CEN)PAT-W	PUBL.	18.00	15.50	37.86	TRA PAT	64IC
U.S.,	HA,HAWAII (CEN)PAT-P	PUBL.	18.05	15.51	37.86	BAS PAT	64IC
U.S.,	HA,HAWAII (CEN)HMC-2/7-W	PBS-N	18.08	15.54	37.75	MEL TATS	66J
U.S.,	HA,HAWAII (CEN)HMC-5-W	PBS-N	17.82	15.36	37.36	BAS TATS	66J
U.S.,	HA,HAWAII (CEN)PAT-W	PUBL.	18.03	15.56	38.01	BAS PAT	64IC
U.S.,	HA,HAWAII (CEN)HMC-4-W	PBS-N	18.35	15.48	37.90	HAW TATS	66J
U.S.,	HA,HAWAII (CEN)HMC-8-W	PBS-N	18.34	15.43	37.80	ANK TATS	66J
U.S.,	HA,HAWAII (CEN)HMC-3-W	PBS-N	17.96	15.34	37.72	TRA TATS	66J
U.S.,	HA,HAWAII (CEN)HMC-6-W	PBS-N	18.38	15.53	37.88	TRA TATS	66J
U.S.,	HA,KAUAI (CEN)ANU(2)-W	PUBL.	18.03	15.58	38.05	BAS C-R	66L
U.S.,	HA,KAUAI (CEN)ANU-W	PUBL.	18.19	15.56	38.06	BAS C-R	66L
U.S.,	HA,KAUAI (CEN)ANU-W	PUBL.	18.36	15.66	38.54	NEP C-R	66L
U.S.,	HA,KAUAI (CEN)ANU-W	PUBL.	18.43	15.68	38.55	HAW C-R	66L

U,S.,HA,MOLOKAI	(CEN)ANU-W	PUBL.	18.35	15.53	38.01	BAS C-R 66L
U,S.,HA,MOLOKAI	(CEN)ANU-W	PUBL.	18.39	15.51	38.06	MUG C-R 66L
U,S.,HA,OAHU	(CEN)ANU-W	PUBL.	17.98	15.57	37.95	BAS C-R 66L
U,S.,HA,OAHU	(CEN)ANU-W	PUBL.	18.14	15.55	37.98	BAS C-R 66L
U,S.,HA,OAHU	(CEN)ANU-W	PUBL.	18.21	15.65	38.35	HAW C-R 66L
U,S.,HA,OAHU	(CEN)ANU-W	PUBL.	18.03	15.48	37.78	BAS C-R 66L
U,S.,HA,OAHU	(CEN)HMC-1-W	PBS-N	17.97	15.43	37.74	BAS TATS 66J
U,S.,HA,OAHU	(CEN)PAT-W	PUBL.	17.87	15.53	37.90	R-D PAT 64IC
U,S.,HA,OAHU	(CEN)HON.SE.-W	GEL-N	18.20	15.50	37.91	BAS Z-T 73L

SEA MOUNTS

POB ,NW,COBB SEA	(CEN)C-1-W	GEL-N	18.809	15.479	38.17	BAS C-T 75?
POB ,NW,COBB SEA	(CEN)C-2-W	GEL-N	18.377	15.475	37.94	BAS C-T 75?
POB ,NW,COBB SEA	(CEN)C-3-W	GEL-N	18.423	15.480	37.96	BAS C-T 75?
POB ,NW,DELL.SEA	(CEN)D-1-W	GEL-N	18.957	15.541	38.33	BAS C-T 75?
POB ,NW,DELL.SEA	(CEN)D-2-W	GEL-N	19.095	15.560	38.34	BAS C-T 75?
POB ,NW,DELL.SEA	(CEN)D-3-W	GEL-N	18.502	15.505	37.93	BAS C-T 75?
POB ,NW,EXPLOR.S	(CEN)E-1-W	GEL-N	18.393	15.469	37.84	BAS C-T 75?
POB ,NW,EXPLOR.S	(CEN)E-2-W	GEL-N	18.400	15.465	37.83	BAS C-T 75?
POB ,NW,EXPLOR.S	(CEN)E-3-W	GEL-N	18.580	15.505	38.07	BAS C-T 75?
POB ,NW,EXPLOR.S	(CEN)E-4-W	GEL-N	18.401	15.476	37.83	BAS C-T 75?
POB ,NW,EXPLOR.S	(CEN)E-5-W	GEL-N	18.688	15.508	38.09	BAS C-T 75?
POB ,NW,HECK SEA	(CEN)H-1-W	GEL-N	18.295	15.495	37.66	BAS C-T 75?
POB ,NW,HECK SEA	(CEN)H-2-W	GEL-N	18.330	15.494	37.75	BAS C-T 75?
POB ,NW,HODG.BAN	(CEN)B-1-W	GEL-N	18.403	15.449	37.76	BAS C-T 75?
POB ,NW,HODG.BAN	(CEN)B-2-W	GEL-N	18.300	15.435	37.77	BAS C-T 75?
POB ,NW,UNION	(CEN)U-1-W	GEL-N	19.434	15.592	38.69	BAS C-T 75?
POB ,NW,PARKS	(CEN)P-227-W	GEL-N	18.297	15.447	37.70	BAS C-T 75?
POB ,NW,LEG 18	(CEN)7B-1-W	GEL-N	18.876	15.534	38.29	BAS C-T 75?
POB ,NW,LEG 18	(CEN)7B-13W	GEL-N	18.889	15.528	38.32	BAS C-T 75?
POB ,NW,LEG 18	(CEN)7B-12W	GEL-N	18.921	15.533	38.32	BAS C-T 75?

ISLAND VOLCANICS, RIDGES

POB ,EA,EASTER I	(CEN)PV-650W	PBS-N	19.18	15.51	38.64	OBS TATS 66S
POB ,EA,EASTER I	(CEN)PV-652W	PBS-N	19.12	15.43	38.43	INT TATS 66S
POB ,EA,EASTER I	(CEN)PV-653W	PBS-N	19.17	15.58	38.95	BAS TATS 66S
POB ,EA,EASTER I	(CEN)PV-651W	PBS-N	19.15	15.52	38.65	BAS TATS 66S
POB ,GU,GUADALUP	(CEN)GU-77W	PBS-N	20.30	15.59	40.25	BAS TATS 66S
POB ,GU,GUADALUP	(CEN)GU-52W	PBS-N	20.15	15.58	40.02	BAS TATS 66S
POB ,GU,GUADALUP	(CEN)GU-22W	PBS-N	20.04	15.61	39.96	BAS TATS 66S
POB ,GU,GUADALUP	(CEN)GU-4-W	PBS-N	20.05	15.52	39.78	BAS TATS 66S

INDIAN OCEAN BASIN

IOB , ,RIDGE TH(CEN)10-33W	GEL-N	17.55	15.47	37.42	BAS D-S	74E
IOB , ,RIDGE TH(CEN)10-35W	GEL-N	18.21	15.57	38.22	BAS D-S	74E
IOB ,W.,REUNION (CEN)ANU(2)-W	PUBL.	18.53	15.69	38.77	BAS C-R	66L

RED SEA BASIN

RIDGE THOLEIITES

N,AF,RS,RED SEA (CEN)226-W	GEL-N	18.672	15.543	38.307	BAS D-D	74D

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IIIIIIIII       GGGGGGGGGGG       IIIIIIIII          AAAAAAAAA
IIIIIIIII       GGGGGGGGGGG       IIIIIIIII          AAAAAAAAA
   III       GGG                    III          AAA         AAA
   III       GGG                    III          AAA         AAA
   III       GGG                    III          AAA         AAA
   III       GGG                    III          AAA         AAA
   III       GGG                    III          AAA         AAA
   III       GGG                    III          AAA         AAA
   III       GGG                    III          AAA         AAA
   III       GGG                    III          AAA         AAA
   III       GGG                    III          AAA         AAA
   III       GGG   GGGGGGGGG        III          AAAAAAAAAAAAAAA
   III       GGG   GGGGGGGGG        III          AAAAAAAAAAAAAAA
   III       GGG   GGGGGGGGG        III          AAAAAAAAAAAAAAA
   III       GGG         GGG        III          AAA         AAA
   III       GGG         GGG        III          AAA         AAA
   III       GGG         GGG        III          AAA         AAA
IIIIIIIII       GGGGGGGGG         IIIIIIIII          AAA         AAA
IIIIIIIII       GGGGGGGGG         IIIIIIIII          AAA         AAA
IIIIIIIII       GGGGGGGGG         IIIIIIIII          AAA         AAA


LLL                  IIIIIIIII          DDDDDDDDDDD
LLL                  IIIIIIIII          DDDDDDDDDDD
LLL                  IIIIIIIII          DDDDDDDDDDD
LLL                     III             DDD         DDD
LLL                     III             DDD         DDD
LLL                     III             DDD         DDD
LLL                     III             DDD         DDD
LLL                     III             DDD         DDD
LLL                     III             DDD         DDD
LLL                     III             DDD         DDD
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LLL                     III             DDD         DDD
LLL                     III             DDD         DDD
LLL                     III             DDD         DDD
LLL                     III             DDD         DDD
LLL                     III             DDD         DDD
LLLLLLLLLLLLLLL      IIIIIIIII          DDDDDDDDDDD
LLLLLLLLLLLLLLL      IIIIIIIII          DDDDDDDDDDD
LLLLLLLLLLLLLLL      IIIIIIIII          DDDDDDDDDDD
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LPTSPL VERSION 6(350)  RUNNING ON LPT100
 *START* USER DOE B. [622,104] JOB  IGCO SEQ. 979 DATE 22-DEC-75 10:19:15 MONITOR USGS DECSYSTEM10 ANF602 *START*
REQUEST CREATED: 22-DEC-75  10:19:15
FILE: DSKB2:IGIA,LID[622,104] CREATED: 01-DEC-75 10:37:00 <157>  PRINTED: 22-DEC-75 10:21:01
QUEUE SWITCHES:  /PRINT:ARROW /FILE:ASCII /COPIES:1 /SPACING:1 /LIMIT:531 /FORMS:NORMAL
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LOCATION	(AGE)SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE	REFER,
OTHER AREAS						
CARIBBEAN						
AOB ,CB,DOMINICA	(CEN)64-22W PUBL.	19.400	15.731	39.175	AND DRPA	69G
AOB ,CB,DOMINICA	(CEN)64-19W PUBL.	19.307	15.685	39.020	AND DRPA	69G
AOB ,CB,MONTSERR	(CEN)64-30W PUBL.	18.939	15.621	38.628	AND DRPA	69G
AOB ,CB,MONTSERR	(CEN)64-37W PUBL.	18.772	15.606	38.653	AND DRPA	69G
AOB ,CB,ST.KITTS	(CEN)64-39W PUBL.	18.952	15.658	38.711	AND DRPA	69G
AOB ,CB,ST.KITTS	(CEN)64-40W PUBL.	18.868	15.640	38.629	BAS DRPA	69G
AOB ,CB,MONTSERR	(CEN)64-26W PUBL.	18.918	15.694	38.785	BAS DRPA	69G
AOB ,CB,CULEBRA	(CEN)64-14W PUBL.	18.855	15.594	38.572	BAS DRPA	69G
AOB ,CB,ST.THOMA	(CEN)63-91W PUBL.	18.864	15.570	38.301	DIA DRPA	69G
AOB ,CB,ST.THOMA	(CEN)68-1-20W PUBL.	18.336	15.497	37.844	KER DRPA	69G
AOB ,CB,ST.THOMA	(CEN)61-80CW PUBL.	18.106	15.410	37.461	KER DRPA	69G
AOB ,CB,ST.THOMA	(CEN)63-76AW PUBL.	18.345	15.499	37.807	SPI DRPA	69G
AOB ,CB,ST.JOHN	(CEN)425W PUBL.	18.333	15.543	37.804	SPI DRPA	69G
AOB ,CB,L.PALMAS	(CEN)61-03W PUBL.	18.41	15.40	37.58	AMP DPPA	69G
ITALY						
ITAL,SA,M.PONI	(CEN)B9 PUBL.	18.10	15.87	38.53	GAL R-F	60I
ITAL,SA,M.PONI	(CEN)B7 PUBL.	18.37	15.71	38.66	GAL R-F	60I
ITAL,S.,VESUVIO	(CEN) PUBL.	19.14	15.78	39.48	BAS O-G	68L
ITAL,S.,VESUVIO	(CEN)B76 PUBL.	19.04	15.70	39.11	GAL R-F	60I
ITAL,S.,VESUVIO	(QUA)B(AVG.6) PUBL.	19.08	15.76	39.35	COT R-F	60I
ITAL,S.,VESUVIO	(QUA)B(AVG.5) PUBL.	19.16	15.77	39.44	COT R-F	60I
ITAL,S.,VESUVIO	(CEN)B58 PUBL.	19.16	15.80	39.50	GAL R-F	60I
JAPAN						
NIH ,HO,IWATE	(CEN)301W PBS-N	18.51	15.59	38.52	BAS H-K	69C
NIH ,HO,IWATE	(CEN)302W PBS-N	18.53	15.57	38.52	AND H-K	69C
NIH ,HO,MORIYOSI	(CEN)001W PBS-N	18.55	15.59	38.54	AND H-K	69C
NIH ,HO,MORIYOSI	(CEN)002W PBS-N	18.51	15.54	38.42	DAC H-K	69C
NIH ,HO,KAMPUZAN	(CEN)203W PBS-N	18.50	15.56	38.42	AND H-K	69C
NIH ,HO,KAMPUZAN	(CEN)204W PBS-N	18.49	15.49	38.26	AND H-K	69C
NIH ,HO,ICHINOME	(CEN)10R-1W PBS-N	18.38	15.54	38.38	INT H-K	69C
NIH ,HO,ICHINOME	(CEN)10N-1W PBS-N	18.27	15.51	38.22	GAB H-K	69C
NIH ,HO,ICHINOME	(CEN)10X-1-W PBS-N	18.39	15.55	38.35	GRA H-K	69C
NIH ,HK,OSHIMA O	(CEN)0V-1-W PBS-N	18.33	15.49	38.07	AND H-K	69C
NIH ,HK,OSHIMA O	(CEN)0V-2-W PBS-N	18.20	15.53	38.10	BAS H-K	69C
NIH ,HO,OKI DOGO	(CEN)65110301W PBS-N	17.93	15.41	38.16	BAS KUR	68C
NIH ,HO,OKI DOGO	(CEN)65110401W PBS-N	17.97	15.42	38.06	BAS KUR	68C
NIH ,HO,OKI DOGO	(CEN)65110402W PBS-N	17.98	15.39	38.07	BAS KUR	68C
NIH ,HO,OKI DOGO	(CEN)65110403W PBS-N	18.00	15.41	38.10	BAS KUR	68C
NIH ,HO,OKI DOGO	(CEN)65110504W PBS-N	17.83	15.43	38.16	BAS KUR	68C
NIH ,HO,OKI DOGO	(CEN)65110302W PBS-N	17.74	15.38	37.89	BAS KUR	68C
NIH ,HO,OKI DOGO	(CEN)65110503W PBS-N	18.16	15.38	38.01	AND KUR	68C

NIH ,HO,OKI DOGO(CEN)6511040?wPBS-N	17.69	15.40	38.08	MUG	KUR	68C
NIH ,HO,OKI DOGO(CEN)65110408wPBS-N	17.68	15.45	38.22	TRA	KUR	68C
NIH ,HO,OKI DOGO(CEN)65110501wPBS-N	17.81	15.46	38.32	TRA	KUR	68C
NIH ,HO,OKI DOGO(CEN)65110502wPBS-N	17.74	15.41	38.14	RHY	KUR	68C
NIH ,HO,OKI DOGO(CEN)65110406wPBS-N	17.85	15.42	38.33	RHY	KUR	68C
NIH ,HO,OKI DOGO(CEN)65110404wPBS-N	17.80	15.41	38.21	RHY	KUR	68C
NIH ,KY,TAKASHIM(CEN)65110902wPBS-N	17.68	15.31	37.59	BAS	KUR	68C
NIH ,HO,OSHIMA (CEN)66060901wPBS-N	18.33	15.54	38.19	BAS	T-K	69C
NIH ,HO,OSHIMA (CEN)66060902wPBS-N	18.42	15.52	38.26	BAS	T-K	69C
NIH ,HO,OSHIMA (CEN)65102602wPBS-N	18.37	15.53	38.22	BAS	T-K	69C
NIH ,HO,OSHIMA (CEN)65102601wPBS-N	18.40	15.53	38.27	BAS	T-K	69C
NIH ,HO,OSHIMA (CEN)65102502wPBS-N	18.42	15.55	38.29	BAS	T-K	69C
NIH ,HO,OSHIMA (CEN)65102501wPBS-N	18.43	15.57	38.37	BAS	T-K	69C
NIH ,HO,OSHIMA (CEN)JCP-1-W PBS-N	18.41	15.53	38.26	BAS	TATS	66J
NIH ,HO,HAKONE (CEN)65111001wPBS-N	18.36	15.53	38.26	BAS	T-K	69C
NIH ,HO,HAKONE (CEN)JHK-2-W PBS-N	18.34	15.53	38.25	BAS	T-K	69C
NIH ,HO,HAKONE (CEN)65102302wPBS-N	18.35	15.53	38.25	BAS	T-K	69C
NIH ,HO,HAKONE (CEN)65102206wPBS-N	18.21	15.48	38.04	AND	T-K	69C
NIH ,HO,HAKONE (CEN)65102200wPBS-N	18.29	15.52	38.17	AND	T-K	69C
NIH ,HO,HAKONE (CEN)65102201wPBS-N	18.29	15.54	38.24	AND	T-K	69C
NIH ,HO,HAKONE (CEN)65102207wPBS-N	18.25	15.50	38.13	AND	T-K	69C
NIH ,HO,HAKONE (CEN)65102205wPBS-N	18.29	15.50	38.15	AND	T-K	69C
NIH ,HO,HAKONE (CEN)65102203wPBS-N	18.26	15.49	38.11	AND	T-K	69C
NIH ,HO,HAKONE (CEN)65102204wPBS-N	18.29	15.53	38.23	AND	T-K	69C
NIH ,HO,HAKONE (CEN)65102301wPBS-N	18.26	15.51	38.13	AND	T-K	69C
NIH ,HO,FUJI-SAN(CEN)65102101wPBS-N	18.30	15.54	38.25	BAS	T-K	69C
NIH ,HO,FUJI-SAN(CEN)65102208wPBS-N	18.27	15.51	38.16	BAS	T-K	69C
NIH ,HO,FUJI-SAN(CEN)65102208wPBS-N	18.33	15.58	38.35	SEG	T-K	69C
NIH ,HO,FUJI-SAN(CEN)JHK-3-W PBS-N	18.26	15.51	38.16	BAS	TATS	66J
NIH ,HO,FUJI-SAN(CEN)65103101wPBS-N	18.30	15.55	38.28	BAS	T-K	69C
NIH ,HO,SUKUMO (CEN)65102303wPBS-N	18.23	15.49	38.07	BAS	T-K	69C
NIH ,HO,OMURO-YA(CEN)65102304wPBS-N	18.21	15.50	38.09	BAS	T-K	69C
NIH ,HO,OMURO-YA(CEN)65102403wPBS-N	18.23	15.50	38.06	AND	T-K	69C
NIH ,HO,OMURO-YA(CEN)65102405wPBS-N	18.25	15.52	38.16	BAS	T-K	69C
NIH ,HO,OMURO-YA(CEN)65102401wPBS-N	18.20	15.52	38.11	AND	T-K	69C
NIH ,HO,OMURO-YA(CEN)65102402wPBS-N	18.22	15.51	38.12	XEN	T-K	69C
NIH ,HO,OMURO-YA(CEN)65102404wPBS-N	18.20	15.50	38.08	AND	T-K	69C
NIH ,HO,AMAGI (CEN)65102406wPBS-N	18.26	15.55	38.25	AND	T-K	69C
NIH ,HO,AMAGI (CEN)65102407wPBS-N	18.22	15.51	38.12	DAC	T-K	69C
NIH ,HO,AMAGI (CEN)65111002wPBS-N	18.23	15.53	38.18	DAC	T-K	69C
NIH ,HO,YATSUGA (CEN)8-W PBS-N	18.37	15.57	38.46	AND	TATS	69L
NIH ,HK,SHOWASHI(CEN)JSD-W pBS-N	18.58	15.61	38.65	DAC	STRK	66L

TONGA-KERMADEC-NEW ZEALAND ISLAND ARC SYSTEM

TONGA ISLANDS

POB ,TO,METIS SH(CEN)GLASS-G PUBL-N	18.47	15.51	37.97	RHY	O-E	72C
POB ,TO,FONUALEI(CEN)20-W PUBL-N	18.50	15.53	38.08	AND	O-E	72C
POB ,TO,HUNGA (CEN)HU.-TOP-WPUBL-N	18.51	15.54	38.07	BAS	O-E	72C
POB ,TO,LATE (CEN)7-W PUBL-N	18.52	15.54	38.11	BAS	O-E	72C
POB ,TO,LATE (CEN)13-W PUBL-N	18.52	15.55	38.13	AND	O-E	72C
POB ,TO,HUNGA (CEN)HU.-BOT-WPUBL-N	18.52	15.57	38.15	BAS	O-E	72C
POB ,TO,LATE (CEN)1-W PUBL-N	18.53	15.54	38.10	BAS	O-E	72C
POB ,TO,FONUALEI(CEN)39-W PUBL-N	18.53	15.56	38.14	DAC	O-E	72C
POB ,TO,FONUALEI(CEN)8-W PUBL-N	18.54	15.55	38.17	DAC	O-E	72C
POB ,TO,LATE (CEN)3-W PUBL-N	18.55	15.55	38.11	BAS	O-E	72C
POB ,TO,FONUALEI(CEN)31-W PUBL-N	18.55	15.55	38.16	AND	O-E	72C

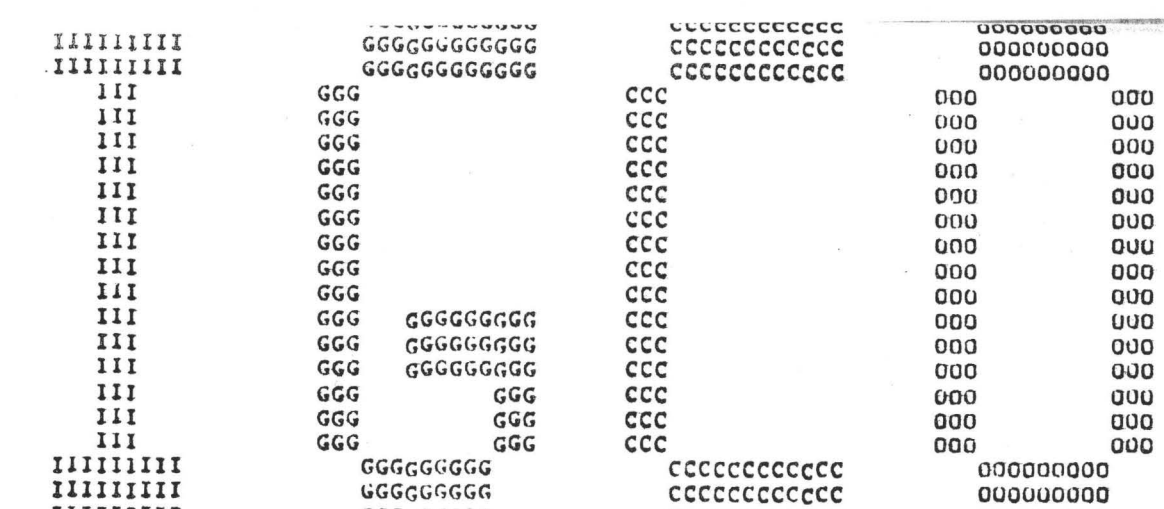
POB ,TO,EUA	(CEN)188-W	PUBL-N	18.76	15.60	36.37	AND O-E	72C	
POB ,TO,EUA	(CEN)11-W	PUBL-N	18.83	15.64	36.51	BAS O-E	72C	

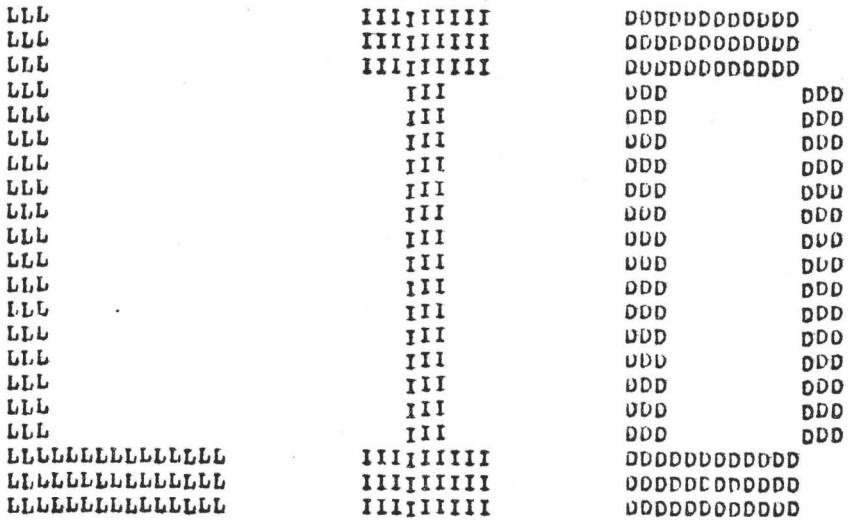
KERMADEC ISLANDS

POB ,KE,RAOUL	(CEN)7128W	PUBL-N	18.31	15.55	37.93	BAS O-E	72C	
POB ,KE,NAPIER	(CEN)14764W	PUBL-N	18.44	15.54	38.15	BAS O-E	72C	
POB ,KE,MACAUL	(CEN)10380W	PUBL-N	18.62	15.57	38.32	BAS O-E	72C	
POB ,KE,RAOUL	(CEN)7005W	PUBL-N	18.63	15.56	38.31	DAC O-E	72C	
POB ,KE,ESPERANC	(CEN)14831W	PUBL-N	18.73	15.59	38.47	BAS O-E	72C	

NEW ZEALAND

NZ ,NI,TONARIRO	(CEN)3158W	PUBL.	18.828	15.683	38.739	AND A-C	71V	
NZ ,NI,PUKEKAIK	(CEN)3155W	PUBL.	18.784	15.611	38.649	AND A-C	71V	
NZ ,NI,TAMA LAK	(CEN)3141W	PUBL.	18.682	15.518	38.382	AND A-C	71V	
NZ ,NI,TAWHAI F	(CEN)3152W	PUBL.	18.734	15.558	38.496	AND A-C	71V	
NZ ,NI,RUAPEHU	(CEN)3170W	PUBL.	18.837	15.648	38.787	AND A-C	71V	
NZ ,NI,KARANGAH	(CEN)3133W	PUBL.	18.759	15.635	38.66	BAS A-C	71V	
NZ ,NI,ONGAROTO	(CEN)3105W	PUBL.	18.793	15.625	38.68	BAS A-C	71V	
NZ ,NI,K TRIG	(CEN)P29205W	PUBL.	18.696	15.594	38.52	BAS A-C	71V	
NZ ,NI,RANGITOT	(CEN)5542W	PUBL.	18.977	15.596	38.709	BAS A-C	71V	
NZ ,NI,PUPUKE	(CEN)3310W	PUBL.	19.128	15.587	38.788	BAS A-C	71V	
NZ ,NI,MC LENNA	(CEN)3332W	PUBL.	19.155	15.588	38.786	BAS A-C	71V	
NZ ,NI,PUPUKE	(CEN)3040W	PUBL.	19.244	15.582	38.832	BAS A-C	71V	
NZ ,NI,MAUNGATA	(CEN)5516W	PUBL.	19.267	15.574	38.823	BAS A-C	71V	
NZ ,NI,BOMBAY	(CEN)3055W	PUBL.	19.166	15.546	38.718	BAS A-C	71V	
NZ ,NI,TAKANAKI	(CEN)3023W	PUBL.	18.974	15.589	38.689	BAS A-C	71V	
NZ ,NI,M.KARIOI	(CEN)3031W	PUBL.	18.818	15.602	38.623	AND A-C	71V	
NZ ,NI,MARUMAR.	(CEN)3070W	PUBL.	18.819	15.605	38.643	AND A-C	71V	
NZ ,NI,WHARIOR.	(CEN)3016W	PUBL.	18.811	15.602	38.626	AND A-C	71V	
NZ ,NI,COROMAN.	(CEN)JC-32W	PUBL.	18.85	15.63	38.73	AND C-R	69C	
NZ ,NI,COROMAN.	(CEN)JC-33W	PUBL.	18.79	15.66	38.66	AND C-R	69C	
NZ ,NI,COROMAN.	(CEN)JC-34W	PUBL.	18.71	15.61	38.58	AND C-R	69C	
NZ ,NI,COROMAN.	(CEN)JC-35W	PUBL.	18.83	15.61	38.65	AND C-R	69C	
NZ ,NI,COROMAN.	(CEN)JC-36W	PUBL.	18.80	15.61	38.62	AND C-R	69C	
NZ ,NI,TE AROHA	(CEN)JC-37W	PUBL.	18.72	15.58	38.52	AND C-R	69C	
NZ ,NI,TE AROHA	(CEN)JC-38W	PUBL.	18.66	15.55	38.41	AND C-R	69C	
NZ ,NI,TE AROHA	(CEN)JC-39W	PUBL.	18.79	15.63	38.69	AND C-R	69C	
NZ ,NI,TE AROHA	(CEN)JC-40W	PUBL.	18.51	15.61	38.42	AND C-R	69C	
NZ ,NI,COROMAN.	(CEN)JC-41W	PUBL.	18.81	15.65	38.72	RHY C-R	69C	
NZ ,NI,COROMAN.	(CEN)JC-42W	PUBL.	18.74	15.64	38.63	RHY C-R	69C	
NZ ,NI,COROMAN.	(CEN)JC-43(A)	PUBL.	18.83	15.62	38.70	RHY C-R	69C	





LPTSPL VERSION 6(350) RUNNING ON LPT100
START USER DOE B, [622,104] JOB IGCO SEQ. 979 DATE 22-DEC-75 10:19:15 MONITOR U6G5 DECSYSTEM10 ANF602 *START*
REQUEST CREATED: 22-DEC-75 10:19:15
FILE: DSKB1:IGCO.LID[622,104] CREATED: 01-DEC-75 10:28:00 <157> PRINTED: 22-DEC-75 10:19:19
QUEUE SWITCHES: /PRINT:ARROW /FILE:ASCII /COPIES:1 /SPACING:1 /LIMIT:545 /FORMS:NORMAL

IGNEOUS ROCKS, CONTINENTAL: CENOZOIC-MESOZOIC(IGCO,LID) (30 NOVEMBER 1975)

IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION	(AGE)SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE	REFER,
ANTARCTICA						
ROSS ISLAND						
ANT,,RI,MT, CIS	(CEN)NI13867W GEL-N	19.429	15.630	39.122	TRA S-H	75CO
ANT,,RI,CROZIER	(CEN)NI567W GEL-N	19.523	15.613	39.007	BSN S-H	75CO
ANT,,RI,TAYLOR V	(CEN)NI267W GEL-N	19.592	15.602	39.285	BSN S-H	75CO
ANT,,RI,CROZIER	(CEN)NI1167W GEL-N	19.666	15.607	39.165	PHO S-H	75CO
ANT,,RI,CROZIER	(CEN)NI15367W GEL-N	19.670	15.636	39.344	BSN S-H	75CO
ANT,,RI,MT,BIRD	(CEN)NI16170W GEL-N	19.701	15.607	39.360	BSN S-H	75CO
ANT,,RI,CA,ROYDS	(CEN)NI15267W GEL-N	19.822	15.648	39.406	PHO S-H	75CO
ANT,,RI,MT,BIRD	(CEN)NI16070W GEL-N	19.824	15.622	39.448	PHO S-H	75CO
ANT,,RI,CA,EVANS	(CEN)NI14467W GEL-N	19.882	15.646	39.484	PHO S-H	75CO
ANT,,RI,CA,ROYDS	(CEN)NI12765W GEL-N	19.902	15.629	39.555	TRB S-H	75CO
ANT,,RI,MT,DISC,	(CEN)NI15067W GEL-N	19.986	15.642	39.607	PHO S-H	75CO
ANT,,RI,MT,MORN,	(CEN)NI15670W GEL-N	20.039	15.650	39.563	BSN S-H	75CO
ANT,,RI,OBSERVA,	(CEN)NI-DV52W GEL-N	20.060	15.649	39.524	BSN S-H	75CO
ANT,,RI,OBSERVA,	(CEN)NI-DV43W GEL-N	20.061	15.653	39.600	BSN S-H	75CO
ANT,,RI,OBSERVA,	(CEN)NI-DV8-W GEL-N	20.225	15.665	39.819	TRB S-H	75CO
ANT,,RI,OBSERVA,	(CEN)NI15965W GEL-N	20.240	15.668	39.824	PHO S-H	75CO
ANT,,RI,OBSERVA,	(CEN)NI-DV32W GEL-N	20.245	15.665	39.772	TRB S-H	75CO
ANT,,RI,OBSERVA,	(CEN)NI-DV17W GEL-N	20.259	15.666	39.748	TRB S-H	75CO
ANT,,RI,OBSERVA,	(CEN)NI-DV5-W GEL-N	20.280	15.671	39.814	TRB S-H	75CO
NORTH AMERICA						
ALASKA						
U.S.,AK,NUN.IS,	(CEN)BASAN,-W GEL-N	18.63	15.46	38.11	BAS Z-T	73L
U.S.,AK,HUME CK	(CEN)ATS184AF PBS-N	18.94	15.67	38.76	GRA DOE	70M
U.S.,AK,BROOKS R	(CEN)60ASN145F PBS-N	19.05	15.67	38.96	GRA DOE	70M
ARIZONA						
U.S.,AZ,S.CARL,	(CEN)BASAN,-W GEL-N	18.59	15.51	37.98	BAS Z-T	73L
CALIFORNIA						
U.S.,CA,SHASTA	(CEN)MS68-6W PBS-N	18.76	15.54	38.25	BAS C-T	73G
U.S.,CA,SHASTA	(CEN)MS68-7W GEL-N	18.95	15.66	38.70	DAC C-T	73G
U.S.,CA,SHASTA	(CEN)MS68-12W GEL-N	18.92	15.65	38.72	AND C-T	73G
U.S.,CA,MEDICINE	(CEN)ML68-6WDW PBS-N	18.95	15.58	38.63	OBS C-T	73G
U.S.,CA,MEDICINE	(CEN)ML68-11BW PBS-N	18.93	15.60	38.53	BAS C-T	73G
U.S.,CA,LASSEN	(CEN)L67-11W GEL-N	18.91	15.60	38.63	DAC C-T	73G
U.S.,CA,LASSEN	(CEN)68-10W GEL-N	18.98	15.66	38.81	BAS C-T	73G
U.S.,CA,LASSEN	(CEN)L68-14W PBS-N	18.95	15.64	38.75	BAS C-T	73G
U.S.,CA,LITTLE G	(CEN) -W PBS-N	18.94	15.64	38.75	OBS DOE	67P
U.S.,CA,MONO C,	(CEN)1B-F GEL-N	18.689	15.634	38.467	GRA D-D	73G
U.S.,CA,SALTON S	(CEN) -W PBS-N	18.87	15.57	38.40	OBS DHW	66E
U.S.,CA,SALTON S	(CEN) -W PBS-N	18.85	15.56	38.40	OBS DHW	66E
U.S.,CA,SALTON S	(CEN) -W PBS-N	18.88	15.59	38.53	OBS DHW	66E

U.S.,CA,CLEAR L.(CEN)	-G GEL-N	19.17	15.65	38.92	DES D-D	73G	

FRANCISCON COMPLEX

U.S.,CA,FRANCISC(CEN)SB-S98Z-W	PUBL.	18.01	15.40	37.35	BAS S-D	71Y
U.S.,CA,FRANCISC(CEN)UD-SC-6W	PUBL.	18.50	15.40	37.89	BAS S-D	71Y
U.S.,CA,FRANCISC(CEN)UD-SBE-4W	PUBL.	18.52	15.49	37.96	BAS S-D	71Y
U.S.,CA,FRANCISC(CEN)NI-SBE10W	PUBL.	18.55	15.40	37.65	BAS S-D	71Y
U.S.,CA,FRANCISC(CEN)MD-CC2462	PUBL.	18.71	15.48	37.96	BAS S-D	71Y
U.S.,CA,FRANCISC(CEN)PS-SB-6V	PUBL	18.90	15.50	38.20	BAS S-D	71Y
U.S.,CA,FRANCISC(CEN)NA-SC-5V	PUBL.	18.92	15.51	38.69	BAS S-D	71Y
U.S.,CA,FRANCISC(CEN)SS-S-2V	PUBL.	19.02	15.49	38.17	BAS S-D	71Y
U.S.,CA,FRANCISC(CEN)PS-513-6V	PUBL.	19.02	15.55	38.16	BAS S-D	71Y
U.S.,CA,FRANCISC(CEN)LL-M-1V	PUBL.	19.26	15.50	38.91	BAS S-D	71Y
U.S.,CA,FRANCISC(CEN)RP-M-IV	PUBL.	19.32	15.38	37.49	BAS S-D	71Y
U.S.,CA,FRANCISC(CEN)L-M-IV	PUBL.	19.37	15.51	38.76	BAS S-D	71Y
U.S.,CA,FRANCISC(CEN)SS-S-7V	PUBL.	19.43	15.55	38.90	BAS S-D	71Y
U.S.,CA,FRANCISC(CEN)AC-SB-20V	PUBL.	19.46	15.58	39.31	BAS S-D	71Y
U.S.,CA,FRANCISC(CEN)BR-SB-24V	PUBL.	19.58	15.57	38.79	BAS S-D	71Y
U.S.,CA,FRANCISC(CEN)CI-LA-IV	PUBL.	23.28	15.77	38.39	BAS S-D	71Y

SOUTHERN CALIFORNIA BATHOLITH

U.S.,CA,SCB	(MES)RUBIDOUX	PUBL.	18.95	15.62	38.52	GRA B-S	64

SIERRA NEVADA BATHOLITH

U.S.,CA,SHASTA	(JUR)T-1645W	GEL-N	18.817	15.514	38.438	TRN D-D	73G
U.S.,CA,SHASTA	(JUR)T-1645WI	GEL-NC	18.571	15.502	38.084	TRN D-D	73G
U.S.,CA,SNB	(JUR)ST1-11W	GEL-N	18.799	15.615	38.534	TRN D-D	73G
U.S.,CA,SNB	(JUR)ST1-11WI	GEL-NC	18.730	15.612	38.444	TRN D-D	73G
U.S.,CA,SNB	(MES)S-SR-12F	GEL-N	18.771	15.624	38.546	GRA D-D	73G
U.S.,CA,SNB	(MES)S-SR-10F	GEL-N	18.788	15.611	38.522	GRA D-D	73G
U.S.,CA,SNB	(MES)S-SR-T1F	GEL-N	18.803	15.634	38.690	GRA D-D	73G
U.S.,CA,SNB	(MES)S-SR-3F	GEL-N	19.146	15.694	38.842	GRA D-D	73G
U.S.,CA,SNB	(MES)S-SR-8F	GEL-N	19.160	15.716	38.958	GRA D-D	73G
U.S.,CA,SNB	(MES)S-SR-5F	GEL-N	19.366	15.735	39.101	GRA D-D	73G

SALINIAN BLOCK

U.S.,CA,SALINIAN	(PHA)BC-1-4CF	GEL-N	19.11	15.69	39.01	GRA D-D	73G
U.S.,CA,SALINIAN	(PHA)JS-1F	GEL-N	19.53	15.75	39.29	GRA D-D	73G

ROCKS, MESOZOIC AND CENOZOIC
IGNEOUS, CONTINENTAL

IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM LEAD ISOTOPES AND ORE DEPOSITS PROJECT

KEY-LOCAL,/AGE	SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE	REFER,

NORTH AMERICA

COLORADO

EXCLUSIVE OF THE SAN JUAN MOUNTAINS
FRONT RANGE

U.S.,CO,F. RANGE(CEN)	ELDORA-F	PBS-N	17.94	15.54	38.48	GRA DOE	63J
U.S.,CO,F. RANGE(CEN)	ELDORA-F	PBS-N	17.70	15.43	38.57	GRA DOE	63J
U.S.,CO,F. RANGE(CEN)	ALBION-F	PBS-N	18.09	15.53	39.26	GRA DOE	63J

U.S.,CO,F. RANGE(CEN)HAHNS-FF	PBS-N	17.25	15.38	36.56	GRA ADD	72E
U.S.,CO,F. RANGE(CEN)HAHNS-D3F	PBS-N	17.31	15.42	36.61	GRA ADD	72E
U.S.,CO,F. RANGE(CEN)54P152	PBS-N	17.89	15.58	38.47	BAS DLHK	69C

SAN JUAN VOLCANIC AREA

WESTERN SAN JUAN MOUNTAINS(EARLY INTERMEDIATE VOLCANICS)

CIMMERON RIDGE RHYODACITE

U.S.,CO,S. JUAN (CEN)RD336-68	GEL-N	17.74	15.50	37.33	INT

WESTERN SAN JUAN MOUNTAINS (UNCOMPAGHRE-SAN JUAN CALDERA COMPLEX)

SAPINERO MESA TUFF

U.S.,CO,S. JUAN (CEN)68L42A-P	GEL-N	18.79	15.61	38.45	INT

BURNS FORMATION

U.S.,CO,S. JUAN (CEN)73L52B-P	GEL-N	18.784	15.604	38.463	INT

HENSON FORMATION

U.S.,CO,S. JUAN (CEN)73L44-P	GEL-N	18.641	15.586	38.435	INT

QUARTZ MONZONITE OF THE SULTON MOUNTAIN STOCK

U.S.,CO,S. JUAN (CEN)46DV36-F	PBS-N	18.69	15.51	37.96	GRA
U.S.,CO,S. JUAN (CEN)46DV36-F	GEL-N	18.76	15.60	38.28	GRA

INTRUSIVE OF THE NATIONAL BELLE MINE

U.S.,CO,S. JUAN (CEN)NB-BI-F	GEL-N	18.711	15.614	38.380	INT

CRYSTAL LAKE TUFF

U.S.,CO,S. JUAN (CEN)72L43A-G	GEL-N	18.870	15.641	38.459	RHY
U.S.,CO,S. JUAN (CEN)72L43AG-I	GEL-NC	18.81	15.61	38.40	RHY

INTRUSIVE OF ENGINEERS PASS

U.S.,CO,S. JUAN (CEN)73L101-F	GEL-N	18.128	15.534	37.743	INT

SUNSHINE PEAK TUFF(INTRACALDERA AND OUTFLOW)

U.S.,CO,S. JUAN (CEN)DS442-K	GEL-N	18.62	15.59	38.21	RHY
U.S.,CO,S. JUAN (CEN)DS29A-F	GEL-N	18.60	15.60	38.25	RHY
U.S.,CO,S. JUAN (CEN)DS29A-F	PBS-N	18.57	15.56	38.11	RHY

INTRUSIVE OF EAST NELLIE CREEK

U.S.,CO,S. JUAN (CEN)72L47-F	GEL-N	18.254	15.552	37.823	GRA

CENTRAL SAN JUAN MOUNTAINS (LA GARITA CALDERA COMPLEX)

FISH CANYON TUFF(INTRACALDERA AND OUTFLOW)

U.S.,CO,S. JUAN (CEN)S292B-K	PBS-N	18.42	15.54	37.60	RHY
U.S.,CO,S. JUAN (CEN)DS28-K	PBS-N	18.38	15.50	37.46	RHY

CARPENTER RIDGE TUFF(WILLOW CREEK UNIT)

U.S.,CO,S. JUAN (CEN)PB178-59W	GEL-N	18.708	15.602	38.014	RHY DOE	67P

MAMMOTH MOUNTAIN TUFF(FIRST FORK SECTION)

U.S.,CO,S. JUAN (CEN)67L137AW	PBS-N	18.54	15.48	37.61	RHY

U.S.,CO,S. JUAN (CEN)67L137MW	PBS-N	18.59	15.54	37.75	INT	

FISHER QUARTZ LATITE(BASAL VITROPHYRE AND LAVA OF WAGON WHEEL GAP)

U.S.,CO,S. JUAN (CEN)DS10-G	GEL-N	18.554	15.596	37.889	INT	
U.S.,CO,S. JUAN (CEN)DS10G-I	GEL-NC	18.50	15.59	37.84	INT	
U.S.,CO,S. JUAN (CEN)DS10-P	PBS-N	18.43	15.52	37.65	INT	
U.S.,CO,S. JUAN (CEN)PB168B59W	PBS-N	18.29	15.49	37.40	INT DOE	67P

EASTERN SAN JUAN MOUNTAINS(EARLY INTERMEDIATE VOLCANICS)

SUMMER COON VOLCANIC CENTER

U.S.,CO,S. JUAN (CEN)65L267-W	GEL-N	17.342	15.453	36.900	INT DLH	69AN
U.S.,CO,S. JUAN (CEN)67L106-W	GEL-N	17.34	15.42	36.94	BAS DLH	69AN
U.S.,CO,S. JUAN (CEN)65L206A-W	PBS-N	17.47	15.43	36.86	RHY DLH	69AN

BAUGHMAN CREEK VOLANIC CENTER

U.S.,CO,S. JUAN (CEN)DS66-F	PBS-N	17.33	15.38	36.72	GRA

SOUTHERN SAN JUAN MOUNTAINS(EARLY INTERMEDIATE VOLCANICS)

NAVAHO PEAK RHYODACITE

U.S.,CO,S. JUAN (CEN)68L91P	GEL-N	17.35	15.46	36.87	INT

CONEJOS PEAK RHYODACITE, SOUTHERN SAN JUAN MOUNTAINS

U.S.,CO,S. JUAN (CEN)65-L-138E	GEL-N	17.831	15.464	37.372	AND
U.S.,CO,S. JUAN (CEN)65L138W	RIGEL-NC	17.78	15.48	37.32	AND
U.S.,CO,S. JUAN (CEN)67L129-P	GEL-N	18.15	15.53	37.57	INT

SOUTHERN SAN JUAN MOUNTAINS (PLATORO CALDERA COMPLEX)

TREASURE MOUNTAIN TUFF

U.S.,CO,S. JUAN (CEN)65L132P	GEL-N	18.42	15.55	37.66	INT

SUMMITVILLE ANDESITE(LOWER MEMBER)

U.S.,CO,S. JUAN (CEN)67L125-W	PBS-N	18.52	15.57	37.75	AND DLH	69AN
U.S.,CO,S. JUAN (CEN)67L126-W	PBS-N	18.11	15.54	37.59	AND DLH	69AN

RHYODACITE OF PARK CREEK

U.S.,CO,S. JUAN (CEN)64D1	PBS-N	18.11	15.48	37.47	INT

QUARTZ LATITE OF SOUTH MOUNTAIN

U.S.,CO,S. JUAN (CEN)64D2P-F	PBS-N	18.00	15.52	37.22	INT
U.S.,CO,S. JUAN (CEN)64D2W	GEL-N	17.95	15.52	37.28	INT
U.S.,CO,S. JUAN (CEN)64D2W-F	PBS-N	17.97	15.51	37.28	INT

RHYOLITE OF CROPSY MOUNTAIN

U.S.,CO,S. JUAN (CEN)64D3	PBS-N	17.68	15.41	36.80	RHY
U.S.,CO,S. JUAN (CEN)64D3	PBS-N	17.69	15.44	36.90	RHY

SAN JUAN MOUNTAINS, HINSDALE FORMATION(ALL AREAS)

BASALT OF JAROSA MESA

U.S.,CO,S. JUAN (CEN)DS29B-W	PBS-N	18.31	15.53	37.97	BAS DOE	67P

BEAVER CREEK LOCALITY

U.S.,CO,S. JUAN (CEN)65-L-32-WGEL-N	18.841	15.576	38.030	BAS		
U.S.,CO,S. JUAN (CEN)65L32WR-IGEL-NC	18.81	15.57	37.98	BAS		
U.S.,CO,S. JUAN (CEN)65L161A-WPBS-N	18.099	15.546	37.463	RHY		

HANKERCHIEF MESA LOCALITY

U.S.,CO,S. JUAN (CEN)70L150A-WGEL-N	18.23	15.55	37.65	BAS		
U.S.,CO,S. JUAN (CEN)70L151-W GEL-N	18.09	15.54	37.48	RHY		

LA JARA RESERVOIR LOCALITY

U.S.,CO,S. JUAN (CEN)66L20-W PBS-N	17.89	15.47	37.36	BAS	DLHK	69C
U.S.,CO,S. JUAN (CEN)65L120-W GEL-N	18.316	15.532	37.677	BAS	DLHK	69C
U.S.,CO,S. JUAN (CEN)66L20-W PBS-N	17.83	15.43	37.01	BAS	DLHK	69C
U.S.,CO,S. JUAN (CEN)66L109L-PPBS-N	17.92	15.51	37.35	BAS	DLHK	69C
U.S.,CO,S. JUAN (CEN)66L109H-PPBS-N	18.20	15.49	37.63	BAS	DLHK	69C

ROCKS, MESOZOIC AND CENOZOIC
IGNEOUS, CONTINENTAL

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KEY-LOCAL,/AGE	SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE	REFER,

NORTH AMERICA

IDAHO

U.S.,ID,AM. FALL(PHA)1488-G	PBS-N	18.32	15.71	38.63	OBS	DOE 67P

MONTANA

BOULDER BATHOLITH

ELKHORN MOUNTAINS VOLCANICS

U.S.,MT,BOULDER (MES)52R16P-G	PBS-N	18.125	15.540	38.107	OBS	DTHK 68E
U.S.,MT,BOULDER (MES)52R16P-G	PBS-N	18.116	15.570	38.246	OBS	DTHK 68E
U.S.,MT,BOULDER (MES)52R16P-I	PBS-N	17.962	15.560	38.057	OBS	DTHK 68E
U.S.,MT,BOULDER (MES)WC60-32-GPBS-N		18.142	15.600	38.366	GLA	DTHK 68E

EARLY MAFIC ROCKS

U.S.,MT,BOULDER (MES)S1419-F	PBS-N	18.309	15.620	38.057	GAB	DTHK 68E
U.S.,MT,BOULDER (MES)63K350C-FPBS-N		17.922	15.570	38.216	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)63K350R-FPBS-N		17.761	15.550	38.216	MON	DTHK 68E

UNIONVILLE GRANODIORITE

U.S.,MT,BOULDER (MES)4T349-F	PBS-N	17.969	15.550	38.117	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)56KH3-F	PBS-N	17.984	15.590	38.097	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)63T500-F	PBS-N	17.906	15.480	37.778	GRA	DTHK 68
U.S.,MT,BOULDER (MES)63T500-F	PBS-N	17.981	15.580	38.117	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)4T225A-F	PBS-N	17.852	15.590	38.236	APL	DTHK 68E

RADER CREEK

U.S.,MT,BOULDER (MES)2T178P-F	PBS-N	16.816	15.411	37.599	PEG	DTHK 68E
U.S.,MT,BOULDER (MES)2T1093-F	PBS-N	16.900	15.331	37.300	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)2T1093-F	PBS-N	16.983	15.440	37.659	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)2T1065-F	PBS-N	16.870	15.391	37.798	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)2T1065-F	PBS-N	16.880	15.381	37.808	GRA	DTHK 68E

U.S.,MT,BOULDER (MES)2T1056-F	PBS-N	18.833	15.381	37.559	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)1K647-F	PBS-N	16.907	15.351	37.380	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)1K647-F	PBS-N	16.934	15.430	37.579	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)1K647-F	PBS-N	16.926	15.411	37.539	GRA	DTHK 68E
BURTON PARK						
U.S.,MT,BOULDER (MES)5T60-F	PBS-N	17.985	15.530	38.107	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)4T282-F	PBS-N	18.018	15.620	38.316	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)4T282-F	PBS-N	17.979	15.560	38.177	GRA	DTHK 68E
BUTTE QUARTZ MONZONITE AND RELATED SILICIC ROCKS						
U.S.,MT,BOULDER (MES)6K445-F	PBS-N	18.128	15.630	38.406	ALS	DTHK 68E
U.S.,MT,BOULDER (MES)6K445-P	PBS-N	18.061	15.530	38.177	ALS	DTHK 68E
U.S.,MT,BOULDER (MES)62K00-F	PBS-N	18.105	15.530	38.167	ALS	DTHK 68E
U.S.,MT,BOULDER (MES)3T273C-F	PBS-N	17.935	15.550	38.087	PEG	DTHK 68E
U.S.,MT,BOULDER (MES)1K337P-F	PBS-N	17.979	15.510	38.057	PEG	DTHK 68E
U.S.,MT,BOULDER (MES)5T214A-F	PBS-N	18.074	15.580	38.246	APL	DTHK 68E
U.S.,MT,BOULDER (MES)1K241-F	PBS-N	17.871	15.530	37.948	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)3T273-F	PBS-N	17.949	15.550	38.067	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)3T273-W	PBS-N	17.972	15.570	38.057	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)5T215-F	PBS-N	18.053	15.600	38.286	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)6K306-F	PBS-N	17.861	15.530	37.967	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)6K306-F	PBS-N	17.868	15.530	37.967	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)6K306-F	PBS-N	17.851	15.520	37.958	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)1K337R-F	PBS-N	18.063	15.600	38.346	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)5T214A-F	PBS-N	18.074	15.580	38.246	APL	DTHK 68E
U.S.,MT,BOULDER (MES)1K241-F	PBS-N	17.871	15.530	37.948	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)3T273-F	PBS-N	17.949	15.550	38.067	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)3T273-W	PBS-N	17.972	15.570	38.057	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)5T215-F	PBS-N	18.053	15.600	38.286	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)6K306-F	PBS-N	17.861	15.530	37.967	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)6K306-F	PBS-N	17.868	15.530	37.967	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)6K306-F	PBS-N	17.851	15.520	37.958	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)1K337R-F	PBS-N	18.063	15.600	38.346	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)5T214R-F	PBS-N	17.978	15.490	37.977	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)53C150-F	PBS-N	17.829	15.550	37.948	GRA	DTHK 68E
DONALD						
U.S.,MT,BOULDER (MES)2T1056-F	PBS-N	17.399	15.570	38.296	PEG	DTHK 68E
U.S.,MT,BOULDER (MES)2T1050-F	PBS-N	17.388	15.570	38.316	PEG	DTHK 68E
U.S.,MT,BOULDER (MES)W21-F	PBS-N	17.299	15.570	38.306	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)W21-F	PBS-N	17.316	15.570	38.326	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)2T275A-F	PBS-N	16.933	15.361	37.619	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)2T275A-F	PBS-N	16.992	15.440	37.958	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)2T275B-F	PBS-N	16.971	15.440	37.958	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)2T275M-F	PBS-N	17.153	15.460	37.967	MEG	DTHK 68E
U.S.,MT,BOULDER (MES)2T275M-F	PBS-N	17.155	15.460	37.958	MEG	DTHK 68E
U.S.,MT,BOULDER (MES)2F275B-P	PBS-N	17.085	15.550	38.326	GRA	DTHK 68E
HELL CANYON						
U.S.,MT,BOULDER (MES)1K633-F	PBS-N	17.646	15.480	38.376	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)2T797-F	PBS-N	17.711	15.540	38.376	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)2T297-F	PBS-N	17.715	15.530	38.555	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)2T641-F	PBS-N	17.502	15.490	38.465	GRA	DTHK 68E
U.S.,MT,BOULDER (MES)2T641-F	PBS-N	17.509	15.540	38.426	GRA	DTHK 68E
POST-LOWLAND CREEK VOLCANICS						
U.S.,MT,BOULDER (MES)4T505-G	PBS-N	18.615	15.650	38.505	RHY	DTHK 68E
U.S.,MT,BOULDER (MES)4T505-F	PBS-N	18.527	15.629	38.373	RHY	DTHK 68E

	LOWLAND CREEK VOLCANICS					
U.S.,MT,BOULDER	(MES)5S360-G	PBS-N	18.325	15.590	38.445	GLA DTHK 68E
U.S.,MT,BOULDER	(MES)5S351-G	PBS-N	18.164	15.620	38.286	GLA DTHK 68E
U.S.,MT,BOULDER	(MES)7S111-G	PBS-N	17.974	15.520	38.406	GLA DTHK 68E
U.S.,MT,BOULDER	(MES)7S111-P	PBS-N	18.108	15.590	38.476	GLA DTHK 68E
	GARNET RANGE					
U.S.,MT,GARNET	(M-C)64P-94	PBS-N	17.82	15.54	38.02	BAS DOE 70M
U.S.,MT,GARNET	(M-C)4P-9	PBS-N	17.23	15.36	37.07	BAS DOE 70M

ROCKS, MESOZOIC AND CENOZOIC
IGNEOUS, CONTINENTAL

IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION	(AGE)SAMPLE NO.	METHOD	206/204	207/204	208/204	TYPE	REFER.
NORTH AMERICA							
NEVADA							
	SAMPLES FOR STUDY BY CARL HEDGE						
U.S.,NV,	(PHA)H-64-86W	GEL-N	18.654	15.702	39.628	AND	
U.S.,NV,	(PHA)CHARCOA-F	GEL-N	19.145	15.714	39.803	GRA	
U.S.,NV,	(PHA)CB-64-29W	GEL-N	19.253	15.747	39.867	AND	
U.S.,NV,	(PHA)CHERRY-F	GEL-N	19.284	15.803	40.553	GRA	
U.S.,NV,	(PHA)PS64B-27W	GEL-N	19.634	15.736	39.509	AND	
U.S.,NV,	(PHA)PS64B-22W	GEL-N	19.665	15.744	39.586	AND	
	CORTEZ GOLD MINING DISTRICT						
U.S.,NV,CORTEZ	(PHA)J269-F	PBS-N	19.32	15.70	39.12	GRA RDW	74U
U.S.,NV,CORTEZ	(PHA)J272-F	PBS-N	19.25	15.67	38.95	RHY RDW	74U
U.S.,NV,CORTEZ	(PHA)J254A-F	PBS-N	19.38	15.76	39.33	RHY RDW	74U
U.S.,NV,CORTEZ	(PHA)J256-F	PBS-N	19.74	15.74	39.25	ALS RDW	74U
U.S.,NV,CORTEZ	(PHA)J258-F	PBS-N	19.50	15.80	38.87	GRA RDW	74U
U.S.,NV,CORTEZ	(PHA)W302-F	GEL-N	19.303	15.708	39.119	RHY RDW	74U
	NEVADA TEST SITE						
U.S.,NV,NEV.TEST	(PHA)7L204C-F	PBS-N	18.14	15.64	39.25	RHY DOE	70M
U.S.,NV,NEV.TEST	(PHA)7L204D-F	PBS-N	18.19	15.61	39.12	Q-L DOE	70M
U.S.,NV,NEV.TEST	(PHA)7L209-11F	PBS-N	18.07	15.63	39.07	RHY DOE	70M
U.S.,NV,NEV.TEST	(PHA)7L209-14F	PBS-N	18.37	15.67	39.13	Q-L DOE	70M

ROCKS, MESOZOIC AND CENOZOIC
IGNEOUS, CONTINENTAL

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NEW MEXICO						
	RIO GRANDE DEPRESSION					
U.S.,NM,RIO GRAN	(CEN)6561302-W	PBS-N	17.33	15.42	37.03	BAS DLHK 69C
U.S.,NM,RIO GRAN	(CEN)6561501-W	PBS-N	17.35	15.47	37.07	BAS DLHK 69C
U.S.,NM,RIO GRAN	(CEN)A54-14-W	PBS-N	17.74	15.45	37.44	BAS DOE 67P
U.S.,NM,JEMEZ MT	(CEN)LOS POSOS	PBS-N	17.97	15.52	37.83	OBS DOE 67P

U.S.,NM,JEMEZ MT(CEN)ARROYO H.PBS-N		18.16	15.48	37.84	OBS	DOE	67P
U.S.,NM,AG CITY (CEN)JC147-54	PBS-N	18.21	15.51	37.98	OBS	DOE	67P
U.S.,NM,JEMEZ MT(CEN)J54-4-W	PBS-N	18.30	15.41	37.70	BAS	DOE	67P
U.S.,NM,POTRILLO(CEN)POTRIL.-W	GEL-N	18.54	15.53	38.22	BAS	Z-T	73L

ROCKS, MESOZOIC AND CENOZOIC
IGNEOUS, CONTINENTAL

IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION (AGE)SAMPLE NO.	METHOD	206/204	207/204	208/204	TYPE	REFER.
OREGON						
U.S.,OR,JOHN DAY(CEN)TG-8-G	PBS-N	19.18	15.65	39.25	OBS	DOE 67P
U.S.,OR,SILETZ R(CEN)SAB59-1AI	PBS-N	18.86	15.46	38.24	BAS	T-S 69J
U.S.,OR,SILETZ R(CEN)SR61-116I	PBS-N	19.36	15.57	38.87	BAS	T-S 69J
U.S.,OR,SILETZ R(CEN)SR65-111I	PBS-N	19.19	15.53	38.75	BAS	T-S 69J
U.S.,OR,SILETZ R(CEN)SR63-190I	PBS-N	19.28	15.63	39.16	BAS	T-S 69J
U.S.,OR,SILETZ R(CEN)SR63-194I	PBS-N	19.26	15.52	38.65	GAB	T-S 69J
U.S.,OR,SILETZ R(CEN)SE64-4I	PBS-N	19.15	15.43	38.51	BAS	T-S 69J
U.S.,OR,SILETZ R(CEN)SR59-82I	PBS-N	19.43	15.55	39.01	BAS	T-S 69J
U.S.,OR,SILETZ R(CEN)OPS-14I	PBS-N	19.43	15.55	39.04	BAS	T-S 69J
U.S.,OR,CAPE MTN(EOC)SR63-45I	PBS-N	19.10	15.50	38.49	BAS	T-S 69J
U.S.,OR,DEVILS C(EOC)SW62-1I	PBS-N	19.21	15.59	38.93	DAC	T-S 69J
U.S.,OR,TABLE MT(CEN)SR59-46I	PBS-N	19.46	15.63	39.04	SYN	T-S 69J
U.S.,OR,SILETZ R(CEN)SR59-9I	PBS-N	19.92	15.66	39.55	INT	T-S 69J
U.S.,OR,LAMBERT (CEN)SE57-34I	PBS-N	19.07	15.60	38.70	GAB	T-S 69J
U.S.,OR,MARYS PK(CEN)SR65-55I	PBS-N	19.18	15.60	38.83	BAS	T-S 69J
U.S.,OR,MARYS PK(CEN)SR65-116I	PBS-N	19.09	15.59	38.79	DIO	T-S 69J
U.S.,OR,MARYS PK(CEN)SR65-115I	PBS-N	19.12	15.60	38.75	PEG	T-S 69J
U.S.,OR,MARYS PK(CEN)SR65-54I	PBS-N	19.98	15.58	38.79	APL	T-S 69J
U.S.,OR,NEAHKAHN(MIO)SR59-17CI	PBS-N	18.70	15.61	38.97	DIO	T-S 69J
U.S.,OR,NEAHKAHN(MIO)SR59-17FI	PBS-N	18.72	15.66	39.05	DIO	T-S 69J
U.S.,OR,DEPOE BA(CEN)WCF59-1I	PBS-N	18.68	15.64	38.85	BAS	T-S 69J
U.S.,OR,OTTER CR(CEN)SR62-17I	PBS-N	18.85	15.58	38.62	BAS	T-S 69J
U.S.,OR,MT. HOOD(CEN)H68-1W	PBS-N	18.72	15.51	38.38	DAC	C-T 73G
U.S.,OR,MT. HOOD(CEN)H68-4B-W	PBS-N	18.80	15.56	38.38	AND	C-T 73G
U.S.,OR,MT. HOOD(CEN)H68-9A-W	GEL-N	18.81	15.54	38.41	BAS	C-T 73G
U.S.,OR,MT. HOOD(CEN)H68-9B-W	GEL-N	18.76	15.58	38.27	XEN	C-T 73G
U.S.,OR,MT. HOOD(CEN)H68-14-W	GEL-N	18.78	15.54	38.30	AND	C-T 73G
U.S.,OR,MT. HOOD(CEN)H68-14PW	PBS-N	18.75	15.55	38.39	AND	C-T 73G
U.S.,OR,MT. HOOD(CEN)H68-14GMW	PBS-N	18.73	15.53	38.33	AND	C-T 73G
U.S.,OR,MT. HOOD(CEN)H68-15-W	PBS-N	18.77	15.54	38.41	AND	C-T 73G
U.S.,OR,MT. HOOD(CEN)CR-2W	PBS-N	18.92	15.55	38.42	BAS	C-T 73G
U.S.,OR,MT. HOOD(CEN)CR-3W	PBS-N	18.77	15.54	38.42	AND	C-T 73G
U.S.,OR,MT. HOOD(CEN)CR-7W	PBS-N	18.80	15.59	38.49	AND	C-T 73G
U.S.,OR,MT. HOOD(CEN)CR68-9W	PBS-N	18.87	15.56	38.50	BAS	C-T 73G
U.S.,OR,3SISTERS(CEN)S68-7W	GEL-N	18.88	15.59	38.63	AND	C-T 73G
U.S.,OR,3SISTERS(CEN)RB68-3BW	PBS-N	18.85	15.61	38.54	BAS	C-T 73G
U.S.,OR,NEWBERRY(CEN)NC-PC-3W	GEL-N	18.96	15.57	38.69	BAS	C-T 73G
U.S.,OR,NEWBERRY(CEN)NC-PC-6W	GEL-N	18.97	15.63	38.68	AND	C-T 73G
U.S.,OR,CRATER L(CEN)CL68-6W	GEL-N	18.83	15.57	38.47	DAC	C-T 73G
U.S.,OR,CRATER L(CEN)CL68-11W	GEL-N	18.93	15.62	38.59	BAS	C-T 73G

IGNEOUS, CONTINENTAL

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LOCATION	(AGE)SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE	REFER,
SOUTH DAKOTA						
U,S,,SD,BLACK HI(CEN)	ROUBAIX-GPBS-N	17,89	15,61	38,36	ORS DOE	67P
U,S,,SD,BLACK HI(CEN)	P-9-F GEL-NC	18,307	15,588	38,015	GRA RDD	74E
U,S,,SD,BLACK HI(CEN)	P-9-FI GEL-NC	18,25	15,58	37,98	GRA RDD	74E
U,S,,SD,BLACK HI(CEN)	P-15-F GEL-N	22,20	15,72	42,14	GRA RDD	74E
U,S,,SD,BLACK HI(CEN)	P-15-FI GEL-NC	18,15	15,53	35,76	GRA RDD	74E
TEXAS						
U,S,,TX,TASCOTAL(CEN)	TM294-W PBS-N	17,77	15,60	37,78	RHY DOE	67P
U,S,,TX,TASCOTAL(CEN)	284-W PBS-N	17,77	15,61	37,94	RHY DOE	67P

ROCKS, MESOZOIC AND CENOZOIC
IGNEOUS, CONTINENTAL

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LOCATION	(AGE)SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE	REFER,
NORTH AMERICA						
UTAH						
U,S,,UT,GOLD HIL(CEN)	GH-39-W GEL-N	18,925	15,675	39,250	BAS	
U,S,,UT,GOLD HIL(CEN)	-W GEL-N	18,908	15,837	40,471	AND	
U,S,,UT,GOLD HIL(CEN)	GH70-6-F GEL-N	18,658	15,758	39,996	GRA	
U,S,,UT,GOLD HIL(CEN)	GOLDHILL2GEL-N	18,668	15,761	40,028	GRA	
U,S,,UT,GOLD HIL(CEN)	GH70-5A-FGEL-N	18,685	15,726	39,908	GRA	
U,S,,UT,GOLD HIL(CEN)	GH70-2-F GEL-N	18,713	15,774	40,079	GRA	
U,S,,UT,GOLD HIL(CEN)	GH70-15BFGEL-N	19,507	15,742	39,499	GRA	
U,S,,UT,GOLD HIL(CEN)	-F GEL-N	19,537	15,812	40,170	GRA	
U,S,,UT,GOLD HIL(CEN)	GH70-15AFGEL-N	19,566	15,841	40,230	GRA	
U,S,,UT,GOLD HIL(CEN)	GH70-19-FGEL-N	19,568	15,812	40,139	GRA	
U,S,,UT,GOLD HIL(CEN)	GH70-18-FGEL-N	19,611	15,838	40,302	GRA	
U,S,,UT,GOLD HIL(CEN)	GH70-13AFGEL-N	19,645	15,832	40,173	GRA	
U,S,,UT,GOLD HIL(CEN)	GH70-10-FGEL-N	19,733	15,860	40,366	GRA	
U,S,,UT,BINGHAM (CEN)	65US93-F PBS-N	17,71	15,66	38,56	GRA SZNK	68E
U,S,,UT,BINGHAM (CEN)	66US16-F PBS-N	17,87	15,64	38,55	GRA SZNK	68E
U,S,,UT,TINTIC (CEN)	SILVER-F PBS-N	18,64	15,66	38,79	GRA SZNK	68E
U,S,,UT,DESERT M(CEN)	DESERT-F PBS-N	18,82	15,66	39,01	GRA SZNK	68E
U,S,,UT,STAR (CEN)	N, STAR-FPBS-N	18,37	15,60	38,53	GRA SZNK	68E
U,S,,UT,LINCOLN (CEN)	BLUE S,-FPBS-N	18,72	15,65	38,65	GRA SZNK	68E
U,S,,UT,LA SAL (CEN)	LS3-63-F PUBL,	19,27	15,65	38,60	SYN SNKS	65J
U,S,,UT,LA SAL (CEN)	LS2-63-F PUBL,	19,37	15,72	38,69	GRA SNKS	65J
U,S,,UT,LA SAL (CEN)	LS1-63-F PUBL,	18,27	15,55	37,62	DIO SNKS	65J

ROCKS, MESOZOIC AND CENOZOIC
IGNEOUS, CONTINENTAL

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LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION	(AGE)SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE REFER,
NORTH AMERICA					
WASHINGTON					
VOLCANIC ROCKS					
U.S.,WA,RAINIER (CEN)	R58-10G PBS-N	19.06	15.63	38.86	OBS DOE 67P
U.S.,WA,BODIE MT(CEN)	50P61-G PBS-N	18.96	15.62	38.67	OBS DOE 67P
U.S.,WA,ALDER BL(MIO)	SR64-209I PBS-N	18.36	15.63	39.62	BAS T-S 69J
U.S.,WA,PACK SAC(MIO)	SR65-130I PBS-N	18.23	15.57	39.40	BAS T-S 69J
U.S.,WA,MT.BAKER(CEN)	B-68-2W PBS-N	18.71	15.53	38.21	AND C-T 73G
U.S.,WA,MT.BAKER(CEN)	B-68-13W GEL-N	18.90	15.55	38.43	AND C-T 73G
U.S.,WA,GLACIER (CEN)	GP-1-W PBS-N	18.89	15.61	38.62	AND C-T 73G
U.S.,WA,GLACIER (CEN)	GP26B-62W PBS-N	18.85	15.62	38.62	DAC C-T 73G
U.S.,WA,GLACIER (CEN)	DFC65-61W PBS-N	18.75	15.60	38.45	BAS C-T 73G
U.S.,WA,RAINIER (CEN)	RR-4W PBS-N	18.98	15.61	38.66	AND C-T 73G
U.S.,WA,RAINIER (CEN)	R2-1 PBS-N	18.91	15.58	38.55	AND C-T 73G
U.S.,WA,ST.HELEN(CEN)	SH28-1W PBS-N	18.86	15.65	38.73	DAC C-T 73G
U.S.,WA,ST.HELEN(CEN)	SH29-1W PBS-N	18.83	15.60	38.60	AND C-T 73G
U.S.,WA,ST.HELEN(CEN)	SH34-1W PBS-N	18.87	15.62	38.72	BAS C-T 73G
U.S.,WA,MT.ADAMS(CEN)	A-68-18W PBS-N	18.99	15.60	38.56	AND C-T 73G
U.S.,WA,MT.ADAMS(CEN)	A-68-23W PBS-N	18.99	15.65	38.62	AND C-T 73G
PLUTONIC ROCKS					
U.S.,WA,SIMCO MT(CEN)	CMI-1W PBS-N	19.26	15.63	38.71	BAS C-T 73G
U.S.,WA,SIMCO MT(CEN)	SM-3-W PBS-N	19.17	15.71	39.01	DAC C-T 73G
U.S.,WA,CLOUDY P(CEN)	CR20-W PBS-N	19.04	15.52	38.46	GRA C-T 73G
U.S.,WA,CLOUDY P(CEN)	CR21-W PBS-N	18.99	15.55	38.77	GRA C-T 73G
U.S.,WA,SITKUM R(CEN)	WT212-62W PBS-N	19.04	15.58	38.59	GRA C-T 73G
U.S.,WA,DUNCAN R(CEN)	C541-W GEL-N	18.99	15.62	38.62	GRA C-T 73G
U.S.,WA,DUNCAN R(CEN)	C685-W GEL-N	18.93	15.62	38.60	GRA C-T 73G
U.S.,WA,DUNCAN R(CEN)	C795-W GEL-N	18.94	15.59	38.50	GRA C-T 73G

ROCKS, MESOZOIC AND CENOZOIC
IGNEOUS, CONTINENTAL

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LOCATION	(AGE)SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE REFER,
NORTH AMERICA					
WYOMING					
U.S.,WY,ABSAROKA(CEN)	P-205A PBS-N	16.634	15.436	37.241	AND PDP 70CO
U.S.,WY,ABSAROKA(CEN)	P-205A-I PBS-N	16.601	15.418	37.201	AND PDP 70CO
U.S.,WY,ABSAROKA(CEN)	P-205B PBS-N	16.606	15.395	37.171	AND PDP 70CO
U.S.,WY,ABSAROKA(CEN)	P-205B-I PBS-N	16.574	15.393	37.131	AND PDP 70CO
U.S.,WY,ABSAROKA(CEN)	P-496 PBS-N	16.302	15.402	36.822	AND PDP 70CO
U.S.,WY,ABSAROKA(CEN)	P-496-I PBS-N	16.272	15.401	36.782	AND PDP 70CO
U.S.,WY,ABSAROKA(CEN)	7PD-1 PBS-N	16.472	15.334	36.703	AND PDP 70CO
U.S.,WY,ABSAROKA(CEN)	7PD-1-I PBS-N	16.438	15.332	36.663	AND PDP 70CO

U.S.,WY,ABSAROKA(CEN)P-14	PBS-N	17.085	15.511	37.868	SHO PDP 70CO	
U.S.,WY,ABSAROKA(CEN)P-14-I	PBS-N	17.022	15.508	37.778	SHO PDP 70CO	
U.S.,WY,ABSAROKA(CEN)P-348-F	PBS-N	17.261	15.530	37.480	RHY PDP 70CO	
U.S.,WY,ABSAROKA(CEN)P-497	PBS-N	16.880	15.397	37.221	SHO PDP 70CO	
U.S.,WY,ABSAROKA(CEN)P-497-I	PBS-N	16.829	15.394	37.161	SHO PDP 70CO	
U.S.,WY,ABSAROKA(CEN)P-306-F	PBS-N	16.842	15.450	37.480	RHY PDP 70CO	
U.S.,WY,YELLOWST(CEN)YP-53-121	PBS-N	16.58	15.44	38.58	RHY DOE 67P	
U.S.,WY,YELLOWST(CEN)6YC-138	GEL-N	16.60	15.42	38.42	RHY	
U.S.,WY,YELLOWST(CEN)6YC-133	GEL-N	16.70	15.39	37.50	BAS	
U.S.,WY,YELLOWST(CEN)6YC-133	PBS-N	16.68	15.39	37.48	BAS	
U.S.,WY,YELLOWST(CEN)6YC-136	PBS-N	16.79	15.39	37.59	BAS	
U.S.,WY,YELLOWST(CEN)6YC-139	GEL-N	16.79	15.40	38.12	BAS	
U.S.,WY,YELLOWST(CEN)6YC-139	PBS-N	16.84	15.47	38.28	RHY	
U.S.,WY,YELLOWST(CEN)2YR-118-F	GEL-N	16.87	15.47	38.00	RHY	
U.S.,WY,YELLOWST(CEN)2YR-118G	GEL-N	16.892	15.492	38.049	RHY	
U.S.,WY,YELLOWST(CEN)6YC-145	GEL-N	16.96	15.50	37.92	BAS	
U.S.,WY,YELLOWST(CEN)6YC-145	PBS-N	16.99	15.56	38.14	BAS	
U.S.,WY,YELLOWST(CEN)OCB66-01F	GEL-N	17.00	15.49	38.06	RHY	
U.S.,WY,YELLOWST(CEN)OCB-66-01	PBS-N	17.03	15.51	38.11	RHY	
U.S.,WY,YELLOWST(CEN)OCB-66-01	PBS-N	17.06	15.58	38.33	RHY	
U.S.,WY,YELLOWST(CEN)6YC-137	GEL-N	17.14	15.54	38.29	RHY	
U.S.,WY,YELLOWST(CEN)6YC-137	PBS-N	17.17	15.57	38.38	RHY	
U.S.,WY,YELLOWST(CEN)YP-52-78	PBS-N	17.18	15.59	38.40	RHY DOE 67P	
U.S.,WY,YELLOWST(CEN)6YC-144	GEL-N	17.23	15.51	38.13	BAS	
U.S.,WY,YELLOWST(CEN)6YC-144	PBS-N	17.20	15.46	38.06	BAS	
U.S.,WY,YELLOWST(CEN)69-0-20	GEL-N	17.24	15.55	38.33	RHY	
U.S.,WY,YELLOWST(CEN)6YC-140B	PBS-N	17.24	15.49	38.23	BAS	
U.S.,WY,YELLOWST(CEN)OCB-563	GEL-N	17.253	15.559	38.279	RHY	
U.S.,WY,YELLOWST(CEN)6YC-132	PBS-N	17.26	15.47	37.71	BAS	
U.S.,WY,YELLOWST(CEN)OCB-66-04	PBS-N	17.26	15.56	38.35	RHY	
U.S.,WY,YELLOWST(CEN)YG-79-4	GEL-N	17.27	15.55	38.43	RHY	
U.S.,WY,YELLOWST(CEN)6YC-134	PBS-N	17.28	15.48	37.77	BAS	
U.S.,WY,YELLOWST(CEN)6YC-146	PBS-N	17.28	15.53	38.38	RHY	
U.S.,WY,YELLOWST(CEN)6YC-147	PBS-N	17.29	15.57	38.46	RHY	
U.S.,WY,YELLOWST(CEN)OCB-601	GEL-N	17.291	15.573	38.447	RHY	
U.S.,WY,YELLOWST(CEN)6YC-146	GEL-N	17.30	15.54	38.42	RHY	
U.S.,WY,YELLOWST(CEN)6YC-146	PBS-N	17.34	15.62	38.64	RHY	
U.S.,WY,YELLOWST(CEN)6YC-142	PBS-N	17.31	15.52	38.24	BAS	
U.S.,WY,YELLOWST(CEN)6YC-135	PBS-N	17.43	15.56	38.01	RHY	
U.S.,WY,YELLOWST(CEN)6YC-109	PBS-N	17.53	15.56	38.24	RHY	
U.S.,WY,YELLOWST(CEN)OCB-66-13	GEL-N	17.55	15.55	38.23	RHY	
U.S.,WY,YELLOWST(CEN)OCB-66-13	PBS-N	17.55	15.56	38.16	RHY	
U.S.,WY,YELLOWST(CEN)OCB-66-12	PBS-N	17.60	15.62	38.41	RHY	

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   SSSSSSSSSSSS        EEEEEEEEEEEEEEEE        DDDDDDDDDDDD            OOOOOOOOO
  SSSSSSSSSSSSS        EEEEEEEEEEEEEEEE        DDDDDDDDDDDDD           OOOOOOOOO
  SSSSSSSSSSSSS        EEEEEEEEEEEEEEEE        DDDDDDDDDDDDD           OOOOOOOOO
 SSS                   EEE                     DDD         DDD         OOO         OOO
 SSS                   EEE                     DDD         DDD         OOO         OOO
 SSS                   EEE                     DDD         DDD         OOO         OOO
 SSS                   EEE                     DDD         DDD         OOO         OOO
 SSS                   EEE                     DDD         DDD         OOO         OOO
 SSS                   EEE                     DDD         DDD         OOO         OOO
  SSSSSSSSS            EEEEEEEEEEEEE           DDD         DDD         OOO         OOO
  SSSSSSSSS            EEEEEEEEEEEEE           DDD         DDD         OOO         OOO
  SSSSSSSSS            EEEEEEEEEEEEE           DDD         DDD         OOO         OOO
        SSS            EEE                     DDD         DDD         OOO         OOO
        SSS            EEE                     DDD         DDD         OOO         OOO
        SSS            EEE                     DDD         DDD         OOO         OOO
        SSS            EEE                     DDD         DDD         OOO         OOO
        SSS            EEE                     DDD         DDD         OOO         OOO
        SSS            EEE                     DDD         DDD         OOO         OOO
 SSSSSSSSSSSS          EEEEEEEEEEEEEEEE        DDDDDDDDDDDD            OOOOOOOOO
 SSSSSSSSSSSS          EEEEEEEEEEEEEEEE        DDDDDDDDDDDD            OOOOOOOOO
 SSSSSSSSSSSS          EEEEEEEEEEEEEEEE        DDDDDDDDDDDD            OOOOOOOOO


 LLL                     IIIIIIIII             DDDDDDDDDDD
 LLL                     IIIIIIIII             DDDDDDDDDDDD
 LLL                     IIIIIIIII             DDDDDDDDDDDD
 LLL                        III                DDD         DDD
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LPT5PL VERSION 6(350)  RUNNING ON LPT100
 *START* USER DOE B. [622,104] JOB  IGCO SEQ. 979 DATE 22-DEC-75 10:19:15 MONITOR USGS DEC8SYSTEM10 ANF602 *START*
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SEDIMENTS, OCEANIC(INCLUDING MN NODULES)(SEDO.LID) (3 NOVEMBER 1975)

IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION	(AGE)SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE	REFER,
ATLANTIC						
AOB ,S,,	(CEN)E28-5-W PUBL.	18.784	15.615	38.746	MN R-D	71J
CARRIBBEAN						
AOB ,C3,W.INDIES	(CEN)S-M-W PUBL.	18.982	15.643	38.994	MN R-D	71J
AOB ,CB,W.INDIES	(CEN)C-58-W PUBL.	19.089	15.637	39.127	MN R-D	71J
GULF OF CALIFORNIA						
POB ,GC,GULF CAL	(CEN)MN-NODULEPBS-N	19.15	15.68	38.81	MN C-P	62A
INDIAN						
IOB , ,	(CEN)6269-10W PUBL.	18.743	15.640	38.941	MN R-D	71J
PACIFIC						
POB ,S,,	(CEN)A54-14-W GEL-N	18.31	15.52	38.02	SED DDH	71L
POB ,S,,	(CEN)DSDP-GC-3GEL-N	18.395	15.561	38.015	SED	
POB ,S,,	(CEN)17813-W PUBL.	18.676	15.615	38.576	MN R-D	71J
POB ,N,,	(CEN)DWHD-47W PUBL.	18.713	15.633	38.737	MN R-D	71J
POB ,S,,	(CEN)BT14-3W PUBL.	18.727	15.607	38.668	MN R-D	71J
POB ,S,,	(CEN)RS24-15W PUBL.	18.743	15.613	38.650	MN R-D	71J
POB ,N,,	(CEN)DH-2-W PUBL.	18.789	15.648	38.725	MN R-D	71J
POB ,N,,	(CEN)V20-D4-W PUBL.	18.878	15.650	38.836	MN R-D	71J
POB ,NE,00	(CEN)MUK-B4W GEL-N	18.74	15.62	38.88	SED CHUR	73C
POB ,NE,00	(CEN)CUSP17W GEL-N	18.77	15.64	38.93	SED CHUR	73C
POB ,NE,MR	(CEN)227/5L GEL-N	18.82	15.63	38.80	SED CHUR	73C
POB ,NE,GB	(CEN)235/102W GEL-N	18.83	15.59	38.56	SED CHUR	73C
POB ,NE,00	(CEN)MUK-B4W GEL-N	18.87	15.65	38.93	SED CHUR	73C
POB ,NE,	(CEN)247/L GEL-N	18.88	15.64	38.86	MN CHUR	73C
POB ,NE,	(CEN)247/R GEL-N	18.89	15.62	38.78	MN CHUR	73C
POB ,NE,MR	(CEN)245/95L GEL-N	18.90	15.62	38.98	SED CHUR	73C
POB ,NE,GB	(CEN)MUK-B31W GEL-N	19.03	15.64	38.86	SED CHUR	73C
POB ,NE,00	(CEN)LFGS43W GEL-N	18.91	15.63	38.73	SED CHUR	73C
POB ,NE,00	(CEN)LFGS42W GEL-N	19.09	15.66	39.06	SED CHUR	73C
NAZCA PLATE						
LEG 34 DSDP METALLIFEROUS SEDIMENT						
POB ,NZ,NAZCA PL	(DEN)S319C1S6 GEL-N	18.481	15.533	38.186	SED U-T	75D
POB ,NZ,NAZCA PL	(CEN)S319C7S1 GEL-N	18.388	15.501	38.407	SED U-T	75D
POB ,NZ,NAZCA PL	(CEN)S319C12S3GEL-N	18.544	15.519	38.099	SED U-T	75D

RED SEA

N,AF,RS,S,ATL,2 (CEN)384-1	DBL,SPN	18,62	15,55	38,36	SED C-R	69R
N,AF,RS,DISCOVER(CEN)119K-20	DBL,SPN	18,75	15,53	38,38	SED C-R	69R
N,AF,RS,S,ATL,2 (CEN)84K-2	DBL,SPN	18,76	15,60	38,56	SED C-R	69R
N,AF,RS,S,ATL,2 (CEN)84K-4	DBL,SPN	18,78	15,62	38,61	SED C-R	69R
N,AF,RS,S,ATL,2 (CEN)84K-3	DBL,SPN	18,79	15,64	38,71	SED C-R	69R
N,AF,RS,S,ATL,2 (CEN)84K-6	DBL,SPN	18,79	15,62	38,62	SED C-R	69R
N,AF,RS,E,ATL,2 (CEN)120K-15	DBL,SPN	18,79	15,63	38,68	SED C-R	69R
N,AF,RS,E,ATL,2 (CEN)120K-17	DBL,SPN	18,80	15,64	38,69	SED C-R	69R
N,AF,RS,S,ATL,2 (CEN)84K-5	DBL,SPN	18,80	15,65	38,69	SED C-R	69R
N,AF,RS,ATLANT,2(CEN)95K-H-10	DBL,SPN	18,85	15,64	38,64	SED C-R	69R
N,AF,RS,DISCOVER(CEN)119K-21	DBL,SPN	18,95	15,68	38,92	SED C-R	69R
N,AF,RS,DSDP-238(CEN)PORE W226	GEL-N	18,617	15,561	38,291	H2O D-D	74D
N,AF,RS,DSDP-238(CEN)226-L	GEL-N	18,742	15,562	38,400	SED D-D	74D
N,AF,RS,DSDP-238(CEN)228-L	GEL-N	18,690	15,568	38,212	SED D-D	74D
N,AF,RS,DSDP-238(CEN)227-L	GEL-N	19,095	15,615	38,583	SED D-D	74D

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LLL                    IIIIIIIII         DDDDDDDDDDD
LLL                    IIIIIIIII         DDDDDDDDDDD
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LLLLLLLLLLLLLLL        IIIIIIIII         DDDDDDDDDDD
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LPTSPL VERSION 6(350)  RUNNING ON LPT100
 *START* USER DOE B. [622,104] JOB  IGCO SEQ. 979 DATE 22-DEC-75 10:19:15 MONITOR USGS DECSYSTEM10 ANF602 *START*
REQUEST CREATED: 22-DEC-75  10:19:15
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QUEUE SWITCHES:  /PRINT:ARROW /FILE:ASCII /COPIES:1 /SPACING:1 /LIMIT:512 /FORMS:NORMAL
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IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM
LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION	(AGE)SAMPLE NO.	METHOD	206/204	207/204	208/204	TYPE	REFER.
UNITED STATES							
CALIFORNIA							
U.S.,CA,SALTON S(CEN)	W747A-W	PBS-N	18.93	15.58	38.52	SED	DHW 66E
U.S.,CA,SALTON S(CEN)	W755B-L	PBS-N	19.11	15.61	38.94	SED	DHW 66E
U.S.,CA,SALTON S(CEN)	W755B-R	PBS-N	19.35	15.61	39.71	SED	DHW 66E
U.S.,CA,SALTON S(CEN)	64CMP26-L	PBS-N	19.35	15.70	39.13	SED	DHW 66E
U.S.,CA,SALTON S(CEN)	64CMP26-R	PBS-N	18.51	15.59	38.35	SED	DHW 66E
U.S.,CA,SALTON S(CEN)	64CMP20-L	PBS-N	19.35	15.70	39.16	SED	DHW 66E
U.S.,CA,SALTON S(CEN)	64CMP20-R	PBS-N	19.24	15.64	38.97	SED	DHW 66E
U.S.,CA,SALTON S(CEN)	64CMP50-L	PBS-N	19.30	15.70	39.15	SED	DHW 66E
U.S.,CA,SALTON S(CEN)	64CMP50-R	PBS-N	19.36	15.70	39.24	SED	DHW 66E
U.S.,CA,SALTON S(CEN)	64CMP30AL	PBS-N	19.13	15.62	38.89	SED	DHW 66E
U.S.,CA,SALTON S(CEN)	64CMP30AR	PBS-N	19.25	15.63	38.99	SED	DHW 66E
U.S.,CA,SALTON S(CEN)	64CMP31BL	PBS-N	19.08	15.62	38.84	SED	DHW 66E
U.S.,CA,SALTON S(CEN)	64CMP31BR	PBS-N	18.94	15.63	39.06	SED	DHW 66E
U.S.,CA,SALTON S(CEN)	64CMP30BL	PBS-N	19.08	15.63	38.90	SED	
U.S.,CA,SALTON S(CEN)	64CMP30BR	PBS-N	17.86	15.50	37.51	SED	M-D 68SP
U.S.,CA,SALTON S(CEN)	64CMP31CL	PBS-N	19.02	15.61	38.97	SED	
U.S.,CA,SALTON S(CEN)	64CMP31CP	PBS-N	17.91	15.52	37.56	SED	M-D 68SP
	DRILL CORE, DEPTH 7375FT						
U.S.,CA,SALTON S(CEN)	W817L	PBS-N	19.19	15.65	39.00	SED	DOE UP
U.S.,CA,SALTON S(CEN)	W817-R	PBS-N	19.18	15.62	38.96	SED	M-D 68SP
	DRILL CORE, DEPTH 4476FT						
U.S.,CA,SALTON S(CEN)	W803-L	PBS-N	19.15	15.62	38.90	SED	
U.S.,CA,SALTON S(CEN)	W803-R	PBS-N	19.14	15.64	38.73	SED	M-D 68SP
	DRILL CORE, DEPTH 13377FT						
U.S.,CA,SALTON S(CEN)	W817-W	PBS-N	19.26	15.67	39.04	SED	
	DRILL CORE, DEPTH 11372FT						
U.S.,CA,SALTON S(CEN)	W817G-W	PBS-N	19.12	15.80	39.34	ORE	
	DRILL CORE, DEPTH 2434FT						
U.S.,CA,SALTON S(CEN)	W803-1W	PBS-N	19.05	15.71	38.96	SED	
OREGON							
U.S.,OR,ALSEA R.(CEN)	D1001-I	PUBL.	18.94	15.60	38.71	WAC	T-S 69J
U.S.,OR,YAQUINA (CEN)	D1012-I	PUBL.	19.01	15.66	38.71	BS	T-S 69J
U.S.,OR,DRIFT CR(CEN)	D1016-I	PUBL.	19.39	15.60	38.71	BSS	T-S 69J
BALTIC SEA							
EUR.,BS,BALTIC S(QUA)		PUBL.	20.57	16.00	39.70	SED	CHOW 66R
EUR.,BS,BALTIC S(QUA)		PUBL.	20.72	15.98	40.40	SED	CHOW 66R
BLACK SEA							
W.AS,BK,BLACK S.(CEN)	1431TOP	DBL.SP.	18.73	15.66	38.82	SED	CDK 74PG
W.AS,BK,BLACK S.(CEN)	1439TOP	DBL.SP.	18.57	15.63	38.64	SED	CDK 74PG
W.AS,BK,BLACK S.(CEN)	1444TOP	DBL.SP.	18.64	15.65	38.73	SED	CDK 74PG
W.AS,BK,BLACK S.(CEN)	1452TOP	DBL.SP.	18.31	15.66	38.79	SED	CDK 74PG
W.AS,BK,BLACK S.(CEN)	1470TOP	DBL.SP.	18.67	15.65	38.79	SED	CDK 74PG
W.AS,BK,BLACK S.(CEN)	1474TOP	DBL.SP.	18.70	15.67	38.84	SED	CDK 74PG
W.AS,BK,BLACK S.(CEN)	1474(145)	DBL.SP.	18.77	15.66	38.86	SED	CDK 74PG

W.AS,BK,BLACK S.(CEN)1474(600)	DBL.SP.	18.81	15.66	38.90	SED CDR 74PG
W.AS,BK,BLACK S.(CEN)1484TOP	DBL.SP.	18.54	15.64	38.59	SED CDR 74PG
HUDSON BAY					
CAN.,HB,HUDSON B(QUA)	PUBL.	21.63	16.00	43.37	SED CHOW 65R
CAN.,HB,HUDSON B(QUA)	PUBL.	22.07	16.12	42.71	SED CHOW 65R
CAN.,HB,HUDSON B(QUA)	PUBL.	23.36	16.17	44.66	SED CHOW 65R
CAN.,HB,HUDSON B(QUA)	PUBL.	23.42	16.23	45.04	SED CHOW 65R
CAN.,HB,HUDSON B(QUA)	PUBL.	23.49	16.35	45.01	SED CHOW 65R
CAN.,HB,HUDSON B(QUA)	PUBL.	24.15	16.28	45.90	SED CHOW 65R
CAN.,HB,HUDSON B(QUA)	PUBL.	24.39	16.34	46.54	SED CHOW 65R
CAN.,HB,HUDSON B(QUA)	PUBL.	25.00	16.41	46.83	SED CHOW 65R
LAKE SUPERIOR					
U.S.,GL,L.SUPER.(QUA)	PUBL.	20.53	15.87	40.34	SED H-T 66J
U.S.,GL,L.SUPER.(QUA)	PUBL.	22.84	16.34	42.86	SED CHOW 66R
GREAT SLAVE LAKE					
CAN.,NT,G.SLAVE (QUA)	PUBL.	20.09	15.97	40.69	SED CHOW 65R
CAN.,NT,G.SLAVE (QUA)	PUBL.	21.46	16.15	41.37	SED CHOW 65R
CAN.,NT,G.SLAVE (QUA)	PUBL.	21.56	16.13	41.77	SED CHOW 65R
CAN.,NT,G.SLAVE (QUA)	PUBL.	22.08	16.18	42.13	SED CHOW 65R
CAN.,NT,G.SLAVE (QUA)	PUBL.	23.41	16.38	49.33	SED CHOW 65R
CAN.,NT,G.SLAVE (QUA)	PUBL.	24.15	16.59	44.10	SED CHOW 65R

IGNEOUS, MESOZOIC-CENOZOIC, WHOLE ROCKS(IGWR,LID) (24 JUNE 1974)

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IIIIIIIII          GGGGGGGGGGGG        WWW          WWW       RRRRRRRRRRRR
IIIIIIIII          GGGGGGGGGGGG        WWW          WWW       RRRRRRRRRRRRR
   III          GGG                    WWW          WWW       RRR          RRR
   III          GGG                    WWW          WWW       RRR          RRR
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   III          GGG                    WWW          WWW       RRR          RRR
   III          GGG                    WWW          WWW       RRR          RRR
   III          GGG                    WWW          WWW       RRR          RRR
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   III          GGG                    WWW          WWW       RRRRRRRRRRRR
   III          GGG    GGGGGGGGG       WWW   WWW    WWW       RRR   RRR
   III          GGG    GGGGGGGGG       WWW   WWW    WWW       RRR   RRR
   III          GGG    GGGGGGGGG       WWW   WWW    WWW       RRR   RRR
   III          GGG          GGG       WWWWWW   WWWWWW       RRR      RRR
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LLL                IIIIIIIII           DDDDDDDDDDD
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LPTSPL VERSION 6(350)  RUNNING ON LPT100
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REQUEST CREATED: 22-DEC-75  10:19:15
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QUEUE SWITCHES:  /PRINT:ARROW /FILE:ASCII /COPIES:1 /SPACING:1 /LIMIT:513 /FORMS:NORMAL
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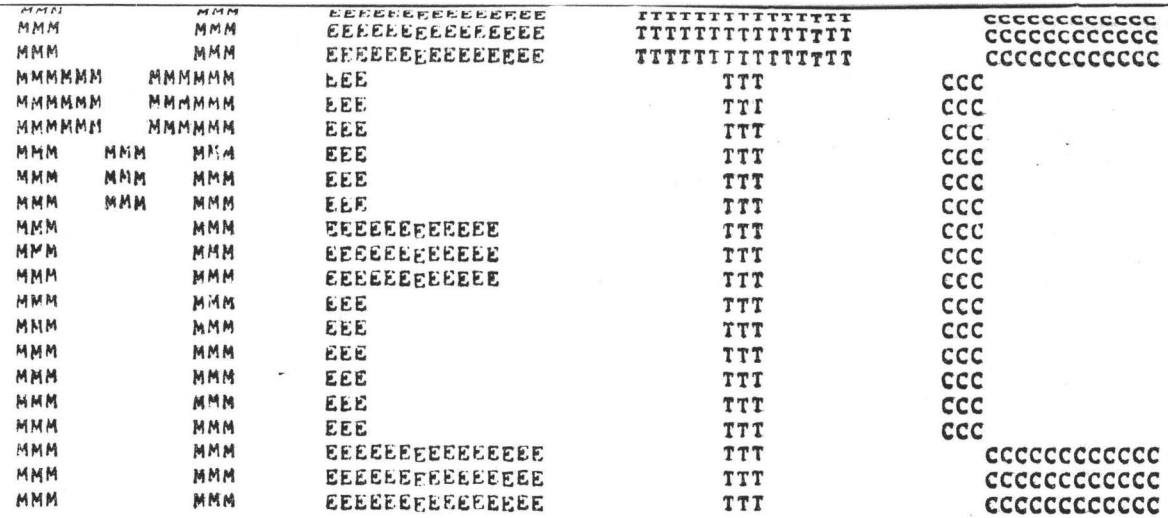
IGNEOUS, MESOZOIC-CENOZOIC, WHOLE ROCKS(IGWR,LID) (24 JUNE 1974)

IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM
LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION	(AGE)SAMPLE NO.METHOD	206/204	207/204	208/204	TYPE	REFER.
NORTH AMERICA						
UNITED STATES						
CALIFORNIA						
KLAMATH MOUNTAINS						
U.S.,CA,KLAMATH	(MES)I-1645W GEL-N	18.817	15.514	38.438	TRN D-D	73G
SIERRA NEVADA BATHOLITH						
U.S.,CA,SIERRA N	(MES)ST-1-11W GEL-N	18.799	15.612	38.444	TRN D-D	73G
SOUTHERN CALIFORNIA BATHOLITH						
U.S.,CA,S.CAL.BA	(MES)RUBIDOUX WPUBL.	19.44	15.61	39.48	GRA PSMC	56G
U.S.,CA,S.CAL.BA	(MES)SAN MAR.WPUBL.	18.72	15.51	38.10	GAB PSMC	56G
U.S.,CA,S.CAL.BA	(MES)WOODSON.WPUBL.	18.87	15.58	38.55	GRA PSMC	56G
U.S.,CA,S.CAL.BA	(MES)BONSALL WPUBL.	18.93	15.56	38.48	Q-D PSMC	56G
MONTANA						
BOULDER BATHOLITH						
U.S.,MT,BOULDER	(MES)3T273-W PUBL.	18.24	15.63	38.50	GRA DTHK	68E



LPTSPL VERSION 6(350) RUNNING ON LPT100
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REQUEST CREATED: 22-DEC-75 10:19:15
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QUEUE SWITCHES: /PRINT:ARROW /FILE:ASCII /COPIES:1 /SPACING:1 /LIMIT:532 /FORMS:NORMAL

METAMORPHIC ROCKS, MESOZOIC-CENOZOIC, CONTINENTAL(METC.LID)(3 NOVEMBER 1975)

IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM
LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION	(AGE)SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE	REFER,
UNITED STATES						
CALIFORNIA						
U.S.,CA,FRANCIS.(MES)	PF-F-7G PUBL.	18.58	15.51	38.41	SED S-D	71Y
U.S.,CA,FRANCIS.(MES)	M-SLO-5G PUBL.	18.44	15.52	38.06	SED S-D	71Y
U.S.,CA,FRANCIS.(MES)	SB-M-3GG PUBL.	19.33	15.84	39.48	SED S-D	71Y
U.S.,CA,FRANCIS.(MES)	NA-SC-2G PUBL.	19.08	15.72	38.97	SED S-D	71Y
U.S.,CA,FRANCIS.(MES)	PP-SBE-1GPUBL.	18.48	15.56	38.04	SED S-D	71Y
U.S.,CA,FRANCIS.(MES)	BR-SB21BSPUBL.	18.40	15.44	38.08	SED S-D	71Y
U.S.,CA,FRANCIS.(MES)	RR-S-1BS PUBL.	18.65	15.66	39.50	SED S-D	71Y
U.S.,CA,FRANCIS.(MES)	H-SBE-38SPUBL.	18.63	15.68	38.14	SED S-D	71Y
U.S.,CA,FRANCIS.(MES)	PF-M-6BS PUBL.	18.73	15.67	38.89	SED S-D	71Y
WASHINGTON						
U.S.,WA,PRE TERT(MES)	JM68-4W PBS-N	18.83	15.60	38.55	GN C-T	73G
U.S.,WA,PRE TERT(MES)	JM68-10W GEL-N	18.65	15.59	38.35	GN C-T	73G
U.S.,WA,PRE TERT(MES)	JM68-11W GEL-N	18.83	15.49	38.32	GN C-T	73G
U.S.,WA,PRE TERT(MES)	C514-1W GEL-N	18.88	15.60	38.43	GN C-T	73G
U.S.,WA,PRE TERT(MES)	C845-1W PBS-N	18.88	15.58	38.37	GN C-T	73G
U.S.,WA,PRE TERT(MES)	C010-1W PBS-N	18.88	15.66	38.65	GN C-T	73G
U.S.,WA,PRE TERT(MES)	C340-3W PBS-N	18.80	15.59	38.41	GN C-T	73G
U.S.,WA,PRE TERT(MES)	JM68-8W GEL-N	19.68	15.66	39.28	GN C-T	73G
U.S.,WA,PRE TERT(MES)	C883-2W PBS-N	19.19	15.63	38.86	GN C-T	73G
U.S.,WA,PRE TERT(MES)	C012-1W PBS-N	19.45	15.60	39.10	GN C-T	73G
U.S.,WA,PRE TERT(MES)	JM69-10W GEL-N	18.92	15.61	38.63	GN C-T	73G
U.S.,WA,PRE TERT(MES)	JM69-12W GEL-N	18.82	15.61	38.35	GN C-T	73G
U.S.,WA,PRE TERT(MES)	JM69-9W GEL-N	21.72	15.70	40.19	GN C-T	73G
U.S.,WA,PRE TERT(MES)	JM69-7W GEL-N	18.60	15.58	38.49	GN C-T	73G
U.S.,WA,PRE TERT(MES)	JM68-16W GEL-N	18.87	15.56	38.49	GN C-T	73G

(24 JUNE 1975)

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LPTSPL VERSION 6(350)  RUNNING ON LPT100
 *START* USER DOE B, [622,104] JOB  IGCO SEQ, 979 DATE 22-DEC-75 10:19:15 MONITOR USGS DECSYSTEM10 ANF602 *START*
REQUEST CREATED: 22-DEC-75  10:19:15
FILE: DSK82:SEDP.LID[622,104] CREATED: 01-DEC-75 10:58:00 <157>  PRINTED: 22-DEC-75 10:23:02
QUEUE SWITCHES:  /PRINT:ARROW /FILE:ASCII /COPIES:1 /SPACING:1 /LIMIT:514 /FORMS:NORMAL
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(SEDP,LID) (24 JUNE 1975)

SEDIMENTS, PRECAMBRIAN-PALEOZOIC,CLASTICS AND CARBONATES(INCLUDES MARBLES)

IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION	(AGE)SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE	REFER.
UNITED STATES						
COLORADO						
U.S.,CO,LEADVILL(MIS)LIM/DOL	PUBL.	22.68	15.94	39.73	DOL E-P	57G
U.S.,CO,LEADVILL(MIS)LIMESTONE	PUBL.	21.26	15.85	39.39	LIM E-P	57G
U.S.,CO,LEADVILL(M-C)CONTAM.ORE	PUBL.	17.96	15.44	38.04	DOL E-P	57G
MISSOURI						
U.S.,MO,S.E.MO	(CAM)63W121-W PBS-N	18.78	15.19	37.81	SH D-D	72E
U.S.,MO,S.E.MO	(CAM)63W121-W PBS-N	18.53	15.54	37.78	LIM D-D	72E
U.S.,MO,S.E.MO	(CAM)63W121-R PBS-N	20.83	15.82	39.45	SS D-D	72E
U.S.,MO,S.E.MO	(CAM)63W89-W PBS-N	18.67	15.46	38.57	SH D-D	72E
U.S.,MO,S.E.MO	(CAM)63W89-W GEL-N	19.84	15.68	38.86	LIM D-D	72E
U.S.,MO,S.E.MO	(CAM)63W89-W PBS-N	19.85	15.70	38.87	LIM D-D	72E
U.S.,MO,S.E.MO	(CAM)63W89-L PBS-N	26.12	16.22	43.68	SS D-D	72E
U.S.,MO,S.E.MO	(CAM)63W89-R PBS-N	19.53	15.65	38.16	SS D-D	72E
U.S.,MO,S.E.MO	(CAM)57W21-W PBS-N	19.86	15.69	39.18	SH D-D	72E
U.S.,MO,S.E.MO	(CAM)57W21-W PBS-N	21.37	15.87	40.06	LIM D-D	72E
U.S.,MO,S.E.MO	(CAM)57W21-W GEL-N	21.40	15.88	40.09	LIM D-D	72E
U.S.,MO,S.E.MO	(CAM)57W21-L PBS-N	22.76	15.98	41.91	SS D-D	72E
U.S.,MO,S.E.MO	(CAM)57W21-R PBS-N	20.79	15.84	40.03	SS D-D	72E
NEVADA						
U.S.,NV,CORTEZ	(PAL)W233R PBS-N	19.63	15.58	38.78	LIM RDW	74U
U.S.,NV,CORTEZ	(PAL)W266L PBS-N	21.36	15.77	39.04	LIM RDW	74U
U.S.,NV,CORTEZ	(PAL)W233PY PBS-N	20.12	15.69	38.63	LIM RDW	74U
U.S.,NV,CORTEZ	(PAL)722DC-PY PBS-N	19.61	15.72	38.72	LIM RDW	74U
U.S.,NV,CORTEZ	(PAL)JE10R-W PBS-N	20.30	15.67	39.13	LIM RDW	74U
U.S.,NV,CORTEZ	(PAL)JE10R-L PBS-N	20.25	15.72	39.38	LIM RDW	74U
U.S.,NV,CORTEZ	(PAL)AT1120R-R PBS-N	19.64	15.67	38.84	LIM RDW	74U
U.S.,NV,CORTEZ	(PAL)AT1120R-L PBS-N	20.31	15.73	39.22	LIM RDW	74U
U.S.,NV,GOODWIN	(ORD)D1595-COW PBS-N	24.47	16.11	39.34	LIM DOE	70H
U.S.,NV,GOODWIN	(ORD)D289-CO-W PBS-N	25.55	16.16	40.00	LIM DOE	70H
NEW YORK						
U.S.,NY,BALMAT	(Y)FD7-2W PUBL.	17.98	15.46	36.32	MAR DOE	62G
U.S.,NY,BALMAT	(Y)FD7 3W PUBL.	19.22	15.60	36.64	MAR DOE	62G

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LLLLLLLLLLLLLLLL        IIIIIIIII       DDDDDDDDDDDDD

LPTSPL VERSION 6(350)  RUNNING ON LPT100
 *START* USER DOE B, [622,104] JOB  IGCO SEQ, 979 DATE 22-DEC-75 10:19:15 MONITOR U&GS DECSYSTEM10 ANF602 *START*
REQUEST CREATED: 22-DEC-75  10:19:15
FILE: DSKB1:METP.LID[622,104] CREATED: 18-DEC-75 20:57:00 <157>  PRINTED: 22-DEC-75 10:27:52
QUEUE SWITCHES:  /PRINT:ARROW /FILE:ASCII /COPIES:1 /SPACING:1 /LIMIT:473 /FORMS:NORMAL
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IGNEOUS/METAMORPHIC ROCKS, PRECAMBRIAN-PALEOZOIC(METP.LID) (18 DECEMBER 1975)

IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM
LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION	(AGE)SAMPLE NO.METHOD	206/204	207/204	208/204	TYPE	REFER.
3800M.Y.						
GREENLAND						
3800M.Y.						
ISUA IRON FORMATION						
GRNL,IS,ISUA IF	(U)15578W PUBL.	13.83	14.33	33.62	IF MOP	73N
GRNL,IS,ISUA IF	(U)155781MG PUBL.	12.93	14.03	32.67	IF MOP	73N
GRNL,IS,ISUA IF	(U)155781SILPUBL.	12.94	14.04	33.00	IF MOP	73N
GRNL,IS,ISUA IF	(U)155781SILPUBL.	12.76	13.97	32.72	IF MOP	73N
GRNL,IS,ISUA IF	(U)155782W PUBL.	12.93	14.04	32.83	IF MOP	73N
GRNL,IS,ISUA IF	(U)155783W PUBL.	12.08	13.73	32.15	IF MOP	73N
GRNL,IS,ISUA IF	(U)155784W PUBL.	12.36	13.78	32.26	IF MOP	73N
GRNL,IS,ISUA IF	(U)155789W PUBL.	12.16	13.75	32.07	IF MOP	73N
GODTHAAB AREA(AMITSOQ GNEISS)						
(ROCK FORMATION APPARENTLY AT 3.8B.Y. WITH METAMORPHISM AT 2.1B.Y.)						
GRNL,GO,GODTHAAB(U)125519W	PUBL.	11.51	13.14	31.38	GGN BGM-	71L
GRNL,GO,GODTHAAB(U)125540W	PUBL.	11.67	13.18	31.53	GGN BGM-	71L
GRNL,GO,GODTHAAB(U)110869W	PUBL.V	11.73	13.23	31.32	GGN BGM-	71L
GRNL,GO,GODTHAAB(U)110822W	PUBL.V	11.81	13.31	33.02	GGN BGM-	71L
GRNL,GO,GODTHAAB(U)110999W	PUBL.V	11.83	13.29	31.53	GGN BGM-	71L
GRNL,GO,GODTHAAB(U)125523W	PUBL.V	11.83	13.23	31.64	GGN BGM-	71L
GRNL,GO,GODTHAAB(U)125522W	PUBL.V	11.89	13.30	32.04	GGN BGM-	71L
GRNL,GO,GODTHAAB(U)110870W	PUBL.V	11.95	13.34	31.67	GGN BGM-	71L
GRNL,GO,GODTHAAB(U)86431W	PUBL.V	11.96	13.29	32.32	GGN BGM-	71L
GRNL,GO,GODTHAAB(U)86597W	PUBL.	12.22	13.42	31.80	GGN BGM-	71L
GRNL,GO,GODTHAAB(U)110969W	PUBL.	12.45	13.36	31.52	GGN BGM-	71L
GRNL,GO,GODTHAAB(U)86596W	PUBL.	12.58	13.51	32.10	GGN BGM-	71L
GRNL,GO,GODTHAAB(U)86439W	PUBL.V	13.07	13.69	38.02	GGN BGM-	71L
GRNL,GO,GODTHAAB(U)110848W	PUBL.V	15.51	14.40	34.11	GNG BGM-	71L
GRNL,GO,GODTHAAB(X?)110927W	PUBL.V	12.59	13.71	32.94	GGN BGM-	71L
GRNL,GO,GODTHAAB(X?)125526W	PUBL.V	12.61	13.68	33.90	GN BGM-	71L
GRNL,GO,GODTHAAB(X?)110819W	PUBL.V	12.71	13.71	34.23	GGN BGM-	71L
GRNL,GO,GODTHAAB(X?)110823W	PUBL.	13.77	13.82	32.93	GN BGM-	71L
GRNL,GO,GODTHAAB(X?)86434W	PUBL.V	15.48	14.10	33.01	GGN BGM-	71L
GRNL,GO,GODTHAAB(X?)125541W	PUBL.V	15.63	14.04	32.65	GNG BGM-	71L
>3000 M.Y.						
CANADA						
>3000 M.Y.						
MANITOBA						
CAN.,MA,	(V)29-W	DBL SP	18.654	15.516	35.778	Q-D O-R	71C
CAN.,MA,	(V)47-W	DBL SP	15.256	14.919	34.816	Q-D O-R	71C
CAN,MA,	(V)78-W	DBL SP	16.048	14.987	34.880	GRA O-R	71C
CAN,MA,	(V)207-W	DBL SP	16.639	15.146	38.537	GRA O-R	71C

CAN,MA,	(V)214-W	DBL SP	16.800	15.221	36.675	GRA O-R	71C

ONTARIO

CAN,ON,	(V)G1-W	DBL SP	23.355	16.518	40.679	GRA O-R	71C
CAN,ON,	(V)G2-W	DBL SP	27.352	17.081	39.690	GRA O-R	71C
CAN,ON,	(V)G3-W	DBL SP	19.730	15.812	38.998	GRA O-R	71C
CAN,ON,	(V)CSCH-W	DBL SP	21.581	16.260	36.576	PEG O-R	71C
CAN,ON,	(V)G5-W	DBL SP	14.754	15.009	34.824	GRA O-R	71C

UNITED STATES
>3000 M.Y.

MINNESOTA

MONTEVIDEO GNEISS, RED MASSIVE PHASE

U.S.,MN,MONTEVID(W)54-69RM-W	GEL-N	15.488	15.590	35.455	GGN		
U.S.,MN,MONTEVID(W)431-73-W	GEL-N	19.555	16.455	34.940	GGN		

MONTEVIDEO GNEISS, FOLIATED PHASE

U.S.,MN,MONTEVID(V)606WZ-W	GEL-N	15.483	15.528	40.002	GGN	GDD	75U0
U.S.,MN,MONTEVID(V)54-69BH2W	GEL-N	15.849	15.698	36.491	GGN		
U.S.,MN,MONTEVID(V)54-69A-W	GEL-N	15.862	15.693	39.455	GGN	GDD	75U0
U.S.,MN,MONTEVID(V)605WZ-W	GEL-N	15.954	15.686	39.717	GGN	GDD	75U0
U.S.,MN,MONTEVID(V)54-69BF1W	GEL-N	16.227	15.753	41.035	GGN		
U.S.,MN,MONTEVID(V)605WZ-L	GEL-N	17.40	16.00	49.16	GGN	GDD	75U0
U.S.,MN,MONTEVID(V)209FGLM-W	GEL-N	17.602	15.930	35.549	GGN	GDD	75U0
U.S.,MN,MONTEVID(V)607BC-W 2	GEL-N	19.257	16.938	46.567	GGN	GDD	75U0
U.S.,MN,MONTEVID(V)607BC-W 1	GEL-N	19.370	16.916	47.658	GGN	GDD	75U0
U.S.,MN,MONTEVID(V)609IJ-W	GEL-N	20.344	16.818	36.572	GGN	GDD	75U0
U.S.,MN,MONTEVID(V)209FGLM-L	GEL-N	40.095	19.360	43.671	GGN	GDD	75U0
U.S.,MN,MONTEVID(V)609IJ-L	GEL-N	43.436	19.857	44.064	GGN	GDD	75U0

SOUTH AFRICA

VREDEFORT DOME

S.AF, ,VREDEFO.(V)KK5W	GEL-N	13.45	14.38	37.16	GGN		
S.AF, ,VREDEFO.(V)KK6W	GEL-N	13.64	14.36	35.71	GGN		
S.AF, ,VREDEFO.(V)KK7W	GEL-N	15.53	14.85	40.13	GGN		
S.AF, ,VREDEFO.(V)KK8W	GEL-N	16.79	15.29	38.75	GGN		
S.AF, ,VREDEFO.(V)VT38W	GEL-N	26.92	17.60	64.44	GGN		
S.AF, ,VREDEFO.(V)VT34W	GEL-N	36.99	19.69	37.19	GGN		
S.AF, ,VREDEFO.(V)VT40W	GEL-N	46.90	21.73	47.22	GGN		

SOVIET UNION
2700-3000M.Y.

TAROMSKUE QUARRY

SOV.,UK,TAROMSK.(W)K105W	PUBL.	14.82	15.01	34.00	GRA	SGL	63RA
SOV.,UK,TAROMSK.(W)K103W	PUBL.	15.66	15.18	36.22	GRA	SGL	63RA
SOV.,UK,TAROMSK.(W)K117W	PUBL.	15.80	15.30	37.00	GRA	SGL	63RA
SOV.,UK,TAROMSK.(W)K102W	PUBL.	16.60	15.20	36.60	GRA	SGL	63RA
SOV.,UK,TAROMSK.(W)K95W	PUBL.	17.20	15.50	37.70	GRA	SGL	63RA
SOV.,UK,TAROMSK.(W)K106W	PUBL.	17.70	15.65	38.30	GRA	SGL	63RA
SOV.,UK,TAROMSK.(W)K107W	PUBL.	21.00	16.35	41.50	GRA	SGL	63RA

IAMBURG QUARRY

SOV.,UK,IAMBURG (W)K170W	PUBL.	15.38	15.16	36.12	GRA	SGL	63RA

SOV.,UK,IAMBURG (W)K168W	PUBL.	15.45	15.15	36.66	GRA SGL 63RA
SOV.,UK,IAMBURG (W)K171W	PUBL.	17.63	15.47	37.91	GRA SGL 63RA
SOV.,UK,IAMBURG (W)K177A-W	PUBL.	18.23	15.67	38.52	GRA SGL 63RA
LOTSMANSKAIA KAMENKA QUARRY					
SOV.,UK,LOTSMAN.(W)K193-LI	PUBL.	14.87	14.98	34.98	PEG SGL 63RA
SOV.,UK,LOTSMAN.(W)K188W	PUBL.	16.52	15.50	36.86	GRA SGL 63RA
SOV.,UK,LOTSMAN.(W)K214W	PUBL.	23.12	17.06	42.48	PEG SGL 63RA
SOV.,UK,LOTSMAN.(W)K193-HE	PUBL.	29.14	17.95	50.04	GRA SGL 63RA

UNITED STATES
>2950 M.Y.

WYOMING

U.S.,WY,GRANITE (W)GM35-68W	PUBL.	15.02	15.19	37.62	PGN NK-R 72U
U.S.,WY,GRANITE (W)GM76-68W	PUBL.	15.59	15.31	43.53	PGN NK-R 72U
U.S.,WY,GRANITE (W)GM38-68W	PUBL.	16.36	15.65	42.99	PGN NK-R 72U
U.S.,WY,GRANITE (W)W2-CR5-W	PUBL.	16.32	15.59	40.26	PGN NK-R 72U
U.S.,WY,GRANITE (W)GM77-68W	PUBL.	18.61	16.04	47.18	PGN NK-R 72U
U.S.,WY,GRANITE (W)GM78-68W	PUBL.	35.54	19.24	44.31	PGN NK-R 72U
U.S.,WY,GRANITE (W)GM98-68W	PUBL.	31.28	18.65	47.45	GGN NK-R 72U
SURFACE SAMPLE					
U.S.,WY,GRANITE (W)W2-CR-1W	UBL.	56.47	23.53	54.81	GRA NK-R 72U
CORE SAMPLE					
U.S.,WY,GRANITE (W)W2-CR-1W	UBL.	70.27	24.80	65.32	GRA NK-R 72U

2800 M.Y.

AUSTRALIA
2800 M.Y.

KALGOORLIE-NORSEMAN AREA

EDJUDINA

AUST,WA,KALGOORL(W)72-859W	DBL,SP.	18.120	15.562	36.510	GRA OVER 75A

KAMBALDA

AUST,WA,KALGOORL(W)71-1079W	DBL,SP.	15.568	15.141	34.954	GRA OVER 75A
AUST,WA,KALGOORL(W)71-1084W	DBL,SP.	15.679	15.178	34.904	GRA OVER 75A
AUST,WA,KALGOORL(W)71-1081AW	DBL,SP.	16.032	15.247	35.301	GRA OVER 75A
AUST,WA,KALGOORL(W)71-1081BW	DBL,SP.	16.035	15.218	35.315	GRA OVER 75A
AUST,WA,KALGOORL(W)71-1083W	DBL,SP.	16.172	15.293	35.368	GRA OVER 75A

KARONIE

AUST,WA,KALGOORL(W)71-745AW	DBL,SP.	19.785	15.888	37.366	GRA OVER 75A
AUST,WA,KALGOORL(W)71-745BW	DBL,SP.	19.788	15.896	37.438	GRA OVER 75A
AUST,WA,KALGOORL(W)71-743AW	DBL,SP.	20.269	15.878	37.449	GRA OVER 75A
AUST,WA,KALGOORL(W)71-743BW	DBL,SP.	20.391	15.827	37.552	GRA OVER 75A
AUST,WA,KALGOORL(W)71-744AW	DBL,SP.	20.941	16.142	37.972	GRA OVER 75A
AUST,WA,KALGOORL(W)71-744BW	DBL,SP.	20.953	16.128	37.896	GRA OVER 75A
AUST,WA,KALGOORL(W)71-742AW	DBL,SP.	23.194	16.458	39.198	GRA OVER 75A
AUST,WA,KALGOORL(W)71-742BW	DBL,SP.	23.154	16.404	38.971	GRA OVER 75A

KARRAMINDI SOAK

AUST,WA,KALGOORL(W)71-736AW	DBL,SP.	23.016	16.501	41.110	GRA OVER 75A
AUST,WA,KALGOORL(W)71-736BW	DBL,SP.	23.052	16.527	41.181	GRA OVER 75A

LAKE JOHNSON

AUST,WA,KALGOORL(W)72-865W	DBL,SP,	24.172	16.629	42.236	GRA OVER 75A	
AUST,WA,KALGOORL(W)72-861W	DBL,SP,	28.106	17.497	43.831	GRA OVER 75A	
AUST,WA,KALGOORL(W)72-860W	DBL,SP,	29.003	17.696	45.648	GRA OVER 75A	
AUST,WA,KALGOORL(W)72-864W	DBL,SP,	29.230	17.772	44.823	GRA OVER 75A	
MUNGARI GRANITE						
AUST,WA,KALGOORL(W)71-739AW	DBL,SP,	23.371	16.521	39.404	GRA OVER 75A	
AUST,WA,KALGOORL(W)71-740AW	DBL,SP,	23.862	16.612	40.728	GRA OVER 75A	
AUST,WA,KALGOORL(W)71-740BW	DBL,SP,	23.934	16.619	40.823	GRA OVER 75A	
AUST,WA,KALGOORL(W)71-739BW	DBL,SP,	23.520	16.588	40.074	GRA OVER 75A	
AUST,WA,KALGOORL(W)71-738W	DBL,SP,	23.969	16.646	40.134	GRA OVER 75A	
AUST,WA,KALGOORL(W)71-737W	DBL,SP,	24.623	16.777	39.553	GRA OVER 75A	
STENNET ROCKS						
AUST,WA,KALGOORL(W)71-905AW	DBL,SP,	17.122	15.721	37.894	GRA OVER 75A	
AUST,WA,KALGOORL(W)71-905BW	DBL,SP,	16.789	15.664	37.033	GRA OVER 75A	
AUST,WA,KALGOORL(W)71-906AW	DBL,SP,	17.267	15.745	36.892	GRA OVER 75A	
AUST,WA,KALGOORL(W)71-906BW	DBL,SP,	17.228	15.783	36.248	GRA OVER 75A	
NORTH AMERICA						
UNITED STATES						
2800 M.Y.						
MINNESOTA						
U.S.,MN,ICARUS (W)NL-16W	PUBL.	14.63	14.60	34.35	GRA A-H 75A	
U.S.,MN,SACRED H(W)73MRV-1W	GEL-N	19.641	16.043	45.140	GRA	
WYOMING						
GRANITE MOUNTAINS						
DRILL CORE, DEPTH 3FT						
U.S.,WY,GRANITE (W)DDH-GM-2WPUBL.		19.58	15.93	42.19	GRA RZNK 73G	
SURFACE SAMPLE						
U.S.,WY,GRANITE (W)D1686-W PUBL.		21.91	16.34	39.20	GRA R-B 69L	
DRILL CORE, DEPTH 18FT						
U.S.,WY,GRANITE (W)DDH-GM-1WPUBL.		23.93	16.69	37.99	GRA RZNK 73G	
DRILL CORE, DEPTH 5FT						
U.S.,WY,GRANITE (W)DDH-GM-1WPUBL.		28.53	17.84	36.26	GRA RZNK 73G	
DRILL CORE, DEPTH 100FT						
U.S.,WY,GRANITE (W)W2-CR14-WPUBL.		29.14	17.91	47.40	GRA RZNK 73G	
DRILL CORE, DEPTH 157FT						
U.S.,WY,GRANITE (W)W2-CR14-WPUBL.		29.36	17.97	47.92	GRA RZNK 73G	
DRILL CORE, DEPTH 10FT						
U.S.,WY,GRANITE (W)114942-W PUBL.		30.09	18.03	37.98	GRA R-B 69L	
SURFACE SAMPLE						
U.S.,WY,GRANITE (W)ZW263-W PUBL.		31.24	16.34	35.41	GRA R-B 69L	
U.S.,WY,GRANITE (W)114944-W PUBL.		31.49	18.30	38.03	GRA R-B 69L	
U.S.,WY,GRANITE (W)114943-W PUBL.		32.02	18.14	39.16	GRA R-B 69L	
DRILL CORE, DEPTH 30FT						
U.S.,WY,GRANITE (W)114945-W PUBL.		32.28	18.41	37.77	GRA R-B 69L	
DRILL CORE, DEPTH 165FT						
U.S.,WY,GRANITE (W)W2-CR26-WPUBL.		36.11	18.93	42.31	GRA RZNK 73G	
DRILL CORE, DEPTH 99FT						
U.S.,WY,GRANITE (W)W2-CR26-WPUBL.		42.27	20.26	42.60	GRA RZNK 73G	
DRILL CORE, DEPTH 747FT						
U.S.,WY,GRANITE (W)DDH-747W PUBL.		116.9	31.57	56.35	GRA R-B 69L	
DRILL CORE, DEPTH 20FT						
U.S.,WY,GRANITE (W)DDH-SM-1WPUBL.		31.86	18.40	37.51	GRA RZNK73GB	
U.S.,WY,GRANITE (W)DDH-SM-2WPUBL.		33.02	18.46	37.47	GRA RZNK73GB	
U.S.,WY,GRANITE (W)DDH-SM-4WPUBL.		34.04	18.88	38.53	GRA RZNK73GB	

U.S.,WY,GRANITE (W)DDH-SM-3WPUBL. 36.80 19.41 38.82 GRA RZNK73GB

OTHER AREAS

CANADA
2650M.Y.

WESTERN GRANODIORITE, YELLOWKNIFE(1&2 ARE STOCK LAKE INTRUSIVE)

CAN.,NT,YELLOWKN(W)A75-3CW	PBSV-N	16.34	15.28	36.41	GRA C-T 75CJ
CAN.,NT,YELLOWKN(W)A75-4W	PBSV-N	16.50	15.29	40.26	GRA C-T 75CJ
CAN.,NT,YELLOWKN(W)A75-5W	PBSV-N	17.76	15.45	36.05	GRA C-T 75CJ
CAN.,NT,YELLOWKN(W)A75-5CW	PBSV-N	18.11	15.61	39.11	GRA C-T 75CJ
CAN.,NT,YELLOWKN(W)A75-1W	PBSV-N	18.32	15.63	36.16	SYN C-T 75CJ
CAN.,NT,YELLOWKN(W)A75-2W	PBSV-N	18.47	15.82	39.33	MAF C-T 75CJ
CAN.,NT,YELLOWKN(W)A75-8W	PBSV-N	18.65	15.75	40.29	DIO C-T 75CJ
CAN.,NT,YELLOWKN(W)A75-8RW	PBSV-N	18.66	15.73	40.84	DIO C-T 75CJ
CAN.,NT,YELLOWKN(W)A75-7W	PBSV-N	19.20	15.97	36.50	GRA C-T 75CJ
CAN.,NT,YELLOWKN(W)A75-3W	PBSV-N	21.44	16.15	36.40	GRA C-T 75CJ
CAN.,NT,YELLOWKN(W)A75-68W	PBSV-N	40.80	19.55	45.88	PEG C-T 75CJ
CAN.,NT,YELLOWKN(W)A75-6W	PBSV-N	41.09	19.77	46.77	PEG C-T 75CJ

GREENLAND
2800M.Y.

FISKENAESSET

GRNL,FI,FISKENAE(W)74464W	PUBL.V	26.55	16.83	44.70	ANO BMPW73NT
GRNL,FI,FISKENAE(W)86897W	PUBL.V	14.38	14.65	33.70	ANO BMPW73NT
GRNL,FI,FISKENAE(W)86892W	PUBL.V	18.76	15.51	36.79	ANO BMPW73NT
GRNL,FI,FISKENAE(W)86916W	PUBL.V	20.30	15.79	34.55	ANO BMPW73NT
GRNL,FI,FISKENAE(W)86943W	PUBL.V	14.75	14.74	35.77	ANO BMPW73NT
GRNL,FI,FISKENAE(W)89784W	PUBL.V	13.79	14.54	35.90	GNG BMPW73NT

NORDLAND

GRNL,NO,NORDLAND(W)89885W	PUBL.V	21.20	15.96	34.83	ANO BMPW73NT
GRNL,NO,NORDLAND(W)89889W	PUBL.V	14.78	14.66	34.39	ANO BMPW73NT
GRNL,NO,NORDLAND(W)92530W	PUBL.V	13.72	14.43	33.46	GNG BMPW73NT
GRNL,NO,NORDLAND(W)92531W	PUBL.V	15.78	14.90	35.11	GNG BMPW 73N
GRNL,NO,NORDLAND(W)92532W	PUBL.V	13.75	14.44	33.18	GNG BMPW 73N

SUKKERTOPPEN

GRNL,SU,SUKKERTO(W)44717W	PUBL.V	16.81	15.66	36.68	GNG BMPW 73N
GRNL,SU,SUKKERTO(W)87805W	PUBL.V	13.16	14.22	33.40	GNG BMPW 73N
GRNL,SU,SUKKERTO(W)87806W	PUBL.V	13.67	14.39	35.32	GNG BMPW 73N

1850 M.Y.

AUSTRALIA
1950MY?

KALKADOON GRANITE

AUST,QU,MT. ISA (X)ANU3371W	PUBL.	23.77	16.40	41.06	GRA F-R 74DE
AUST,QU,MT. ISA (X)ANU3372W	PUBL.	16.88	15.59	37.45	GRA F-R 74DE
AUST,QU,MT. ISA (X)ANU3376W	PUBL.	24.74	16.49	41.84	GRA F-R 74DE
AUST,QU,MT. ISA (X)ANU3377W	PUBL.	20.53	16.21	45.03	GRA F-R 74DE
AUST,QU,MT. ISA (X)ANU3378W	PUBL.	20.26	16.15	41.29	GRA F-R 74DE
AUST,QU,MT. ISA (X)ANU3379W	PUBL.	20.81	16.30	47.01	GRA F-R 74DE
AUST,QU,MT. ISA (X)ANU3380W	PUBL.	32.81	17.62	43.05	GRA F-R 74DE

AUST,CA,TOMKINSO(X)69-1255W DBL.SP. 17.05 15.61 38.04 GNG G-O 72C

AUST,QU,MT. ISA (X)ANU3379 W PUBL. 22.49 16.10 43.25 GRA F-R 74DE

CANADA

1800 M.Y.

ALBERTA

CAN.,AL,	(X)63-99-SW	PUBL.	19.38	15.66	36.35	GRA B-G	72C
CAN.,AL,	(X)63-95-1W	PUBL.	22.47	16.00	38.90	GRA B-G	72C
CAN.,AL,	(X)63-101-1W	PUBL.	17.51	15.51	39.21	Q-O B-G	72C
CAN.,AL,	(X)63-94-2W	PUBL.	19.43	16.40	40.30	GRA B-G	72C
CAN.,AL,	(X)63-616-2W	PUBL.	18.14	15.55	36.75	GRA B-G	72C
CAN.,AL,	(X)63-628-6W	PUBL.	25.98	16.13	37.56	GRA B-C	72C

SASKATCHEWAN

CAN.,SA,	(X)3633-W	PUBL.	25.97	16.32	45.95	GRA RPB	70L

UNITED STATES

1800 M.Y.

COLORADO

U.S.,CO,IDAHO SP(X)COMPOSITE		PUBL.	19.48	15.77	38.74	PGN DOE	70M
U.S.,CO,IDAHO SP(X)COMP.-L		PBS-N	28.42	16.74	49.86	GN	

MINNESOTA

U.S.,MN,SECT. 28(X)604-R		GEL-N	15.821	15.372	35.884	GRA	
U.S.,MN,SECT. 28(X)604-W		GEL-N	17.287	15.554	39.190	GRA	
U.S.,MN,SECT. 28(X)604-L		GEL-N	22.430	16.117	50.920	GRA	

1600M.Y.

AUSTRALIA

1750-1650M.Y.
EASTERN CREEK VOLCANICS

AUST,QU,MT. ISA (X)ANU3397W		PUBL.	19.26	16.04	38.79	INT F-R	74DE
AUST,QU,MT. ISA (X)ANU3399W		PUBL.	16.82	15.76	37.31	INT F-R	74DE
AUST,QU,MT. ISA (X)ANU3400W		PUBL.	16.74	15.59	36.82	INT F-R	74DE
AUST,QU,MT. ISA (X)ANU3401W		PUBL.	18.35	15.81	38.68	INT F-R	74DE
AUST,QU,MT. ISA (X)ANU3402W		PUBL.	22.07	16.35	43.17	INT F-R	74DE

1650M.Y.
SYBELLA GRANITE

AUST,QU,MT. ISA (X)ANU3373		PUBL.	21.24	16.14	41.42	GRA F-R	74DE
AUST,QU,MT. ISA (X)ANU3374		PUBL.	21.51	16.15	43.42	GRA F-R	74DE
AUST,QU,MT. ISA (X)ANU3374-2		PUBL.	21.65	16.23	43.71	GRA F-R	74DE
AUST,QU,MT. ISA (X)ANU3375W		PUBL.	21.58	16.44	44.81	GRA F-R	74DE
AUST,QU,MT. ISA (X)ANU3381W		PUBL.	22.77	16.35	43.77	GRA F-R	74DE
AUST,QU,MT. ISA (X)ANU3382W		PUBL.	23.30	16.37	46.73	GRA F-R	74DE
AUST,QU,MT. ISA (X)ANU3384W		PUBL.	21.84	16.28	42.18	GRA F-R	74DE
AUST,QU,MT. ISA (X)ANU586-W		PUBL.	20.82	16.36	40.83	GRA F-R	74DE

1600M.Y.

MT. ALOYSIUS, TOMKINSON RANGES, CENTRAL AUSTRALIA (SILICIC ROCKS)
(APPARENTLY ROCK FORMATION OR METAMORPHISM AT 1600M.Y FOLLOWED BY
GRANULITE FACIES METAMORPHISM AT 1250M.Y)

AUST,CA,TOMKINSO(X)69-1255W		DBL.SP.	16.91	15.57	36.62	GNG G-O	72C

AUST,CA,TOMKINSO(X)69-1320W		DBL.SP.	17.05	15.61	38.04	GNG G-O	72C
AUST,CA,TOMKINSO(X)71-271W		DBL.SP.	17.09	15.61	38.86	GNG G-O	72C
AUST,CA,TOMKINSO(X)71-272W		DBL.SP.	16.88	15.61	38.96	GNG G-O	72C
AUST,CA,TOMKINSO(X)GA2798W		DBL.SP.	16.82	15.57	38.75	GNG G-O	72C
AUST,CA,TOMKINSO(X)GA2797W		DBL.SP.	16.92	15.58	39.10	GNG G-O	72C
AUST,CA,TOMKINSO(X)69-1277W		DBL.SP.	17.27	15.61	41.57	GNG G-O	72C
AUST,CA,TOMKINSO(X)71-273W		DBL.SP.	16.81	15.54	37.98	GNG G-O	72C

1400 M.Y.

UNITED STATES
1400 M.Y.

COLORADO

U.S.,CO,AG PLUME(Y)GSP-1-W		PUBL.	18.08	15.67	47.33	GRA PDB	67U
U.S.,CO,UNCOMPAH(Y)UNCOMPAHGPUBL.			20.04	15.55	36.36	GRA PAT	53NA
U.S.,CO,S. JUAN (Y)2LD1EULUSGEL-N			25.402	16.208	41.867	GRA	

MISSOURI

U.S.,MO,S.E. (Y)67W71-W		PBS-N	17.55	15.45	37.44	RHY D-D	72E
U.S.,MO,S.E. (Y)63W89-W		PBS-N	17.98	15.49	38.07	RHY D-D	72E
U.S.,MO,GRANITEV(Y)75SD1		GEL-N	24.173	15.888	42.780	GRA	

TEXAS

U.S.,TX,LLANO (Y)1GN-W		PUBL.	23.27	15.89	41.86	PGN ZART	65J
U.S.,TX,LLANO (Y)13GN-W		PUBL.	25.44	16.23	45.29	PGN ZART	65J
U.S.,TX,LLANO (Y)21GN-W		PUBL.	19.78	15.73	42.12	PGN ZART	65J
U.S.,TX,LLANO (Y)53GN-W		PUBL.	19.75	15.60	39.21	PGN ZART	65J

1000 M.Y.

NORTH AMERICA

CANADA
1000 M.Y.

ONTARIO

CAN.,ON,ESSONVIL(Y)ESSONV.-WPUBL.			20.25	15.65	48.73	GRA F	55G

UNITED STATES
1000 M.Y.

TEXAS

U.S.,TX,LLANO (Y)13GR-W		PUBL.	18.55	15.49	38.39	GRA ZART	65J
U.S.,TX,LLANO (Y)1142QDG-W		PUBL.	17.93	15.51	37.76	INT ZART	65J

PHANEROZOIC

SWITZERLAND

GOTTHARD MASSIF

GIUBINE SERIES

SWIT,CA,GOTT.MA.(PAL)Z6GIUB.-WPUBL.			18.79	15.69	38.89	PGN N-S	74CO
SWIT,CA,GOTT.MA.(PAL)Z4GIUB.-WPUBL.			18.98	15.73	38.72	PGN N-S	74CO
SWIT,CA,GOTT.MA.(PAL)Z8B-GIU-WPUBL.			18.82	15.69	38.69	PGN N-S	74CO

SWIT,CA,GOTT.MA.(PAL)Z18-GIU-WPUBL.	18.73	15.70	39.02	PGN N-S 74CO
SORESCIA GNEISS				
SWIT,CA,GOTT.MA.(PAL)Z14A-SO-WPUBL.	18.87	15.73	38.94	PGN N-S 74CO
TREMOLA SERIES				
SWIT,CA,GOTT.MA.(PAL)Z2TREM.-WPUBL.	18.90	15.68	38.99	PGN N-S 74CO
UNITED STATES				
PHANEROZOIC				
RHODE ISLAND				
U.S.,RI,WESTERLY(PAL)G-ZW PUBL.	18.42	15.63	38.98	GRA DTDP 67U
COMPOSITES				
UNITED STATES				
MONTANA				
U.S.,MT,PRECAMB.(PRE)COMPOSITEPUBL.	18.67	15.81	39.06	M-P 61E
U.S.,MT,PALEOZ. (PAL)COMPOSITEPUBL.	19.92	16.00	39.84	M-P 61E

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FFFFFFFFFFFFFFFF      EEEEEEEEEEEEEEEE      LLL                   DDDDDDDDDDDD
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FFFFFFFFFFFFFFFF      EEEEEEEEEEEEEEEE      LLL                   DDDDDDDDDDDDD
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FFF                   EEE                   LLL                   DDD           DDD
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FFF                   EEE                   LLL                   DDD           DDD
FFFFFFFFFFFF          EEEEEEEEEEEE          LLL                   DDD           DDD
FFFFFFFFFFFF          EEEEEEEEEEEE          LLL                   DDD           DDD
FFFFFFFFFFFF          EEEEEEEEEEEE          LLL                   DDD           DDD
FFF                   EEE                   LLL                   DDD           DDD
FFF                   EEE                   LLL                   DDD           DDD
FFF                   EEE                   LLL                   DDD           DDD
FFF                   EEE                   LLL                   DDD           DDD
FFF                   EEE                   LLL                   DDD           DDD
FFF                   EEE                   LLL                   DDD           DDD
FFF                   EEEEEEEEEEEEEEEE      LLLLLLLLLLLLLLLL      DDDDDDDDDDDD
FFF                   EEEEEEEEEEEEEEEE      LLLLLLLLLLLLLLLL      DDDDDDDDDDDDD
FFF                   EEEEEEEEEEEEEEEE      LLLLLLLLLLLLLLLL      DDDDDDDDDDDDD


LLL                      IIIIIIIII          DDDDDDDDDDDD
LLL                      IIIIIIIII          DDDDDDDDDDDDD
LLL                      IIIIIIIII          DDDDDDDDDDDDD
LLL                         III             DDD           DDD
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LLL                         III             DDD           DDD
LLLLLLLLLLLLLLLL         IIIIIIIII          DDDDDDDDDDDD
LLLLLLLLLLLLLLLL         IIIIIIIII          DDDDDDDDDDDDD
LLLLLLLLLLLLLLLL         IIIIIIIII          DDDDDDDDDDDDD


LPTSPL VERSION 6(350)  RUNNING ON LPT100
 *START* USER DOE B, [622,104] JOB  IGCO SEQ. 979 DATE 22-DEC-75 10:19:15 MONITOR USGS DECSYSTEM10 ANF602 *START*
REQUEST CREATED: 22-DEC-75  10:19:15
FILE: DSKB0:FELD.LID[622,104] CREATED: 18-DEC-75 21:06:00 <157>  PRINTED: 22-DEC-75 10:28:29
QUEUE SWITCHES:  /PRINT:ARROW /FILE:ASCII /COPIES:1 /SPACING:1 /LIMIT:465 /FORMS:NORMAL
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IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM
LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION	(AGE)SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE REFER.
>3000 M.Y.					
UNITED STATES					
MINNESOTA					
U.S.,MN,MONTEVID(V)385-F PBS-N		13.25	14.65	34.11	GGN GDD 75U0
U.S.,MN,MONTEVID(V)385-FI PBS-NC		12.90	14.55	33.90	GGN GDD 75U0
U.S.,MN,MONTEVID(V)54-69F-F GEL-N		14.967	15.532	34.864	GGN
U.S.,MN,MONTEVID(W)431-73F-IGEL-N		62.290	20.340	51.339	GGN GDD 75U0
U.S.,MN,MONTEVID(W)431-73F-RGEL-N		16.937	16.065	34.024	GGN GDD 75U0
U.S.,MN,MONTEVID(W)431-73F-IGEL-N		16.837	16.054	33.982	GGN GDD 75U0
U.S.,MN,MONTEVID(W)612-74F GEL-N		15.145	15.612	34.077	GGN
U.S.,MN,MONTEVID(W)611-74F GEL-N		15.301	15.579	34.166	GGN
U.S.,MN,MONTEVID(W)54-69RM-FGEL-N		14.767	15.453	33.914	GGN
U.S.,MN,MORTON G(V)14-F PBS-N		14.24	15.08	35.67	GGN GDD 75U0
SOUTH AFRICA					
3000MY					
S.AF, , (V)KAAP V.-FDBL,SPV		12.73	14.09	32.32	GRA S-T 73A
S.AF, , (V)SALIS,K-FDBL,SPV		12.75	14.07	32.22	GRA S-T 73A
S.AF, , (V)DALMEIN-FDBL,SPV		12.87	14.20	32.39	GRA S-T 73A
S.AF, , (V)LOCHIEL-FDBL,SPV		13.03	14.36	32.58	GRA S-T 73A
SOVIET UNION					
2700-3000M.Y.					
SOV.,UK,TAROMSK.(W)K103F PUBL.		15.40	15.12	36.00	GRA SGL 63RA
SOV.,UK,TAROMSK.(W)K103HO PUBL.		17.34	15.74	39.73	GRA SGL 63RA
SOV.,UK,TAROMSK.(W)K103BI PUBL.		20.01	16.05		GRA SGL 63RA
SOV.,UK,IAMBURG (W)K183A-BI PUBL.		25.43	17.13	177.20	GRA SGL 63RA
SOV.,UK,IAMBURG (W)K176MU PUBL.		18.52	15.85	41.46	GRA SGL 63RA
SOV.,UK,LOTSMAN.(W)K185BI PUBL.		16.29	15.44	35.80	PEG SGL 63RA
>2950MY-2950MY-2800MY-1600MY-CENOZOIC					
UNITED STATES					
WYOMING					
GRANITE MOUNTAINS (HISTORY:GNEISS FORMATION AT 2950MY, GRANITE INTRUSION AT 2800MY, DIKE INTRUSION AND METAMORPHISM AT 1600MY, LEACHING FOR URANIUM IN CENOZOIC)(FELD.LID)					
U.S.,WY,GRANITE (W)GM35-68F PUBL.		13.99	15.09	34.04	GN NK-R 72U
U.S.,WY,GRANITE (W)GM38-68P PUBL.		15.21	15.11	33.49	GN NK-R 72U
U.S.,WY,GRANITE (W)GM77-68F PUBL.		15.25	15.74	35.93	GN NK-R 72U

DRILL HOLE, DEPTH 99FT
U.S.,WY,GRANITE (W)W2CR1-F PUBL. 18.17 16.12 35.61 GGN NK-R 72U
DRILL HOLE, DEPTH 153FT
U.S.,WY,GRANITE (W)W2CR1-F PUBL. 18.49 16.07 37.21 GGN NK-R 72U
U.S.,WY,GRANITE (W)GM78-68F PUBL. 18.50 16.41 34.45 GN NK-R 72U
U.S.,WY,GRANITE (W)GM98-68F PUBL. 19.97 16.56 36.62 GGN NK-R 72U

2700MY

AUSTRALIA
2700MY

AUST, , (W)WODGINA-FDBL.SPV 13.36 14.92 33.53 GRA S-T 73A
AUST, , (W)LONDON.-FDBL.SPV 14.05 14.82 33.01 GRA S-T 73A
AUST, , (W)GROSSM.-FDBL.SPV 14.08 15.02 33.73 GRA S-T 73A

KALGOORLIE-NORSEMAN AREA

EDJUDINA
AUST,WA,KALGOORL(W)72-859F-RDBL.SP. 13.867 14.803 33.566 GRA OVER 75A
AUST,WA,KALGOORL(W)72-859FI DBL.SPC 13.805 14.792 - GRA OVER 75A

KAMBALDA
AUST,WA,KALGOORL(W)71-1079AFDBL.SP. 13.832 14.820 33.532 GRA OVER 75A
AUST,WA,KALGOORL(W)71-1079BFDBL.SP. 13.836 14.838 33.594 GRA OVER 75A
AUST,WA,KALGOORL(W)71-1079FIDBL.SPC 13.723 14.808 - GRA OVER 75A
AUST,WA,KALGOORL(W)71-1083F DBL.SP. 13.954 14.858 33.657 GRA OVER 75A
AUST,WA,KALGOORL(W)71-1081F DBL.SP. 14.000 14.846 33.625 GRA OVER 75A

KARONIE
AUST,WA,KALGOORL(W)71-742F-RDBL.SP. 14.320 14.785 33.494 GRA OVER 75A
AUST,WA,KALGOORL(W)71-742FI DBL.SPC 13.573 14.629 - GRA OVER 75A

KARRAMINDI SOAK
AUST,WA,KALGOORL(W)71-736F-RDBL.SP. 15.205 15.054 34.216 GRA OVER 75A

LAKE JOHNSON
AUST,WA,KALGOORL(W)72-864F-RDBL.SP. 14.319 15.079 33.939 GRA OVER 75A
AUST,WA,KALGOORL(W)72-864FI DBL.SPC 14.071 15.035 - GRA OVER 75A
AUST,WA,KALGOORL(W)72-860F-RDBL.SP. 14.437 15.121 34.078 GRA OVER 75A
AUST,WA,KALGOORL(W)72-860FI DBL.SPC 14.282 15.093 - GRA OVER 75A
AUST,WA,KALGOORL(W)72-861F-RDBL.SP. 15.321 15.238 34.325 GRA OVER 75A

MUNGARI GRANITE
AUST,WA,KALGOORL(W)71-738F-RDBL.SP. 14.289 14.971 33.916 GRA OVER 75A
AUST,WA,KALGOORL(W)71-738FI DBL.SPC 13.894 14.906 - GRA OVER 75A
AUST,WA,KALGOORL(W)71-739AFRDBL.SP. 15.157 15.022 34.196 GRA OVER 75A
AUST,WA,KALGOORL(W)71-739BFRDBL.SP. 15.270 15.112 34.416 GRA OVER 75A

STENNET ROCKS
AUST,WA,KALGOORL(W)71-906AFRDBL.SP. 14.252 15.199 33.834 GRA OVER 75A
AUST,WA,KALGOORL(W)71-906BFRDBL.SP. 14.292 15.226 33.909 GRA OVER 75A
AUST,WA,KALGOORL(W)71-906FI DBL.SPC 14.030 15.167 - GRA OVER 75A
AUST,WA,KALGOORL(W)71-905F-RDBL.SP. 14.436 15.260 34.070 GRA OVER 75A
AUST,WA,KALGOORL(W)71-905FI DBL.SPC 14.280 15.232 - GRA OVER 75A

CANADA
2700MY

CAN.,,	,	(W)MG45-F	DBL.SPV	13.41	14.63	33.26	GRA SIN	69L	
CAN.,,	,	(W)MG41-F	DBL.SPV	13.45	14.51	33.43	GRA SIN	69L	
	PREISSAC-LACORNE BATHOLITH								
CAN.,QB,PREISSAC		(W)RN1T2-F	PUBL.-C	13.28	14.53	33.43	GRA S-W	69A	
CAN.,QB,PREISSAC		(W)RN2-1-F	PUBL.-C	13.47	14.48	33.29	GRA S-W	69A	
CAN.,QB,PREISSAC		(W)RN3-F	PUBL.-C	13.50	14.70	33.67	GRA S-W	69A	
	LAKE TIMAGAMI AREA (GRENVILLE FRONT)								
	(HISTORY: FORMATION AT 2.7 BY WITH METAMORPHISM AT 1.0BY)								
CAN.,ON,L.TIMAGA		(W)G3-1-F	PUBL.-C	15.35	15.27	34.45	GRA S-W	69A	
CAN.,ON,L.TIMAGA		(W)G5-1-F	PUBL.-C	17.44	15.89	36.86	GRA S-W	69A	
CAN.,ON,L.TIMAGA		(W)G1-1-F	PUBL.-C	20.18	16.55	37.03	GRA S-W	69A	
INDIA									
2700MY									
INDI,	,	(W)BT-16-F	DBL.SPV	13.16	14.50	35.08	GRA S-T	73A	
INDI,	,	(W)CHARN.-F	DBL.SPV	13.88	14.52	34.08	CHA S-T	73A	
INDI,	,	(W)BT- 4-F	DBL.SPV	13.94	14.86	34.94	GRA S-T	73A	
INDI,	,	(W)BT-20-F	DBL.SPV	14.09	14.80	33.94	GRA S-T	73A	
INDI,	,	(W)BT-20-F	DBL.SPV	14.68	14.98	33.86	GRA S-T	73A	
INDI,	,	(W)BT- 2-F	DBL.SPV	15.90	15.16	35.64	SYE S-T	73A	
MINNESOTA									
2700MY									
U.S.,MN,ICARUS P		(W)NL-16F	PUBL.	13.29	14.37	32.93	TON A-H	75A	
U.S.,MN,ICARUS P		(W)NL-12F	PUBL.	13.37	14.43	33.09	GRA A-H	75A	
U.S.,MN,ECHO L.		(W)KA46-F	PUBL.	13.63	14.60	33.34	GGN DTH	65J	
U.S.,MN,BEN IS.		(W)KA354-F	PUBL.-C	13.58	14.67	33.42	GRA DTH	65J	
U.S.,MN,BIRCH L.		(W)KA82-F	PUBL.-C	13.73	14.59	33.41	GGN DTH	65J	
U.S.,MN,ECHO L.		(W)KA356P-F	PUBL.	13.73	14.66	33.63	PEG DTH	65J	
U.S.,MN,CUS		(W)KA249P-F	PUBL.	13.74	14.66	33.36	PEG DTH	65J	
U.S.,MN,SACRED H		(W)73MRV-1F	GEL-N	14.307	15.118	34.338	GRA		
U.S.,MN,SAGANAGA		(W)SH-23-F	PUBL.	14.51	14.65	34.26	TON A-H	75A	
MONTANA									
2700 M.Y.									
U.S.,MT,BEARTOOT		(W)CHRIST.-F	PUBL.	14.11	14.99	33.66	PEG C-G	60A	
U.S.,MT,BEARTOOT		(W)BLACKS.-F	PUBL.	14.31	15.08	33.77	PEG C-G	60A	
WYOMING									
GRANITE MOUNTAINS									
2800MY-1600MY-CENOZOIC									
	DRILL HOLE, DEPTH 30FT								
U.S.,WY,GRANITE		(W)D1686-7-F	PUBL.-C	14.39	15.00	33.92	GRA R-B	69L	
	DRILL HOLE, DEPTH 3FT								
U.S.,WY,GRANITE		(W)DDH-GM-2F	PUBL.	15.39	15.50	34.77	GRA RZNK	73G	
	DRILL HOLE, DEPTH 18FT								
U.S.,WY,GRANITE		(W)DDH-GM-1F	PUBL.	16.63	15.70	35.02	GRA RZNK	73G	
	DRILL HOLE, 100FT								
U.S.,WY,GRANITE		(W)W2-CR14-F	PUBL.	18.00	16.13	36.66	GRA RZNK	73G	
	DRILL HOLE, DEPTH 165FT								
U.S.,WY,GRANITE		(W)W2-CR26-F	PUBL.	18.17	16.11	34.94	GRA RZNK	73G	

	DRILL HOLE, DEPTH 5FT					
U.S.,WY,GRANITE (W)DDH-GM-1FPUBL.		18.28	16.16	34.48	GRA RZNK 73G	
	DRILL HOLE, DEPTH 157FT					
U.S.,WY,GRANITE (W)W2-CR14-FPUBL.		18.32	16.22	37.17	GRA RZNK 73G	
	SURFACE SAMPLE					
U.S.,WY,GRANITE (W)ZW-263-F PUBL.		18.32	16.22	37.17	GRA RZNK 73G	
	DRILL CORE, DEPTH 99FT					
U.S.,WY,GRANITE (W)W2-CR26-FPUBL.		20.04	16.64	35.43	GRA RZNK 73G	
SEMINOLE MOUNTAINS						
2800MY-1600MY-CENOZOIC						
	DRILL CORE, DEPTH 20FT					
U.S.,WY,SEMINOLE(W)114944-F PUBL.		21.07	16.99	35.01	GRA RZNK 73G	
	DRILL CORE, DEPTH 30FT					
U.S.,WY,SEMINOLE(W)114945-F PUBL.		21.49	17.13	35.25	GRA RZNK 73G	
	DRILL CORE, DEPTH 20FT					
U.S.,WY,SEMINOLE(W)DDH-SM-1FPUBL.		21.53	17.18	35.11	GRA RZNK 73G	
	SURFACE SAMPLE					
U.S.,WY,SEMINOLE(W)114943-F PUBL.		21.92	17.21	35.37	GRA RZNK 73G	
	DRILL CORE, DEPTH 20FT					
U.S.,WY,SEMINOLE(W)DDH-SM-3FPUBL.		21.96	16.70	33.34	GRA RZNK 73G	
	DRILL CORE, DEPTH 20FT					
U.S.,WY,SEMINOLE(W)DDH-SM-2FPUBL.		22.36	17.35	35.30	GRA RZNK 73G	
	DRILL CORE, DEPTH 20FT					
U.S.,WY,SEMINOLE(W)DDH-SM-4FPUBL.		22.44	17.68	36.25	GRA RZNK 73G	
	DRILL CORE, DEPTH 10FT					
U.S.,WY,SEMINOLE(W)114942-F PUBL.		24.34	17.55	35.42	GRA RZNK 73G	
WIND RIVER MOUNTAINS						
2800MY-1600MY-CENOZOIC						
U.S.,WY,WIND RIV(W)WYLL-2W-FPUBL.-C		14.01	14.93	33.68	GRA NSW 70G	
U.S.,WY,WIND RIV(W)WYWR-4 PUBL.-C		14.09	15.01	33.81	GRA NSW 70G	
U.S.,WY,WIND RIV(W)WYLL-2IIFPUBL.-C		14.12	15.06	33.96	GRA NSW 70G	
U.S.,WY,WIND RIV(W)WYLL-13-FPUBL.-C		14.18	15.10	33.95	O-M NSW 70G	
U.S.,WY,WIND RIV(W)WYLL-12AFPUBL.-C		14.25	15.14	34.09	PEG NSW 70G	
WYOMING(OTHER AREAS)						
U.S.,WY,CODY (W)SHOSHON.FPUBL.		13.84	15.02	34.00	PEG C-G 60A	
U.S.,WY, (W)BONNEVI.FPUBL.		14.62	15.27	34.23	PEG C-G 60A	

FELDSPARS AND URANIUM/THORIUM POOR MINERALS(PRE-MESOZOIC)

IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM
LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION	(AGE)SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE REFER.
1700 M.Y.					
NORTH AMERICA					
CANADA					
1800MY					
CAN,,SA,	(X)4222-F PUBL-C	15.04	15.12	34.90	GRA DOE 67P

CAN.,SA,	(X)NB-3-F	DBL.SPV	15.21	15.02	34.72	GRA SIN	70A
CAN.,SA,	(X)CLR-18-F	DBL.SPV	15.24	15.04	34.79	GRA SIN	70A
CAN.,SA,	(X)3633-F	PUBL.-C	15.73	15.20	35.35	GRA RPB	70C
CAN.,SA,	(X)4219-F	PUBL-C	15.74	15.37	35.57	GRA DOE	67P

UNITED STATES
1800 M.Y.

MINNESOTA

U.S.,MN,SECT.28	(X)604-F	GEL-N	15.079	15.280	35.214	GRA	

MONTANA

U.S.,MT,	(X)3798-F	PUBL-C	16.15	15.65	36.36	OGN DOE	67P

1600MY

NORTH AMERICA

UNITED STATES

SOUTH DAKOTA
1600 M.Y.

U.S.,SD,BLK.HILL(X)GLENDAL-F	PUBL.	16.18	15.51	35.18	PEG C-G	60A
U.S.,SD,BLK.HILL(X)TIN MT.-F	PUBL.	16.23	15.50	35.89	PEG C-G	60A
U.S.,SD,BLK.HILL(X)BOB IN.-F	PUBL.	16.62	15.61	35.87	PEG C-G	60A
U.S.,SD,BLK.HILL(X)BOB IN.-F	PUBL.	17.04	15.65	35.97	PEG C-G	60A

OTHER AREAS

AUSTRALIA
1600-1250M.Y.

MT. ALOYSIUS, TOMKINSON RANGES, CENTRAL AUSTRALIA (SILICIC ROCKS)
(APPARENTLY ROCK FORMATION OR METAMORPHISM AT 1600M.Y. FOLLOWED BY
GRANULITE FACIES METAMORPHISM AT 1250M.Y)

AUS.,CA,TOMKINS.(X)69-1255F	DBL.SP.	16.82	15.57	36.60	GNG G-O	72C
AUS.,CA,TOMKINS.(X)69-1320F	DBL.SP.	16.80	15.57	36.80	GNG G-O	72C
AUS.,CA,TOMKINS.(X)71-271F	DBL.SP.	16.93	15.59	36.60	GNG G-O	72C
AUS.,CA,TOMKINS.(X)1-271QPI	DBL.SP.	16.92	15.62	36.90	GNG G-O	72C
AUS.,CA,TOMKINS.(X)71-272F	DBL.SP.	16.73	15.56	36.64	GNG G-O	72C
AUS.,CA,TOMKINS.(X)GA-2798F	DBL.SP.	16.79	15.61	36.84	GNG G-O	72C
AUS.,CA,TOMKINS.(X)GA2797F	DBL.SP.	16.78	15.59	36.99	GNG G-O	72C
AUS.,CA,TOMKINS.(X)9-1277FI	DBL.SP.	16.83	15.55	37.14	GNG G-O	72C
AUS.,CA,TOMKINS.(X)1277QP-I	DBL.SP.	16.83	15.55	37.35	GNG G-O	72C
AUS.,CA,TOMKINS.(X)71-273F	DBL.SP.	16.72	15.57	36.99	GNG G-O	72C
AUS.,CA,TOMKINS.(X)71-273QPI	DBL.SP.	16.74	15.57	37.18	GNG G-O	72C

1400MY

COLORADO
1400 M.Y.

ST. KEVIN BATHOLITH

U.S.,CO,ST.KEVIN(Y)C20-F	PUBL-C	16.61	15.48	36.36	GRA DOE	67P
U.S.,CO,ST.KEVIN(Y)C3-F	PUBL-C	16.61	15.58	36.61	GRA DOE	67P

U,S,,CO, (Y)BROWN D,FPUBL. 16.72 15.36 35.73 PEG ADIN 56G

1000 M.Y.

EUROPE

NORWAY
1000 M.Y.

NOR,, ,	(Y)TORDAL	PUBL.	17.37	15.55	37.09	PEG C-G	60A

NORTH AMERICA

CANADA

ONTARIO
1000M.Y.-DISTURBED(TIME UNKNOWN)

CAN,,ON,	(Y)ESSONV,-FPUBL.	16.81	15.28	36.02	PEG T	55G
CAN,,ON,	(Y)ESSONV,-PPUBL.	18.16	15.48	40.02	GRA T	55G
CAN,,ON,	(Y)ESSONV,-FPUBL.	18.56	15.74	39.52	GRA T	55G
CAN,,ON,	(Y)ESSONV,PYPUBL.	20.34	15.92	54.34	GRA T	55G

UNITED STATES

COLORADO
1000 M.Y.

PIKES PEAK BATHOLITH

U,S,,CO,PIKES PK(Y)CRYSTAL-FPUBL.	16.64	15.35	36.58	PEG C-G	60A
U,S,,CO,PIKES PK(Y)PPB-1K-F PUBL.-C	16.90	15.44	36.75	GRA DOE	67P
U,S,,CO,PIKES PK(Y)PPRS-1K-FPUBL-C	16.91	15.49	36.71	GRA DOE	67P

MARYLAND
1000MY-PALEOZOIC

BALTIMORE GNEISS
(HISTORY:FORMATION OF BALTIMORE GNEISS OCCURRED 1000 TO 1350 MY AGO WITH METAMORPHISM AND INTRUSION IN THE PALEOZOIC)

U,S,,MD,BALTIMOR(Y)B58-F(WD)PUBL.	17.42	15.52	40.01	GGN DTH	65J
U,S,,MD,BALTIMOR(Y)B4-F(PD) PUBL.	17.85	15.40	38.38	GGN DTH	65J
U,S,,MD,BALTIMOR(Y)B20-F(TD)PUBL.	18.10	15.53	37.09	GGN DTH	65J
U,S,,MD,BALTIMOR(Y)B41-F(TD)PUBL.	18.85	15.64	38.17	GGN DTH	65J

NEW YORK
1000MY

U,S,,NY,BALMAT	(Y)CCG-F	PUBL.	16.94	15.31	36.43	GRA DOE	62J
U,S,,NY,BALMAT	(Y)HPG-F	PUBL.	17.10	15.51	36.64	GRA DOE	62J
U,S,,NY,BALMAT	(Y)OBG-P-F	PUBL.	17.14	15.47	36.55	PEG DOE	62J
U,S,,NY,BALMAT	(Y)AZ1-F	3FIL.-N	17.167	15.482	36.731	GRA SDU	69L
U,S,,NY,BALMAT	(Y)CCG-P-F	PUBL.	17.26	15.54	36.74	PEG DOE	62J
U,S,,NY,BALMAT	(Y)CCM14-P-F	PUBL.	18.99R	15.63R	37.12R	PEG DOE	62J

VIRGINIA
1000MY.

U.S.,VA,BLUE RID(Y)B15P-F	PUBL.	17.22	15.42	36.49	PEG DTH	65J
U.S.,VA,BLUE RID(Y)B16-F	PUBL.	17.30	15.60	37.10	CHA DTH	65J
U.S.,VA,BLUE RID(Y)B15-F	PUBL.	17.34	15.65	37.24	CHA DTH	65J

FELDSPARS AND URANIUM/THORIUM POOR MINERALS(PRE-MESOZOIC)

IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM
LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION (AGE)SAMPLE NO.	METHOD	206/204	207/204	208/204	TYPE	REFER.
PALEOZOIC						
CANADA						
NEWFOUNDLAND						
PALEOZOIC						
OPHIOLITES(TRONDHJEMITES)						
NIPPERS HARBOR OPHIOLITE (BETTS COVE BELT)						
CAN.,NF,NIPPERS (CAM)72-4P	PUBL.	18.34	15.47	37.92	TRN	MATT 75G
TROUT RIVER OPHIOLITE (BAY OF ISLANDS-HARE BAY BELT)						
CAN.,NF,TROUT R.(ORD)72-9P	PUBL.	18.52	15.70	38.03	TRN	MATT 76G
UNITED STATES						
MAINE						
PALEOZOIC						
U.S.,ME, (PAL)TOPSHAM-F	PUBL.	18.61	15.80	38.90	PEG DTH	65J
MARYLAND						
PALEOZOIC						
U.S.,MD,NOTCH CL(PAL)PE-2-P-F	PUBL.	18.11	15.66	38.50	PEG DTH	65J
U.S.,MD,NOTCH CL(PAL)B77-P	PUBL.	18.16	15.70	38.69	PEG DTH	65J
U.S.,MD,CROMWELL(PAL)B80-P-F	PUBL.	18.26	15.60	38.02	PEG DTH	65J
U.S.,MD,DANIELS (PAL)PEM-1-P-F	PUBL.	18.29	15.63	38.29	PEG DTH	65J
U.S.,MD,MANOR RD(PAL)B78-P-F	PUBL.	18.38	15.78	38.65	PEG DTH	65J
U.S.,MD,GUILFORD(PAL.)B32-F	PUBL.	18.39	15.76	38.44	GRA DTH	65J
U.S.,MD,ELLICOTT(PAL)B53-F	PUBL.	18.44	15.50	37.89	GRA DTH	65J
U.S.,MD,FALLS RD(PAL)B1-P-M	PUBL.	18.50	15.62	38.17	PEG DTH	65J
U.S.,MD,GUILFORD(PAL)B33P-F	PUBL.	18.54	15.62	37.91	PEG DTH	65J
U.S.,MD,ELLICOTT(PAL)B21-F	PUBL.	18.60	15.69	38.32	GRA DTH	65J
U.S.,MD,FALLS RD(PAL)B1-P-F	PUBL.	18.60	15.75	38.65	PEG DTH	65J
U.S.,MD,HENRYTON(PAL)PE4-P-F	PUBL.	18.65	15.80	38.72	PEG DTH	65J
VIRGINIA						
PALEOZOIC						
U.S.,VA,AMELIA C(PAL)AMELIA-PF	PUBL.	18.18	15.67	38.41	PEG C-G	60A
U.S.,VA,AMELIA C(PAL)AMELIA-PF	PUBL.	18.20	15.70	38.29	PEG DTH	65J

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    000000000          RRRRRRRRRRR          UUU          UUU          SSSSSSSSSSS
    000000000          RRRRRRRRRRRR         UUU          UUU          SSSSSSSSSSSS
    000000000          RRRRRRRRRRRRR        UUU          UUU          SSSSSSSSSSSSS
000          000       RRR          RRR     UUU          UUU       SSS
000          000       RRR          RRR     UUU          UUU       SSS
000          000       RRR          RRR     UUU          UUU       SSS
000          000       RRR          RRR     UUU          UUU       SSS
000          000       RRR          RRR     UUU          UUU       SSS
000          000       RRR          RRR     UUU          UUU       SSS
000          000       RRRRRRRRRRRRR        UUU          UUU          SSSSSSSSS
000          000       RRRRRRRRRRRRR        UUU          UUU          SSSSSSSSS
000          000       RRRRRRRRRRRRR        UUU          UUU          SSSSSSSSS
000          000       RRR   RRR            UUU          UUU                SSS
000          000       RRR   RRR            UUU          UUU                SSS
000          000       RRR   RRR            UUU          UUU                SSS
000          000       RRR      RRR         UUU          UUU                SSS
000          000       RRR      RRR         UUU          UUU                SSS
000          000       RRR      RRR         UUU          UUU                SSS
    000000000          RRR          RRR     UUUUUUUUUUUUUUUU       SSSSSSSSSSSS
    000000000          RRR          RRR     UUUUUUUUUUUUUUUU       SSSSSSSSSSSS
    000000000          RRR          RRR     UUUUUUUUUUUUUUUU       SSSSSSSSSSSS


LLL                       IIIIIIIII          DDDDDDDDDDD
LLL                       IIIIIIIII          DDDDDDDDDDDD
LLL                       IIIIIIIII          DDDDDDDDDDDD
LLL                          III             DDD          DDD
LLL                          III             DDD          DDD
LLL                          III             DDD          DDD
LLL                          III             DDD          DDD
LLL                          III             DDD          DDD
LLL                          III             DDD          DDD
LLL                          III             DDD          DDD
LLL                          III             DDD          DDD
LLL                          III             DDD          DDD
LLL                          III             DDD          DDD
LLL                          III             DDD          DDD
LLL                          III             DDD          DDD
LLL                          III             DDD          DDD
LLL                          III             DDD          DDD
LLLLLLLLLLLLLLLL          IIIIIIIII          DDDDDDDDDDD
LLLLLLLLLLLLLLLL          IIIIIIIII          DDDDDDDDDDDD
LLLLLLLLLLLLLLLL          IIIIIIIII          DDDDDDDDDDDD


LPTSPL VERSION 6(350)  RUNNING ON LPT100
 *START* USER DOE B. [622,104] JOB  IGCO SEQ. 979 DATE 22-DEC-75 10:19:15 MONITOR USGS DECSYSTEM10 ANF602 *START*
REQUEST CREATED: 22-DEC-75  10:19:15
FILE: DSKB1:ORUS.LID[622,104] CREATED: 16-DEC-75 08:46:00 <157>  PRINTED: 22-DEC-75 10:26:45
QUEUE SWITCHES:  /PRINT:ARROW /FILE:ASCII /COPIES:1 /SPACING:1 /LIMIT:492 /FORMS:NORMAL
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IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM
LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION	(AGE)SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE	REFER,
ALASKA						
MESOZOIC-CENOZOIC						
U.S.,AK,KETCHIKA	(M-C)C-146 PUBL.	18.95	15.89	39.35	GAL R-F	60I
U.S.,AK,PEDRO	(CEN)PEDRO DOM3FIL-N	19.118	15.688	39.146	GAL	
U.S.,AK,STEAMBOA	(CEN)STEAMBOAT3FIL-N	19.132	15.685	39.160	GAL	
U.S.,AK,BUSTY	(CEN)BUSTY BEL3FIL-N	19.126	15.693	39.177	GAL	
U.S.,AK,HYDER	(M-C)C-108 PUBL.	19.33	15.64	38.93	GAL R-F	60I
ARKANSAS						
PHANEROZOIC						
U.S.,AR,MONTGOM.	(PHA)C-101 PUBL.	18.36	15.61	38.56	GAL R-F	60I
U.S.,AR,KELLOGG	(PHA)C-56 PUBL.	18.61	15.69	38.78	GAL R-F	60I
U.S.,AR,LAWRENCE	(PHA)C-55 PUBL.	21.89	16.07	41.55	GAL R-F	60I
U.S.,AR,MORN.STA	(PHA)C-57 PUBL.	22.73	16.18	41.86	GAL R-F	60I
ARIZONA						
MESOZOIC-CENOZOIC						
U.S.,AZ,BISBEE	(CRE)COLE MINE3FIL-N	17.136	15.464	37.837	GAL	
U.S.,AZ,WALAPAI	(M-C)C197FONT.PUBL.	18.15	15.55	38.93	GAL R-F	60I
U.S.,AZ,TUCSON M	(M-C)C118N PUBL.	18.52	15.67	38.89	GAL R-F	60I
U.S.,AZ,AMPHITHE	(M-C)74C1 3FIL-N	18.578	15.602	38.641	GAL	
U.S.,AZ,MAMMOTH	(CEN)MAMMOTH 3FIL-N	18.787	15.612	39.201	GAL ZART	74E
U.S.,AZ,HEAD CEN	(CEN)HEAD CENT3FIL-N	19.105	15.637	39.052	GAL ZART	74E
1700 M.Y.						
MASSIVE SULFIDE DEPOSIT						
U.S.,AZ,JEROME	(Y)UNITED V.3FIL-N	15.725	15.270	35.344	GAL	
U.S.,AZ,BAGDAD	(X)OLD DICK 3FIL-N	15.805	15.318	35.422	GAL	
U.S.,AZ,BRUCE M.	(X)BRUCE M. PUBL.	15.81	15.33	35.42	GAL C-B	73W
U.S.,AZ,JEROME	(X)IRON KINGAEC1	16.04	15.40	35.75	GAL ANT	64W
CALIFORNIA						
MESOZOIC-CENOZOIC						
U.S.,CA,SHASTA	(DEV)W-TR9AS 3FIL-N	17.693	15.454	37.453	GAL	
U.S.,CA,SHASTA	(TRI)E-G1 3FIL-N	17.897	15.462	37.493	GAL	
U.S.,CA,DEATH VA	(M-C)DEATH VAL3FIL-N	17.965	15.578	39.135	GAL ZART	74E
U.S.,CA,NOONDAY	(M-C)NONDAY2543FIL-N	18.268	15.624	39.553	GAL ZART	74E
U.S.,CA,AG RIED	(M-C)AG RIED M3FIL-N	18.446	15.629	38.746	GAL ZART	74E
U.S.,CA,DARWIN	(M-C)DARWIN-1 3FIL-N	18.535	15.626	38.759	GAL ZART	74E
U.S.,CA,C. GORDO	(M-C)CER.GORDO3FIL-N	18.584	15.630	38.647	GAL ZART	74E
U.S.,CA,SHASTA	(JUR)HALCYON 3FIL-N	18.622	15.585	38.328	GAL	
U.S.,CA,BODIE	(M-C)BODIE-1 3FIL-N	19.059	15.647	38.834	GAL ZART	74E
U.S.,CA,LEAD MTN	(M-C)LEAD 3113FIL-N	19.059	15.684	39.275	GAL ZART	74E
U.S.,CA,ZACA MIN	(M-C)ZACA MINE3FIL-N	19.123	15.667	38.861	GAL ZART	74E

U.S.,CA,SALTON (CEN)BRINE	PBS-N	19.13	15.67	39.07	BRI DHW	66E
U.S.,CA,SENTINEL(M-C)SENTINEL	3FIL-N	19.434	15.763	40.528	GAL ZART	74E
U.S.,CA,KERNVILL(MES)KERNVILLE	3FIL-N	19.479	15.755	39.197	GAL ZART	74E
U.S.,CA,SAN ANT.(M-C)C78	PUBL.	19.86	16.23	39.60	GAL R-F	60I

1400 M.Y.

U.S.,CA,MTN.PASS(Y)C151SUL.QPUBL.		16.12	15.37	39.60	GAL R-F	60I
U.S.,CA,MTN.PASS(Y)MTN. PASS	PBS-N	16.14	15.40	35.95	GAL MITC	73N

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LOCATION (AGE)SAMPLE NO.	METHOD	206/204	207/204	208/204	TYPE	REFER.

COLORADO

SAN JUAN VOLCANIC AREA

MESOZOIC-CENOZOIC

WESTERN SAN JUAN MOUNTAINS (UNCOMPAGHRE-SAN JUAN CALDERA COMPLEX)

U.S.,CO,S. JUAN (CEN)SUNNYSIDE	3FIL-N	18.285	15.556	37.919	GAL	
U.S.,CO,S. JUAN (CEN)74BRD4SUN	3FIL-N	18.294	15.563	37.949	GAL	
U.S.,CO,S. JUAN (CEN)74BRD3SUN	3FIL-N	18.383	15.575	38.027	GAL	
U.S.,CO,S. JUAN (CEN)G.WUNDER	3FIL-N	18.404	15.583	38.101	GAL	
U.S.,CO,S. JUAN (CEN)HMO-4	3FIL-N	18.414	15.582	38.076	GAL	
U.S.,CO,S. JUAN (CEN)DUNMORE-23	3FIL-N	18.449	15.580	38.060	GAL	
U.S.,CO,S. JUAN (CEN)HMO-1DUMP	3FIL-N	18.472	15.584	38.027	GAL	
U.S.,CO,S. JUAN (CEN)44DV66F	MTHYL-N	18.481	15.586	38.130	GAL	
U.S.,CO,S. JUAN (CEN)NAT.BELLE	3FIL-N	18.495	15.571	38.140	GAL	
U.S.,CO,S. JUAN (CEN)MARCELLA33	3FIL-N	18.498	15.595	38.056	GAL	
U.S.,CO,S. JUAN (CEN)ST.PAUL 13	3FIL-N	18.524	15.590	38.178	GAL	
U.S.,CO,S. JUAN (CEN)SUNNYSIDE	3FIL-N	18.549	15.603	38.242	GAL	
U.S.,CO,S. JUAN (CEN)IDA-983	3FIL-N	18.591	15.594	38.194	GAL	
U.S.,CO,S. JUAN (CEN)CAMP BIRD	3FIL-N	18.616	15.582	38.198	GAL	
U.S.,CO,S. JUAN (CEN)IDORADO 73	FIL-N	18.641	15.595	38.202	GAL	
U.S.,CO,S. JUAN (CEN)IDA-191303	FIL-N	18.664	15.594	38.216	GAL	
U.S.,CO,S. JUAN (CEN)IDA-121	3FIL-N	18.674	15.602	38.232	GAL	
U.S.,CO,S. JUAN (CEN)BLK.BEAR43	FIL-N	18.717	15.618	38.289	GAL	
U.S.,CO,S. JUAN (CEN)IDA-2057	3FIL-N	18.718	15.608	38.241	GAL	
U.S.,CO,S. JUAN (CEN)PORTLAND	MTHYL-N	18.749	15.608	37.962	GAL	
U.S.,CO,S. JUAN (CEN)44DV52	MTHYL-N	18.802	15.625	38.212	GAL	
U.S.,CO,S. JUAN (CEN)72-L-96-73	FIL-N	18.815	15.612	38.350	GAL	
U.S.,CO,S. JUAN (CEN)CZAR MINE	3FIL-N	18.843	15.617	38.420	GAL	
U.S.,CO,S. JUAN (CEN)REVENUE	MTHYL-N	18.895	15.631	38.337	GAL	
U.S.,CO,S. JUAN (CEN)IDA-39	3FIL-N	18.924	15.632	38.371	GAL	
U.S.,CO,S. JUAN (CEN)IDORADO 73	FIL-N	18.967	15.632	38.350	GAL	
U.S.,CO,S. JUAN (CEN)G.FLEECE	3FIL-N	19.078	15.643	38.533	GAL	
U.S.,CO,S. JUAN (CEN)G.FLEECE	3FIL-N	19.079	15.643	38.532	GAL	

PRE-CENOZOIC MIERALIZATION (WESTERN SAN JUAN MOUNTAINS)

BATCHELOR MINE

U.S.,CO,S. JUAN (CEN)44DV26(K)	PBS-N	18.69	15.61	38.42	GAL	

U.S.,CO,CARIBOU (M-C)DS264	PBI-N	17.47	15.49	38.34	GAL DPA	66U

PONY EXPRESS MINE

U.S.,CO,S. JUAN (CEN)HMO-3	3FIL-N	18.676	15.601	38.372	GAL

CENTRAL SAN JUAN MUNTAINS (LA GARITA CALDERA COMPLEX)

U.S.,CO,S. JUAN (CEN)MONON(D)	3FIL-N	18.847	15.617	37.942	GAL
U.S.,CO,S. JUAN (CEN)MONON(V)	PBS-TA1	18.86	15.63	37.96	GAL
U.S.,CO,S. JUAN (CEN)EMMA	MTHYL-N	18.802	15.626	38.018	GAL
U.S.,CO,S. JUAN (CEN)GS/682	3FIL-N	19.047	15.623	37.884	GAL
U.S.,CO,S. JUAN (CEN)OH-VR-NWD	PBS-N	19.01	15.56	37.68	GAL
U.S.,CO,S. JUAN (CEN)HOLY MOSE	PBS-N	19.03	15.59	37.77	GAL
U.S.,CO,S. JUAN (CEN)OH-8R-5	PBS-N	19.03	15.60	37.81	GAL
U.S.,CO,S. JUAN (CEN)PUZZEL V	PBS-N	19.03	15.62	37.85	GAL
U.S.,CO,S. JUAN (CEN)PBR-1-59	MTHYL-N	19.038	15.638	37.888	GAL
U.S.,CO,S. JUAN (CEN)OH-SYBIL5	PBS-N	19.05	15.64	37.94	GAL
U.S.,CO,S. JUAN (CEN)BOND HOLD	3FIL-N	19.092	15.641	37.906	GAL

SOUTHERN SAN JUAN MOUNTAINS (PLATORO CALDERA COMPLEX)

U.S.,CO,S. JUAN (CEN)REYN-SUM,	MTHYL-N	17.811	15.523	37.214	GAL
U.S.,CO,S. JUAN (CEN)71L55-SUM	3FIL-N	17.821	15.521	37.209	GAL
U.S.,CO,S. JUAN (CEN)ST157-JAS	MTHYL-N	18.112	15.546	37.574	GAL
U.S.,CO,S. JUAN (CEN)KC28	3FIL-N	18.925	15.625	37.853	GAL

PRE-ASH FLOW TUFF SEQUENCE (ORES)

U.S.,CO,S. JUAN (CEN)CH14	MTHYL-N	17.725	15.502	37.366	GAL
U.S.,CO,S. JUAN (CEN)CH9B-B	PBS-N	17.99	15.50	37.31	GAL
U.S.,CO,S. JUAN (CEN)CH-40B	PBS-N	18.02	15.55	37.50	GAL
U.S.,CO.S. JUAN (CEN)SC18B	3FIL-N	18.251	15.547	38.132	GAL
U.S.,CO,S. JUAN (CEN)SKC-1B	3FIL-N	18.478	15.568	37.815	GAL
U.S.,CO,S. JUAN (CEN)WHP	MTHYL-N	19.686	15.687	38.041	GAL
U.S.,CO,S. JUAN (CEN)EM40	MTHYL-N	19.954	15.708	38.012	GAL
U.S.,CO,S. JUAN (CEN)EM-60	3FIL-N	21.134	15.806	38.366	GAL

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LOCATION	(AGE)SAMPLE NO,	METHOD	206/204	207/204	208/204	TYPE	REFER,
COLORADO							
EXCLUSIVE OF SAN JUAN VOLCANIC AREA							
MESOZOIC-CENOZOIC							
U.S.,CO,MORNING	(M-C)DS216	PBI-N	17.26	15.49	37.97	GAL DPA	66U
U.S.,CO,AU PARK	(M-C)DS218	PBI-N	17.38	15.40	38.13	GAL DPA	66U
U.S.,CO,AU PARK	(M-C)DS217	PBI-N	17.39	15.55	38.15	GAL DPA	66U
U.S.,CO,AU PARK	(M-C)DS220	PBI-N	17.40	15.54	38.17	GAL DPA	66U
U.S.,CO,CARIBOU	(M-C)DS263	PBI-N	17.41	15.49	38.19	GAL DPA	66U
U.S.,CO,CARIBOU	(M-C)DS261	PBI-N	17.41	15.49	38.24	GAL DPA	66U
U.S.,CO,CARIBOU	(M-C)DS266	PBI-N	17.41	15.50	38.27	GAL DPA	66U
U.S.,CO,CARIBOU	(M-C)GS3	PBI-N	17.41	15.53	38.29	GAL DPA	66U
U.S.,CO,CARIBOU	(M-C)DS265	PBI-N	17.45	15.51	38.27	GAL DPA	66U
U.S.,CO,BULL DOM	(M-C)DS215	PBI-N	17.43	15.48	37.06	GAL DPA	66U

U.S.,CO,CARIBOU (M-C)DS264	PBI-N	17.47	15.49	38.34	GAL	DPA	66U
U.S.,CO,BULL DOM(M-C)DS224	PBI-N	17.51	15.57	37.29	GAL	DPA	66U
U.S.,CO,NEDERLAN(M-C)DS258	PBI-N	17.53	15.47	38.52	GAL	DPA	66U
U.S.,CO,GILMAN (CEN)DS228	PBI-N	17.68	15.54	38.47	GAL	DPA	66U
U.S.,CO,CLIMAX (M-C)DS259	PBI-N	17.64	15.53	38.32	GAL	DPA	66U
U.S.,CO,AUGUSTA (M-C)DS334	PBI-N	17.64	15.59	38.65	GAL	DPA	66U
U.S.,CO,AUGUSTA (M-C)DS206	PBI-N	17.64	15.59	38.66	GAL	DPA	66U
U.S.,CO,JAMESTOW(M-C)DS328	PBS-N	17.66	15.60	38.75	GAL	DPA	66U
U.S.,CO,JEAN (M-C)DS313	PBI-N	17.66	15.51	40.54	GAL	DPA	66U
U.S.,CO,TWIN LAK(M-C)DS329	PBS-N	17.67	15.49	39.91	GAL	DPA	66U
U.S.,CO,URAD (CEN)DS269	PBI-N	17.68	15.53	39.78	GAL	DPA	66U
U.S.,CO,HENDERSO(CEN)HENDERSON	3FIL-N	17.700	15.512	39.372	GAL	ZART	74E
U.S.,CO,SUGARLOA(M-C)DS236	PBI-N	17.72	15.54	38.52	GAL	DPA	66U
U.S.,CO,URAD (CEN)DS226	PBI-N	17.73	15.59	39.72	GAL	DPA	66U
U.S.,CO,AG PLUME(M-C)GS266	PBI-N	17.74	15.54	39.03	GAL	DPA	66U
U.S.,CO,ALMA (M-C)DS327	PBS-N	17.76	15.50	38.23	GAL	DPA	66U
U.S.,CO,GILMAN (CEN)GILMAN	PUBL,	17.79	15.57	38.63	GAL	RMB	68B
U.S.,CO,GILMAN (M-C)DS229	PBI-N	17.80	15.55	38.47	GAL	DPA	66U
U.S.,CO,PARKVIEW(M-C)DS330	PBS-N	17.86	15.59	37.60	GAL	DPA	66U
U.S.,CO,MARY MUR(M-C)DS213	PBI-N	17.81	15.55	38.14	GAL	DPA	66U
U.S.,CO,CLIMAX (M-C)DS230	PBI-N	17.84	15.57	38.42	GAL	DPA	66U
U.S.,CO,LEADVILL(M-C)DS250	PBI-N	17.87	15.54	38.48	GAL	DPA	66U
U.S.,CO,ASPEN (M-C)DS323	PBI-N	17.88	15.54	37.97	GAL	DPA	66U
U.S.,CO,LEADVILL(M-C)DS234	PBI-N	17.88	15.55	38.44	GAL	DPA	66U
U.S.,CO,LEADVILL(M-C)DS248	PBI-N	17.88	15.55	38.41	GAL	DPA	66U
U.S.,CO,LEADVILL(M-C)DS246	PBI-N	17.88	15.54	38.45	GAL	DPA	66U
U.S.,CO,GILMAN (M-C)MANTO-CHI	PUBL,	17.90	15.71	38.91	GAL	RMB	68B
U.S.,CO,ASPEN (M-C)DS323	PBS-N	17.92	15.58	38.16	GAL	DPA	66U
U.S.,CO,CLIMAX (M-C)DS244	PBI-N	17.96	15.52	38.40	GAL	DPA	66U
U.S.,CO,ROBERTS (M-C)DS240	PBI-N	17.96	15.52	38.46	GAL	DPA	66U
U.S.,CO,ROBERTS (M-C)DS243	PBI-N	17.96	15.55	38.46	GAL	DPA	66U
U.S.,CO,LEADVILL(M-C)DS249	PBI-N	17.98	15.57	38.44	GAL	DPA	66U
U.S.,CO,MONTEZUM(M-C)DS308	PBI-N	17.98	15.57	38.46	GAL	DPA	66U
U.S.,CO,ROBERTS (M-C)DS241	PBI-N	17.99	15.56	38.50	GAL	DPA	66U
U.S.,CO,CLIMAX (M-C)DS231	PBI-N	18.00	15.54	38.57	GAL	DPA	66U
U.S.,CO,CLIMAX (M-C)DS260	PBI-N	18.02	15.54	38.44	GAL	DPA	66U
U.S.,CO,ROBERTS (M-C)DS238	PBI-N	18.01	15.60	38.54	GAL	DPA	66U
U.S.,CO,ROBERTS (M-C)DS239	PBI-N	18.02	15.59	38.62	GAL	DPA	66U
U.S.,CO,MONTEZUM(M-C)DS307	PBI-N	18.03	15.58	38.54	GAL	DPA	66U
U.S.,CO,GILMAN (M-C)VEI(P,CA)	PUBL,	18.03	15.72	39.18	GAL	RMB	68B
U.S.,CO,HAHNS PK(M-C)LI,RED PK	PBS-N	18.04	15.47	36.94	AU	ADD	72E
U.S.,CO,LEADVILL(M-C)DS233	PBI-N	18.06	15.60	38.62	GAL	DPA	66U
U.S.,CO,KOKOMO (M-C)DS210	PBI-N	18.07	15.60	38.45	GAL	DPA	66U
U.S.,CO,KOKOMO (M-C)DS324	PBS-N	18.11	15.57	38.49	GAL	DPA	66U
U.S.,CO,GILMAN (M-C)VEI(QZT,)	PUBL,	18.13	15.81	39.12	GAL	RMB	68B
U.S.,CO,EUREKA (M-C)GS/177	3FIL-N	18.144	15.548	38.272	GAL		
U.S.,CO,TOMICHI (M-C)DS320	PBS-N	18.16	15.50	38.20	GAL	DPA	66U
U.S.,CO,LEADVILL(M-C)DS235	PBI-N	18.17	15.56	38.54	GAL	DPA	66U
U.S.,CO,FRANK.AG(M-C)GS/271	3FIL-N	18.174	15.542	38.260	GAL		
U.S.,CO,ASPEN (M-C)DS325	PBS-N	18.19	15.55	38.21	GAL	DPA	66U
U.S.,CO,TOMICHI (M-C)DS320	PBI-N	18.20	15.54	38.34	GAL	DPA	66U
U.S.,CO,BRECKENR(M-C)DS274	PBI-N	18.23	15.54	38.25	GAL	DPA	66U
U.S.,CO,LEADVILL(M-C)DS251	PBI-N	18.24	15.58	38.61	GAL	DPA	66U
U.S.,CO,BRECKENR(M-C)DS273	PBI-N	18.25	15.54	38.25	GAL	DPA	66U
U.S.,CO,BRECKENR(M-C)DS275	PBI-N	18.26	15.54	38.27	GAL	DPA	66U
U.S.,CO,BRECKENR(M-C)DS271	PBI-N	18.26	15.58	38.38	GAL	DPA	66U
U.S.,CO,HAHNS PK(M-C)JOHN.TAM	PBS-N	18.35	15.58	37.14	AU	ADD	72E
U.S.,CO,WOODS CR(M-C)DS314	PBI-N	18.36	15.67	40.69	GAL	DPA	66U
U.S.,CO,BOSS (M-C)DS312	PBI-N	18.38	15.60	38.42	GAL	DPA	66U
U.S.,CO,WALDORF (M-C)GS274	PBI-N	18.53	15.55	39.14	GAL	DPA	66U

U.S.,CO,NEDERLAN(M-C)DS319	PBI-N	18.58	15.61	38.81	GAL DPA	66U
U.S.,CO,NEDERLAN(M-C)DS319	PBS-N	18,61	15.63	38,88	GAL DPA	66U
U.S.,CO,HAHNS PK(M-C)TOM THUMB	3FIL-N	18,626	15,606	37,237	GAL ADD	72E
U.S.,CO,HOMESTAK(M-C)DS205	PBI-N	18.66	15.68	38.47	GAL DPA	66U
U.S.,CO,HAHNS PK(M-C)IS-3	3FIL-N	18,681	15,600	37,192	GAL ADD	72E
U.S.,CO,HAHNS PK(M-C)IS-2A	3FIL-N	18,700	15,613	37,246	GAL ADD	72E
U.S.,CO,HOMESTAK(M-C)DS333	PBI-N	18.73	15.70	38.56	GAL DPA	66U
U.S.,CO,HOMESTAK(M-C)DS223	PBI-N	18.74	15.71	38.55	GAL DPA	66U
U.S.,CO,LEADVILL(M-C)DS318	PBI-N	18.97	15.68	39.17	GAL DPA	66U
U.S.,CO,HILLTOP (M-C)DS253	PBI-N	20.31	15.75	39.68	GAL DPA	66U
U.S.,CO,SHEEP MT(M-C)DS317	PBI-N	20.48	15.81	39.86	GAL DPA	66U
U.S.,CO,HILLTOP (M-C)DS254	PBI-N	20.55	15.76	39.81	ANG DPA	66U
U.S.,CO,HILLTOP (M-C)DS315	PBI-N	20.69	15.84	40.14	GAL DPA	66U
U.S.,CO,YARMONY (M-C)DS221	PBI-N	21.82	16.01	39.74	GAL DPA	66U
U.S.,CO,YULE (M-C)DS322	PBI-N	23.99	16.13	41.32	GAL DPA	66U
U.S.,CO,YULE MAR(M-C)DS322	PBS-N	24,02	16.13	41,39	GAL DPA	66U

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IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION (AGE)SAMPLE NO,METHOD		206/204	207/204	208/204	TYPE	REFER,
COLORADO						
EXCLUSIVE OF SAN JUAN VOLCANIC AREA						
1000 M.Y.						
U.S.,CO,VALJEAN (Y)DS270	PBI-N	16,69	15,38	36,36	GAL DPA	66U
U.S.,CO,STOVE MT(Y)GS277	PBI-N	16.79	15.45	36,51	GAL DPA	66U
U.S.,CO,BOOMER (Y)DS208	PBI-N	16.80	15.46	36.61	GAL DPA	66U
U.S.,CO,BOOMER (Y)DS225	PBI-N	16,88	15,52	36,82	GAL DPA	66U
1400 M.Y.						
U.S.,CO,ELKHORN (X)DS245	PBI-N	16,09	15,33	35,38	GAL DPA	66U
U.S.,CO,ELKHORN (X)ELKHORN	3FIL-N	16,147	15,380	35,496	GAL ADD	72E
1700 M.Y.						
U.S.,CO,HIGH LON(Y)DS310	PBI-N	15,65	15,24	35,17	GAL DPA	66U
U.S.,CO,GREENVIL(Y)GREENVILL	3FIL-N	15,673	15,234	35,134	GAL ADD	72E
U.S.,CO,SLAVONIA(Y)SLAVONIA	3FIL-N	15,686	15,247	35,176	GAL ADD	72E
U.S.,CO,COTOPAXI(Y)GS268	PBI-N	15.72	15.27	35.36	GAL DPA	66U
U.S.,CO,ST.LOUIS(Y)DS211	PBI-N	15,77	15,30	35,30	GAL DPA	66U
U.S.,CO,GUFFEY (Y)GS269	PBI-N	15,82	15,33	35,37	GAL DPA	66U
U.S.,CO,ST.LOUIS(Y)DS212	PBI-N	15,82	15,33	35,38	GAL DPA	66U
U.S.,CO,HOSA LOD(Y)DS309	PBI-N	15,85	15,34	35,44	GAL DPA	66U
CONNECTICUT						
U.S.,CT,ROXBURY (PHA)C12	PUBL.	18,38	15,70	38,50	GAL R-F	60I
U.S.,CT,MIDDLET.(PHA)T-G4	PUBL.	18.43	15.85	38,63	GAL R-F	60I
U.S.,CT,DARIEN (PHA)C11	PUBL.	18,60	15,79	38,89	GAL R-F	60I
U.S.,CT,MIDDLET.(PHA)C10	PUBL.	18.64	15.83	38,94	GAL R-F	60I

U.S.,CT,MIDDLET.(PHA)C84	PUBL.	18.76	15.84	39.14	GAL R-F	60I
U.S.,CT,ROXBURY (PHA)C83	PUBL.	18.88	15.76	39.69	GAL R-F	60I

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IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM
LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION	(AGE)SAMPLE NO.	METHOD	206/204	207/204	208/204	TYPE	REFER.
GEORGIA							
PHANEROZOIC							
U.S.,GA,BATTLE B	(PHA)LESURE	3FIL-R	18.286	15.643	38.138	GAL	
IDAHO							
PHANEROZOIC							
U.S.,ID,BONNER	(PHA)I-18,HOPE	PUBL.	18.07	15.42	38.05	GAL CPAB	62G
U.S.,ID,COEUR D'	(PHA)ST.JAMES	PUBL.	18.16	15.63	38.34	GAL CPAB	62G
U.S.,ID,BONNER	(PHA)CONJECTUR	PUBL.	19.16	15.71	39.57	GAL CPAB	62G
U.S.,ID,COEUR D'	(PHA)SUNRISE	PUBL.	18.19	15.64	38.32	GAL CPAB	62G
U.S.,ID,SILVER	(PHA)I-271	3FIL-N	17.289	15.512	37.333	GAL Z-S	71E
U.S.,ID,BUTTE	(PHA)I-640	MTHYL-N	17.290	15.579	38.508	GAL SMAL68TH	
U.S.,ID,COPPER	(PHA)I-279	3FIL-N	17.769	15.531	37.710	GAL Z-S	71E
U.S.,ID,CARIBOU	(PHA)CARIBOU	MTHYL-N	17.801	15.485	38.321	GAL Z-S	71E
U.S.,ID,AG TIP	(PHA)SILVER TIM	MTHYL-N	17.836	15.495	38.220	GAL Z-S	71E
U.S.,ID,BUTTE	(PHA)I-639	MTHYL-N	17.868	15.636	38.673	GAL SMAL68TH	
U.S.,ID,BUTTE	(PHA)I-638	MTHYL-N	17.909	15.628	38.696	GAL SMAL68TH	
U.S.,ID,BUCKHORN	(PHA)BUCKHORN	MTHYL-N	17.927	15.561	37.963	GAL Z-S	71E
U.S.,ID,LEMHI	(PHA)GILMORE	MTHYL-N	17.947	15.556	38.746	GAL SMAL68TH	
U.S.,ID,CASSIA	(PHA)SECT. 7	MTHYL-N	17.993	15.705	41.332	GAL SMAL68TH	
U.S.,ID,HOOSIER	(PHA)I-275	3FIL-N	18.198	15.584	37.883	GAL Z-S	71E
U.S.,ID,CASSIA	(PHA)WALTON	MTHYL-N	18.231	15.772	40.713	GAL SMAL68TH	
U.S.,ID,REGAL	(PHA)I-278	3FIL-N	18.247	15.604	37.798	GAL Z-S	71E
U.S.,ID,BLAINE	(PHA)KAPPA	MTHYL-N	18.248	15.650	38.965	GAL SMAL68TH	
U.S.,ID,WHITEDEL	(PHA)WHITEDELF	3FIL-N	18.255	15.580	38.419	GAL Z-S	71E
U.S.,ID,TILLEY	(PHA)I-272	3FIL-N	18.296	15.597	38.039	GAL Z-S	71E
U.S.,ID,HOPE	(PHA)HOPE	MTHYL-N	18.299	15.607	38.510	GAL Z-S	71E
U.S.,ID,LEMHI	(PHA)BLUE LEAD	MTHYL-N	18.304	15.643	39.125	GAL SMAL68TH	
U.S.,ID,LAWRENCE	(PHA)LAWRENCE	3FIL-N	18.320	15.570	38.477	GAL Z-S	71E
U.S.,ID,MILLER	(PHA)MILLER BR	3FIL-N	18.533	15.618	38.305	GAL Z-S	71E
U.S.,ID,STROEBEL	(PHA)STROEBEL	MTHYL-N	18.358	15.630	38.649	GAL Z-S	71E
U.S.,ID,PLUME CR	(PHA)PLUME CRE	3FIL-N	18.528	15.615	38.815	GAL Z-S	71E
U.S.,ID,CASSIA	(PHA)I-557	MTHYL-N	18.616	15.826	41.862	GAL SMAL68TH	
U.S.,ID,FALLS CR	(PHA)	3FIL-N	18.637	15.624	38.917	GAL Z-S	71E
U.S.,ID,CAMAS	(PHA)1576BUTTE	MTHYL-N	18.678	15.703	39.765	GAL SMAL68TH	
U.S.,ID,CUDDY MT	(PHA)MU-5-330	3FIL-N	18.717	15.600	38.413	GAL ZART	74E
U.S.,ID,TALACHE	(PHA)I-240	3FIL-N	18.891	15.644	39.004	GAL Z-S	71E
U.S.,ID,CUSTER	(PHA)CLAYTON	MTHYL-N	18.895	15.736	39.983	GAL SMAL68TH	
U.S.,ID,CONJECTU	(PHA)CONJECTUR	3FIL-N	18.997	15.649	39.244	GAL Z-S	71E
U.S.,ID,COMMONWE	(PHA)COMMONWEA	MTHYL-N	19.027	15.676	39.247	GAL Z-S	71E
U.S.,ID,WEBER	(PHA)WEBER	MTHYL-N	19.048	15.666	39.270	GAL Z-S	71E
U.S.,ID,TOM LEVI	(PHA)TOM LEVIN	3FIL-N	19.113	15.665	39.276	GAL Z-S	71E
U.S.,ID,BLAINE	(PHA)I577STAR	MTHYL-N	19.158	15.763	39.982	GAL SMAL68TH	
U.S.,ID,CASSIA	(PHA)I-23AG HIM	MTHYL-N	19.165	15.684	38.788	GAL SMAL68TH	
U.S.,ID,BUTTE	(PHA)1634ELLA	MTHYL-N	19.165	15.819	39.636	GAL SMAL68TH	

U.S.,ID,WEBER (PHA)I20BONNERPUBL.	19.26	15.77	39.61	GAL CPAB 62G		
U.S.,ID,CASSIA (PHA)I556MELCHMTHYL-N	19.818	16.032	41.827	GAL SMALo8TH		
U.S.,ID,WOOD RIV(PHA)WH70-13B 3FIL-N	20.220	15.910	40/904	GAL		
U.S.,ID,BLAINE (PHA)I579AG STMTHYL-N	20.279	15.947	41.214	GAL SMALo8TH		
U.S.,ID,BLAINE (PHA)I579AG STMTHYL-N	20.378	15.978	41.275	GAL SMALo8TH		
U.S.,ID,WOOD RIV(PHA)WH70-16 3FIL-N	20.421	15.962	41.301	GAL		
U.S.,ID,BLAINE (PHA)I580AS STMTHYL-N	20.597	16.018	41.387	GAL SMALo8TH		
U.S.,ID,BLAINE (PHA)I578AG STMTHYL-N	20.623	16.021	41.320	GAL SMALo8TH		
U.S.,ID,BUTTE (PHA)I607WILBURTHYL-N	20.692	15.957	40.914	GAL SMALo8TH		
U.S.,ID,WOOD RIV(PHA)C-40BELLEPUBL.	20.79	16.21	41.49	GAL R-F 60I		
U.S.,ID,WOOD RIV(PHA)C-39BELLEPUBL.	20.96	16.21	42.16	GAL R-F 60I		
U.S.,ID,WOOD RIV(PHA)C-41BELLEPUBL.	20.94	16.24	42.01	GAL R-F 60I		
U.S.,ID,WOOD RIV(PHA)C-38BELLEPUBL.	21.22	16.36	42.40	GAL R-F 60I		
U.S.,ID,WOOD RIV(PHA)C-42BELLEPUBL.	21.24	16.41	42.63	GAL R-F 60I		

IDAHO

850-1400 M.Y.

U.S.,ID,HYPOTHEE(Y)HYPOTHEEKMTHYL-N	16.147	15.367	35.886	GAL Z-S 71E		
U.S.,ID,BUNKER (Y)LUCKY FRIMTHYL-N	16.216	15.377	35.905	GAL Z-S 71E		
U.S.,ID,BUNKER (Y)I22C 3FIL-N	16.237	15.384	35.905	GAL Z-S 71E		
U.S.,ID,BUNKER (Y)I22B 3FIL-N	16.260	15.399	35.973	GAL Z-S 71E		
U.S.,ID,SIDNEY (Y)SIDNEY MTHYL-N	16.284	15.406	35.969	GAL Z-S 71E		
U.S.,ID,S.GEM ST(Y)S.GEM ST MTHYL-N	16.288	15.395	35.990	GAL Z-S 71E		
U.S.,ID,BOULDER (Y)BOULDER C3FIL-N	16.296	15.398	35.976	GAL Z-S 71E		
U.S.,ID,GALENA (Y)GALENA MTHYL-N	16.304	15.394	35.968	GAL Z-S 71E		
U.S.,ID,JANE AG (Y)JANE AG MTHYL-N	16.318	15.397	35.985	GAL Z-S 71E		
U.S.,ID,EILEEN (Y)I269 3FIL-N	16.327	15.402	35.991	GAL Z-S 71E		
U.S.,ID,CONTINEN(Y)CONTINENT3FIL-N	16.340	15.399	36.022	GAL Z-S 71E		
U.S.,ID,PURCELL (Y)PURCELL 3FIL-N	16.358	15.408	36.006	GAL		
U.S.,ID,RAINBOW (Y)I-3 3FIL-N	16.421	15.453	36.045	GAL Z-S 71E		
U.S.,ID,RIVERSID(Y)RIVERSIDEMTHYL-N	16.518	15.423	36.226	GAL Z-S 71E		

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LOCATION (AGE)SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE	REFER,
ILLINOIS					
PHANEROZOIC					
UPPER MISSISSIPPI VALLEY ZINC-LEAD DISTRICT					
U.S.,IL,ELIZAB. (PHA)4-SKENE PBI-N	21.92	16.02	41.66	GAL HDZB 66E	
U.S.,IL,GALENA (PHA)5A-AMELIAPBI-N	21.95	16.03	41.69	GAL HDZB 66E	
U.S.,IL,GALENA (PHA)5B-AMELIAPBI-N	21.86	15.96	41.53	GAL HDZB 66E	
U.S.,IL,GALENA (PHA)5C-AMELIAPBI-N	21.91	15.96	41.55	GAL HDZB 66E	
U.S.,IL,GALENA (PHA)6-BAUTSCHPBI-N	22.18	16.06	41.97	GAL HDZB 66E	
ILLINOIS KENTUCKY FLUORITE DISTRICT					
U.S.,IL,HICKS D.(PHA)24HAMP H.PBI-N	19.77	15.69	40.27	GAL HDZB 66E	
U.S.,IL,ROSICLA.(PHA)18FAIR M.PBI-N	19.91	15.84	39.63	GAL HDZB 66E	
U.S.,IL,PARKINSO(PHA)L62-1 PBS-N	20.06	15.69	39.48	GAL	
U.S.,IL,CAVE-IN (PHA)13DEARD. PBI-N	20.08	15.78	39.82	GAL HDZB 66E	
U.S.,IL,CAVE-IN (PHA)20HILL M.PBI-N	20.14	15.79	39.87	GAL HDZB 66E	

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U.S.,IL,CAVE-IN (PHA)21OXFORD PBI-N   20.19    15.82    39.86   GAL HDZB 66E
U.S.,IL,        (PHA)L62-4    PBS-N   20.49    15.83    40.16   GAL
U.S.,IL,EMPIRE  (PHA)L62-3    PBS-N   20.66    15.84    40.18   GAL
U.S.,IL,CLAY DIG(PHA)L62-2    PBS-N   20.66    15.84    40.25   GAL
U.S.,IL,ALIO PAS(PHA)AP60-6   PBS-N   21.91    16.00    41.07   GAL

U.S.,IL,ROSE    (PHA)72-21    3FIL-N  19.640   15.674   39.234  GAL
U.S.,IL,HAMP.   (PHA)72-15    3FIL-N  19.868   15.707   39.544  GAL
U.S.,IL,BAY CITY(PHA)BC-4     3FIL-N  20.096   15.744   39.763  GAL
U.S.,IL,KARB.   (PHA)70-25    3FIL-N  20.193   15.750   39.883  GAL
U.S.,IL,WILLIAMS(PHA)W-8      3FIL-N  20.363   15.770   40.025  GAL
U.S.,IL,RIDGE   (PHA)R-27     3FIL-N  20.577   15.797   40.219  GAL
U.S.,IL,FREE    (PHA)F-63-1   3FIL-N  22.123   16.004   42.304  GAL

    PENNSYLVANIAN
U.S.,IL,NOKOMIS (PHA)29COAL M.PBI-N   17.56    15.56    38.20   GAL HDZB 66E


  IOWA

    UPPER MISSISSIPPI VALLEY ZINC-LEAD DISTRICT
    PHANEROZOIC
U.S.,IA,WAUKON  (PHA)1-CLEM B.PBI-N   20.69    15.85    40.16   GAL HDZB 66E
U.S.,IA,LASING  (PHA)2-TURNER PBI-N   21.20    15.99    40.81   GAL HDZB 66E
U.S.,IA,GUTTENB.(PHA)3-HOLMES PBI-N   21.73    15.95    41.27   GAL HDZB 66E
U.S.,IA,ANAMOSA (PHA)A-1      3FIL-N  22.652   16.082   41.482  GAL


   KANSAS

U.S.,KS,ROSE DOM(PHA)28GRANITEPBI-N   22.29    15.96    41.35   GAL HDZB 66E

   KENTUCKY
    PHANEROZOIC

    ILLINOIS KENTUCKY FLUORITE DISTRICT
    PENNSYLVANIAN
U.S.,KY,CLOVER. (PHA)32NODULE PBI-N   18.38    15.59    38.20   GAL HDZB 66E
U.S.,KY,OLIVE HI(PHA)30CLAY   PBI-N   18.50    15.65    38.54   GAL HDZB 66E
U.S.,KY,OLIVE HI(PHA)31NODULE PBI-N   18.55    15.65    38.47   GAL HDZB 66E
U.S.,KY,SALEM   (PHA)22DYER H.PBI-N   20.22    15.78    39.81   GAL HDZB 66E
U.S.,KY,OLD JAC.(PHA)KH-5-57  PBS-N   20.49    15.80    39.98   GAL
U.S.,KY,CALDWELL(PHA)23RAG H. PBI-N   20.87    15.85    40.35   GAL HDZB 66E
U.S.,KY,SALEM   (PHA)25DIKE V.PBI-N   20.56    15.87    40.22   GAL HDZB 66E

U.S.,KY,MINERAL (PHA)MINERAL R3FIL-N  20.299   15.783   39.869  GAL
U.S.,KY,SILVER  (PHA)AG-11    3FIL-N  20.391   15.780   40.005  GAL
U.S.,KY,SINKS   (PHA)S-21     3FIL-N  20.471   15.808   40.084  GAL
U.S.,KY,SENAT.  (PHA)70-16    3FIL-N  20.899   15.859   40.410  GAL

  MAINE
    PHANEROZOIC

U.S.,ME,BLACK HA(PHA)BLACK HAW3FIL-R  18.072   15.612   37.920  GAL
U.S.,ME,DEER IS.(PHA)C-25     PUBL.   18.19    15.74    38.44   GAL R-F  60I
U.S.,ME,DENBOE P(PHA)C-33     PUBL.   18.38    15.63    38.74   GAL R-F  60I
U.S.,ME,DENBOE P(PHA)C-81     PUBL.   18.40    15.65    38.32   GAL R-F  60I
U.S.,ME,YORK    (PHA)A-42     3FIL-R  18.451   15.637   38.308  GAL
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MASSACHUSETTS
PHANEROZOIC

U.S.,MA,QUINCY,	(PHA)C-15	PUBL.	18.41	15.75	38.43	GAL	R-F	60I
U.S.,MA,NEWBURY-	(PHA)PORT	3FIL-N	18.515	15.653	38.330	GAL		
U.S.,MA,PEMBROKE	(PHA)C-13	PUBL.	18.83	15.77	39.07	GAL	R-F	60I
U.S.,MA,LEVERETT	(PHA)C-14	PUBL.	19.05	15.96	39.34	GAL	R-F	60I

MINNESOTA
PRECAMBRIAN

DRILL CORE, DEPTH 257FT.

U.S.,MN,	(W)HV1CN75123	FIL-N	15.200	15.084	34.640	GAL		

MISSISSIPPI
GULF OF MEXICO
MESOZOIC-CENOZOIC

U.S.,MS,PISGAH F	(JUR)PB SCALE	3FIL-N	18.885	15.642	38.834	GAL		

MICHIGAN

KEEWEENAWAN (1100M.Y.)

U.S.,MI,WHITE P.	(Y)OSU1MILL	PUBL.	19.67	15.75	39.74	ORE	C-F	67E
U.S.,MI,WHITE P.	(Y)OSU4A-DGM	PUBL.	21.80	15.93	41.79	ORE	C-F	67E
U.S.,MI,WHITE P.	(Y)OSU6-F32	PUBL.	18.17	15.07	38.38	CC	C-F	67E

MISSOURI
PHANEROZOIC

U.S.,MO,AVON	(PHA)27HELLON	PBI-N	21.31	15.91	40.84	GAL	HDZB	66E
U.S.,MO,SE.MO.	(PHA)SJL-4587	3FIL-N	20.776	15.851	39.585	GAL	D-D	72E
U.S.,MO,SE.MO.	(PHA)TARR PARK	3FIL-N	20.906	15.864	39.724	GAL	D-D	72E
U.S.,MO,SE.MO.	(PHA)SJL-702	3FIL-N	21.560	15.913	40.556	GAL	D-D	72E
U.S.,MO,SE.MO.	(PHA)64W48	3FIL-N	21.022	15.869	39.806	GAL	D-D	72E
U.S.,MO,SE.MO.	(PHA)58W57	3FIL-N	21.300	15.893	40.198	GAL	D-D	72E
U.S.,MO,SE.MO.	(PHA)65W14	3FIL-N	20.749	15.834	39.598	GAL	D-D	72E
U.S.,MO,SE.MO.	(PHA)26FREDER.	PBI-N	21.63	15.87	40.81	GAL	HDZB	66E
U.S.,MO,CEN.MO.	(PHA)GOLLER	3FIL-N	21.980	15.955	41.123	GAL	D-D	72E
U.S.,MO,SE.MO.	(PHA)PEA RIDGE	3FIL-N	33.548	17.006	54.100	GAL	D-D	72E

MISSOURI
PRECAMBRIAN

U.S.,MO,SE.MO.	(X)SILVER M.	3FIL-N	16.067	15.276	35.763	GAL	D-D	72E
U.S.,MO,SE.MO.	(X)IRON MTN.	3FIL-N	16.152	15.299	35.857	GAL	D-D	72E

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LOCATION	(AGE)SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE	REFER.

MONTANA

MESOZOIC-ENOZOIC

U.S.,MT,	(M-C)W.FLATEA 3FIL-N	16.794	15.296	36.797	GAL	Z-S	71E
U.S.,MT,	(M-C)BATTLE B.3FIL-N	16.818	15.299	36.811	GAL	Z-S	71E
U.S.,MT,	(M-C)FLATHEAD 3FIL-N	16.831	15.299	36.857	GAL	Z-S	71E
U.S.,MT,CASCADE	(M-C)LEXING600MTHYL-N	17.008	15.444	37.513	GAL	SMAL68TH	
U.S.,MT,LWS&CLK	(M-S)HELENA-20PBS-N	17.02	15.68	36.92	GAL	MEK	68U
U.S.,MT,MIKE HOR	(CEN)CH212 MTHYL-N	17.074	15.490	37.664	GAL	ZART	74E
U.S.,MT,	(M-C)SILVER KINTHYL-N	17.085	15.368	37.139	GAL	Z-S	71E
U.S.,MT,	(M-C)HEMLOCK103FIL-N	17.204	15.513	36.754	GAL	Z-S	71E
U.S.,MT,BOULDER	(M-C)2K160GAL PBS-N	17.277	15.530	38.137	ORE	DTHK	68E
U.S.,MT,BOULDER	(M-C)2K160GAL PBS-N	17.293	15.550	38.197	ORE	DTHK	68E
U.S.,MT,PARK	(M-C)4-7S,594 MTHYL-N	17.444	15.581	38.456	GAL	SMAL68TH	
U.S.,MT,	(M-C)2ND CHANCMTHYL-N	17.552	15.510	37.435	GAL	Z-S	71E
U.S.,MT,	(M-C)LUCKY LOD3FIL-N	17.806	15.533	37.487	GAL	Z-S	71E
U.S.,MT,LINCOLN	(M-C)SNOWSHO17PUBL.	17.90	15.33	37.67	GAL	CPAB	62G
U.S.,MT,BUTTE	(M-C)6807-1 PBS-N	17.920	15.590	38.376	ORE	DTHK	68E
U.S.,MT,	(M-C)LETIERMANMTHYL-N	17.924	15.579	37.640	GAL	Z-S	71E
U.S.,MT,BUTTE	(CEN)6807-2 PBS-N	17.947	15.610	38.406	ORE	DTHK	68E
U.S.,MT,AG BOW	(M-C)MT.CON184PUBL.	17.96	15.60	38.54	PY	MP	61E
U.S.,MT,AG BOW	(M-C)MT.CON138PUBL.	17.99	15.63	38.52	PY	MP	61E
U.S.,MT,	(M-C)STRODTBECMTHYL-N	18.001	15.571	38.590	GAL	Z-S	71E
U.S.,MT,AG BOW	(M-C)ORPH.GRL.PUBL.	18.01	15.77	38.98	GAL	MP	61E
U.S.,MT,AG BOW	(M-C)LEXING223PUBL.	18.04	15.81	38.96	GAL	MP	61E
U.S.,MT,	(M-C)SNOWSHOE MTHYL-N	18.062	15.508	38.039	GAL	Z-S	71E
U.S.,MT,AG BOW	(M-C)ANSELMO60PUBL.	18.07	15.74	38.94	GAL	MP	61E
U.S.,MT,AG BOW	(M-C)LEONAR175PUBL.	18.09	15.80	39.07	GAL	MP	61E
U.S.,MT,AG BOW	(M-C)LEONARD97PUBL.	18.11	15.78	38.95	PY	MP	61E
U.S.,MT,AG BOW	(M-C)EMMA-43 PUBL.	18.13	15.86	38.96	GAL	MP	61E
U.S.,MT,BOULDER	(M-C)GREGORY PBS-R	18.14	15.72	38.76	GAL		
U.S.,MT,AG BOW	(M-C)ANSELM119PUBL.	18.19	15.84	39.29	GAL	MP	61E
U.S.,MT,BOULDER	(M-C)COMET D. PBS-R	18.20	15.81	38.94	GAL		
U.S.,MT,BOULDER	(M-C)EUREKA PBS-R	18.20	15.94	39.26	GAL		
U.S.,MT,BOULDER	(M-C)ALTA PBS-R	18.23	15.87	39.20	GAL		
U.S.,MT,BOULDER	(M-C)FREE COINPBS-R	18.27	15.85	38.85	GAL		
U.S.,MT,BOULDER	(M-C)KI.SOLOM.PBS-R	18.28	15.71	38.69	GAL		
U.S.,MT,BOULDER	(M-C)518295E PBS-R	18.38	15.90	39.25	GAL		
U.S.,MT,BOULDER	(M-C)IDA MAY PBS-R	18.50	15.94	39.35	GAL		
U.S.,MT,	(M-C)GOLDEN W.MTHYL-N	18.554	15.604	38.565	GAL	Z-S	71E
U.S.,MT,	(M-C)BLUE BIRDMTHYL-N	18.237	15.583	38.235	GAL	Z-S	71E
U.S.,MT,	(M-C)MORN. STAMTHYL-N	18.363	15.607	38.369	GAL	Z-S	71E
U.S.,MT,	(M-C)GLACIER153FIL-N	18.372	15.571	38.255	GAL	Z-S	71E
U.S.,MT,	(M-C)FISHER CR3FIL-N	18.373	15.563	38.455	GAL	Z-S	71E
U.S.,MT,	(M-C)ALDER GULPBS-R	19.31	16.16	42.29	GAL		
U.S.,MT,LWS&CLK	(M-C)3FORKS104PBS-N	19.97	15.96	40.49	GAL	MEK	68U
U.S.,MT,LWS&CLK	(M-C)3FORKS107PBS-N	19.80	15.85	40.12	GAL	MEK	68U
U.S.,MT,LWS&CLK	(M-C)FLATHE118PBS-N	23.15	16.09	43.44	GAL	MEK	68U

MONTANA

PRECAMBRIAN

U.S.,MT,PARK	(Y)IRMA 595 MTHYL-N	16.173	15.316	36.768	GAL	SMAL68TH	
U.S.,MT,	(Y)JIM FISK 3FIL-N	16.253	15.368	35.948	GAL	Z-S	71E
U.S.,MT,	(Y)JACK WAIT3FIL-N	16.262	15.388	35.937	GAL	Z-S	71E
U.S.,MT,	(Y)DUPLEX MTHYL-N	16.288	15.389	35.937	GAL	Z-S	71E
U.S.,MT,	(Y)BROKEN HIMTHYL-N	16.289	15.390	35.954	GAL	Z-S	71E
U.S.,MT,	(Y)ST. PAUL MTHYL-N	16.292	15.390	35.962	GAL	Z-S	71E
U.S.,MT,	(Y)LOST CABIMTHYL-N	16.298	15.394	35.966	GAL	Z-S	71E
U.S.,MT,	(Y)MONT.STD.MTHYL-N	16.309	15.426	36.054	GAL	Z-S	71E

U.S.,MT,	(Y)SILVER BUMTHYL-N	16.316	15.406	36.016	GAL	Z-S	71E
U.S.,MT,	(Y)BIG8-161 3FIL-N	16.318	15.399	35.996	GAL	Z-S	71E
U.S.,MT,	(Y)NANCY LEEMTHYL-N	16.320	15.402	36.014	GAL	Z-S	71E
U.S.,MT,	(Y)JAGER-1753FIL-N	16.325	15.381	36.101	GAL	Z-S	71E
U.S.,MT,	(Y)TRIO MTHYL-N	16.357	15.405	36.046	GAL	Z-S	71E
U.S.,MT,	(Y)HOLIDAY MTHYL-N	16.361	15.420	36.066	GAL	Z-S	71E
U.S.,MT,	(Y)HIAWATHA 3FIL-N	16.364	15.411	36.045	GAL	Z-S	71E
U.S.,MT,LWS&CLK	(Y)HELEN127RPBS-N	16.44	15.32	35.84	GAL	MEK	68U
U.S.,MT,	(Y)GILDERSLEMTHYL-N	16.449	15.406	36.116	GAL	Z-S	71E
U.S.,MT,LWS&CLK	(Y)HELENA110PBS-N	16.45	15.43	36.15	GAL	MEK	68U
U.S.,MT,	(Y)JUMBO 3FIL-N	16.469	15.403	36.147	GAL	Z-S	71E
U.S.,MT,	(Y)BLACKTAILMTHYL-N	16.514	15.417	36.126	GAL	Z-S	71E
U.S.,MT,JDTH BSN	(Y)BLOCK 598MTHYL-N	16.573	15.380	37.329	GAL	SMALL68TH	
U.S.,MT,	(Y)ROCK IsL,3FIL-N	16.599	15.450	36.295	GAL	Z-S	71E
U.S.,MT,LWS&CLK	(Y)SPOKAN120PBS-N	16.67	15.63	36.90	GAL	MEK	68U
U.S.,MT,JDTH BSN	(Y)TIGER601 MTHYL-N	16.680	15.381	37.354	GAL	SMALL68TH	
U.S.,MT,CASCADE	(Y)BOSS-601 MTHYL-N	16.983	15.417	37.412	GAL	SMALL68TH	
U.S.,MT,LWS&CLK	(Y)HELEN125APBS-N	16.98	15.57	36.83	GAL	MEK	68U
U.S.,MT,	(Y)L.PITTSB,3FIL-N	16.725	15.434	36.459	GAL	Z-S	71E
U.S.,MT,	(Y)HIGHLAND63FIL-N	16.805	15.700	36.496	GAL		
U.S.,MT,	(Y)HIGHLAND63FIL-N	16.817	15.671	36.466	GAL		

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LOCATION	(AGE)SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE	REFER,	
NEVADA							
MESOZOIC-CENOZOIC							
U.S.,NV,RUBY VAL	(M-C)LAMOILLE 3FIL-N	18.317	15.695	38.553	GAL	ZART	74E
U.S.,NV,PIOCHE	(M-C)COMET 3FIL-N	18.527	15.630	38.349	GAL	ZART	74E
U.S.,NV,PIOCHE	(M-C)PAN AMER,3FIL-N	18.595	15.685	39.581	GAL	ZART	74E
U.S.,NV,	(M-C)FERBER-9 3FIL-R	18.666	15.756	40.032	GAL		
U.S.,NV,	(M-C)FERBER-123FIL-R	18.670	15.754	40.020	GAL		
U.S.,NV,	(M-C)FERBER-103FIL-N	18.678	15.769	40.087	CER		
U.S.,NV,CORTEZ	(M-C)RUBY63W563FIL-N	18.689	15.726	38.607	GAL	RDW	74U
U.S.,NV,GALENA	(M-C)UNION MIN3FIL-N	18.713	15.625	38.490	GAL	ZART	74E
U.S.,NV,QUINN CA	(M-C)DRESSER 3FIL-N	18.886	15.640	39.077	GAL	ZART	74E
U.S.,NV,LEADVILL	(M-C)LEADVILLE3FIL-N	18.913	15.621	38.566	GAL	ZART	74E
U.S.,NV,PYRAMID	(M-C)DOMINION 3FIL-N	18.963	15.628	38.678	GAL	ZART	74E
U.S.,NV,	(M-C)GOLDHILL43FIL-R	18.968	15.696	40.293	GAL		
U.S.,NV,RED MTN,	(M-C)RED MTN163FIL-N	19.034	15.663	38.969	GAL	ZART	74E
U.S.,NV,TUNGSTEN	(M-C)WHEELER 3FIL-N	19.104	15.701	38.985	GAL	RDW	74U
U.S.,NV,TUNGSTEN	(M-C)MT.WHEELE3FIL-N	19.161	15.692	38.950	GAL	ZART	74E
U.S.,NV,LONE MTN	(M-C)AU EAGLE 3FIL-N	19.164	15.668	38.922	GAL	ZART	74E
U.S.,NV,TONOPAH	(M-C)MACKA37613FIL-N	19.188	15.659	38.909	GAL	ZART	74E
U.S.,NV,BATTLE M	(M-C)COPPER B,3FIL-N	19.217	15.675	38.950	GAL	ZART	74E
U.S.,NV,BATTLE M	(M-C)WHITE SHI3FIL-N	19.260	15.686	38.999	GAL	RDW	74U
U.S.,NV,CORTEZ	(M-C)H50B 3FIL-N	19.289	15.674	38.959	GAL	RDW	74U
U.S.,NV,	(M-C)DUTCH M153FIL-R	19.282	15.752	38.964	GAL		
U.S.,NV,MILLETT	(M-C)TOYABE-4 3FIL-N	19.310	15.695	39.073	GAL	ZART	74E
U.S.,NV,ELKO R,R	(M-C)ALADDIN2 3FIL-N	19.337	15.805	39.996	GAL		
U.S.,NV,	(M-C)AVH-753 3FIL-N	19.484	15.753	39.666	CER		
U.S.,NV,BULLION	(M-C)AU ACRES 3FIL-N	19.503	15.719	39.015	GAL	ZART	74E
U.S.,NV,AURA	(M-C)66MC53 3FIL-N	19.519	15.816	39.073	GAL	ZART	74E

U.S.,NV,ELKO	(M-C)MITCH.685	MTHYL-N	19.586	15.751	39.561	GAL	SMAL68TH	
U.S.,NV,ELKO	(M-C)DELNO 691	MTHYL-N	19.586	15.754	39.589	GAL	SMAL68TH	
U.S.,NV,ELKO	(M-C)DELNO70133	FIL-N	19.682	15.763	39.740	GAL	ZART 74E	
U.S.,NV,CARLIN	(M-C)L-2-10 3	FIL-R	19.724	15.825	39.338	GAL		
U.S.,NV,CORTEZ	(M-C)64W25 *	PBS-N	18.64	15.72	38.30	GAL	RDW 74U	
U.S.,NV,RUBY MT.	(M-C)65W61	PBS-N	18.71	15.74	38.71	GAL	RDW 74U	
U.S.,NV,ROBINSON	(M-C)LIBERTY	PBI-N	19.02	15.67	38.69	GAL		
U.S.,NV,BATTLE M	(M-C)NEVADA M.	PBS-N	19.04	15.45	38.23	GAL	RDW 74U	
U.S.,NV,WARD	(M-C)WELCOME	PBI-N	19.10	15.76	39.81	GAL		
U.S.,NV,WHITE P.	(M-C)WHEELER	PBS-N	19.15	15.68	39.10	GAL	RDW 74U	
U.S.,NV,BATTLE M	(M-C)WHITE SH.	PBI-N	19.20	15.67	38.92	GAL		
U.S.,NV,BATTLE M	(M-C)IRON CAN.	PBS-N	19.24	15.58	38.65	AU	RDW 74U	
U.S.,NV,LEWIS	(M-C)BETTY ON.	PBI-N	19.28	15.67	38.96	GAL		
U.S.,NV,EUREKA	(M-C)DIAMOND	PBI-N	19.30	15.71	38.85	GAL		
U.S.,NV,NYE COUN	(M-C)TYBO	PBI-N	19.30	15.71	39.14	GAL		
U.S.,NV,ELKO R.R	(M-C)ALADDIN	PBI-N	19.30	15.80	39.91	GAL		
U.S.,NV,ELKO R.R	(M-C)ALADDIN2	PBI-N	19.32	15.82	39.95	GAL		
U.S.,NV,CORTEZ	(M-C)CORTEZ AG	PBS-N	19.34	15.64	38.71	GAL	RDW 74U	
U.S.,NV,CORTEZ	(M-C)CORTEZ AG	PBI-N	19.35	15.77	39.13	GAL		
U.S.,NV,CORTEZ	(M-C)FALCONER	PBI-N	19.40	15.72	39.05	GAL		
U.S.,NV,CORTEZ	(M-C)J96C	PBS-N	19.42	15.71	38.79	GAL	RDW 74U	
U.S.,NV,BULLION	(M-C)GRAY EAG.	PBI-N	19.43	15.75	39.15	GAL		
U.S.,NV,CORTEZ	(M-C)J120B	PBS-N	19.45	15.75	38.94	GAL	RDW 74U	
U.S.,NV,BULLION	(M-C)CLIPPER	PBI-N	19.46	15.72	39.04	GAL		
U.S.,NV,CORTEZ	(M-C)P-1PROS.	PBI-N	19.44	15.78	39.08	GAL		
U.S.,NV,CORTEZ	(M-C)ROSSI CL.	PBI-N	19.46	15.73	38.84	GAL		
U.S.,NV,CORTEZ	(M-C)J109A	PBS-N	19.47	15.76	38.98	GAL	RDW 74U	
U.S.,NV,CORTEZ	(M-C)AG PRIZE	PBS-N	19.53	15.73	39.09	GAL	RDW 74U	
U.S.,NV,CORTEZ	(M-C)PROSPECT	PBI-N	19.54	15.77	39.13	GAL		
U.S.,NV,CORTEZ	(M-C)ROSSI CL.	PBI-N	19.54	15.78	39.07	GAL		
U.S.,NV,CARLIN	(M-C)L-2-10	PBS-N	19.77	15.87	39.51	GAL	RDW 74U	

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LOCATION	(AGE)SAMPLE NO.	METHOD	206/204	207/204	208/204	TYPE	REFER.

NEW HAMPSHIRE
PHANEROZOIC

U.S.,NH,	(PHA)SHELBURNE3	FIL-R	18.500	15.621	38.416	GAL		
U.S.,NH,GRAFTON	(PHA)C-82	PUBL.	18.53	15.96	38.80	GAL	R-F	60I
U.S.,NH,	(PHA)MADISON 3	FIL-R	18.613	15.624	38.504	GAL		

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LOCATION (AGE)SAMPLE NO. METHOD 206/204 207/204 208/204 TYPE REFER.

NEW JERSEY

PHANEROZOIC

U.S.,NJ,CALIFON	(PHA)GERMAN-34	PBI-N	18.55	15.57	38.11	GAL	HDZB	66E

U.S.,NJ,STERLING(Y)STERLING 3FIL-N		16,924	15,445	36,297	GAL	

NEW MEXICO

PHANEROZOIC

U.S.,NM,TOM.LE M(M-C)II	MTHYL-N	17,75	15,52	37,76	GAL S-A	62E
U.S.,NM,WILLOW#2(M-C)11	MTHYL-N	18,29	15,60	38,30	GAL S-A	62E
U.S.,NM,MITCHEL (M-C)4	MTHYL-N	18,38	15,57	38,14	GAL S-A	62E
U.S.,NM,LINCHBUR(M-C)1	MTHYL-N	18,40	15,59	38,24	GAL S-A	62E
U.S.,NM,ALAMOGOR(M-C)10	MTHYL-N	18,42	15,60	38,69	GAL S-A	62E
U.S.,NM,JUANITA (M-C)2	MTHYL-N	18,50	15,59	38,39	GAL S-A	62E
U.S.,NM,WOOD'S T(M-C)8	MTHYL-N	18,55	15,57	38,19	GAL S-A	62E
U.S.,NM,JACK FRU(M-C)3	MTHYL-N	18,61	15,57	38,52	GAL S-A	62E
U.S.,NM,KELLY (M-C)12	MTHYL-N	18,63	15,61	38,34	GAL S-A	62E
U.S.,NM,MIDNIGHT(M-C)5	MTHYL-N	18,67	15,56	38,58	GAL S-A	62E
U.S.,NM,COUNCIL (M-C)7-1	MTHYL-N	18,74	15,58	38,49	GAL S-A	62E
U.S.,NM,MILL CAN(M-C)6	MTHYL-N	18,76	15,66	38,50	GAL S-A	62E
U.S.,NM,MOCKINGH(M-C)9	MTHYL-N	18,85	15,61	38,91	GAL S-A	62E
U.S.,NM,COUNCIL (M-C)7-2	MTHYL-N	18,87	15,65	38,72	GAL S-A	62E
U.S.,NM,EAGLE NE(M-C)M	MTHYL-N	19,19	15,66	39,06	GAL S-A	62E
U.S.,NM,TAYLOR (M-C)L	MTHYL-N	19,34	15,72	39,26	GAL S-A	62E
U.S.,NM,BLK.KNIF(M-C)K	MTHYL-N	19,91	15,76	39,84	GAL S-A	62E

RED SANDSTONE COPPER

U.S.,NM,NACIMIEN(TRI)74WD-1	GEL-N	20,035	15,754	38,874	ORE	
U.S.,NM,BOX CAN.(M-C)D	MTHYL-N	20,56	15,78	39,62	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)13	MTHYL-N	20,78	15,76	39,29	GAL S-A	62E
U.S.,NM,SMALLWOO(M-C)J	MTHYL-N	20,92	15,88	40,42	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)10	MTHYL-N	21,05	15,86	39,46	GAL S-A	62E
U.S.,NM,JOYITA (M-C)E	MTHYL-N	21,09	15,82	40,69	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)24	MTHYL-N	21,58	15,90	40,33	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-22	MTHYL-N	21,61	15,96	40,21	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-3	MTHYL-N	21,62	15,95	40,23	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-23	MTHYL-N	21,65	15,94	40,42	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-9	MTHYL-N	21,71	15,92	39,85	GAL S-A	62E
U.S.,NM,LADRONE (M-C)G	MTHYL-N	21,72	15,89	40,90	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-6	MTHYL-N	21,85	15,91	39,97	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-14	MTHYL-N	21,98	15,88	40,12	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-12	MTHYL-N	22,00	15,96	40,16	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-15	MTHYL-N	22,05	15,86	40,32	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-2	MTHYL-N	22,05	15,99	40,32	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-5	MTHYL-N	22,06	15,97	40,20	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-26	MTHYL-N	22,08	15,88	40,35	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-27	MTHYL-N	22,09	15,88	40,46	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-4	MTHYL-N	22,10	15,92	40,29	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-25	MTHYL-N	22,12	15,89	40,33	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-1	MTHYL-N	22,14	15,92	40,25	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-16	MTHYL-N	22,15	15,89	40,12	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-19	MTHYL-N	22,18	15,84	40,10	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-17	MTHYL-N	22,23	15,92	40,07	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-11	MTHYL-N	22,23	16,01	40,49	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-18	MTHYL-N	22,32	15,95	40,14	GAL S-A	62E
U.S.,NM,GONZALES(M-C)C	MTHYL-N	22,30	15,98	40,66	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-7	MTHYL-N	22,32	16,02	40,27	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-21	MTHYL-N	22,40	15,96	40,28	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-20	MTHYL-N	22,41	15,79	40,34	GAL S-A	62E
U.S.,NM,HANSONB.(M-C)A-8	MTHYL-N	22,52	15,98	40,45	GAL S-A	62E
U.S.,NM,RHODES C(M-C)P	MTHYL-N	22,89	16,09	41,28	GAL S-A	62E

U.S.,NM,SALINAS (M-C)F-2	MTHYL-N	23.30	15.98	41.64	GAL S-A	62E
U.S.,NM,SALINAS (M-C)F-1	MTHYL-N	23.45	16.02	41.73	GAL S-A	62E
U.S.,NM,SALINAS (M-C)F-5	MTHYL-N	23.53	16.05	41.81	GAL S-A	62E
U.S.,NM,MADDUX V(M-C)H	MTHYL-N	23.56	16.06	41.82	GAL S-A	62E
U.S.,NM,SALINAS (M-C)F-3	MTHYL-N	23.56	16.06	41.91	GAL S-A	62E
U.S.,NM,SALINAS (M-C)F-4	MTHYL-N	23.59	16.03	41.84	GAL S-A	62E
U.S.,NM,LA BONIT(M-C)B	MTHYL-N	25.22	16.19	42.23	GAL S-A	62E
1400 M.Y.						
U.S.,NM,BOSQUE D(Y)I	MTHYL-N	16.06	15.32	35.69	GAL S-A	62E
1700 M.Y.						
MASSIVE SULFIDE DEPOSIT						
U.S.,NM,PECOS (X)TERRARO	3FIL-N	15.606	15.260	35.236	GAL	
U.S.,NM,PECOS (X)JONES M.	3FIL-N	15.705	15.304	35.328	GAL	
NEW YORK						
1200 M.Y.						
U.S.,NY,BALMAT (Y)F-19	3FIL-N	16.935	15.505	36.423	GAL SDU	69L
NORTH CAROLINA						
PHANEROZOIC						
U.S.,NC,AG HILL (PHA)C26	PUBL.	18.19	15.36	38.44	GAL R-F	60I
U.S.,NC,YANCY CT(PHA)T421	PUBL.	18.43	15.71	38.40	GAL R-F	60I
U.S.,NC,HENDERSO(PHA)C130	PUBL.	18.53	15.78	38.82	GAL R-F	60I
OKLAHOMA						
PHANEROZOIC						
U.S.,OK,PITCHER (PHA)BLUE GOOS	3FIL-N	21.942	15.920	41.076	GAL	
U.S.,OK,PITCHER (PHA)BLUE GOOS	3FIL-N	21.901	15.922	41.072	GAL	
OREGON						
MESOZOIC-CENOZOIC						
U.S.,OR,BRATTAIN(CEN)GAYLORD T	3FIL-N	18.970	15.626	38.648	GAL ZART	74E
U.S.,OR,BOHEMIA (CEN)MUSIK	3FIL-N	18.915	15.604	38.636	GAL ZART	74E
U.S.,OR, (CEN)ACCIDENT	3FIL-N	18.842	15.566	38.502	GAL	
PENNSYLVANIA						
PHANEROZOIC						
PENNSYLVANIAN						
U.S.,PA,SINK VAL(PHA)33BIRM.	MPBI-N	18.48	15.60	38.52	GAL HDZB	66E
U.S.,PA,BAMFORD (PHA)35BAMFORD	PBI-N	18.61	15.64	38.42	GAL HDZB	66E
U.S.,PA,PHENIXVI(PHA)C98PERKIO	PUBL.	18.71	15.61	38.97	GAL R-F	60I
U.S.,PA,PHENIXVI(PHA)C97WHEATL	PUBL.	18.75	15.71	38.83	GAL R-F	60I
U.S.,PA,PHENIXVI(PHA)C24WHEATL	PUBL.	18.83	15.79	39.06	GAL R-F	60I
U.S.,PA,PHENIXVI(PHA)C23	PUBL.	18.83	15.93	39.54	GAL R-F	60I

U.S.,PA,PHILDEN.(PHA)C43LOCAL.PUBL.		19.24	15.67	39.65	GAL	R-F	60I
SOUTH DAKOTA							
MESOZOIC-CENOZOIC							
U.S.,SD,BLK.HILL(CEN)D-RAINBOW	3FIL-N	18.434	15.677	38.196	GAL	RDD	74E
U.S.,SD,BLK.HILL(CEN)RYE236	3FIL-N	18.438	15.666	38.208	GAL	RDD	74E
U.S.,SD,BLK.HILL(CEN)ECHO-287	3FIL-N	18.592	15.677	38.326	GAL	RDD	74E
U.S.,SD,BLK.HILL(CEN)RYE235	3FIL-N	18.712	15.676	38.237	GAL	RDD	74E
U.S.,SD,BLK.HILL(CEN)RYE-233	3FIL-N	18.749	15.703	38.309	GAL	RDD	74E
U.S.,SD,BLK.HILL(CEN)CEN.CITY	3FIL-N	19.003	15.747	38.341	GAL	RDD	74E
U.S.,SD,BLK.HILL(CEN)AJAX-150	3FIL-N	19.139	15.762	38.481	GAL	RDD	74E
U.S.,SD,BLK.HILL(CEN)RYE-234	3FIL-N	19.158	15.721	38.443	GAL	RDD	74E
U.S.,SD,BLK.HILL(CEN)174	3FIL-N	19.732	15.829	38.603	GAL	RDD	74E
U.S.,SD,BLK.HILL(CEN)183	3FIL-N	20.073	15.871	38.744	GAL	RDD	74E
U.S.,SD,BLK.HILL(CEN)68-69A	3FIL-N	20.858	15.992	38.689	GAL	RDD	74E
1600 M.Y.							
U.S.,SD,HOMESTAK(X)RYE-22	3FIL-N	15.653	15.375	35.415	GAL	RDD	74E
U.S.,SD,HOMESTAK(X)K-141A	3FIL-N	16.087	15.470	35.473	GAL	RDD	74E
U.S.,SD,HOMESTAK(X)RYE-229	3FIL-N	16.094	15.460	35.551	GAL	RDD	74E
U.S.,SD,HOMESTAK(X)RYE-232	3FIL-N	16.118	15.481	35.478	GAL	RDD	74E
U.S.,SD,HOMESTAK(X)CLOVERL'F	3FIL-N	16.517	15.595	35.491	GAL	RDD	74E
U.S.,SD,HOMESTAK(X)HOMESTAKE	GEL-N	17.694	15.566	37.614	AU	RDD	74E
TENNESEE							
PHANEROZOIC							
EAST AND CENTRAL TENNESEE DISTRICT							
U.S.,TN,FLAT GAP(ORD)36FLAT G.PB	I-N	19.04	15.65	39.18	GAL	HDZB	66E
U.S.,TN,EMBREE, (ORD)37JACKSONPB	I-N	19.33	15.70	38.98	GAL	HDZB	66E
U.S.,TN,MASCOT (ORD)C66MASCOTPUBL.		19.56	15.77	39.66	GAL	R-F	60I
U.S.,TN,WARREN C(ORD)C67MC-MINPUBL.		20.04	15.85	39.74	GAL	R-F	60I
PRECAMBRIAN							
DUCKTOWN DISTRICT							
U.S.,TN,DUCKTOWN(Z)EUREKA M.PUBL.-	N	18.41	15.71	38.02	GAL	KINK	67U
U.S.,TN,DUCKTOWN(Z)MARY MINEPUBL.-	N	18.49	15.70	38.07	GAL	KINK	67U
U.S.,TN,DUCKTOWN(Z)CALLOWAY PUBL.-	N	18.46	15.64	37.79	GAL	KINK	67U

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LOCATION	(AGE)SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE	REFER,
TEXAS						
PHANEROZOIC						
U.S.,TX,	(PHA)SILVER C.3FIL-R	18.187	15.536	37.804	GAL	
UTAH						
MESOZOIC-CENOZOIC						

U.S.,UT,OQUIRR	(M-C)LARK VEINMTHYL-N	17,516	15,578	38,235	GAL SZN	68E
U.S.,UT,OQUIRR	(M-C)LARK APEXMTHYL-N	17,591	15,586	38,271	GAL SZN	68E
U.S.,UT,OQUIRR	(M-C)U.S. 200 MTHYL-N	17,718	15,588	38,272	GAL SZN	68E
U.S.,UT,PARK CTY	(M-C)APEX MTHYL-N	17,795	15,571	38,155	GAL SZN	68E
U.S.,UT,PARK CTY	(M-C)COMSTOCK MTHYL-N	17,818	15,568	38,255	GAL SZN	68E
U.S.,UT,OQUIRR	(M-C)U.S.B LMSMTHYL-N	17,834	15,611	38,363	GAL SZN	68E
U.S.,UT,PARK CTY	(M-C)AG KING MTHYL-N	17,875	15,754	38,211	GAL SZN	68E
U.S.,UT,OQUIPR	(M-C)ARGENT MTHYL-N	17,906	15,636	38,565	GAL SZN	68E
U.S.,UT,OQUIRR	(M-C)HIDDEN TRMTHYL-N	17,919	15,504	38,459	GAL SZN	68E
U.S.,UT,PARK CTY	(M-C)MAYFLOWERMTHYL-N	17,934	15,598	38,298	GAL SZN	68E
U.S.,UT,PARK CTY	(M-C)JUDGE TUNMTHYL-N	17,958	15,584	38,225	GAL SZN	68E
U.S.,UT,PARK CTY	(M-C)ONT.SFT#6MTHYL-N	17,948	15,601	38,273	GAL SZN	68E
U.S.,UT,PARK CTY	(M-C)ONT.DUMP MTHYL-N	18,029	15,611	38,362	GAL SZN	68E
U.S.,UT,PARK CTY	(M-C)EMMA TUN.MTHYL-N	18,033	15,601	38,433	GAL SZN	68E
U.S.,UT,MILFORD	(M-C)HORNSILV.MTHYL-N	18,039	15,553	38,100	GAL SZN	68E
U.S.,UT,OQUIRR	(M-C)WAND.JEW MTHYL-N	18,283	15,651	38,661	GAL SZN	68E
U.S.,UT,MILFORD	(M-C)WASHINGT.MTHYL-N	18,315	15,593	38,583	GAL SZN	68E
U.S.,UT,MILFORD	(M-C)REBEL MTHYL-N	18,349	15,597	38,302	GAL SZN	68E
1900 LEVEL						
U.S.,UT,OQUIRR	(M-C)OPHIR HILMTHYL-N	18,352	15,665	38,747	GAL SZN	68E
U.S.,UT,TINTIC	(M-C)CHIEF #1 MTHYL-N	18,383	15,611	38,624	GAL SZN	68E
U.S.,UT,MILFORD	(M-C)HARR.HICKMTHYL-N	18,390	15,560	38,316	GAL SZN	68E
U.S.,UT,TINTIC	(M-C)SHOEB.BOWMTHYL-N	18,420	15,609	38,631	GAL SZN	68E
U.S.,UT,PARK CTY	(M-C)MAY.PEARLMTHYL-N	18,426	15,663	38,615	GAL SZN	68E
U.S.,UT,TINTIC	(M-C)SUNBEAM MTHYL-N	18,436	15,607	38,623	GAL SZN	68E
U.S.,UT,MILFORD	(M-C)N.MOSCOW MTHYL-N	18,467	15,620	39,398	GAL SZN	68E
U.S.,UT,TINTIC	(M-C)SHOWERS MTHYL-N	18,474	15,616	38,681	GAL SZN	68E
U.S.,UT,MILFORD	(M-C)O.MOSCOW MTHYL-N	18,484	15,619	39,323	GAL SZN	68E
U.S.,UT,TINTIC	(M-C)BECK T.#1MTHYL-N	18,500	15,621	38,686	GAL SZN	68E
1000 LEVEL						
U.S.,UT,OQUIPR	(M-C)OPHIR HILMTHYL-N	18,503	15,681	38,807	GAL SZN	68E
U.S.,UT,MILFORD	(M-C)POLOMA MTHYL-N	18,513	15,611	39,215	GAL SZN	68E
U.S.,UT,TINTIC	(M-C)COLO.NO.2MTHYL-N	18,527	15,621	38,700	GAL SZN	68E
U.S.,UT,MILFORD	(M-C)MOWITZA MTHYL-N	18,529	15,617	39,261	GAL SZN	68E
U.S.,UT,TINTIC	(M-C)BECK T.#2MTHYL-N	18,554	15,623	38,717	GAL SZN	68E
U.S.,UT,TINTIC	(M-C)SWANSEA MTHYL-N	18,557	15,627	38,713	GAL SZN	68E
U.S.,UT,WASHINGT	(M-C)VIRGIN R.PBI-N	18,56	15.62	38,41	GAL	
U.S.,UT,TINTIC	(M-C)BURGIN MBMTHYL-N	18,567	15,630	38,668	GAL SZN	68E
U.S.,UT,PARK CTY	(M-C)CARDIFF MTHYL-N	18,584	15,682	38,739	GAL SZN	68E
U.S.,UT,PARK CTY	(M-C)PRICE T. MTHYL-N	18,584	15,682	38,739	GAL SZN	68E
U.S.,UT,TINTIC	(M-C)BURGIN D.MTHYL-N	18,606	15,632	38,685	GAL SZN	68E
U.S.,UT,	(M-C)GARRISON 3FIL-N	18,670	15,707	38,375	GAL	
U.S.,UT,SUMMERVI	(M-C)N.SUMMERV3FIL-N	18,740	15,636	38,777	GAL ZART	74E
U.S.,UT,TINTIC	(M-C)MURPHY'S MTHYL-N	18,792	15,657	38,921	GAL SZN	68E
U.S.,UT,MILFORD	(M-C)PINE VAL.MTHYL-N	18,815	15,671	39,616	GAL SZN	68E
U.S.,UT,MILFORD	(M-C)HOOSIER BMTHYL-N	18,851	15,641	39,344	GAL SZN	68E
U.S.,UT,MILFORD	(M-C)CROFT MTHYL-N	18,919	15,647	38,990	GAL SZN	68E
U.S.,UT,MILFORD	(M-C)SALINA MTHYL-N	18,966	15,646	38,933	GAL SZN	68E
U.S.,UT,	(M-C)PALMERS 3FIL-N	19,015	15,741	38,856	GAL	
U.S.,UT,MILFORD	(M-C)VIKSBURG MTHYL-N	19,116	15,673	40,031	GAL SZN	68E
U.S.,UT,MILFORD	(M-C)POLOMA MTHYL-N	19,233	15,681	39,050	GAL SZN	68E
U.S.,UT,TINTIC	(M-C)ROCKWELL MTHYL-N	19,236	15,705	39,428	GAL SZN	68E
U.S.,UT,	(M-C)ROCKWELL 3FIL-R	19,243	15,708	39,434	GAL	
U.S.,UT,	(M-C)CHERRY CR3FIL-R	19,269	15,778	40,124	GAL	
U.S.,UT,	(M-C)SPOTTED F3FIL-R	19,318	15,772	39,021	GAL	
U.S.,UT,	(M-C)SCOTIA 3FIL-R	19,328	15,716	39,126	GAL	
U.S.,UT,MILFORD	(M-C)BLUE STARMTHYL-N	19,374	15,684	38,709	GAL SZN	68E
U.S.,UT,PARK CTY	(M-C)MAYFIELD2MTHYL-N	19,379	15,617	39,352	GAL SZN	68E
U.S.,UT,	(M-C)US MINE 3FIL-R	19,388	15,810	39,738	GAL	

U.S.,UT,TINTIC (M-C)O.SCOTIA MTHYL-N	19.421	15.734	39.619	GAL SZN 68E		
U.S.,UT, (M-C)SE. GLORY3FIL-N	19.435	15.804	39.860	PBJ		
U.S.,UT, (M-C)CYCLONE153FIL-N	19.510	15.812	39.892	GAL		
U.S.,UT,PARK CTY(M-C)MAXFIELD1MTHYL-N	19.527	15.827	39.289	GAL SZN 68E		
U.S.,UT, (M-C)SENATOR 3FIL-R	19.632	15.826	40.034	GAL		
U.S.,UT, (M-C)CLIMAX 3FIL-R	19.634	15.826	40.075	GAL		
U.S.,UT,MILFORD (M-C)O.MOSCOW MTHYL-N	19.677	15.725	39.305	GAL SZN 68E		
U.S.,UT, (M-C)SEMINOLE 3FIL-N	19.724	15.827	40.216	GAL		
U.S.,UT,LA PLATA(M-C)LA PLATA 3FIL-N	19.956	15.966	40.397	GAL ZART 74E		
U.S.,UT,MILFORD (M-C)MINERAL RMTHYL-N	20.011	15.769	39.464	GAL SZN 68E		
U.S.,UT,MILFORD (M-C)MINERAL RMTHYL-N	20.073	15.776	39.484	GAL SZN 68E		
U.S.,UT, (M-C)BEAVER V.3FIL-R	20.375	15.776	39.510	CER		
U.S.,UT,PARK VAL(M-C)CABIN CLM3FIL-N	20.974	16.288	40.212	GAL ZART 74E		
U.S.,UT,TINTIC (M-C)N.BULLIONMTHYL-N	21.019	15.944	40.279	GAL SZN 68E		
U.S.,UT,OQUIRR (M-C)MT.NEBO MTHYL-N	23.835	16.229	42.007	GAL SZN 68E		

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LOCATION	(AGE)SAMPLE NO.METHOD	206/204	207/204	208/204	TYPE	REFER.

WASHINGTON
MESOZOIC-CENOZOIC

U.S.,WA,PEND ORE(M-C)21	PUBL.	18.40	15.30	37.79	GAL CPAB	62G
U.S.,WA,HALFMOON(M-C)	3FIL-N	18.60	15.63	38.51	GAL SMAL	73C
U.S.,WA,SKIPPY (M-C)	3FIL-N	18.62	15.65	38.59	GAL SMAL	73C
U.S.,WA,AICHEN B(M-C)	3FIL-N	18.83	15.66	38.53	GAL SMAL	73C
U.S.,WA,JOHNNY B(M-C)	3FIL-N	19.05	15.63	38.79	GAL SMAL	73C
U.S.,WA,PEACOCK (M-C)1	3FIL-N	19.05	15.64	38.82	GAL SMAL	73C
U.S.,WA,LAST CHA(M-C)1	3FIL-N	19.06	15.64	38.83	GAL SMAL	73C
U.S.,WA,PEACOCK (M-C)2	3FIL-N	19.09	15.66	38.90	GAL SMAL	73C
U.S.,WA,PEACOCK (M-C)3	3FIL-N	19.08	15.66	38.89	GAL SMAL	73C
U.S.,WA,WHEELER (M-C)	3FIL-N	19.12	15.65	38.93	GAL SMAL	73C
U.S.,WA,LAST CHA(M-C)2	3FIL-N	19.13	15.66	38.92	GAL SMAL	73C
U.S.,WA,MEADOW C(M-C)	3FIL-N	19.13	15.66	38.91	GAL SMAL	73C
U.S.,WA,CONS.CAL(M-C)2	3FIL-N	19.13	15.64	38.94	GAL SMAL	73C
U.S.,WA,MINERAL (M-C)	3FIL-N	19.13	15.67	38.94	GAL SMAL	73C
U.S.,WA,CONS.CAL(M-C)3	3FIL-N	19.15	15.65	38.95	GAL SMAL	73C
U.S.,WA,CONS.CAL(M-C)4	3FIL-N	19.15	15.65	38.95	GAL SMAL	73C
U.S.,WA,CONS.CAL(M-C)1	3FIL-N	19.16	15.65	38.97	GAL SMAL	73C
U.S.,WA,TOGO (M-C)	3FIL-N	19.16	15.66	38.98	GAL SMAL	73C
U.S.,WA,KABBA TE(M-C)	3FIL-N	19.17	15.67	39.00	GAL SMAL	73C
U.S.,WA,CHEWELAN(M-C)	3FIL-N	19.26	15.67	39.55	GAL SMAL	73C
U.S.,WA,JAY GOUL(M-C)	3FIL-N	19.28	15.71	39.64	GAL SMAL	73C
U.S.,WA,QUEEN SE(M-C)	3FIL-N	19.31	15.69	39.28	GAL SMAL	73C
U.S.,WA,AG KING (M-C)	3FIL-N	19.34	15.71	39.50	GAL SMAL	73C
U.S.,WA,SHAMROCK(M-C)	3FIL-N	19.41	15.75	39.27	GAL SMAL	73C
U.S.,WA,CLEVELAN(M-C)1	3FIL-N	19.46	15.72	39.52	GAL SMAL	73C
U.S.,WA,PEND ORE(M-C)EAST SI23	PUBL.	19.46	15.84	39.98	GAL CPAB	62G
U.S.,WA,CLEVELAN(M-C)2	3FIL-N	19.48	15.73	39.46	GAL SMAL	73C
U.S.,WA,PEND ORE(M-C)GRANDV.24	PUBL.	19.58	15.89	40.22	GAL CPAB	62G
U.S.,WA,DEER TRA(M-C)1	3FIL-N	19.71	15.71	39.64	GAL SMAL	73C
U.S.,WA,DEER TRA(M-C)2	3FIL-N	19.73	15.73	39.70	GAL SMAL	73C
U.S.,WA,MULLEN (M-C)	3FIL-N	19.73	15.73	40.20	GAL SMAL	73C
U.S.,WA,JAY-DEE (M-C)1	3FIL-N	20.64	15.81	40.30	GAL SMAL	73C

U.S.,WA,JAY-DEE (M-C)2	3FIL-N	20.62	15.79	40.25	GAL SMAL 73C	

WASHINGTON
PRECAMBRIAN

U.S.,WA,KEY FRAC(X)1	3FIL-N	16.35	15.40	36.04	GAL SMAL 73C	
U.S.,WA,KEY FRAC(X)2	3FIL-N	16.36	15.41	36.06	GAL SMAL 73C	
U.S.,WA,KOOTENAI(M-C)CONQUEST	3FIL-N	16.39	15.41	36.12	GAL SMAL 73C	

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LOCATION (AGE)SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE REFER,
WISCONSIN				
UPPER MISSISSIPPI VALLEY ZINC-LEAD DISTRICT				
PHANEROZOIC				
U.S.,WI,ROCKVIL.(PHA)6-LEAD M.PBI-N	21.90	16.01	41.43	GAL HDZB 66E
U.S.,WI,TENNySON(PHA)7-PIQUET.PBI-N	22.05	16.01	41.62	GAL HDZB 66E
U.S.,WI,LESLIE (PHA)9-NIG.JIMPBI-N	22.07	15.97	41.77	GAL HDZB 66E
U.S.,WI,NEW DIG.(PHA)10-HOSKINPBI-N	22.16	15.98	42.07	GAL HDZB 66E
U.S.,WI, (PHA)D-11 PBS-R	22.22	16.34	42.89	GAL
U.S.,WI, (PHA)D-12 PBS-R	22.51	16.32	43.07	GAL
U.S.,WI,SHULLSB.(PHA)11CALUMETPBI-N	22.79	16.14	42.55	GAL HDZB 66E
U.S.,WI,SHULLSB.(PHA)12CALUMETPBI-N	22.61	16.04	42.41	GAL HDZB 66E
U.S.,WI,HIGHLAND(PHA)13OHERK. PBI-N	23.16	16.09	42.37	GAL HDZB 66E
U.S.,WI,MIFFLIN (PHA)14OLD SL.PBI-N	23.46	16.14	42.91	GAL HDZB 66E
U.S.,WI,MINERAL (PHA)15IVEY M.PBI-N	23.75	16.17	43.24	GAL HDZB 66E
U.S.,WI,YELLOWS.(PHA)16N.YELL.PBI-N	23.60	16.16	43.40	GAL HDZB 66E
U.S.,WI,DODGEVIL(PHA)17DEMBY-WPBI-N	24.27	16.22	43.63	GAL HDZB 66E
U.S.,WI,AVON (PHA)68-20 3FIL-N	21.699	15.969	41.778	GAL
U.S.,WI,ORION (PHA)68-1 3FIL-N	22.770	16.064	42.237	GAL
U.S.,WI,SPEED (PHA)67-1 3FIL-N	23.111	16.095	43.038	GAL
U.S.,WI,BRIG (PHA)63-1 3FIL-N	23.164	16.121	43.154	GAL
U.S.,WI,EXETER (PHA)68-13 3FIL-N	23.319	16.160	43.687	GAL
U.S.,WI,RUDD (PHA)69-3 3FIL-N	24.462	16.244	43.246	GAL
PRECAMBRIAN				
MASSIVE SULFIDE DEPOSITS				
U.S.,WI,LADY SMI(X7)FLAMBEAU 3FIL-N	15.323	15.167	35.016	ORE
U.S.,WI,RHINELAN(X7)PELICAN R3FIL-N	15.668	15.359	35.202	ORE
WYOMING				
PHANEROZOIC				
U.S.,WY,CU MOUNT(PHA)WU#2883 3FIL-N	23.580	16.546	46.625	GAL
1400 M.Y.				
U.S.,WY,META MIN(Y)SC027-0063FIL-N	16.022	15.436	35.214	GAL
U.S.,WY,3 FORKS (Y) 3FIL-N	16.297	15.396	35.520	GAL ADD 72E
U.S.,WY,3 FORKS (Y)DS255 PBI-N	16.25	15.33	35.40	GAL DPA 66U
U.S.,WY,3 FORKS (Y)DS256 PBI-N	16.26	15.34	35.39	GAL DPA 66U
U.S.,WY,MEDICINE(Y)KEYSTONE 3FIL-N	16.509	15.400	35.610	GAL

1700 M.Y.

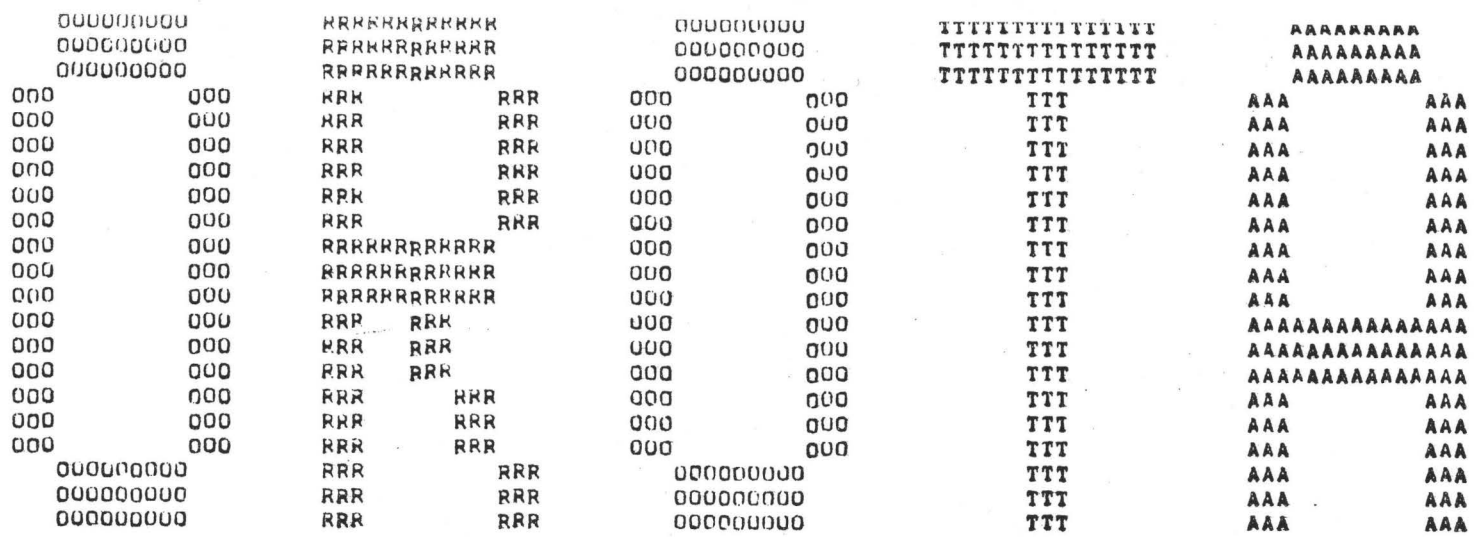
U.S.,WY,BROADWAY(X)KJD5-9-2 3FIL-N 15.809 15.286 35.251 GAL

2700 M.Y.

ATLANTIC CITY AREA(ZENITH AND MARY ELLEN,AVG. 3, MINES)

U.S.,WY,ATL.CTY.(W)MARY ELL.PBI3N 13.90 14.88 33.80 GAL ANT 64W

U.S.,WY,ATL.CTY.(W)582-ZENTHMTHYL-N 14.018 14.956 33.839 GAL S 68



LPTSPL VERSION 6(350) RUNNING ON LPT100
START USER DOE B. [622,104] JOB IGCO SEQ. 979 DATE 22-DEC-75 10:19:15 MONITOR USGS DECSYSTEM10 ANF602 *START*
REQUEST CREATED: 22-DEC-75 10:19:15
FILE: DSKB0:OROTA,LID[622,104] CREATED: 01-DEC-75 10:38:00 <157> PRINTED: 22-DEC-75 10:21:12
QUEUE SWITCHES: /PRINT:ARROW /FILE:ASCII /COPIES:1 /SPACING:1 /LIMIT:52 /FORMS:NORMAL

OTHER AREAS, A ONLY(OROTA .LID) (29 OCTOBER 1975)

IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION	(AGE)SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE	REFER,
AFRICAN, NORTHERN						
CYPRUS						
CYP,,SK,SKOURIOT	(CRE)CYP-11 GEL-N	18.476	15.571	38.405	ORE	
RED SEA REGION						
EGYPT						
MESOZOIC-CENOZOIC						
EGYP, ,	(CEN)BIR RANGA3FIL-N	18.595	15.589	38.405	GAL DDB	67L
EGYP, ,	(CEN)ZUG BAHARPBS-N	18.97	15.63	38.57	GAL	
EGYP, ,	(CEN)UM ANS PBS-N	19.09	15.68	38.92	GAL DDB	67L
EGYP, ,	(CEN)UM GHEIG 3FIL-N	19.155	15.626	38.699	GAL DDB	67L
EGYP, ,	(CEN)TALEIT EI3FIL-N	20.755	15.694	41.005	GAL DDB	67L
500-1000 M.Y.						
EGYP, ,	(Z?)FOWAKHIR PBS-N	17.83	15.50	37.35	GAL DDB	67L
MOROCCO						
STRATIFORM DEPOSITS						
MORO, ,P.TAGOUN	(MES)P-209 PUBL.	18.34	15.87	39.37	GAL LSA	71F
MORO, ,P.TAGOUN	(MES)P-317 PUBL.	18.40	15.84	39.10	GAL LSA	71F
MORO, ,P.TAGOUN	(MES)P-322 PUBL.	18.31	15.79	38.92	GAL LSA	71F
MORO, ,P.TAGOUN	(MES)P-100 PUBL.	18.36	15.75	38.84	GAL LSA	71F
MORO, ,P.TAGOUN	(MES)P-101 PUBL.	18.38	15.79	38.84	GAL LSA	71F
SAUDI ARABIA						
MESOZOIC-CENOZOIC						
SAUD,E.,	(M-C)RABIGH 3FIL-N	18.716	15.571	38.195	GAL DDB	67L
SAUD,E.,DHAYLAN	(M-C)U-35 3FIL-N	19.376	15.626	38.681	GAL	
500-1000 M.Y.						
WADI WASSAT MASSIVE SULFIDE						
SAUD, ,W.WASSAT	(Y)35112HCL GEL-N	18.311	15.475	37.423	ORE	
SAUD, ,W.WASSAT	(Y)35112HNO3GEL-N	18.216	15.458	37.316	ORE	
SAUD, ,W.WASSAT	(Y)35112I GEL-NC	17.24	15.41	36.96	ORE	
VEIN DEPOSIT						
SAUD,E.,M.DHAHAB	(Z?)U-250 3FIL-N	17.402	15.477	36.957	GAL	
SAUD,E.,M.DHAHAB	(Z?)U-223 3FIL-N	17.405	15.474	36.978	GAL	
SAUD,E.,M.DHAHAB	(Z?)WADI DAHA3FIL-N	17.406	15.477	36.959	GAL DDB	67L
NUGRAH MASSIVE SULFIDE						

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SAUD,E,,NUGRAH  ( Z?)CORE      3FIL-N  17.407      15.477      37.043    GAL
        VEIN DEPOSIT
SAUD,E,,M.DHAHAH( Z?)U-115     3FIL-N  17.409      15.485      36.975    GAL
        RABADAN MASSIVE SULFIDE, WADI BIDAH DISTRICT
SAUD,  ,W.BIDAH ( Z?)76770RABAGEL-N    17.445      15.454      36.753    ORE
        WADI SHWAS MASSIVE SULFIDE
SAUD,  ,W.SHWAS ( Z?)70050     GEL-N   17.458      15.499      37.007    ORE
        VEIN DEPOSITS
SAUD,E,,        ( Z?)GARB HADA3FIL-N   17.486      15.448      37.016    GAL
SAUD,E,,        ( Z?)SAMRAH    3FIL-N  17.491      15.498      37.263    GAL DDB  67L
SAUD,E,,        ( Z?)84415     3FIL-N  17.555      15.500      37.114    GAL
        SHA'AB ELTARE MASSIVE SULFIDE, WADI BIDAH DISTRICT
SAUD,  ,W.BIDAH ( Z?)68516(53)3FIL-N   17.587      15.524      37.087    GAL
        VEIN DEPOSITS
SAUD,E,,        ( Z?)MAMALAH333FIL-N   17.589      15.496      37.109    GAL
SAUD,E,,        ( Z?)MULHAL6833FIL-N   17.593      15.535      37.095    GAL
SAUD,E,,        ( Z?)SUK KHAMIPBS-N    17.62       15.47       37.15     GAL
SAUD,E,,        ( Z?)KUSHAMIYA3FIL-N   17.642      15.518      37.387    GAL
SAUD,E,,        ( Z?)TUWAYRAH  3FIL-N  17.658      15.480      37.180    GAL
SAUD,E,,        ( Z?)TAIF      MTHYL-N 17.682      15.546      37.262    GAL DDB  67L
SAUD,E,,        ( Z?)64115     3FIL-N  17.695      15.480      37.217    GAL
SAUD,E,,        ( Z?)HOSNUN1153FIL-N   17.698      15.555      37.518    GAL
SAUD,E,,        ( Z?)MUHAYLOT  PBS-N   17.70       15.65       37.63     GAL
SAUD,E,,        ( Z?)BAHFOR4013FIL-N   17.723      15.544      37.471    GAL
SAUD,E,,        ( Z?)MUCHAHAL73FIL-N   17.742      15.505      37.261    GAL DDB  67L
SAUD,E,,        ( Z?)MOKHAYAT1GEL-N    17.758      15.513      37.290    GAL
SAUD,E,,        ( Z?)ARDAYAT   PBS-N   17.77       15.55       37.50     GAL DDB  67L
SAUD,E,,        ( Z?)JABAL HADMTHYL-N  17.783      15.550      37.408    GAL DDB  67L
SAUD,E,,        ( Z?)MUCHAHAL8PBS-N    17.82       15.60       37.57     GAL DDB  67L
SAUD,E,,        ( Z?)ABU BIER  3FIL-N  17.854      15.515      37.326    GAL DDB  67L


TURKEY
LISTED BY WRITTEN PERMISSION OF OLAVI KOUVO

    MESOZOIC-CENOZOIC

       MENDERES MASSIF
TURK,W,,KUCA TEP(M-C)G222 2856GEL-N    18.68       15.64       38.79     GAL
TURK,W,,MAZIBASI(M-C)G225 E195GEL-N    18.74       15.67       38.81     GAL
TURK,W,,HISARKOY(M-C)G220 E-11GEL-N    18.78       15.68       38.90     GAL
TURK,W,,YAZIBASI(M-C)G226 E196GEL-N    18.91       15.78       39.13     GAL


    ORDOVICIAN?

TURK,W,,        (ORD)G206 E26  GEL-N   18.28       15.61       38.49     GAL
TURK,W,,        (ORD)G206 E26  GEL-N   18.29       15.60       38.33     GAL
TURK,W,,        (ORD)G204TONY1GEL-N    18.31       15.60       38.30     GAL
TURK,W,,ALANKOY (ORD)G224 E194GEL-N    18.31       15.60       38.37     GAL
TURK,W,,        (ORD)G204TONY1GEL-N    18.35       15.64       38.33     GAL
TURK,W,,SARIYURT(ORD)G221 E26  GEL-N   18.37       15.65       38.41     GAL
TURK,W,,MADEN TE(ORD)G223 2866GEL-N    18.38       15.67       38.50     GAL


    PHANEROZOIC

       ZIGANA
TUR,,E,,KOSTERE (PHA)G207Z     GEL-N   18.44       15.61       38.69     GAL
TUR,,E,,KOSTERE (PHA)G207K     GEL-N   18.47       15.63       38.58     GAL
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TUR,,E,,TATARKOY(PHA)G212	GEL-N	18.51	15.57	38.41	GAL			
TUR,,E,,ASARCIK (PHA)G211	GEL-N	18.55	15.55	38.44	GAL			
TUR,,E,,HAVIYANA(PHA)G208	GEL-N	18.58	15.59	38.59	GAL			
TUR,,E,,SISURTU (PHA)G213	GEL-N	18.58	15.61	38.54	GAL			
TUR,,E,,DARIDERE(PHA)G210	GEL-N	18.64	15.60	38.61	GAL			
TUR,,E,,HAZINE (PHA)G209	GEL-N	18.65	15.65	38.66	GAL			
MISCELLANEOUS								
TUR,,E,,GUMUSHAK(PHA)G215	GEL-N	18.65	15.56	38.64	GAL			
TUR,,E,,COTUKLAR(PHA)G214	GEL-N	18.84	15.62	38.83	GAL			
YEMEN								
MESOZOIC-CENOZOIC								
YEM,,HA,HAILAN (M-C)HAILAN	MTHYL-N	18.668	15.700	39.691	GAL	DDB	67L	

ORES	ORES	ORES	ORES

IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION	(AGE)SAMPLE NO.	METHOD	206/204	207/204	208/204	TYPE	REFER.	
AFRICAN, EQUITORIAL								
ZAIRE								
PRECAMBRIAN								
EPIGENETIC								
POST GANGUAN SERIES								
ZAI,,UE,KOKOSHO (V)B143		PUBL.	12.63	14.32	32.71	GAL	R-F	60I
ZAI,,UE,KOKOSHO2(V)4771CAHEN3FIL-N			12.619	14.254	32.520	GAL		
ZAI,,UE,KOKOSHO (V)B25		PUBL.	12.73	14.32	32.65	GAL	R-F	60I
POST KIBALIAN SERIES								
ZAI,,KB,KIBALI (X?)B62DILA MPUBL.			15.72	15.50	35.74	GAL	R-F	60I
ZAI,,KB,KIBALI (X?)T615ZAMBUPUBL.			16.10	15.55	35.80	GAL	R-F	60I
UKINGAN SERIES								
ZAI,,KI,MWENDA. (Y?)B135		PUBL.	17.56	15.78	37.51	GAL	R-F	60I
ZAI,,KI,KIHODA (Y?)T905		PUBL.	17.79	15.89	38.37	GAL	R-F	60I
ZAI,,KI,KAMITU. (Y?)T621		PUBL.	17.70	15.77	37.27	GAL	R-F	60I
ZAI,,KI,MUGA (Y?)B134		PUBL.	18.10	15.89	38.22	GAL	R-F	60I
KIBARAN SYSTEM (PRE-KATANGAN)								
ZAI,,KA,KIBARAN (Y)T734KAFU.PUBL.			17.71	15.88	37.51	GAL	R-F	60I
ZAI,,KA,KIBARAN (Y)B-38KAFU.PUBL.			17.73	15.85	37.85	GAL	R-F	60I
ZAI,,KA,KIBARA M(Z?)B133LUPO.PUBL.			17.75	15.80	37.36	GAL	R-F	60I
ZAI,,KA,KIBARA M(Z?)G29MITWA.PUBL.			17.76	15.88	37.58	GAL	R-F	60I
KATANGAN SYSTEM								
MINE SERIES								
ZAI,,KA,COPPER B(Z?)VIIID19MUPUBL.			18.19	15.80	38.23	GAL	R-F.	60I

KUNDELUNGU SERIES						
ZAI.,KA,COPPER B(Z?)L150KENG.PUBL.		18.04	15.67	38.01	CER R-F	60I
ZAI.,KA,COPPER B(Z?)T196KENG.PUBL.		18.12	15.79	37.98	GAL R-F	60I
ZAI.,KA,COPPER B(Z?)B-36KENG.PUBL.		18.13	15.78	38.17	GAL R-F	60I
ZAI.,KI,COPPER B(Z?)VIIID16K.PUBL.		18.29	15.76	37.87	GAL C-S	66T
ZAI.,KI,COPPER B(Z?)B31KIPUS.PUBL.		18.35	15.83	38.51	GAL R-F	60I
ZAI.,KA,KIKOSA L(Z?)VIIID17KIPUBL.		18.36	15.83	38.51	GAL C-S	66T
ZAI.,KA,KIKOSA L(Z?)VIIID17KIPULB.		18.38	15.81	38.45	GAL C-S	66T
POST TECTONIC KIBARAN						
ZAI.,KA,MANONO (Z?)B132	PUBL.	18.38	15.82	37.98	GAL R-F	60I
ZAI.,KA,KISINGA(Z?)VIIID6	PUBL.	18.24	15.88	37.77	GAL C-S	66T
LINDIAN SERIES (CORRELATES WITH KATANGAN)						
ZAI.,KA,LINDIAN (Z?)T623HOMA	PUBL.	18.09	15.85	38.10	GAL R-F	60I
ZAI.,KI,RUINDI (Z?)B63BURUND.PUBL.		18.42	16.06	38.90	GAL R-F	60I
ZAI.,KI,NYAMAK.(Z?)B35	PUBL.	18.42	15.98	38.52	GAL R-F	60I
ZAI.,KI,NYAMAK.(Z?)VIIID10	PUBL.	18.58	16.05	38.37	GAL C-S	66T
SYNGENETIC						
BUSHIMAY SERIES						
ZAI.,KA,BUSHIMAY(Y)T-622LUBIPUBL.		17.43	15.78	37.47	GAL R-F	60I
ZAI.,KA,BUSHIMAY(Y)B-34SENGAPUBL.		17.32	15.70	37.25	GAL R-F	60I
ZAI.,KA,BUSHIMAY(Y)T-735GAN.PUBL.		17.37	15.81	37.20	GAL R-F	60I
ZAMBIA						
EPIGENETIC						
PHANEROZOIC						
ZAM.,,BPOKEN H(PHA)T394	PUBL.	18.18	15.89	38.67	GAL R-F	60I
PRECAMBRIAN						
ZAM.,ND,COPPER B(Z?)VIID6LYL.PUBL.		18.38	15.77	38.72	GAL C-S	66T
ZAM.,LU,COPPER B(Z?)B138BUK.	PUBL.	18.52	15.87	39.12	GAL R-F	60I
AFRICAN, SOUTHERN						
SOUTH AFRICA						
3200 M.Y.						
S.AF,BA,BARBARTO(V)586	3FIL-N	12.461	14.077	32.285	GAL BDU	69L
MESSINA						
1000 M.Y.						
S.AF,ME,MESSINA (Y?)MESSINA M	3FIL-N	18.423	16.240	41.063	GAL	
S.AF,ME,MESSINA (Y?)ARTONVIL.	3FIL-N	18.544	16.434	40.096	GAL	
S.AF,ME,MESSINA (Y?)CAMPBELL	3FIL-N	19.977	16.588	42.075	GAL	
S.AF,LB,MOPANE P(X)MP2	3FIL-N	14.752	15.232	34.377	GAL	
S.AF,LB,MOPANE P(X)MP1	3FIL-N	14.759	15.234	34.357	GAL	
S.AF,LB,MPUANE (X)MP-3	3FIL-N	14.799	15.259	34.391	GAL	

RHOD,LB,BORDER R(X)RSR-9	3FIL-N	17.354	15.835	39.102	GAL			
RHOD,LB,BORDER R(X)RSR-4	3FIL-N	17.403	16.016	41.511	GAL			
RHOD,LB,BORDER R(X)RSR-6N	3FIL-N	17.497	15.971	40.541	GAL			
RHOD,LB,BORDER R(X)RSR-3	3FIL-N	17.552	15.983	40.132	GAL			
RHOD,LB,BORDER R(X)RSR-1	3FIL-N	17.604	16.084	41.762	GAL			
RHOD,LB,BORDER R(X)RSR-6S	3FIL-N	17.629	16.099	41.719	GAL			
RHOD,LB,BORDER R(X)RSR-5	3FIL-N	17.652	16.045	40.233	GAL			
RHOD,LB,BORDER R(X)RSR-2	3FIL-N	17.659	16.049	40.696	GAL			
ASIA								
INDONESIA								
MESOZOIC-CENOZOIC								
SUMATRA								
INDO,SU,S.TUBOH (CEN)INDO-6	3FIL-N	18.360	15.582	38.411	GAL			
INDO,SU,SIMAU AU(CEN)INDO-2	3FIL-N	18.419	15.580	38.462	GAL			
INDO,SU,MUARA SI(CEN)INDO-5	3FIL-N	18.603	15.634	38.850	GAL			
BELITUNG								
INDO,BE,BELITUNG(MES)SELUMAR	3FIL-N	18.497	15.711	38.878	GAL			
INDO,BE,BELITUNG(MES)KELAPA KA	3FIL-N	18.609	15.714	38.948	GAL			
JAVA								
INDO,JA,CIKONDAN(CEN)INDO-12	3FIL-N	18.597	15.618	38.729	GAL			
INDO,JA,G.SAWAL (CEN)INDO-9	3FIL-N	18.608	15.719	38.961	GAL			
INDO,JA,S.BANTOM(CEN)INDO-10	3FIL-N	18.790	15.695	39.188	GAL			
SULAWESI								
INDO,SL,SULAWESI(CEN)I15SASSAK	3FIL-N	18.199	15.590	39.019	GAL			
JAPAN								
HOKKAIDO								
NIH ,HK,HOKKAIDO(CEN)TOYAK-1423	FIL-N	18.455	15.582	38.552	GAL			
NIH ,HK,HOKKAIDO(CEN)TOYA	PUBL.	18.52	15.56	38.68	GAL	S-S	58A	
HONSHU								
AKITA								
NIH ,HO,AKITA (CEN)OAIRA 515	MTHYL-N	18.14	15.52	38.39	GAL	SSK	73C	
MASSIVE SULFIDE DEPOSIT								
NIH ,HO,AKITA (CEN)KOSAKA109	PBS-N	18.30	15.50	38.19	GAL	S-S	73E	
NIH ,HO,AKITA (CEN)KOSAKA104	PBS-N	18.31	15.42	38.16	GAL	S-S	73E	
NIH ,HO,AKITA (CEN)KOSAKA101	PBS-N	18.34	15.49	38.45	GAL	S-S	73E	
NIH ,HO,AKITA (CEN)KOSAKA105	PBS-N	18.36	15.46	38.36	GAL	S-S	73E	
NIH ,HO,AKITA (CEN)KOSAKA103	PBS-N	18.37	15.47	38.31	GAL	S-S	73E	
NIH ,HO,AKITA (CEN)KOSAKA106	PBS-N	18.44	15.57	38.78	GAL	S-S	73E	
NIH ,HO,AKITA (CEN)KOSAKA1053	FIL-N	18.463	15.589	38.623	GAL			
NIH ,HO,AKITA (CEN)HANAWA124	PBS-N	18.36	15.46	38.41	GAL	S-S	73E	
NIH ,HO,AKITA (CEN)HANAWA122	PBS-N	18.43	15.56	38.58	GAL	S-S	73E	
NIH ,HO,AKITA (CEN)OSARI,517	MTHYL-N	18.44	15.51	38.39	ORE	SSK	73C	

NIH ,HO,AKITA	(TER)HANAOK516MTHYL=N	18.44	15.54	38.45	ORE SSK	73C
NIH ,HO,AKITA	(CEN)ARAKAWA MPUBL.	18.44	15.57	38.74	GAL S-S	58A
NIH ,HO,AKITA	(CEN)OSARUSAWAPUBL.	18.54	15.58	38.82	GAL S-S	58A
NIH ,HO,AKITA	(CEN)HANAOKA MPUBL.	18.55	15.57	38.61	GAL S-S	58A
NIH ,HO,AKITA	(CEN)SHAKAN125PBS-N	18.55	15.58	38.54	GAL S-S	73E
NIH ,HO,AKITA	(CEN)HOSOKURA PUBL.	18.59	15.59	38.73	GAL S-S	58A
NIH ,HO,AKITA	(CEN)TAMAGAWA PUBL.	18.63	15.61	39.04	SIN S-S	58A
GUMMA						
NIH ,HO,GUMMA	(CEN)NAKAMARU PUBL.	18.50	15.63	38.61	ANG S-S	58A
NIH ,HO,GUMMA	(CEN)NAKAMARU PUBL.	18.57	15.65	38.59	GAL S-S	58A
MIYAGI						
NIH ,HO,MIYAGI	(CEN)DAIKA M. PUBL.	18.32	15.43	38.45	GAL S-S	58A
NIH ,HO,MIYAGI	(CEN)HOSO.M520MTHYL=N	18.54	15.59	38.55	GAL SSK	73C
NIH ,HO,MIYAGI	(CEN)OHARA-MURPUBL.	18.72	15.73	38.75	GAL S-S	58A
NIH ,HO,MIYAGI	(CEN)CHIEN M. PUBL.	18.80	15.79	38.92	PYR S-S	58A
NIIGATA						
NIH ,HO,NIIGATA	(CEN)MIKAWA M.PUBL.	18.31	15.50	38.46	PYR S-S	58A
NIH ,HO,NIIGATA	(CEN)BUDO M.52MTHYL=N	18.34	15.42	38.21	GAL SSK	73C
NIH ,HO,NIIGATA	(MES)HANETS520MTHYL=N	18.42	15.57	38.47	GAL SSK	73C
NIH ,HO,NIIGATA	(CEN)MIKAWA519MTHYL=N	18.46	15.59	38.66	GAL SSK	73C
NIH ,HO,NIIGATA	(CEN)MIKAWA M.PUBL.	18.58	15.66	39.00	GAL S-S	58A
SHIMANE						
MASSIVE SULFIDE DEPOSIT						
NIH ,HO,IWAMI	(CEN)IK-10 PBS-N	18.23	15.53	38.48	GAL S-S	73E
NIH ,HO,WANIBUCH	(CEN)WO-7 3FIL-N	18.245	15.569	38.417	ORE	
NIH ,HO,WANIBUCH	(CEN)WO-5 PBS-N	18.27	15.63	38.84	GAL S-S	73E
OTHERS						
NIH ,HO,GIFU	(MES)KAMIOKA MPUBL.	18.20	15.55	38.71	GAL S-S	58A
NIH ,HO,HYOGO	(MES)IKUNO566 MTHYL=N	18.27	15.47	38.27	GAL SSK	73C
MASSIVE SULFIDE DEPOSIT						
NIH ,HO,IWATE	(MES)TARO71T383FIL=N	18.712	15.621	38.669	GAL	
NIH ,IW,IWATE	(MES)TARO M511MTHYL=N	18.70	15.64	38.68	GAL SSK	73C
VEIN DEPOSIT						
NIH ,HO,ISHIKAWA	(CEN)OGOYA 525MTHYL=N	18.58	15.47	38.74	PYR SSK	73C
NIH ,HO,IBARAGI	(CEN)SHIOYA M.PUBL.	18.36	15.53	38.59	GAL S-S	58A
NIH ,HO,SHIZUOKA	(CEN)MIKURA PUBL.	18.39	15.64	38.52	PYR S-S	58A
MASSIVE SULFIDE DEPOSIT						
NIH ,HO,YAMAGATA	(CEN)YOSHI.131PBS-N	18.42	15.58	38.52	GAL S-S	73E
NIH ,HO,YAMAGATA	(CEN)YOSHI.1303FIL-N	18.475	15.607	38.633	GAL	
VEIN DEPOSIT						
NIH ,HO,SAITAMA	(CEN)CHICHIBU PUBL.	18.71	15.83	39.20	GAL S-S	58A
NIH ,HO,ISHIKAWA	(CEN)OGOYA M. PUBL.	18.82	15.67	39.32	PYR S-S	58A
KYUSHU						
KAGOSHI						
NIH ,KY,KAGOSHI	(CEN)NISHISHUZUPUBL.	18.37	15.53	38.80	PYR S-S	58A

NIH ,KY,KAGOSHI (CEN)NISHISUZUPUBL.	18.59	15.72	39.02	PYR S-S	58A

NAGASAKI

NIH ,KY,NAGASAKI(CRE)TAISHU510MTHYL-N	18.33	15.51	38.46	GAL SSK	73C
NIH ,KY,NAGASAKI(CRE)TAISHU1013FIL-N	18.470	15.646	38.966	GAL	
NIH ,KY,NAGASAKI(CRE)TAISHU M.PUBL.	18.47	15.59	39.02	GAL S-S	58A

ORES ORES ORES ORES

IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION (AGE)SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE	REFER.

AUSTRALIA

MESOZOIC-CENOZOIC

AUST, ,WHITE I.(CEN)WHITE I. MTHYL-N	18.757	15.603	38.644	GAL ORS	67C

PHANEROZOIC

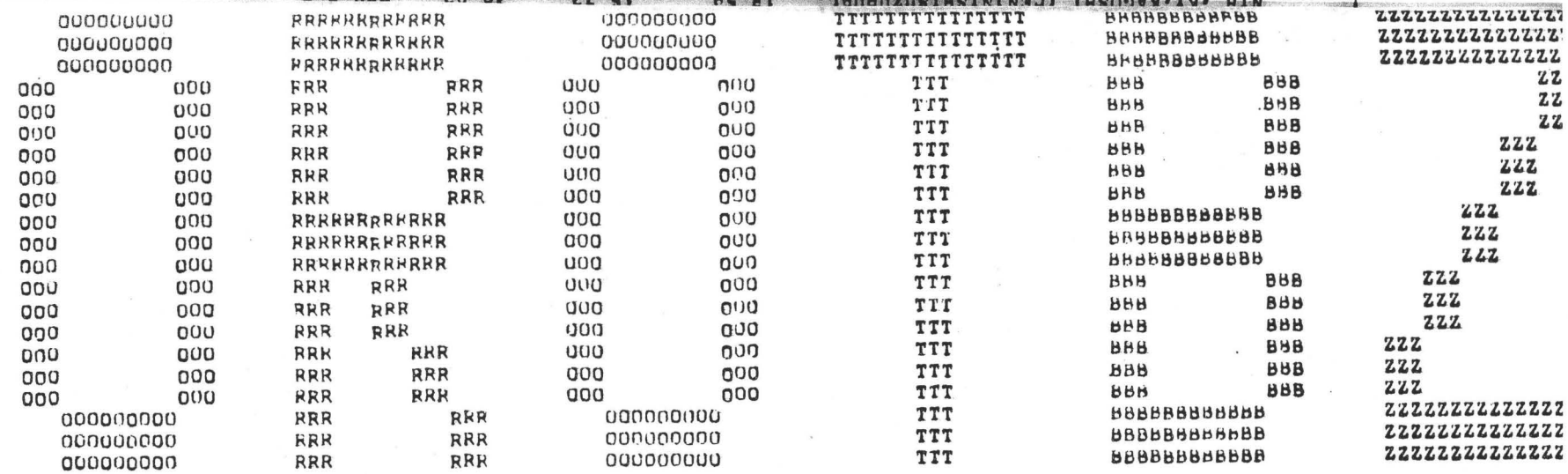
MASSIVE SULFIDE DEPOSIT

AUST,NS,N.S.WALE(SIL)CAPTAIN'SMTHYL-N	18.055	15.619	38.145	GAL ORS	67C
AUST,NS,N.S.WALE(SIL)COBAR MTHYL-N	18.082	15.624	38.125	GAL ORS	67C
AUST,TA,N.S.WALE(CAM)READ ROSEMTHYL-N	18.250	15.599	38.050	GAL ORS	67C
AUST,NS,N.S.WALE(PER)HALLIS PKMTHYL-N	18.350	15.607	38.347	GAL ORS	67C

1600 M.Y.

MASSIVE SULFIDE DEPOSIT

AUST,NS,BROKEN H(X)UBC-18,H.3FIL-N	16.007	15.397	35.675	GAL SDU	69L
AUST,QU,MT. ISA (X)MT. ISA MTHYL-N	16.111	15.460	35.847	GAL ORS	69L

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LPTSPL VERSION 6(350)  RUNNING ON LPT100
 *START* USER DOE B. [622,104] JOB  IGCU SEQ. 979 DATE 22-DEC-75 10:19:15 MONITOR USGS DECSYSTEM10 ANF602 *START*
REQUEST CREATED: 22-DEC-75  10:19:15
FILE: DSKB0:OROTBZ.L1D[622,104] CREATED: 09-DEC-75 10:39:00 <157>  PRINTED: 22-DEC-75 10:25:41
QUEUE SWITCHES:  /PRINT:ARROW /FILE:ASCII /COPIES:1 /SPACING:1 /LIMIT:504 /FORMS:NORMAL
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OTHER AREAS, B-Z ONLY(OROTBZ.LID) (9 DECEMBER 1975)

CANADA

BRITISH COLUMBIA
MESOZOIC, METAMORPHIC

CAN,,BC,BIG	LEDG(M-C)R449-PY	PUBL,-N	19.33	15.74	39.74	ORE C-G 73CJ
CAN,,BC,BIG	LEDG(M-C)R319-PY	PUBL,-N	19.37	15.71	39.68	ORE C-G 73CJ
CAN,,BC,BIG	LEDG(M-C)R468	PUBL,-N	19.39	15.76	39.84	GAL C-G 73CJ
CAN,,BC,BIG	LEDG(M-C)R413-PY	PUBL,-N	19.39	15.77	39.89	ORE C-G 73CJ
CAN,,BC,BIG	LEDG(M-C)R133-PO	PUBL,-N	19.40	15.78	39.76	ORE C-G 73CJ
CAN,,BC,BIG	LEDG(M-C)R468-PY	PUBL,-N	19.41	15.77	39.87	ORE C-G 73CJ
CAN,,BC,BIG	LEDG(M-C)R72-PY	PUBL,-N	19.42	15.78	39.87	ORE C-G 73CJ
CAN,,BC,BIG	LEDG(M-C)R365	PUBL,-N	19.42	15.81	40.03	GAL C-G 73CJ
CAN,,BC,BIG	LEDG(M-C)R319-PO	PUBL,-N	19.43	15.79	39.92	ORE C-G 73CJ
CAN,,BC,BIG	LEDG(M-C)R1	PUBL,-N	19.44	15.78	39.88	GAL C-G 73CJ
CAN,,BC,BIG	LEDG(M-C)R468-PO	PUBL,-N	19.44	15.76	39.81	ORE C-G 73CJ
CAN,,BC,BIG	LEDG(M-C)R122	PUBL,-N	19.45	15.79	39.95	GAL C-G 73CJ
CAN,,BC,BIG	LEDG(M-C)R423-PY	PUBL,-N	19.45	15.83	40.04	ORE C-G 73CJ
CAN,,BC,BIG	LEDG(M-C)R411-PY	PUBL,-N	19.46	15.76	39.80	ORE C-G 73CJ
CAN,,BC,BIG	LEDG(M-C)R438-PO	PUBL,-N	19.47	15.78	39.89	ORE C-G 73CJ
CAN,,BC,BIG	LEDG(M-C)R2	PUBL,-N	19.50	15.87	40.19	GAL C-G 73CJ
CAN,,BC,BIG	LEDG(M-C)P104	PUBL,-N	19.52	15.86	40.14	GAL C-G 73CJ

CAN,,BC,KOOTENAY(MES)	BC237BLU,MTHYL-	N	17.62	15.58	38.50	GAL SINC66CM
CAN,,BC,KOOTENAY(MES)	BC182LAK,MTHYL-	N	17.68	15.58	38.50	GAL SINC66CM
CAN,,BC,KOOTENAY(MES)	BC290WIG,MTHYL-	N	18.28	15.68	38.33	GAL SINC66CM
CAN,,BC,KOOTENAY(MES)	BC318MOL,MTHYL-	N	18.37	15.69	38.42	GAL SINC66CM
CAN,,BC,KOOTENAY(MES)	BC269COT,MTHYL-	N	18.48	15.72	38.42	GAL SINC66CM
CAN,,BC,KOOTENAY(MES)	BC297ROD,MTHYL-	N	18.52	15.68	38.15	GAL SINC66CM
CAN,,BC,KOOTENAY(MES)	BC294VIC,MTHYL-	N	18.82	15.73	39.29	GAL SINC66CM
CAN,,BC,KOOTENAY(MES)	BC295SCH,MTHYL-	N	18.93	15.75	39.14	GAL SINC66CM
CAN,,BC,KOOTENAY(MES)	BC284JACKMTHYL-	N	19.01	15.74	39.30	GAL SINC66CM
CAN,,BC,KOOTENAY(MES)	BC293REE,MTHYL-	N	19.07	15.76	39.44	GAL SINC66CM
CAN,,BC,KOOTENAY(MES)	BC285REE,MTHYL-	N	19.12	15.76	39.50	GAL SINC66CM
CAN,,BC,KOOTENAY(MES)	BC300JER,MTHYL-	N	19.14	15.77	39.59	GAL SINC66CM
CAN,,BC,KOOTENAY(MES)	BC287JER,MTHYL-	N	19.14	15.78	39.57	GAL SINC66CM
CAN,,BC,KOOTENAY(MES)	BC288JER,MTHYL-	N	19.15	15.79	39.57	GAL SINC66CM
CAN,,BC,KOOTENAY(MES)	BC286H.B,MTHYL-	N	19.16	15.80	39.64	GAL SINC66CM
CAN,,BC,KOOTENAY(MES)	BC283JER,MTHYL-	N	19.18	15.79	39.67	GAL SINC66CM
CAN,,BC,KOOTENAY(MES)	BC317MOO,MTHYL-	N	19.25	15.74	39.62	GAL SINC66CM
CAN,,BC,KOOTENAY(MES)	BC291SAL,MTHYL-	N	19.41	15.79	39.87	GAL SINC66CM
CAN,,BC,KOOTENAY(MES)	BC282DUN,MTHYL-	N	19.42	15.80	39.98	GAL SINC66CM

PHANEROZOIC

CAN,,BC,	(PHA)LESA 16 3FIL-	N	18.214	15.613	38.302	GAL
CAN,,BC,	(PHA)SILVER B13FIL-	N	18.997	15.661	39.172	GAL
CAN,,BC,	(PHA)COLUMBIA 3FIL-	N	19.059	15.695	38.897	GAL

1400 M.Y.

CAN,,BC,	(Y)GR.DANE103FIL-	N	16.353	15.406	36.049	GAL
CAN,,BC,	(Y)WELCOME183FIL-	N	16.378	15.407	36.070	GAL
CAN,,BC,	(Y)SULLIV.243FIL-	N	16.507	15.460	36.153	GAL
CAN,,BC,	(Y)SULLIV.233FIL-	N	16.530	15.477	36.176	GAL
CAN,,BC,	(Y)WATERT.263FIL-	N	16.548	15.404	36.166	GAL

IN ALDRICH SEDIMENTS OF THE BELT SUPERGROUP

CAN,,BC,KOOTENAY(Y)BC323SUL,MTHYL-N	16.52	15.48	36.16	GAL	SINC66CM
CAN,,BC,KOOTENAY(Y)BC321SUL,MTHYL-N	16.52	15.49	36.20	GAL	SINC66CM
CAN,,BC,KOOTENAY(Y)BC844SUL,MTHYL-N	16.524	15.478	36.191	GAL	LECO73TH
CAN,,BC,KOOTENAY(Y)BC845SUL,MTHYL-N	16.531	15.486	36.197	GAL	LECO73TH
CAN,,BC,KOOTENAY(Y)BC846SUL,MTHYL-N	16.449	15.460	36.103	GAL	LECO73TH
CAN,,BC,KOOTENAY(Y)BC847SUL,MTHYL-N	16.518	15.469	36.162	GAL	LECO73TH
CAN,,BC,KOOTENAY(Y)BC848SUL,MTHYL-N	16.519	15.477	36.187	GAL	LECO73TH
CAN,,BC,KOOTENAY(Y)BC849SUL,MTHYL-N	16.529	15.481	36.169	GAL	LECO73TH
CAN,,BC,KOOTENAY(Y)BC850SUL,MTHYL-N	16.616	15.464	36.192	GAL	LECO73TH
CAN,,BC,KOOTENAY(Y)BC778KOO,MTHYL-N	16.405	15.451	36.151	GAL	LECO73TH
CAN,,BC,KOOTENAY(Y)BC779EST,MTHYL-N	16.393	15.442	36.156	GAL	LECO73TH
CAN,,BC,KOOTENAY(Y)BC780N_S,MTHYL-N	16.434	15.449	36.052	GAL	LECO73TH
CAN,,BC,KOOTENAY(Y)BC781STE,MTHYL-N	16.444	15.450	36.087	GAL	LECO73TH
CAN,,BC,KOOTENAY(Y)BC761VUL,MTHYL-N	16.339	15.404	35.962	GAL	LECO73TH
CAN,,BC,KOOTENAY(Y)BC773FORSMTHYL-N	16.388	15.421	36.071	GAL	LECO73TH
CAN,,BC,KOOTENAY(Y)BC808FORSMTHYL-N	16.341	15.404	35.981	GAL	LECO73TH
CAN,,BC,KOOTENAY(Y)BC853FORSMTHYL-N	16.324	15.401	35.957	GAL	LECO73TH
CAN,,BC,KOOTENAY(Y)BC762K_C,MTHYL-N	16.332	15.406	35.985	GAL	LECO73TH
CAN,,BC,KOOTENAY(Y)BC832EUG,MTHYL-N	16.340	15.415	36.015	GAL	LECO73TH
CAN,,BC,KOOTENAY(Y)BC833AUR,MTHYL-N	16.337	15.409	36.024	GAL	LECO73TH
CAN,,BC,KOOTENAY(Y)BC835SOC,MTHYL-N	16.314	15.410	35.996	GAL	LECO73TH
CAN,,BC,KOOTENAY(Y)BC836DOM,MTHYL-N	16.393	15.429	36.058	GAL	LECO73TH
CAN,,BC,KOOTENAY(Y)BC760RIM,MTHYL-N	16.426	15.430	36.106	GAL	LECO73TH
CAN,,BC,KOOTENAY(Y)BC837ALI,MTHYL-N	16.374	15.417	36.073	GAL	LECO73TH
CAN,,BC,KOOTENAY(Y)BC886MAR,MTHYL-N	16.603	15.467	36.392	GAL	LECO73TH
CAN,,BC,KOOTENAY(Y)BC889MAR,MTHYL-N	16.558	15.467	36.329	GAL	LECO73TH

MANITOBA
1800 M.Y.

MASSIVE SULFIDE DEPOSIT

CAN,,MA,FLIN FLO(X)T-648 MTHYL-N	15.315	15.106	34.846	GAL	S-R 73CJ
CAN,,MA,FLIN FLO(X)T-558 3FIL-N	15.337	15.144	34.910	GAL	SDU 69L
CAN,,MA,FLIN FLO(X)T-652 MTHYL-N	15.387	15.116	34.940	GAL	S-R 73CJ
CAN,,MA,FLIN FLO(X)T-659 MTHYL-N	15.709	15.256	35.176	GAL	S-R 73CJ
CAN,,MA,FLIN FLO(X)T-660 MTHYL-N	15.745	15.228	35.297	GAL	S-R 73CJ

NEW BRUNSWICK
ORDOVICIAN

MASSIVE SULFIDE DEPOSIT

CAN,,NB,BATHURST(ORD)T807 3FIL-N	18.204	15.655	38.122	GAL	SDU 69L
CAN,,NB,BATHURST(ORD)BATHURST MTHYL-N	18.291	15.780	38.526	GAL	URS 67CJ
CAN,,NB,BATHURST(ORD)T807BRUNSPUBL.	18.22	15.72	38.06	GAL	R-F 60I
CAN,,NB,BATHURST(ORD)T532KEYMEPUBL.	18.26	15.78	38.28	GAL	R-F 60I
CAN,,NB,BATHURST(ORD)T810KEYMEPUBL.	18.36	15.81	38.41	GAL	R-F 60I

NEWFOUNDLAND

MASSIVE SULFIDE DEPOSIT

CAN,,NB,BUCHANS (PHA)T203BUC,MPUBL.	18.18	15.81	38.05	GAL	R-F 60I

NORTHWEST TERRITORIES

PINE POINT
PHANEROZOIC

CAN.,NT,PINE P.	(DEV)A11	PBS-N	18.17	15.61	37.96	GAL C-R	69E
CAN.,NT,PINE P.	(DEV)A9	PBS-N	18.17	15.64	38.26	GAL C-R	69E
CAN.,NT,PINE P.	(DEV)A8	PBS-N	18.23	15.62	38.29	GAL C-R	69E
CAN.,NT,PINE P.	(DEV)A6009B	PBS-N	18.17	15.62	38.25	GAL C-R	69E
CAN.,NT,PINE P.	(DEV)A6009A	PBS-N	18.17	15.62	38.21	GAL C-R	69E
	CHURCHILL PROVINCE						
	1800MY(2800MY SOURCE MATERIAL 7)						
CAN.,NT,CHURCHIL(X)	THUBEN L	PUBL.N	15.03	15.18	34.46	GAL R-C	68CJ
CAN.,NT,CHURCHIL(X)	BASILLE	PUBL.N	15.53	15.24	35.02	GAL R-C	68CJ
CAN.,NT,CHURCHIL(X)	NORRIS L	PUBL.N	15.54	15.23	34.94	GAL R-C	68CJ
CAN.,NT,CHURCHIL(X)	DUCK L.	PUBL.N	15.65	15.28	34.97	GAL R-C	68CJ
CAN.,NT,CHURCHIL(X)	FRENCH L	PUBL.N	15.88	15.31	35.38	GAL R-C	68CJ
CAN.,NT,CHURCHIL(X)	O'CONNER	PUBL.N	15.88	15.37	35.52	GAL R-C	68CJ
CAN.,NT,CHURCHIL(X)	FRED CL.	PUBL.N	16.06	15.40	35.78	GAL R-C	68CJ
CAN.,NT,CHURCHIL(X)	POST ISL	PUBL.N	16.12	15.43	36.02	GAL R-C	68CJ
CAN.,NT,CHURCHIL(X)	J65-65A	PUBL.N	16.19	15.44	35.95	GAL R-C	68CJ
CAN.,NT,CHURCHIL(X)	ROCHER R	PUBL.N	16.28	15.47	35.95	GAL R-C	68CJ
CAN.,NT,CHURCHIL(X)	RAE HIGH	PUBL.N	17.02	15.81	36.50	GAL R-C	68CJ
	GIANT YELLOWKNIFE						
	2800MY(3800MY SOURCE MATERIAL 7)						
CAN.,NT,YELLOWKN(W)	PTARMIGAN	PUBL.N	13.63	14.68	33.49	GAL R-C	68CJ
CAN.,NT,YELLOWKN(W)	DISCOVERY	PUBL.N	13.74	14.70	33.48	GAL R-C	68CJ
CAN.,NT,YELLOWKN(W)	TOM PIT	PUBL.N	13.83	14.85	33.73	GAL R-C	68CJ
CAN.,NT,YELLOWKN(W)	CRESTAUR.	PUBL.N	13.95	14.93	33.79	GAL R-C	68CJ
CAN.,NT,YELLOWKN(W)	CRESTAUR.	PUBL.N	14.13	15.15	34.25	PY R-C	68CJ
CAN.,NT,YELLOWKN(W)	TOM PIT	PUBL.N	14.14	14.96	34.03	PY R-C	68CJ
CAN.,NT,YELLOWKN(W)	LIKELY L.	PUBL.N	14.14	15.12	34.09	GAL R-C	68CJ
CAN.,NT,YELLOWKN(W)	TUNDRA	PUBL.N	14.36	15.23	34.46	CC R-C	68CJ
	SLAVE PROVINCE						
CAN.,NT,SLAVE P.(W)	DISCOVERY	PUBL.N	13.65	14.69	33.03	PY R-C	68CJ
CAN.,NT,SLAVE P.(W)	WALSH L.	PUBL.N	13.75	14.73	33.08	GAL R-C	68CJ
CAN.,NT,SLAVE P.(W)	CAMERON	PUBL.N	14.10	14.82	33.61	GAL R-C	68CJ
CAN.,NT,SLAVE P.(W)	INDIAN M.	PUBL.N	14.11	15.02	33.57	GAL R-C	68CJ
	ONTARIO						
	2000 M.Y.						
CAN.,ON, (X)	COBALT	MTHYL-N	14.87	15.16	34.44	GAL K-F	65CJ
	2200 M.Y.						
CAN.,ON, (X)	GENEVA L.	3FIL-N	14.002	14.870	33.716	GAL SDU	69L
	1600M.Y.-1000M.Y.						
CAN.,ON,SUDBURY (Y?)	T232FROOD	PUBL.	15.78	15.62	36.09	GAL R-F	60I
CAN.,ON,SUDBURY (Y?)	T235	PUBL.	15.99	15.57	36.50	GAL R-F	60I
CAN.,ON,SUDBURY (Y?)	T518TREAD	PUBL.	16.06	15.50	35.66	GAL R-F	60I
CAN.,ON,SUDBURY (Y?)	T310MCKIM	PUBL.	16.08	15.65	36.46	GAL R-F	60I
CAN.,ON,SUDBURY (Y?)	T309MCKIM	PUBL.	16.18	15.71	36.37	GAL R-F	60I

CAN.,ON,SUDBURY (Y?)T312MCKIMPUBL. 22.63 16.51 44.40 GAL R-F 60I
CAN.,ON,SUDBURY (Y?)T234MCKIMPUBL. 22.70 16.42 44.21 GAL R-F 60I
CAN.,ON,SUDBURY (Y?)T217GARS.PUBL. 22.71 16.48 44.16 GAL R-F 60I
CAN.,ON,SUDBURY (Y?)T233FROODPUBL. 22.71 16.66 44.46 GAL R-F 60I
CAN.,ON,SUDBURY (Y?)T311MCKIMPUBL. 22.71 16.46 44.59 GAL R-F 60I
CAN.,ON,SUDBURY (Y?)T307HARDYPUBL. 22.95 16.58 52.07 GAL R-F 60I
CAN.,ON,SUDBURY (Y?)T303FALC.PUBL. 23.19 16.57 44.64 GAL R-F 60I
CAN.,ON,SUDBURY (Y?)T305FALC.PUBL. 23.39 16.72 44.77 GAL R-F 60I
CAN.,ON,SUDBURY (Y?)T306FALC.PUBL. 23.89 16.72 45.02 GAL R-F 60I
CAN.,ON,SUDBURY (Y?)T308FALC.PUBL. 23.99 16.83 45.16 GAL R-F 60I
CAN.,ON,SUDBURY (Y?)T211WORTHPUBL. 25.85 16.82 45.16 GAL R-F 60I

2700 M.Y.

MASSIVE SULFIDE DEPOSIT

CAN.,ON,MANITOWA(W)MG38A 3FIL-N 13.211 14.401 33.069 GAL SDU 69L
CAN.,ON,RENA. (W)T-608UBC MTHYL-N 13.29 14.50 33.01 GAL K-F 65CJ
CAN.,ON,KERR ADD(W)T-598UBC MTHYL-N 13.67 14.62 33.37 GAL K-F 65CJ
CAN.,ON,KIRKLAND(W)T-519UBC MTHYL-N 14.22 14.83 33.76 GAL K-F 65CJ
CAN.,ON,KERR ADD(W)T-601UBC MTHYL-N 14.70 15.10 34.30 GAL K-F 65CJ
CAN.,ON,COBAL (W)T-466UBC MTHYL-N 14.71 15.11 34.31 GAL K-F 65CJ
CAN.,ON,COBAL (W)T-489UBC MTHYL-N 14.87 15.16 34.44 GAL K-F 65CJ

SUDBURY, ONTARIO, REGION

2200MY(SUBSEQUENT ALTERATION)
MASSIVE SULFIDE DEPOSIT

CAN.,ON,ERRINGTO(X)T-359UBC PUBL.N 15.48 15.29 35.35 ORE U-R 64A
CAN.,ON,ERRINGTO(X)T-359UBC PUBL.N 15.50 15.32 35.36 ORE U-R 64A
CAN.,ON,ERRINGTO(X)T-358UBC PUBL.N 15.90 15.39 35.60 ORE U-R 64A
CAN.,ON,ERRINGTO(X)T-361UBC PUBL.N 16.17 15.43 35.66 PY U-R 64A
CAN.,ON,BALFOUR (X)T-362UBC PUBL.N 17.74 15.63 35.58 PY U-R 64A
CAN.,ON,HARDY (X)T-338UBC PUBL.N 18.69 15.71 42.20 PO U-R 64A
CAN.,ON,HARDY (X)T-339UBC PUBL.N 20.59 15.98 42.81 PY U-R 64A
CAN.,ON,FALCONBR(X)T-335UBC PUBL.N 23.45 16.38 44.32 MAR U-R 64A

QUEBEC

PHANEROZOIC

CAN.,QB,MILLER C(PHA)T544 PUBL. 18.07 15.60 37.73 GAL R-F 60I
CAN.,QB,MILLER C(PHA)T505 PUBL. 18.14 15.66 37.99 GAL R-F 60I
CAN.,QB,MILLER C(PHA)T804 PUBL. 18.15 15.66 37.98 GAL R-F 60I
CAN.,QB,MILLER C(PHA)T506 PUBL. 18.18 15.74 38.08 GAL R-F 60I

NORANDA AREA
2800 M.Y.
MASSIVE SULFIDE DEPOSIT

CAN.,QB,VAL D'OR(W)T-661UBC MTHYL-N 13.23 14.41 33.01 GAL K-F 65CJ
CAN.,QB,BARVUE (W)T-641UBC MTHYL-N 13.27 14.43 33.05 GAL K-F 65CJ
CAN.,QB,VAL D'OR(W)T-661 PUBL. 13.34 14.59 33.30 GAL R-F 60I
CAN.,QB,CHICO. (W)T-463 PUBL. 13.39 14.59 33.21 GAL R-F 60I
CAN.,QB,NORAN. (W)T-1005 PUBL. 13.39 14.57 33.18 GAL R-F 60I
CAN.,QB,MAC-D. (W)T-1004 PUBL. 13.45 14.70 33.27 GAL R-F 60I
CAN.,QB,BARVUE (W)T-641 PUBL. 13.43 14.67 33.44 GAL R-F 60I
CAN.,QB,ELDER (W)T-848 PUBL. 13.50 14.69 33.27 GAL R-F 60I
CAN.,QB,ELDER (W)T-677 PUBL. 13.55 14.72 33.46 GAL R-F 60I

3000MY-2630MY-1920MY:PROTOSOURCE-SOURCE-MINERALIZATION

MASSIVE SULFIDE DEPOSIT

CAN.,QB,QUEMONT (W)Q15-PO	PUBL.-N	13.91	14.60	33.69	ORE	C-G	73CJ
CAN.,QB,QUEMONT (W)Q15-CH	PUBL.-N	13.91	14.64	33.87	ORE	C-G	73CJ
CAN.,QB,QUEMONT (W)9825-PO	PUBL.-N	14.88	14.85	34.81	ORE	C-G	73CJ
CAN.,QB,QUEMONT (W)9825-PY	PUBL.-N	14.90	14.81	34.74	ORE	C-G	73CJ
CAN.,QB,QUEMONT (W)Q15-PY	PUBL.-N	14.94	14.81	35.12	ORE	C-G	73CJ
CAN.,QB,QUEMONT (W)Q45-PY	PUBL.-N	15.07	14.89	35.33	ORE	C-G	73CJ
CAN.,QB,QUEMONT (W)Q45-PO	PUBL.-N	15.95	15.05	36.13	ORE	C-G	73CJ
CAN.,QB,QUEMONT (W)12-1803CH	PUBL.-N	18.10	15.54	39.92	ORE	C-G	73CJ
CAN.,QB,QUEMONT (W)B.T.QUE.	PUBL.-N	21.30	16.19	44.63	GAL	C-G	73CJ

ANACON MINE
1400 M.Y.

CAN.,QB,ANACON (Y)T-214	PUBL.	16.40	15.47	36.04	GAL	R-F	60I
CAN.,QB,ANACON (Y)T-561	PUBL.	16.41	15.50	36.06	GAL	R-F	60I
CAN.,QB,ANACON (Y)T-559	PUBL.	16.46	15.56	36.19	GAL	R-F	60I
CAN.,QB,ANACON (Y)T-560	PUBL.	16.45	15.55	36.15	GAL	R-F	60I
CAN.,QB,ANACON (Y)T-408	PUBL.	16.70	15.59	36.34	GAL	R-F	60I

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IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION (AGE)SAMPLE NO.METHOD		206/204	207/204	208/204	TYPE	REFER.	
EUROPE							
AUSTRIA							
AUS.,,BLEIBERG(TRI)75WD-2	3FIL-N	18.371	15.661	38.517	GAL		
AUS.,,BLEIBERG(TRI)75WD-1	3FIL-N	18.378	15.672	38.557	GAL		
AUS.,,BLEIBERG(TRI)T575	PUBL.	18.38	15.80	38.46	GAL	R-F	60I
AUS.,,BLEIBERG(TRI)T586RUD.SP	PUBL.	18.45	15.79	38.45	GAL	R-F	60I
AUS.,,BLEIBERG(TRI)B1RULF S.	PUBL.	18.50	15.80	38.82	GAL	R-F	60I
AUS.,,BLEIBERG(TRI)B10RUDOLF	PUBL.	18.50	15.82	38.85	GAL	R-F	60I
AUS.,,BLEIBERG(TRI)B2RUDOLF	PUBL.	18.54	15.84	39.02	GAL	R-F	60I
AUS.,,BLEIBERG(TRI)B11ANTONI	PUBL.	18.54	15.85	39.00	GAL	R-F	60I

FINLAND

DATA LABELED KOUVO&VASSJ ARE LISTED THROUGH PERMISSION OF OLAVI KOUVO & MATTI VASSJOKI, GOLOGICAL SURVEY OF FINLAND, YEAR IS YEAR OF ANALYSIS

1600 M.Y.(VEINS IN RAPAKIVI AREAS)

FIN.,SW,TAIVASS.(X-Y)G63	GEL-N	15.968	15.388	35.540	GAL	KOUVO75X	
FIN.,W.,EURAJOKI(X-Y)G274	GEL-N	16.037	15.381	35.764	GAL	KOUVO75X	
FIN.,W.,EURAJOKI(X-Y)G260	GEL-N	16.067	15.403	35.724	GAL	KOUVO75X	
FIN.,W.,EURAJOKI(X-Y)G259	GEL-N	16.071	15.417	35.856	GAL	KOUVO75X	
FIN.,SE,KYMI (X-Y)G261	GEL-N	16.073	15.420	35.757	GAL	KOUVO75X	
FIN.,SE,ANJALA (X-Y)G141	GEL-N	16.251	15.441	35.742	GAL	KOUVO75X	
FIN.,SE,INKEROI.(X-Y)G62	GEL-N	16.334	15.471	35.840	GAL	KOUVO74X	
FIN.,SW,FINNST. (X-Y)G258	GEL-N	16.470	15.458	35.924	GAL	KOUVO75X	

FIN.,SE,LUUMAKI (X-Y)G3	GEL-N	19.052	15.766	38.776	GAL KOUVO74X
FIN.,SE,VIROJOKI(X-Y)G61A	GEL-N	19.346	15.793	38.821	GAL KOUVO75X
FIN.,SE,VIROJOKI(X-Y)G61B	GEL-N	19.521	15.816	39.007	GAL KOUVO75X
FIN.,SE,VIROJOKI(X-Y)G265B	GEL-N	19.540	15.817	39.028	GAL KOUVO75X
FIN.,SE,VIROJOKI(X-Y)G265A	GEL-N	19.686	15.835	39.071	GAL KOUVO75X
FIN.,SW,LO-OREN (X-Y)G250	GEL-N	21.222	16.037	40.153	GAL KOUVO75X
FIN.,SW,SILVERS.(X-Y)G257	GEL-N	21.676	16.112	40.385	GAL KOUVO75X

1800 M.Y.

FIN.,SW,KANKAAN.(X)G74	PBS-R	15.17	15.21	35.16	GAL KOUVO65X
FIN.,C.,KAIPOLA (X)G100	PBS-R	15.39	15.22	35.05	GAL KOUVO65X
FIN.,SW,KANKAAN.(X)G70	PBS-R	15.42	15.29	35.23	GAL KOUVO65X
FIN.,C.,HAMEENK.(X)G118	PBS-R	15.45	15.35	35.49	GAL KOUVO65X
FIN.,C.,TOHOLAM.(X)G95	GEL-N	15.452	15.198	35.006	GAL KOUVO75X
FIN.,C.,MUURAME (X)G98	PBS-R	15.47	15.22	34.98	GAL KOUVO65X
FIN.,C.,TOHOLAM.(X)G96	GEL-N	15.471	15.224	35.093	GAL KOUVO75X
FIN.,C.,SAARIJA.(X)G83	PBS-R	15.54	15.33	35.40	GAL KOUVO65X
FIN.,C.,VIITASA.(X)G15	GEL-N	15.561	15.279	35.148	GAL KOUVO75X
FIN.,C.,KURPILAH(X)G99	PBS-R	15.54	15.35	35.48	GAL KOUVO65X
FIN.,C.,PIHTIPUD(X)G109	PBS-R	15.50	15.29	35.20	GAL KOUVO65X
FIN.,C.,KURU (X)G45	PBS-R	15.57	15.37	35.54	GAL KOUVO65X
FIN.,C.,PIHTIPUD(X)G16	3FIL-N	15.577	15.287	35.164	GAL
FIN.,C.,SAARIJA.(X)G84	PBS-R	15.59	15.37	35.38	GAL KOUVO64X
FIN.,C.,SAARIJA.(X)G85	PBS-R	15.60	15.40	35.45	GAL KOUVO64X
FIN.,C.,KEURUU (X)G122	PBS-R	15.61	15.41	35.54	GAL KOUVO65X
FIN.,C.,JYVASKY.(X)G97	PBS-R	15.63	15.43	35.70	GAL KOUVO65X
FIN.,SW,LAMMI (X)G52	PBS-R	15.73	15.37	35.56	GAL KOUVO65X
FIN.,S.,PARILA (X)HELS.	PUBL.	15.76	15.48	35.63	GAL KOUVO62X
FIN.,SW,METSAMO.(X)KISKO	PUBL.	15.77	15.47	35.61	GAL KOUVO62X
FIN.,SW,ATTU (X)PARGAS	PUBL.	15.80	15.48	35.64	GAL KOUVO62X
FIN.,CW,KORSNAS (X)	PUBL.	15.81	15.47	35.65	GAL KOUVO62X
FIN.,SW,LOHJA (X)G159	PBS-R	15.81	15.49	35.60	GAL KOUVO68X
FIN.,SW,ORIJARVI(X)KISKO	PUBL.	15.82	15.50	35.67	GAL KOUVO62X
FIN.,SE,LEMI (X)G7	GEL-N	15.719	15.373	35.276	GAL KOUVO75X
FIN.,SE,PERNAJA (X)G266	GEL-N	15.802	15.388	35.364	GAL KOUVO75X
FIN.,SW,SOTTUNGA(X)G1B	GEL-N	22.016	16.149	39.075	GAL KOUVO75X
FIN.,SW,SOTTUNGS(X)G1A	GEL-N	22.204	16.176	38.988	GAL KOUVO75X

2000 M.Y.

FIN.,EC,PETROVA.(X)G28	PBS-R	14.79	15.00	34.34	GAL KOUVO61X
FIN.,EC,TOHMAJA.(X)G75	PBS-R	14.92	15.15	34.45	GAL KOUVO63X
FIN.,C.,KARSAMA.(X)G144	PBS-R	14.94	15.28	35.20	GAL KOUVO65X
FIN.,EC,TOHMAJA.(X)G82	PBS-R	15.01	15.22	35.00	GAL KOUVO65X
FIN.,EC,PATTIJOK(X)G27	PBS-R	15.02	15.11	34.91	GAL KOUVO61X
FIN.,WC,VIHANTI (X)G26A	PBS-R	15.08	15.24	35.31	GAL KOUVO61X
FIN.,C.,KEITELE (X)G57	PBS-R	15.11	15.11	34.68	GAL KOUVO64X
FIN.,WC,VIHANTI (X)G91	PBS-R	15.11	15.15	34.98	GAL KOUVO64X
FIN.,C.,PYHASAL.(X)G258	3FIL-N	15.111	15.147	34.835	GAL
FIN.,EC,PIELAVES(X)G106	PBS-R	15.12	15.15	34.86	GAL KOUVO65X
FIN.,WC,VIHANTI (X)G89	PBS-R	15.14	15.18	34.84	GAL KOUVO64X
FIN.,C.,KEITELE (X)G58B	PBS-R	15.18	15.25	35.04	GAL KOUVO64X
FIN.,C.,RUNKAUS.(X)G153	PBS-R	15.18	15.46	35.60	GAL KOUVO68X
FIN.,WC,VIHANTI (X)G26B	PBS-R	15.20	15.29	35.54	GAL KOUVO61X
FIN.,WC,VIHANTI (X)G87	PBS-R	15.20	15.32	35.43	GAL KOUVO64X
FIN.,C.,HYRYNSA.(X)G149	PBS-R	15.20	15.41	35.30	GAL KOUVO68X
FIN.,EC,PIELAVS (X)G147	PBS-R	15.21	15.30	34.91	GAL KOUVO65X

FIN,,C,,KEITELE (X)G58A	PBS-R	15.22	15.27	35.16	GAL KOUVO64X
FIN,,WC,VIHANTI (X)G92	PBS-R	15.25	15.30	35.33	GAL KOUVO64X
FIN,,WC,VIHANTI (X)G93	PBS-R	15.25	15.33	35.43	GAL KOUVO64X
FIN,,EC,PALTAMO (X)G152	PBS-R	15.27	15.43	35.45	GAL KOUVO66X
FIN,,N,,KITTILA (X)G121	PBS-R	15.28	15.29	35.32	GAL KOUVO65X
FIN,,WC,VIHANTI (X)G90	PBS-R	15.28	15.34	35.35	GAL KOUVO64X
FIN,,EC,PYHASELK(X)G41	PBS-R	15.29	15.33	35.06	GAL KOUVO65X
FIN,,WC,VIHANTI (X)G86	PBS-R	15.29	15.34	35.50	GAL KOUVO64X
FIN,,WC,VIHANTI (X)G129	PBS-R	15.29	15.40	35.72	GAL KOUVO65X
FIN,,WC,YLI-II (X)G128	PBS-R	15.32	15.66	35.86	GAL KOUVO65X

2200 M.Y.

FIN,,EC,OUTOKUM,(X)G30A	3FIL-N	14.731	15.016	34.476	GAL
FIN,,EC,OUTOKUM,(X)1/KD5B	GEL-N	16.254	15.268	36.482	PY VASSJ75X
FIN,,EC,OUTOKUM,(X)KA4	GEL-N	16.294	15.339	35.186	PY VASSJ75X
FIN,,EC,OUTOKUM,(X)KD5A	GEL-N	16.316	15.291	35.568	PY VASSJ75X
FIN,,EC,OUTOKUM,(X)MDP	GEL-N	17.468	15.368	35.324	PY VASSJ75X
FIN,,EC,OUTOKUM,(X)1/KBP2A	GEL-N	18.007	15.450	35.425	PY VASSJ75X

FRANCE

STRATIFORM DEPOSITS IN THE SOUTH OF THE CENTRAL MASSIF

FRA,,CM, (MES)ST.SEDAS.PUBL.	18.57	15.69	39.11	GAL LSA 71F
FRA,,CM, (MES)FIGEAC PUBL.	18.66	15.79	39.29	GAL LSA 71F
FRA,,CM, (MES)BEZ,ESPARPUBL.	18.38	15.65	38.85	GAL LSA 71F
FRA,,CM, (MES)PAYS BUEGPUBL.	18.36	15.60	39.76	GAL LSA 71F
FRA,,CM,MALINES (MES)TB330 PUBL.	18.31	15.65	38.47	GAL LSA 71F
FRA,,CM,MALINES (MES)0016 PUBL.	18.29	15.65	38.37	GAL LSA 71F

GERMANY

PHANEROZOIC

GER,,NW,HELPUP (TRI)TROCHITE,PUBL.	18.72	15.75	38.49	GAL LENZ 72T
GER,,NW,KULF (TRI)TROCHITE,PUBL.	18.34	15.28	38.05	GAL LENZ 72T
GER,,E,,SREMB, (PER)11AVG. PUBL.	18.28	15.75	38.50	GAL KBZC 64T
GER,,E,,MANSFELD(PER)9AVG. PUBL.	18.17	15.80	38.37	GAL KBZC 64T
GER,,W,,ZECH/KAR(PER)7AVG. PUBL.	18.15	15.58	38.17	GAL LENZ 72T
GER,,NW,HUGGEL (PER)662ZECHS,PUBL.	18.10	15.40	37.68	GAL LENZ 72T
GER,,NW,SCHAFBE,(PER)629ZECHS,PUBL.	18.19	15.58	38.06	GEL LENZ 72T
GER,,NW,DEBLING,(PER)5118ZECH,PUBL.	18.38	15.68	38.46	GEL LENZ 72T
GER,,NW,IBBENBU,(PER)5088ZECH,PUBL.	18.40	15.64	38.28	GEL LENZ 72T
GER,,NW,REHDEN15(PER)5090K/Z PUBL.	18.28	15.58	38.23	GAL LENZ 72T
GER,,NW,HOYA Z1 (PER)5089KARB,PUBL.	18.16	15.56	38.27	GAL LENZ 72T
GER,,NW,BOCKRAD,(PER)607KARBO,PUBL.	18.26	15.64	38.20	GAL LENZ 72T
GER,,LA,RAMSBECK(CAR)74W-1	3FIL-N	18.233	15.617	38.196	GAL
GER,,LA,BAD GRUN(DEV)74W-2	3FIL-N	18.459	15.636	38.504	GAL

RAMMELSBERG

GER,,HZ,RAMMELSB(DEV)241157	3FIL-N	18.242	15.611	38.195	GAL
GER,,HZ,RAMMELSB(DEV)24159	3FIL-N	18.257	15.629	38.215	GAL

GER,,HZ,PAMMELSB(DEV)1W74G		3FIL-N	18.233	15.609	38.171	GAL	
GER,,HZ,RAMMELSB(DEV)G-17		PUBL.	18.13	15.58	38.20	GAL R-F	60I
GER,,HZ,RAMMELSB(DEV)G-16		PUBL.	18.17	15.57	38.22	GAL R-F	60I
GER,,WU,MEGGEN	(DEV)75W-3	3FIL-N	18.197	15.606	38.123	GAL	
GER,,WU,MEGGEN	(DEV)G-24	PUBL.	18.37	15.70	38.60	GAL R-F	60I
GER,,WU,MEGGEN	(DEV)G-2	PUBL.	18.38	15.68	38.49	GAL R-F	60I
GER,,WU,MEGGEN	(DEV)B-3	PUBL.	18.42	15.74	38.62	GAL R-F	60I

GREAT BRITAIN

PERMIAN?

G,B,,SC,N.PENN,	(PHA)	PUBL.	18.20	15.54	38.15	GAL	MOOR62RS

GREECE

MESOZOIC-CENOZOIC

GRE,,LA,ZN MINES	(M-C)C61	PUBL.	18.80	15.67	38.99	GAL R-F	60I
GRE,,LA,PLAKA	(M-C)853-110B	3FIL-N	18.820	15.658	38.774	GAL	BSMB75AC
GRE,,LA,KAMARISA	(M-C)863-135A	3FIL-N	18.822	15.663	38.760	GAL	BSMB75AC
GRE,,LA,PLAKA	(M-C)851-145B	3FIL-N	18.831	15.657	38.799	GAL	BSMB75AC
GRE,,LA,PLAKA	(M-C)852-110A	3FIL-N	18.831	15.663	38.802	GAL	BSMB75AC
GRE,,LA,PLAKA	(M-C)855-110B	3FIL-N	18.832	15.669	38.864	GAL	BSMB75AC
GRE,,LA,ESPERAN.	(M-C)854-96A	3FIL-N	18.833	15.671	38.816	GAL	BSMB75AC
GRE,,LA,KAMARISA	(M-C)864-135B	3FIL-N	18.842	15.670	38.803	GAL	BSMB75AC
GRE,,LA,ESPERAN.	(M-C)856-103A	3FIL-N	18.846	15.670	38.823	OX	BSMB75AC
GRE,,LA,PLAKA	(M-C)862-80B	3FIL-N	18.849	15.683	38.855	OX	BSMB75AC
GRE,,LA,PLAKA	(M-C)861-135A	3FIL-N	18.850	15.671	38.813	OX	BSMB75AC
GRE,,LA,ESPERAN.	(M-C)857-103B	3FIL-N	18.851	15.671	38.845	OX	BSMB75AC
GRE,,LA,PLAKA	(M-C)858-85A	3FIL-N	18.857	15.674	38.838	GAL	BSMB75AC
GRE,,LA,KAMARISA	(M-C)866-104A	3FIL-N	18.864	15.673	38.820	GAL	BSMB75AC
GRE,,LA,PLAKA	(M-C)850-145A	3FIL-N	18.866	15.683	38.864	GAL	BSMB75AC
GRE,,LA,PLAKA	(M-C)859-85B	3FIL-N	18.874	15.673	38.863	GAL	BSMB75AC
GRE,,LA,KAMARISA	(M-C)865-135C	3FIL-N	18.875	15.698	38.844	GAL	BSMB75AC
GRE,,LA,PLAKA	(M-C)860-85C	3FIL-N	18.877	15.686	38.882	GAL	BSMB75AC
GRE,,LA,	(PHA)T552	PUBL.	18.99	15.90	39.13	GAL R-F	60I

HUNGARY

PHANEROZOIC

HUN,, ,SCHEMNI,	(PHA)C31	PUBL.	18.96	15.73	39.27	GAL R-F	60I

KUPFERSCHIEFER MARL SLATE

PERMIAN

G,B,,SC,KUPFER,	(PER)THICKKY Q3	3FIL-N	18.245	15.572	38.255	GAL	
GER,,HZ,KUPFER,	(PER)HUGGEL	3FIL-N	18.247	15.603	38.274	GAL	
GER,, ,KUPFER,	(PER)LINSBURG	3FIL-N	18.277	15.605	38.270	GAL	
GER,, ,KUPFER,	(PER)HUNDELSH	3FIL-N	18.339	15.607	38.298	GAL	
GER,, ,KUPFER,	(PER)MANSFELD	3FIL-N	18.353	15.620	38.370	GAL	
DDR , ,KUPFER,	(PER)803	3FIL-N	18.374	15.614	38.367	GAL	
GER,, ,KUPFER,	(PER)WAIKENRIE	3FIL-N	18.437	15.621	38.362	GAL	
GER,, ,KUPFER,	(PER)GELSTERTA	3FIL-N	18.453	15.627	38.494	GAL	
DDR , ,KUPFER,	(PER)293	3FIL-N	18.535	15.628	38.521	GAL	
HOLL, ,KUPFER,	(PER)C2-S2C	3FIL-N	18.585	15.615	38.467	SED	
POL,, ,KUPFER,	(PER)RIDGE	GEL-N	18.790	15.620	38.417	ORE	

NORWAY

PRECAMBRIAN

NOR,,AA,ETTEDAL,(X-Y)N1	PUBL.	15.79	14.99	34.71	GAL M-V 63NG	
NOR,,FI,JAKOFSE,(Y)N3	PUBL.	16.91	15.25	36.68	GAL M-V 63NG	
NOR,,TE,N.BYGST,(Y)N2	PUBL.	16.98	15.28	36.08	GAL M-V 63NG	
NOR,,OF,NIINGEN (Z?)N16	PUBL.	17.52	15.49	36.96	GAL M-V 63NG	
NOR,,NT,L.TROMS,(Z?)N4	PUBL.	17.78	15.37	37.29	GAL M-V 63NG	
NOR,,OF,VILLDAL,(Z?)N15	PUBL.	17.80	15.64	37.55	GAL M-V 63NG	
NOR,,OF,DJUPVIK (Z?)N17	PUBL.	17.98	15.85	38.16	GAL M-V 63NG	

PHANEROZOIC

NOR,,ND,RAVNASEN(PHA)N5	PUBL.	18.02	15.51	37.47	GAL M-V 63NG	
NOR,,ND,MOFJELL (PHA)N6	PUBL.	18.04	15.47	37.73	GAL M-V 63NG	
NOR,,SU,JAKOBSB,(PHA)N7	PUBL.	18.11	15.54	37.81	GAL M-V 63NG	
NOR,,ND,KIRKERO,(PHA)N11	PUBL.	18.18	15.46	37.77	GAL M-V 63NG	
NOR,,GR,MUTTA (PHA)N27	PUBL.	18.22	15.49	38.18	GAL M-V 63NG	
NOR,,HA,KRAEKKJ,(PHA)N18	PUBL.	18.29	15.54	37.62	GAL M-V 63NG	
NOR,,FI,GURROGA,(PHA)N25	PUBL.	18.30	15.73	38.39	GAL M-V 63NG	
NOR,,TR,MOSBERG,(PHA)N9	PUBL.	18.35	15.71	38.15	GAL M-V 63NG	
NOR,,ND,BLEIKVA,(PHA)N10B	PUBL.	18.38	15.51	37.95	GAL M-V 63NG	
NOR,,GR,SKJERPE,(PHA)N26	PUBL.	18.43	15.63	38.48	GAL M-V 63NG	
NOR,,ND,BLEIKVA,(PHA)N10A	PUBL.	18.45	15.56	38.03	GAL M-V 63NG	
NOR,,ND,BLEIKVA,(PHA)N10C	PUBL.	18.46	15.51	37.92	GAL M-V 63NG	
NOR,,BA,BJORKAS,(PHA)N8	PUBL.	18.48	15.77	38.39	GAL M-V 63NG	
NOR,,DR,DALEN (PHA)N28	PUBL.	18.53	15.50	37.96	GAL M-V 63NG	
NOR,,ND,HUSVIK (PHA)N12	PUBL.	18.54	15.56	38.10	GAL M-V 63NG	
NOR,,LI,BO (PHA)N29	PUBL.	18.62	15.52	38.01	GAL M-V 63NG	
NOR,,ND,MALMHAU,(PHA)N13	PUBL.	18.69	15.59	38.04	GAL M-V 63NG	
NOR,,ND,SVENNIN,(PHA)N14	PUBL.	19.12	15.70	38.09	GAL M-V 63NG	
NOR,,FE,TUFSING,(PHA)N20	PUBL.	20.00	15.69	39.08	GAL M-V 63NG	
NOR,,MJ,BRASTAD,(PHA)N22	PUBL.	20.37	15.68	39.17	GAL M-V 63NG	
NOR,,OS,DALBO (PHA)N19	PUBL.	20.69	15.75	39.54	GAL M-V 63NG	
NOR,,KO,GOT,HUL,(PHA)N31	PUBL.	20.70	15.82	39.42	GAL M-V 63NG	
NOR,,KO,BRATTES,(PHA)N32	PUBL.	20.98	15.81	39.67	GAL M-V 63NG	
NOR,,EN,LOVBEKK,(PHA)N21	PUBL.	21.29	15.68	40.03	GAL M-V 63NG	
NOR,,KO,KRONLOK,(PHA)N30	PUBL.	21.38	15.69	39.21	GAL M-V 63NG	
NOR,,BM,TRAK (PHA)N33	PUBL.	21.67	15.73	39.55	GAL M-V 63NG	
NOR,,NR,KATTERA,(PHA)N24	PUBL.	22.89	15.98	42.36	GAL M-V 63NG	

POLAND

PHANEROZOIC

POL,, , (PHA)VA-P1	3FIL-N	18.280	15.609	38.271	GAL	
POL,, , (PHA)OK-P3	3FIL-N	18.405	15.613	38.404	GAL	
POL,, , (PHA)MR-P-2	3FIL-N	18.406	15.599	38.410	GAL	
POL,, , (PHA)WR-P9	3FIL-N	18.412	15.619	38.412	GAL	
POL,, , (PHA)SIEWIERZ	3FIL-N	18.415	15.627	38.421	GAL	
POL,, , (PHA)CL-P1	3FIL-N	18.419	15.625	38.424	GAL	
POL,, , (PHA)BR-P-6	3FIL-N	18.422	15.609	38.417	GAL	
POL,, , (PHA)MA-P-4	3FIL-N	18.423	15.613	38.424	GAL	
POL,, , (PHA)TR-P25	3FIL-N	18.425	15.611	38.426	GAL	
POL,, , (PHA)ZAWIERCIE	3FIL-N	18.427	15.634	38.434	GAL	
POL,, , (PHA)NOD-P-2	3FIL-N	18.438	15.615	38.434	GAL	
POL,, , (PHA)CO-P1	3FIL-N	18.444	15.619	38.418	GAL	
POL,,SI,FRIEDRI,(PHA)B8	PUBL.	18.60	15.79	38.98	GAL R-F 60I	

RUMANIA
PHANEROZOIC

RUMA,CA,BAIA SP.(PHA)B13	PUBL.	19.03	15.85	39.37	GAL R-F 60I
RUMA,CA,HERJA (PHA)B15	PUBL.	19.05	15.90	39.49	GAL R-F 60I

SOVIET-UNION

DATA LABELED KOUVO ARE LISTED THROUGH PERMISSION OF OLAVI KOUVO, GOLOGICAL SURVEY OF FINLAND, YEAR IS YEAR OF ANALYSIS

1600 M.Y.

SOV.,SK,HOGLAND (X-Y)G272	GEL-N	15.908	15.367	35.383	GAL KOUVO75X
SOV.,SK,SAKKIJA.(X-Y)G2	GEL-N	19.171	15.783	38.796	GAL KOUVO75X

2000 M.Y.(KARELIAN)

SOV.,SK,PITKARA.(X)G29B	PBS-R	14.73	14.88	34.51	GAL KOUVO64X
SOV.,SK,LEPPASE.(X)G69	PBS-R	14.77	15.13	34.92	GAL KOUVO64X
SOV.,SK,SORTAVA.(X)G113	PBS-R	14.78	15.16	34.93	GAL KOUVO64X
SOV.,SK,PITKARA.(X)G29C	PBS-R	14.79	15.01	34.72	GAL KOUVO64X
SOV.,SK,PITKARA.(X)G29A	PBS-R	14.84	14.92	34.66	GAL KOUVO64X

SPAIN
PHANEROZOIC

SPAI,JA,L.CAROL.(PHA)C105B	PUBL.	18.21	15.62	38.49	GAL R-F 60I
SPAI, ,HUELVA (PHA)C106	PUBL.	18.27	15.59	38.40	GAL R-F 60I
SPAI,JA,L.CAROL.(PHA)C105A	PUBL.	18.27	15.65	38.72	GAL R-F 60I
SPAI,JA,L.CAROL.(PHA)C107	PUBL.	18.35	15.72	38.80	GAL R-F 60I
SPAI, ,HORNACH.(PHA)T330	PUBL.	18.39	16.03	38.76	GAL R-F 60I

SWEDEN

PHANEROZOIC(?)

SWED, ,VASSBO (PHA)S2	PUBL.	20.79	15.78	39.58	GAL M-V 63NG
SWED,LP,LAISVALL(PHA)T937	PUBL.	20.89	16.04	39.96	GAL R-F 60I
SWED, ,NASAFJE.(PHA)N23	PUBL.	20.93	15.76	39.52	GAL M-V 63NG
SWED,LP,LAISVALL(PHA)S1	PUBL.	21.27	15.93	39.69	GAL M-V 63NG
SWED,SE,ERSTAVIK(PHA)T939	PUBL.	21.37	16.04	40.45	GAL R-F 60I
SWED,VA,MORO (PHA)T940	PUBL.	25.16	16.51	41.64	GAL R-F 60I

PRECAMBRIAN

SWED,VA,HORNTRA.(X?)T944	PUBL.	15.35	15.31	34.92	GAL R-F 60I
SWED,VA,VINDELG.(X?)T945	PUBL.	15.41	15.29	34.97	GAL R-F 60I
SWED, ,LANGBAN (X?)M22	PUBL.	15.83	15.45	35.60	GAL R-F 60I
SWED, ,LANGBAN (X?)C137	PUBL.	15.84	15.55	35.68	GAL R-F 60I
SWED,DA,HILLANG (X?)T943	PUBL.	15.89	15.59	35.27	GAL R-F 60I
SWED,VS,KAVELTO.(X?)T942	PUBL.	15.89	15.61	35.43	GAL R-F 60I
SWED, ,FAHLUN (X?)C148	PUBL.	15.89	15.61	35.86	GAL R-F 60I
SWED,SM,GLADHAM.(X?)T941	PUBL.	15.93	15.46	35.31	GAL R-F 60I
SWED,VS,SALA (X?)T938	PUBL.	16.01	15.71	35.59	GAL R-F 60I

YUGOSLAVIA
PHANEROZOIC

YUGO,	,TREPCA	(PHA)C59	PUBL.	18.75	15.64	39.17	GAL R-F	60I
YUGO,	,TREPCA	(PHA)B12	PUBL.	18.92	15.86	39.35	GAL R-F	60I

IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION	(AGE)SAMPLE NO.	METHOD	206/204	207/204	208/204	TYPE	REFER.

GREENLAND

IVIGTUT/LAXEBUNDEN, SOUTHERN GREENLAND, CRYOLITIC PEGMATITES
>2980MY PROTOSOURCE - 1880-1100MY SOURCE - <1100MY MINERALIZATION

GRNL,S.,IVIGTUT	(Y?)NBS200	MTHYL-N	14.61	14.68	34.53	GAL K-S	64A
GRNL,S.,IVIGTUT	(Y?)UBC260	MTHYL-N	14.60	14.68	34.55	GAL K-S	64A
GRNL,S.,IVIGTUT	(Y?)UBC261	MTHYL-N	14.59	14.66	34.50	GAL K-S	64A
GRNL,S. IVIGTUT	(Y?)UBC262	MTHYL-N	14.62	14.69	34.58	GAL K-S	64A
GRNL,S.,IVIGTUT	(Y?)UBC264	MTHYL-N	14.58	14.67	34.52	GAL K-S	64A
GRNL,S.,IVIGTUT	(Y?)UBC265	MTHYL-N	14.61	14.68	34.54	GAL K-S	64A
GRNL,S.,IVIGTUT	(Y?)UWO-1	MTHYL-N	14.60	14.68	34.52	CRY U	64A
GRNL,S.,IVIGTUT	(Y?)UWO-20RE	MTHYL-N	14.87	14.71	34.84	GRA U	64A
GRNL,S.,IVIGTUT	(Y?)UWO-4	MTHYL-N	14.78	14.70	34.79	PY U	64A
GRNL,S.,IVIGTUT	(Y?)UWO-6	MTHYL-N	14.64	14.69	34.59	PY U	64A
GRNL,S.,LAXEBUN.	(Y?)UWO21	MTHYL-N	15.58	14.99	35.38	GAL U	64A

MEXICO
MESOZOIC-CENOZOIC

MEX.,ZA,FRESNILL	(M-C)GS-18-71	3FIL-N	18.832	15.641	38.771	GAL	
MEX.,ZA,FRESNILL	(M-C)GS-17-71	3FIL-N	18.840	15.646	38.778	GAL	
MEX.,ZA,PROVIDEN	(CEN)S236SALA.	PBS-R	18.84	15.91	39.54	GAL	
MEX.,ZA,PROVIDEN	(CEN)HU364Z W.	PPS-R	18.88	15.93	39.61	GAL	
MEX., ,TAXCO	(CEN)GUERRERO	PBS-R	18.91	15.86	39.47	GAL	
MEX., ,TAXCO	(CEN)JESUS	PBS-R	18.91	15.87	39.46	GAL	
MEX.,ZA,PROVIDEN	(CEN)S1RANIMAS	PBS-R	18.91	15.97	39.75	GAL	
MEX., ,TAXCO	(CEN)S.ANTONIO	PBS-R	18.93	15.88	39.42	GAL	
MEX.,HI,PACHUCA	(CEN)270M.VETA	PBS-R	18.96	15.91	39.52	GAL	
MEX., ,TAXCO	(CEN)PEDREGAL	PBS-R	18.97	15.93	39.68	GAL	
MEX.,HI,ZIMAPAN	(CEN)LT90PS	PBS-R	18.98	15.87	39.48	GAL	
MEX.,HI,ZIMAPAN	(CEN)120G LOMO	PBS-R	18.98	15.89	39.57	GAL	
MEX.,HI,ZIMAPAN	(CEN)90G LOMO	PBS-R	18.99	15.88	39.51	GAL	
MEX.,HI,ZIMAPAN	(CEN)VAQUERO	PBS-R	19.00	15.88	39.51	GAL	
MEX.,HI,PACHUCA	(CEN)M.TIRO H.	PBS-R	19.00	15.93	39.61	GAL	
MEX.,HI,PACHUCA	(CEN)500M.ESP.	PBS-R	19.01	15.99	39.83	GAL	
MEX.,HI,ZIMAPAN	(CEN)LT90C LOMP	BS-R	19.02	15.94	39.67	GAL	
MEX.,HI,PACHUCA	(CEN)500M.VETA	BS-R	19.02	16.01	39.83	GAL	
MEX.,HI,ZIMAPAN	(CEN)BALCONES	PBS-R	19.03	15.93	39.66	GAL	
MEX.,HI,ZIMAPAN	(CEN)LT0SG LOMP	BS-R	19.04	15.97	39.76	GAL	

NEW ZEALAND
MESOZOIC-CENOZOIC

N.Z.,NI,WAIOR.	(CEN)PB217	DBL.SP.	18.81	15.62	38.71	GAL C-R	69C
N.Z.,NI,U.PETO.	(CEN)PB214	DBL.SP.	18.81	15.63	38.71	GAL C-R	69C

N.Z.,NI,L.PETO. (CEN)PB215	DBL.SP.	18.81	15.64	38.73	GAL C-R	69C	
N.Z.,NI,TUI (CEN)PB219	DBL.SP.	18.82	15.63	38.71	GAL C-R	69C	
N.Z.,NI,TUI (CEN)PB220	DBL.SP.	18.82	15.64	38.73	GAL C-R	69C	
N.Z.,NI,STON.B. (CEN)PB216	DBL.SP.	18.91	15.65	38.82	GAL C-R	69C	
N.Z.,NI,SURRY (CEN)PB218	DBL.SP.	18.94	15.67	38.88	GAL C-R	69C	
N.Z., ,BROADLAN(REC)P37071	3FIL-R	18.834	15.625	38.713	GAL		
N.Z., ,BROADLAN(REC)P37204	3FIL-R	18.966	15.640	38.836	GAL		

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IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION (AGE)SAMPLE NO.METHOD	206/204	207/204	208/204	TYPE	REFER.
SOUTH AMERICA					
BOLIVA					
MESOZOIC-CENOZOIC					
BOLI, ,QUIMSA C.(CEN)SZ422 PBS-R	19.09	16.04	40.25	GAL	
PERU					
CENOZOIC					
PERU,SC,CAUDALOS(CEN)72S220 3FIL-N	18.628	15.618	38.629	GAL	
PERU,NC,P.BUENO (CEN)AVG.5 GALGEL-N	18.827	15.671	38.882	GAL L-S	74X
PERU,C.,CASAPULC(CEN)68S17 3FIL-N	18.822	15.649	38.871	GAL	

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FFFFFFFFFFFFFFFF    UUU         UUU     EEEEEEEEEEEEEEEE     LLL                 CCCCCCCCCCCC
FFFFFFFFFFFFFFFF    UUU         UUU     EEEEEEEEEEEEEEEE     LLL                 CCCCCCCCCCCC
FFF                 UUU         UUU     EEE                  LLL             CCC
FFF                 UUU         UUU     EEE                  LLL             CCC
FFF                 UUU         UUU     EEE                  LLL             CCC
FFF                 UUU         UUU     EEE                  LLL             CCC
FFF                 UUU         UUU     EEE                  LLL             CCC
FFF                 UUU         UUU     EEE                  LLL             CCC
FFFFFFFFFFFF        UUU         UUU     EEEEEEEEEEEE         LLL             CCC
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FFF                 UUU         UUU     EEE                  LLL             CCC
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FFF                 UUU         UUU     EEE                  LLL             CCC
FFF                 UUU         UUU     EEE                  LLL             CCC
FFF                 UUU         UUU     EEE                  LLL             CCC
FFF                 UUUUUUUUUUUUUUU     EEEEEEEEEEEEEEEE     LLLLLLLLLLLLLLLL    CCCCCCCCCCCC
FFF                 UUUUUUUUUUUUUUU     EEEEEEEEEEEEEEEE     LLLLLLLLLLLLLLLL    CCCCCCCCCCCC
FFF                 UUUUUUUUUUUUUUU     EEEEEEEEEEEEEEEE     LLLLLLLLLLLLLLLL    CCCCCCCCCCCC


LLL                     IIIIIIIII       DDDDDDDDDDD
LLL                     IIIIIIIII       DDDDDDDDDDDD
LLL                     IIIIIIIII       DDDDDDDDDDDD
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LLL                        III          DDD         DDD
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LLL                        III          DDD         DDD
LLL                        III          DDD         DDD
LLL                        III          DDD         DDD
LLL                        III          DDD         DDD
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LLLLLLLLLLLLLLLL        IIIIIIIII       DDDDDDDDDDDD
LLLLLLLLLLLLLLLL        IIIIIIIII       DDDDDDDDDDDD
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LPTSPL VERSION 6(350) RUNNING ON LPT100
 START USER DOE B. [622,104] JOB IGCO SEQ. 979 DATE 22-DEC-75 10:19:15 MONITOR USGS DECSYSTEM10 ANF602 *START*
REQUEST CREATED: 22-DEC-75 10:19:15
FILE: DSKB2:FUELC.LID[622,104] CREATED: 01-DEC-75 11:04:00 <157> PRINTED: 22-DEC-75 10:24:16
QUEUE SWITCHES: /PRINT:ARROW /FILE:ASCII /COPIES:1 /SPACING:1 /LIMIT:509 /FORMS:NORMAL

FUELS, COAL(FUELC,LID) (15 MARCH 1975)

IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM THE LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION	(AGE)SAMPLE NO,METHOD	206/204	207/204	208/204	TYPE	REFER,
EASTERN PROVINCE(PENNSYLVANIA REGION), PENN, AGE(WESTPHALIAN)						
U.S.,PA,ASHLEY	(PEN)USBM-1	PUBL.	18.64	15.68	38.64	COA C-E 72S
U.S.,PA,JEDDO	(PEN)USBM-2	PUBL.	18.82	15.72	38.80	COA C-E 72S
U.S.,PA,TREVORTO	(PEN)USBM-3	PUBL.	18.82	15.68	38.81	COA C-E 72S
U.S.,PA,ST. NICH	(PEN)USBM-4	PUBL.	18.79	15.67	38.76	COA C-E 72S
EASTERN PROVINCE(APPALACHIAN REGION), PENN, AGE(WESTPHALIAN)						
U.S.,WV,MINGO	(PEN)C-E 27	PUBL.	18.90	15.64	38.76	COA C-E 72S
U.S.,WV,WYOMING	(PEN)C-E 29	PUBL.	19.04	15.71	38.62	COA C-E 72S
U.S.,WV,WYOMING	(PEN)C-E 33	PUBL.	19.08	15.78	39.01	COA C-E 72S
U.S.,VA,BUCHANAN	(PEN)C-E 36	PUBL.	19.11	15.64	38.58	COA C-E 72S
INTERIOR PROVINCE(EASTERN REGION), PENN, AGE(WESTPHALIAN)						
U.S.,IL,FULTON	(PEN)C-E 62	PUBL.	18.64	15.76	38.77	COA C-E 72S
U.S.,KY,HOPKINS	(PEN)C-E 68	PUBL.	19.72	15.75	38.74	COA C-E 72S
U.S.,KY,HOPKINS	(PEN)C-E 70	PUBL.	19.40	16.05	39.47	COA C-E 72S
INTERIOR PROVINCE(WESTERN REGION), PENN, AGE(WESTPHALIAN)						
U.S.,OK,CRAIG	(PEN)C-E 81	PUBL.	18.55	15.69	38.69	COA C-E 72S
U.S.,KS,CRAWFORD	(PEN)C-E 83	PUBL.	18.52	15.66	38.48	COA C-E 72S
U.S.,OK,HASKELL	(PEN)C-E 87	PUBL.	19.05	15.69	38.81	COA C-E 72S
NORTHERN GREAT PLAINS PROV.(BIGHORN BASIN REGION), PALEOCENE AGE						
U.S.,MT,CARBON	(TER)C-E101	PUBL.	17.64	15.67	37.53	COA C-E 72S
ROCKY MOUNTAIN PROV.(UINTA REGION), CRETACEOUS AGE(CAMPANIAN)						
U.S.,UT,CARBON	(TER)C-E112	PUBL.	18.77	15.69	38.82	COA C-E 72S
U.S.,UT,CARBON	(TER)C-E113	PUBL.	18.80	15.71	38.79	COA C-E 72S
ROCKY MOUNTAIN PROV.(SAN JUAN R. REGION), CRETACEOUS AGE(CAMPANIAN)						
U.S.,NM,SAN JUAN	(CRE)C-E121	PUBL.	18.78	15.78	39.07	COA C-E 72S
, CRETACEOUS AGE(CONIACIAN)						
U.S.,NM,MCKINLEY	(CRE)C-E125	PUBL.	19.12	15.65	38.96	COA C-E 72S
, JURASSIC AGE						
CAN.,AL,COLEMAN	(JUR)C-E113	PUBL.	19.13	15.65	38.64	COA C-E 72S
PACIFIC COAST PROVINCE, EOCENE AGE						
U.S.,CA,AMADOR	(TER)C-E137	PUBL.	19.24	15.89	39.38	COA C-E 72S

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FFF               UUU         UUU     EEE                   LLL             GGG
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FFF               UUU         UUU     EEE                   LLL             GGG
FFF               UUU         UUU     EEE                   LLL             GGG
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FFF               UUUUUUUUUUUUUUUU    EEEEEEEEEEEEEEEE      LLLLLLLLLLLLLLLL      GGGGGGGGG

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LLL                  IIIIIIIII        DDDDDDDDDDDD
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LLL                     III           DDD         DDD
LLL                     III           DDD         DDD
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LLL                     III           DDD         DDD
LLL                     III           DDD         DDD
LLLLLLLLLLLLLLLL     IIIIIIIII        DDDDDDDDDDDD
LLLLLLLLLLLLLLLL     IIIIIIIII        DDDDDDDDDDDD
LLLLLLLLLLLLLLLL     IIIIIIIII        DDDDDDDDDDDD
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LPTSPL VERSION 6(350)  RUNNING ON LPT100
 *START* USER DOE B. [622,104] JOB  IGCO SEQ. 979 DATE 22-DEC-75 10:19:15 MONITOR USG5 DECSYSTEM10 ANF602 *START*
REQUEST CREATED: 22-DEC-75  10:19:15
FILE: DSKB2:FUELG,LID[622,104] CREATED: 01-DEC-75 11:03:00 <157>  PRINTED: 22-DEC-75 10:24:13
QUEUE SWITCHES:  /PRINT:ARROW /FILE:ASCII /COPIES:1 /SPACING:1 /LIMIT:510 /FORMS:NORMAL
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FUEL, GASOLINE AND AEROSOLS(FUELG,LID) (18 MARCH 1975)

IF NO REFERENCE IS LISTED, PERMISSION TO CITE MUST BE OBTAINED FROM THE LEAD ISOTOPES AND ORE DEPOSITS PROJECT

LOCATION	(AGE)	SAMPLE NO.	METHOD	206/204	207/204	208/204	TYPE	REFER.
GASOLINES								
U.S., ,WILSHIRE	(0)	GAS-D	PUBL.	18.14	15.63	38.02	GAS C-J	65S
U.S., ,WILSHIRE	(0)	GAS-REG.	PUBL.	18.10	15.66	38.10	GAS C-J	65S
U.S., ,DOUGLAS	(0)	GAS	PUBL.	18.05	15.67	38.04	GAS C-J	65S
U.S., ,STD.OIL	(0)	GAS	PUBL.	17.92	15.69	37.93	GAS C-J	65S
U.S., ,SHELL O.	(0)	GAS-REG.	PUBL.	17.38	15.59	37.38	GAS C-J	65S
AEROSOLS AND OTHER ATMOSPHEREIC SOURCES								
U.S.,CA,L.A.	(0)	AEROSOLS	PUBL.	18.04	15.63	38.01	AER C-J	65S
U.S.,CA,LASSEN	(0)	SNOW	PUBL.	18.01	15.74	38.40	SNO T-M	63N
U.S., ,TETRA-	(0)	ETHYL PB	PUBL.	18.69	15.52	38.30	CHE D-M	51N

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RRRRRRRRRRRR        EEEEEEEEEEEEEEEE    FFFFFFFFFFFFFFF      SSSSSSSSSSSS
RRRRRRRRRRRRR       EEEEEEEEEEEEEEEE    FFFFFFFFFFFFFFF      SSSSSSSSSSSSS
RRRRRRRRRRRRR       EEEEEEEEEEEEEEEE    FFFFFFFFFFFFFFF      SSSSSSSSSSSSS
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RRR          RRR    EEE                 FFF                SSS
RRR          RRR    EEE                 FFF                SSS
RRR          RRR    EEE                 FFF                SSS
RRR          RRR    EEE                 FFF                SSS
RRR          RRR    EEE                 FFF                SSS
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RRR    RRR          EEE                 FFF                        SSS
RRR       RRR       EEE                 FFF                        SSS
RRR       RRR       EEE                 FFF                        SSS
RRR       RRR       EEE                 FFF                        SSS
RRR          RRR    EEEEEEEEEEEEEEEE    FFF              SSSSSSSSSSSS
RRR          RRR    EEEEEEEEEEEEEEEE    FFF              SSSSSSSSSSSS
RRR          RRR    EEEEEEEEEEEEEEEE    FFF              SSSSSSSSSSSS

LLL                    IIIIIIIII         DDDDDDDDDDD
LLL                    IIIIIIIII         DDDDDDDDDDDD
LLL                    IIIIIIIII         DDDDDDDDDDDD
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LLL                       III            DDD          DDD
LLL                       III            DDD          DDD
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LLL                       III            DDD          DDD
LLL                       III            DDD          DDD
LLLLLLLLLLLLLLLL       IIIIIIIII         DDDDDDDDDDDD
LLLLLLLLLLLLLLLL       IIIIIIIII         DDDDDDDDDDDD
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LPTSPL VERSION 6(350)  RUNNING ON LPT100
 *START* USER DUE B. [622,104] JOB  IGCO SEQ. 979 DATE 22-DEC-75 10:19:15 MONITOR USGS DECSYSTEM10 ANF602 *START*
REQUEST CREATED: 22-DEC-75  10:19:15
FILE: DSKB1:REFS.LID[622,104] CREATED: 02-DEC-75 10:04:00 <157>  PRINTED: 22-DEC-75 10:25:25
QUEUE SWITCHES:  /PRINT:ARROW /FILE:ASCII /COPIES:1 /SPACING:1 /LIMIT:508 /FORMS:NORMAL
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REFERENCE SAMPLES(REFS,LID) (2 DECEMBER 1975)

ISOTOPE RATIOS

REFERENCE SAMPLE	SAMPLE NO.	METHOD	206/204	207/204	208/204	TYPE REFER.
BCR-1	BCR-1	BCR-1	BCR-1	BCR-1	BCR-1	
SPLIT 2/POSITION 2o						
REF.SAMPLE	5-72	BCR-1 GEL-N	18.78	15.62	38.68	BAS GALE 72X
SPLIT 3/POSITION 18						
REF.SAMPLE	8-71	BCR-1 DBL.SP.	18.77	15.63	38.65	BAS OVER 71L
REF.SAMPLE	-72	BCR-1	18.79	15.63	38.68	BAS OVER 72C
SPLIT 3/POSITION 25						
REF.SAMPLE	12-72	BCR-1(A)	18.83	15.64	38.77	BAS SHIE 72X
REF.SAMPLE	12-72	BCR-1(A)	18.82	15.63	38.75	BAS SHIE 72X
REF.SAMPLE	12-72	BCR-1(B)	18.80	15.60	38.65	BAS SHIE 72X
REF.SAMPLE	12-72	BCR-1(C)	18.79	15.60	38.60	BAS SHIE 72X
SPLIT 12/POSITION 6						
REF.SAMPLE	12-72	BCR-1	18.67	15.60	38.58	BAS SHIE 72X
SPLIT 12, POSITION 13						
REF.SAMPLE	11-75	BCR-1 GEL-N	18.806	15.614	38.689	BAS LEEM 75X
REF.SAMPLE	11-75	BCR-1 GEL-N	18.815	15.622	38.725	BAS LEEM 75X
REF.SAMPLE	4-74	BCR-1 GEL-N	18.819	15.623	38.688	BAS DELE 74X
REF.SAMPLE	9-74	BCR-1 GEL-N	18.815	15.629	38.767	BAS DELE 74X
SPLIT 23, POSITION 4						
REF.SAMPLE	-72	BCR-1(1)	18.78	15.63	38.65	BAS TATS 72U
REF.SAMPLE	-72	BCR-1(2)	18.80	15.62	38.69	BAS TATS 72U
REF.SAMPLE	-72	BCR-1(3)	18.79	15.61	38.66	BAS TATS 72U
REF.SAMPLE	2-72	BCR-1(2) GEL-N	18.802	15.622	38.696	BAS DELE 72X
SPLIT 31/POSITION 31						
REF.SAMPLE	-72	BCR-1(A)	18.80	15.61	38.63	BAS NK 72U
REF.SAMPLE	-72	BCR-1(B)	18.78	15.65	38.71	BAS NK 72U
SPLIT 44/POSITION 17						
REF.SAMPLE	8-75	BCR-1 ?	18.796	15.638	38.703	BAS CUMM 75X
REF.SAMPLE	8-75	BCR-1 ?	18.977	15.621	38.646	BAS CUMM 75X
SPLIT 68/POSITION 22						
REF.SAMPLE	8-72	BCR-1 GEL-N	18.82	15.63	38.71	BAS SUN 72X
REF.SAMPLE	8-72	BCR-1 GEL-N	18.81	15.63	38.70	BAS SUN 72X
REF.SAMPLE	8-72	BCR-1 GEL-N	18.81	15.63	38.68	BAS SUN 72X
REF.SAMPLE	8-72	BCR-1 GEL-N	18.82	15.63	38.72	BAS SUN 72X
REF.SAMPLE	8-72	BCR-1 GEL-N	18.80	15.62	38.63	BAS CHUR 72X
SPLIT 76/POSITION 21						
REF.SAMPLE	9-75	BCR-1 ?	18.82	15.61	38.63	BAS WELK 75X
AGV-1	AGV-1	AGV-1	AGV-1	AGV-1	AGV-1	
S18/P13						
EF.SAMPLE	1972	AGV-1 PBS-N.	18.89	15.60	38.39	AND TKD. 72U

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REF.SAMPLE 8-72	AGV-1	GEL-N	18.91	15.59	38.46	AND CHUR 72X
S96/P10						
REF.SAMPLE12-72	AGV-1	GEL-N	18.97	15.68	38.66	AND SHIE 72X
REF.SAMPLE12-72	AGV-1	GEL-N	18.96	15.67	38.58	AND SHIE 72X
REF.SAMPLE12-72	AGV-1	GEL-N	18.94	15.65	38.57	AND SHIE 72X
GSP-1 GSP-1	GSP-1	GSP-1	GSP-1	GSP-1	GSP-I	
S80/P32						
REF.SAMPLE 4-74	GSP-1	GEL-N	17.80	15.55	47.05	GRA DELE 74X
S1/P20						
REF.SAMPLE 1967	GSP-1	PBS-N,	18.04	15.62	47.13	GRA PDB 67U
G-2 G-2	G-2	G-2	G-2	G-2	G-2	G-2
S66/P20						
REF.SAMPLE 1967	G-2		18.38	15.58	38.91	GRA DTDP 67U

CONCENTRATIONS

REFERENCE SAMPLE	SAMPLE NO.208/204URANIUM	THORIUM	LEAD	ROCK REFER.
BCR-1 BCR-1	BCR-1	BCR-1	BCR-1	BCR-1
SPLIT 2/POSITION 26				
REF.SAMPLE 5-72	BCR-1	1.64	13.57	BAS GALE 72X
REF.SAMPLE 5-72	BCR-1	1.67	13.45	BAS GALE 72X
REF.SAMPLE 5-72	BCR-1	1.76	13.44	BAS GALE 72X
REF.SAMPLE 5-72	BCR-1		13.68	BAS GALE 72X
SPLIT 3/POSITION 18				
REF.SAMPLE -72	BCR-1	1.73		BAS OVER 72C
REF.SAMPLE -72	BCR-1	1.72		BAS OVER 72C
REF.SAMPLE -72	BCR-1	1.73		BAS OVER 72C
REF.SAMPLE -72	BCR-1	1.73		BAS OVER 72C
REF.SAMPLE 8-71	BCR-1		13.46	BAS OVER 71L
REF.SAMPLE 8-71	BCR-1		13.17	BAS OVER 71L
SPLIT 3/POSITION 25				
REF.SAMPLE 12-72	BCR-1	1.71	5.96	13.66 BAS SHIE 72X
REF.SAMPLE 12-72	BCR-1	1.71	5.91	13.47 BAS SHIE 72X
REF.SAMPLE 12-72	BCR-1	1.71		BAS SHIE 72X
SPLIT 12/POSITION 13				
REF.SAMPLE 11-75	BCR-1	1.67	5.99	13.88 BAS LEEM 75X
REF.SAMPLE 11-75	BCR-1	1.68	5.87	13.59 BAS LEEM 75X
REF.SAMPLE 2-72	BCR-1(1,2)38.55	1.72	5.93	13.67 BAS DELE 72X
REF.SAMPLE 3-74	BCR-1 38.62	1.72	5.93	13.74 BAS DELE 74X
REF.SAMPLE 9-74	BCR-1 38.65	1.71	5.92	13.50 BAS DELE 74X
SPLIT 23/POSITION 4				
REF.SAMPLE -72	BCR-1	1.72	6.00	13.55 BAS TATS 72U
REF.SAMPLE -72	BCR-1	1.73	6.03	13.61 BAS TATS 72U
REF.SAMPLE -72	BCR-1	1.73	6.01	13.60 BAS TATS 72U

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REF.SAMPLE -72	BCR-1		1.72	5.94	13.57	BAS TATS 72U	
REF.SAMPLE -72	BCR-1		1.71		13.60	BAS DELE 72X	
REF.SAMPLE -72	BCR-1		1.73	5.96	13.48	BAS TATS 72U	
SPLIT 31/POSITION 31							
REF.SAMPLE 12-72	BCR-1(2)		1.74	5.97		BAS NK 72U	
REF.SAMPLE -72	BCR-1		1.72	5.93	13.60	BAS DELE 72X	
SPLIT 44/POSITION 17							
REF.SAMPLE 8-75	BCR-1				13.42	BAS CUMM 75X	
REF.SAMPLE 8-75	BCR-1				13.65	BAS CUMM 75X	
SPLIT 68/POSITION 22							
REF.SAMPLE 8-72	BCR-1(AVG)		1.70	5.92	13.3	BAS CHUR 72X	
SPLIT 76/POSITION 21							
REF.SAMPLE 9-75	BCR-1		1.72		13.72	BAS WELK 75X	
REF.SAMPLE 9-75	BCR-1		1.73		13.80	BAS WELK 75X	
AGV-1 AGV-1	AGV-1	AGV-1	AGV-1	AGV-1	AGV-1		
S18/P13							
REF.SAMPLE 1972	AGV-1		1.96	6.27	36.53	AND TKD 72U	
S47/P14							
REF.SAMPLE 8-72	AGV-1		1.91	6.37	36.2	AND CHUR 72X	
S96/P10							
REF.SAMPLE12-72	AGV-1		1.93	6.31	36.2	AND SHIE 72X	
REF.SAMPLE12-72	AGV-1		1.93	6.31	36.4	AND SHIE 72X	
REF.SAMPLE12-72	AGV-1		1.92	6.27		AND SHIE 72X	
GSP-1 GSP-1	GSP-1	GSP-1	GSP-1	GSP-1	GSP-1		
S7/P7							
REF.SAMPLE 5-72	GSP-1				55.30	GRA OXAR 70X	
REF.SAMPLE 5-72	GSP-1				55.30	GRA OXAR 70X	
REF.SAMPLE 5-72	GSP-1				55.20	GRA OZAR 70X	
REF.SAMPLE 5-72	GSP-1				55.10	GRA OZAR 70X	
S80/P32							
REF.SAMPLE 4-74	GSP-1	46.88	2.10	105.0	55.0	GRA DELV 74X	
S1/P20							
REF.SAMPLE 1967	GSP-1		2.40	106.0	58.65	GRA PDB 67U	
S79/P28							
REF.SAMPLE 1967	GSP-1		2.26	103.0		GRA MANT 73L	
REF.SAMPLE 1967	GSP-1		2.23	102.0		GRA MANT 73L	
G-2 G-2	G-2	G-2	G-2	G-2	G-2	G-2	
S66/P20							
REF.SAMPLE 1967	G-2		1.94	24.3	30.9		
REF.SAMPLE 1967	G-2				30.8	GRA DTDP 67U	
S6/P14							

F.SAMPLE 7-74	2		OVER 74X
REF.SAMPLE 7-74	G-2	1.76	OVER 74X
REF.SAMPLE 7-74	G-2	1.77	OVER 74X