

1979 BUREAU OF MINES SAMPLING SITES AND ANALYTICAL RESULTS
FOR SAMPLES COLLECTED IN THE CHUGACH NATIONAL FOREST, ALASKA

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INTRODUCTION

The Bureau of Mines and U.S. Geological Survey are conducting a mineral resource/reserve evaluation of the Chugach National Forest as part of an interagency resource evaluation under Roadless Area Review and Evaluation (RARE II) aegis mandated by the National Forest Management Act of 1976 (P. L. 94-588). The evaluation is due to be completed in 1983.

The study area consisted of about 2.9 million acres located principally on the Kenai Peninsula and Prince William Sound. This area is underlain by two geologic terranes which contain characteristic mineralization. Cretaceous, principally metasedimentary, rocks contain gold-bearing quartz veins and derivative placer gold deposits. Small scale placer gold mining is being actively pursued in the area at the present time. Tertiary meta-sedimentary rocks and associated mafic volcanic rocks have a history of base metal, specifically copper, production since the early 1900's. Two of Alaska's biggest copper producers, the Beatson and the Ellamar mines, as well as several other areas of copper mineralization such as at Copper Mountain, Port Fidalgo, Knight Island, and the Cordova area, are within the sampled area.

The area was sampled extensively by the Bureau of Mines in 1979, and sample site locations and analytical results are made available to the

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public by this open-file report. The report consists of a computer listing of analytical results (table 2) and five maps (figures 2-6) showing sample sites in the Chugach National Forest, Alaska. The location of the Chugach N.F. and the quadrangles covered by the sample site maps are shown on figure 1.

The samples were analyzed in Anchorage, Alaska, and Wheat Ridge, Colorado, by commercial laboratories using standard techniques. Detection limits of the emission spectrographic analyses are shown on table 1.

Detailed evaluations of the data, currently in progress, may show the nature and abundance of elements contained in and between areas of known mineralization, identify extensions of zones of known mineralization, and locate previously unsuspected zones of mineralization.

Cursory data examination shows that samples from some drainages on the Kenai Peninsula contain anomalous gold in stream sediments and several areas of anomalous base metal content in stream sediments in Prince William Sound.

DATA PRESENTATION

The data listing on table 2 shows all samples taken in 1979 by the Bureau of Mines for chemical analysis, rock and mineral specimens and material taken for slabbing, thin-section and/or polished section preparation, etc.

Samples may have been analyzed by one or more techniques, i.e., atomic absorption, multi-element emission spectrography, etc. The same elements were not necessarily determined in all samples. An "IS" in the tabulation indicates insufficient material to perform a requested analysis.

Figures 2-6 show sampling sites and sample station numbers. When several samples were taken at a site, a circle is used instead of a sample dot and the beginning and ending numbers of the sample series represented by that circle are indicated. In the case of a series of closely spaced samples only the beginning and ending number of a series of samples may be indicated. For example, the samples at the head and mouth of a creek are numbered but the intervening sample sites are shown but not numbered.

The data listing presents three separate groups of information. Lines 1 through 9 describe the sample type, underlying geology, and sample location. Lines 11 through 18 list element contents determined by methods other than emission spectrography. Lines 20 through 27 list element contents determined by emission spectrography.

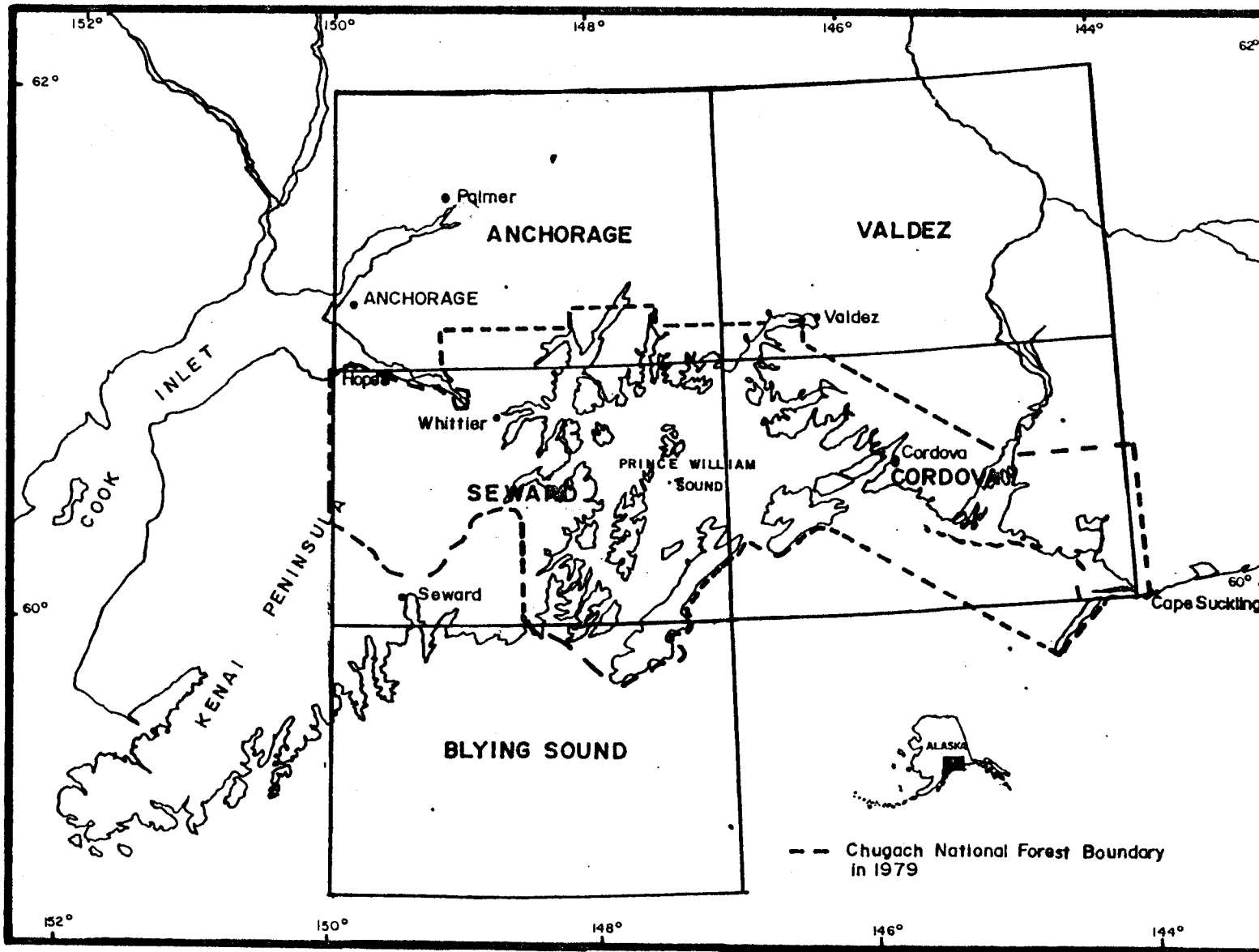


FIGURE 1. Outline of Chugach National Forest and 1:250,000 Map Quadrangle Covering Areas Sampled in the 1979 Bureau of Mines RARE II Minerals Resource/Reserve Evaluation

The following notes should be useful in using the print-out.

Line 1 - SAMPLE NUMBER - note that the listing is in numerical order with gaps in the numbering sequence.

Line 2 - ROCK AGE - refers to the geologic age of the underlying rock groups as shown on geological maps.

Line 3 - ROCK TYPE - refers to rock types in the area of sampling as shown on 1:250,000 scale geological maps. Three rock types mapped as being present are:

Metased - refers to metasedimentary rocks, which include essentially all non-igneous rocks in the region.

Felint - refers to felsic intrusives.

Mafvol - refers to mafic volcanics.

Line 4 - MAT. TYPE - refers to the type of material collected at the sampling site, is predominant at the sample site, or was of interest when sampling was done. The following material types were collected, most are self-explanatory.

Stream Sed - Stream sediment

Sulfides

Phyllite

Quartz

SP/SS/CG - Shale, sandstone, conglomerate

Schist

Sed Rk/Q - Sedimentary rock with quartz veins

Fel Plut - Felsic plutonic rock

Maf Volc - Mafic volcanic rock

Maf Plut - Mafic plutonic rock

Calc - Calcite vein

Sed/Volc - Sedimentary and volcanic rocks in area
Mill Pr - Mill product, such as from a ball or stamp mill
Pan Con - Pan concentrate

Line 5 - 1 MI. QUAD - refers to the 1:63,360 scale quadrangle map which covers the sample area. For full name of map refer to name on Line 6 of printout. For example, for sample 1, the reference map at the 1:63,360 scale is Cordova D7.

Line 6 - 4 MI. QUAD - refers to the 1:250,000 scale map name as outlined on the Standard Topographic Series covering Alaska.

Lines 7, 8, 9 - SECTION, TOWNSHIP, RANGE - refers to land subdivision in which sample was collected. The Seward Base Line and Meridian pertain to areas in most of the western part of the study area; the Copper River Base Line and Meridian pertain to the western part of the study area.

TABLE 1. Detection Limits of Emission Spectrographic Analysis

<u>Element</u>	<u>Lower Limit of Detection(ppm)</u>
Ca	200
Fe	500
Mg	200
Ag	1
As	500
B	10
Ba	5
Be	2
Bi	10
Cd	50
Co	5
Cr	10
Cu	2
Ga	10
Ge	20
La	20
Mn	10
Mo	2
Ni	5
Nb	20
Pb	10
Sb	100
Sc	10
Sr	50
Sn	10
Ti	20
V	10
W	50
Y	10
Zn	200
Zr	20

SAMPLE NO.	1	2	3	4	5	6	7	8	9	10
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
MAT. TYPE	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	SULFIDES
1 MI. QUAD	D7	D7	D7	D7	D7	A7	A7	A7	A7	A7
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ
SECTION	23	23	23	14	15	15	10	10	10	10
TOWNSHIP	109	109	108	109	108	108	108	108	108	109
RANGE	6W	6W	6W	6W	6W	6W	6W	6W	6W	6W
Au	<.020	.130	<.020	<.020	<.020	.060	<.020	.090	.020	1.500
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	15.000
Cu	50.000	80.000	55.000	45.000	35.000	55.000	60.000	55.000	45.000	33000.000
Pb	25.000	15.000	20.000	15.000	15.000	20.000	5.000	10.000	10.000	300.000
Zn	95.000	65.000	80.000	65.000	85.000	70.000	60.000	70.000	70.000	14500.000
As										80.000
Sb										
W										
Fe										
Co						5X				10X
Hg						2X				0.15X
						2X				1.5X
Ag						<1				30
As						<500				<500
B						20				20
Ba						500				2000
Ba						<2				<2
Bi						<10				<10
Cd						<50				<50
Ce						20				50
Cr						200				50
Cu						70				>10000
Ca						10				10
Ce						<20				<20
La						100				<20
Mn						1000				300
Mo						<2				10
Nb						20				<20
Ni						100				10
Pb						<10				300
Sb						<100				<100
Sc						30				<10
Sn						<10				<10
Sr						200				<100
Tl						3000				1500
V						100				100
U						<50				<50
Y						20				<10
Zn						<200				10000
Zr						150				30

Table 2
 Bureau of Mines Sample Data and Analytical Results for
 Samples Collected in the Chugach National Forest, Alaska

SAMPLE NO.	21	22	23	24	25	26	27	28	29	30
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
MAT. TYPE	STR BED	SCHIST	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED
1 MI. QUAD	D7	D7	D7	D7	D7	D7	D7	D7	D7	D7
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	16	16	16	22	22	22	22	22	22	26
TOWNSHIP	11S	11S	11S	11S	11S	11S	11S	11S	11S	11S
RANGE	6W	6W	6W	6W	6W	6W	6W	6W	6W	6W

Au	<.020	.060	<.020	.350	<.020	<.020	.030	<.020	<.020	<.020
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	5.000	55.000	20.000	5.000	15.000	10.000	15.000	15.000	15.000	15.000
Pb	10.000	150.000	30.000	15.000	10.000	15.000	10.000	5.000	10.000	30.000
Zn	55.000	230.000	90.000	60.000	60.000	55.000	60.000	65.000	65.000	60.000

As										
Sb										
W										

Fe				3X						
Ca				1.5X						
Mg				1X						

Aq				<1						
As				<500						
R				20						
Ba				1000						

Be				<2						
Bi				<10						
Cd				<50						
Co				5						

Cr				70						
Cu				30						
Ca				20						
Ce				<20						

La				50						
Mn				1000						
Mo				<2						
Nb				20						

Ni				20						
Pb				10						
Sb				<100						
Sc				20						

Sn				<10						
Sr				300						
Tl				5000						
V				100						

W				<50						
Y				20						
Zn				<200						
Zr				200						

6

SAMPLE NO.	31	32	33	34	035	36	37	38	39	40
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
NAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	D6	D6	D7	D7	D7	D7	D7	D6	D6	D6
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	26	26	30	31	31	31	1	22	21	21
TOWNSHIP	115	116	119	119	119	119	129	129	129	129
RANGE	6W	6W	6W	6W	6W	6W	7W	5W	5W	5W

Ag	(.020	(.020	(.020	(.040	.040	.090	(.040	(.040	(.020	(.100
Au	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	15.000	15.000	35.000	40.000	40.000	35.000	30.000	35.000	35.000	45.000
Pb	10.000	15.000	20.000	20.000	25.000	20.000	30.000	45.000	35.000	35.000
Zn	65.000	50.000	105.000	120.000	125.000	125.000	130.000	135.000	165.000	150.000

As
Sb
W

Fe 3X
Ca 1X
Mn 1X

Ag <1
Au <500
P 20
Ba 1000

Be <2
Bi <10
Cd <50
Co 20

Cr 70
Cu 50
Ga 20
Ge <20

La 20
Mn 1000
Mo <2
Nb 20

Ni 30
Pb 20
Sb <100
Sc 20

Sn <10
Sr 200
Tl 3000
V 100

W <50
Y 20
Zn <200
Zr 30

SAMPLE NO.	41	42	43	044	045	46	047	48	049	50
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
HAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	D6	D6	D6	D6	D6	D6	D7	D6	D6	D6
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	21	17	20	20	20	26	34	2	2	11
TOWNSHIP	12S	12S	12S	12S	12S	12S	12S	13S	13S	13S
RANGE	5W	5W	5W	5W	5W	6W	6W	6W	6W	6W
Au	<.100	<.100	<.100	<.100	1S	1S	1S	1S	1S	.030
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	45.000	25.000	35.000	40.000	15.000	35.000	25.000	30.000	35.000	15.000
Pb	35.000	45.000	30.000	30.000	30.000	30.000	35.000	30.000	30.000	20.000
Zn	160.000	230.000	150.000	155.000	150.000	170.000	155.000	155.000	145.000	105.000
As										
Sb										
W										
Fe				5X	5X		5X		5X	
Ca				1X	1.5X		1.5X		2X	
Mo				2X	1X		2X		1.5X	
Aq				<1	<1		<1		<1	
As				<500	<500		<500		<500	
R				50	20		20		20	
Ra				1000	1000		1500		1000	
Be				<2	<2		<2		<2	
Bi				<10	<10		<10		<10	
Cd				<50	<50		<50		<50	
Co				20	20		20		10	
Cr				150	100		150		100	
Cu				50	150		50		50	
Ca				20	20		20		20	
Ge				<20	<20		<20		<20	
Ln				20	20		20		20	
Mn				1500	1500		1500		1500	
Mo				<2	<2		<2		<2	
Nb				20	20		20		20	
Ni				50	20		50		20	
Pb				10	15		20		20	
Sh				<100	<100		<100		<100	
Sc				30	20		30		20	
Sn				<10	<10		<10		<10	
Sr				200	200		200		200	
Tl				3000	3000		5000		3000	
V				200	150		200		200	
W				<50	<50		<50		<50	
Y				20	20		20		20	
Zn				200	<200		200		<200	
Zr				100	100		100		100	

SAMPLE NO.	S1	S2	S3	S4	055	S6	S7	S8	059	60
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	BL/BB/CC	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	D6	D6	D6	D6	D6	D6	D6	D6	D6	D6
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	30	31	31	31	6	7	33	5	6	34
TOWNSHIP	129	129	129	129	139	139	129	139	139	129
RANGE	SW	SW	SW	SW	SW	SW	SW	SW	SW	4W
Ag	19	<.020	IS	<.020	<.020		19	IS	19	<.100
Au	<.200	<.200	<.200	<.200	<.200		<.200	<.200	<.200	<.200
Cu	40.000	30.000	20.000	25.000	25.000		45.000	30.000	25.000	40.000
Pb	25.000	30.000	30.000	25.000	20.000		120.000	35.000	30.000	20.000
Zn	170.000	105.000	110.000	140.000	140.000		145.000	120.000	125.000	150.000
As										
Sb										
W										
Fe					3X				5X	
Ca					1.5X				1X	
Mo					1X				2X	
Au					<1				<1	
As					<500				<500	
P					20				30	
Pb					1000				1000	
Be					<2				<2	
Ri					<10				<10	
Cd					<50				<50	
Co					10				10	
Cr					70				100	
Cu					30				50	
Ca					20				20	
Ge					<20				<20	
La					20				20	
Mn					1000				1500	
Mo					<2				<2	
Nb					20				20	
Ni					20				30	
Pb					20				30	
Sb					<100				<100	
Sc					20				20	
Sn					<10				<10	
Sr					200				200	
Tl					3000				3000	
V					200				200	
W					<50				<50	
Y					20				10	
Zn					<200				<200	
Zr					150				100	

12
19

SAMPLE NO.	61	62	63	64	65	66	67	68	69	70
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	FELINT	FELINT	METSED	METBED	FELINT	FELINT	FELINT
MAT. TYPE	STR SED	QUARTZ	BTR SED	BTR SED	STR SED	STR SED	STR SED	BTR SED	BTR SED	STR SED
1 MI. QUAD	D6	D6	D6	D6	D6	D6	D6	D6	D5	C5
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	34	34	34	4	4	5	5	8	12	13
TOWNSHIP	12S	12S	12S	13S	13S	13S	13S	13S	13S	13S
RANGE	4W	4W	4W	4W	4W	4W	4W	4W	4W	4W
Au	IS	<.020	.050	<.040	<.100	<.040	<.100	<.040	<.020	<.020
Ag	<.200	.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	35.000	60.000	20.000	15.000	15.000	15.000	20.000	15.000	15.000	15.000
Pb	35.000	10.000	15.000	15.000	20.000	15.000	15.000	15.000	15.000	15.000
Zn	145.000	40.000	90.000	140.000	70.000	75.000	85.000	70.000	75.000	65.000
As		<10.000								
Sb										
W										
Fe					3X					
Ca					2X					
Hg					1X					
Aq					<1					
As					<500					
R					20					
Ba					1000					
Be					<2					
Bi					<10					
Cd					<50					
Co					10					
Cr					70					
Cu					20					
Ga					20					
Ge					<20					
La					50					
Mn					1500					
Mo					<2					
Nb					20					
Ni					20					
Pb					20					
Sb					<100					
Sc					15					
Sn					<10					
Sr					200					
Tl					2000					
V					100					
W					<50					
Y					15					
Zn					<200					
Zr					100					

SAMPLE NO.	71	72	73	074	75	76	77	78	79	80
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	FELINT	FELINT	FELINT	FELINT	FELINT	METSSED	METSSED	METSSED	METSSED	METSSED
NAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	C5	C5	C5	C6	C6	C5	C5	C5	C5	C5
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	13	13	23	23	27	26	35	35	34	3
TOWNSHIP	139	139	139	139	139	139	139	139	139	149
RANGE	4W	4W	4W	4W	4W	3W	3W	3W	3W	3W
Au	<.020	<.020	<.100	<.020	<.020	<.020	<.020	<.020	<.020	<.020
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	15.000	15.000	15.000	10.000	10.000	15.000	15.000	20.000	10.000	15.000
Pb	15.000	20.000	15.000	10.000	15.000	15.000	15.000	15.000	20.000	25.000
Zn	60.000	55.000	60.000	50.000	55.000	65.000	65.000	75.000	65.000	65.000
As										
Sb										
W										
Fe				3X						10X
Ca				2X						3X
Mo				2X						5X
Aq				<1						<1
As				<500						<500
B				15						20
Bo				1000						1500
Be				<2						<2
Bl				<10						<10
Cd				<50						<50
Ce				5						5
Cr				50						100
Cu				15						70
Ca				15						10
Ge				<20						<20
La				200						20
Mn				1500						1000
Mo				<2						<2
Nb				20						20
Ni				20						15
Pb				20						20
Sb				<100						<100
Sc				20						10
Sn				<10						<10
Sr				200						500
Tl				5000						7000
V				100						100
W				<50						<50
Y				30						<10
Zn				<200						<200
Zr				200						50

SAMPLE NO.	B1	B2	B3	B4	B5	086	087	88	89	90
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
HAT. TYPE	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED
1 MI. QUAD	C5	C5	C5	C5	C5	C5	D5	D5	D5	D5
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	4	4	8	18	21	33	11	11	32	34
TOWNSHIP	149	149	149	148	138	139	139	139	129	129
RANGE	3W	3W	3W	3W	2W	2W	2W	2W	2W	2W

Au	<.020	<.020	<.020	<.020	<.020			<.020	<.020	<.020
Ag	<.200	<.200	<.200	<.200	<.200			<.200	<.200	<.200
Cu	15.000	10.000	15.000	20.000	45.000			15.000	25.000	50.000
Pb	25.000	20.000	20.000	25.000	30.000			15.000	20.000	20.000
Zn	60.000	60.000	65.000	70.000	135.000			65.000	85.000	100.000
As										
Sb										
W										

Fe				7%		5%	3%			
Co				2%		0.5%	1%			
Hg				5%		2%	2%			

Ag				<1		<1	<1			
As				<500		<500	<500			
B				20		20	20			
Ba				1000		700	500			
Be				<2		<2	<2			
Bi				<10		<10	<10			
Cd				<50		<50	<50			
Ce				10		10	20			
Cr				70		70	100			
Cu				100		30	50			
Ca				10		15	15			
Ce				<20		<20	<20			
La				20		20	20			
Mn				1000		1500	2000			
Mo				<2		<2	<2			
Nb				20		20	20			
Ni				20		20	50			
Pb				20		20	10			
Sb				<100		<100	<100			
Sc				15		15	20			
Sn				<10		<10	<10			
Sr				700		200	200			
Ti				10000		2000	5000			
V				150		200	200			
W				<50		<50	<50			
Y				10		10	20			
Zn				<200		<200	<200			
Zr				100		50	100			

SAMPLE NO.	091	92	93	94	95	96	097	098	099	100
ROCK AGE	TERT	TERT	CRET	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
MAT. TYPE	STR SED	BTR SED	BTR SED	STR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	D5	D5	D5	D5	D5	D5	D4	D4	D4	D4
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	35	26	14	36	36	2	9	4	3	35
TOWNSHIP	129	129	129	129	129	139	139	139	139	129
RANGE	2W	2W	2W	2W	2W	2W	1W	1W	1W	1W
Au		(.020	(.020	(.020	(.020	.300				
Ag		(.200	(.200	(.200	(.200	(.200				
Cu		20.000	50.000	60.000	10.000	25.000				
Pb		5.000	20.000	35.000	10.000	25.000				
Zn		45.000	75.000	130.000	50.000	125.000				
As										
Sb										
W										
Fe	5X						5X	3X	3X	5X
Ca	0.7X						1X	0.5X	0.5X	0.5X
Hg	3X						3X	1X	2X	1X
Al	(1						(1	(1	(1	(1
Si	(500						(500	(500	(500	(500
B	20						30	30	50	30
Ba	1500						1500	500	1000	300
Re	(2						(2	(2	(2	(2
Bi	(10						(10	(10	(10	(10
Cd	(50						(50	(50	(50	(50
Co	20						20	10	20	10
Cr	70						100	50	100	50
Cu	100						100	30	100	20
Ga	20						30	15	20	10
Ge	(20						(20	(20	(20	(20
La	20						20	30	30	20
Mn	1500						1500	500	700	500
Mo	(2						(2	(2	(2	(2
Nb	20						20	20	20	20
Ni	30						30	30	30	20
Pb	15						50	20	20	10
Sb	(100						(100	(100	(100	(100
Sc	20						20	10	20	15
Sn	(10						(10	(10	(10	(10
Sr	200						300	200	200	300
Tl	3000						3000	5000	7000	7000
V	200						200	100	200	100
W	(50						(50	(50	(50	(50
Y	10						10	10	20	15
Zn	(200						(200	(200	(200	(200
Zr	70						70	200	100	200

SAMPLE NO.	101	102	103	104	105	106	107	108	109	110
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
MAT. TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
1 MI. QUAD	B4	D4	D4	D4	C4	C4	C4	C5	C4	C4
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	30	29	36	36	21	20	20	9	12	12
TOWNSHIP	129	129	129	129	139	139	139	145	159	155
RANGE	1E	1E	1W	1W	1W	1W	1W	2W	1W	1W
							(.020	(.020	(.020	(.020
							.200	(.200	(.200	(.200
							300,000	55,000	40,000	70,000
							15,000	10,000	35,000	35,000
							45,000	60,000	115,000	160,000
Av										
Au										
Cu										
Pb										
Zn										
As										
Sb										
W										
Fe	5X	5X	5X	5X	5X	7X				
Co	2X	2X	0.7X	1.5X	10X					
Mo	2X	2X	2X	2X	5X					
Ag	(1	(1	(1	(1	(1	(1				
As	(500	(500	(500	(500	(500	(500				
B	50	50	50	50	50	20				
Ba	700	1000	1000	1000	1000	300				
Be	(2	(2	(2	(2	(2	(2				
Bi	(10	(10	(10	(10	(10	(10				
Cd	(50	(50	(50	(50	(50	(50				
Ce	20	20	20	20	20	50				
Cr	200	100	100	100	100	200				
Cu	70	150	100	30	150	150				
Ca	20	20	20	20	20	20				
Ce	(20	(20	(20	(20	(20	(20				
La	20	20	20	20	20	(20				
Mn	1500	1500	1500	1500	1500	2000				
Mo	(2	(2	(2	(2	(2	(2				
Nb	20	20	20	20	20	20				
Ni	50	50	50	50	50	100				
Pb	10	10	15	20	(10	(10				
Sb	(100	(100	(100	(100	(100	(100				
Sc	20	20	20	20	20	50				
Sn	(10	(10	(10	(10	(10	(10				
Sr	200	200	200	300	200	200				
Tl	5000	7000	5000	7000	7000	7000				
V	200	200	200	200	200	300				
W	(50	(50	(50	(50	(50	(50				
Y	20	20	15	10	30	30				
Zn	(200	(200	200	(200	(200	(200				
Zr	100	100	100	100	100	30				

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SAMPLE NO.	111	112	113	114	115	116	117	118	119	120
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
MAT. TYPE	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED
1 MI. QUAD	C4	C4	C4	C4	C4	C4	C4	C4	C4	C4
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	12	11	11	11	11	10	10	10	9	27
TOWNSHIP	159	159	159	159	159	159	159	159	159	159
RANGE	1W	1W	1W	1W	1W	1W	1W	1W	1W	1W

Au	(.020	(.020	(.100	(.040	(.020	(.100	(.100	(.020	(.020	(.100
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	55.000	60.000	25.000	45.000	50.000	30.000	45.000	45.000	45.000	50.000
Pb	30.000	40.000	35.000	35.000	25.000	35.000	40.000	35.000	30.000	40.000
Zn	145.000	150.000	95.000	130.000	115.000	135.000	130.000	135.000	115.000	160.000
As										
Sb										
W										

Fe								7X		10X
Ca								5X		2X
Mn								7X		7X

Au								(1		(1
As								(500		(500
B								20		20
Ba								1500		2000

Be								(2		(2
Bi								(10		(10
Cd								(50		(50
Ce								10		20

Cr								100		100
Cu								1500		150
Ga								15		15
Ge								(20		(20

La								70		20
Mn								1500		2000
Mo								(2		2
Nb								20		20

Ni								30		50
Pb								30		50
Sb								(100		(100
Sc								20		15

Sn								(10		(10
Sr								500		700
Tl								10000		7000
V								150		150

W								(50		(50
Y								10		10
Zn								(200		(200
Zr								150		100

SAMPLE NO.	121	122	123	124	125	126	127	128	129	130
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	FELINT	METSED	FELINT	METSED	METSED	METSED	METSED	METSED	METSED	METSED
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	C4	B3	C4	C6	C6	C6	C6	C6	C6	C6
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	6	24	5	29	29	29	30	19	19	19
TOWNSHIP	169	169	169	159	159	159	159	159	159	159
RANGE	1E	1E	1E	4W	4W	4W	4W	4W	4W	4W
Au	IS	(.020	(.020	.180	(.020	(.100	(.040	(.100	(.100	(.100
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	25.000	15.000	20.000	40.000	25.000	25.000	40.000	35.000	30.000	25.000
Pb	20.000	20.000	15.000	335.000	25.000	30.000	35.000	30.000	30.000	35.000
Zn	80.000	65.000	85.000	395.000	130.000	145.000	165.000	175.000	130.000	185.000
As										
Sb										
W										
Fe	7X	10X	7X						5X	5X
Ca	5X	3X	2X						1.5X	1X
Mg	7X	5X	3X						7X	5X
Ag	(1	(1	(1						(1	(1
As	(500	(500	(500						(500	(500
B	20	10	10						30	20
Ba	2000	2000	1500						1000	1000
Be	(2	(2	(2						(2	(2
Bi	(10	(10	(10						(10	(10
Cd	(50	(50	(50						(50	(50
Ce	10	7	5						20	20
Cr	100	100	20						50	30
Cu	50	20	50						70	50
Ga	20	10	10						10	10
Ge	(20	(20	(20						(20	(20
La	70	70	50						20	20
Mn	1000	1000	1000						5000	3000
Mo	(2	(2	(2						(2	(2
Nb	20	20	(20						(20	(20
Ni	20	15	10						30	15
Pb	20	20	10						20	20
Sb	(100	(100	(100						(100	(100
Sc	20	15	10						10	(10
Sn	(10	(10	(10						(10	(10
Br	1000	500	700						700	700
Tl	10000	10000	5000						7000	5000
V	150	150	100						150	100
W	(50	(50	(50						(50	(50
Y	10	10	(10						(10	(10
Zn	(200	(200	(200						(200	(200
Zr	150	30	50						50	50

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SAMPLE NO.	131	132	133	134	135	136	137	138	139	140
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	C6	C6	C6	C6	C6	C6	C6	C6	D6	R6
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	19	24	24	25	25	23	34	6	17	17
TOWNSHIP	15S	15S	15S	15S	15S	15S	15S	16S	16S	16S
RANGE	4W	5W	5W	5W	5W	5W	5W	5W	5W	5W
As	(.100	(.100	(.040	(.040	(.100	(.020	.19	.19	(.020	(.020
Ag	(.200	(.200	(.200	(.200	(.200	(.200	.200	(.200	(.200	(.200
Ce	30.000	10.000	5.000	15.000	20.000	20.000	90.000	5.000	15.000	20.000
Pb	30.000	25.000	20.000	30.000	30.000	20.000	35.000	30.000	75.000	55.000
Zn	210.000	115.000	50.000	115.000	115.000	80.000	235.000	130.000	125.000	115.000
As										
Sb										
W										
Fe	5X	5X				3X	3X	10X		
Ca	0.7X	1X				1.5X	2X	0.7X		
Hg	5X	2X				5X	7X	7X		
Ag	(1	(1				(1	(1	(1		
As	(500	(500				(500	(500	(500		
B	20	20				20	20	30		
Ba	1000	200				1000	200	2000		
Be	(2	(2				(2	(2	(2		
Bi	(10	(10				(10	(10	(10		
Cd	(50	(50				(50	(50	(50		
Co	20	5				5	20	10		
Cr	20	10				30	70	70		
Cu	20	10				30	150	20		
Ga	(10	(10				(10	10	10		
Ga	(20	(20				(20	(20	(20		
La	20	20				20	20	20		
Mn	10000	5000				1000	7000	2000		
Mo	(2	(2				(2	(2	(2		
Nb	(20	(20				(20	20	20		
Ni	7	5				10	30	20		
Pb	20	(10				10	(10	10		
Sb	(100	(100				(100	(100	(100		
Sc	(10	(10				10	15	10		
Sn	(10	(10				(10	(10	(10		
Sr	100	100				500	500	700		
Tl	3000	2000				7000	10000	7000		
V	70	70				100	200	100		
W	(50	(50				(50	(50	(50		
Y	(10	(10				(10	15	(10		
Zn	(200	(200				(200	(200	(200		
Zr	20	(20				100	150	100		

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SAMPLE NO.	141	142	143	144	145	146	147	148	149	150
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METBED	METSED	METSED	METSED
MAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	STR BED	BTR BED	BTR BED	BTR BED
1 MI. QUAD	R6	R6	R6	R6	R6	R6	B6	B6	B6	R6
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	18	18	18	18	13	13	24	24	24	25
TOWNSHIP	169	169	169	169	169	169	169	169	169	169
RANGE	SW	SW	SW	SW	6W	6W	6W	6W	6W	6W
Au	(.100	(.100	(.100	(.100	(.100	(.020	18	(.100	(.100	(.100
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cv	20.000	30.000	25.000	15.000	15.000	15.000	30.000	15.000	35.000	25.000
Ph	40.000	45.000	50.000	40.000	30.000	30.000	35.000	40.000	40.000	35.000
Zn	210.000	240.000	235.000	200.000	170.000	150.000	150.000	145.000	160.000	140.000
As										
Sb										
W										
Fe							7X			
Cu							1X			
Hg							7X			
Aq							(1			
As							(500			
P							20			
Ra							2000			
Re							(2			
Rf							(10			
Cd							(50			
Co							10			
Cr							70			
Cu							70			
Ga							15			
Ge							(20			
La							20			
Hn							1000			
Ho							(2			
Nb							20			
Ni							20			
Pb							20			
Bh							(100			
Bc							10			
Bn							(10			
Sr							700			
Tl							5000			
V							150			
W							(50			
Y							(10			
Zn							(200			
							50			

SAMPLE NO.	151	152	153	154	155	156	157	158	159	160
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	MAFVOL	MAFVOL	MAFVOL	MAFVOL
NAT. TYPE	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED
1 MI. QUAD	B6	B6	B6	B6	B6	C6	B7	B7	B7	B7
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	16	9	9	10	10	10	25	25	25	25
TOWNSHIP	168	168	168	168	168	168	178	178	178	178
RANGE	SW	SW	SW	SW	SW	SW	7W	7W	7W	7W
As	18	<.100	<.100	<.020	<.020	<.100	<.100	<.100	<.020	<.100
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Ce	15.000	15.000	35.000	15.000	10.000	20.000	65.000	125.000	60.000	45.000
Pb	30.000	30.000	30.000	20.000	30.000	25.000	30.000	30.000	30.000	30.000
Zn	155.000	230.000	140.000	120.000	175.000	205.000	160.000	210.000	130.000	175.000
As										
Sb										
M										
Fe					3X					
Ca					0.7X					
Mp					3X					
Ag					<1					
As					<500					
B					20					
Ba					1000					
Be					<2					
Bi					<10					
Cd					<50					
Ce					10					
Cr					30					
Cu					20					
Ga					10					
Ge					<20					
La					30					
Mn					3000					
Mo					<2					
Nb					<20					
Ni					5					
Pb					20					
Sb					<100					
Sc					<10					
Sn					<10					
Sr					200					
Ti					3000					
V					100					
W					<50					
Y					<10					
Zn					<200					
Zr					50					

SAMPLE NO.	161	162	163	164	165	166	167	168	169	170
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	B7	B7	B7	B7	B7	B7	B7	B7	C5	C5
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	24	24	23	13	13	13	13	13	12	12
TOWNSHIP	178	179	178	179	178	178	178	179	168	168
RANGE	7W	7W	7W	7W	7W	7W	7W	7W	4W	4W

As	<.100	<.040	<.100	<.100	<.100	<.040	<.100	<.040	<.020	<.040
Aq	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	40.000	30.000	25.000	45.000	70.000	80.000	65.000	60.000	40.000	40.000
Pb	30.000	25.000	20.000	20.000	15.000	10.000	20.000	20.000	20.000	20.000
Zn	150.000	135.000	125.000	120.000	125.000	105.000	125.000	120.000	120.000	125.000

As										
Sb										
W										

Fe			7X							10X
Ca			1X							3X
Hg			7X							10X

Aq			<1							<1
As			<500							<500
B			30							50
Ba			2000							1500

Be			<2							<2
Bi			<10							<10
Cd			<50							<50
Co			5							10

Cr			100							150
Ce			70							200
Co			15							10
Ca			<20							<20

La			20							20
Mn			1500							3000
Mo			<2							<2
Nb			20							20

Ni			30							50
Pb			20							10
Sb			<100							<100
Sc			10							20

Sn			<10							<10
Sr			200							500
Tl			10000							10000
V			200							500

W			<50							<50
Y			<10							10
Zn			<200							<200
Zr			150							100

SAMPLE NO.	171	172	173	174	175	176	177	178	179	180
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	C5	C5	C5	C5	C5	C5	C5	C5	C5	B7
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	7	7	7	6	5	8	5	4	4	13
TOWNSHIP	168	168	168	168	168	168	168	168	168	178
RANGE	3W	3W	3W	3W	3W	3W	3W	3W	3W	8W
Ag	<.040	<.100	<.040	<.100	<.040	<.100	<.040	<.100	<.020	<.020
Au	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	40.000	35.000	40.000	40.000	40.000	55.000	55.000	30.000	65.000	35.000
Pb	25.000	20.000	20.000	25.000	30.000	30.000	30.000	30.000	30.000	20.000
Zn	125.000	115.000	110.000	130.000	125.000	130.000	140.000	150.000	150.000	105.000
As										
Sb										
W										
Fe	7X									
Ca	1X									
Hg	7X									
Ag	<1									
As	<500									
B	30									
Ba	1000									
Be	<2									
Bi	<10									
Cd	<50									
Ce	10									
Cr	50									
Cu	100									
Ga	15									
Ge	<20									
La	20									
Mn	1000									
Mo	<2									
Nb	20									
Ni	15									
Pb	20									
Sb	<100									
Sc	15									
Sn	<10									
Sr	500									
Ti	7000									
V	100									
W	<50									
Y	10									
Zn	<200									
Zr	50									

SAMPLE NO.	181	182	183	184	185	186	187	188	189	190
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	FELINT	FELINT	FELINT	FELINT
HAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	B7	B7	B7	B7	B7	B7	AB	AB	AB	AB
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	VALDEZ	VALDEZ	VALDEZ	VALDEZ
SECTION	13	13	23	23	23	23	B	B	B	B
TOWNSHIP	17S	17S	17S	17S	17S	17S	10S	10S	10S	10S
RANGE	8W	8W	8W	8W	8W	8W	9W	9W	9W	9W
Au	(.040	(.020	(.020	(.040	(.020	(.040	18	(.100	19	
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	
Cu	35.000	35.000	40.000	40.000	20.000	20.000	35.000	85.000	50.000	
Pb	20.000	20.000	20.000	20.000	25.000	25.000	30.000	40.000	35.000	
Zn	110.000	110.000	105.000	100.000	90.000	80.000	150.000	180.000	180.000	
As										
Sb										
W										
Fe				5X	3X					
Co				0.7X	0.5X					
Mo				5X	5X					
Ag				(1	(1					
As				(500	(500					
B				20	20					
Ba				500	700					
Be				(2	(2					
Bi				(10	(10					
Cd				(50	(50					
Co				5	5					
Cr				30	20					
Cu				70	50					
Ca				10	10					
Ge				(20	(20					
La				20	20					
Mn				1000	700					
Mo				(2	(2					
Nb				(20	(20					
Ni				10	10					
Pb				20	20					
Sb				(100	(100					
Sc				10	10					
Sr				(10	(10					
Sr				500	500					
Tl				2000	2000					
V				70	70					
W				(50	(50					
Y				(10	(10					
Zn				(200	(200					
Zr				50	30					

SAMPLE NO.	191	192	193	194	195	196	197	198	199	200
ROCK ACE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	FELINT	FELINT	FELINT	FELINT	FELINT	FELINT	FELINT	FELINT	FELINT	FELINT
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	AB	AB	AB	AB	AB	AB	AB	AB	AB	AB
4 MI. QUAD	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ
SECTION	7	6	7	7	7	1	1	32	32	33
TOWNSHIP	109	109	109	109	109	109	109	99	99	99
RANGE	9W	9W	9W	9W	9W	10W	10W	9W	9W	9W
Au	IS	(.100	IS	IS	IS	IS	IS	IS	IS	(.020
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	15.000	15.000	25.000	35.000	30.000	25.000	25.000	30.000	25.000	20.000
Pb	20.000	25.000	30.000	30.000	30.000	25.000	25.000	25.000	20.000	15.000
Zn	125.000	120.000	130.000	170.000	155.000	140.000	128.000	120.000	105.000	90.000
As										
Sb										
W										

SAMPLE NO.	201	202	203	204	205	206	0207	0208	0209	210
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	CRET	CRET	CRET	CRET
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
HAT. TYPE	BTR SED	STR SED	STR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	SED RK/O
1 MI. QUAD	AB	AB	AB	AB	AB	AB	C4	C4	C4	C4
4 MI. QUAD	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	33	33	33	33	27	27	5	9	16	34
TOWNSHIP	9S	9S	9S	9S	9S	9S	6N	7N	7N	8N
RANGE	9W	9W	9W	9W	9W	9W	6E	6E	6E	6E
Au	<.020	<.020	<.020	<.100	<.020	<.020	<.020	<.020	<.100	<.020
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	1.000
Cd	25.000	20.000	20.000	25.000	15.000	15.000	30.000	35.000	40.000	335.000
Pb	25.000	20.000	20.000	20.000	20.000	20.000	15.000	20.000	30.000	70.000
Zn	95.000	85.000	125.000	90.000	100.000	100.000	80.000	85.000	120.000	180.000
As							30.000	<10.000	20.000	450.000
Sb							1.000	<1.000	4.000	<1.000
W										
Fe							5X	5X	5X	
Ca							0.5X	0.5X	0.3X	
Hg							2X	3X	2X	
Ap							<1	<1	<1	
As							<500	<500	<500	
B							50	50	70	
Ba							1000	700	1000	
Be							<2	<2	<2	
Bi							<10	<10	<10	
Cd							<50	<50	<50	
Co							5	10	15	
Cr							100	100	100	
Cu							30	50	70	
Ga							15	15	20	
Ge							<20	<20	<20	
La							20	20	20	
Mn							1500	1500	1500	
Mo							<2	<2	<2	
Nb							<20	20	20	
Ni							50	50	50	
Pb							10	10	20	
Sb							<100	<100	<100	
Sc							20	20	20	
Sn							<10	<10	<10	
Sr							200	200	200	
Tl							5000	5000	5000	
V							150	100	100	
W							<50	<50	<50	
Y							10	10	10	
Zn							<200	<200	<200	

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SAMPLE NO.	0211	0212	213	214	215	216	217	218	219	220
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
MAT. TYPE	STR SED	STR SED	SL/BS/CG	SL/BS/CG	BED RK/Q	BED RK/Q	BED RK/Q	BED RK/Q	BED RK/Q	FEL PLUT
1 MI. QUAD	C4	D4	D4	D4	C4	C4	C4	C4	C4	D4
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	34	20	20	8	34	34	34	34	34	8
TOWNSHIP	8N	8N	8N	8N	8N	8N	8N	8N	8N	8N
RANGE	6E	6E	6E	6E	6E	6E	6E	6E	6E	6E
Au	(.040	IS			(.020					(.020
Ag	(.200	IS			9.600					.200
Cu	295.000	IS			950.000					
Pb	30.000	IS			1000.000					
Zn	95.000	IS			1250.000					
As	1200.000	IS								
Sb	1.000	IS								
W										(2.000
Fe	2X	I/SX								
Ca	0.5X	I/SX								
Hq	1X	I/SX								
Ag	(1	I/S								
As	500	I/S								
B	20	I/S								
Ba	300	I/S								
Be	(2	I/S								
Bl	(10	I/S								
Cd	(50	I/S								
Ce	(5	I/S								
Cr	50	I/S								
Cu	200	I/S								
Ga	10	I/S								
Ge	(20	I/S								
Li	30	I/S								
Mn	1000	I/S								
Mo	(2	I/S								
Nb	(20	I/S								
Ni	20	I/S								
Pb	20	I/S								
Sb	(100	I/S								
Sc	10	I/S								
Sn	(10	I/S								
Sr	200	I/S								
Tl	3000	I/S								
V	100	I/S								
W	(50	I/S								
Y	10	I/S								
Zn	(200	I/S								
Zr	30	I/S								

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SAMPLE NO.	221	222	223	224	225	226	227	228	229	230
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
MAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	A3	A3	A3	A3	A3	A3	A3	A2	A3	A3
4 MI. QUAD	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR
SECTION	30	19	10	10	15	9	8	6	15	15
TOWNSHIP	11N	11N	11N	11N	11N	11N	11N	13N	13N	13N
RANGE	9E	9E	9E	9E	9E	9E	9E	10E	9E	9E
Au	<.020	<.020	<.100	<.020	<.020	19	<.020	<.200	<.020	<.020
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	35.000	35.000	70.000	20.000	35.000	25.000	45.000	40.000	40.000	40.000
Pb	10.000	5.000	20.000	10.000	5.000	10.000	5.000	10.000	15.000	20.000
Zn	70.000	70.000	100.000	60.000	65.000	75.000	65.000	115.000	80.000	95.000
As	<10.000	10.000	<10.000	<10.000	20.000	10.000	<10.000	10.000	10.000	10.000
Sb										
W										
Fe	5X	5X	5X	5X	5X	7X	5X	3X	7X	5X
Ca	1.5X	1.5X	1X	1X	2X	1.5X	1.5X	0.5X	2X	1X
Hq	3X	3X	5X	3X	5X	5X	5X	2X	5X	5X
Ag	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	15	10	15	15	15	15	10	10	15	15
Ba	1000	700	1000	1000	1000	1500	1000	200	1000	700
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Co	5	7	5	7	10	7	7	5	5	5
Cr	30	20	200	30	50	50	100	20	50	70
Cu	200	200	300	100	300	200	200	300	300	200
Ga	10	10	15	10	10	10	10	10	10	10
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	20	20	20	20	30	30	30	20	30	30
Mn	1000	700	1000	700	500	700	700	1000	500	500
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	50	20	50	15	20	30	30	20	30	30
Pb	15	10	50	10	15	15	10	15	20	30
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	10	10	15	10	10	10	10	<10	10	15
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	200	300	500	500	500	500	500	300	300	200
Ti	7000	7000	7000	7000	7000	7000	7000	3000	7000	7000
V	150	100	150	100	150	100	100	70	150	150
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	<10	<10	10	10	10	<10	10	10	10	10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	150	100	200	100	200	70	100	50	70	70

SAMPLE NO.	231	232	233	234	235	236	237	238	239	240
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
MAT. TYPE	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED
1 MI. QUAD	A3	A3	A3	A3	A3	A3	A3	A3	A3	A3
4 MI. QUAD	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR
SECTION	21	5	5	5	7	7	10	13	24	24
TOWNSHIP	13N	12N	12N	12N	12N	12N	12N	12N	12N	12N
RANGE	9E	9E	9E	9E	9E	9E	9E	8E	8E	8E
Au	<.020	<.200	<.100	<.020	<.100	<.020	<.200	<.100	<.020	<.100
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	35.000	25.000	25.000	20.000	45.000	25.000	55.000	25.000	20.000	30.000
Pb	20.000	20.000	10.000	10.000	20.000	15.000	20.000	20.000	10.000	15.000
Zn	80.000	80.000	70.000	65.000	115.000	70.000	115.000	90.000	65.000	85.000
As	10.000	10.000	10.000	<10.000	10.000	10.000	10.000	<10.000	<10.000	<10.000
Sb										
W										
Fe	7X	3X	5X	5X	5X	7X	5X	5X	3X	5X
Ca	5X	0.7X	1X	1X	0.7X	1X	0.7X	1X	0.7X	1X
Hg	7X	5X	5X	7X	3X	5X	3X	5X	5X	7X
Aq	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	20	10	15	15	15	15	15	20	15	15
Ba	1500	500	700	1000	700	1500	700	1000	1000	1500
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bl	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Ce	7	7	7	7	30	5	10	7	5	7
Cr	200	150	30	50	30	100	50	150	50	50
Cu	300	70	100	100	100	150	150	150	100	150
Co	10	10	10	10	10	10	10	10	10	15
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Ln	20	20	20	30	30	20	30	20	20	20
Mn	1000	500	500	500	500	700	700	500	700	500
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	100	20	20	20	20	30	30	50	30	20
Pb	30	10	15	15	20	15	20	20	10	20
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	10	10	10	10	10	15	10	10	10	15
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	500	300	500	500	300	500	500	300	300	500
Ti	7000	5000	7000	5000	7000	7000	5000	7000	5000	7000
V	500	100	150	70	100	150	150	200	150	200
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	<10	<10	<10	10	<10	10	<10	<10	<10	10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	100	50	70	100	30	70	100	70	150	50

SAMPLE NO.	241	242	243	244	245	246	247	248	249	250
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
MAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	A3	A3	A3	A3	A3	A2	A2	A2	A2	A2
4 MI. QUAD	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR
SECTION	24	23	26	26	25	29	20	17	17	8
TOWNSHIP	12N	12N	12N	12N	12N	12N	12N	12N	12N	12N
RANGE	8E	8E	8E	8E	9E	10E	10E	10E	10E	10E
Au	19	<.100	19	<.100	<.100	<.020	<.040	<.020	<.020	<.020
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	30.000	30.000	45.000	55.000	20.000	25.000	20.000	25.000	25.000	25.000
Pb	15.000	15.000	15.000	20.000	5.000	10.000	5.000	5.000	15.000	20.000
Zn	90.000	90.000	140.000	165.000	65.000	60.000	65.000	60.000	65.000	70.000
As	<10.000	<10.000	10.000	10.000	<10.000	10.000	10.000	10.000	10.000	10.000
Sb										
W										
Fe	5X	7X	7X	5X	5X	5X	5X	5X	5X	5X
Co	0.5X	0.7X	0.5X	1.5X	1X	1X	0.7X	1X	1.5X	1.5X
Hg	3X	5X	5X	5X	7X	5X	5X	5X	7X	5X
Al	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	15	15	20	15	15	15	15	15	15	10
Ba	500	700	700	500	1000	700	700	700	1000	700
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Ce	5	7	10	7	7	5	5	5	7	7
Cr	70	30	50	20	150	200	300	100	150	70
Cu	150	200	150	200	150	70	150	100	150	150
Ga	10	10	10	10	10	10	10	10	10	10
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Li	20	20	20	30	20	20	20	20	20	30
Mn	300	1000	700	500	700	500	700	700	700	700
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	20	20	30	20	30	30	20	20	30	30
Pb	15	15	15	20	15	10	15	15	15	15
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	10	10	15	10	10	10	10	10	10	10
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	500	300	300	500	500	500	500	500	300	500
Tl	5000	7000	7000	5000	7000	5000	5000	7000	7000	5000
V	150	200	200	100	150	100	100	150	100	150
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	10	10	10	10	<10	<10	<10	<10	10	10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	500	50	70	30	100	70	70	300	150	70

SAMPLE NO.	251	252	253	254	255	256	257	258	259	260
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
HAT. TYPE	STR SED	BTR SED	STR SED	BTR SED	BTR SED	QUARTZ	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. DIAD	A2	A2	A3	A3	A3	A3	A3	A3	A3	A3
4 MI. DIAD	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR
SECTION	4	18	23	3	30	30	20	20	9	33
TOWNSHIP	12N	12N	12N	11N	11N	11N	11N	11N	11N	12N
RANGE	10E	10E	9E	8E	8E	8E	8E	8E	8E	8E
Au	<.020	<.020	18	<.200	<.200	<.020	<.200	<.100	<.040	<.020
Ag	<.200	<.200	<.200	<.200	<.200	.200	<.200	<.200	<.200	<.200
Cu	25.000	35.000	50.000	20.000	20.000		25.000	20.000	30.000	35.000
Pb	10.000	10.000	25.000	20.000	20.000		25.000	20.000	15.000	15.000
Zn	65.000	65.000	180.000	100.000	175.000		135.000	85.000	75.000	70.000
As	10.000	10.000	10.000	10.000	40.000	10.000	20.000	10.000	60.000	10.000
Sb										
W										
Fe	5X	5X	7X	5X	3X		5X	3X	5X	5X
Cn	1.5X	1X	0.2X	0.5X	1X		0.7X	1X	1.5X	0.5X
Mg	7X	5X	2X	5X	1X		3X	2X	5X	5X
Al	<1	<1	<1	<1	<1		<1	<1	1	<1
Ar	<500	<500	<500	<500	<500		<500	<500	<500	<500
B	15	20	15	10	10		15	20	15	20
Bo	1500	500	1000	700	100		700	300	500	700
Be	<2	<2	<2	<2	<2		<2	<2	<2	<2
Bl	<10	<10	<10	<10	<10		<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50		<50	<50	<50	<50
Ce	7	7	30	5	10		7	10	15	10
Cr	50	30	50	30	10		30	30	50	100
Cu	100	100	300	150	30		150	30	100	100
Ga	10	10	15	10	<10		10	10	10	10
Ce	<20	<20	<20	<20	<20		<20	<20	<20	<20
La	20	20	20	30	50		50	20	20	20
Mn	700	500	1000	500	1500		700	1000	700	700
Mo	<2	<2	2	<2	<2		<2	<2	<2	<2
Nb	20	20	20	20	<20		20	20	20	20
Ni	30	30	50	15	10		15	15	30	30
Pb	15	15	30	15	10		15	10	20	20
Sb	<100	<100	<100	<100	<100		<100	<100	<100	<100
Sc	10	10	15	10	<10		10	<10	10	10
Sn	<10	<10	<10	<10	<10		<10	<10	<10	<10
Sr	500	500	300	500	100		200	200	200	200
Tl	7000	7000	7000	7000	1000		7000	5000	7000	7000
V	100	100	150	150	50		150	70	100	100
W	<50	<50	<50	<50	<50		<50	<50	<50	<50
Y	10	10	15	10	<10		<10	<10	<10	10
Zn	<200	<200	<200	<200	<200		<200	<200	<200	<200
Zr	100	200	50	70	20		30	30	100	100

SAMPLE NO.	261	262	263	264	265	266	267	268	269	270
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	A3	A3	A3	A3	A3	A4	A4	A4	A4	A4
4 MI. QUAD	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR
SECTION	4	8	17	17	12	36	36	36	24	13
TOWNSHIP	11N	11N	11N	11N	11N	12N	12N	12N	12N	12N
RANGE	8E	8E	8E	8E	7E	7E	7E	7E	7E	7E
Au	(.020	(.020	(.020	(.020	(.040	(.020	(.020	(.200	(.020	(.020
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	35.000	25.000	25.000	25.000	45.000	55.000	45.000	25.000	30.000	45.000
Pb	15.000	15.000	15.000	10.000	20.000	20.000	20.000	15.000	15.000	20.000
Zn	70.000	65.000	75.000	65.000	120.000	130.000	135.000	75.000	75.000	90.000
As	(10.000	(10.000	50.000	(10.000	(10.000	(10.000	(10.000	(10.000	10.000	10.000
Sb										
W										
Fe	5X	5X	7X	5X	5X	7X	5X	5X	5X	7X
Ca	0.7X	0.7X	0.5X	0.5X	0.7X	0.2X	0.5X	1X	1.5X	1X
Mg	5X	5X	3X	5X	5X	3X	5X	3X	3X	5X
Al	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
Ar	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
R	15	15	20	15	50	70	50	20	15	20
Ba	700	1000	700	700	1500	700	700	700	700	1000
Be	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bi	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Ce	10	5	5	10	15	20	15	10	5	15
Cr	150	50	50	70	70	100	100	30	50	100
Cu	50	70	100	100	150	200	150	150	150	200
Ca	10	10	10	10	15	15	10	10	10	10
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	20	20	(20	(20	(20	30	20	20	30
Mn	700	500	500	700	1000	1000	1000	700	700	700
Mo	(2	(2	2	(2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	30	20	15	20	50	50	30	20	20	30
Pb	20	10	15	10	30	20	10	20	20	20
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	15	(10	10	10	10	10	10	10	10	15
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Br	200	200	200	200	200	200	200	200	200	300
Tl	7000	5000	5000	5000	7000	7000	7000	7000	5000	7000
V	100	100	100	100	200	300	300	200	200	200
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	10	(10	10	(10	(10	(10	(10	(10	(10	10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	150	50	30	70	100	70	70	70	50	70

SAMPLE NO.	271	272	273	274	275	276	277	278	279	280
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
HAT. TYPE	STR SED	STR SED	FEL PLUT	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	A4	A4	A4	A3	A4	A4	A4	A4	A4	D4
4 MI. QUAD	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	BEWARD
SECTION	33	1	1	2	11	9	15	27	33	5
TOWNSHIP	12N	11N	11N	11N	11N	11N	11N	11N	11N	10N
RANGE	7E	6E	6E	6E	6E	6E	6E	6E	6E	6E
Au	<.100	<.020	<.020	<.020	<.040	<.020	<.200	<.020	<.020	<.020
Ag	<.200	.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	30.000		30.000	55.000	35.000	30.000	35.000	25.000	30.000	30.000
Pb	15.000		15.000	20.000	15.000	10.000	15.000	15.000	10.000	15.000
Zn	85.000		65.000	115.000	75.000	75.000	90.000	85.000	85.000	80.000
As	10.000	<10.000	<10.000	<10.000	<10.000	<10.000	<10.000	<10.000	<10.000	<10.000
Sb										
W										
Fe	5X		5X	5X	5X	5X	7X	7X	5X	7X
Ca	0.7X		1.5X	1.5X	2X	1.5X	3X	2X	1X	1X
Hq	5X		5X	5X	5X	5X	5X	7X	5X	7X
Ar	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	20	20	15	30	20	50	70	20	20	20
Ba	700	1000	700	1000	1000	1500	1500	1000	1500	1500
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bl	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Co	10	10	10	15	15	20	15	15	15	15
Cr	70	100	70	150	100	100	200	50	50	50
Cu	70	150	200	70	150	300	300	300	300	300
Ga	10	10	10	10	10	20	20	10	15	15
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Ln	20	20	20	20	<20	20	20	<20	20	20
Mn	500	700	700	700	500	1000	1500	1000	1000	1000
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	20	20	15	20	20	50	50	30	30	30
Pb	30	20	20	20	10	150	150	100	70	70
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	15	15	15	20	15	15	15	10	15	15
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	200	300	300	300	300	300	300	300	300	300
Tl	7000	7000	5000	7000	7000	10000	10000	7000	5000	5000
V	200	200	150	150	200	700	500	300	300	300
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	10	<10	<10	10	10	<10	<10	<10	<10	<10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	30	70	70	70	70	200	200	<200	<200	<200

SAMPLE NO.
ROCK AGE
ROCK TYPE
MAT. TYPE
1 MI. QUAD
4 MI. QUAD
SECTION
TOWNSHIP
RANGE

281
CRET
METBED
STR BED
D4
SEWARD
8
10N
6E

282
CRET
METBED
STR BED
D4
SEWARD
9
10N
6E

283
CRET
METBED
STR BED
D4
SEWARD
3
10N
6E

284
CRET
METBED
STR BED
A4
ANCHOR
26
11N
6E

285
CRET
METBED
STR BED
A4
ANCHOR
18
11N
7E

286
CRET
METBED
STR BED
A4
ANCHOR
8
11N
7E

287
CRET
METBED
STR BED
A4
ANCHOR
11
11N
7E

288
CRET
METBED
STR BED
A4
ANCHOR
14
11N
7E

289
CRET
METBED
STR BED
A4
ANCHOR
22
11N
7E

290
CRET
METBED
STR BED
A4
ANCHOR
23
11N
7E

Av	<.020	<.020	<.020	<.020	<.020	<.020	<.020	<.020	<.020	<.020
Aq	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	30.000	40.000	35.000	30.000	40.000	20.000	30.000	20.000	45.000	20.000
Pb	20.000	20.000	20.000	15.000	15.000	15.000	20.000	20.000	20.000	15.000
Zn	85.000	90.000	85.000	85.000	85.000	75.000	145.000	130.000	85.000	75.000
As	<10.000	<10.000	<10.000	<10.000	<10.000	20.000	20.000	10.000	20.000	<10.000
Sb										
W										
Fe	7X	5X	5X	5X	7X	7X	7X	5X	7X	5X
Ca	2X	1X	1X	0.5X	0.7X	1X	0.5X	0.2X	0.7X	0.7X
Mg	7X	5X	5X	5X	5X	7X	5X	3X	5X	3X
Ag	<1	<1	<1	<1	<1	<1	<1	<1	1.5	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	15	15	15	15	20	15	15	15	20	15
Ba	1500	1000	1500	1000	1000	1500	1000	700	1500	1500
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bl	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Ce	15	10	7	10	7	5	15	7	15	5
Cr	100	70	100	50	50	70	100	70	70	50
Cu	500	150	150	100	200	100	100	20	150	50
Ga	15	10	15	10	10	15	15	10	15	10
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	<20	20	20	20	20	20	<20	20	20	20
Mn	1500	1000	1000	500	700	3000	700	500	700	500
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	50	30	20	30	20	15	20	10	20	15
Pb	50	50	30	50	30	20	50	30	50	30
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sr	15	10	15	10	10	10	15	10	15	10
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	300	300	300	300	300	300	200	200	300	300
Tl	7000	7000	7000	7000	5000	5000	5000	3000	7000	7000
V	300	200	200	150	150	150	150	100	150	150
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	10	<10	10	10	<10	10	<10	10	<10	<10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	70	70	100	50	50	70	70	30	70	50

SAMPLE NO.	291	292	293	294	295	296	297	298	299	300
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
HAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	D4	D4	C5	C5	C5	C5	C5	C5	C5	C5
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	30	30	35	35	34	16	17	30	25	35
TOWNSHIP	8N	8N	8N	8N	8N	7N	7N	7N	7N	7N
RANGE	6E	6E	5E	5E	5E	5E	5E	5E	4E	4E
Av	(.020	(.020	(.020	(.020	(.040	(.020	(.020	(.020	(.020	(.040
Ag	(.200	(.200	(.200	(.200	(.200	(.200	.200	(.200	(.200	(.200
Cv	25.000	25.000	45.000	45.000	25.000	25.000	30.000	35.000	30.000	40.000
Pb	15.000	20.000	15.000	15.000	5.000	10.000	15.000	15.000	10.000	15.000
Zn	60.000	80.000	110.000	105.000	75.000	75.000	75.000	65.000	65.000	75.000
As	10.000	(10.000	20.000	10.000	(10.000	(10.000	10.000	(10.000	10.000	10.000
Sb										
W										
Fe	5X	7X	5X	7X	7X	7X	7X	7X	5X	5X
Ca	0.7X	0.7X	0.7X	0.5X	1.5X	2X	1.5X	2X	1.5X	3X
Hg	5X	5X	3X	5X	5X	7X	5X	5X	3X	5X
Ag	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	15	15	15	15	50	30	30	30	20	20
Ba	1000	1500	1000	1500	1000	1500	1000	1000	1000	1000
Re	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bl	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Ce	7	7	10	10	5	5	5	5	5	5
Cr	50	100	50	50	1000	150	50	50	20	20
Cu	100	150	150	100	100	150	150	70	100	70
Co	10	10	10	15	(10	10	10	10	10	10
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	100	30	20	(20	(20	20	20	30	20
Mn	700	1000	500	700	3000	5000	2000	1500	1500	1500
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	20	(20	20	20	20	20	20
Ni	15	20	15	15	30	70	30	20	20	15
Pb	30	30	20	30	(10	10	15	10	(10	10
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	10	15	10	10	(10	10	10	10	10	10
Sr	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Ti	500	300	300	300	200	200	200	300	300	500
V	7000	7000	7000	5000	(10000	(10000	10000	10000	10000	10000
U	100	200	150	150	700	700	300	500	300	500
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	10	10	(10	(10	(10	(10	(10	(10	(10	(10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	70	100	70	50	20	20	100	100	100	100

SAMPLE NO.	301	302	303	304	305	306	307	308	309	310
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	MAFVOL	MAFVOL	MAFVOL
MAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	STR SED	MAF VOLC	STR SED
1 MI. QUAD	C5	C5	C5	C5	C5	C5	C5	B2	B2	B2
4 MI. QUAD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD
SECTION	24	23	13	14	13	8	12	10	10	3
TOWNSHIP	7N	7N	7N	7N	7N	7N	7N	4N	4N	4N
RANGE	4E	4E	4E	4E	4E	5E	4E	10E	10E	10E
Au	(.100	(.020	(.020	(.020	(.020	(.020	(.19	(.020		(.200
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200		(.200
Cu	25.000	30.000	25.000	15.000	25.000	15.000	40.000	55.000		40.000
Pb	15.000	20.000	15.000	10.000	10.000	20.000	20.000			
Zn	80.000	65.000	70.000	60.000	60.000	110.000	100.000	210.000		170.000
As	20.000	20.000	(10.000	(10.000	(10.000	20.000	40.000			
Sb										
W										
Fe	3%	5%	5%	5%	7%	7%	7%	10%		7%
Co	1%	1.5%	2%	1%	1.5%	1%	1%	15%		3%
Mg	3%	5%	5%	5%	5%	5%	5%	7%		3%
Al	(1	(1	(1	(1	(1	(1	(1	(1		(1
As	(500	(500	(500	(500	(500	(500	(500	(500		(500
B	15	10	15	10	10	10	15	10		10
Ba	500	700	700	700	1000	700	1000	10		(10
Be	(2	(2	(2	(2	(2	(2	(2	(2		(2
Bl	(10	(10	(10	(10	(10	(10	(10	(10		(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50		(50
Ce	10	5	5	5	5	50	10	30		10
Cr	20	20	30	20	30	50	30	300		15
Cu	50	20	300	20	50	50	70	150		150
Ga	10	10	(10	10	10	15	(10	10		(10
Ge	(20	(20	(20	(20	(20	(20	(20	(20		(20
La	20	20	20	20	20	20	20	(20		30
Mn	1000	500	700	500	700	10000	1000	1000		2000
Mo	(2	(2	(2	(2	(2	(2	(2	2		(2
Nb	20	20	20	20	20	20	20	20		(20
Ni	20	30	20	30	30	50	50	70		10
Pb	10	10	15	(10	10	10	15	(10		(10
Sb	(100	(100	(100	(100	(100	(100	(100	(100		(100
Sc	15	15	15	15	15	10	15	50		10
Sn	(10	(10	(10	(10	(10	(10	(10	(10		(10
Sr	500	500	500	500	500	500	500	200		100
Tl	7000	7000	7000	7000	10000	7000	7000	10000		5000
V	150	200	300	100	300	200	300	500		150
W	(50	(50	(50	(50	(50	(50	(50	(50		(50
Y	(10	(10	(10	(10	(10	(10	(10	10		(10
Zn	(200	(200	(200	(200	(200	(200	(200	(200		(200

SAMPLE NO.	311	312	313	314	315	316	317	318	319	320
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL
MAT. TYPE	BTR SED	MAF VOLC	BTR SED	BTR SED	BTR SED	BTR SED	BULFIDES	BULFIDES	BTR SED	BTR SED
1 MI. QUAD	B2	B2	B2	C2	B2	B2	B2	B2	B2	B2
4 MI. QUAD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD
SECTION	3	3	28	21	28	28	35	35	26	3
TOWNSHIP	4N	4N	4N	5N	5N	5N	5N	5N	5N	4N
RANGE	10E	10E	10E	10E	10E	10E	10E	10E	10E	10E
Au	(.020		(.020	19	19	19	(.020	(.020	(.200	(.020
Ag	(.200		(.200	(.200	(.200	(.200	(.200	.200	(.200	(.200
Cv	105.000		35.000	90.000	25.000	40.000	295.000	1950.000	150.000	70.000
Pb							10.000	5.000		
Zn	340.000		75.000	120.000	75.000	60.000	525.000	110.000	230.000	320.000
As										
Sb										
W										
Fe	10X		10X	7X	3X	3X			5X	7X
Ca	3X		15X	5X	5X	7X			7X	10X
Mg	7X		5X	5X	3X	5X			7X	10X
Aq	<1		<1	<1	<1	<1			<1	<1
As	(500		(500	(500	(500	(500			(500	(500
B	10		10	10	10	10			10	10
Ba	(10		(10	10	10	10			10	10
Be	(2		(2	(2	(2	(2			(2	(2
Bi	(10		(10	(10	(10	(10			(10	(10
Cd	(50		(50	(50	(50	(50			(50	(50
Ce	20		30	50	10	10			20	50
Cr	150		300	300	20	30			100	200
Cv	300		150	300	20	50			300	150
Ca	10		10	(10	10	10			10	15
Ge	(20		(20	(20	(20	(20			(20	(20
La	(20		20	20	30	20			(20	(20
Mn	2000		1500	2000	2000	1000			2000	2000
Mo	2		(2	(2	(2	(2			2	(2
Nb	20		20	20	(20	(20			20	20
Ni	30		100	300	15	20			30	50
Pb	10		(10	(10	(10	(10			(10	(10
Sb	(100		(100	(100	(100	(100			(100	(100
Sc	20		30	20	10	15			20	30
Sn	(10		(10	(10	(10	(10			(10	(10
Sr	100		200	200	100	100			100	100
Ti	7000		7000	7000	2000	3000			7000	10000
V	700		500	300	100	100			200	300
W	(50		(50	(50	(50	(50			(50	(50
Y	(10		(10	(10	(10	(10			10	10
Zn	(200		(200	(200	(200	(200			(200	(200

SAMPLE NO. ROCK AGE ROCK TYPE MAT. TYPE 1 MI. QUAD 4 MI. QUAD SECTION TOWNSHIP RANGE	321 TERT MAFVOL SULFIDES B2 SEWARD 3 4N 10E	322 TERT MAFVOL SULFIDES B2 SEWARD 3 4N 10E	323 TERT MAFVOL STR SED B2 SEWARD 3 4N 10E	324 TERT MAFVOL STR SED B2 SEWARD 2 4N 10E	325 TERT MAFVOL STR SED B2 SEWARD 10 4N 10E	326 TERT MAFVOL STR SED B2 SEWARD 10 4N 10E	327 TERT MAFVOL STR SED B2 SEWARD 10 4N 10E	328 TERT MAFVOL STR SED B2 SEWARD 16 4N 10E	329 TERT MAFVOL STR SED B2 SEWARD 22 4N 10E	330 TERT MAFVOL STR SED B2 SEWARD 21 4N 10E
Ag	<.020	<.020	<.100	18	<.020	<.020	<.100	<.100	<.020	<.020
Au	.400	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	2000.000	65.000	40.000	90.000	30.000	75.000	35.000	70.000	35.000	75.000
Pb	10.000	10.000								
Zn	8500.000	140.000	270.000	85.000	80.000	160.000	120.000	75.000	65.000	80.000
As										
Sb										
W										
Fe			7X	2X	10X	7X	7X	10X	7X	10X
Ca			5X	3X	10X	15X	10X	15X	15X	15X
Hg			7X	1.5X	7X	7X	5X	7X	7X	10X
Ag			<1	<1	<1	<1	<1	<1	<1	<1
As			<500	<500	<500	<500	<500	<500	<500	<500
B			10	<10	10	10	10	10	10	10
Ba			<10	10	10	10	15	<10	<10	<10
Be			<2	<2	<2	<2	<2	<2	<2	<2
Bi			<10	<10	<10	<10	<10	<10	<10	<10
Cd			<50	<50	<50	<50	<50	<50	<50	<50
Co			15	15	50	30	15	30	30	30
Cr			50	10	300	200	50	300	100	150
Cu			20	50	70	200	20	150	100	150
Ca			10	<10	15	10	10	10	15	10
Ge			<20	<20	<20	<20	<20	<20	<20	<20
La			20	30	<20	<20	20	<20	<20	<20
Mn			1000	1500	1500	1500	1500	1500	1000	1000
Mo			<2	2	2	<2	<2	<2	2	<2
Nb			20	<20	20	20	20	20	20	20
Ni			15	7	50	30	15	30	15	20
Pb			<10	<10	10	<10	<10	<10	<10	<10
Sb			<100	<100	<100	<100	<100	<100	<100	<100
Sc			20	10	50	30	20	30	30	30
Sn			<10	<10	<10	<10	<10	<10	<10	<10
Str			100	100	200	200	200	200	200	200
Tl			7000	1000	7000	7000	7000	7000	10000	7000
V			150	70	300	200	150	200	150	200
W			<50	<50	<50	<50	<50	<50	<50	<50
Y			<10	<10	10	10	10	10	15	10
Zn			<200	<200	<200	<200	<200	<200	<200	<200
Zr			30	20	30	50	30	20	50	20

SAMPLE NO.	331	332	333	334	335	336	337	338	339	340
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
STR TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	METBED	METBED	METSED	METSED	METSED
MAT. TYPE	STR SED	STR SED	STR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	STR SED
1 MI. QUAD	B2	B3	B3	B3	B3	C4	C4	C4	C4	C4
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	20	17	19	18	36	10	3	10	5	21
TOWNSHIP	4N	4N	4N	4N	4N	6N	6N	6N	6N	7N
RANGE	10E	10E	10E	10E	9E	7E	7E	7E	7E	7E
Au	<.200	<.100	<.200	<.100	<.020	<.020	<.020	19	<.020	<.200
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	40.000	20.000	35.000	40.000	10.000	15.000	20.000	40.000	25.000	35.000
Pb										
Zn	60.000	75.000	60.000	70.000	150.000	100.000	100.000	125.000	105.000	110.000
As										
Sb										
W										
Fe	5%	7%	5%	5%	10%	7%	5%	2%	3%	5%
Ca	10%	10%	7%	10%	3%	0.5%	0.7%	0.5%	0.3%	0.7%
Hg	5%	7%	7%	7%	3%	5%	2%	1%	1.5%	2%
Al	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	10	10	10	10	10	15	50	30	30	30
Ba	20	10	30	<10	20	700	700	300	500	700
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Ce	15	15	20	15	20	15	20	20	10	15
Cr	150	70	100	100	<10	100	150	30	100	70
Cu	50	15	50	70	15	20	50	30	30	50
Ga	10	10	10	10	10	15	15	10	10	15
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	20	20	20	20	20	20	<20	30	<20	<20
Mn	700	1000	1500	1000	2000	1500	2000	2000	1000	1500
Mo	<2	<2	<2	<2	2	<2	<2	<2	<2	<2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	15	15	15	20	5	15	50	20	30	50
Pb	10	10	<10	<10	<10	15	10	10	<10	10
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	20	20	30	20	30	15	20	10	20	20
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	200	200	200	200	200	200	200	100	200	200
Tl	5000	5000	5000	3000	10000	7000	3000	2000	3000	3000
V	150	150	100	100	500	100	150	100	100	150
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	<10	<10	<10	<10	10	<10	15	10	10	10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	20	20	20	20	30	50	100	50	70	100

SAMPLE NO.	341	342	343	344	345	346	347	348	349	350
ROCK AGE	TERT	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	C4	C4	C4	C4	C4	C4	C4	C4	C4	C4
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	17	8	8	4	9	5	32	27	27	34
TOWNSHIP	7N	7N	7N	7N	7N	7N	8N	8N	8N	8N
RANGE	7E	7E	7E	7E	7E	7E	7E	7E	7E	7E
As	<.020	<.200	<.020	<.100	<.020	<.100	<.100	<.100	<.200	<.100
Aq	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Ce	20.000	35.000	65.000	25.000	20.000	50.000	50.000	50.000	30.000	50.000
Pb										
Zn	95.000	185.000	155.000	125.000	95.000	150.000	175.000	125.000	165.000	135.000
As										
Sb										
W										
Fe	3X	3X	5X	3X	5X	3X	3X	3X	3X	3X
Co	0.5X	0.5X	0.5X	0.5X	1X	0.5X	0.2X	0.5X	0.15X	0.3X
Mn	2X	1.5X	2X	2X	3X	1X	1X	1.5X	1X	1.5X
Aq	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	30	50	100	30	30	70	50	30	30	30
Ba	500	500	700	700	700	500	500	700	500	500
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Ce	10	20	20	20	20	20	20	20	30	20
Cr	70	70	100	100	150	50	70	70	50	50
Cu	20	30	100	30	30	70	50	50	30	70
Ca	15	15	20	15	15	15	15	10	10	15
Ce	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	<20	<20	<20	<20	<20	<20	<20	20	20	20
Mn	1000	2000	2000	2000	2000	2000	1500	2000	5000	1500
Mn	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	20	20	20	20	20	<20	20	<20	20	20
Ni	30	30	70	50	50	70	50	50	30	50
Pb	10	10	20	15	10	20	20	20	20	20
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Bc	20	15	20	20	20	10	20	20	20	20
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	200	200	100	200	200	200	200	200	200	200
Tl	3000	3000	5000	3000	5000	5000	3000	3000	3000	3000
V	100	100	200	100	150	200	100	100	100	100
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	10	10	10	10	15	10	10	10	10	10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	70	70	70	100	100	50	50	50	50	70

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SAMPLE NO.	351	352	353	354	355	356	357	358	359	360
ROCK AGE	CRET	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	FELINT	FELINT	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	MAF VOLC	STR SED	STR SED	QUARTZ
1 MI. QUAD	C4	C3	C4	C4	C2	C2	R2	C2	R2	R2
4 MI. QUAD	BEWARD	SEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD
SECTION	35	6	11	14	13	13	25	12	2	12
TOWNSHIP	8N	8N	7N	7N	5N	5N	5N	5N	4N	4N
RANGE	7E	8E	7E	7E	10E	10E	10E	10E	10E	10E
Au	<.100	<.020	<.100	<.100	I9	<.100		<.020	<.020	<.020
Ag	<.200	<.200	<.200	<.200	<.200	<.200		<.200	<.200	<.020
Cu	50.000	10.000	20.000	10.000	30.000	85.000		20.000	45.000	1.600
Pb										5300.000
Zn	95.000	95.000	80.000	65.000	70.000	265.000		120.000	80.000	20.000
As										165.000
Sb										
W										
Fe	3%	3%	3%	2%	2%	1.5%		5%	5%	
Co	5%	1%	1.5%	0.7%	1%	1%		2%	7%	
Mn	2%	1%	2%	1%	1%	0.7%		5%	5%	
Ag	<1	<1	<1	<1	<1	<1		<1	<1	
As	<500	<500	<500	<500	<500	<500		<500	<500	
B	15	10	15	10	10	<10		10	10	
Ba	200	700	500	300	50	50		100	10	
Be	<2	<2	<2	<2	<2	<2		<2	<2	
Bl	<10	<10	<10	<10	<10	<10		<10	<10	
Cd	<50	<50	<50	<50	<50	<50		<50	<50	
Ce	20	5	10	5	5	7		20	20	
Cr	100	50	50	30	30	50		200	200	
Cu	30	20	30	10	30	50		30	70	
Ca	<10	15	15	10	<10	<10		15	15	
Ge	<20	<20	<20	<20	<20	<20		<20	<20	
La	20	20	20	20	30	30		<20	<20	
Mn	1500	1000	2000	1000	2000	2000		1500	2000	
Mo	<2	<2	<2	<2	<2	<2		<2	<2	
Nb	20	20	20	<20	<20	<20		20	20	
Ni	50	20	20	10	20	30		100	100	
Pb	15	10	10	10	<10	<10		<10	<10	
Sb	<100	<100	<100	<100	<100	<100		<100	<100	
Sc	30	20	15	10	10	<10		30	50	
Sn	<10	<10	<10	<10	<10	<10		<10	<10	
Sr	200	300	200	200	100	100		100	100	
Tl	3000	3000	3000	3000	2000	2000		100	100	
V	100	100	100	70	100	70		3000	7000	
W	<50	<50	<50	<50	<50	<50		100	200	
Y	10	<10	10	<10	<10	<50		<50	<50	
Zn	<200	<200	<200	<200	<200	<200		15	15	
Zr	30	50	50	100	20	20		<200	<200	

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SAMPLE NO.	361	362	363	364	365	366	367	368	369	370
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	METSED	MAFVOL	MAFVOL
MAT. TYPE	BTR SED	STR SED	BTR SED	STR SED	STR SED	BTR SED	BTR SED	STR SED	STR SED	STR SED
1 MI. QUAD	B2	B2	B2	B2	B3	B2	A3	A3	A3	A3
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	23	26	27	33	5	3	6	1	30	25
TOWNSHIP	4N	4N	4N	4N	3N	3N	1N	1N	2N	2N
RANGE	10E	10E	10E	10E	10E	10E	10E	9E	10E	9E
Au	<.100	<.040	<.020	<.040	<.020		<.100	<.100	<.020	<.100
Ag	<.200	<.200	<.200	<.200	<.200		<.200	.200	<.200	<.200
Cv	25.000	35.000	50.000	210.000	55.000		40.000	110.000	80.000	95.000
Pb										
Zn	40.000	55.000	95.000	120.000	105.000		245.000	145.000	120.000	180.000
As										
Sb										
W										
Fe	2X	5X	5X	5X	5X		3X	7X	5X	5X
Ca	3X	7X	5X	5X	5X		1.5X	7X	7X	10X
Hq	1X	2X	3X	3X	3X		2X	5X	5X	3X
Ag	<1	<1	<1	<1	<1		<1	15	<1	<1
As	<500	<500	<500	<500	<500		<500	<500	<500	<500
B	10	10	10	10	10		20	20	20	20
Bn	10	<10	<10	<10	<10		700	30	300	100
Be	<2	<2	<2	<2	<2		<2	<2	<2	<2
Bl	<10	<10	<10	<10	<10		<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50		<50	<50	<50	<50
Ce	7	15	20	20	30		20	50	30	30
Cr	50	100	150	150	200		100	200	150	500
Cu	30	100	50	200	50		30	200	70	50
Ga	10	15	10	15	15		15	20	20	15
Ge	<20	<20	<20	<20	<20		<20	<20	<20	<20
La	20	<20	<20	<20	<20		<20	<20	<20	<20
Mn	1000	1500	1500	1500	2000		1000	1500	2000	2000
Mo	<2	<2	<2	<2	<2		<2	3	<2	<2
Nb	<20	<20	20	<20	20		20	20	20	<20
Ni	30	100	50	50	50		50	100	50	100
Pb	<10	<10	<10	<10	<10		15	20	10	<10
Sb	<100	<100	<100	<100	<100		<100	150	100	100
Sc	20	30	30	30	30		20	30	30	30
Sn	<10	<10	<10	<10	<10		<10	20	<10	<10
Sr	100	100	100	100	100		200	200	200	100
Tl	2000	7000	5000	3000	3000		3000	3000	7000	10000
V	100	150	150	150	100		150	150	200	200
W	<50	<50	<50	<50	<50		<50	<50	<50	<50
Y	10	20	15	10	15		15	10	15	15
Zn	<200	<200	<200	<200	<200		200	/	<200	<200

SAMPLE NO.	371	372	373	374	375	376	377	378	379	380
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL
MAT. TYPE	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED
1 MI. QUAD	A3	B3	B3	B3	B3	B3	B3	B3	B2	B3
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	33	21	15	14	14	11	31	32	28	20
TOWNSHIP	1N	2N	2N	2N	2N	2N	3N	3N	3N	3N
RANGE	9E	9E	9E	9E	9E	9E	10E	10E	10E	10E
Ar	18	18	<.020	18	18	<.200	.150	<.100	<.200	<.200
Aq	18	<.200	48.000	.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	18	25.000	50.000	100.000	100.000	115.000	125.000	95.000	50.000	110.000
Pb										
Zn	18	80.000	250.000	140.000	60.000	100.000	95.000	70.000	50.000	85.000
As										
Sb										
W										
Fe	1/8X	1.5X	3X	7X	7X	5X	7X	10X	7X	7X
Ca	1/8X	1X	5X	10X	15X	10X	20X	20X	15X	15X
Hg	1/8X	0.5X	5X	7X	7X	5X	7X	7X	7X	7X
Aq	1/8	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	1/8	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	1/8	<10	10	20	20	15	15	15	20	20
Ba	1/8	20	50	10	15	10	10	10	20	10
Be	1/8	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	1/8	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	1/8	<50	<50	<50	<50	<50	<50	<50	<50	<50
Co	1/8	<5	20	70	150	50	100	100	50	50
Cr	1/8	30	200	700	500	500	700	500	500	300
Cu	1/8	30	100	200	200	200	300	200	150	300
Ga	1/8	<10	10	15	20	15	15	15	15	15
Ge	1/8	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	1/8	50	20	<20	<20	20	<20	<20	<20	<20
Mn	1/8	1500	2000	3000	3000	3000	3000	2000	2000	2000
Mo	1/8	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	1/8	<20	<20	<20	<20	<20	<20	<20	<20	<20
Ni	1/8	5	150	300	200	300	300	300	300	200
Pb	1/8	<10	10	<10	<10	<10	<10	<10	<10	<10
Sb	1/8	<100	<100	100	100	100	100	100	100	100
Sc	1/8	<10	20	70	70	50	70	100	50	50
Sn	1/8	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	1/8	100	200	150	200	100	100	100	100	100
Tl	1/8	3000	5000	10000	10000	7000	10000	>10000	10000	10000
V	1/8	100	300	700	700	500	700	700	300	500
W	1/8	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	1/8	<10	10	20	15	10	10	10	10	20
Zn	1/8	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	1/8	<20	20	30	50	30	20	50	50	50

SAMPLE NO.	381	382	383	384	385	386	387	388	389	390
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL
MAT. TYPE	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED
1 MI. QUAD	B3	B3	B3	B3	B3	B3	B3	B3	B2	B2
4 MI. QUAD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD
SECTION	17	23	24	13	11	29	30	25	2	2
TOWNSHIP	3N	3N	3N	3N	3N	4N	4N	4N	3N	3N
RANGE	10E	9E	9E	9E	9E	10E	10E	9E	10E	10E
Av	(.200	(.200	19	19	19	19	18	19	(.100	(.040
Aq	(.200	(.200	(.200	(.200	19	18	18	19	(.200	(.200
Cu	65.000	45.000	30.000	90.000	55.000	18	35.000	18	60.000	55.000
Pb										
Zn	75.000	100.000	100.000	125.000	120.000	18	155.000	19	110.000	85.000
As										
Sb										
W										
Fe	7X	5X	7X	5X	5X	1/8X	5X	5X	5X	2X
Ca	15X	10X	15X	10X	10X	1/8X	7X	10X	7X	5X
Hg	7X	7X	5X	3X	7X	1/8X	5X	5X	3X	2X
Ag	(1	(1	(1	(1	(1	1/8	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	1/8	(500	(500	(500	(500
B	20	20	20	20	20	1/8	20	10	15	20
Ba	(10	20	(10	(10	10	1/8	10	20	100	15
Be	(2	(2	(2	(2	(2	1/8	(2	(2	(2	(2
Bi	(10	(10	(10	(10	(10	1/8	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	1/8	(50	(50	(50	(50
Co	50	50	70	50	70	1/8	50	30	30	20
Cr	200	500	200	70	300	1/8	300	300	300	70
Cu	100	100	50	200	200	1/8	100	50	70	50
Ga	15	15	20	15	15	1/8	15	20	15	15
Ge	(20	(20	(20	(20	(20	1/8	(20	(20	(20	(20
La	(20	(20	(20	20	(20	1/8	(20	20	20	30
Mn	2000	1500	2000	2000	1500	1/8	1500	1900	200	1000
Mo	(2	(2	(2	(2	(2	1/8	(2	(2	(2	(2
Nb	(20	(20	(20	(20	(20	1/8	(20	(20	20	(20
Ni	100	200	100	50	200	1/8	100	100	100	20
Pb	(10	(10	(10	(10	(10	1/8	(10	(10	10	10
Sb	100	100	100	100	100	1/8	100	100	150	(100
Sc	50	30	30	30	30	1/8	30	50	50	15
Sn	(10	(10	(10	(10	(10	1/8	(10	(10	(10	(10
Sr	100	100	100	100	100	1/8	100	100	100	100
Tl	7000	7000	7000	7000	10000	1/8	7000	5000	7000	2000
V	500	300	300	300	300	1/8	300	300	300	100
W	(50	(50	(50	(50	(50	1/8	(50	(50	(50	(50
Y	20	15	20	20	20	1/8	10	15	30	10
Zn	(200	(200	(200	(200	(200	1/8	(200	(200	(200	(200
Zr	30	30	30	50	30	1/8	20	50	70	20

SAMPLE NO.	391	392	393	394	395	396	397	398	399	400
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	METSSED
HAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	B2	B2	B2	B2	B2	B2	B2	B2	B3	A2
4 MI. QUAD	BEWARD	SEWARD	BEWARD	BEWARD	SEWARD	BEWARD	BEWARD	SEWARD	BEWARD	SEWARD
SECTION	12	13	13	14	15	27	3	9	18	28
TOWNSHIP	3N	3N	3N	3N	3N	3N	2N	2N	2N	2N
RANGE	10E	10E	10E	10E	10E	10E	10E	10E	10E	10E
Au	18	18	(.040	18	19	(.200	19	(.100	18	(.100
Ag	(.200	(.200	.400	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	35.000	105.000	2500.000	115.000	40.000	100.000	40.000	50.000	100.000	15.000
Pb										
Zn	95.000	215.000	1000.000	155.000	75.000	145.000	80.000	45.000	110.000	90.000
As										
Sb										
W										
Fe	2X	5X	10X	7X	3X	5X	5X	5X	7X	5X
Ca	5X	7X	0.5X	10X	10X	7X	15X	5X	15X	0.7X
Hg	3X	5X	0.3X	5X	2X	3X	7X	1X	5X	2X
Ag	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	10	30	50	10	15	15	50	10	20	50
Ba	15	200	(10	20	10	10	20	10	50	500
Be	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bi	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Ce	20	50	70	50	20	30	50	20	70	5
Cr	100	200	(10	200	70	100	300	70	300	70
Cu	20	150	1500	100	30	100	50	30	150	30
Co	10	10	15	(10	10	10	10	15	10	20
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	30	20	20	(20	20	20	(20	30	(20	20
Mn	2000	2000	1000	1500	1500	1500	2000	1000	2000	700
Mo	(2	(2	15	(2	(2	(2	(2	(2	(2	(2
Nb	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
Ni	20	100	5	50	30	30	100	20	100	20
Pb	10	20	(10	(10	(10	(10	(10	(10	(10	10
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	20	30	(10	30	20	30	50	20	50	15
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	100	200	(100	100	100	100	100	(100	100	200
Tl	3000	7000	500	3000	3000	5000	10000	7000	7000	5000
V	200	300	100	300	200	200	300	150	300	200
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	10	20	(10	20	10	20	30	(10	20	10
Zn	(200	(200	500	(200	(200	(200	(200	(200	(200	(200
Zr	30	30	(20	100	30	50	70	(20	100	100

SAMPLE NO.	401	402	403	404	405	406	407	408	409	410
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	MAFVOL	MAFVOL	METSED	METSED	METSED	METSED	MAFVOL	MAFVOL
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	A3	A3	A3	A3	A3	A3	A3	A3	A3	A3
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	5	18	7	7	4	4	17	17	24	26
TOWNSHIP	1N	1N	18	18	18	18	18	18	18	18
RANGE	10E	10E	9E	9E	9E	9E	9E	9E	8E	8E
As	<.200	18	18	<.200	<.100	18	18	<.100	<.100	18
Ag	<.200	<.200	<.200	<.200	<.200	18	<.200	<.200	<.200	<.200
Cu	125.000	60.000	105.000	40.000	40.000	18	40.000	20.000	45.000	20.000
Pb			25.000	25.000	25.000	18	35.000	20.000	25.000	35.000
Zn	130.000	170.000	195.000	150.000	340.000	18	180.000	135.000	160.000	130.000
Al										
Si										
Fe	5X	2X	5X	5X	2X	5X	3X	5X	5X	5X
Ca	2X	1X	0.5X	1.5X	0.7X	0.2X	0.2X	0.5X	0.15X	0.15X
Mg	3X	1X	3X	3X	0.5X	1X	0.7X	2X	1X	2X
Ag	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	30	10	70	50	50	100	50	100	100	100
Ba	700	300	1000	700	300	700	500	1000	1000	700
Be	<2	<2	<2	<2	<2	2	<2	<2	2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Ce	20	5	20	30	30	30	10	20	50	50
Cr	150	50	100	200	20	150	50	200	150	200
Cu	150	50	70	70	20	50	30	50	100	30
Co	20	20	15	20	20	15	10	20	20	20
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	20	30	20	20	50	20	20	<20	200	20
Mn	1500	1000	2000	2000	5000	3000	2000	1500	2000	1500
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	<20	<20	<20	<20	<20	20	<20	20	20	20
Ni	50	15	50	50	20	70	50	70	70	70
Pb	20	<10	20	20	10	20	20	30	30	20
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	20	10	20	50	10	10	<10	20	20	15
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	200	200	100	100	100	100	200	100	200	200
Ti	5000	3000	5000	7000	2000	5000	3000	5000	5000	5000
V	300	100	200	300	100	200	200	300	200	200
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	15	<10	50	15	10	10	<10	10	15	10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

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SAMPLE NO.	411	412	413	414	415	416	417	418	419	420
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	METSSED
HAT. TYPE	BTR SED	STR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	STR SED	BTR SED
1 MI. QUAD	A3	A3	A3	A3	A3	A3	A3	A3	A3	A2
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	BEWARD
SECTION	16	8	5	32	28	15	12	1	36	12
TOWNSHIP	29	29	29	18	19	18	18	18	1N	28
RANGE	8E	9E	9E	9E	9E	9E	9E	9E	8E	11E
Au	19	<.100	18	19	19	<.100	<.100	.150	19	<.020
Ag	18	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	18	105.000	40.000	50.000	70.000	40.000	50.000	40.000	55.000	30.000
Pb	19	35.000	20.000	25.000	35.000	25.000	35.000	25.000	35.000	10.000
Zn	18	205.000	135.000	135.000	205.000	115.000	130.000	175.000	180.000	80.000
As										
Sb										
W										
Fe	7X	2X	7X	5X	5X	7X	3X	1/8X	3X	5X
Co	2X	0.2X	0.5X	1X	1X	1X	0.15X	1/9X	1X	0.5X
Hq	5X	0.7X	3X	2X	2X	5X	0.5X	1/9X	0.7X	2X
Ag	<1	<1	<1	<1	<1	<1	<1	1/8	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	1/9	<500	<500
B	50	30	100	70	70	50	30	1/9	20	100
Ba	500	200	700	500	500	700	500	1/8	500	1000
Be	<2	<2	<2	<2	<2	<2	<2	1/8	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	1/9	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	1/9	<50	<50
Ce	200	10	20	70	70	20	50	1/8	20	10
Cr	1000	100	200	300	100	200	50	1/8	50	100
Co	70	100	70	50	70	200	20	1/8	70	50
Ca	15	15	20	15	10	20	10	1/8	10	20
Ge	<20	<20	<20	<20	<20	<20	<20	1/9	<20	<20
La	<20	50	<20	<20	<20	<20	50	1/8	20	<20
Mn	2000	700	1000	1500	2000	1500	5000	1/8	2000	1000
Mo	<2	<2	<2	<2	<2	<2	<2	1/9	<2	<2
Nb	<20	<20	20	20	20	20	<20	1/8	<20	20
Ni	500	50	100	100	70	70	30	1/8	20	70
Pb	20	30	30	20	30	20	20	1/9	20	10
Sb	<100	<100	<100	<100	<100	<100	<100	1/9	<100	<100
Sc	20	<10	30	30	20	30	10	1/9	10	20
Sn	<10	<10	<10	<10	<10	<10	<10	1/8	<10	<10
Sr	200	200	<100	100	200	100	200	1/9	200	100
Tl	10000	2000	5000	5000	5000	5000	2000	1/9	2000	5000
V	500	100	300	300	200	200	100	1/9	200	200
W	<50	<50	<50	<50	<50	<50	<50	1/8	<50	<50
Y	<10	<10	20	20	15	20	<10	1/9	<10	10
Zn	<200	<200	<200	<200	<200	<200	<200	1/9	<200	<200
Zr	20	30	150	100	50	100	50	1/9	100	100

SAMPLE NO.	421	422	423	424	425	426	427	428	429	430
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSSED	METSSED	METSSED	METBED	METBED	METBED	METBED	METBED	METSED	METSSED
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR BED	STR SED
1 MI. QUAD	A2	A2	A2	A2	A2	D1	D1	D1	D1	D1
4 MI. QUAD	SEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BLYING	BLYING	BLYING	BLYING	BLYING
SECTION	18	10	17	9	9	31	31	33	33	4
TOWNSHIP	29	29	28	28	29	28	28	28	29	39
RANGE	12E	12E	12E	12E	12E	12E	12E	11E	11E	11E
Av	(.020	(.020	(.020	(.020	(.020	(.200	(.200	(.020	(.020	(.200
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cv	30.000	25.000	15.000	20.000	25.000	40.000	35.000	25.000	25.000	25.000
Pb	10.000	15.000	10.000	10.000	15.000	20.000	15.000	15.000	15.000	15.000
Zn	80.000	80.000	60.000	70.000	90.000	115.000	110.000	80.000	95.000	80.000
As										
Sb										
W										
Fe	5X	5X	5X	5X	3X	5X	3X	5X	7X	5X
Co	0.2X	0.5X	0.5X	0.7X	0.5X	0.7X	0.7X	0.5X	0.7X	0.5X
Hg	2X	2X	3X	2X	0.7X	2X	1X	3X	3X	3X
Ag	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	100	100	100	100	70	100	70	100	100	100
Ba	700	1000	1000	1000	500	700	700	1000	1000	1000
Be	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bl	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Ce	10	10	10	10	10	20	10	15	15	20
Cr	70	150	100	70	20	70	50	70	100	70
Cu	50	50	50	30	30	70	50	50	50	50
Ga	15	15	15	15	15	20	10	20	20	20
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	(20	(20	(20	(20	20	(20	(20	(20	(20	(20
Mn	1000	1000	1000	1000	700	1000	700	1000	1000	1000
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	50	50	70	50	30	50	50	50	50	50
Pb	10	10	10	10	10	10	10	10	10	10
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	20	20	20	15	10	30	20	30	20	20
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	100	200	300	100	200	300	200	300	300	300
Tl	5000	5000	5000	5000	3000	5000	3000	7000	7000	5000
V	100	200	200	100	100	200	100	100	100	100
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	(10	10	(10	10	(10	20	10	20	10	10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	100	70	200	100	70	100	100	150	100	100

SAMPLE NO.	431	432	433	434	435	436	437	438	439	440
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	D1	D1	D1	D1	D1	D1	D1	D1	D1	D1
4 MI. QUAD	BLYING	BLYING	BLYING	BLYING	BLYING	BLYING	BLYING	BLYING	BLYING	BLYING
SECTION	4	14	14	14	22	22	6	7	7	12
TOWNSHIP	39	39	39	38	39	38	49	49	48	49
RANGE	11E	11E	11E	11E	11E	11E	11E	11E	11E	10E
Au	(.020	(.200	(.020	(.020	(.040	(.020	(.020	(.040	(.020	(.020
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	25.000	20.000	25.000	30.000	20.000	25.000	30.000	35.000	30.000	25.000
Pb	10.000	15.000	15.000	15.000	15.000	15.000	15.000	20.000	15.000	15.000
Zn	80.000	75.000	85.000	80.000	85.000	90.000	80.000	110.000	105.000	80.000
Am										
Sb										
W										
Fa	5X	5X	5X	5X	5X	5X	5X	7X	5X	5X
Ca	0.5X	0.5X	0.5X	0.5X	0.5X	0.5X	0.5X	0.7X	0.7X	0.7X
Hg	3X	3X	3X	3X	3X	3X	3X	3X	2X	3X
As	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	100	100	100	100	100	100	100	100	100	100
Ba	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Be	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bi	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Co	15	10	15	15	20	15	15	20	20	20
Cr	100	70	100	100	150	100	150	100	100	70
Cu	30	30	50	50	30	50	50	70	50	50
Ca	20	20	20	20	20	20	20	20	20	20
Ce	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
Mn	1000	1000	1000	1000	1500	1500	1000	1000	2000	1500
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	50	50	50	50	50	50	50	50	50	50
Pb	10	10	10	15	15	10	10	10	10	10
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	20	20	20	20	30	30	30	30	20	20
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	300	300	200	150	200	200	200	300	200	200
Ti	5000	7000	5000	7000	7000	5000	5000	7000	5000	7000
V	200	100	100	100	150	150	150	150	150	150
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	20	20	20	20	10	20	20	20	20	15
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	100	200	100	150	100	100	100	150	150	100

SAMPLE NO.	441	442	443	444	445	446	447	448	449	450
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD
MAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	D1	D3	D3	D3	D3	D3	D1	D1	D1	D3
4 MI. QUAD	BLYING	BLYING	BLYING	BLYING	BLYING	BLYING	BLYING	BLYING	BLYING	BLYING
SECTION	28	29	24	14	35	5	33	22	22	19
TOWNSHIP	49	49	49	49	39	49	39	38	39	39
RANGE	10E	10E	9E	9E	9E	10E	10E	10E	10E	10E
Ag	(.020	(.040	(.040	(.020	(.040	19	(.020	(.020	(.020	(.020
Au	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cv	20.000	20.000	15.000	10.000	20.000	30.000	20.000	25.000	20.000	20.000
Pb	15.000	15.000	15.000	15.000	10.000	15.000	10.000	10.000	15.000	10.000
Zn	70.000	75.000	85.000	80.000	95.000	95.000	80.000	75.000	70.000	85.000
As										
Sb										
W										
Fe	5X	5X	5X	5X	3X	3X	3X	5X	3X	5X
Ca	0.7X	0.7X	0.7X	0.7X	0.2X	0.5X	0.2X	0.7X	0.5X	0.7X
Hg	3X	2X	3X	3X	2X	2X	1.5X	2X	2X	2X
Ag	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
Au	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	100	70	70	70	70	50	50	70	70	70
Ba	1000	1000	1000	1000	700	1000	700	1500	1000	1500
Be	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bi	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Ce	10	10	15	15	10	15	10	20	15	15
Cf	100	50	100	50	50	50	30	30	30	50
Cu	50	30	30	15	30	30	30	70	50	30
Ca	20	20	20	20	20	20	20	20	20	20
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	(20	20	20	20	20	20	20	20	20	20
Mn	1500	1500	1500	2000	1000	500	1000	2000	1000	1500
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	50	10	10	10	10	10	5	15	10	10
Pb	10	10	10	10	10	10	15	15	20	20
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	20	15	20	15	10	20	10	20	20	20
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	300	500	300	500	200	200	200	200	200	500
Ti	5000	5000	10000	5000	3000	3000	2000	3000	3000	5000
V	150	200	200	150	100	100	100	200	100	150
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	15	(10	10	(10	(10	10	(10	(10	10	10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	70	70	70	100	70	100	50	70	200	100

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SAMPLE NO.	451	452	453	454	455	456	457	458	459	460
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METBED	METBED	METBED	METBED	METBED	METBED	METBED	METBED	METSED	METSED
MAT. TYPE	BTR SED	STR SED	STR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	STR SED	STR SED
1 MI. QUAD	D3	D1	D1	D1	A2	A2	A2	A2	A2	A2
4 MI. QUAD	BLIVING	DLYING	BLIVING	DLYING	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD
SECTION	8	2	25	25	8	9	4	34	26	24
TOWNSHIP	39	39	29	29	29	29	29	18	19	19
RANGE	10E	10E	10E	10E	11E	11E	11E	11E	11E	11E
Au	(.200	(.040	(.020	(.020	(.020	(.020	(.020	(.020	(.020	(.020
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	25.000	15.000	15.000	10.000	20.000	20.000	5.000	15.000	20.000	20.000
Pb	20.000	10.000	5.000	5.000	15.000	10.000	5.000	5.000	15.000	10.000
Zn	100.000	75.000	55.000	55.000	85.000	70.000	55.000	50.000	75.000	60.000
As										
Sb										
W										
Fe	5X	3X	3X	3X	5X	5X	2X	3X	3X	2X
Cn	0.7X	0.5X	0.5X	0.7X	0.5X	0.7X	0.2X	0.5X	0.5X	0.5X
Mg	2X	2X	1.5X	1.5X	1.5X	1.5X	0.7X	1X	1X	1.5X
Ag	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	100	70	50	30	50	70	50	50	50	50
Ba	1500	1000	1000	500	1000	1000	500	700	700	1000
Be	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bi	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Ce	30	10	5	(5	20	5	10	5	10	5
Cr	100	70	30	20	70	50	30	20	30	20
Cu	50	50	30	20	30	50	20	30	30	30
Ga	20	15	15	15	15	15	15	15	15	10
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	100	(20	30	20	20	20	(20	(20	20
Mn	2000	1000	1000	1000	1000	1500	1000	1000	1000	1000
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	(20	20	(20	20	20	20	20
Ni	50	5	5	(5	15	5	10	5	10	5
Pb	30	10	10	10	15	15	10	10	20	10
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	30	20	15	(10	20	10	10	10	10	10
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	300	200	200	200	200	200	200	200	200	200
Tl	5000	3000	5000	5000	5000	5000	3000	3000	5000	5000
V	200	150	150	100	150	300	150	100	100	100
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	15	10	(10	(10	10	(10	10	(10	(10	(10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	100	150	70	20	150	50	100	30	50	70

SAMPLE NO.	461	462	463	464	465	466	467	468	469	470
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
HAT. TYPE	METBED	METBED	METBED	METBED	METBED	METBED	METBED	METBED	METBED	METBED
1 MI. QUAD	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED
4 MI. QUAD	A2	A2	A2	A2	A1	A1	A1	A1	A1	A1
SECTION	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD
TOWNSHIP	17	17	9	3	33	22	11	11	1	32
RANGE	19	19	19	19	1N	1N	1N	1N	1N	2N
	12E	12E	12E	12E	12E	12E	12E	12E	12E	13E
As	<.040	<.100	<.020	<.100	<.020	<.040	<.040	<.020	<.020	<.020
Aq	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	25.000	20.000	25.000	25.000	25.000	15.000	25.000	5.000	10.000	20.000
Pb	15.000	15.000	20.000	15.000	20.000	15.000	15.000	10.000	10.000	15.000
Zn	75.000	70.000	80.000	80.000	105.000	65.000	70.000	65.000	55.000	65.000
Am										
Sb										
W										
Fe	2X	2X	2X	2X	2X	2X	2X	3X	2X	3X
Cn	0.5X	0.7X	0.7X	0.7X	0.7X	0.5X	0.2X	0.5X	0.15X	0.7X
Hq	2X	2X	3X	2X	3X	2X	1X	3X	1X	3X
Aq	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	50	50	50	50	70	50	70	70	50	50
Dn	1000	1000	1000	1500	1500	1000	1000	1000	700	1000
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bl	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Co	7	7	20	20	20	5	20	5	15	5
Cr	70	70	150	100	150	70	70	70	50	50
Cu	30	30	30	50	50	50	70	100	20	30
Ca	15	15	20	20	30	20	20	20	15	20
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	100	20	20	20	<20	20	20	<20	20	<20
Mn	500	1000	1500	1500	1500	1000	700	1000	500	1500
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	7	7	15	10	15	5	10	5	<5	5
Pb	15	15	20	20	20	20	20	20	10	20
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	15	15	20	20	20	20	15	15	10	10
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	200	300	500	500	300	500	200	300	200	300
Tl	3000	3000	3000	3000	3000	2000	3000	5000	2000	3000
V	150	200	150	200	200	150	150	200	100	150
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	100	100	100	100	100	50	100	150	200	70

SAMPLE NO.	471	472	473	474	475	476	477	478	479	480
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METBED	METSED	METBED	METBED	METBED	METBED	METBED	METSED	METBED	METSED
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR BED	STR BED	STR BED	STR BED	STR SED
1 MI. QUAD	A1	A1	A1	A1	A1	B1	B1	B1	B1	B1
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	32	32	29	28	22	15	10	9	4	34
TOWNSHIP	2N	2N	2N	2N	2N	2N	2N	2N	2N	3N
RANGE	13E	13E	13E	13E	13E	13E	13E	13E	13E	13E
Au	<.020	<.100	<.100	<.040	<.020	<.200	<.100	<.100	18	19
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	15.000	15.000	20.000	20.000	25.000	10.000	20.000	15.000	20.000	20.000
Pb	10.000	10.000	10.000	10.000	15.000	20.000	15.000	20.000	20.000	20.000
Zn	65.000	70.000	85.000	70.000	75.000	90.000	70.000	105.000	100.000	95.000
As										
Sb										
W										
Fe	3X	2X	2X	3X	3X	3X	3X	5X	1/8X	3X
Ca	0.7X	0.2X	0.1X	0.1X	0.1X	0.15X	0.1X	0.2X	1/6X	0.2X
Mo	3X	0.5X	1X	1X	1X	1.5X	1.5X	1X	1/5X	1.5X
Ag	<1	<1	<1	<1	<1	<1	<1	<1	1/8	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	1/8	<500
B	50	50	70	70	50	70	70	70	1/8	70
Ba	1000	700	1000	1000	1000	1500	1000	1000	1/8	1000
Be	<2	<2	<2	<2	<2	<2	<2	<2	1/8	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	1/8	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	1/8	<50
Ce	5	20	20	20	20	50	20	20	1/8	10
Cr	50	20	50	50	150	150	100	200	1/8	100
Cu	30	30	30	30	30	50	50	100	1/8	50
Co	20	15	15	15	10	15	15	20	1/8	20
Ge	<20	<20	<20	<20	<20	<20	<20	<20	1/8	<20
La	<20	20	20	<20	<20	20	20	20	1/8	<20
Mn	1500	3000	1500	1000	700	3000	1000	1500	1/8	1000
Mo	<2	<2	<2	<2	<2	<2	<2	2	1/8	<2
Nb	20	20	20	20	20	20	20	20	1/8	20
Ni	5	20	20	15	10	100	30	70	1/8	50
Pb	10	10	10	10	10	50	10	20	1/8	20
Sb	<100	<100	<100	<100	<100	<100	<100	<100	1/8	<100
Sc	10	10	10	10	15	15	15	20	1/8	10
Bn	<10	<10	<10	<10	<10	<10	<10	<10	1/8	<10
Br	300	200	200	200	200	200	200	100	1/8	100
Tl	5000	2000	3000	5000	3000	3000	3000	5000	1/8	5000
V	150	150	200	200	150	150	200	200	1/8	200
W	<50	<50	<50	<50	<50	<50	<50	<50	1/8	<50
Y	<10	<10	<10	<10	<10	<10	<10	10	1/8	10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	1/8	<200
Zr	100	30	100	50	70	100	100	200	1/8	100

SAMPLE NO. ROCK AGE ROCK TYPE MAT. TYPE 1 MI. QUAD 4 MI. QUAD SECTION TOWNSHIP RANGE	481 TERT METSSED BTR SED B1 SEWARD 34 3N 13E	482 TERT METSSED BTR SED B1 SEWARD 34 3N 13E	483 TERT METSSED BTR SED B1 SEWARD 21 3N 13E	484 TERT METSSED BTR SED B1 SEWARD 23 3N 13E	485 TERT METSSED BTR SED B1 SEWARD 24 3N 13E	486 TERT METSSED BTR SED B1 SEWARD 24 3N 13E	487 TERT METSSED BTR SED B1 SEWARD 19 3N 14E	488 TERT METSSED BTR SED B1 SEWARD 6 2N 14E	489 TERT METSSED BTR SED B1 SEWARD 12 2N 13E	490 TERT METSSED BTR SED B1 SEWARD 13 2N 13E
Au	(.040	18	(.100	19	(.200	18	(.040	(.020	(.100	15
Ag	(.200	19	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cv	10.000	15.000	10.000	5.000	10.000	15.000	15.000	20.000	15.000	15.000
Pb	10.000	10.000	20.000	5.000	15.000	20.000	10.000	15.000	15.000	15.000
Zn	90.000	105.000	165.000	70.000	100.000	135.000	95.000	110.000	75.000	95.000
As										
Sb										
W										
Fe	3X	5X	3X	3X	3X	3X	3X	5X	3X	5X
Co	0.5X	0.5X	0.5X	0.5X	0.5X	0.2X	0.2X	0.5X	0.2X	0.5X
Hq	1X	1X	0.7X	1X	1X	1X	1X	2X	1X	2X
Ag	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	70	70	50	50	50	70	50	50	50	70
Ba	700	700	700	700	700	1000	700	1000	700	1000
Be	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bl	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Ce	10	20	50	10	20	50	20	20	10	50
Cr	70	100	50	70	100	70	70	100	70	100
Cu	30	50	50	30	50	30	30	70	50	70
Ca	15	20	10	20	20	10	15	20	15	20
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	(20	20	20	(20	30	30	20	(20	20	(20
Mn	1500	2000	5000	1500	2000	7000	2000	1000	1000	3000
Mo	(2	(2	(2	(2	(2	2	(2	(2	(2	(2
Nb	20	20	(20	20	20	20	20	20	20	20
Ni	50	50	50	50	50	30	30	70	30	50
Pb	20	20	10	20	20	20	10	10	15	20
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	10	10	10	10	10	10	10	10	10	10
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Br	100	100	200	100	200	200	200	100	200	200
Tl	5000	5000	3000	5000	5000	5000	5000	5000	5000	7000
V	200	300	200	200	200	200	200	200	200	300
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	(10	10	(10	(10	(10	(10	(10	10	10	10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	100	200	150	100	100	50	100	150	100	70

SAMPLE NO.	491	492	493	494	495	496	497	498	499	500
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD
HAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BL/BB/CC	BTR SED	BTR SED	BTR SED
1 MI. QUAD	B1	B1	B1	B1	B1	B1	D2	A3	A3	A3
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	CORDOVA	BLYLING	SEWARD	SEWARD	SEWARD
SECTION	13	18	18	9	3	2	31	4	4	25
TOWNSHIP	2N	2N	2N	2N	2N	2N	29	29	29	18
RANGE	13E	14E	14E	14E	14E	14E	12E	9E	9E	9E
Au	<.100	<.100	<.100	<.020	<.040	<.100	<.020	<.040	<.200	<.100
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	15.000	25.000	25.000	25.000	30.000	20.000	40.000	60.000	45.000	15.000
Pb	15.000	20.000	15.000	20.000	20.000	15.000	15.000	45.000	35.000	25.000
Zn	75.000	95.000	100.000	105.000	100.000	120.000	65.000	230.000	180.000	200.000
As										
Sb										
W										
Fe	3X	5X	5X	5X	5X	5X		3X	5X	3X
Ca	0.2X	0.5X	0.5X	0.5X	0.5X	0.15X		0.2X	0.3X	0.2X
Hg	2X	3X	3X	2X	2X	1.5X		2X	3X	1X
Al	<1	<1	<1	<1	<1	<1		<1	<1	<1
As	<500	<500	<500	<500	<500	<500		<500	<500	<500
B	70	100	70	70	70	70		50	70	50
Ba	700	1000	1000	700	1000	500		1000	1500	700
Be	<2	<2	<2	<2	<2	<2		<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10		<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50		<50	<50	<50
Co	10	15	20	20	20	20		30	50	20
Cr	100	200	500	100	200	70		70	100	70
Cu	20	150	100	100	100	50		50	50	30
Ga	15	30	20	20	20	20		15	30	15
Ge	<20	<20	<20	<20	<20	<20		<20	<20	<20
La	<20	<20	<20	20	20	<20		<20	<20	20
Mn	1000	1000	1000	1500	1000	1500		3000	3000	3000
Mo	<2	<2	<2	<2	<2	<2		<2	2	<2
Nb	20	20	20	20	20	20		20	20	20
Ni	50	70	70	50	50	50		30	50	50
Pb	10	20	20	30	30	10		30	50	30
Sb	<100	<100	<100	<100	<100	<100		<100	<100	<100
Sc	10	15	20	10	10	10		20	20	10
Sr	<10	<10	<10	<10	<10	<10		<10	<10	<10
Sr	200	200	200	200	200	100		300	300	200
Tl	5000	5000	7000	5000	5000	5000		3000	5000	3000
V	200	300	300	200	200	200		150	200	100
W	<50	<50	<50	<50	<50	<50		<50	<50	<50
Y	<10	10	10	10	10	10		15	20	15
Zn	<200	<200	<200	<200	<200	<200		<200	<200	<200
Zr	70	100	200	100	100	100		70	100	50

SAMPLE NO.	501	502	503	504	505	506	507	508	509	510
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
MAT. TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	MAFVOL
1 MI. QUAD	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
4 MI. QUAD	A3	D3	D3	D3	D3	A3	A3	A3	D3	D3
SECTION	SEWARD	BLYING	BLYING	BLYING	BLYING	BEWARD	BEWARD	BEWARD	BLYING	BLYING
TOWNSHIP	36	26	25	19	24	18	8	8	27	5
RANGE	29	29	29	28	29	29	29	29	29	29
	9E	8E	8E	9E	8E	9E	9E	9E	8E	8E
Au	(.040	(.200	(.020	(.100	(.040	(.020	(.200	(.100	(.200	(.100
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	40.000	30.000	10.000	25.000	15.000	5.000	155.000	15.000	10.000	45.000
Pb	20.000	15.000	10.000	20.000	15.000	10.000	30.000	25.000	15.000	20.000
Zn	140.000	145.000	95.000	170.000	200.000	75.000	205.000	145.000	100.000	145.000
As										
Sb										
W										
Fe	3X	3X	3X	5X	5X	3X	5X	7X	2X	5X
Ca	0.7X	0.5X	0.5X	0.5X	0.2X	0.3X	0.3X	0.2X	2X	1X
Mg	1.5X	2X	2X	2X	1.5X	1.5X	2X	2X	2X	2X
Ag	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	30	50	50	50	50	50	50	70	50	50
Ba	700	1000	1000	1000	1000	1000	1500	1000	500	1000
Be	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bi	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Ce	10	20	(5	30	20	(5	50	30	20	20
Cr	100	100	100	100	70	70	100	100	70	100
Cu	30	50	30	1500	30	20	200	50	20	50
Ga	15	20	15	20	20	20	20	20	10	20
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	30	20	20	20	20	20	20	20	20	(20
Mn	2000	1500	1000	3000	3000	1000	3000	3000	5000	1000
Nb	(2	(2	(2	2	(2	(2	2	3	(2	(2
Ni	20	20	20	20	20	20	20	20	20	20
Pb	30	30	20	30	30	20	50	50	20	50
Pb	20	30	20	20	20	10	50	30	20	30
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	15	20	20	20	15	20	30	20	20	30
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	300	300	300	200	200	300	200	200	500	300
Tl	3000	3000	5000	5000	3000	5000	7000	5000	3000	5000
V	100	150	150	150	100	200	200	150	150	200
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	10	10	10	15	10	15	15	10	10	15
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	50	50	70	100	50	150	100	100	70	70

SAMPLE NO.
ROCK AGE
ROCK TYPE
MAT. TYPE
1 MI. QUAD
4 MI. QUAD
SECTION
TOWNSHIP
RANGE

501
TERT
METBED
BTR BED
A3
SEWARD
36
28
9E

502
TERT
METBED
BTR BED
D3
BLYING
26
28
8E

503
TERT
METBED
BTR BED
D3
BLYING
25
28
8E

504
TERT
METBED
BTR BED
D3
BLYING
19
28
9E

505
TERT
METBED
BTR BED
D3
BLYING
24
28
8E

506
TERT
METBED
BTR BED
A3
BEWARD
18
28
9E

507
TERT
METBED
BTR BED
A3
BEWARD
8
28
9E

508
TERT
METBED
BTR BED
A3
BEWARD
8
28
9E

509
TERT
METBED
BTR BED
D3
BLYING
27
28
8E

510
TERT
MAFVOL
BTR BED
D3
BLYING
5
28
8E

As
Ag
Cu
Pb
Zn
As
Sb
W

(.040
(.200
40.000
20.000
140.000

(.200
(.200
30.000
15.000
145.000

(.020
(.200
10.000
10.000
95.000

(.100
(.200
25.000
20.000
170.000

(.040
(.200
15.000
15.000
200.000

(.020
(.200
5.000
10.000
75.000

(.200
(.200
155.000
30.000
205.000

(.100
(.200
15.000
25.000
145.000

(.200
(.200
10.000
15.000
100.000

(.100
(.200
45.000
20.000
145.000

3X
0.7Z
1.5Z

3X
0.5Z
2X

3X
0.5Z
2X

5X
0.5Z
2X

5X
0.2Z
1.5Z

3X
0.3Z
1.5Z

5X
0.3Z
2X

7X
0.2Z
2X

2X
2X

5X
1X
2X

Fe
Ca
Mg

(1
(500
30
700

(1
(500
50
1000

(1
(500
50
1000

(1
(500
50
1000

(1
(500
50
1000

(1
(500
50
1000

(1
(500
50
1500

(1
(500
70
1000

(1
(500
50
500

(1
(500
50
1000

58

Ag
As
B
Ba

(2
(10
(50
10

(2
(10
(50
20

(2
(10
(50
5

(2
(10
(50
30

(2
(10
(50
20

(2
(10
(50
5

(2
(10
(50
50

(2
(10
(50
30

(2
(10
(50
20

(2
(10
(50
20

Be
Bl
Cd
Co

100
30
15
(20

100
50
20
(20

100
30
15
(20

100
1500
20
(20

70
30
20
(20

70
20
20
(20

100
200
20
(20

100
50
20
(20

70
20
10
(20

100
50
20
(20

Cr
Cu
Ga
Ge

30
2000
(2
20

20
1500
(2
20

20
1000
(2
20

20
3000
2
20

20
3000
(2
20

20
1000
(2
20

20
3000
2
20

20
3000
3
20

20
5000
(2
20

20
1000
(2
20

La
Mn
Mo
Nb

30
20
30
20

30
30
(100
20

20
20
(100
20

30
20
(100
20

30
20
(100
15

20
10
(100
20

50
50
(100
30

50
30
(100
20

20
20
(100
20

50
30
(100
30

Ni
Pb
Sb
Sc

(10
300
3000
100

(10
300
3000
150

(10
300
5000
150

(10
200
5000
150

(10
200
3000
100

(10
300
5000
200

(10
200
7000
200

(10
200
5000
150

(10
500
3000
150

(10
300
5000
200

Sr
Ti
V

(50
10
(200
50

(50
10
(200
50

(50
10
(200
70

(50
15
(200
100

(50
10
(200
50

(50
15
(200
150

(50
15
(200
100

(50
10
(200
100

(50
10
(200
70

(50
15
(200
70

W
Y
Zn
Zr

(50
10
(200
50

(50
10
(200
50

(50
10
(200
70

(50
15
(200
100

(50
10
(200
50

(50
15
(200
150

(50
15
(200
100

(50
10
(200
100

(50
10
(200
70

(50
15
(200
70

SAMPLE NO.	521	522	523	524	525	526	527	528	529	530
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
MAT. TYPE	STR BED	STR BED	STR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED
1 MI. QUAD	A3	A3	A3	A4	A4	A4	A4	A4	A4	A4
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	29	5	5	6	36	36	3	10	16	15
TOWNSHIP	1N	18	19	18	1N	1N	19	19	19	19
RANGE	8E	8E	8E	8E	7E	7E	7E	7E	7E	7E
As	19	<.020	<.200	<.200	<.040	<.040	<.040	<.100	<.100	19
Aq	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	15.000	15.000	30.000	45.000	20.000	25.000	30.000	30.000	25.000	25.000
Pb	25.000	10.000	25.000	25.000	20.000	20.000	25.000	20.000	20.000	25.000
Zn	200.000	105.000	180.000	145.000	140.000	155.000	160.000	145.000	165.000	165.000
As										
Sb										
W										
Fe	3X	3X	5X	3X	3X	5X	5X	5X	2X	5X
Ca	0.2X	0.15X	0.5X	0.7X	1X	0.7X	0.7X	1X	0.7X	0.7X
Hg	1X	1.5X	2X	2X	1X	2X	2X	2X	0.7X	2X
Ag	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	70	50	70	50	20	30	30	30	20	70
Ba	1000	1000	1000	1000	1000	1500	1500	1500	500	1500
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Co	150	15	30	20	20	20	20	20	15	30
Cr	50	70	100	70	50	70	50	100	20	100
Cu	20	30	50	30	30	30	30	30	30	50
Ca	15	20	20	15	15	20	15	20	10	20
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Ld	<20	<20	<20	20	20	<20	<20	<20	20	<20
Mn	10000	1000	2000	2000	1000	1000	1000	1000	1500	3000
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	20	20	20	20	<20	20	20	20	<20	20
Ni	30	30	50	50	20	50	50	50	10	70
Pb	15	30	20	20	20	30	20	30	20	20
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	15	20	20	20	10	20	15	20	<10	20
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	200	200	200	200	500	500	500	500	200	200
Tl	2000	3000	3000	3000	2000	5000	3000	3000	2000	3000
V	100	100	150	150	100	100	100	150	70	150
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	10	15	15	10	20	15	15	10	10	15
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	50	100	70	100	150	100	100	70	70	150

SAMPLE NO.	531	532	533	534	535	536	537	538	539	540
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	MAFVOL	METSED
MAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	A4	A4	A4	A4	A4	A4	A4	A3	A3	B4
4 MI. QUAD	BEWARD	BEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	13	24	24	26	27	35	10	9	14	25
TOWNSHIP	18	19	18	18	18	18	28	18	1N	5N
RANGE	7E	7E	7E	7E	7E	7E	7E	8E	8E	7E
Ar	<.100	<.100	18	<.100	18	<.200	18	<.020	18	<.040
Aq	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cv	50.000	30.000	25.000	50.000	85.000	50.000	30.000	30.000	35.000	35.000
Ph	30.000	30.000	25.000	25.000	30.000	25.000	35.000	25.000	35.000	25.000
Zn	150.000	170.000	180.000	165.000	150.000	175.000	150.000	145.000	235.000	180.000
As										10.000
Sb										
W										
Fe	5X	5X	5X	5X	5X	5X	5X	5X	5X	5X
Ca	1X	0.7X	0.5X	0.7X	1X	0.7X	0.7X	0.5X	0.5X	0.7X
Hg	2X	3X	2X	3X	5X	3X	5X	2X	2X	2X
Aq	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	70	50	50	50	70	70	50	70	50	50
Ba	1000	1000	1000	1000	1000	1500	1000	1000	700	1000
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Ce	20	50	50	30	20	50	50	20	50	15
Cr	100	100	100	70	70	150	70	100	100	70
Cu	70	30	30	50	500	50	30	30	200	30
Ca	20	20	20	20	20	20	20	20	15	15
Ce	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	<20	20	20	20	20	20	20	20	20	20
Hn	2000	3000	3000	2000	2000	2000	3000	2000	5000	2000
Ho	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	70	50	30	30	50	70	30	50	50	30
Pb	20	20	20	20	20	20	30	20	30	15
Sh	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	30	20	30	30	30	30	20	30	20	20
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	200	100	200	200	500	100	200	100	100	200
Ti	5000	5000	3000	3000	3000	3000	3000	3000	3000	3000
V	200	200	150	200	200	200	200	200	200	200
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	10	10	20	15	15	15	10	10	10	10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	70	70	50	70	70	100	70	100	100	70

SAMPLE NO.	541	542	543	544	545	546	547	548	549	550
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
MAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	B4	B4	B4	B4	B4	C4	C4	C3	C3	C3
4 MI. QUAD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD
SECTION	26	26	35	34	27	14	11	30	5	7
TOWNSHIP	5N	5N	5N	5N	5N	5N	5N	6N	5N	5N
RANGE	7E	7E	7E	7E	7E	7E	7E	8E	8E	8E
Au	19	<200	<100	19	19	<200	19	19	<20	<100
Ag	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Cu	35.000	25.000	20.000	25.000	20.000	30.000	20.000	30.000	15.000	25.000
Pb	30.000	25.000	25.000	25.000	25.000	25.000	20.000	10.000	10.000	10.000
Zn	150.000	170.000	155.000	145.000	120.000	160.000	115.000	115.000	95.000	105.000
As	10.000	10.000	10.000	20.000	10.000	30.000	20.000	10.000	20.000	<10.000
Sb										
W										
Fe	7%	5%	5%	7%	5%	5%	3%	5%	3%	3%
Ca	1%	1%	1%	1%	0.5%	1%	0.7%	3%	1.5%	1.5%
Hg	3%	2%	3%	3%	2%	3%	1.5%	3%	2%	2%
Al	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	70	50	70	70	50	50	50	20	30	30
Ba	1000	1000	1500	1000	1000	1500	500	1000	500	1000
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Co	20	15	20	30	20	50	20	20	10	15
Cr	70	70	100	100	70	70	50	70	50	50
Cu	30	30	30	50	20	30	20	30	20	20
Ga	20	20	20	20	20	20	15	20	15	20
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Ln	20	20	20	20	20	20	20	20	20	20
Mn	1500	1000	1500	2000	1500	3000	2000	1500	1500	1500
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	30	30	50	50	30	50	20	50	15	30
Pb	20	20	20	30	20	30	20	20	20	20
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	20	20	30	30	20	20	20	30	20	20
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	500	300	300	300	200	300	200	500	300	300
Tl	5000	3000	3000	3000	3000	3000	3000	3000	2000	5000
V	300	200	200	200	300	200	200	300	200	200
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	15	10	15	15	10	15	10	20	10	15
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	100	100	200	70	100	100	70	100	70	100

SAMPLE NO.	551	552	553	554	555	556	557	558	559	560
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
MAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	C3	C3	C3	C3	A4	A4	A4	A4	A4	A4
4 MI. QUAD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD
SECTION	17	17	16	9	25	36	1	1	12	13
TOWNSHIP	5N	5N	5N	5N	2N	2N	1N	1N	1N	1N
RANGE	8E	8E	8E	8E	7E	7E	7E	7E	7E	7E
Ag	(.040	(.020	(.200	18	(.020	19	(.100	(.040	(.040	(.100
Aq	.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	15,000	15,000	30,000	10,000	25,000	35,000	25,000	35,000	35,000	25,000
Pb	10,000	10,000	15,000	10,000	20,000	35,000	30,000	25,000	30,000	30,000
Zn	100,000	90,000	100,000	95,000	120,000	250,000	200,000	155,000	235,000	210,000
As	10,000	(10,000	(10,000	(10,000						
Sb										
W										
Fe	3X	3X	3X	5X	3X	3X	3X	5X	3X	5X
Ca	2X	2X	1X	1X	1.5X	1X	0.7X	0.7X	0.7X	0.5X
Mo	3X	2X	1X	2X	2X	2X	2X	3X	2X	2X
Aq	7	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	30	20	20	30	50	30	30	50	30	30
Ba	700	1000	500	700	1000	1000	1000	1000	1000	1000
Be	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bi	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Ce	20	15	10	30	20	30	20	20	30	30
Cr	50	50	20	50	70	50	30	70	70	70
Cu	20	20	30	20	30	30	50	50	50	30
Ca	20	20	15	20	20	15	20	20	15	20
Ce	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	20	50	20	20	50	30	20	50	20
Mn	2000	1500	2000	2000	1000	3000	2000	2000	1500	2000
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	30	20	10	20	20	30	30	30	50	30
Pb	20	30	15	20	30	20	30	30	30	30
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Bc	20	20	10	15	20	20	15	20	20	20
Bn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	300	500	100	300	200	200	200	200	200	100
Tl	5000	3000	3000	3000	5000	3000	3000	3000	3000	3000
V	200	200	200	200	200	300	200	300	200	200
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	10	20	10	10	10	15	10	15	15	15
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	100	70	50	70	100	70	50	70	100	50

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SAMPLE NO. ROCK AGE ROCK TYPE MAT. TYPE 1 MI. QUAD 4 MI. QUAD SECTION TOWNSHIP RANGE	561 TERT METSED STR SED A4 SEWARD 13 1N 7E	562 TERT METSED STR SED A4 SEWARD 23 1N 7E	563 TERT METSED STR SED A4 SEWARD 23 1N 7E	564 TERT METSED STR SED A4 SEWARD 26 1N 7E	565 TERT METSED STR SED A4 SEWARD 27 1N 7E	566 TERT METSED STR SED A4 SEWARD 27 1N 7E	567 TERT METSED STR SED A4 SEWARD 22 1N 7E	568 TERT METSED STR SED A4 SEWARD 14 1N 7E	569 TERT METSED STR SED A4 SEWARD 14 1N 7E	570 TERT METSED STR SED A4 SEWARD 34 2N 7E
						19	(.200	19	19	(.200
Au	(.100	(.040	(.100	(.100	(.020	(.200	(.200	(.200	(.200	(.200
Ag	(.200	(.200	(.200	(.200	(.200	20.000	30.000	60.000	30.000	25.000
Cu	25.000	25.000	20.000	50.000	80.000	20.000	30.000	60.000	30.000	15.000
Pb	20.000	20.000	20.000	25.000	35.000	15.000	20.000	30.000	20.000	20.000
Zn	180.000	160.000	130.000	195.000	210.000	215.000	225.000	240.000	155.000	115.000
As										
Sb										
W										
Fe	1/SX	5X	5X	7X	7X	5X	7X	5X	5X	5X
Ca	1X	1X	0.7X	0.7X	0.5X	1X	1X	1X	1X	1.5X
Mg	1/SX	2X	2X	3X	3X	2X	3X	2X	2X	3X
Ag	1/S	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	1/S	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	1/S	30	30	50	50	30	50	30	30	50
Ba	1/S	1500	1500	1500	1500	1500	1500	1000	1000	1000
Be	1/S	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bi	1/S	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	1/S	(50	(50	(50	(50	(50	(50	(50	(50	(50
Co	1/S	30	20	30	30	10	20	20	20	15
Cr	1/S	70	50	100	100	50	70	100	100	100
Cu	1/S	50	30	50	100	20	30	30	50	50
Ca	1/S	20	20	20	20	20	20	20	20	20
Ge	1/S	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	1/S	20	20	20	20	20	20	20	20	20
Mn	1/S	1500	1500	1500	3000	1500	1500	1500	2000	2000
Mo	1/S	(2	(2	2	(2	(2	(2	(2	(2	(2
Nb	1/S	20	20	20	20	20	20	20	20	20
Ni	1/S	50	30	30	70	20	50	50	50	50
Pb	1/S	30	20	30	30	20	20	20	20	20
Sb	1/S	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	1/S	20	15	20	30	20	30	20	20	20
Sn	1/S	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	1/S	200	300	200	100	500	500	500	500	500
Ti	1/S	3000	3000	5000	5000	3000	5000	5000	5000	5000
V	1/S	200	200	300	200	300	200	150	200	200
W	1/S	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	1/S	15	15	20	15	10	15	15	20	15
Zn	1/S	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	1/S	70	70	100	70	50	100	100	100	100

SAMPLE NO.
ROCK AGE
ROCK TYPE
MAT. TYPE
1 MI. QUAD
4 MI. QUAD
SECTION
TOWNSHIP
RANGE

	571 TERT METSED STR SED A4 SEWARD 34 2N 7E	572 TERT METSED STR SED A4 REWARD 5 2N 7E	573 TERT METBED STR SED A4 SEWARD 5 2N 7E	574 TERT METBED STR SED A4 SEWARD 6 2N 7E	575 TERT METBED BTR SED A4 SEWARD 29 2N 7E	576 TERT METBED BTR SED A4 BEWARD 20 2N 7E	577 TERT METRED BTR BED R4 BEWARD 15 2N 7E	578 TERT METBED BTR SED A4 BEWARD 11 1N 6E	579 TERT METSED STR SED A4 BEWARD 11 1N 6E	580 TERT METBED BTR SED A4 SEWARD 16 1N 6E
Ag	(.200	(.020	(.020	(.100	(.040	(.020	(.200	(.040	(.100	(.200
Au	(.200	.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Ce	30.000	40.000	20.000	10.000	15.000	40.000	15.000	10.000	10.000	20.000
Ph	25.000	25.000	10.000	10.000	20.000	20.000	10.000	10.000	15.000	15.000
Zn	180.000	165.000	75.000	75.000	150.000	150.000	80.000	90.000	75.000	110.000
As										
Sb										
W										
Fe	5X	2X	7X	5X	3X	5X	3X	5X	7X	5X
Ca	1X	1X	1.5X	1X	2X	1.5X	1.5X	1.5X	2X	2X
Hg	3X	1X	3X	2X	3X	5X	3X	3X	3X	5X
Ag	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	20	30	30	20	50	20	30	50	20	50
Be	1500	700	1500	1500	1000	2000	1000	1500	1500	1500
Bi	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bl	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Co	50	10	20	10	10	20	10	10	10	20
Cr	150	20	150	100	100	150	70	70	70	100
Cu	50	50	50	30	20	50	20	30	30	50
Ga	20	10	30	20	15	20	20	20	20	20
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	50	20	20	20	20	20	20	20	20
Mn	2000	1000	1500	1500	2000	2000	1000	1500	1500	1500
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	(20	20	20	20	20	20	20	20	20
Ni	50	10	30	20	15	30	20	30	30	50
Pb	20	15	20	10	20	30	20	20	20	30
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	30	(10	20	20	15	30	20	20	20	30
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	500	300	500	500	700	500	500	500	700	500
Ti	5000	2000	5000	5000	5000	7000	5000	5000	7000	7000
V	200	70	200	100	200	300	150	100	150	200
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	20	10	20	20	15	50	10	10	15	20
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	100	30	100	100	100	200	150	100	70	100

SAMPLE NO.	S01	S02	S03	S04	S05	S06	S07	S08	S09	S90
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	CRET	CRET	CRET	CRET
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	BL/89/CG	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	A4	A4	A4	D4	B4	B4	CS	CS	CS	DS
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	9	9	35	15	2	2	19	19	24	25
TOWNSHIP	1N	1N	2N	2N	2N	2N	5N	5N	5N	5N
RANGE	6E	6E	6E	6E	6E	6E	4E	4E	3E	3E
Au	(.020	(.020	(.020	(.020	(.020	(.020	(.020	(.020	(.020	(.020
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	30.000	15.000	30.000	25.000	20.000	35.000	35.000	30.000	25.000	30.000
Pb	20.000	15.000	20.000	25.000	15.000	20.000	15.000	15.000	15.000	15.000
Zn	80.000	85.000	80.000	65.000	55.000	95.000	85.000	85.000	90.000	80.000
As							10.000	10.000	(10.000	(10.000
Sb							15.000	7.000	3.000	5.000
W										
Fe	5X	5X	5X	5X	5X		5X	5X	5X	5X
Cd	1.5X	1.5X	1.5X	2X	1.5X		1.5X	1.5X	1.5X	.2X
Hg	3X	3X	3X	2X	2X		3X	3X	5X	.3X
Ap	(1	(1	(1	(1	(1		(1	(1	(1	(1
As	(500	(500	(500	(500	(500		(500	(500	(500	(500
B	50	50	50	50	50		50	70	70	50
Ba	1500	1500	1500	1500	1000		1000	1000	1000	1000
Be	(2	(2	(2	(2	(2		(2	(2	(2	(2
Bi	(10	(10	(10	(10	(10		(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50		(50	(50	(50	(50
Co	20	15	15	15	10		10	5	10	5
Cr	100	70	100	100	70		100	100	150	100
Cu	70	30	30	50	30		50	70	50	30
Ga	20	20	20	20	20		20	20	20	20
Ge	(20	(20	(20	(20	(20		(20	(20	(20	(20
La	20	20	20	20	20		20	20	20	20
Mn	1500	1500	1500	1500	1000		1500	1000	1500	1000
Mo	(2	(2	(2	(2	(2		(2	(2	(2	(2
Nb	20	20	20	20	20		(20	(20	20	20
Ni	50	30	30	30	30		20	20	50	20
Pb	30	20	20	15	10		10	10	10	10
Sb	(100	(100	(100	(100	(100		(100	(100	(100	(100
Sc	30	20	20	30	15		20	15	20	15
Sn	(10	(10	(10	(10	(10		(10	(10	(10	(10
Br	500	500	500	500	500		200	200	100	300
Tl	7000	7000	5000	7000	5000		5000	5000	3000	3000
V	300	200	200	300	200		150	150	200	100
U	(50	(50	(50	(50	(50		(50	(50	(50	(50
Y	20	15	20	20	10		15	10	15	15
Zn	(200	(200	(200	(200	(200		(200	(200	(200	(200
Zr	100	100	100	200	100		100	100	100	100

SAMPLE NO.	591	592	593	594	2001	2002	2003	2004	2005	2006
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METBED	METSED	METBED	METBED	METSED	METBED	METBED	METBED	METSED	METSED
NAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	B5	B5	B5	B5	A7	A7	A7	A7	A7	A7
4 MI. QUAD	SEWARD	BEWARD	BEWARD	BEWARD	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ
SECTION	25	36	1	1	2B	33	33	33	4	B
TOWNSHIP	5N	5N	4N	4N	7B	7B	7B	7B	8B	8B
RANGE	3E	3E	3E	3E	6W	6W	6W	6W	6W	6W
Au	<.020	<.020	<.020	<.020	<.020	.040	.030	<.020	<.020	.060
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	25.000	35.000	30.000	40.000	30.000	40.000	20.000	30.000	30.000	15.000
Pb	15.000	15.000	15.000	15.000	15.000	20.000	10.000	5.000	10.000	15.000
Zn	85.000	90.000	90.000	85.000	75.000	80.000	75.000	70.000	70.000	65.000
As	20.000	10.000	20.000	10.000	10.000					
Sb	6.000	6.000	3.000	1.000						
W										
Fe	5%	5%	5%	5%						
Ca	1%	1%	1.5%	1.5%						
Mg	3%	3%	3%	3%						
Al	<1	<1	<1	<1						
Si	<500	<500	<500	<500						
B	50	50	50	50						
Na	700	1000	1000	1000						
K	<2	<2	<2	<2						
Rb	<10	<10	<10	<10						
Cd	<50	<50	<50	<50						
Co	20	20	20	10						
Cr	150	100	100	100						
Ni	50	30	50	70						
Cu	20	20	20	20						
Ga	<20	<20	<20	<20						
Ge										
La	20	20	20	20						
Mn	1000	1000	1000	1000						
Mo	<2	<2	<2	<2						
Nb	20	20	20	20						
P										
Ni	30	30	30	50						
Pb	10	10	20	20						
Sb	<100	<100	<100	<100						
Sc	20	15	20	20						
Sn	<10	<10	<10	<10						
Sr	200	300	300	300						
Tl	3000	3000	3000	5000						
V	200	200	200	300						
W	<50	<50	<50	<50						
Y	15	10	15	10						
Zn	<200	<200	<200	<200						
Zr	100	100	70	100						

SAMPLE NO.	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
NAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	A7	A7	A7	A7	A7	A7	A7	A7	A7	A7
4 MI. QUAD	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ
SECTION	8	8	17	17	17	19	19	19	30	30
TOWNSHIP	89	89	89	89	89	89	88	89	89	89
RANGE	6W	6W	6W	6W	6W	6W	6W	6W	6W	6W
Au	.020	(.020	.060	(.020	(.020	.170	(.020	(.020	.140	(.020
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	30.000	30.000	35.000	30.000	50.000	25.000	20.000	30.000	20.000	35.000
Pb	15.000	15.000	10.000	10.000	20.000	20.000	15.000	15.000	10.000	15.000
Zn	75.000	70.000	65.000	75.000	80.000	80.000	70.000	75.000	70.000	75.000
As										
Sb										
W										

SAMPLE NO.	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD
MAT. TYPE	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED
1 MI. QUAD	D6	D6	D6	D6	D6	D6	D6	D6	D6	D6
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	15	16	16	16	20	20	21	28	29	17
TOWNSHIP	118	118	118	118	118	118	118	118	118	118
RANGE	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW

As	<.020	.170	<.020	<.020	<.020	<.020	<.020	.020	<.020	.120
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	20.000	20.000	35.000	20.000	25.000	20.000	20.000	20.000	20.000	20.000
Pb	10.000	15.000	15.000	5.000	10.000	15.000	25.000	30.000	20.000	30.000
Zn	70.000	70.000	110.000	60.000	75.000	75.000	75.000	70.000	70.000	65.000

Fa	5X	5X								
Ca	2X	1.5X								
Hq	2X	2X								

Ag	<1	<1								
As	<500	<500								
B	20	20								
Ba	700	700								
Ba	<2	<2								
Bl	<10	<10								
Cd	<50	<50								
Ce	10	15								

Cr	200	500								
Cu	30	50								
Ca	20	20								
Ce	<20	<20								

La	50	<20								
Mn	1500	1500								
Mo	<2	<2								
Nb	20	20								

Ni	30	100								
Pb	20	20								
Sb	<100	<100								
Sc	20	20								

Sn	<10	<10								
Sr	500	500								
Tl	10000	10000								
V	200	200								

W	<50	<50								
Y	20	20								
Zn	<200	<200								
Zr	200	300								

SAMPLE NO.	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
MAT. TYPE	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED
1 MI. QUAD	D6	D6	D6	D6	D6	D6	D6	D6	D6	D6
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	17	17	8	8	6	29	29	30	30	25
TOWNSHIP	118	118	118	118	118	118	118	118	118	118
RANGE	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
Au	.030	.040	<.020	<.020	.080	<.020	<.020	<.020	<.020	.060
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	15.000	20.000	20.000	10.000	15.000	20.000	20.000	15.000	15.000	20.000
Pb	30.000	30.000	20.000	20.000	20.000	20.000	25.000	20.000	20.000	25.000
Zn	75.000	75.000	70.000	70.000	70.000	70.000	75.000	65.000	65.000	75.000
As										
Sb										
W										

SAMPLE NO.	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD
MAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	D6	D5	D6	D6	D6	D6	D6	D6	D6	D6
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	25	36	27	28	28	28	33	32	32	32
TOWNSHIP	119	119	119	119	119	119	119	119	119	119
RANGE	5W	4W	4W	4W	4W	4W	4W	4W	4W	4W

Au	(.020	(.020	.030	(.020	.050	(.020	.050	(.020	(.020	(.020
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	20.000	120.000	45.000	75.000	80.000	115.000	65.000	55.000	30.000	50.000
Pb	30.000	25.000	30.000	25.000	25.000	25.000	25.000	20.000	15.000	20.000
Zn	95.000	125.000	100.000	115.000	105.000	130.000	80.000	85.000	90.000	85.000

As										
Sb										
W										

Fe										
Co										
Mn										

Ag							(1			
As							(500			
B							10			
Ba							700			

Be							(2			
Bi							(10			
Cd							(50			
Ce							20			

Cr							200			
Cu							70			
Ga							15			
Ge							(20			

La							(20			
Mn							5000			
Mo							(2			
Nb							20			

Ni							100			
Pb							20			
Sb							(100			
Sc							30			

Sn							(10			
Sr							200			
Ti							10000			
V							200			

W							(50			
Y							50			
Zn							(200			
Zr							300			

SAMPLE NO.	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
HAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	SCHIST
1 MI. QUAD	D6	D6	D6	D6	D5	D5	D5	D5	D5	D5
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	5	5	6	7	3	9	9	9	9	8
TOWNSHIP	128	128	128	128	128	128	128	128	128	128
RANGE	4W	4W	4W	4W	3W	3W	3W	3W	3W	3W
Au	(.020	(.020	(.020	(.020	(.020	(.020	(.020	.050	.040	
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	
Cu	40.000	40.000	50.000	55.000	55.000	30.000	45.000	55.000	30.000	
Pb	20.000	20.000	15.000	15.000	15.000	5.000	15.000	10.000	10.000	
Zn	90.000	80.000	95.000	90.000	70.000	20.000	60.000	40.000	40.000	
As										
Sb										
W										

SAMPLE NO.	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METBED	METSED	METBED	METSED	METBED	METBED	METSED	METSED	METSED	METSED
MAT. TYPE	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED
1 MI. QUAD	D5	D5	D5	D5	D5	D5	D5	D5	D5	D5
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	B	S	B	B	7	7	7	7	7	13
TOWNSHIP	128	128	128	128	128	128	128	128	128	128
RANGE	3W	3W	3W	3W	3W	3W	3W	3W	3W	4W

Au	.250	<.020	.140		<.020	<.020	<.020		<.020	.020
Ag	<.200	<.200	<.200		<.200	<.200	<.200		<.200	<.200
Cu	60.000	30.000	45.000		60.000	40.000	40.000		45.000	40.000
Pb	15.000	15.000	10.000		10.000	15.000	15.000		10.000	10.000
Zn	80.000	95.000	50.000		50.000	55.000	60.000		50.000	60.000

As
Sb
W

Fe
Ca
Mg

Ag
As
B
Ba

Be
Bi
Cd
Ce

Cr
Cu
Co
Ca

La
Mn
Mo
Nb

Ni
Pb
Sb
Sc

Sn
Sr
Tl
V

W
Y
Zn

7X
2X
3X

11
500
20
700

12
10
50
20

100
100
15
120

20
10000
2
20

50
10
100
70

110
300
7000
200

50
500
200
100

SAMPLE NO.	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076
ROCK AGE	CRET	CRET	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
HAT. TYPE	STR BED	STR BED	STR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	STR BED	BTR BED
1 MI. QUAD	D6	D6	C5	C5	C5	C5	C5	C5	C6	C6
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	14	23	25	25	25	25	26	26	26	26
TOWNSHIP	125	125	138	138	138	138	139	138	136	138
RANGE	4W	4W	4W	4W	4W	4W	4W	4W	4W	4W

Au	.070	<.020	<.020	<.020	.050	<.040	<.100	<.020	<.020	
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	
Cu	30.000	85.000	20.000	35.000	35.000	50.000	35.000	15.000	25.000	
Pb	15.000	15.000	15.000	30.000	40.000	40.000	40.000	30.000	30.000	
Zn	70.000	70.000	40.000	105.000	180.000	120.000	150.000	120.000	120.000	
As										
Sb										
W										
Fe										2X
Ca										1X
Hg										2X
Ag										<1
As										<500
R										50
Ba										1000
Be										<2
Bi										<10
Cd										<50
Co										10
Cr										100
Cu										30
Ca										20
Ge										<20
La										20
Mn										1000
Mo										<2
Nb										<20
Ni										30
Pb										15
Sb										<100
Sc										10
Sn										<10
Sr										200
Ti										3000
V										200
W										<50
Y										10
Zn										<200
Zr										50

SAMPLE NO.	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
HAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	C6	C6	D5	D5	D5	D5	D5	C5	C5	C5
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	26	27	2	2	2	11	11	22	21	21
TOWNSHIP	139	139	139	138	139	139	138	138	135	135
RANGE	4W	4W	3W	3W	3W	3W	3W	3W	3W	3W
Au	<.020	<.100	<.020	<.020	<.020	<.020			<.020	<.020
Ag	<.200	<.200	<.200	<.200	<.200	<.200			<.200	<.200
Cu	30.000	25.000	60.000	65.000	40.000	35.000			45.000	40.000
Pb	25.000	30.000	30.000	50.000	35.000	25.000			20.000	15.000
Zn	110.000	125.000	90.000	150.000	80.000	85.000			85.000	85.000
As										
Sb										
W										
Fe							5X	5X	5X	
Co							1.5X	1X	2X	
Mn							2X	2X	7X	
Aq							<1	<1	<1	
As							<500	<500	<500	
B							50	30	20	
Ra							1000	1000	1500	
Re							<2	<2	<2	
Bl							<10	<10	<10	
Cd							<50	<50	<50	
Ce							20	20	5	
Cr							100	100	700	
Cu							50	50	150	
Ga							20	20	15	
Ge							<20	<20	<20	
La							20	20	<20	
Mn							2000	2000	1000	
Mo							<2	<2	<2	
Nb							20	20	20	
Ni							50	50	20	
Pb							10	20	30	
Sb							<100	<100	<100	
Sc							20	20	20	
Sn							<10	<10	<10	
Sr							300	300	500	
Tl							5000	7000	5000	
V							200	200	100	
W							<50	<50	<50	
Y							15	15	10	
Zn							<200	<200	<200	
Zr							100	200	70	

SAMPLE NO.	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	MAFVOL	MAFVOL	MAFVOL	MAFVOL
HAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	MAF VOL.C	BTR SED	STR SED	BL/S9/CG
1 MI. QUAD	C5	C5	C5	C5	C5	C5	C5	C5	C4	C4
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	21	28	29	32	31	31	25	24	24	24
TOWNSHIP	139	139	139	139	138	138	139	149	149	149
RANGE	3W	3W	3W	3W	3W	3W	4W	2W	2W	2W
Au	(.020	(.020	(.020	(.020	(.020	(.020		(.020	(.020	
Ag	(.200	(.200	(.200	(.200	(.200	(.200		(.200	(.200	
Cu	40.000	40.000	45.000	35.000	30.000	35.000		65.000	135.000	
Pb	15.000	20.000	20.000	15.000	10.000	20.000		15.000	15.000	
Zn	85.000	85.000	85.000	70.000	75.000	85.000		55.000	75.000	
As										
Sb										
W										

SAMPLE NO.	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL
MAT. TYPE	STR SED	STR SED	STR BED	STR BED	STR BED	STR BED	STR BED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	24	24	24	23	23	26	26	27	34	34
TOWNSHIP	148	148	148	148	148	148	148	148	148	148
RANGE	2W	2W	2W	2W	2W	2W	2W	2W	2W	2W
Au	<.020	<.020	<.020	<.020	<.020	<.020	<.020	<.020	<.020	<.020
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	60.000	60.000	85.000	75.000	85.000	80.000	80.000	85.000	65.000	70.000
Pb	5.000	10.000	15.000	10.000	15.000	10.000	10.000	10.000	15.000	15.000
Zn	80.000	80.000	55.000	60.000	60.000	80.000	60.000	50.000	95.000	75.000
As										
Sb										
W										
Fe								10X		
Ca								7X		
Hq								10X		
Ag								<1		
As								<500		
B								10		
Ba								500		
Be								<2		
Bi								<10		
Cd								<50		
Co								20		
Cr								150		
Cu								200		
Ga								15		
Ge								<20		
La								<20		
Mn								1500		
Mo								2		
Nb								20		
Ni								20		
Pb								<10		
Sb								<100		
Sc								50		
Sn								<10		
Sr								500		
Tl								7000		
V								200		
W								<50		
Y								15		
Zn								<200		
Zr								20		

SAMPLE NO.	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	METSSED	METSSED	METSSED	METSSED
MAT. TYPE	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED
1 MI. QUAD	C5	C5	C5	C5	C5	C5	C4	C4	C4	P4
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	34	3	4	4	24	24	11	11	10	10
TOWNSHIP	149	159	159	159	149	149	169	169	169	169
RANGE	2W	2W	2W	2W	2W	2W	1E	1E	1E	1E
As	(.020	(.020	(.020	(.020		(.020	.030	(.020	(.100	
Ag	(.200	(.200	(.200	(.200		(.200	(.200	(.200	(.200	
Cu	90.000	75.000	60.000	70.000		45.000	30.000	35.000	40.000	
Pb	5.000	5.000	5.000	15.000		20.000	15.000	20.000	20.000	
Zn	65.000	55.000	75.000	75.000		105.000	85.000	100.000	105.000	
As										
Sb										
W										

SAMPLE NO.	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METBED	METBED	METBED	METBED	METBED	METBED	METBED	FELINT	FELINT	FELINT
NAT. TYPE	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED
1 MI. QUAD	D4	D4	D4	D4	D4	D4	D4	D4	C4	C4
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	15	15	15	23	27	20	19	13	7	33
TOWNSHIP	169	169	169	169	169	169	169	169	169	159
RANGE	1E	1E	1E	1E	1E	1E	1E	1W	1E	1E
Au	(.020	.020	(.020	(.020	(.100	(.040	(.040	(.040	(.020	(.100
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	25.000	30.000	25.000	30.000	35.000	20.000	40.000	15.000	10.000	20.000
Pb	20.000	15.000	20.000	25.000	30.000	15.000	15.000	10.000	10.000	10.000
Zn	90.000	100.000	90.000	100.000	145.000	100.000	125.000	70.000	35.000	75.000
As										
Sb										
W										
Fe		7X		5X	3X	2X	3X	5X	1X	5X
Ca		2X		2X	1X	0.7X	1.5X	2X	0.7X	2X
Hg		7X		7X	5X	1X	7X	7X	0.5X	5X
Al		(1		(1	(1	(1	(1	(1	(1	(1
As		(500		(500	(500	(500	(500	(500	(500	(500
B		20		20	10	20	10	10	10	10
Ba		1500		2000	1000	200	1000	1500	100	1500
Be		(2		(2	(2	(2	(2	(2	(2	(2
Bi		(10		(10	(10	(10	(10	(10	(10	(10
Cd		(50		(50	(50	(50	(50	(50	(50	(50
Co		5		5	20	5	10	5	(5	5
Cr		70		50	20	10	20	50	(10	30
Cu		100		70	20	10	70	10	5	20
Ca		15		10	10	(10	10	10	10	15
Ge		(20		(20	(20	(20	(20	(20	(20	(20
La		20		20	20	20	20	20	20	(20
Mn		1000		1500	3000	1500	1000	1000	100	700
Mo		(2		(2	2	(2	(2	(2	(2	(2
Nb		20		20	(20	(20	20	20	(20	20
Ni		15		15	10	(5	10	10	(5	10
Pb		30		20	20	10	20	20	10	20
Sb		(100		(100	(100	(100	(100	(100	(100	(100
Sc		10		15	10	(10	15	15	(10	10
Sn		(10		(10	(10	(10	(10	(10	(10	(10
Sr		700		500	300	100	200	500	100	300
Tl		5000		7000	5000	1000	3000	5000	1000	5000
V		70		100	100	30	50	50	30	70
W		(50		(50	(50	(50	(50	(50	(50	(50
Y		10		10	(10	(10	10	10	(10	15
Zn		(200		(200	(200	(200	(200	(200	(200	(200
Zr		500		70	30	150	50	50	70	100

SAMPLE NO.	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	MAFVOL	MAFVOL	METSED	METSED
NAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	C3	C3	C2	C2	C2	C2	C2	C2	C2	C2
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	14	7	28	5	16	16	3	2	1	31
TOWNSHIP	159	159	149	159	149	149	169	169	169	159
RANGE	2E	2E	4E	4E	4E	4E	4E	4E	4E	5E
As	<.020	<.020	<.020	<.020	<.020	<.020	<.020	<.040	<.040	<.040
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cv	60.000	80.000	15.000	35.000	40.000	15.000	15.000	40.000	20.000	25.000
Pb	30.000	50.000	5.000	15.000	10.000	5.000	15.000	25.000	10.000	10.000
Zn	120.000	255.000	70.000	75.000	115.000	55.000	100.000	135.000	90.000	145.000
As										
Sb										
W										
Fe	7X	7X	5X	2X	7X	5X	3X	5X	7X	5X
Ca	3X	0.7X	2X	1.5X	3X	3X	2X	0.5X	2X	1.5X
Mg	7X	7X	5X	2X	5X	2X	2X	2X	3X	1X
Aq	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Am	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	20	20	10	10	10	10	10	50	10	10
Ra	2000	1500	2000	1000	1500	2000	1500	1000	1500	1000
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bl	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Ce	20	10	5	10	10	<5	<5	10	5	10
Cr	70	50	30	20	50	50	50	50	100	30
Cu	150	100	20	50	70	20	20	70	70	50
Ga	15	15	10	10	15	10	10	10	15	10
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	20	20	20	20	20	20	30	30	20	30
Mn	700	500	200	200	500	1000	1000	1500	700	1000
Mo	2	<2	<2	<2	2	<2	<2	<2	<2	<2
Nb	20	20	20	20	20	20	50	<20	<20	<20
Ni	20	15	10	10	15	15	15	10	20	10
Pb	50	20	20	10	20	20	10	10	20	10
Bb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Bc	20	15	10	<10	10	10	10	10	15	10
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	500	500	500	700	500	500	500	200	500	500
Tl	7000	5000	5000	2000	3000	7000	5000	7000	7000	2000
V	100	100	70	50	100	70	100	100	100	100
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	15	10	10	<10	10	10	30	<10	10	10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	150	70	200	100	200	100	70	50	70	30

SAMPLE NO.	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	C2	C6	C6	C6	C6	C6	C6	C6	C6	C6
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	34	23	23	23	22	22	22	22	22	21
TOWNSHIP	158	158	158	158	158	158	158	158	158	158
RANGE	5E	4W	4W	4W	4W	4W	4W	4W	4W	4W

Av	<.020	<.100	<.200	<.040	<.100	<.100	<.100	<.100	<.100	<.200
Aq	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	15.000	15.000	25.000	40.000	30.000	40.000	50.000	40.000	35.000	35.000
Pb	5.000	25.000	25.000	30.000	25.000	30.000	30.000	30.000	25.000	25.000
Zn	80.000	280.000	140.000	215.000	180.000	165.000	235.000	195.000	165.000	195.000

As										
Sb										
W										

Fe	7%								7%	
Co	3%								1%	
Mn	5%								3%	

Aq	<1								<1	
As	<500								<500	
B	10								20	
Ba	2000								1500	

Be	<2								<2	
Bi	<10								<10	
Cd	<50								<50	
Ce	10								20	

Cr	100								50	
Cu	50								100	
Ga	10								10	
Ge	<20								<20	

La	20								20	
Mn	1000								2000	
Mo	<2								<2	
Nb	<20								20	

Ni	15								15	
Pb	20								10	
Sb	<100								<100	
Sc	10								15	

Sn	<10								<10	
Sr	500								200	
Ti	7000								5000	
V	100								100	

W	<50								<50	
Y	10								<10	
Zn	<200								<200	
Zr	150								50	

SAMPLE NO.	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD
MAT. TYPE	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED
1 MI. QUAD	C6	C6	C6	B6	B6	B6	B6	B6	B6	B6
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	21	21	21	13	12	12	12	12	12	12
TOWNSHIP	158	158	158	169	169	168	168	169	168	168
RANGE	1W	1W	1W	6W	6W	6W	6W	6W	6W	6W
Av	(.100	(.100	(.040	(.020	(.020	(.040	(.020	(.020	(.100	(.040
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	30.000	50.000	20.000	10.000	15.000	15.000	20.000	15.000	10.000	10.000
Pb	20.000	35.000	20.000	20.000	25.000	20.000	15.000	15.000	20.000	20.000
Zn	165.000	230.000	140.000	115.000	155.000	205.000	100.000	170.000	175.000	155.000
As										
Sb										
W										

SAMPLE NO.	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
HAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	D6	R6	C6	C6	C6	C6	C6	C6	C6	C6
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	12	12	1	1	1	1	2	2	2	2
TOWNSHIP	168	168	168	168	168	168	168	168	168	168
RANGE	6W	6W	6W	6W	6W	6W	6W	6W	6W	6W

Au	<.020	<.020	<.040	<.020	<.040	<.100	<.020	<.100	19	<.020
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	20.000	15.000	15.000	10.000	15.000	15.000	20.000	5.000	15.000	15.000
Pb	25.000	10.000	15.000	20.000	25.000	20.000	20.000	20.000	20.000	15.000
Zn	165.000	95.000	140.000	90.000	125.000	135.000	100.000	140.000	130.000	100.000

As										
Sb										
W										
Fe										
Ca										
Hg								5X		
								0.5X		
								1X		
Ap								<1		
As								<500		
B								20		
Ba								1500		
Be								<2		
Bi								<10		
Cd								<50		
Ce								10		
Cr								30		
Cu								10		
Co								<10		
Ge								<20		
La								20		
Mn								1000		
Mo								<2		
Nb								<20		
Ni								7		
Pb								10		
Sb								<100		
Sc								10		
Sn								<10		
Br								200		
Tl								2000		
V								70		
W								<50		
Y								<10		
Zn								<200		
Zr								70		

SAMPLE NO.	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSSED	METSSED	METSSED	MAFVOL	MAFVOL	MAFVOL	METSSED	METSSED	METSSED	METSSED
MAT. TYPE	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED
1 MI. QUAD	C6	C6	C6	B7	D7	B7	B7	B7	B7	B7
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	3	6	6	26	26	26	27	27	23	23
TOWNSHIP	16S	16S	16S	17B	17B	17B	17B	17B	17S	17S
RANGE	5W	4W	4W	7W	7W	7W	7W	7W	7W	7W

Ag	(.100	(.040	(.100	(.040	(.200	(.200	(.200	(.020	(.020	(.100
Ap	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	35.000	65.000	55.000	95.000	75.000	75.000	150.000	110.000	70.000	110.000
Pb	40.000	35.000	30.000	50.000	45.000	25.000	20.000	20.000	30.000	25.000
Zn	340.000	195.000	240.000	210.000	165.000	180.000	170.000	155.000	155.000	145.000
As										
Sb										
W										

Fe	3X	3X	2X
Cu	0.7X	1X	0.7X
Hq	1X	2X	0.5X

Ag	(1	(1	(1
As	(500	(500	(500
B	20	10	10
Ba	1000	1000	100

Be	(2	(2	(2
Bl	(10	(10	(10
Cd	(50	(50	(50
Co	20	15	10

Cr	20	30	10
Cu	20	70	30
Ga	(10	10	(10
Ge	(20	(20	(20

La	30	30	30
Mn	7000	5000	5000
Mo	(2	(2	(2
Nb	(20	(20	(20

Ni	7	10	5
Pb	10	20	20
Sb	(100	(100	(100
Sc	(10	10	(10

Sn	(10	(10	(10
Sr	100	100	100
Tl	1000	2000	1000
V	30	70	50

W	(50	(50	(50
Y	(10	(10	(10
Zn	(200	(200	(200

SAMPLE NO.	2177	2178	2179	2180	2181	2182	2183	2184	2105	2186
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	B7	B7	B7	B7	B7	B7	B7	B7	C5	C5
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	22	22	27	28	28	29	29	28	33	34
TOWNSHIP	178	178	178	178	178	178	178	178	159	159
RANGE	7W	7W	7W	7W	7W	7W	7W	7W	3W	3W
Au	<.040	<.040	<.020	<.040	<.040	<.100	.080	<.020	<.040	<.020
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	80.000	80.000	65.000	55.000	60.000	55.000	50.000	55.000	45.000	55.000
Pb	25.000	20.000	25.000	20.000	25.000	25.000	30.000	25.000	40.000	35.000
Zn	140.000	135.000	135.000	120.000	125.000	120.000	130.000	155.000	205.000	155.000
As										
Sb										
W										
Fe		7X								
Ca		1X								
Hg		7X								
Al										
Ag		<1								
As		<500								
B		30								
Ba		1000								
Be		<2								
Bi		<10								
Cd		<50								
Co		20								
Cr		1000								
Cu		150								
Ca		15								
Ge		<20								
La		20								
Mn		700								
Mo		<2								
Nb		<20								
Ni		70								
Pb		10								
Sb		<100								
Sc		30								
Sn		<10								
Sr		200								
Tl		7000								
V		150								
W		<50								
Y		10								
Zn		<200								
Zr		50								

SAMPLE NO.	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	MAFVOL	MAFVOL	FELINT	METSSED	METSSED
MAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BED/VOLC	MAF VOLC	FEL PLUT	STR SED	STR SED
1 MI. DIAD	C5	C5	C5	C5	C5	B7	B7	B6	B7	B7
4 MI. DIAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	33	33	33	32	32	26	26	12	8	8
TOWNSHIP	159	159	159	159	159	179	179	169	178	179
RANGE	3W	3W	3W	3W	3W	7W	7W	6W	7W	7W
Au	<.020	<.100	<.020	<.020	<.020	<.020			<.040	.040
Ag	<.200	<.200	<.200	<.200	<.200	<.200			<.200	<.200
Cu	55.000	50.000	50.000	60.000	50.000	50.000			25.000	25.000
Pb	35.000	30.000	30.000	35.000	30.000	30.000			20.000	25.000
Zn	155.000	150.000	150.000	170.000	150.000	150.000			145.000	100.000
As										
Sb										
W										
Fe		7%								
Co		0.7%								
Mg		5%								
Ag		<1								
As		<500								
B		20								
Ba		2000								
Be		<2								
Bi		<10								
Cd		<50								
Ce		15								
Cr		150								
Cu		150								
Co		20								
Ge		<20								
La		20								
Mn		500								
Mo		<2								
Nb		20								
Ni		20								
Pb		50								
Sb		<100								
Sc		20								
Sn		<10								
Sr		200								
Ti		7000								
V		100								
W		<50								
Y		10								
Zn		<200								
		70								

SAMPLE NO.	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
HAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	R7	R7	R7	R7	R7	R7	R7	R7	R7	R7
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	8	8	5	4	4	4	4	4	4	3
TOWNSHIP	17S	17S	17S	17S	17S	17S	17S	17S	17S	17S
RANGE	7W	7W	7W	7W	7W	7W	7W	7W	7W	7W
As	<.040	<.020	<.040	<.040	<.040	<.040	<.020	<.020	<.020	<.020
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	30.000	35.000	30.000	25.000	35.000	25.000	30.000	35.000	20.000	25.000
Pb	25.000	25.000	25.000	20.000	20.000	20.000	25.000	20.000	20.000	20.000
Zn	105.000	105.000	110.000	100.000	125.000	110.000	135.000	120.000	105.000	110.000
Am										
Sb										
W										
Fe				5X			7X			
Ca				0.2X			0.7X			
Hg				2X			3X			
Aq				<1			<1			
As				<500			<500			
B				20			20			
Ba				1500			1000			
Be				<2			<2			
Bi				<10			<10			
Cd				<50			<50			
Co				5			10			
Cr				50			70			
Cu				50			70			
Ga				10			15			
Ge				<20			<20			
La				20			20			
Mn				200			700			
Mo				<2			<2			
Nb				20			20			
Ni				15			20			
Pb				20			20			
Sb				<100			<100			
Sc				10			15			
Sn				<10			<10			
Sr				200			200			
Tl				2000			7000			
V				100			100			
W				<50			<50			
Y				10			<10			
Zn				<200			<200			
Zr				70			100			

SAMPLE NO.	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216
ROCK AGE	TERT	TERT	TERT	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	B7	B7	D7	AB	AB	AB	AB	AB	AB	AB
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ
SECTION	3	3	36	20	30	30	30	30	25	25
TOWNSHIP	179	179	169	99	99	99	99	99	99	99
RANGE	7W	7W	7W	9W	9W	9W	9W	9W	10W	10W
Au	<.020	<.020	<.020	<.020	<.020	<.020	<.020	<.040	<.040	<.020
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	20.000	20.000	20.000	20.000	25.000	20.000	15.000	20.000	15.000	25.000
Pb	15.000	20.000	50.000	20.000	20.000	20.000	15.000	20.000	20.000	25.000
Zn	95.000	90.000	90.000	85.000	100.000	85.000	90.000	100.000	75.000	115.000
As										
Sb										
W										
Fe				.3X	.3X	.2X	.3X	.2X	.2X	.1X
Co				0.7X	0.7X	0.7X	0.7X	.1X	0.7X	0.2X
Mg				1X	1X	1X	1X	1X	0.7X	0.5X
Al				<1	<1	<1	<1	<1	<1	<1
Si				<500	<500	<500	<500	<500	<500	<500
B				50	50	50	50	20	30	20
Ba				1000	500	500	700	700	500	300
Be				<2	<2	<2	<2	<2	<2	<2
Bi				<10	<10	<10	<10	<10	<10	<10
Cd				<50	<50	<50	<50	<50	<50	<50
Ce				10	20	10	15	15	10	<5
Cf				200	100	50	100	70	50	20
Cu				30	30	20	30	30	20	10
Ga				15	20	20	20	20	15	10
Ge				<20	<20	<20	<20	<20	<20	<20
La				20	<20	50	20	20	100	30
Mn				1000	1000	1000	1000	1000	1000	500
Mo				<2	<2	<2	<2	<2	<2	<2
Nb				20	20	20	20	20	20	20
Ni				50	50	30	30	30	20	10
Pb				10	15	15	15	15	10	10
Sb				<100	<100	<100	<100	<100	<100	<100
Sc				15	15	10	15	10	10	<10
Sn				<10	<10	<10	<10	<10	<10	<10
Sr				200	200	300	300	300	300	200
Tl				3000	3000	2000	3000	3000	3000	1500
V				100	100	100	100	100	70	70
W				<50	<50	<50	<50	<50	<50	<50
Y				<10	10	<10	<10	<10	<10	<10
Zn				<200	<200	<200	<200	<200	<200	<200
Zr				70	70	50	70	70	50	30

SAMPLE NO.	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	TERT
ROCK TYPE	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD
MAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	PHYLLITE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	AB	AB	AB	AB	AB	AB	AB	AB	AB	D1
4 MI. QUAD	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	SEWARD
SECTION	25	36	36	14	14	23	23	23	23	22
TOWNSHIP	98	99	99	99	99	99	99	99	99	10N
RANGE	10W	10W	10W	9W	9W	9W	9W	9W	9W	11W
As	<.020	<.020	<.040	.030	<.020	<.020	<.040	<.020	<.020	<.020
Aq	.200	<.200	<.200	<.200	.200	<.200	<.200	<.200	<.200	<.200
Cu	20.000	15.000	15.000	45.000	70.000	45.000	50.000	25.000	40.000	10.000
Pb	20.000	20.000	20.000	20.000	30.000	20.000	30.000	20.000	15.000	15.000
Zn	85.000	60.000	60.000	75.000	105.000	80.000	145.000	95.000	80.000	115.000
Ag										
Sb										
W										
Fe	2X	2X	3X	2X		3X	2X	5X	5X	3X
Ca	0.5X	0.7X	0.7X	0.5X		0.7X	0.5X	0.7X	0.7X	0.3X
Mg	1X	1X	1X	1X		1.5X	0.5X	1X	1.5X	1.5X
Au	<1	<1	<1	<1		<1	<1	<1	<1	<1
As	<500	<500	<500	<500		<500	<500	<500	<500	<500
B	50	30	50	50		50	70	50	50	50
Ba	700	700	700	700		700	500	700	700	700
Be	<2	<2	<2	<2		<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10		<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50		<50	<50	<50	<50	<50
Ce	10	10	15	10		20	10	20	15	10
Cr	50	50	70	70		100	30	70	200	100
Cu	30	30	30	70		30	50	30	30	20
Co	20	15	20	10		15	10	15	15	10
Ge	<20	<20	<20	<20		<20	<20	<20	<20	<20
La	20	20	20	20		20	20	20	20	20
Mn	1000	1000	1000	1500		1500	700	1500	1500	1000
Mo	<2	<2	<2	<2		<2	<2	<2	<2	<2
Nb	20	20	20	20		20	20	20	20	20
Ni	20	20	20	20		30	15	20	30	20
Pb	15	15	20	10		10	10	20	10	<10
Sb	<100	<100	<100	<100		<100	<100	<100	<100	<100
Sc	10	10	15	15		20	10	15	20	10
Sn	<10	<10	<10	<10		<10	<10	<10	<10	<10
Sr	300	300	300	300		300	200	300	300	200
Ti	3000	2000	2000	3000		5000	1500	3000	5000	2000
V	70	70	100	70		70	100	70	100	100
U	<50	<50	<50	<50		<50	<50	<50	<50	<50
Y	<10	<10	<10	10		20	<10	10	20	<10
Zn	<200	<200	<200	<200		<200	<200	<200	<200	<200
Zr	70	70	50	100		100	50	100	100	70

SAMPLE NO. ROCK AGE ROCK TYPE MAT. TYPE 1 MI. QUAD 4 MI. QUAD SECTION TOWNSHIP RANGE	2227 TERT METSSED STR 9ED D1 SEWARD 3 11N 11W	2228 TERT METSSED STR 9ED D1 SEWARD 4 11N 11W	2229 TERT METSSED STR 9ED D1 BEWARD 4 11N 11W	2230 TERT METSSED STR 9ED D1 BEWARD 29 10N 11W	2231 TERT METSSED STR 9ED D1 BEWARD 17 10N 11W	2232 TERT METSSED STR 9ED A1 ANCHOR 17 109 11W	2233 TERT METSSED STR 9ED A1 ANCHOR 8 109 11W	2234 TERT METSSED STR 9ED A1 ANCHOR 35 11N 12E	2235 TERT METSSED STR 9ED A1 ANCHOR 35 11N 12E	2236 TERT METSSED STR 9ED D1 BEWARD 27 10N 12E
Av	(.020	(.040	(.020	(.020	(.020	(.020	(.020	(.020	(.020	(.020
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cv	15.000	25.000	20.000	15.000	10.000	10.000	10.000	10.000	10.000	10.000
Pb	20.000	40.000	20.000	35.000	15.000	15.000	10.000	10.000	10.000	10.000
Zn	200.000	380.000	150.000	185.000	110.000	95.000	50.000	50.000	50.000	50.000
As										
Sb										
W										
Fe	3X	1X	5X	5X	2X	3X	2X	5X	5X	2X
Co	0.3X	0.5X	0.3X	0.2X	0.5X	0.5X	0.2X	0.5X	0.3X	0.5X
Hg	1.5X	0.2X	1.5X	1X	1.5X	1.5X	1X	2X	2X	0.5X
Ag	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	50	20	50	50	20	50	30	50	50	20
Ba	1000	300	1000	700	500	300	700	1000	1000	500
Be	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bl	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Ce	10	(5	15	20	(5	10	5	20	20	30
Cr	100	20	100	150	30	100	50	100	100	30
Cu	30	30	30	30	30	20	20	150	150	30
Co	15	10	15	20	15	15	10	20	20	10
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	50	20	20	30	20	20	20	20	30
Mn	1500	1500	1500	1500	1000	1000	500	2000	1500	2000
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	20	(5	20	20	15	20	20	30	20	5
Pb	20	15	10	30	10	(10	(10	100	100	(10
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	10	(10	15	10	(10	20	10	20	20	(10
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	200	100	100	100	100	200	200	200	200	100
Tl	3000	700.	2000	3000	2000	3000	2000	5000	3000	1000
V	70	70	150	200	70	100	70	150	100	70
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Zn	200	(200	(200	(200	(200	(200	(200	500	300	(200
Zr	70	20	100	100	100	100	100	100	100	20

SAMPLE NO.	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	FELINT	FELINT	FELINT	HETSED	HETSED	HETSED	FELINT	FELINT	FELINT	FELINT
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	D1	D1	D1	D1	D1	D1	D1	D2	D2	D2
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	28	28	28	35	10	10	4	31	30	24
TOWNSHIP	10N	10N	10N	11N	10N	10N	9N	10N	10N	10N
RANGE	12E	12E	12E	12E	12E	12E	12E	12E	12E	12E

As										
Aq										
Ce										
Pb										
Zn										
As										
Sb										
W										
Fe	3X	3X	2X	5X	3X	2X	2X	1X	0.7X	1.5X
Ca	0.5X	0.7X	0.2X	1X	1X	0.7X	0.15X	0.5X	0.2X	0.7X
Hg	2X	0.7X	0.7X	2X	1.5X	0.5X	0.7X	0.3X	0.7X	0.5X
Ag	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	20	<10	<10	10	10	10	<10	<10	<10	10
Ba	700	200	200	1500	1000	500	2000	200	500	100
Be	<2	2	3	<2	<2	<2	<2	2	2	2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Co	10	<5	<5	7	5	5	<5	<5	<5	<5
Cr	100	<10	<10	50	20	10	<10	<10	<10	<10
Cu	10	5	5	70	15	15	5	7	2	20
Ca	20	10	15	15	10	<10	10	<10	10	<10
Ce	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	20	50	50	20	20	20	50	20	50	100
Mn	500	300	500	700	700	300	300	500	100	500
Mo	<2	<2	<2	2	<2	<2	<2	<2	<2	<2
Nb	20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Ni	20	5	5	20	15	5	5	<5	5	5
Pb	<10	10	20	50	10	10	20	10	10	20
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	15	<10	<10	10	<10	<10	<10	<10	<10	<10
Sr	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	200	200	100	500	500	100	100	100	200	100
Tl	3000	1500	1000	5000	3000	2000	2000	500	1500	1000
V	70	15	15	70	50	30	10	10	<10	15
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	10	15	15	<10	10	<10	15	10	15	10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	70	70	100	50	500	20	200	30	150	50

06

SAMPLE NO.	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	FELINT	FELINT	FELINT	FELINT	FELINT	FELINT	FELINT	FELINT	FELINT	HETSED
HAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	D2	D2	D2	D2	D1	D1	D2	A2	A2	A2
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	ANCHOR	ANCHOR	ANCHOR
SECTION	24	18	18	18	8	8	13	36	31	30
TOWNSHIP	10N	10N	10N	10N	10N	10N	10N	11N	11N	11N
RANGE	12E	12E	12E	12E	12E	12E	11E	11E	12E	12E

Au										
Aq										
Cu										
Pb										
Zn										
As										
Sb										
W										
Fe	1X	1.5X	1.5X	1X	3X	5X	0.7X	1.5X	5X	5X
Ca	0.3X	0.5X	0.5X	0.2X	0.7X	1X	0.1X	0.5X	0.7X	1X
Hg	0.5X	0.7X	1X	0.3X	2X	5X	0.2X	0.5X	5X	2X
Ag	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	<10	<10	<10	<10	10	10	<10	10	15	30
Ba	300	500	700	100	1500	2000	100	1000	2000	1500
Be	2	2	2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Co	<5	<5	<5	<5	5	10	5	5	15	7
Cr	<10	<10	<10	<10	30	70	<10	10	100	100
Cu	2	5	15	10	70	100	5	10	100	50
Ga	10	10	10	<10	15	15	<10	10	20	10
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	200	20	20	20	30	20	20	20	20	20
Mn	100	700	700	1000	700	1000	1000	300	1500	1000
Mo	<2	<2	<2	<2	2	2	<2	<2	<2	<2
Nb	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Ni	<5	<5	<5	<5	15	20	<5	<5	20	15
Pb	10	10	30	20	20	20	10	20	50	20
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	<10	<10	<10	<10	10	15	<10	<10	20	10
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	100	100	100	100	200	500	100	100	200	300
Ti	500	1000	2000	100	3000	5000	100	1000	5000	5000
V	10	15	20	10	70	70	10	20	100	100
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	10	<10	10	<10	<10	<10	<10	10	<10	<10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	300	50	150	<20	100	50	20	100	50	50

SAMPLE NO.	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	CRET	CRET	CRET
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
HAT. TYPE	STR BED	STR SED	STR SED	STR SED	BTR BED	STR BED	STR BED	STR SED	BTR SED	STR SED
1 MI. QUAD	A2	A2	D2	D2	D2	A2	A2	A2	A2	A2
4 MI. QUAD	ANCHOR	ANCHOR	REWARD	SEWARD	SEWARD	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR
SECTION	25	27	10	15	17	28	28	16	3	33
TOWNSHIP	11N	11N	10N	10N	10N	11N	11N	11N	11N	12N
RANGE	11E	11E	11E	11E	11E	11E	11E	11E	11E	11E
Au		(.020	(.200	(.020	(.040	(.020	(.100	(.020	(.100	(.100
Ag		(.200	(.200	.200	(.200	(.200	(.200	(.200	(.200	(.200
Cv		20.000	100.000	20.000	10.000	25.000	30.000	5.000	40.000	45.000
Pb		10.000	20.000	20.000	15.000	15.000	15.000	5.000	25.000	20.000
Zn		185.000	220.000	175.000	105.000	390.000	90.000	50.000	105.000	130.000
As										
Sb										
W										
Fe	5X	5X	3X	0.5X	0.7X	1X	5X	3X	2X	2X
Co	0.5X	0.5X	0.7X	0.5X	0.7X	0.2X	0.5X	1X	0.5X	1X
Hq	5X	1X	1X	0.15X	0.3X	0.2X	1X	1X	1X	1X
Aq	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	10	20	20	(10	10	(10	50	20	30	20
Ba	2000	1000	1000	150	700	150	1000	1500	1000	500
Be	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bi	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Ce	5	10	10	5	5	5	10	7	5	5
Cr	30	100	70	10	10	10	300	200	200	100
Cu	100	50	100	30	20	30	100	20	100	100
Ca	20	10	15	(10	15	(10	20	20	20	10
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	(20	(20	20	20	20	(20	20	20	20
Mn	1000	1500	1000	700	1000	1000	2000	1000	2000	1000
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
Ni	20	30	20	(5	5	5	70	50	70	70
Pb	70	10	15	10	20	10	20	10	20	15
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	10	10	10	(10	(10	(10	20	15	15	10
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	200	100	200	300	300	300	100	700	100	200
Tl	7000	2000	3000	500	1500	1000	5000	3000	3000	2000
V	100	100	100	20	50	20	100	100	100	100
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	(10	(10	(10	(10	(10	(10	15	10	10	10
Zn	(200	200	200	(200	(200	(200	200	(200	(200	(200
Zr	70	100	70	(20	20	(20	100	70	200	50

SAMPLE NO.	2267	2260	2269	2270	2271	2272	2273	2274	2275	2276
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD
HAT. TYPE	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED
1 MI. QUAD	A2	A2	A2	A2	A2	A2	A2	A2	A2	A2
4 MI. QUAD	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR
SECTION	28	21	17	5	7	18	19	31	7	24
TOWNSHIP	12N	12N	12N	12N	12N	12N	12N	12N	11N	11N
RANGE	11E	11E	11E	11E	11E	11E	11E	11E	11E	10E
Au	(.020	(.020	(.020	(.020	(.020	(.020	(.100	(.020	(.100	(.040
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	20.000	25.000	20.000	20.000	25.000	20.000	20.000	20.000	20.000	15.000
Pb	10.000	10.000	15.000	15.000	10.000	15.000	10.000	10.000	5.000	5.000
Zn	65.000	60.000	80.000	65.000	65.000	85.000	70.000	55.000	65.000	65.000
As										
Sb										
W										
Fe	5X	5X	5X	3X	3X	5X	3X	5X	3X	3X
Ca	0.7X	1X	0.7X	1X	0.7X	0.5X	0.5X	1X	0.7X	1X
Hg	1X	2X	2X	1X	1X	1X	1X	2X	2X	1X
Al	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	30	30	50	20	20	50	50	20	30	10
Ba	1000	1000	1000	1000	1000	1000	1000	1000	1000	700
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Co	15	15	10	10	10	15	10	10	15	10
Cr	200	300	300	300	200	300	150	150	100	500
Cu	70	70	70	70	70	70	70	50	100	30
Ga	20	20	20	15	15	20	10	10	10	10
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Mn	1000	1000	1000	1000	700	1000	700	1000	1000	700
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Ni	50	70	70	50	50	50	50	50	50	70
Pb	15	15	15	15	10	15	15	10	10	10
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	20	20	15	10	10	20	10	10	10	10
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	500	500	200	200	500	100	100	300	300	100
Tl	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
V	150	100	150	100	100	100	100	100	100	100
U	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	10	10	10	10	10	10	10	10	10	10
Zn	<200	200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	100	150	100	150	150	100	70	150	100	70

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SAMPLE NO.	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286
ROCK AGE	CRET	CRET	CRET	TERT	TERT	CRET	TERT	TERT	TERT	TERT
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
HAT. TYPE	STR SED	STR SED	STR SED	BTR SED	BTR SED	SCHIST	BTR SED	BTR SED	STR SED	BTR SED
1 MI. QUAD	A2	A2	A2	A2	D2	A2	D2	D2	D2	D2
4 MI. QUAD	ANCHOR	ANCHOR	ANCHOR	ANCHOR	BEWARD	ANCHOR	BEWARD	BEWARD	BEWARD	BEWARD
SECTION	22	22	2R	3S	1	31	11	16	16	16
TOWNSHIP	11N	11N	11N	11N	10N	12N	10N	10N	10N	10N
RANGE	10E	10E	10E	10E	10E	11E	10E	10E	10E	10E

Au	.030	<.020	<.100	<.020	<.020		<.040	<.020	<.100	<.020
Ag	<.200	<.200	<.200	<.200	<.200		<.200	<.200	<.200	<.200
Cu	20.000	20.000	25.000	25.000	25.000		15.000	25.000	20.000	15.000
Pb	10.000	10.000	5.000	15.000	25.000		35.000	25.000	10.000	10.000
Zn	65.000	65.000	65.000	95.000	235.000		135.000	115.000	65.000	55.000
As							10.000	20.000	<10.000	<10.000
Sb										
W										

Fe	3%	3%	2%	3%	5%		0.7%	3%	3%	5%
Ca	0.7%	0.7%	1%	0.7%	0.5%		0.3%	0.5%	2%	2%
Hg	1%	1%	1%	1%	2%		0.15%	1%	2%	1%

Ag	2	<1	<1	<1	<1		<1	<1	<1	<1
As	<500	<500	<500	<500	<500		<500	<500	<500	<500
B	15	20	10	20	30		<10	20	10	10
Ba	1000	1000	500	1000	1000		150	1000	200	200

Be	<2	<2	<2	<2	<2		<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10		<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50		<50	<50	<50	<50
Co	10	15	10	15	15		5	15	15	15

Cr	200	200	150	70	200		10	70	100	100
Cu	50	70	50	70	50		20	50	50	50
Ga	15	10	15	15	20		<10	20	15	10
Ge	<20	<20	<20	<20	<20		<20	<20	<20	<20

La	<20	<20	<20	<20	<20		20	20	<20	<20
Mn	1000	1000	1000	1000	1500		700	1000	1000	1000
Mo	<2	<2	<2	<2	<2		<2	<2	<2	<2
Nb	<20	<20	<20	<20	<20		<20	<20	<20	<20

Ni	50	50	50	30	50		<5	30	50	50
Pb	10	10	10	15	20		10	15	10	10
Sb	<100	<100	<100	<100	<100		<100	<100	<100	<100
Sc	10	10	10	10	15		<10	10	10	10

Sn	<10	<10	<10	<10	<10		<10	<10	<10	<10
Br	100	100	100	100	100		200	100	500	700
Tl	5000	5000	5000	5000	5000		700	5000	5000	5000
V	150	100	100	100	200		50	100	100	100

W	<50	<50	<50	<50	<50		<50	<50	<50	<50
Y	10	10	<10	<10	<10		<10	10	10	10
Zn	<200	<200	<200	<200	<200		<200	<200	<200	200
Zr	100	200	100	70	100		<20	100	200	200

SAMPLE NO.
ROCK AGE
ROCK TYPE
MAT. TYPE
1 MI. QUAD
4 MI. QUAD
SECTION
TOWNSHIP
RANGE

As
Ag
Ca
Pb
Zn
As
Sb
W
Fe
Co
Mg
Ag
As
B
Ba
Be
Bi
Cd
Ce
Cr
Cu
Ga
Ge
La
Mn
Mo
Nb
Ni
Pb
Sh
Sc
Sn
Sr
Tl
V
W
Y
Zn
Zr

	2287 TERT METSSED STR SED D2 SEWARD	2288 TERT METSSED STR SED D2 SEWARD	2289 TERT METSSED STR SED D2 SEWARD	2290 TERT METSSED STR SED D2 SEWARD	2291 TERT METSSED STR SED D2 SEWARD	2292 TERT METSSED STR SED D2 SEWARD	2293 TERT METSSED STR SED D2 SEWARD	2294 TERT METSSED STR SED D2 SEWARD	2295 TERT METSSED STR SED D2 SEWARD	2296 TERT METSSED STR SED D2 SEWARD
	10N 10E	10N 10E	10N 10E	10N 10E	10N 10E	9N 10E	9N 10E	9N 10E	9N 10E	9N 10E
	(.200)	(.040)	(.040)	(.020)	(.020)	(.200)	(.020)	(.200)	(.020)	(.200)
	(.200)	(.200)	(.200)	(.200)	(.200)	(.200)	(.200)	(.200)	(.200)	(.200)
	25.000	40.000	55.000	15.000	20.000	5.000	25.000	20.000	15.000	15.000
	25.000	35.000	40.000	30.000	20.000	20.000	25.000	25.000	20.000	20.000
	125.000	120.000	365.000	225.000	165.000	75.000	130.000	165.000	95.000	110.000
	40.000	20.000	20.000	30.000	30.000	200.000	30.000	70.000	10.000	20.000
						1.5X	2X	1X	5X	1X
	3X	5X	3X	3X	5X	0.15X	0.7X	0.5X	0.5X	0.7X
	0.5X	0.5X	0.7X	0.5X	0.7X	0.1X	0.5X	0.3X	3X	0.3X
	0.7X	1X	1X	1X	2X					
	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)
	30	30	20	20	30	(10)	10	(10)	20	10
	700	700	700	700	700	1000	150	700	1000	70
	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)
	10	10	10	10	15	5	5	5	10	5
	70	70	50	70	100	(10)	20	20	100	10
	70	70	70	30	50	5	30	30	20	7
	15	20	15	10	20	(10)	15	10	10	(10)
	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)
	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	20	20
	700	1000	1000	1000	1500	2000	700	1000	700	700
	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	20	(20)
	20	20	20	10	30	(5)	5	(5)	15	5
	15	15	15	10	20	10	20	20	15	10
	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)
	10	15	10	10	20	(10)	(10)	(10)	10	(10)
	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
	100	100	100	200	100	200	200	200	300	100
	3000	5000	5000	3000	5000	500	3000	2000	7000	100
	100	150	100	100	200	20	100	100	150	20
	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)
	10	10	10	(10)	10	(10)	(10)	(10)	(10)	(10)
	200	500	500	200	200	(200)	(200)	(200)	(200)	(200)
	100	100	50	50	100	(20)	20	20	70	(20)

SAMPLE NO.	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	CRET	CRET	CRET
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
HAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	D2	D2	D2	D2	D2	D2	D2	D3	D3	D3
4 MI. QUAD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	SEWARD	SEWARD	SEWARD
SECTION	10	3	3	4	5	29	21	19	35	26
TOWNSHIP	9N	9N	9N	9N	9N	9N	10N	10N	10N	10N
RANGE	10E	10E	10E	10E	10E	10E	10E	10E	9E	9E
Au	(.020	(.100	(.020	(.020	(.020	(.100	(.020		(.020	(.020
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200		(.200	(.200
Cu	25.000	35.000	20.000	30.000	20.000	30.000	15.000		40.000	40.000
Pb	20.000	25.000	20.000	30.000	25.000	25.000	20.000		10.000	10.000
Zn	145.000	140.000	130.000	130.000	120.000	125.000	110.000		95.000	75.000
As	30.000	50.000	20.000	20.000	20.000	10.000	10.000		20.000	20.000
Sb										
W										
Fe	3X	3X	5X	5X	5X	3X	5X		7X	3X
Co	0.7X	1X	0.5X	0.5X	0.7X	1.5X	0.7X		2X	1X
Mn	1X	0.7X	3X	2X	3X	2X	3X		5X	2X
Al	(1	(1	(1	(1	(1	(1	(1		(1	(1
Si	(500	(500	(500	(500	(500	(500	(500		(500	(500
B	20	15	10	20	15	10	20		20	10
Ca	1500	500	700	2000	1500	1000	700		2000	700
Na	(2	(2	(2	(2	(2	(2	(2		(2	(2
Cl	(10	(10	(10	(10	(10	(10	(10		(10	(10
Cd	(50 20	(50	(50	(50	(50	(50	(50		(50	(50
Ce	15	5	10	20	10	10	10		15	7
Cr	50	10	70	50	100	30	50		300	30
Cu	70	70	30	70	50	150	50		150	70
Ga	10	10	10	10	10	10	10		10	(10
Ge	(20	(20	(20	(20	(20	(20	(20		(20	(20
La	20	30	20	20	20	20	20		20	20
Mg	1000	700	500	1000	700	700	500		3000	700
Mn	(2	(2	(2	(2	(2	(2	(2		(2	(2
Nb	(20	(20	20	20	20	20	20		20	(20
Ni	10	7	15	20	15	10	15		30	10
Pb	15	10	15	15	10	10	15		15	10
Sb	(100	(100	(100	(100	(100	(100	(100		(100	(100
Sc	10	(10	15	10	15	10	10		10	10
Sn	(10	(10	(10	(10	(10	(10	(10		(10	(10
Sr	200	200	200	200	200	300	200		200	300
Tl	3000	2000	5000	5000	7000	5000	7000		10000	3000
V	100	50	100	100	100	70	100		700	70
W	(50	(50	(50	(50	(50	(50	(50		(50	(50
Y	(10	(10	(10	(10	(10	(10	(10		(10	10
Zn	(200	(200	(200	(200	(200	(200	(200		(200	(200
Zr	30	50	70	70	100	50	50		50	50

SAMPLE NO.	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316
ROCK AGE	CRET	CRET	TERT	CRET	CRET	CRET	CRET	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
MAT. TYPE	STR SED	BTR SED	STR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	STR SED	STR SED
1 MI. QUAD	D3	D3	D3	D3	D3	D3	D3	D3	D3	D3
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	3S	3S	14	11	11	15	15	14	26	27
TOWNSHIP	10N	10N	9N	9N	9N	.9N	9N	9N	9N	9N
RANGE	9E	9E	9E	9E	9E	9E	9E	9E	9E	9E
Au	(.020	(.100	(.020	(.100	(.020	(.020	.130	(.100	(.020	(.020
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	25.000	50.000	5.000	30.000	35.000	20.000	90.000	30.000	5.000	15.000
Pb	10.000	15.000	15.000	10.000	10.000	5.000	30.000	20.000	15.000	10.000
Zn	95.000	95.000	70.000	85.000	80.000	80.000	120.000	105.000	85.000	90.000
As	20.000	30.000	20.000	20.000	30.000	20.000	50.000	20.000	20.000	20.000
Sb										
W										
Fe	5X	7X	3X	3X	3X	7X	5X	3X	5X	5X
Ca	1.5X	1.5X	0.5X	1X	0.7X	1X	0.5X	1X	0.7X	0.7X
Hq	5X	5X	2X	3X	2X	5X	2X	2X	3X	5X
Aq	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	15	15	15	15	15	15	20	10	15	10
Ba	1500	700	300	500	300	1500	1000	1000	700	1000
Da	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bl	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Co	10	15	20	15	5	10	15	10	10	15
Cf	100	100	30	50	30	200	50	30	50	70
Cu	50	150	5	70	70	70	150	30	10	20
Ga	10	15	10	10	10	15	10	10	10	15
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	20	20	30	30	20	30	20	20	20
Mn	700	700	1000	500	500	1500	1000	500	1000	700
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	(20	(20	(20	(20	(20	(20	(20
Ni	10	15	7	15	10	15	20	10	10	15
Pb	15	15	10	15	10	15	20	15	15	15
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Bc	15	15	(10	10	10	15	10	10	15	15
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	300	300	300	300	300	300	200	300	300	300
Tl	7000	7000	2000	5000	3000	7000	7000	2000	3000	3000
V	100	150	100	100	70	200	150	70	100	100
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	10	10	(10	(10	(10	(10	(10	(10	(10	10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
	70	100	70	50	30	100	70	50	30	30

SAMPLE NO.
ROCK AGE
ROCK TYPE
MAT. TYPE
1 MI. QUAD
4 MI. QUAD
SECTION
TOWNSHIP
RANGE

As
Aa
Ca
Pb
Zn
As
Sb
W

Fe
Co
Mg

Aq
As
B
Ba

Bf
Dl
Cd
Ce

Cr
Cu
Ca
Ge

La
Mn
Mo
Nb

Nl
Pb
Sb
Sc

Sn
Sr
Tl
V

W
Y
Zn
Zr

	2317 TERT METSED STR BED D3 SEWARD 33 9N 9E	2318 CRET METSED BTR BED D3 SEWARD 17 9N 9E	2319 CRET METSED BTR BED D3 SEWARD 7 9N 9E	2320 CRET METSED BTR BED D3 SEWARD 6 9N 9E	2321 CRET METSED BTR BED D3 SEWARD 31 10N 9E	2322 CRET METSED BTR BED D3 SEWARD 6 9N 9E	2323 CRET METSED BTR BED D3 SEWARD 36 10N 8E	2324 CRET METSED BTR BED D3 SEWARD 35 10N 8E	2325 CRET METSED BTR BED D3 SEWARD 27 10N 8E	2326 CRET METSED BTR BED D3 SEWARD 27 10N 8E
	(.020)	(.020)	.800	(.020)	(.020)	(.020)	(.020)	(.020)	(.100)	(.100)
As	(.200)	(.200)	(.200)	(.200)	(.200)	(.200)	(.200)	(.200)	(.200)	(.200)
Aa	10.000	30.000	15.000	15.000	15.000	25.000	10.000	20.000	10.000	10.000
Ca	15.000	5.000	5.000	5.000	5.000	5.000	5.000	10.000	10.000	5.000
Pb	85.000	60.000	80.000	50.000	55.000	55.000	55.000	55.000	55.000	65.000
Zn	20.000	20.000	20.000	20.000	20.000	20.000	20.000	10.000	25.000	26.000
As										
Sb										
W										
Fe	3X	3X	5X	3X	3X	2X	3X	2X	3X	3X
Co	0.5X	1X	1X	1.5X	1.5X	1.5X	1.5X	1X	1.5X	0.7X
Mg	2X	3X	5X	3X	5X	3X	5X	1.5X	2X	1X
Aq	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	10	10	15	(10	10	10	(10	10	10	10
Ba	700	500	1000	500	700	300	700	700	500	500
Bf	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Dl	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Ce	15	5	15	5	10	10	7	5	7	15
Cr	30	30	150	200	100	50	50	20	70	50
Cu	15	10	50	20	20	30	15	20	15	10
Ca	10	10	15	10	10	10	10	10	10	10
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	20	20	30	20	20	30	30	30	20
Mn	1000	1000	700	500	500	500	300	200	500	1000
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	(20	(20	20	(20	20	20	20	(20	(20	(20
Nl	10	10	20	15	15	20	15	7	15	10
Pb	10	15	20	10	10	10	10	10	15	10
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	(10	10	15	10	10	10	10	(10	(10	(10
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	300	300	300	300	500	500	500	500	300	300
Tl	2000	3000	7000	5000	5000	3000	3000	2000	3000	3000
V	70	100	150	70	70	50	50	50	70	50
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	(10	10	10	10	10	(10	(10	(10	(10	(10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	30	20	50	50	50	50	70	20	70	70

SAMPLE NO.	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	HETSED	HETSED	HETSED	HETSED	HETSED	HETSED	HETSED	HETSED	HETSED	HETSED
NAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	D3	D3	D4	D4	D4	D4	D4	D4	D4	D4
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	28	15	34	17	18	13	13	12	14	23
TOWNSHIP	10N	10N	11N	10N	10N	10N	10N	10N	10N	10N
RANGE	8E	8E	7E	7E	7E	6E	6E	6E	6E	6E
Ag	(.100	.060	.030	(.100	(.020	(.020	(.200	(.020	(.020	(.100
Aq	.200	10.000	1.800	.200	.400	.400	.200	.200	.800	(.200
Cu	60.000	30.000	25.000	55.000	35.000	20.000	45.000	25.000	15.000	25.000
Pb	20.000	50.000	25.000	30.000	20.000	20.000	30.000	20.000	20.000	10.000
Zn	150.000	130.000	110.000	120.000	120.000	85.000	115.000	90.000	75.000	70.000
As	60.000	30.000	40.000	60.000	30.000	40.000	50.000	20.000	30.000	30.000
Sb			3.000	1.000	2.000	1.000	2.000	2.000	1.000	2.000
W										
Fe	2X	5X	5X	2X	7X	7X	5X	5X	5X	5X
Ca	0.7X	0.5X	0.7X	0.7X	0.5X	0.7X	0.7X	0.7X	0.5X	0.7X
Hg	2X	5X	5X	1.5X	5X	3X	2X	3X	3X	3X
Aq	(1	3	1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	10	15	15	15	20	20	15	15	15	15
Ba	500	1500	1000	700	1500	1500	1000	1500	1000	1000
Be	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bi	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Co	10	15	10	7	15	5	10	5	5	5
Cr	30	300	200	30	100	300	150	100	150	70
Cu	70	70	70	70	70	50	100	20	50	70
Ca	10	15	15	10	15	15	10	10	10	10
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	20	20	20	20	20	20	20	20	20
Hn	700	700	700	500	1000	1000	700	500	500	500
Ma	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	(20	(20	20	(20	20	20	(20	20	20	20
Ni	15	20	20	10	30	100	15	15	20	15
Pb	15	100	20	15	20	20	20	15	20	10
Sh	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	(10	15	15	(10	15	10	10	10	10	10
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	300	300	300	200	200	150	200	200	200	300
Ti	2000	5000	3000	3000	5000	7000	7000	7000	5000	7000
V	70	100	100	70	150	200	150	150	100	150
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	(10	10	(10	(10	10	(10	(10	(10	10	10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	20	30	50	30	50	200	70	50	70	50

SAMPLE NO.	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD
HAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	D4	D4	D4	D4	D4	D4	D4	D5	D5	D5
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	36	1	13	22	21	21	34	13	18	5
TOWNSHIP	10N	9N	9N	9N	9N	9N	9N	8N	8N	8N
RANGE	6E	6E	6E	6E	6E	6E	6E	4E	4E	5E
Au	(.200	(.020	(.100	(.020	(.200	(.020	(.020	(.020	(.020	.070
Ag	(.200	(.200	.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	25.000	35.000	70.000	30.000	20.000	30.000	35.000	30.000	55.000	30.000
Pb	10.000	15.000	40.000	30.000	15.000	15.000	20.000	20.000	20.000	15.000
Zn	75.000	85.000	235.000	120.000	80.000	85.000	130.000	80.000	100.000	75.000
As	30.000	30.000	80.000	30.000	30.000	30.000	20.000			
Sb										
W										
Fe	7%	5%	3%	5%	5%	5%	5%	5%	5%	3%
Cn	0.7%	0.15%	0.2%	0.3%	0.3%	0.7%	0.3%	0.5%	0.5%	1%
Hg	5%	2%	1.5%	3%	2%	3%	2%	2%	2%	2%
Al	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	15	15	20	15	15	15	50	30	50	30
Ca	1500	700	1000	1500	1000	700	1500	700	700	1000
Re	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Rl	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Ce	5	7	30	7	7	15	15	5	20	10
Cr	700	50	30	200	70	70	300	100	100	100
Cu	70	70	100	70	100	70	100	50	50	70
Ga	15	10	10	10	10	10	10	15	15	15
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	(20	20	20	20	20	20	20	20	20
Mn	1500	300	5000	300	500	500	300	1500	2000	1500
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	(20	20	20	20	20	20	20	20	20	20
Ni	10	20	30	30	20	30	50	50	70	50
Pb	15	10	20	15	10	10	70	15	15	10
Bh	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	10	10	(10	10	10	10	10	20	20	20
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	300	200	100	200	200	200	200	200	200	200
Tl	7000	5000	2000	3000	5000	7000	5000	5000	5000	5000
V	200	100	70	100	150	150	150	100	100	150
U	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	(10	(10	(10	(10	10	(10	10	10	10	10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	70	70	30	70	70	70	70	50	100	50

SAMPLE NO.	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
MAT. TYPE	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED
1 MI. QUAD	D5	C4	C4	C4	C4	C4	C4	C4	C4	C4
4 MI. QUAD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD
SECTION	5	8	5	32	31	13	13	23	2	34
TOWNSHIP	8N	7N	7N	8N	8N	7N	7N	7N	6N	7N
RANGE	5E	7E	7E	7E	7E	6E	6E	6E	6E	6E
Au	.060	(.020	19	(.020	(.040	(.040	(.020	(.020	(.100	(.100
Ag		(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	30.000	70.000	50.000	45.000	25.000	50.000	50.000	45.000	50.000	35.000
Pb	15.000	35.000	35.000	25.000	25.000	50.000	25.000	30.000	30.000	25.000
Zn	75.000	160.000	170.000	150.000	95.000	165.000	120.000	150.000	120.000	110.000
As		30.000	20.000	40.000	20.000	30.000	20.000	30.000	20.000	30.000
Sb										
W										
Fe	3X	3X	3X	5X	2X	2X	7X	5X	3X	3X
Ca	1X	0.2X	0.5X	0.5X	0.7X	0.5X	0.7X	0.7X	0.7X	0.5X
Mg	2X	2X	2X	2X	1.5X	1X	3X	2X	2X	1.5X
Al	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
Si	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	30	70	50	50	30	30	70	70	70	50
Ba	700	500	500	700	500	300	1000	1000	700	500
Be	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bi	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Co	15	30	30	20	20	20	30	30	30	30
Cr	200	100	100	150	70	30	150	200	100	100
Cu	70	100	70	100	30	50	100	150	70	50
Ga	20	20	15	20	15	15	20	20	15	15
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	20	20	20	30	30	20	20	20	20
Mn	1500	1500	2000	2000	1500	2000	1500	2000	1000	1000
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	20	(20	(20	20	20	20	20
Ni	50	50	50	50	30	30	70	100	50	50
Pb	15	30	20	20	20	30	20	15	20	15
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	20	20	20	20	15	10	30	20	20	15
Rn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	200	200	200	200	200	200	200	200	200	200
Tl	5000	5000	3000	5000	2000	1500	5000	5000	5000	2000
V	100	150	100	100	200	200	100	200	100	100
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	10	10	10	(10	(10	(10	(10	10	10	10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	100	50	50	70	50	20	100	100	70	70

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SAMPLE NO.	2357	2358	2359	2360	2361	2362	2370	2371	2372	2373
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
NAT. TYPE	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED
1 MI. QUAD	C4	C4	C4	C4	C4	C4	C4	B4	B4	B4
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	34	9	17	17	8	8	16	16	16	20
TOWNSHIP	7N	6N	6N	6N	6N	6N	5N	4N	4N	4N
RANGE	6E	6E	6E	6E	6E	6E	7E	7E	7E	7E
Au	<.100	<.020	<.020	<.100	<.020	<.020	<.020	<.100	<.100	<.040
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	50.000	50.000	50.000	50.000	35.000	40.000	30.000	35.000	25.000	25.000
Pb	25.000	25.000	25.000	25.000	20.000	20.000	20.000	20.000	20.000	15.000
Zn	125.000	120.000	120.000	135.000	130.000	125.000	115.000	125.000	165.000	65.000
As	20.000	20.000	<10.000	20.000	10.000	20.000	10.000	20.000	30.000	<10.000
Sb							6.000	19	5.000	15
W										
Fe	5X	5X	3X	3X	5X	3X	5X	5X	5X	5X
Co	0.3X	0.2X	0.5X	0.7X	0.2X	0.5X	0.7X	1.5X	3X	3X
Mg	1.5X	2X	2X	2X	2X	2X	3X	2X	5X	3X
Ag	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	70	100	50	50	50	50	50	30	30	50
Ba	500	700	500	500	700	500	700	1000	700	1500
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Ce	20	20	20	20	20	20	20	15	30	10
Cr	70	100	100	100	150	100	70	50	100	70
Cu	50	70	50	70	70	70	50	30	30	70
Ca	20	20	15	20	15	20	20	20	20	20
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	20	20	20	20	20	20	20	50	100	20
Mn	1000	1000	1000	1000	1500	1500	1500	1000	1500	1000
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	20	20	<20	20	20	20	20	20	20	20
Ni	50	70	50	70	70	50	20	20	30	20
Pb	20	10	10	20	15	20	30	30	30	20
Sh	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	15	20	20	20	30	20	15	15	20	20
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	100	200	200	200	200	200	200	300	500	300
Tl	5000	5000	5000	5000	5000	3000	3000	5000	5000	5000
V	100	100	100	100	100	100	100	200	300	100
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	10	10	10	10	10	10	10	20	20	15
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	100	100	70	100	70	70	70	70	100	100

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SAMPLE NO.	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METBED	METBED	METBED	METBED	FELINT	FELINT	FELINT	FELINT	METSED	METSED
HAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	B4	B4	B4	B4	B4	B4	B4	B4	C4	C4
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	17	3	3	28	6	1	34	28	20	18
TOWNSHIP	4N	4N	4N	5N	4N	4N	5N	5N	5N	5N
RANGE	7E	7E	7E	7E	7E	6E	6E	6E	6E	6E
Au	(.020	(.040	(.100	18	(.200	(.020	(.040	(.020	(.020	(.020
Ag	.200	(.200	(.200	18	(.200	(.200	(.200	(.200	(.200	(.200
Cu	50.000	35.000	35.000	19	10.000	20.000	15.000	5.000	20.000	45.000
Ph	20.000	25.000	25.000	18	10.000	10.000	10.000	5.000	5.000	25.000
Zn	155.000	140.000	140.000	18	90.000	60.000	65.000	35.000	60.000	140.000
As	10.000	40.000	10.000	10.000	10.000	(10.000	(10.000	20.000	(10.000	(10.000
Sb	22.000	5.000	5.000	18	18	1.000	(1.000	(1.000	2.000	3.000
W										
Fe	5X	5X	5X	1/8X	2X	5X	1.5X	2X	5X	5X
Ca	2X	1.5X	1.5X	1/8X	2X	2X	0.5X	1X	1X	0.7X
Mg	3X	2X	5X	1/8X	2X	3X	1X	0.5X	2X	3X
Aq	(1	(1	(1	1/8	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	1/8	(500	(500	(500	(500	(500	(500
B	50	50	50	1/8	50	30	20	10	30	100
Bo	1000	1000	1000	1/8	1000	1000	500	1000	700	1000
Be	(2	(2	(2	1/8	(2	(2	(2	2	(2	(2
Bl	(10	(10	(10	1/8	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	1/8	(50	(50	(50	(50	(50	(50
Co	20	30	30	1/8	20	20	(5	(5	5	20
Cr	70	70	70	1/8	20	70	20	(10	70	100
Cu	70	50	30	1/8	20	30	10	5	50	50
Cs	20	20	20	1/8	15	20	10	20	20	15
Ge	(20	(20	(20	1/8	(20	(20	(20	(20	(20	(20
La	20	20	20	1/8	20	20	50	200	30	20
Mn	1500	1500	1500	1/8	2000	1000	1000	500	1500	1500
Mo	(2	(2	(2	1/8	(2	(2	(2	(2	(2	(2
Nb	(20	(20	20	1/8	(20	20	(20	(20	(20	(20
Ni	30	30	20	1/8	10	20	15	(5	20	50
Pb	30	30	30	1/8	30	30	(10	20	20	20
Sb	(100	(100	(100	1/8	(100	(100	(100	(100	(100	(100
Sc	20	15	20	1/8	10	20	20	15	15	30
Sn	(10	(10	(10	1/8	(10	(10	(10	(10	(10	(10
Br	300	200	200	1/8	200	300	200	100	200	300
Tl	3000	3000	3000	1/8	2000	3000	3000	5000	5000	5000
V	200	150	200	1/8	100	200	70	50	100	100
W	(50	(50	(50	1/8	(50	(50	(50	(50	(50	(50
Y	10	10	20	1/8	20	30	10	50	20	10
Zn	(200	(200	(200	1/8	(200	(200	(200	(200	(200	(200
Zr	100	70	100	1/8	50	200	70	700	150	150

SAMPLE NO.	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	CRET	CRET	CRET
ROCK TYPE	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD
HAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	CS	BS	BS	BS	BS	BS	BS	BS	BS	BS
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	14	28	28	5	7	13	14	15	9	2
TOWNSHIP	5N	5N	5N	4N	4N	4N	4N	4N	4N	4N
RANGE	5E	5E	5E	5E	5E	5E	4E	4E	4E	4E
Au	(.020	(.020	(.020	(.020	(.020	(.020	(.020	(.020	(.020	(.020
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cv	50.000	20.000	45.000	30.000	35.000	25.000	45.000	30.000	35.000	25.000
Pb	20.000	10.000	20.000	15.000	15.000	20.000	15.000	15.000	10.000	10.000
Zn	185.000	60.000	110.000	70.000	80.000	65.000	90.000	80.000	80.000	80.000
As	10.000	(10.000	20.000	10.000	(10.000	(10.000	(10.000	20.000	(10.000	(10.000
Sb	2.000	18	3.000	2.000	1.000	2.000	1.000	2.000	2.000	2.000
W										
Fe	5X	3X	2X	3X	3X	3X	5X	5X	5X	5X
Ca	1.5X	1X	0.5X	1.5X	1.5X	1X	1X	1X	1X	0.7X
Hg	3X	2X	1X	3X	3X	2X	3X	3X	3X	3X
Aq	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	70	50	30	70	70	50	70	50	50	50
Ba	1500	1000	1000	1000	1000	1000	1000	1000	1000	1000
Be	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bi	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Co	30	10	10	20	30	20	15	20	15	20
Cr	200	100	50	150	150	100	100	100	200	100
Cu	100	30	50	50	70	30	70	50	70	30
Ga	20	20	10	20	20	20	20	20	20	20
Ce	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	(20	50	20	20	20	20	20	20	20
Mn	2000	1000	1000	1500	1500	1000	1500	1000	1000	1000
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	(20	(20	(20	20	20	20	20	(20	20	(20
Ni	100	30	30	50	50	50	50	50	50	50
Pb	20	10	20	10	10	15	10	10	10	10
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Bc	10	20	30	30	20	20	20	10	10	20
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	200	300	200	300	300	300	300	300	200	300
Tl	7000	5000	3000	7000	5000	5000	7000	7000	5000	7000
V	300	100	70	150	150	150	200	150	200	200
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	20	10	20	15	15	10	15	10	15	15
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	100	100	70	200	100	100	100	150	100	150

SAMPLE NO.	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	TERT	TERT	TERT
ROCK TYPE	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD
HAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	85	CS	CS	CS	CS	CS	C4	C4	C4	C4
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	1	19	8	9	3	35	31	29	21	21
TOWNSHIP	4N	5N	5N	5N	5N	6N	6N	6N	6N	6N
RANGE	4E	5E	5E	5E	5E	5E	6E	6E	6E	6E
Au	(.100	(.020	(.100	(.020	(.020	(.020	(.020	(.040	(.040	(.040
Ag	(.200	(.200	(.200	.400	(.200	(.200	(.200	(.200	(.200	(.200
Cu	25.000	35.000	30.000	40.000	45.000	20.000	30.000	50.000	40.000	40.000
Pb	10.000	10.000	10.000	30.000	15.000	10.000	15.000	30.000	25.000	25.000
Zn	80.000	80.000	90.000	135.000	85.000	75.000	95.000	135.000	165.000	125.000
As	(10.000	(10.000	(10.000	40.000	(10.000	(10.000	10.000	10.000	50.000	10.000
Sb	2.000	1.000	1.000	4.000	4.000	2.000	2.000	4.000	4.000	4.000
W										
Fe	5%	5%	5%	5%	5%	5%	5%	7%	5%	5%
Co	1%	1%	1%	0.7%	2%	1%	0.7%	0.5%	1%	0.5%
Hg	3%	2%	3%	2%	3%	3%	3%	5%	1%	1.5%
Al	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
Si	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
P	50	50	50	50	70	70	100	100	100	150
Ca	1000	1000	1000	1000	1000	1000	1000	1000	700	1000
Mg	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Na	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
K	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Cl	20	20	20	30	20	10	20	30	20	20
Sr	150	150	150	100	150	100	100	150	50	100
Zr	30	50	50	70	100	50	50	70	50	70
Y	20	20	20	20	20	20	20	30	15	20
Ba	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	20	20	20	30	20	20	(20	20	20
Ce	1000	1000	1500	1500	1000	1000	1500	1500	1500	1000
Pr	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nd	20	(20	(20	(20	(20	(20	(20	(20	(20	(20
Sm	50	50	50	30	30	20	50	50	30	30
Eu	10	10	10	30	20	10	15	20	20	20
Gd	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Tb	20	15	15	20	20	20	20	30	10	20
Dy	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Ho	300	300	300	300	200	300	200	200	200	200
Er	7000	5000	7000	5000	5000	3000	5000	7000	3000	5000
Tm	200	200	200	150	200	200	200	200	150	200
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	20	15	15	15	15	10	10	10	10	(10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200

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SAMPLE NO.	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METBED	METBED	METBED	METBED	METBED	METBED	METBED	METBED	METBED
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	C4	C4	C4	C4	C4	C4	C4	C4	C4	C4
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	28	32	4	2	35	10	12	1	31	30
TOWNSHIP	6N	6N	5N	5N	6N	5N	5N	5N	6N	6N
RANGE	6E	6E	6E	6E	6E	6E	6E	6E	7E	7E
Ar	<.020	<.040	<.100	<.100	<.100	<.040	<.100	<.100	<.100	<.020
Aq	<.200	<.200	<.200	<.200	<.200	<.200	<.200	.200	<.200	<.200
Cu	35.000	80.000	25.000	25.000	30.000	15.000	20.000	55.000	40.000	55.000
Pb	20.000	30.000	20.000	25.000	20.000	20.000	25.000	35.000	30.000	30.000
Zn	130.000	135.000	95.000	130.000	100.000	95.000	140.000	135.000	155.000	110.000
As	20.000	20.000	<10.000	20.000	20.000	10.000	200.000	20.000	20.000	10.000
Sb	3.000	4.000	5.000	3.000	4.000	2.000	6.000	4.000	6.000	2.000
W										
Fe	5X	7X	5X	5X	5X	2X	5X	5X	5X	5X
Ca	0.7X	1X	0.7X	2X	1X	0.7X	1X	1X	1X	1.5X
Hg	2X	3X	2X	3X	3X	0.7X	2X	3X	2X	3X
Au	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ag	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
As	200	200	200	70	100	70	50	100	70	50
B	1500	1500	1000	1000	1000	500	1000	1000	1000	700
Ba										
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Co	20	30	20	20	15	20	30	20	30	20
Cr	100	150	100	100	70	50	50	150	100	100
Cu	70	100	50	30	50	20	20	50	50	50
Ga	20	30	20	20	20	15	15	20	20	20
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	<20	20	20	20	20	50	50	20	20	20
Mn	1500	2000	1500	2000	1500	2000	3000	1000	3000	1500
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Ni	50	50	50	30	30	15	15	50	30	20
Pb	20	20	20	20	20	20	20	20	15	20
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	20	20	20	20	20	10	10	20	20	15
Sr	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Tl	200	200	200	200	200	200	200	200	200	200
U	5000	5000	5000	7000	7000	3000	2000	5000	3000	5000
V	200	200	200	200	200	100	70	200	150	150
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	10	15	<10	10	10	<10	10	10	10	10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	70	100	100	100	70	50	50	100	70	70

SAMPLE NO.	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METBED	METBED	FELINT	METBED	METBED	METBED	METBED	FELINT	FELINT	FELINT
MAT. TYPE	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED
1 MI. QUAD	C4	C4	C4	C4	C4	C3	C3	C3	C3	C3
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	29	20	27	35	1	6	31	30	20	24
TOWNSHIP	6N	6N	7N	7N	6N	6N	7N	7N	7N	7N
RANGE	7E	7E	7E	7E	7E	8E	8E	8E	8E	8E
As	(.100	(.100	(.020	19	(.200	(.020	(.020	(.020	(.100	(.100
Aq	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	20.000	40.000	5.000	30.000	10.000	10.000	15.000	5.000	5.000	5.000
Pb	20.000	15.000	5.000	20.000	10.000	5.000	5.000	5.000	5.000	5.000
Zn	105.000	120.000	30.000	105.000	95.000	60.000	40.000	15.000	50.000	25.000
As	20.000	(10.000	10.000	40.000	30.000	(10.000	(10.000	10.000	(10.000	(10.000
Sb	2.000	2.000	2.000	6.000	4.000	1.000	6.000	3.000	4.000	2.800
W										
Fe	5X	5X	2X	2X	2X	2X	1/8X	0.5X	2X	2X
Ca	0.7X	0.5X	1.5X	0.7X	0.7X	1X	1/8X	0.7X	2X	0.7X
Mg	2X	3X	0.7X	0.5X	0.7X	1X	1/8X	0.2X	1X	0.5X
Aq	(1	(1	(1	(1	(1	(1	1/8	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	1/8	(500	(500	(500
B	100	70	20	30	20	10	1/8	10	10	20
Da	1000	1000	300	300	500	300	1/8	200	1000	700
Be	(2	(2	(2	(2	(2	(2	1/8	(2	(2	(2
Bi	(10	(10	(10	(10	(10	(10	1/8	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	1/8	(50	(50	(50
Ce	20	15	5	20	50	(5	1/8	(5	10	(5
Cr	100	100	10	15	50	50	1/8	10	15	10
Cu	30	50	10	20	10	10	1/8	2	10	5
Ca	20	20	15	15	15	20	1/8	10	20	15
Ge	(20	(20	(20	(20	(20	(20	1/8	(20	(20	(20
La	20	20	30	30	30	30	1/8	30	30	20
Mn	2000	2000	1000	2000	3000	1000	1/8	200	1000	700
Mo	(2	(2	(2	(2	(2	(2	1/8	(2	(2	(2
Nb	20	(20	(20	(20	(20	(20	1/8	(20	(20	(20
Ni	30	50	5	5	7	10	1/8	(5	5	5
Pb	10	10	10	20	10	10	1/8	10	20	10
Sb	(100	(100	(100	(100	(100	(100	1/8	(100	(100	(100
Sc	15	20	10	(10	10	10	1/8	(10	10	10
Sn	(10	(10	(10	(10	(10	(10	1/8	(10	(10	(10
Sr	200	200	200	100	100	200	1/8	100	200	100
Tl	3000	5000	3000	1500	2000	3000	1/8	1000	2000	2000
V	200	200	70	70	100	100	1/8	30	70	50
W	(50	(50	(50	(50	(50	(50	1/8	(50	(50	(50
Y	10	10	10	(10	(10	(10	1/8	10	(10	20
Zn	(200	(200	(200	(200	(200	(200	1/8	(200	(200	(200
Zr	100	100	100	20	200	70	1/8	20	50	50

SAMPLE NO. ROCK AGE ROCK TYPE MAT. TYPE 1 MI. QUAD 4 MI. QUAD SECTION TOWNSHIP RANGE	2424 TERT METSSED STR SED C3 SEWARD 30 7N 9E	2425 TERT FELINT STR SED C3 SEWARD 17 7N 9E	2426 TERT FELINT STR SED C3 SEWARD 17 7N 9E	2427 TERT METSSED STR SED C3 SEWARD 21 7N 9E	2428 TERT METSSED STR SED C3 SEWARD 21 7N 9E	2429 TERT FELINT STR SED C3 SEWARD 9 7N 9E	2430 TERT FELINT STR SED C3 SEWARD 9 7N 9E	4001 CRET METSSED SCHIST A7 VALDEZ 33 78 6W	4002 CRET METSSED QUARTZ A7 VALDEZ 31 79 6W	4003 TERT MAFVOL SULFIDES D7 CORDOVA 28 129 6W
Au	(.100	(.040	(.020	(.200	19	(.200	(.200		.820	.030
Ag	.200	(.200	(.200	(.200	(.200	(.200	.200		.400	.400
Ce	5.000	5.000	5.000	15.000	10.000	5.000	5.000			7400.000
Pb	5.000	20.000	5.000	15.000	10.000	5.000	10.000			15.000
Zn	30.000	190.000	35.000	80.000	50.000	25.000	20.000		20.000	150.000
As	10.000	10.000	20.000	(10.000	10.000	10.000	(10.000			
Sb	19	(2.000	2.000	6.000	8.000	8.000	1.000		(2.000	
W										
Fe	2X	2X	1.5X	2X	2X	1.5X	0.3X		0.5X	5X
Co	2X	0.7X	0.7X	1.5X	1X	1X	0.5X		0.03X	1X
Mg	0.5X	0.2X	0.3X	1X	1X	0.2X	0.1X		0.2X	3X
Al	(1	(1	(1	(1	(1	(1	(1		(1	(1
Si	(500	(500	(500	(500	(500	(500	(500		(500	(500
B	50	10	(10	100	150	10	10		10	10
Ra	1000	1000	1500	1000	700	1500	200		50	300
Re	(2	(2	(2	(2	(2	(2	(2		(2	(2
Rf	(10	(10	(10	(10	(10	(10	(10		(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50		(50	(50
Ce	5	(5	(5	20	20	(5	(5		(5	30
Cr	15	(10	(10	50	70	10	(10		10	70
Cu	3	10	2	30	20	5	5		70	10000
Ga	20	20	20	20	15	20	10		(10	10
Ge	(20	(20	(20	(20	(20	(20	(20		(20	(20
La	30	200	20	30	30	70	30		(20	(20
Mn	1000	1000	2000	2000	1500	500	100		150	500
Mo	(2	(2	(2	(2	(2	(2	(2		(2	(2
Nb	(20	(20	(20	(20	(20	20	(20		(20	(20
Ni	5	(5	10	20	20	(5	(5		10	30
Pb	(10	20	10	10	10	20	(10		10	10
Sb	(100	(100	(100	(100	(100	(100	(100		(100	(100
Sc	(10	10	10	10	15	10	(10		(10	10
Sn	(10	(10	(10	(10	(10	(10	(10		(10	(10
Sr	200	100	100	200	200	150	(100		100	100
Tl	2000	3000	2000	3000	3000	3000	700		700	3000
V	50	10	15	100	150	50	20		20	50
W	(50	(50	(50	(50	(50	(50	(50		(50	(50
Y	50	70	50	10	(10	50	(10		(10	10
Zn	(200	(200	(200	(200	(200	(200	(200		(200	(200
Zr	200	200	100	100	100	300	(20		50	70

SAMPLE NO.	4004	4005	4006	4007	4008	4009	4010	4011	4051	4052
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	CRET	CRET	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	METBED	METBED	MAFVOL	MAFVOL
MAT. TYPE	SULFIDES	MAF VOLC	BTR BED	BTR BED	BTR BED	BTR BED	SL/BB/CC	BCHIST	BCHIST	BCHIST
1 MI. QUAD	D7	D7	D7	D7	D7	D7	D6	D6	D7	D7
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	28	28	28	28	28	28	10	10	28	28
TOWNSHIP	128	128	128	128	128	128	118	118	128	128
RANGE	6W	6W	6W	6W	6W	6W	5W	5W	6W	6W

Ag	.310		.080	<.040	<.100	.100				
Au	5.000		<.200	<.200	<.200	<.200				
Cu	63000.000		9000.000	2850.000	2850.000	285.000				
Pb	20.000		50.000	35.000	40.000	60.000				
Zn	1250.000		100.000	60.000	200.000	185.000				

As										
Sb										
W										

Fe	15X								1X	
Co	1X								0.7X	
Mg	3X								0.3X	

Au	10								<1	
Ag	<500								<500	
B	<10								<10	
Ba	100								100	

Re	<2								<2	
Rf	<10								<10	
Cd	<50								<50	
Ce	150								5	

Cr	70								10	
Cu	>10000								100	
Ca	15								<10	
Ce	<20								<20	

La	<20								50	
Mn	200								1000	
Mo	10								<2	
Nb	<20								<20	

Ni	20								5	
Pb	10								10	
Sb	<100								<100	
Sc	<10								<10	

Sn	<10								<10	
Sr	<100								100	
Tl	500								500	
V	30								70	

W	<50								<50	
Y	<10								<10	
Zn	700								<200	
Zr	<20								20	

SAMPLE NO.	4053	4054	4055	4056	4057	4058	4059	4060	4061	4062
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	MAFVOL	METSED	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL
MAT. TYPE	SULFIDES	SCHIST	STR SED	SL/BR/CG	STR SED	BED/VOLC	BED/VOLC	BED/VOLC	MAF VOLC	STR SED
1 MI. QUAD	D6	D7	D7	D7	D7	D7	D7	D7	D7	D7
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	19	33	33	33	28	12	12	7	7	7
TOWNSHIP	128	128	128	128	128	128	128	128	128	128
RANGE	SW	6W	6W	6W	6W	8W	8W	7W	7W	7W
As		<.020	<.020	.120	<.020	.060	.020	.120		<.020
Aq		<.200	<.200	6.200	<.200	28.000	6.400	65.000		<.200
Ce		115.000	45.000	38500.000	3900.000	83500.000	25000.000	129000.000		280.000
Pb		20.000	40.000	25.000	40.000	760.000	135.000	130.000		35.000
Zn		15.000	140.000	1050.000	130.000	49000.000	15500.000	8650.000		360.000
As										
Sb										
W										
Fe				20X		10X	7X	15X		
Ca				0.15X		0.7X	1X	0.2X		
Hq				2X		0.7X	3X	0.5X		
Ag				20		50	7	70		
As				<500		<500	<500	<500		
B				<10		<10	<10	<10		
Ba				500		<10	<10	10		
Be				<2		<2	<2	<2		
Bi				<10		<10	<10	<10		
Cl				<50		50	<50	<50		
Co				200		300	70	200		
Cr				70		100	300	10		
Cu				>10000		>10000	>10000	>10000		
Ca				15		10	10	10		
Ge				<20		<20	<20	<20		
La				<20		<20	<20	<20		
Mn				300		500	2000	150		
Mo				15		7	2	5		
Nb				<20		<20	<20	<20		
Ni				30		70	50	70		
Pb				10		300	30	20		
Sb				<100		<100	<100	<100		
Sc				<10		10	30	<10		
Sn				<10		<10	<10	<10		
Sr				<100		<100	100	100		
Tl				2000		500	3000	200		
V				70		50	200	10		
W				<50		<50	<50	<50		
Y				<10		<10	10	<10		
Zn				700		>10000	10000	7000		
Zr				20		<20	20	<20		

111

SAMPLE NO.	4063	4064	4065	4066	4067	4068	4069	4070	4071	4072
ROCK AGE	TERT	TERT	TERT	TERT	CRET	CRET	CRET	CRET	CRET	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
MAT. TYPE	BCHIST	MAF VOLC	BTR SED	MAF VOLC	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	D7	D7	D7	D7	D7	D7	D7	D7	D7	D6
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	7	7	7	7	4	33	32	5	5	19
TOWNSHIP	129	129	129	129	129	119	119	129	129	129
RANGE	7W	7W	7W	7W	7W	7W	7W	7W	7W	5W
Au		<.020	19	<.020	<.020	2.600	.180	<.020	<.020	
Ag		22.000	<.200	.400	<.200	<.200	<.200	<.200	<.200	
Cu		47000.000	195.000	1500.000	25.000	40.000	45.000	25.000	45.000	
Pb		45.000	35.000	20.000	20.000	30.000	35.000	25.000	35.000	
Zn		4250.000	270.000	165.000	85.000	110.000	120.000	100.000	110.000	
As										
Sb										
W										
Fe		.10X	1X					3X		1X
Co		0.5X	1X					0.5X		1X
Mg		2X	2X					2X		
Al										
Au		30	<1					<1		<1
As		<500	<500					<500		<500
H		<10	20					50		20
Ba		<10	700					1000		700
Be		<2	<2					<2		<2
Bi		<10	<10					<10		<10
Cd		<50	<50					<50		<50
Ce		200	30					10		5
Cr		100	150					100		30
Cu		>10000	150					50		20
Ga		10	15					20		10
Ge		<20	<20					<20		<20
La		<20	20					20		50
Hn		500	2000					1500		1000
Mo		2	<2					<2		<2
Nb		<20	<20					20		<20
Ni		70	50					30		5
Pb		10	10					30		10
Sb		<100	<100					<100		<100
Sc		15	20					20		<10
Sn		<10	<10					<10		<10
Sr		100	100					200		300
Ti		1000	3000					5000		2000
V		50	200					200		100
W		<50	<50					<50		<50
Y		<10	10					10		10
Zn		3000	<200					<200		<200
Zr		<20	70					100		70

111
111
111

SAMPLE NO.	4073	4074	4075	4076	4077	4078	4079	4080	4081	4082
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	MAFVOL	METSED
MAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	SL/BB/CG	SL/BB/CG	BTR SED	BTR SED
1 MI. QUAD	D6	D6	D6	D6	D6	D7	D7	D7	D7	D7
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	19	24	24	23	23	22	22	22	32	32
TOWNSHIP	128	128	128	128	128	128	128	128	128	128
RANGE	5W	6W	6W	6W	6W	6W	6W	6W	6W	6W
							(.020	(.020		
							.200	.200		
							215.000	295.000		
							20.000	10.000		
							2150.000	155.000		
Au										
Ag										
Cu										
Pb										
Zn										
As										
Sb										
W										
Fe	1X	2X	1.5X	2X	2X	5X			7X	3X
Co	0.5X	2X	1X	2X	1X	1X			10X	5X
Hg	0.3X	1X	0.3X	1X	0.7X	3X			7X	2X
Ag	<1	<1	<1	<1	<1	<1			<1	<1
As	<500	<500	<500	<500	<500	<500			<500	<500
B	15	20	10	30	20	50			20	30
Be	300	700	300	1000	500	1000			500	500
Bi	<2	<2	<2	<2	<2	<2			<2	<2
Bl	<10	<10	<10	<10	<10	<10			<10	<10
Cd	<50	<50	<50	<50	<50	<50			<50	<50
Ce	5	20	20	10	15	20			70	50
Cr	30	70	20	100	70	150			300	200
Cu	20	50	20	30	30	70			200	100
Ca	10	15	<10	10	10	20			20	10
Ce	<20	<20	<20	<20	<20	<20			<20	<20
La	50	20	50	50	50	20			<20	20
Mn	1000	1000	2000	1500	1500	2000			2000	2000
Mo	<2	<2	<2	<2	<2	<2			<2	<2
Nb	<20	<20	<20	20	20	20			20	20
Ni	5	20	<5	20	15	30			100	50
Pb	10	20	10	20	15	300			20	10
Sb	<100	<100	<100	<100	<100	<100			<100	<100
Bc	<10	10	<10	10	<10	20			50	20
Sn	<10	<10	<10	<10	<10	10			<10	<10
Sr	200	200	200	300	200	300			200	200
Tl	1000	3000	2000	3000	3000	5000			3000	2000
V	100	150	70	200	100	200			200	200
W	<50	<50	<50	<50	<50	<50			<50	<50
Y	<10	10	<10	10	10	15			10	10
Zn	<200	<200	<200	<200	<200	<200			<200	<200
Zr	30	150	20	50	50	100			20	50

H12
H13

SAMPLE NO.
 ROCK AGE
 ROCK TYPE
 MAT. TYPE
 1 MI. QUAD
 4 MI. QUAD
 SECTION
 TOWNSHIP
 RANGE

4083
 TERT
 METSED
 STR SED
 D7
 CORDOVA
 31
 129
 6W

4084
 TERT
 METSED
 BTR SED
 D7
 CORDOVA
 31
 129
 6W

4085
 TERT
 METBED
 STR SED
 D7
 CORDOVA
 36
 129
 7W

4086
 TERT
 METSED
 BTR SED
 D7
 CORDOVA
 36
 129
 7W

4087
 TERT
 METBED
 STR SED
 D7
 CORDOVA
 35
 129
 7W

4088
 TERT
 METSED
 BTR SED
 D7
 CORDOVA
 3
 139
 7W

4089
 TERT
 METBED
 BTR BED
 D7
 CORDOVA
 3
 139
 7W

4090
 TERT
 METSED
 BTR BED
 D7
 CORDOVA
 10
 139
 7W

4091
 CRET
 METSED
 BTR SED
 A7
 VALDEZ
 25
 99
 7W

4092
 CRET
 METSED
 STR SED
 A7
 VALDEZ
 25
 99
 7W

Au
 Ag
 Cu
 Ph
 Zn
 As
 Sb
 W

Fe
 Co
 Mo

Aq
 As
 B
 Dg
 Be
 D1
 Cd
 Co

Cr
 Cu
 Gg
 Ge

La
 Mn
 Mo
 Nb

Ni
 Ph
 Sb
 Sc

Sn
 Sr
 Tl
 V

W
 Y
 Zn
 Zr

2X
 2X
 1X

5X
 2X
 5X

5X
 0.7X
 1X

3X
 1X
 0.7X

2X
 1X
 1X

5X
 1X
 1X

5X
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 1X

5X
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2X
 1.5X
 0.7X

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 3X

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 2000
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 200
 3000
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 <200
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<50
 <10
 <200
 30

<50
 <10
 <200
 70

<50
 20
 <200
 200

SAMPLE NO.	4093	4094	4095	4096	4097	4098	4099	4100	4101	4102
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	TERT	TERT	TERT
ROCK TYPE	METBED	METBED	METBED	METBED	METBED	METBED	METBED	FELINT	FELINT	FELINT
MAT. TYPE	STR BED	BED RK/Q	STR BED	STR BED	STR BED	BL/BB/CG	STR BED	STR BED	BED RK/Q	STR BED
1 MI. QUAD	A7	A7	A7	A7	A7	A7	A7	C6	C6	C6
4 MI. QUAD	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	CORDOVA	CORDOVA	CORDOVA
SECTION	25	25	25	25	25	25	24	32	32	33
TOWNSHIP	98	98	98	98	98	99	98	138	138	138
RANGE	7W	7W	7W	7W	7W	7W	7W	4W	4W	4W

Au		3.100	<.040	.080	.030	<.020	<.040			
Ag		.400	<.200	<.200	<.200	.200	<.200			
Cu			20.000	15.000	15.000		20.000			
Pb			25.000	25.000	25.000		45.000			
Zn			80.000	70.000	55.000		70.000			
As		<10.000				<10.000				
Sb										
U										
Fe	5X		2X				5X	5X		5X
Ca	3X		2X				2X	2X		3X
Hg	2X		0.5X				2X	2X		5X
Al	<1		<1				<1	<1		<1
As	<500		<500				<500	<500		<500
B	50		15				20	10		30
Ba	1500		500				1000	1000		1500
Be	<2		<2				<2	<2		<2
Bi	<10		<10				<10	<10		<10
Cd	<50		<50				<50	<50		<50
Co	7		5				5	10		20
Cr	100		150				100	100		200
Cu	50		50				15	20		30
Ga	20		10				20	20		20
Ge	<20		<20				<20	<20		<20
La	20		50				20	20		20
Mn	1000		1000				1500	1000		1500
Mo	<2		<2				<2	<2		<2
Nb	20		<20				20	20		20
Ni	20		5				20	20		50
Pb	20		15				30	50		20
Sb	<100		<100				<100	<100		<100
Sc	20		<10				20	20		30
Sn	<10		<10				<10	<10		<10
Sr	500		500				500	200		200
Tl	5000		2000				5000	3000		5000
V	200		100				200	100		200
W	<50		<50				<50	<50		<50
Y	10		<10				20	20		20
Zn	<200		<200				<200	<200		<200
Zr	200		100				200	100		200

SAMPLE NO.	4103	4104	4105	4106	4107	4108	4109	4110	4111	4112
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	FELINT	METBED	METBED	METBED	METBED	METBED	METBED	FELINT	FELINT	METBED
HAT. TYPE	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED
1 MI. QUAD	C6	C6	C6	C6	C6	C6	C6	C6	C6	C6
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	33	34	4	4	4	4	17	29	6	6
TOWNSHIP	138	138	148	148	148	148	148	138	148	148
RANGE	4W	4W	4W	4W	4W	4W	4W	4W	4W	4W

Av
Ag
Cu
Pb
Zn
As
Sb
W

Fe	2X	5X	5X	2X	3X	2X	5X	.2X	2X	3X
Ca	1X	1X	0.7X	1X	1X	0.7X	2X	1.5X	2X	2X
Hg	0.5X	1X	1X	0.5X	2X	1.5X	2X	1X	1X	1X
Ag	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	20	70	70	50	70	50	50	10	10	15
Ba	700	700	700	500	700	700	1000	1000	700	500
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Ce	<5	20	20	10	30	20	10	5	5	20
Cr	50	100	100	70	100	100	100	30	20	70
Cu	20	30	30	20	30	30	50	30	30	50
Ga	10	10	15	10	15	15	20	15	10	10
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	70	30	20	30	20	20	20	70	30	20
Mn	1000	2000	3000	3000	5000	5000	1500	1000	1000	1500
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	20	20	20	<20	20	20	20	20	<20	<20
Ni	5	30	30	20	30	30	30	10	15	20
Pb	20	30	20	20	20	20	20	10	10	<10
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	10	10	10	<10	10	10	20	10	10	20
Sr	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Br	200	200	200	200	200	200	300	200	200	200
Tl	3000	3000	3000	3000	3000	3000	3000	2000	2000	2000
V	100	200	200	100	200	150	200	100	100	150
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	20	10	<10	10	10	10	10	20	10	10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

115

SAMPLE NO.	4113	4114	4115	4116	4117	4118	4119	4120	4121	4122
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METBED	FELINT	FELINT	FELINT	FELINT	METBED	METBED	METSED	METSED	METSED
MAT. TYPE	SL/89/CG	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED
1 MI. QUAD	C6	C6	C6	C6	C6	C6	C5	C5	C6	C6
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	6	6	5	12	15	21	10	20	17	19
TOWNSHIP	14S	14S	14S	14B	14S	14B	14S	14S	14S	14S
RANGE	4W	4W	4W	5W	5W	5W	3W	3W	4W	4W
Ag		(.040								
Aq		(.200								
Cv		75.000								
Pb		20.000								
Zn		85.000								
As										
Sb										
W										
Fe		5X	1X	7X	2X	2X	5X	5X	2X	3X
Ca		3X	1X	5X	1.5X	0.7X	1X	0.5X	0.5X	1X
Hg		2X	0.5X	5X	1X	1X	2X	2X	1X	1X
Aq		(1	(1	(1	(1	(1	(1	(1	(1	(1
As		(500	(500	(500	(500	(500	(500	(500	(500	(500
B		10	10	20	10	20	50	50	30	30
Ba		200	200	300	200	500	1000	500	300	500
Be		(2	(2	(2	(2	(2	(2	(2	(2	(2
Bl		(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd		(50	(50	(50	(50	(50	(50	(50	(50	(50
Co		15	5	50	10	20	20	50	20	30
Cr		50	20	300	150	100	500	100	70	70
Cv		150	20	100	50	30	50	30	30	50
Cs		10	(10	15	10	10	20	20	15	15
Ce		(20	(20	(20	(20	(20	(20	(20	(20	(20
La		30	50	20	30	20	20	20	50	50
Mn		1000	1000	2000	1000	1500	1500	1000	3000	2000
Mo		(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb		(20	(20	(20	(20	(20	20	20	(20	20
Ni		30	5	70	30	30	30	70	20	50
Pb		10	(10	(10	(10	10	30	15	10	15
Sb		(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc		15	(10	50	10	10	20	20	10	20
Sn		(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr		100	100	100	100	200	200	200	200	200
Tl		5000	1000	3000	1500	2000	3000	5000	3000	5000
V		70	100	300	150	150	200	100	100	100
W		(50	(50	(50	(50	(50	(50	(50	(50	(50
Y		(10	(10	15	(10	10	15	15	(10	10
Zn		(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr		150	150	30	50	50	100	700	50	70

SAMPLE NO.	4123	4124	4125	4126	4127	4128	4129	4130	4131	4132
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL
MAT. TYPE	BTR SED	QUARTZ	SCHIST	SULFIDES	SULFIDES	MAF VOLC	MAF VOLC	SULFIDES	MAF VOLC	MAF VOLC
1 MI. QUAD	C4	B4	C4	C5	C5	C5	C5	C5	C5	C5
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	15	22	13	10	10	10	10	10	10	10
TOWNSHIP	149	169	149	149	149	149	149	149	149	149
RANGE	1W	1E	1W	2W	2W	2W	2W	2W	2W	2W
Au	(.020	.040		.180	.050	(.020	.020	.030		
Ag	(.200	.800		8.800	.200	.200	.200	1.800		
Cu	155.000			152000.000	8250.000	980.000	2000.000	40500.000		
Pb	15.000			10.000	10.000	15.000	15.000	10.000		
Zn	110.000			1500.000	65.000	35.000	95.000	310.000		
As		1100.000								
Sb										
W										
Fe	5X									
Co	2X									
Hg	5X									
Ag	(1									
As	(500									
B	10									
Na	500									
Be	(2									
Bi	(10									
Cd	(50									
Ca	10									
Cr	50									
Cu	150									
Ga	10									
Ge	(20									
La	20									
Mn	1000									
Mo	(2									
Nb	(20									
Ni	20									
Pb	10									
Sb	(100									
Bc	15									
Sn	(10									
Sr	100									
Tl	5000									
V	70									
W	(50									
Y	10									
Zn	(200									
Zr	100									

SAMPLE NO.	4133	4134	4135	4136	4137	4138	4139	4140	4141	4142
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	MAFVOL	MAFVOL
HAT. TYPE	STR SED	STR SED	SCHIST	STR SED	STR SED	STR SED	BL/BB/CC	STR SED	STR SED	STR SED
1 MI. QUAD	C5	C5	C5	C5	C5	C5	C5	C5	D1	D1
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	SEWARD	SEWARD
SECTION	16	16	16	16	16	9	14	8	11	20
TOWNSHIP	148	148	148	148	148	148	458	158	9N	118
RANGE	2W	2W	2W	2W	2W	2W	4W	3W	12E	11W
As	<.100	<.020		<.040	<.100	<.020		<.100		
Aq	<.200	<.200		<.200	<.200	<.200		<.200		
Cv	125.000	170.000		275.000	120.000	95.000		25.000	35.000	110.000
Pb	20.000	15.000		30.000	5.000	15.000		25.000	20.000	40.000
Zn	55.000	120.000		245.000	60.000	70.000		170.000	100.000	450.000
As										
Sb										
W										
Fe	7X				7X			7X	5X	2X
Ca	5X				7X			0.7X	2X	2X
Hp	7X				7X			3X	2X	2X
Aq	<1				<1			<1	<1	<1
As	<500				<500			<500	<500	<500
B	10				20			30	10	10
Ba	200				200			2000	300	200
Be	<2				<2			<2	<2	<2
Bi	<10				<10			<10	<10	<10
Cd	<50				<50			<50	<50	<50
Ce	20				20			20	50	20
Cr	700				200			100	200	50
Cu	300				200			70	50	50
Ca	15				10			10	20	10
Ge	<20				<20			<20	<20	<20
Ld	<20				<20			<20	<20	20
Mn	1000				1000			1500	2000	1500
Mo	2				2			<2	<2	<2
Nb	<20				20			20	30	20
Ni	100				70			30	30	20
Pb	10				10			50	<10	50
Sb	<100				<100			<100	<100	<100
Sc	30				30			10	30	20
Sr	<10				<10			<10	<10	<10
Tl	200				200			200	100	100
U	7000				5000			7000	3000	3000
V	150				150			100	200	150
W	<50				<50			<50	<50	<50
Y	10				10			10	10	10
Zn	<200				<200			<200	<200	200
Zr	100				20			70	30	30

SAMPLE NO.	4143	4144	4145	4146	4147	4148	4149	4150	4151	4152
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	METSED	METSED	METSED	METSED	METSED	MAFVOL	MAFVOL
MAT. TYPE	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	QUARTZ	MAF VOLC
1 MI. QUAD	D1	D1	D1	D2	D2	D2	D1	D1	D1	D1
4 MI. QUAD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD
SECTION	29	21	23	13	13	13	23	23	24	24
TOWNSHIP	119	119	118	9N	9N	9N	10N	10N	119	11S
RANGE	11W	11W	11W	11E	11E	11E	12E	12E	11W	11W

Au				(.020					(.020	
Aq				(.200					.600	
Cu	65.000	70.000	55.000	15.000	25.000	15.000	25.000	5.000	1250.000	
Pb	20.000	25.000	30.000	30.000	35.000	30.000	25.000	10.000	55.000	
Zn	110.000	180.000	250.000	175.000	225.000	120.000	150.000	20.000	1300.000	
As										
Sb										
W										

Fe	3X	5X	5X				3X		2X	
Ca	3X	3X	2X				0.2X		0.2X	
Mo	3X	5X	3X				1.5X		0.5X	

Aq	<1	<1	<1				<1		<1	
As	<500	<500	<500				<500		<500	
R	10	10	20				50		20	
Da	10	200	300				1000		1000	

Be	<2	<2	<2				<2		<2	
B1	<10	<10	<10				<10		<10	
Cd	<50	<50	<50				<50		<50	
Ce	20	30	30				15		15	

Cr	200	300	200				100		150	
Cv	50	100	50				20		10	
Cu	15	20	15				20		15	
Ge	<20	<20	<20				<20		<20	

La	20	<20	20				20		20	
Mn	1000	1500	2000				1500		500	
Mn	<2	<2	<2				<2		<2	
Nb	20	20	30				20		<20	

Ni	30	50	70				20		10	
Pb	<10	10	15				20		10	
Sb	<100	<100	<100				<100		<100	
Sc	20	30	30				10		<10	

Sn	<10	<10	<10				<10		<10	
Sr	100	100	100				200		200	
Ti	3000	3000	2000				2000		2000	
V	150	200	150				100		100	

W	<50	<50	<50				<50		<50	
Y	10	15	10				<10		<10	
Zn	<200	<200	<200				<200		<200	
Zr	20	30	20				70		70	

SAMPLE NO.	4153	4154	4155	4156	4157	4158	4159	4160	4161	4162
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL
MAT. TYPE	SULFIDES	SULFIDES	MAF VOLC	SULFIDES	BTR SED	BTR SED	BTR SED	BTR SED	SULFIDES	MAF VOLC
1 MI. QUAD	D1	D1	D1	D1	D1	D1	D1	D1	D1	D1
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
DIRECTION	24	24	24	24	25	25	25	30	30	30
TOWNSHIP	11S	11U	11D	11H	11H	11B	11B	11B	11B	11S
RANGE	11W	11W	11W	11W	11W	11W	11W	10W	10W	10W
Av						(.020	(.040		(.020	.020
Aq						.200	(.200		(.200	.200
Cu						145.000	115.000	70.000	35.000	420.000
Pb						15.000	20.000	20.000	5.000	5.000
Zn						165.000	335.000	235.000	65.000	65.000
As										
Sb										
W										
Fe						1.5%				5%
Ca						0.3%				0.7%
Hg						0.5%				2%
Ag						<1				<1
As						<500				<500
P						10				30
Rn						100				500
Be						<2				<2
B1						<10				<10
Cd						<50				<50
Co						30				30
Cr						150				200
Cu						100				100
Ga						<10				15
Ge						<20				<20
La						50				<20
Mn						3000				1500
Mo						<2				<2
Nb						20				20
Ni						15				30
Pb						20				10
Sb						<100				<100
Sc						<10				20
Sn						<10				<10
Sr						100				200
Tl						700				2000
V						70				150
W						<50				<50
Y						<10				10
Zn						<200				200
Zr						<20				70

SAMPLE NO.	4163	4164	4165	4166	4167	4168	4169	4170	4171	4172
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	METBED	METBED
MAT. TYPE	BTR SED	SULFIDES	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	SL/99/CG	BTR SED
1 MI. QUAD	D1	D1	D1	D1	D1	D1	D1	D1	D1	D1
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	30	30	30	30	19	35	35	13	23	23
TOWNSHIP	118	119	118	119	119	118	119	9N	10N	10N
RANGE	10W	10W	10W	10W	10W	11W	11W	12E	12E	12E
Ag		(.020	(.020	(.020					(.020	
Au		2.400	(.200	(.200					(.200	
Cu	80.000	8800.000	100.000	130.000	105.000	55.000	35.000	35.000	45.000	
Pb	20.000	15.000	25.000	20.000	20.000	20.000	20.000	25.000	5.000	
Zn	170.000	175.000	115.000	240.000	240.000	105.000	75.000	155.000	10.000	
As										
Sb										
W										
Fe	5X				2X	5X	2X	3X		5X
Co	1X				0.5X	5X	1X	0.7X		0.5X
Hg	2X				0.5X	5X	0.5X	2X		3X
Au	(1				(1	(1	(1	(1		(1
As	(500				(500	(500	(500	(500		(500
B	20				15	15	10	20		30
Ba	500				300	200	100	150		1000
Be	(2				(2	(2	(2	(2		(2
Bi	(10				(10	(10	(10	(10		(10
Cd	(50				(50	(50	(50	(50		(50
Ce	50				10	50	5	20		(5
Cr	200				50	300	70	200		50
Cu	100				50	70	20	30		5
Ca	10				(10	15	(10	10		10
Ce	(20				(20	(20	(20	(20		(20
La	(20				20	(20	30	20		20
Mn	2000				1500	2000	1000	1500		500
Mn	(2				(2	(2	(2	(2		(2
Nb	20				(20	(20	(20	(20		20
Ni	70				20	70	20	50		(5
Pb	10				(10	(10	(10	10		(10
Sb	(100				(100	(100	(100	(100		(100
Sc	20				(10	20	(10	10		10
Sn	(10				(10	(10	(10	(10		(10
Sr	200				200	200	100	100		200
Ti	3000				2000	5000	2000	2000		7000
V	200				100	200	150	150		100
U	(50				(50	(50	(50	(50		(50
Y	10				(10	10	(10	10		(10
Zn	(200				(200	(200	(200	(200		(200
Zr	50				20	30	20	20		50

SAMPLE NO.	4173	4174	4175	4176	4177	4178	4179	4180	4181	4182
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	CRET
ROCK TYPE	FELINT	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
HAT. TYPE	SULFIDES	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	QUARTZ	STR BED	QUARTZ
1 MI. QUAD	D2	D3	D3	D3	D3	D3	D3	D3	D3	D3
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	18	15	15	15	15	15	15	15	25	22
TOWNSHIP	10N	9N	9N	9N	9N	9N	9N	9N	9N	9N
RANGE	12E	9E	9E	9E	9E	9E	9E	9E	9E	9E
Ag	<.020	.060	<.100	<.020	<.200	<.020	<.100	<.020		<.020
Au	12.000	<.200	<.200	<.200	<.200	<.200	<.200	.200		<.200
Cu	1800.000	55.000	40.000	50.000	45.000	65.000	60.000			
Pb	1550.000	45.000	45.000	45.000	40.000	30.000	35.000			
Zn	29000.000	145.000	125.000	135.000	130.000	120.000	120.000			
As								50.000		
Sb										100.000
M		2.000								
Fe	3Z								1.5Z	
Ca	<0.02Z								0.7Z	
Hg	0.07Z								0.3Z	
Ag	20								<1	
As	<500								<500	
B	10								10	
Ba	30								50	
Be	<2								<2	
Bi	15								<10	
Cd	100								<50	
Ce	<5								10	
Cr	<10								10	
Cu	1500								<10	
Ca	<10								<20	
Ge	<20									
La	<20								20	
Mn	100								2000	
Mo	30								<2	
Nb	<20								<20	
Ni	<5								<5	
Pb	500								10	
Sb	<100								<100	
Sc	<10								<10	
Sn	<10								<10	
Sr	100								100	
Tl	200								150	
V	10								15	
W	<50								<50	
Y	<10								<10	
Zn	>10000								<200	
Zr	20								<20	

SAMPLE NO.	4183	4184	4185	4186	4187	4188	4189	4190	4191	4192
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSED	METSED	METSED	METBED	METSED	METBED	METSED	METBED	METBED	METSED
MAT. TYPE	QUARTZ	QUARTZ	SED RK/Q	BTR BED	BTR BED	BTR BED	BTR BED	BTR SED	BTR BED	BTR SED
1 MI. QUAD	D3	D3	D3	D3	D3	D3	D3	D3	D3	D3
4 MI. QUAD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD
SECTION	22	22	22	22	22	22	19	19	19	19
TOWNSHIP	9N	9N	9N	9N	9N	9N	10N	10N	10N	10N
RANGE	9E	9E	9E	9E	9E	9E	9E	9E	9E	9E
Au	.550	.160	(.020				(.040	(.020	(.020	(.040
Ag	(.200	(.200	.200				1.800	.200	.200	(.200
Cu							20.000	20.000	40.000	35.000
Pb							15.000	5.000	5.000	5.000
Zn							70.000	75.000	55.000	60.000
As	500.000	1100.000	350.000				30.000	30.000	40.000	30.000
Sb										
W										
Fe				3X	5X	5X	5X	7X	3X	5X
Ca				1X	1.5X	1.5X	1.5X	1.5X	1.5X	1.5X
Mg				3X	5X	3X	2X	3X	2X	2X
Aq				(1	(1	(1	(1	(1	(1	(1
Am				(500	(500	(500	(500	(500	(500	(500
B				15	10	15	(10	10	10	(10
Ba				1500	2000	1000	500	1500	500	700
Be				(2	(2	(2	(2	(2	(2	(2
Bi				(10	(10	(10	(10	(10	(10	(10
Cd				(50	(50	(50	(50	(50	(50	(50
Ce				5	5	7	10	5	10	10
Cr				100	100	30	300	300	70	70
Cu				150	150	150	50	50	100	150
Co				10	10	10	10	10	10	10
Ge				(20	(20	(20	(20	(20	(20	(20
La				20	20	20	20	20	20	30
Mn				1000	1000	1000	700	1500	700	1000
Mo				(2	(2	(2	(2	(2	(2	(2
Nb				(20	(20	(20	(20	(20	(20	(20
Ni				15	15	20	15	15	15	15
Pb				20	20	20	20	20	15	15
Sh				(100	(100	(100	(100	(100	(100	(100
Sb				10	10	10	10	10	(10	10
Sn				(10	(10	(10	(10	(10	(10	(10
Sr				200	500	500	500	300	500	500
Tl				7000	7000	7000	5000	10000	7000	7000
V				100	100	100	100	100	100	100
W				(50	(50	(50	(50	(50	(50	(50
Y				(10	10	(10	(10	(10	(10	(10
Zn				(200	(200	(200	(200	(200	(200	(200
Zr				70	70	50	70	30	70	200

SAMPLE NO.	4193	4194	4195	4196	4197	4198	4199	4200	4201	4202
ROCK AGE	CRET	CRET	CRET	CRET	CRET	TERT	TERT	TERT	CRET	CRET
ROCK TYPE	METSBD	METSBD	METSBD	METSBD	METSBD	FELINT	FELINT	FELINT	METSBD	METSBD
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	FEL PLUT	BL/BB/CG	STR SED	QUARTZ	STR SED
1 MI. QUAD	D3	D3	D3	D3	D3	D3	D3	D3	D3	D3
4 MI. QUAD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD
SECTION	24	13	13	13	12	6	6	6	6	6
TOWNSHIP	10N	10N	10N	10N	10N	8N	8N	8N	8N	8N
RANGE	8E	8E	8E	8E	8E	8E	8E	8E	8E	8E
Au	<.040	<.020	<.040	<.100	<.020		<.020	<.100	.040	<.100
Ag	<.200	<.200	<.200	<.200	<.200		.200	1.600	.200	<.200
Cu	20.000	35.000	30.000	30.000	10.000			30.000	75.000	15.000
Pb	10.000	5.000	10.000	10.000	10.000			20.000	5.000	5.000
Zn	75.000	65.000	65.000	65.000	65.000			85.000	50.000	65.000
As	40.000	30.000	20.000	30.000	160.000				30.000	
Sb										
W							<2.000			
Fe	3X	5X	5X	3X	3X			3X	1X	5X
Ca	1X	2X	2X	1.5X	2X			1.5X	0.7X	1X
Hq	3X	3X	3X	2X	3X			3X	0.5X	3X
Aq	<1	<1	<1	<1	<1			<1	<1	<1
As	<500	<500	<500	<500	<500			<500	<500	<500
B	<10	<10	10	<10	<10			<10	10	10
Ba	1000	700	700	300	700			700	200	700
Be	<2	<2	<2	<2	<2			<2	5	<2
Bl	<10	<10	<10	<10	<10			<10	<10	<10
Cd	<50	<50	<50	<50	<50			<50	<50	<50
Co	5	7	5	10	7			7	5	5
Cr	500	300	150	150	70			200	20	150
Cu	70	50	50	70	200			50	150	50
Ga	10	10	10	10	10			10	10	10
Ge	<20	<20	<20	<20	<20			<20	<20	<20
La	20	20	20	20	<20			20	<20	20
Mn	700	1000	1000	700	1000			700	500	1000
Mo	<2	<2	2	<2	<2			<2	<2	<2
Nb	<20	20	20	20	20			20	<20	20
Ni	20	15	10	20	15			20	20	15
Pb	15	20	15	20	15			50	15	15
Sb	<100	<100	<100	<100	<100			<100	<100	<100
Sc	10	10	10	10	10			10	<10	10
Sn	<10	<10	<10	<10	<10			<10	<10	<10
Sr	200	500	300	500	500			300	100	200
Tl	5000	7000	7000	5000	5000			3000	700	7000
V	150	150	150	70	100			100	20	150
W	<50	<50	<50	<50	<50			<50	<50	<50
Y	<10	<10	<10	10	<10			<10	15	<10
Zn	<200	<200	<200	<200	<200			<200	200	<200
Zr	70	70	50	30	150			50	30	100

SAMPLE NO.	4203	4204	4205	4206	4207	4208	4209	4210	4211	4212
ROCK AGE	CRET	TERT	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSED	FELINT	METBED	METBED	METBED	METSED	METBED	METSED	METBED	METSED
HAT. TYPE	QUARTZ	FEL PLUT	BL/BB/CG	BL/BB/CG	BTR BED	BTR BED	BTR BED	BTR BED	STR SED	QUARTZ
1 MI. QUAD	D3	D3	D3	D3	D3	D3	D3	D3	D3	D3
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	6	19	19	7	16	15	15	5	6	6
TOWNSHIP	8N	9N	9N	9N	10N	10N	10N	10N	10N	10N
RANGE	8E	8E	8E	8E	8E	8E	8E	9E	9E	9E
Au	.050	<.020	<.020	<.100	<.020	19		19	<.100	<.020
Ag	.200	<.200	.200	.600	.200	19		19	.600	<.200
Cv		25.000	50.000	20.000	20.000	19		19	25.000	
Pb		5.000	10.000	20.000	20.000	16		19	20.000	
Zn		30.000	85.000	130.000	105.000	19		19	90.000	
As	<10.000	20.000	10.000		30.000	19		19	20.000	20.000
Sb										
W			<2.000							
Fe			5X	5X	7X	I/SX		I/SX	5X	
Ca			1.5X	0.5X	1.5X	I/SX		I/SX	0.5X	
Mo			3X	2X	5X	I/SX		I/SX	3X	
Aq			<1	<1	<1	I/S		I/S	<1	
Am			<500	<500	<500	I/S		I/S	<500	
B			15	10	20	I/S		I/S	10	
Ra			700	700	1000	I/S		I/S	1500	
Be			<2	<2	<2	I/S		I/S	<2	
Bi			<10	<10	<10	I/S		I/S	<10	
Cd			<50	<50	<50	I/S		I/S	<50	
Co			20	30	5	I/S		I/S	10	
Cr			150	200	500	I/S		I/S	300	
Cu			100	20	20	I/S		I/S	50	
Ga			15	10	10	I/S		I/S	10	
Ge			<20	<20	<20	I/S		I/S	<20	
La			<20	<20	<20	I/S		I/S	20	
Mn			1000	3000	2000	I/S		I/S	700	
Mo			<2	2	<2	I/S		I/S	2	
Nb			<20	20	20	I/S		I/S	20	
Ni			50	20	20	I/S		I/S	30	
Pb			10	20	15	I/S		I/S	30	
Sb			<100	<100	<100	I/S		I/S	<100	
Sc			20	10	10	I/S		I/S	10	
Sn			<10	<10	<10	I/S		I/S	<10	
Sr			500	200	150	I/S		I/S	200	
Tl			5000	3000	10000	I/S		I/S	5000	
V			150	100	200	I/S		I/S	150	
W			<50	<50	<50	I/S		I/S	<50	
Y			10	<10	<10	I/S		I/S	10	
Zn			200	<200	<200	I/S		I/S	<200	
Zr			100	30	50	I/S		I/S	70	

SAMPLE NO.	4213	4214	4215	4216	4217	4218	4219	4220	4221	4222
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
MAT. TYPE	STR SED	SED RK/O	BL/SB/CG	QUARTZ	QUARTZ	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	D3	D3	D3	D3	D3	A3	D4	D4	D4	D3
4 MI. QUAD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	ANCHOR	BEWARD	BEWARD	BEWARD	BEWARD
SECTION	5	31	31	31	31	6	6	8	17	9
TOWNSHIP	10N	11N	11N	11N	11N	11N	10N	10N	10N	10N
RANGE	9E	9E	9E	9E	9E	9E	7E	7E	7E	9E
Au	(.020	(.020	(.020	(.020	.100	(.020	(.020	(.020	(.020	(.020
Ag	(.200	.200	.200	.200	(.200	.200	.200	.200	.200	(.200
Cu	25.000	40.000	40.000	40.000	30.000	30.000	25.000	25.000	25.000	40.000
Pb	10.000	20.000	20.000	20.000	15.000	20.000	20.000	20.000	20.000	5.000
Zn	80.000	80.000	80.000	80.000	100.000	100.000	95.000	95.000	100.000	65.000
As	20.000	10.000	(10.000	20.000	20.000	10.000	30.000	30.000	10.000	100.000
Sb										
W										
Fe	5X		3X			7X	7X	7X	3X	5X
Ca	0.7X		0.5X			2X	0.7X	0.7X	1X	1.5X
Hg	3X		2X			3X	5X	5X	2X	3X
Aq	(1		(1			(1	(1	(1	(1	(1
As	(500		(500			(500	(500	(500	(500	(500
B	15		70			10	15	15	10	10
Ba	1000		1000			700	1000	1000	500	700
Rf	(2		(2			(2	(2	(2	(2	(2
Rl	(10		(10			(10	(10	(10	(10	(10
Cd	(50		(50			(50	(50	(50	(50	(50
Ce	10		5			5	10	10	10	5
Cr	150		100			100	200	100	70	100
Cu	50		100			20	70	70	70	150
Co	10		15			10	10	10	10	10
Ge	(20		(20			(20	(20	(20	(20	(20
La	20		(20			20	(20	20	20	20
Mn	1000		700			1500	700	700	500	1500
Mo	2		(2			(2	2	2	(2	(2
Nb	20		(20			(20	20	20	20	20
Ni	20		20			15	20	20	15	20
Pb	10		10			10	20	20	15	10
Sb	(100		(100			(100	(100	(100	(100	(100
Sc	10		20			(10	10	15	10	10
Sn	(10		(10			(10	(10	(10	(10	(10
Sr	200		(100			300	200	200	300	200
Tl	5000		5000			10000	7000	5000	3000	7000
V	150		200			150	150	150	70	150
W	(50		(50			(50	(50	(50	(50	(50
Y	10		15			(10	10	(10	(10	(10
Zn	(200		200			(200	(200	(200	(200	(200
Zr	70		100			70	70	50	50	150

201

SAMPLE NO.
ROCK AGE
ROCK TYPE
NAT. TYPE
1 MI. QUAD
4 MI. QUAD
SECTION
TOWNSHIP
RANGE

4223
CRET
METSSED
STR SED
D3
SEWARD
9
10N
9E

4224
CRET
METSSED
STR SED
D3
SEWARD
8
10N
9E

4225
CRET
METSSED
STR SED
D3
SEWARD
8
10N
9E

4226
CRET
METSSED
STR SED
D3
SEWARD
1
10N
9E

4227
CRET
METSSED
BL/BB/CG
D3
SEWARD
1
10N
9E

4228
CRET
METSSED
QUARTZ
D3
SEWARD
1
10N
9E

4229
CRET
METSSED
STR SED
D3
SEWARD
6
10N
10E

4230
CRET
METSSED
STR SED
D3
SEWARD
6
10N
10E

4231
CRET
METSSED
BED RK/D
D3
REWARD
6
10N
10E

4232
CRET
METSSED
STR SED
D3
SEWARD
6
10N
10E

As
Aa
Ca
Pb
Zn
As
Sb
W

(.040
(.200
20.000
5.000
40.000
20.000

(.100
(.200
15.000
5.000
40.000
10.000

(.020
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5.000
55.000
20.000

.050
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50.000
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(.040
(.200
55.000
10.000
80.000
10.000

As
Aa
Ca
Pb
Zn
As
Sb
W

Fe
Ca
Mg

Ag
As
B
Ba

Ba
Bi
Cd
Co

Cr
Cu
Ga
Ge

La
Nn
Mo
Nb

Ni
Pb
Sb
Sc

Sn
Sr
Tl
V

W
Y
Zn

3X
2X
3X

3X
2X
3X

3X
1X
2X

3X
2X
2X

2X
2X
2X

3X
2X
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2X
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2X

(1
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(1
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700

(1
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1000

(1
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30
500

(1
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(1
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1500

(1
(500
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500

(2
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70
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1000
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1500
(2
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15
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(100
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(100
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(10
300
5000
70

(10
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7000
70

(10
200
5000
100

(10
500
10000
100

(10
500
5000
70

(10
200
5000
100

(10
500
3000
70

(50
10
(200
200

(50
(10
(200
70

(50
10
(200
100

(50
20
(200
1000

(50
20
(200
200

(50
30
(200
100

(50
15
(200
100

SAMPLE NO.	4233	4234	4235	4236	4237	4238	4239	4240	4241	4242
ROCK AGE	CRET	CRET	CRET	CRET	CRET	TERT	TERT	CRET	CRET	TERT
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	FELINT	METSSED	METSSED	TERT
MAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	FEL PLUT	QUARTZ	BTR SED	MAF VOLC
1 MI. QUAD	D2	D2	D2	D2	D2	D2	D3	D3	D3	D3
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	7	7	7	7	17	16	9	6	30	31
TOWNSHIP	10N	10N	10N	10N	10N	10N	10N	10N	10N	9N
RANGE	10E	10E	10E	10E	10E	10E	9E	9E	9E	9E
Au	(.020	(.040	(.020	(.020	(.020	(.020	(.020	(.020	(.020	(.020
Ag	(.200	.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	15.000	50.000	20.000	15.000	15.000	15.000	15.000		15.000	15.000
Pb	5.000	10.000	5.000	5.000	5.000	5.000	5.000		10.000	10.000
Zn	55.000	95.000	55.000	50.000	55.000	65.000			00.000	00.000
As	10.000	10.000	20.000	20.000	20.000	10.000	40.000	10.000	(10.000	
Sb										
W										
Fe	3X	2X	2X	2X	5X	3X	2X	2X	3X	
Ca	1.5X	2X	2X	1.5X	3X	0.5X	2X	0.07X	1X	
Hg	2X	2X	1X	1X	2X	2X	5X	2X	2X	
Ag	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	30	20	20	20	30	20	10	10	20	20
Ba	1000	500	500	500	1000	1000	300	500	1500	
Be	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bl	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Ce	10	10	10	5	10	10	10	10	15	15
Cr	100	100	200	70	100	500	200	300	200	200
Cu	70	30	30	20	200	20	30	30	30	30
Ga	10	10	10	10	15	20	10	(10	20	20
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	70	20	30	20	20	(20	20	20	20
Mn	3000	1000	1000	1000	2000	1000	300	500	1000	1000
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	20	(20	20	(20	(20	20	20
Ni	50	50	50	20	100	50	150	70	50	50
Pb	20	15	20	10	20	10	10	(10	30	30
Sh	(100	(100	(100	(100	(100	100	(100	(100	(100	(100
Sc	20	20	20	10	10	20	(10	10	20	20
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	200	500	500	500	300	300	500	100	300	300
Tl	3000	3000	3000	5000	7000	3000	1000	2000	3000	3000
V	100	70	70	70	150	100	20	50	100	100
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	20	15	15	10	(10	10	(10	10	10	10
Zn	200	(200	(200	(200	(200	(200	200	200	(200	(200
Zr	100	100	200	150	100	150	50	30	100	100

SAMPLE NO. ROCK AGE ROCK TYPE MAT. TYPE 1 MI. QUAD 4 MI. QUAD SECTION TOWNSHIP RANGE	4243 CRET METSED BL/88/CG D4 SEWARD 9 10N 7E	4244 CRET METSED QUARTZ D4 SEWARD 9 10N 7E	4245 CRET METSED QUARTZ D4 SEWARD 9 10N 7E	4246 CRET METSED QUARTZ D4 SEWARD 9 10N 7E	4247 CRET METSED QUARTZ D4 SEWARD 9 10N 7E	4248 CRET METSED QUARTZ D4 SEWARD 9 10N 7E	4249 CRET METSED FEL PLUT D4 SEWARD 9 10N 7E	4250 CRET METSED STR SED D4 SEWARD 25 10N 6E	4251 CRET METSED QUARTZ D4 SEWARD 25 10N 6E	4252 CRET METSED BL/88/CG D4 SEWARD 25 10N 6E
As	.050	14.000	12.000	4.200	1.300	.080	.060	<.100	.030	
Aa	.200	2.800	4.000	2.800	.400	.200	.200	<.200	<.200	
Cu		15.000	80.000	25.000				60.000		
Pb		445.000	235.000	135.000				25.000		
Zn		435.000	400.000	65.000				170.000		
As	30.000	40.000	300.000	160.000				<10.000	30.000	
Sb										
W		<2.000	<2.000	2.000						
Fe							2X	2X		1X
Ca		0.7X	0.5X	0.7X			1X	0.2X		0.15X
Hg		1X	0.7X	1X			2X	0.5X		1.5X
Aq		5	7	3			<1	<1		<1
As		<500	<500	<500			<500	<500		<500
B		30	50	70			20	30		10
Ba		150	200	200			300	500		200
Be		<2	<2	<2			<2	<2		<2
Bi		<10	<10	<10			<10	<10		<10
Cd		<50	<50	<50			<50	<50		<50
Co		5	5	5			10	10		5
Cr		50	50	70			100	20		70
Cv		50	50	50			100	70		20
Ca		10	10	10			15	10		15
Ge		<20	<20	<20			<20	<20		<20
La		20	<20	<20			<20	20		<20
Mn		300	200	200			300	1000		150
Mo		<2	<2	<2			<2	<2		<2
Nb		<20	<20	<20			<20	<20		<20
Ni		30	50	50			100	30		50
Pb		500	150	70			<10	15		<10
Sb		<100	<100	<100			<100	<100		<100
Sr		<10	<10	<10			10	10		<10
Sr		<10	<10	<10			<10	<10		10
Sr		100	100	<100			300	100		500
Ti		500	1000	2000			3000	3000		1500
V		20	30	30			50	100		20
W		<50	<50	<50			<50	<50		<50
Y		<10	<10	<10			<10	10		<10
Zn		300	300	<200			<200	<200		<200

SAMPLE NO.	4253	4254	4255	4256	4257	4258	4259	4260	4261	4262
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	CRET	CRET
ROCK TYPE	FELINT	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	METBED	METBED
MAT. TYPE	FEL PLUT	QUARTZ	QUARTZ	QUARTZ	QUARTZ	SCHIST	BULFIDEB	BTR SED	BTR SED	QUARTZ
1 MI. QUAD	D4	C4	C4	C4	C4	C4	C4	C4	C4	C4
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	25	35	35	35	35	35	35	35	35	35
TOWNSHIP	10N	8N	8N	8N	8N	8N	8N	8N	8N	8N
RANGE	6E	7E	7E	7E	7E	7E	7E	7E	7E	7E
Av		.820	3.100	13.000	9.500		12.000	<.100	.650	3.600
Aq		.200	4.200	7.000	1.400		11.000	<.200	<.200	2.400
Cu							1000.000	80.000	145.000	350.000
Pb							8750.000	40.000	55.000	1450.000
Zn							5250.000	90.000	85.000	400.000
As		5800.000	3300.000	30000.000	3600.000			30.000	140.000	700.000
Sb							10.000			
Hg										
Fe							0.7%	5%	7%	5%
Ca							1%	10%	7%	1.5%
Mg							0.07%	5%	3%	2%
Aq							10	<1	<1	1
Ag							1500	<500	<500	500
B							<10	10	10	10
Ba							<10	100	100	50
Be							<2	<2	<2	<2
Bi							<10	<10	<10	<10
Cd							500	<50	<50	<50
Ce							<5	50	20	15
Cr							<10	500	500	200
Cu							1000	150	200	300
Ga							<10	20	15	10
Ge							<20	<20	<20	<20
La							20	<20	<20	<20
Mn							100	2000	2000	1500
Mo							<2	<2	<2	<2
Nb							<20	<20	<20	<20
Ni							<5	100	100	70
Pb							2000	20	150	2000
Sb							<100	<100	<100	<100
Sc							<10	70	70	20
Sr							<10	<10	<10	<10
Sr							100	100	100	100
Tl							200	7000	10000	7000
V							<10	500	300	20
W							<50	<50	<50	<50
Y							<10	15	15	10
Zn							5000	<200	<200	<200
Zr							<20	20	<20	<20

SAMPLE NO.	4263	4264	4265	4266	4267	4268	4269	4270	4271	4272
ROCK AGE	CRET	CRET	CRET	TERT	CRET	CRET	CRET	TERT	TERT	TERT
ROCK TYPE	METBED	METBED	METBED	FEL PLUT	METBED	METBED	METBED	MAFVOL	MAFVOL	MAFVOL
MAT. TYPE	QUARTZ	BTR BED	BTR BED	BTR BED	QUARTZ	BTR BED	BL/SS/CG	BULFIDES	BULFIDES	BTR BED
1 MI. QUAD	C4	C4	C4	D5	D5	D5	D5	B2	B2	B2
4 MI. QUAD	SEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD
SECTION	35	35	35	29	29	29	29	21	21	21
TOWNSHIP	8N	8N	8N	9N	9N	9N	9N	4N	4N	4N
RANGE	7E	7E	7E	5E	5E	5E	5E	10E	10E	10E
Au	300.000	.600	.050	(.020	.090	(.020		(.020		(.040
Aq	65.000	(.200	(.200	.200	.200			4.600		(.200
Cu	550.000	55.000	65.000	30.000		25.000		10500.000		25.000
Pb	3600.000	45.000	35.000	35.000		15.000		10.000		10.000
Zn	700.000	115.000	80.000	30.000		80.000		8500.000		40.000
As	1500.000	60.000	10.000	30.000	200.000	10.000				
Sb										
W										
Fe	5X	5X	3X	0.7X	3X	3X		5X		2X
Ca	1X	1.5X	2X	0.15X	10X	0.7X		2X		2X
Hg	0.7X	2X	1X	0.2X	2X	1.5X		3X		1X
Aq	2	(1	(1	(1	(1	(1		5		(1
As	2000	(500	(500	(500	(500	(500		(500		(500
P	15	50	20	10	20	50		10		10
Na	300	700	100	20	500	1000		(10		10
Be	(2	(2	(2	2	3	(2		(2		(2
B	(10	(10	(10	(10	(10	(10		(10		(10
Cd	(50	(50	(50	(50	(50	(50		(50		(50
Co	20	15	10	(5	30	5		70		5
Cr	100	100	100	10	200	70		100		300
Cu	300	100	70	50	200	50		>10000		30
Cn	(10	20	10	20	15	15		10		10
Ca	(20	(20	(20	(20	20	(20		(20		(20
La	(20	(20	20	(20	(20	20		(20		30
Mn	5000	2000	2000	300	7000	1500		1500		700
Mo	(2	(2	(2	(2	(2	(2		2		(2
Nb	(20	(20	(20	20	20	(20		(20		(20
Ni	50	100	30	5	70	100		50		20
Pb	2000	15	10	50	15	10		(10		(10
Sb	(100	(100	(100	(100	(100	(100		(100		(100
Sc	10	20	20	10	20	15		30		20
Sn	200	(10	(10	30	50	(10		(10		(10
Sr	100	100	100	(100	500	100		(100		100
Tl	2000	7000	5000	300	5000	5000		7000		2000
V	70	200	150	10	100	100		150		100
W	(50	(50	(50	(50	700	(50		(50		(50
Y	(10	10	10	20	20	10		20		(10
Zn	200	(200	(200	(200	(200	(200		7000		(200
Zr	(20	50	20	20	70	100		50		20

SAMPLE NO.	4273	4274	4275	4276	4277	4278	4279	4280	4281	4282
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL
MAT. TYPE	STR SED	SULFIDES	SULFIDES	MAF VOLC	SULFIDES	STR SED	SULFIDES	SULFIDES	SULFIDES	SULFIDES
1 MI. QUAD	R2	R2	R2	R2	R2	D2	B2	R2	B2	B2
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	21	15	15	15	14	14	17	17	17	17
TOWNSHIP	4N	4N	4N	4N	4N	4N	3N	3N	3N	3N
RANGE	10E	10E	10E	10E	10E	10E	10E	10E	10E	10E
Au	<.020	.020	<.020		<.020	<.200	<.020	<.020	<.020	<.020
Ag	<.200	4.200	11.000		.200	<.200	.200	2.000	1.400	.800
Cu	60.000	14000.000	32500.000		130.000	75.000	2150.000	28000.000	15000.000	18500.000
Pb	10.000	20.000	15.000		485.000	15.000	20.000	15.000	15.000	20.000
Zn	45.000	750.000	4850.000		250.000	85.000	80.000	165.000	150.000	135.000
As										
Sb										
W										
Fe	2X				5X	7X	10X	7X		
Ca	2X				5X	10X	0.15X	0.2X		
Hg	1X				5X	5X	7X	3X		
Aq	<1				<1	<1	<1	2		
As	<500				<500	<500	<500	<500		
B	10				10	10	<10	<10		
Ba	50				<10	30	<10	<10		
Be	<2				<2	<2	<2	<2		
Bi	<10				<10	<10	<10	<10		
Cd	<50				<50	<50	<50	<50		
Ce	<5				30	15	100	500		
Cr	20				150	100	500	500		
Cu	50				150	100	3000	>10000		
Ga	10				15	20	15	15		
Ge	<20				<20	<20	<20	<20		
La	50				<20	<20	<20	<20		
Mn	700				3000	1500	300	200		
Mo	<2				10	<2	2	20		
Nb	<20				<20	20	<20	<20		
Ni	5				30	50	70	70		
Pb	<10				300	10	<10	<10		
Sb	<100				<100	<100	<100	<100		
Bc	10				30	50	30	30		
Sn	<10				<10	<10	<10	<10		
Br	100				100	100	100	<100		
Tl	2000				5000	5000	5000	3000		
V	100				200	300	100	70		
W	<50				<50	<50	<50	<50		
Y	<10				20	20	30	10		
Zn	<200				200	<200	<200	200		
Zr	20				30	50	20	20		

SAMPLE NO.	4283	4284	4285	4286	4287	4288	4289	4290	4291	4292
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL
HAT. TYPE	MAF VOLC	MAF VOLC	STR BED	STR BED	SULFIDES	SULFIDES	MAF VOLC	MAF VOLC	SCHIST	STR BED
1 MI. QUAD	B2	B2	B3	B2	B2	B2	B2	B2	B2	B2
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	17	17	17	20	21	21	21	21	21	21
TOWNSHIP	3N	3N	3N	3N	3N	3N	3N	3N	3N	3N
RANGE	10E	10E	10E	10E	10E	10E	10E	10E	10E	10E
			<.100	<.040	<.020	<.020				<.020
As			<.200	<.200	.600	.200				<.200
Aq			200.000	75.000	3500.000	3700.000				90.000
Ce			10.000	10.000	15.000	15.000				15.000
Pb			45.000	85.000	1050.000	95.000				65.000
Zn										
Ag										
As										
Sb										
W										
Fe			5Z	5Z						5Z
Ca			10Z	10Z						10Z
Hg			3Z	5Z						5Z
Aq			<1	<1						<1
As			<500	<500						<500
B			10	10						10
Ba			<10	10						50
Be			<2	<2						<2
Bi			<10	<10						<10
Bj			<50	<50						<50
Cd			20	20						20
Ce										
Cr			200	300						2000
Cu			200	100						100
Ca			10	10						15
Ge			<20	<20						<20
La			<20	<20						20
Mn			1500	1500						1500
Mo			<2	<2						<2
Nb			<20	<20						20
Ni			50	70						70
Pb			<10	<10						<10
Sb			<100	<100						<100
Sc			30	20						30
Sn			20	<10						<10
Sr			100	100						100
Ti			7000	5000						5000
V			300	200						100
W			<50	<50						<50
Y			15	10						20
Zn			<200	<200						<200
Zr			20	30						30

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SAMPLE NO.
ROCK AGE
ROCK TYPE
MAT. TYPE
1 MI. QUAD
4 MI. QUAD
SECTION
TOWNSHIP
RANGE

4293
TERT
MAFVOL
SULFIDES
B2
BEWARD
21
3N
10E

4294
TERT
MAFVOL
STR BED
B3
BEWARD
32
3N
10E

4295
TERT
MAFVOL
STR BED
B3
BEWARD
32
3N
10E

4296
TERT
MAFVOL
SULFIDES
B3
BEWARD
32
3N
10E

4297
TERT
MAFVOL
SULFIDES
B2
BEWARD
2B
3N
10E

4298
TERT
MAFVOL
SULFIDES
B2
BEWARD
2B
3N
10E

4299
TERT
MAFVOL
MAF VOLC
B2
BEWARD
2B
3N
10E

4300
TERT
MAFVOL
SULFIDES
B2
BEWARD
2B
3N
10E

4301
TERT
MAFVOL
MAF VOLC
B2
BEWARD
2B
3N
10E

4302
TERT
MAFVOL
MAF VOLC
B2
BEWARD
2B
3N
10E

Au
Ag
Cu
Pb
Zn
As
Sb
W

Fe
Co
Mg

Ag
As
B
Ba

Be
Bi
Cd
Ce

Cr
Cu
Ca
Ga

La
Mn
Mo
Nb

Ni
Pb
Sb
Sc

Sn
Sr
Ti
V

W
Y
Zn

.040
(.200
130.000
10.000
75.000

(.040
(.200
105.000
10.000
50.000

(.020
(.200
280.000
1250.000
850.000

(.020
(.200
10000.000
15.000
395.000

(.020
6.600
34000.000
15.000
1900.000

(.020
9.200
10200.000
15.000
1600.000

15%
0.15%
2%

30
(500
(10
(10

(2
(10
(50
700

100
)10000
15
(20

(20
500
10
(20

50
(10
(100
15

(10
(100
2000
50

(50
(10
1500
(20

SAMPLE NO.	4303	4304	4305	4306	4307	4308	4309	4310	4311	4312
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL
MAT. TYPE	MAF VOLC	MAF VOLC	MAF VOLC	STR SED	SED/VOLC	SED/VOLC	MAF VOLC	SCHIST	SULFIDES	MAF PLUT
1 MI. QUAD	B3	B3	B3	B3	B3	B3	B3	B3	B3	B3
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	10	10	10	10	8	19	19	19	19	19
TOWNSHIP	3N	3N	3N	3N	2N	2N	2N	2N	2N	2N
RANGE	10E	10E	10E	10E	10E	10E	10E	10E	10E	10E
Au	.020	(.020	(.020	(.100	(.020	.040	.050		.040	(.020
Ag	.200	.800	.200	(.200	.200	4.000	6.200		7.800	.600
Cu	420.000	2200.000	165.000	370.000	480.000	7300.000	24500.000		35500.000	1000.000
Pb	20.000	5.000	20.000	15.000	5.000	30.000	20.000		30.000	15.000
Zn	145.000	60.000	100.000	120.000	30.000	75.000	380.000		410.000	60.000
As										
Sb										
W										
Fe	5X			3X			7X			5X
Co	7X			3X			0.7X			1X
Hg	5X			2X			7X			10X
Ag	(1			(1			5			(1
As	(500			(500			(500			(500
B	10			10			(10			(10
Ba	(10			10			(10			(10
Be	(2			(2			(2			(2
Bi	(10			(10			(10			(10
Cd	(50			(50			(50			(50
Ce	50			15			300			100
Cr	500			700			2000			5000
Cu	500			500			>10000			2000
Ga	10			10			10			10
Ge	(20			(20			(20			(20
La	(20			20			(20			(20
Mn	1500			1000			500			1000
Mo	(2			(2			(2			(2
Nb	(20			20			(20			(20
Ni	70			20			7000			3000
Pb	(10			(10			(10			(10
Sh	(100			(100			(100			(100
Sc	30			20			10			20
Sn	(10			(10			(10			(10
Sr	300			100			(100			(100
Tl	3000			2000			1000			2000
V	100			100			20			50
W	(50			(50			(50			(50
Y	10			10			(10			(10
Zn	(200			(200			300			(200
Zr	30			30			(20			20

SAMPLE NO.	4313	4314	4315	4316	4317	4318	4319	4320	4321	4322
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	SCHIST	MAFVOL	STR SED	METSSED	METSSED
MAT. TYPE	MAF VOLC	STR SED	SULFIDES	MAF VOLC	MAF VOLC	SCHIST	SCHIST	STR SED	BL/BS/CG	BL/BS/CG
1 MI. QUAD	B3	B3	A3	A3	A3	A3	A3	A3	A3	A3
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	19	18	19	19	19	19	19	25	B	B
TOWNSHIP	2N	2N	2N	2N	2N	2N	2N	2N	1N	1N
RANGE	10E	10E	10E	10E	10E	10E	10E	9E	10E	10E
Au		<.020	<.020			<.020		<.020	<.020	<.020
Ag		<.200	10.000			.200		<.200	.200	<.200
Cu		90.000	43500.000			190.000		60.000	215.000	145.000
Pb		15.000	5.000			15.000		15.000	5.000	5.000
Zn		80.000	3200.000			165.000		115.000	75.000	45.000
As										
Sb										
W										
Fe		7X	15X			5X		5X		
Co		5X	0.15X			1X		5X		
Hg		5X	2X			3X		5X		
Ag		<1	30			<1		<1		
As		<500	<500			<500		<500		
B		<10	<10			30		<10		
Ba		100	<10			500		10		
Be		<2	<2			<2		<2		
Bi		<10	<10			<10		<10		
Cd		<50	<50			<50		<50		
Ce		30	700			20		30		
Cr		300	200			300		200		
Cu		150	10000			500		100		
Ca		20	15			30		15		
Ce		<20	<20			<20		<20		
La		20	<20			<20		20		
Mn		1500	1000			700		1500		
Mo		<2	2			<2		<2		
Nb		20	<20			<20		<20		
Ni		100	70			50		50		
Pb		<10	<10			20		10		
Sb		<100	<100			<100		<100		
Sc		50	20			30		30		
Sn		<10	<10			<10		<10		
Sr		100	<100			<100		100		
Tl		5000	2000			5000		5000		
V		200	70			150		300		
W		<50	<50			<50		<50		
Y		20	10			20		10		
Zn		<200	3000			<200		<200		
Zr		50	<20			70		50		

SAMPLE NO.	4323	4324	4325	4326	4327	4328	4329	4330	4331	4332
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
HAT. TYPE	SULFIDES	SULFIDES	STR SED	SULFIDES	SULFIDES	BTR SED	SED RK/D	SL/SS/CC	SULFIDES	QUARTZ
1 MI. QUAD	A3	A3	A3	A3	A3	A3	A3	A3	A3	A3
4 MI. QUAD	ANCHOR	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	ANCHOR	SEWARD	ANCHOR	SEWARD
SECTION	0	0	2	2	2	25	25	36	36	36
TOWNSHIP	1N	1N	29	29	29	19	19	19	19	19
RANGE	10E	10E	9E	9E	9E	9E	9E	9E	9E	9E
Au	.070	(.020	(.100	.000	.030	19	(.020		(.020	
Ag	22.000	9.400	(.200	22.000	8.000	(.200	1.000		9.600	
Cu	146000.000	84000.000	15.000	79000.000	43000.000	15.000	3500.000		18000.000	
Pb	5.000	5.000	20.000	80.000	85.000	10.000	15.000		10.000	
Zn	600.000	1200.000	190.000	22000.000	8100.000	80.000	100.000		750.000	
As			(10.000			10.000				
Sb			(1.000			(2.000				
W										
Fe	10X		5X			5X	7X		10X	
Ca	0.03X		0.5X			1X	0.07X		0.1X	
Hg	0.5X		0.7X			2X	1.5X		0.7X	
Ag	50		(1			(1	1		10	
As	(500		(500			(500	(500		(500	
B	(10		20			20	(10		15	
Ba	10		1000			500	20		150	
Be	(2		(2			(2	(2		(2	
Bi	(10		(10			(10	(10		(10	
Cd	(50		(50			(50	(50		(50	
Ce	50		20			30	50		150	
Cr	10		70			150	70		100	
Cu	>10000		20			30	3000		>10000	
Co	15		20			20	15		15	
Ge	(20		(20			(20	(20		(20	
La	(20		20			20	(20		(20	
Mn	200		2000			2000	500		700	
Mo	2		(2			(2	(2		2	
Nb	(20		20			20	(20		(20	
Ni	15		20			30	30		70	
Pb	(10		15			10	(10		(10	
Sb	(100		(100			(100	(100		(100	
Sc	(10		15			20	10		(10	
Sn	70		(10			(10	(10		(10	
Sr	100		100			200	(100		(100	
Ti	500		3000			5000	2000		2000	
V	20		200			200	50		50	
W	(50		(50			(50	(50		(50	
Y	(10		(10			(10	10		10	
Zn	700		(200			(200	(200		500	
Zr	(20		70			70	30		50	

SAMPLE NO.	4333	4334	4335	4336	4337	4338	4339	4340	4341	4342
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METBED	METBED	METBED	METBED	METBED	METBED	METBED	METBED	METBED	METBED
MAT. TYPE	SL/88/CG	SL/89/CG	SL/89/CG	STR. BED	SL/89/CG	STR. BED	SL/88/CG	SL/88/CG	SL/88/CG	SL/89/CG
1 MI. QUAD	A3	A3	A3	A3	A3	A3	A3	A3	A3	A3
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	36	25	25	25	23	27	2	2	2	2
TOWNSHIP	19	18	18	18	18	18	28	28	28	28
RANGE	9E	9E	9E	9E	9E	9E	9E	9E	9E	9E
As			<.020	<.100		<.020	<.020	<.020	<.020	<.020
Aq			.200	<.200		<.200	.200	.200	<.200	<.200
Cu			200.000	30.000		1000.000	105.000	70.000	35.000	75.000
Pb			30.000	25.000		265.000	15.000	10.000	5.000	50.000
Zn			120.000	200.000		145.000	115.000	75.000	250.000	150.000
As				20.000		20.000				
Sb				1.000		<1.000				
W										
Fe			5X	2X		7X	5X	2X	3X	5X
Ca			0.2X	0.5X		0.1X	0.7X	0.7X	0.5X	0.7X
Hg			2X	0.7X		1X	2X	0.7X	1X	3X
Aq			<1	<1		<1	<1	<1	<1	<1
As			<500	<500		<500	<500	<500	<500	<500
B			50	20		30	30	15	15	20
Ba			1000	300		700	1000	300	500	1500
Be			<2	<2		<2	<2	<2	<2	<2
Bi			<10	<10		<10	<10	<10	<10	<10
Cd			<50	<50		<50	<50	<50	<50	<50
Co			10	15		10	10	5	5	10
Cr			200	30		150	150	70	150	150
Cu			200	50		1000	150	100	70	100
Ca			20	15		20	20	10	10	15
Ce			<20	<20		<20	<20	<20	<20	<20
La			<20	50		20	<20	<20	<20	<20
Mn			500	3000		1000	700	500	1000	1500
Mo			<2	<2		<2	<2	<2	<2	<2
Nb			<20	<20		20	<20	<20	<20	<20
Ni			70	20		15	100	30	70	100
Pb			20	20		150	<10	10	<10	30
Sb			<100	<100		<100	<100	<100	<100	<100
Sc			20	<10		30	20	10	10	20
Sn			<10	<10		<10	<10	<10	<10	<10
Sr			100	100		100	100	300	200	100
Tl			5000	3000		5000	7000	3000	5000	7000
V			150	100		300	200	50	70	200
W			<50	<50		<50	<50	<50	<50	<50
Y			20	<10		15	30	10	10	30
Zn			<200	<200		<200	<200	<200	<200	<200
Zr			100	30		70	70	70	100	100

SAMPLE NO.	4343	4344	4345	4346	4347	4348	4349	4350	4351	4352
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METBED	METBED	METBED	METBED	METBED	METBED	METSED	METSED	METSED	METSED
MAT. TYPE	SL/99/CG	SL/99/CG	SL/99/CG	SL/99/CG	SL/99/CG	SL/99/CG	BED RK/Q	QUARTZ	QUARTZ	QUARTZ
1 MI. QUAD	A3	A3	A3	A3	A3	A3	D3	R4	R4	R4
4 MI. QUAD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BLYING	BEWARD	BEWARD	BEWARD
SECTION	2	2	2	2	2	11	1	28	28	28
TOWNSHIP	29	29	29	29	29	29	38	5N	5N	5N
RANGE	9E	9E	9E	9E	9E	9E	8E	7E	7E	7E
Au	(.020	(.020	(.020	(.020	(.020	.030		(.020	.060	3.100
Ag	.400	.200	.200	.200	.200	5.000		.200	.200	3.600
Cu	940.000	100.000	40.000	75.000	235.000	4450.000		110.000	30.000	35.000
Pb	50.000	35.000	20.000	20.000	15.000	10.000		20.000	10.000	1400.000
Zn	9750.000	335.000	100.000	100.000	120.000	20500.000		110.000	30.000	770.000
As								40.000	4800.000	160.000
Sb										
W										
Fe	7X	2X	3X	5X	5X	10X				
Co	0.5X	0.5X	1X	0.7X	0.7X	0.3X				
Hg	2X	1.5X	1X	2X	3X	0.7X				
Aq	(1	(1	(1	(1	(1	5				
As	(500	(500	(500	(500	(500	(500				
B	15	15	15	15	50	15				
Da	1000	700	1000	500	1000	700				
Be	(2	(2	(2	(2	(2	(2				
Bl	(10	(10	(10	(10	(10	(10				
Cd	(50	(50	(50	(50	(50	(50				
Co	10	10	7	15	20	150				
Cr	100	100	100	150	300	70				
Cu	1500	150	70	100	200	3000				
Cn	15	10	10	10	15	15				
Ca	(20	(20	(20	(20	(20	(20				
La	(20	(20	(20	(20	(20	(20				
Mn	1500	1000	700	1000	700	1000				
Mo	(2	(2	(2	(2	(2	2				
Nb	(20	(20	(20	(20	(20	(20				
Ni	70	50	50	100	100	30				
Pb	100	20	10	(10	(10	(10				
Sb	(100	(100	(100	(100	(100	(100				
Sc	20	10	15	20	30	10				
Sn	(10	(10	(10	(10	(10	(10				
Sr	100	200	300	200	100	100				
Tl	5000	3000	5000	5000	5000	2000				
V	150	100	100	100	150	70				
W	(50	(50	(50	(50	(50	(50				
Y	20	10	15	15	30	10				
Zn	10000	200	(200	(200	(200	>10000				
Zr	100	100	150	150	70	50				

SAMPLE NO.	4353	4354	4355	4356	4357	4358	4359	4360	4361	4362
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METBED	METBED	METBED	METBED	METBED	METBED	METBED	METBED	METBED	METBED
MAT. TYPE	BL/88/CG	QUARTZ	BL/88/CG	QUARTZ	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED
1 MI. QUAD	B4	C4	D5	D5	A5	A5	A5	A4	D4	D4
4 MI. QUAD	SEWARD	SEWARD	BLYING	BLYING	SEWARD	SEWARD	SEWARD	SEWARD	BLYING	BLYING
SECTION	28	27	17	17	10	2	12	18	29	15
TOWNSHIP	5N	5N	38	38	29	28	28	28	28	28
RANGE	7E	7E	5E	5E	5E	5E	5E	6E	6E	6E
As	<.020	<.020	<.020	<.020	<.020	<.020	<.020	<.100	<.200	<.200
Aq	.200	.200	.200	.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu					35.000	35.000	25.000	20.000	25.000	45.000
Pb					20.000	15.000	15.000	20.000	25.000	20.000
Zn					110.000	90.000	105.000	195.000	140.000	195.000
As					40.000	20.000	10.000	30.000	40.000	20.000
Sb					<2.000	<1.000	<1.000	2.000	2.000	3.000
W										
Fe					5X	7X	5X	1X	1/8X	1/8X
Ca					0.7X	1X	1X	0.7X	1/8X	1/8X
Hg					0.7X	2X	1X	0.5X	1/8X	1/8X
Aq					<1	<1	<1	<1	1/8	1/8
As					<500	<500	<500	<500	1/8	1/8
B					20	70	20	10	1/8	1/8
Ba					500	700	700	2000	1/8	1/8
Be					<2	<2	<2	<2	1/8	1/8
Bi					<10	<10	<10	<10	1/8	1/8
Cd					<50	<50	<50	<50	1/8	1/8
Co					5	5	10	15	1/8	1/8
Cr					20	150	70	10	1/8	1/8
Cu					30	50	50	20	1/8	1/8
Ca					15	30	20	10	1/8	1/8
Ce					<20	<20	<20	<20	1/8	1/8
La					20	<20	20	50	1/8	1/8
Mn					1000	1500	1500	3000	1/8	1/8
Mo					<2	<2	<2	<2	1/8	1/8
Nb					<20	20	20	<20	1/8	1/8
Ni					15	30	20	5	1/8	1/8
Pb					10	15	20	10	1/8	1/8
Sb					<100	<100	<100	<100	1/8	1/8
Sc					10	30	20	<10	1/8	1/8
Sn					<10	<10	<10	<10	1/8	1/8
Sr					200	300	200	100	1/8	1/8
Ti					5000	7000	5000	2000	1/8	1/8
V					300	300	300	100	1/8	1/8
W					<50	<50	<50	<50	1/8	1/8
Y					10	<10	10	<10	1/8	1/8
Zn					<200	<200	<200	<200	1/8	1/8
Zr					30	100	70	20	1/8	1/8

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SAMPLE NO.	4363	4364	4365	4366	4367	4368	4369	4370	4371	4372
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	A4	A4	A4	A4	A4	A4	A4	A4	A4	A4
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	5	27	27	23	23	10	35	35	23	12
TOWNSHIP	29	19	19	19	18	19	1N	1N	1N	1N
RANGE	6E	6E	6E	6E	6E	6E	6E	6E	6E	6E
Au	<.100	<.100	<.100	18	<.100	<.020	<.020	<.020	<.020	<.100
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	.200
Cu	20.000	20.000	30.000	30.000	35.000	15.000	10.000	10.000	15.000	60.000
Pb	10.000	15.000	20.000	20.000	20.000	5.000	5.000	10.000	15.000	30.000
Zn	110.000	115.000	120.000	175.000	125.000	55.000	50.000	55.000	60.000	350.000
As	30.000	20.000	10.000	20.000	20.000	10.000	<10.000	<10.000	<10.000	19
Sb	1.000	1.000	2.000	<2.000	1.000	1.000	<1.000	<1.000	<1.000	19
W										
Fe	7X	7X	5X	7X	5X	5X	3X	5X	3X	1/5X
Co	1X	1X	0.7X	1X	0.7X	5X	3X	1.5X	1X	1/5X
Hg	3X	3X	1X	1.5X	1.5X	2X	2X	2X	2X	1/5X
Al	<1	<1	<1	<1	<1	<1	<1	<1	<1	1/5
Si	<500	<500	<500	<500	<500	<500	<500	<500	<500	1/5
B	50	30	20	30	20	20	30	30	30	1/5
Na	1500	1500	500	1000	700	1500	1500	1500	1000	1/5
K	<2	<2	<2	<2	<2	<2	<2	<2	<2	1/5
Rb	<10	<10	<10	<10	<10	<10	<10	<10	<10	1/5
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	1/5
Ce	10	15	5	30	10	5	5	5	5	1/5
Cr	150	100	20	150	100	70	50	70	100	1/5
Cu	70	70	70	100	100	70	15	20	30	1/5
Ca	50	50	15	20	15	15	10	<10	15	1/5
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	1/5
La	<20	<20	30	<20	20	20	50	50	30	1/5
Mn	2000	2000	1500	2000	1500	2000	1000	1000	1000	1/5
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	1/5
Nb	20	20	<20	20	<20	<20	20	20	20	1/5
Ni	100	100	30	70	30	30	30	30	30	1/5
Pb	10	15	10	20	15	<10	20	20	10	1/5
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	1/5
Sc	30	20	10	30	10	30	20	10	10	1/5
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	1/5
Sr	200	300	200	300	300	1000	500	300	300	1/5
Tl	10000	7000	5000	7000	5000	10000	5000	5000	3000	1/5
V	300	300	200	300	300	500	100	100	100	1/5
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	1/5
Y	10	<10	<10	<10	<10	10	20	<10	<10	1/5
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	1/5
Zr	200	150	30	100	50	300	200	100	150	1/5

SAMPLE NO.
ROCK AGE
ROCK TYPE
MAT. TYPE
1 MI. QUAD
4 MI. QUAD
SECTION
TOWNSHIP
RANGE.

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	4373 TERT METSSED BTR SED A4 SEWARD	4374 TERT METSSED STR SED A4 SEWARD	4375 TERT METSSED BTR SED A4 SEWARD	4376 TERT METSSED BTR SED A4 SEWARD	4377 TERT METSSED BTR SED A4 SEWARD	4378 TERT METSSED BTR SED A3 SEWARD	4379 TERT METSSED BTR SED B4 SEWARD	4380 TERT METSSED STR SED B4 SEWARD	4381 TERT METSSED BTR SED B4 SEWARD	4382 TERT METSSED STR SED B4 SEWARD
Au	(.020	.19	(.100	(.040	(.100	(.100	(.020	(.020	(.200	(.040
Ag	(.200	(.200	(.200	(.200	(.200	(.200	.200	.400	(.200	(.200
Cu	20.000	25.000	35.000	35.000	25.000	25.000	75.000	10.000	15.000	5.000
Pb	15.000	20.000	20.000	30.000	25.000	35.000	35.000	15.000	20.000	10.000
Zn	100.000	125.000	125.000	230.000	140.000	180.000	175.000	75.000	105.000	05.000
As	(10.000	(10.000	10.000	20.000	10.000	30.000	10.000	(10.000	15	(10.000
Sb	(1.000	19	1.000	2.000	2.000	2.000	2.000	1.000	19	3.000
W										
Fe	3X	3X	5X	2X	5X	2X	5X	5X	1/9X	3X
Cd	1.5X	1X	1X	2X	0.7X	0.5X	0.7X	1X	1/9X	2X
Hg	2X	2X	3X	1.5X	2X	0.7X	3X	2X	1/9X	3X
Al	(1	(1	(1	(1	(1	(1	(1	(1	1/9	(1
Si	(500	(500	(500	(500	(500	(500	(500	(500	1/9	(500
P	30	50	30	15	20	15	100	70	1/9	50
Dn	1000	1000	1500	1000	1000	700	1000	1000	1/9	1000
Be	(2	(2	(2	(2	(2	(2	(2	(2	1/9	(2
Bl	(10	(10	(10	(10	(10	(10	(10	(10	1/9	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	1/9	(50
Co	20	10	20	10	50	10	30	20	1/9	10
Cr	700	100	50	50	100	300	700	200	1/9	200
Cu	50	50	50	50	50	50	100	50	1/9	50
Ga	20	20	20	10	15	20	15	15	1/9	15
Ge	(20	(20	(20	(20	(20	(20	(20	(20	1/9	(20
La	30	20	(20	50	20	50	20	(20	1/9	(20
Mn	1500	1500	1500	2000	2000	2000	2000	2000	1/9	2000
Ni	(2	(2	(2	(2	(2	(2	(2	(2	1/9	(2
Nb	20	20	(20	(20	20	(20	20	(20	1/9	20
Ni	30	50	70	20	70	30	70	50	1/9	30
Pb	20	20	30	30	20	20	50	10	1/9	20
Sh	(100	(100	(100	(100	(100	(100	(100	(100	1/9	(100
Sc	10	15	15	(10	10	(10	30	10	1/9	15
Sn	(10	(10	(10	(10	(10	(10	(10	(10	1/9	(10
Gr	300	200	300	200	200	200	300	500	1/9	300
Tl	5000	5000	5000	3000	5000	3000	7000	5000	1/9	5000
V	100	150	100	100	150	100	150	100	1/9	100
W	(50	(50	(50	(50	(50	(50	(50	(50	1/9	(50
Y	20	(10	(10	10	10	10	30	(10	1/9	(10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	1/9	(200

SAMPLE NO.	4303	4304	4305	4306	4307	4308	4309	4390	4391	4392
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
NAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	BL/BB/CG	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	R4	R4	R3	C3	C2	C2	C1	C2	C2	C2
4 MI. QUAD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD
SSECTION	8	29	25	22	12	12	33	29	19	13
TOWNSHIP	7N	7N	5N	5N	4N	6N	7N	7N	7N	7N
RANGE	7E	7E	8E	8E	11E	11E	12E	12E	12E	11E
Au	19	<.100	<.100	<.200	<.020	<.020	<.020	<.200	<.020	<.100
Ag	<.200	<.200	<.200	<.200	<.200	.200	<.200	<.200	<.200	<.200
Cu	25.000	55.000	15.000	30.000	10.000	80.000	10.000	10.000	10.000	10.000
Pb	20.000	30.000	50.000	45.000	20.000	40.000	20.000	20.000	15.000	10.000
Zn	100.000	140.000	125.000	140.000	125.000	150.000	200.000	180.000	120.000	70.000
As	10.000	20.000	<10.000	<10.000	<10.000		19	20.000	<10.000	10.000
Sb	<1.000	6.000	2.000	6.000	<1.000		18	.2.000	2.000	2.000
W										
Fe	3X	3X	3X	1.5X	1X		1X	1.5X	.2X	2X
Ca	0.5X	0.5X	0.7X	1X	0.5X		0.5X	0.7X	0.7X	0.3X
Mn	2X	2X	1.5X	1X	0.3X		0.2X	1X	2X	1X
Al										
Ag	<1	<1	<1	<1	<1		<1	<1	<1	<1
As	<500	<500	<500	<500	<500		<500	<500	<500	<500
B	70	30	20	10	10		10	15	20	20
Ba	1000	1000	500	500	300		500	700	1000	700
Be	<2	<2	<2	<2	<2		<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10		<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50		<50	<50	<50	<50
Co	20	20	10	30	5		15	15	5	5
Cr	200	150	100	200	20		70	100	500	700
Cu	50	50	30	30	10		15	15	10	15
Ga	15	15	15	20	<10		<10	10	15	15
Ge	<20	<20	<20	<20	<20		<20	<20	<20	<20
La	20	20	20	50	20		20	20	50	30
Mn	1500	1500	1500	5000	3000		3000	3000	3000	1500
Mo	<2	<2	<2	<2	<2		<2	<2	<2	<2
Nb	<20	<20	<20	<20	<20		<20	<20	<20	<20
Ni	50	30	15	5	5		5	10	15	20
Pb	20	30	10	30	10		<10	<10	<10	<10
Sb	<100	<100	<100	<100	<100		<100	<100	<100	<100
Sc	20	10	10	<10	<10		<10	10	10	10
Sn	<10	<10	<10	<10	<10		<10	<10	<10	<10
Sr	200	200	200	200	200		200	200	500	200
Tl	7000	5000	5000	3000	2000		2000	2000	5000	3000
V	150	150	100	70	50		50	70	100	100
W	<50	<50	<50	<50	<50		<50	<50	<50	<50
Y	10	10	10	15	10		<10	10	15	15
Zn	<200	<200	<200	<200	<200		<200	<200	<200	<200
Zr	100	20	1000	20	50		20	20	150	150

SAMPLE NO.	4393	4394	4395	4396	4397	4398	4399	4400	4401	4402
ROCK AGE	TERT	TERT	TERT	CRET	CRET	TERT	TERT	CRET	TERT	CRET
ROCK TYPE	METSBD	METSBD	METSBD	METSBD	METSBD	FELINT	FELINT	METSBD	FELINT	METSBD
MAT. TYPE	STR SED	STR SED	STR SED	QUARTZ	BTR SED	FEL PLUT	FEL PLUT	QUARTZ	FEL PLUT	8L/89/CC
1 MI. QUAD	C2	C2	C2	C4	D4	C7	C7	C7	C7	C8
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	23	25	36	34	28	1	36	36	36	8
TOWNSHIP	7N	7N	7N	8N	8N	6N	7N	7N	7N	6N
RANGE	11E	11E	11E	7E	6E	2W	2W	2W	2W	2W
Av	<.100	<.100	<.020	.070	<.100		.080	<.020	<.020	<.020
Aq	<.200	<.200	<.200	<.200	.600		5.200	.200	.200	.200
Cu	5.000	5.000	5.000	35.000	230.000		10.000			
Pb	20.000	15.000	20.000	5.000	60.000		1200.000			
Zn	90.000	115.000	145.000	50.000	185.000		335.000			
As	<10.000	<10.000	10.000	300.000	800.000		2700.000	10.000	10.000	30.000
Sb	1.000	4.000	4.000		4.000					
W						(2.000)				
Fe	2X	2X	2X		2X	2X	0.7X			
Ca	0.2X	0.7X	0.15X		1X	0.3X	0.5X			
Hg	1X	1X	1X		1X	1X	0.3X			
Ag	<1	<1	<1		<1	<1	10			
As	<500	<500	<500		1000	<500	1500			
B	20	15	30		20	50	50			
Ba	1000	700	500		700	700	300			
Be	<2	<2	<2		<2	<2	<2			
Bl	<10	<10	<10		<10	<10	<10			
Cd	<50	<50	<50		<50	<50	<50			
Ce	10	<5	20		10	20	<5			
Cr	70	50	50		50	100	<10			
Cu	15	15	15		200	30	50			
Co	15	15	10		10	20	10			
Ge	<20	<20	<20		<20	<20	<20			
La	50	30	30		30	<20	<20			
Mn	3000	2000	5000		1500	700	150			
Mo	<2	<2	<2		<2	<2	<2			
Nb	<20	<20	<20		<20	20	<20			
Ni	20	15	20		20	30	5			
Pb	10	<10	10		30	10	1500			
Sb	<100	<100	<100		<100	<100	<100			
Sc	10	10	10		10	20	<10			
Sn	<10	<10	<10		<10	<10	<10			
Sr	200	200	200		200	200	300			
Tl	3000	3000	3000		5000	2000	500			
V	100	100	100		100	70	10			
W	<50	<50	<50		<50	<50	<50			
Y	20	15	15		15	10	<10			
Zn	<200	<200	<200		<200	<200	500			
Zr	100	30	30		20	100	20			

SAMPLE NO.
ROCK AGE
ROCK TYPE
MAT. TYPE
1 MI. QUAD
4 MI. QUAD
SECTION
TOWNSHIP
RANGE

Au
Ag
Cu
Pb
Zn
As
Sb
W

Fe
Co
Mg

Ag
As
R
Ba

Be
Bl
Cd
Co

Cr
Cu
Ga
Ge

La
Mn
Mo
Nb

Ni
Pb
Sb
Sc

Ba
Sr
Tl
V

W
Y
Zn

4403
CRET
METSSED
QUARTZ
CB
SEWARD
B
6N
2W

2.800
(.200

20.000

4404
CRET
METSSED
QUARTZ
C7
SEWARD
25
7N
2W

3.900
2.400
5.000
235.000
195.000
200.000

0.5X
0.5X
0.07X

2
(500
(10
100

(2
(10
(50
(5

10
15
(10
(20

(20
150
(2
(20

5
100
(100
(10

(10
(100
500
10

(50
(10
(200
(20

4405
CRET
METSSED
QUARTZ
C7
SEWARD
25
7N
2W

(.020
(.200
10.000
20.000
25.000

1.5X
1.5X
1X

(1
(500
70
500

(2
(10
(50
5

20
20
15
(20

(20
300
(2
(20

15
10
(100
(10

(10
1500
700
20

(50
(10
(200
30

4406
TERT
FELINT
FEL PLUT
C7
SEWARD
25
7N
2W

.040
(.200

4407
TERT
FELINT
QUARTZ
C7
SEWARD
B
6N
2W

(.020
.200
20.000
15.000
20.000

(2.000

4408
CRET
METSSED
QUARTZ
C7
SEWARD
14
6N
2W

1.200
(.200
5.000
5.000
5.000

4409
TERT
FELINT
FEL PLUT
C7
SEWARD
14
6N
2W

3.800
.200
5.000
85.000
10.000

4410
CRET
METSSED
QUARTZ
C7
SEWARD
15
5N
2W

(.020
(.200
40.000
5.000
15.000

4411
CRET
METSSED
QUARTZ
C7
SEWARD
15
5N
2W

(.020
(.200
5.000
5.000
20.000

4412
CRET
METSSED
QUARTZ
C7
SEWARD
15
5N
2W

(.020
(.200
5.000
20.000
40.000

SAMPLE NO.
ROCK AGE
ROCK TYPE
MAT. TYPE
1 MI. QUAD
4 MI. QUAD
SECTION
TOWNSHIP
RANGE

4413
TERT
FELINT
FEL PLUT
C7
BEWARD
32
8N
1W

4414
CRET
METBED
BL/88/CG
D7
BEWARD
20
8N
1W

4415
CRET
METBED
QUARTZ
C7
BEWARD
32
8N
1W

4416
CRET
METBED
CALC
C7
BEWARD
11
7N
2W

4417
CRET
METBED
QUARTZ
C7
BEWARD
23
6N
2W

4418
CRET
METBED
QUARTZ
C7
BEWARD
23
6N
2W

4419
CRET
METBED
QUARTZ
C7
BEWARD
23
6N
2W

4420
CRET
METBED
QUARTZ
C7
BEWARD
23
6N
2W

4421
CRET
METBED
QUARTZ
C7
BEWARD
23
6N
2W

4422
CRET
METBED
QUARTZ
C7
BEWARD
14
6N
2W

As
Ag
Cu
Pb
Zn
As
Sb
W

.040
.600

.210
.600

<.020
<.200

.310
.200

14.000
9.300
30.000
2550.000
360.000

.120
.400
15.000
135.000
550.000

.050
.200

<.020
.200

1070
<.200
35.000
5.000
40.000

<2.000

<2.000

Fe
Ca
Mg

1X
0.7Z
0.7Z

2X
0.03Z
0.5Z

2X
2X
0.3Z

1.5X
0.15Z
0.5Z

Ag
As
B
Ba

3
500
30
200

1
<500
10
200

30
<500
15
300

<1
<500
15
500

Ba
Bl
Cd
Ce

<2
<10
<50
<5

<2
<10
<50
<5

<2
<10
<50
<5

<2
<10
<50
5

Cr
Cu
Ca
Ce

10
30
15
<20

30
70
<10
<20

20
30
<10
<20

500
20
<10
<20

La
Mn
Mo
Nb

<20
200
<2
<20

20
500
<2
<20

20
1000
<2
<20

<20
300
<2
<20

Ni
Pb
Sb
Sc

10
20
<100
<10

15
30
<100
<10

10
2000
<100
<10

10
100
<100
<10

Sn
Sr
Tl
V

<10
300
700
20

<10
<100
1500
50

<10
300
1000
30

<10
<100
2000
30

W
Y
Zn
Zn

<50
<10
<200
20

<50
<10
<200
30

<50
<10
300
30

<50
<10
700
30

SAMPLE NO.
ROCK AGE
ROCK TYPE
MAT. TYPE
1 MI. QUAD
4 MI. QUAD
SECTION
TOWNSHIP
RANGE

Ag
Au
Cu
Pb
Zn
As
Sb
W

Fe
Ca
Mg

Ag
As
B
Ba

Be
Bi
Cd
Co

Cr
Cu
Ca
Ce

La
Mn
Mo
Nb

Ni
Pb
Sb
Sc

Sn
Sr
Ti
V

W
Y
Zn
Zr

	4423 CRET METBED BTR BED D7 SEWARD 13 9N 1W	4424 CRET METBED QUARTZ D7 SEWARD 13 9N 1W	4425 CRET METBED BTR BED D7 SEWARD 13 9N 1W	4426 CRET METBED BTR BED D7 SEWARD 13 9N 1W	4427 CRET METBED QUARTZ C7 SEWARD 14 6N 2W	4428 CRET METBED QUARTZ C7 SEWARD 14 6N 2W	4429 CRET METBED QUARTZ C7 SEWARD 14 6N 2W	4430 CRET METBED STR BED D7 SEWARD 14 8N 2W	4431 TERT FELINT FEL PLUT D7 SEWARD 24 8N 2W	4432 CRET METBED BTR BED D7 SEWARD 24 8N 2W
	<.020	<.020	<.020	.030	2.700	4.000	3.200	.100	.140	<.020
Ag	<.200	.200	<.200	<.200	2.200	4.200	.600	<.200	<.200	<.200
Au	60.000		60.000	45.000		420.000	5.000	55.000	5.000	110.000
Cu	20.000		25.000	20.000		670.000	245.000	35.000	35.000	55.000
Pb	130.000		125.000	115.000		150.000	100.000	130.000	40.000	220.000
Zn										
As					<2.000		<2.000		<2.000	
Sb										
W										
Fe	5X	1X	3X	7X	3X	3X	0.7X	5X	1.5X	7X
Ca	0.2X	0.3X	0.5X	0.7X	0.7X	0.7X	0.3X	0.7X	0.7X	0.7X
Mg	2X	0.3X	2X	3X	3X	3X	0.3X	3X	0.7X	5X
Ag	<1	<1	<1	<1	<1	<1	15	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	500	<500
B	100	10	70	50	70	70	15	50	15	50
Ba	1500	700	1000	1500	1000	1000	200	1500	300	2000
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Co	30	15	15	30	30	20	15	10	5	20
Cr	200	10	70	150	100	70	<10	100	70	200
Cu	150	20	100	150	150	150	15	100	15	100
Ca	15	<10	20	20	10	20	<10	20	15	20
Ce	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	20	<20	20	20	50	20	<20	20	<20	20
Mn	700	200	700	1000	700	1000	500	1000	200	700
Mo	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	20	<20	20	20	20	20	<20	20	<20	20
Ni	70	10	50	100	70	50	<5	50	70	70
Pb	15	15	15	20	50	20	150	30	20	20
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	30	<10	10	20	10	20	<10	20	<10	30
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	300	<100	500	500	500	500	200	500	500	300
Ti	5000	700	5000	7000	2000	5000	500	7000	2000	7000
V	70	15	100	100	100	100	10	150	30	150
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	15	<10	10	15	15	10	<10	10	<10	10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	50	<20	50	70	30	30	20	50	50	50

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SAMPLE NO.	4433	4434	4435	4436	4437	4438	4439	4440	4441	4442
ROCK AGE	TERT	CRET	TERT	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	FELINT	METBED	FELINT	METBED	METBED	METBED	METBED	METBED	METBED	METSED
MAT. TYPE	FEL PLUT	BTR BED	FEL PLUT	QUARTZ	QUARTZ	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED
1 MI. QUAD	D7	D7	D7	D7	D7	DB	DB	D7	D7	D7
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	30	30	30	1R	22	16	33	34	25	33
TOWNSHIP	9N	9N	9N	9N	9N	9N	10N	10N	10N	10N
RANGE	1W	1W	1W	1W	1W	2W	2W	2W	2W	1W
Ag	5.100	<.040	.050	7.300	.040	<.020	<.040	.030	<.040	<.100
Au	2.200	<.200	<.200	12.000	.200	<.200	<.200	.400	.400	<.200
Cu	5.000	50.000	15.000	10.000	10.000	15.000	20.000	35.000	45.000	40.000
Pb	655.000	20.000	10.000	330.000	15.000	15.000	15.000	35.000	75.000	25.000
Zn	30.000	110.000	30.000	85.000	25.000	75.000	85.000	110.000	165.000	105.000
As										
Sb										
W	<2.000		<2.000							
Fe	1.5%	3%	7%	3%						
Co	0.05%	1%	1%	0.2%						
Hg	0.3%	3%	3%	1%						
Aq	3	<1	<1	<1						
As	3000	<500	<500	<500						
B	15	50	70	70						
Ba	500	500	1500	700						
Be	<2	<2	<2	<2						
Bi	<10	<10	<10	<10						
Cd	<50	<50	<50	<50						
Ce	5	5	20	20						
Cr	10	70	150	150						
Cu	50	20	70	50						
Ga	10	<10	20	20						
Ge	<20	<20	<20	<20						
La	<20	20	<20	20						
Mn	500	1000	1500	700						
Mo	<2	<2	<2	<2						
Nb	<20	<20	20	20						
Ni	30	15	70	50						
Pb	500	10	15	10						
Sb	<100	<100	<100	<100						
Sc	<10	10	20	20						
Sn	<10	<10	<10	<10						
Br	100	700	500	200						
Tl	500	3000	7000	2000						
V	20	100	150	100						
W	<50	<50	<50	<50						
Y	<10	10	15	10						
Zn	<200	<200	<200	<200						
Zr	30	150	700	100						

SAMPLE NO.	4443	4444	4445	4446	4447	4448	4449	4450	4451	4452
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
HAT. TYPE	STR SED	STR SED	STR SED	STR SED	QUARTZ	QUARTZ	QUARTZ	QUARTZ	STR SED	STR SED
1 MI. QUAD	D7	D7	D7	D7	CB	C7	D7	C7	D7	C7
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	15	27	27	3	2R	1	13	23	30	14
TOWNSHIP	9N	9N	9N	8N	7N	7N	8N	6N	9N	6N
RANGE	1W	1W	1W	1W	2W	2W	1W	1W	1W	2W
Au	(.040	(.100	4.800	(.100	(.020	(.020	(.020	(.020	(.040	(.020
Ag	(.200	(.200	(.200	(.200	(.200	(.200	.200	.200	(.200	(.200
Cu	40.000	30.000	35.000	45.000		35.000		5.000	50.000	45.000
Pb	20.000	20.000	15.000	25.000		10.000		5.000	20.000	25.000
Zn	105.000	90.000	100.000	105.000		55.000		20.000	110.000	90.000
As										
Sb										
W										
Fe						2X		1X		5X
Ca						0.7X		0.7X		0.7X
Mo						0.5X		0.3X		2X
Aq						(1		(1		(1
As						(500		(500		(500
B						15		15		70
Ba						1500		100		700
Be						(2		(2		(2
Bi						(10		(10		(10
Cd						(50		(50		(50
Co						5		15		30
Cr						70		10		150
Cu						70		5		50
Ga						10		(10		15
Ge						(20		(20		(20
La						(20		(20		20
Mn						700		500		1500
Mo						(2		(2		30
Nb						(20		(20		20
Ni						20		10		50
Pb						10		(10		30
Sb						(100		(100		(100
Sc						(10		(10		20
Sn						(10		(10		(10
Sr						200		100		300
Tl						2000		1000		3000
V						50		30		150
W						(50		(50		(50
Y						(10		(10		10
Zn						(200		(200		(200
Zr						30		(20		70

SAMPLE NO.	4453	4454	4455	4456	4457	4458	4459	4460	4461	4462
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSED	METSED	METSED	METBED	METSED	METSED	METBED	METSED	METBED	METSED
MAT. TYPE	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR SED	BTR SED
1 MI. QUAD	C7	C7	C7	C7	C7	C7	C7	C7	C7	C7
4 MI. QUAD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD
SECTION	14	14	14	14	13	13	13	13	34	34
TOWNSHIP	6N	6N	6N	6N	6N	6N	6N	6N	7N	7N
RANGE	2W	2W	2W	2W	2W	2W	2W	2W	2W	2W
Au	(.020	(.020	(.020	.040	(.020	.200	4.400	.570	(.100	(.100
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	40.000	40.000	40.000	40.000	40.000	40.000	45.000	40.000	30.000	35.000
Pb	10.000	15.000	15.000	5.000	10.000	75.000	70.000	50.000	25.000	10.000
Zn	80.000	85.000	85.000	80.000	90.000	90.000	100.000	100.000	90.000	90.000
As										
Sb										
W										
Fe	5X	5X	5X	5X	5X	3X	5X	3X	5X	5X
Ca	1X	1X	1X	1X	1X	0.7X	0.7X	0.7X	1X	1X
Na	2X	2X	2X	1.5X	1.5X	1X	2X	2X	3X	3X
Al	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
Si	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
P	70	70	70	50	50	50	70	70	70	70
K	700	700	700	700	700	700	1000	700	1000	1000
Re	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Br	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Co	20	30	30	30	30	20	30	30	20	20
Cr	100	150	100	100	150	100	200	100	150	150
Cu	70	70	50	50	50	30	70	70	50	50
Ga	15	20	20	15	20	10	20	20	20	20
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	20	20	20	20	20	20	20	20	20
Mn	1500	1500	1500	1000	1000	1000	1500	1000	1000	1500
Ni	2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	50	50	50	50	50	50	50	50	70	50
Pb	50	30	30	20	20	150	30	200	20	20
Sh	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	20	20	20	20	20	20	20	20	30	30
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	300	300	300	300	300	300	300	300	200	200
Tl	3000	3000	3000	3000	3000	2000	5000	3000	5000	5000
V	100	150	200	200	150	150	200	200	200	200
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	15	15	20	15	15	10	20	10	10	10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	70	70	100	100	100	200	100	100	100	100

SAMPLE NO.	4463	4464	4465	4466	4467	4468	4469	4470	4471	4472
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METBED	METSED	METBED	METSED	METBED	METSED	METBED	METSED	METSED	METSED
HAT. TYPE	BTR SED	STR SED	BTR SED	STR SED	STR SED	BTR SED	BTR SED	STR SED	STR SED	STR SED
1 MI. QUAD	C7	C7	C7	C7	C7	C7	C7	C7	C7	C7
4 MI. QUAD	SEWARD	BEWARD	SEWARD	BEWARD	SEWARD	BEWARD	BEWARD	BEWARD	SEWARD	SEWARD
SECTION	34	34	34	35	35	35	35	36	36	36
TOWNSHIP	7N	7N	7N	7N	7N	7N	7N	7N	7N	7N
RANGE	2W	2W	2W	2W	2W	2W	2W	2W	2W	2W
Au	(.040	(.100	(.040	(.020	(.020	(.100	(.020	(.020	1.900	(.020
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	35.000	35.000	35.000	20.000	25.000	35.000	30.000	30.000	45.000	30.000
Pb	20.000	25.000	15.000	5.000	15.000	15.000	5.000	5.000	20.000	15.000
Zn	90.000	90.000	80.000	60.000	65.000	90.000	80.000	80.000	110.000	80.000
As										
Sb										
W										
Fe	3X	2X	2X	3X	3X	2X	5X	3X	3X	2X
Co	0.7X	0.7X	0.7X	0.7X	0.7X	0.5X	0.7X	0.7X	0.7X	0.7X
Mn	2X	1X	2X	2X	2X	2X	3X	2X	2X	2X
Al	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
Si	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
P	50	50	50	50	50	50	70	70	70	50
Ba	1000	700	1000	700	1000	1000	1000	700	1000	700
Be	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bi	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Ce	30	10	10	10	15	10	20	10	20	15
Cr	150	70	100	100	150	100	150	100	150	100
Cu	50	30	30	30	50	30	50	30	50	50
Ga	20	10	10	15	20	10	20	10	15	15
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	50	30	20	20	30	20	30	50	20
Mn	1000	1000	1000	1000	1000	1000	1000	1000	1500	1000
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	50	30	30	30	50	50	50	20	50	30
Pb	20	15	10	10	15	10	10	10	20	30
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	20	10	10	10	10	10	20	20	20	10
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	200	200	200	300	300	300	300	300	300	300
Tl	3000	2000	3000	3000	3000	3000	3000	3000	3000	3000
V	150	100	150	150	200	150	200	100	100	100
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	10	10	10	10	10	10	20	10	30	10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	150	50	50	100	100	100	100	100	100	100

SAMPLE NO.	4473	4474	4475	4476	4477	4478	4479	4480	4481	4482
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
HAT. TYPE	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED
1 MI. QUAD	C7	C7	C7	C7	C7	C7	C8	C8	C8	C8
4 MI. QUAD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD
SECTION	36	6	6	6	6	5	5	5	32	32
TOWNSHIP	7N	6N	6N	6N	6N	6N	6N	6N	7N	7N
RANGE	2W	1W	1W	1W	1W	1W	2W	2W	2W	2W
Au	(.020	(.100	(.020	(.020	(.020	(.020	(.040	(.020	(.040	(.020
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	30.000	35.000	30.000	25.000	40.000	25.000	30.000	30.000	35.000	25.000
Pb	15.000	10.000	10.000	10.000	15.000	10.000	15.000	20.000	20.000	10.000
Zn	85.000	85.000	80.000	70.000	90.000	80.000	100.000	95.000	80.000	85.000
As										
Sb										
W										
Fe	3X	3X	3X	3X	3X	3X	2X	3X	5X	5X
Ca	0.7X	1X	0.7X	0.7X	0.7X	0.7X	0.7X	1X	2X	1.5X
Mg	2X	3X	2X	2X	1.5X	1.5X	1X	2X	3X	3X
Al	(1	(1	(1	(1	(1	(1	(1	1	(1	(1
Si	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
P	50	70	50	50	50	70	20	50	50	70
Ba	1000	1000	1000	1000	1000	700	700	1000	1000	1000
Be	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bi	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Co	15	20	20	20	20	20	20	20	20	20
Cr	100	150	100	100	150	100	100	150	150	150
Cu	30	50	50	30	30	30	30	50	50	50
Ga	10	20	15	15	10	15	10	20	20	20
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	20	20	20	20	20	50	20	20	20
Mn	1000	1500	1000	1000	1000	1000	1500	1500	1500	1500
Nb	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Ni	20	20	20	20	20	20	20	20	20	20
Pb	10	20	20	20	20	20	30	50	50	50
Sh	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	15	30	20	20	20	20	10	20	30	30
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	300	300	300	300	300	300	300	300	300	300
Tl	3000	3000	3000	3000	3000	5000	2000	5000	7000	5000
V	100	150	150	100	100	100	70	100	200	150
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	10	10	10	10	10	10	10	20	10	20
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	70	100	70	70	70	70	70	100	100	150

SAMPLE NO.	4403	4404	4405	4406	4407	4408	4409	4490	4491	4492
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	CO	CO	CO	CO	CO	CO	CO	CO	CO	CO
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	31	31	30	30	30	25	24	24	24	13
TOWNSHIP	7N	7N	7N	7N	7N	7N	7N	7N	7N	7N
RANGE	2W	2W	2W	2W	2W	3W	3W	3W	3W	3W
Av	(.040	(.040	(.020	(.020	(.100	(.020	(.020	(.020	(.020	(.020
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	35.000	35.000	30.000	25.000	30.000	30.000	30.000	25.000	25.000	20.000
Pb	15.000	20.000	15.000	15.000	15.000	15.000	15.000	20.000	20.000	10.000
Zn	95.000	100.000	75.000	95.000	95.000	90.000	85.000	85.000	90.000	85.000
As										
Sb										
W										
Fe	3X	3X	2X	5X	7X	3X	5X	3X	3X	5X
Cn	1X	1X	1X	1X	1X	0.7X	0.7X	1X	1X	1X
Mo	2X	2X	2X	3X	2X	3X	3X	3X	2X	3X
Aq	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	50	70	50	70	70	70	50	50	50	50
Ba	700	1000	1000	1500	1500	1000	1000	1000	1000	1000
Br	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bi	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Ce	20	20	20	30	30	20	20	20	20	20
Cr	100	100	100	200	200	300	150	200	150	200
Cu	50	50	50	50	50	50	30	30	30	30
Co	15	15	15	20	20	15	15	15	15	20
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	30	30	30	20	20	20	20	20	20	20
Mn	1000	1000	1000	1000	1500	1000	1000	1000	1000	1000
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	50	50	50	70	70	50	50	50	50	50
Pb	15	10	10	20	20	20	20	20	15	15
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	20	30	20	30	30	20	20	20	20	20
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	200	200	200	200	200	300	300	300	300	500
Ti	3000	3000	3000	5000	7000	3000	5000	3000	3000	3000
V	150	150	100	200	200	200	200	100	100	100
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	10	10	10	20	20	15	15	15	15	10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	100	100	100	200	100	100	100	100	100	150

SAMPLE NO.	4493	4494	4495	4496	4497	4498	4499	4500	4501	4502
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
MAT. TYPE	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED
1 MI. QUAD	C8	C8	C8	C8	C7	C7	C7	C7	C7	C7
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	14	14	14	14	7	7	6	1	1	1
TOWNSHIP	7N	7N	7N	7N	6N	6N	6N	6N	6N	6N
RANGE	3W	3W	3W	3W	1E	1E	1E	1W	1W	1W
As	<.020	<.020	<.020	<.020	<.020	<.020	<.020	18	<.020	<.020
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Ce	25.000	30.000	15.000	15.000	60.000	50.000	45.000	50.000	65.000	50.000
Pb	15.000	20.000	10.000	5.000	15.000	20.000	20.000	15.000	25.000	20.000
Zn	90.000	90.000	80.000	75.000	130.000	125.000	115.000	125.000	135.000	115.000
Al										
Fe	3X	3X	2X	3X	5X	3X	5X	3X	3X	3X
Ca	1X	1X	0.7X	1X	0.7X	0.5X	0.5X	0.7X	0.7X	0.5X
Hg	3X	2X	2X	2X	2X	2X	3X	2X	3X	3X
Au	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	50	50	50	50	100	70	100	100	100	100
Ba	1000	1000	500	500	1000	1000	1000	1000	1000	1000
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Co	30	20	20	10	30	20	30	20	50	30
Cr	200	200	100	100	200	100	200	150	150	150
Cu	30	30	20	30	100	50	70	50	70	70
Ga	20	10	10	15	20	20	20	20	20	20
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	20	30	20	20	20	20	20	20	20	20
Mn	1000	1000	1500	1000	1000	1000	1500	1500	1500	1500
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	20	20	<20	<20	20	20	20	20	20	20
Ni	50	50	50	30	70	50	70	50	70	70
Pb	15	10	10	10	15	15	15	10	20	15
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	20	20	10	10	20	20	20	20	20	20
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	500	300	500	500	200	300	300	300	200	300
Tl	3000	3000	2000	3000	3000	3000	5000	5000	5000	5000
V	100	200	200	200	200	200	200	200	200	200
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	10	20	10	10	30	20	20	20	30	20
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	100	100	100	200	100	100	150	150	100	100

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SAMPLE NO.	4503	4504	4505	4506	4507	4508	4509	4510	4511	4512
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
MAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	C7	C7	C7	C7	C7	C7	C7	C7	C7	C7
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	35	35	35	30	25	25	25	26	26	23
TOWNSHIP	7N	7N	7N	7N	7N	7N	7N	7N	7N	7N
RANGE	1W	1W	1W	1E	1W	1W	1W	1W	1W	1W
Au	.170	(.100	(.020	(.040	19	(.020	(.020	(.020	(.100	(.020
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	45.000	45.000	45.000	75.000	50.000	60.000	55.000	50.000	55.000	55.000
Pb	15.000	20.000	15.000	25.000	20.000	20.000	20.000	20.000	25.000	15.000
Zn	105.000	120.000	110.000	130.000	115.000	120.000	110.000	100.000	120.000	110.000
As										
Sb										
W										
Fe	5X	5X	3X	5X	5X	5X	5X	2X	3X	3X
Ca	0.5X	0.5X	0.7X	0.5X	0.5X	0.5X	0.5X	0.5X	0.3X	0.5X
Mg	3X	3X	3X	2X	3X	2X	3X	2X	2X	2X
Al	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
Si	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	100	100	100	100	70	100	70	50	70	70
Bo	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
De	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
DI	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Co	30	50	30	30	30	30	30	20	20	20
Cr	150	200	150	200	200	200	200	100	200	150
Cu	70	70	50	100	70	100	100	50	70	50
Ga	20	20	20	20	20	20	20	15	20	20
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	20	20	20	50	20	20	30	20	20
Mn	1500	1500	1500	1500	1500	1500	1000	1000	1000	1000
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	20	20	20	20	(20	20	20
Ni	70	70	50	70	50	50	50	30	30	30
Ph	15	10	15	20	20	20	20	10	20	10
Sh	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	30	30	20	30	30	30	30	20	20	20
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	300	300	300	200	300	200	300	300	200	300
Tl	5000	5000	5000	5000	5000	5000	5000	5000	3000	3000
V	300	300	200	200	200	200	200	200	200	200
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	20	20	20	15	20	20	20	10	10	10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	150	150	100	150	200	100	150	100	100	100

SAMPLE NO.	4513	4514	4515	4516	4517	4518	4519	4520	4521	4522
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
HAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	C7	C7	C7	C7	C7	C7	C7	C7	C7	C7
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	22	27	24	24	25	25	26	26	35	35
TOWNSHIP	7N	7N	6N	6N	6N	6N	6N	6N	6N	6N
RANGE.	1W	1W	2W	2W	2W	2W	2W	2W	2W	2W
Ag	(.020	.060	(.020	.040	.190	.040	.020	.070	.080	.050
Au	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	35.000	35.000	35.000	25.000	20.000	20.000	20.000	25.000	20.000	25.000
Pb	15.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Zn	95.000	100.000	90.000	90.000	85.000	95.000	90.000	95.000	95.000	85.000
As										
Sb										
W										
Fe	5X	3X	3X	3X	3X	3X	3X	3X	3X	3X
Ca	0.7X	0.7X	0.5X	0.7X	0.5X	0.7X	0.7X	0.7X	0.5X	0.7X
Hg	3X	3X	3X	3X	2X	3X	2X	2X	2X	1X
Ag	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	70	70	100	70	100	100	70	70	70	70
Ba	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Be	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bi	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Co	20	20	20	20	20	20	20	20	20	20
Cr	3	2	150	200	200	200	200	200	300	200
Cu	70	70	50	50	50	50	50	50	50	50
Ga	20	20	20	20	15	15	15	20	20	15
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	30	20	30	20	20	20	20	20	20
Hn	1000	1000	1500	1000	1000	1000	1000	1000	1000	1000
Hf	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	70	50	50	50	50	50	50	50	50	50
Ph	15	20	20	20	20	20	20	20	20	100
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	20	20	20	20	20	20	20	20	20	20
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	300	500	500	500	500	500	500	500	500	500
Tl	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
V	200	200	200	200	200	200	200	200	200	200
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	20	20	10	10	10	10	10	10	10	10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	200	100	100	100	100	100	100	100	100	100

SAMPLE NO.	4523	4524	4525	4526	4527	4528	4529	4530	4531	4532
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
HAT. TYPE	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED
1 MI. QUAD	C7	C7	C7	C7	C7	C7	C7	C7	C7	C7
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	35	3	2	24	19	19	3	3	3	3
TOWNSHIP	6N	5N	5N	6N	6N	6N	7N	7N	7N	7N
RANGE	2W	2W	2W	2W	1W	1W	2W	2W	2W	2W
Au	.030	.070	(.020	(.020	(.020	(.020	19	(.040	(.020	(.040
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	25.000	25.000	35.000	40.000	40.000	40.000	30.000	30.000	20.000	30.000
Pb	20.000	15.000	10.000	25.000	20.000	20.000	25.000	20.000	15.000	20.000
Zn	90.000	90.000	95.000	95.000	95.000	100.000	110.000	85.000	85.000	80.000
As										
Sb										
W										
Fe	2X	2X	5X	3X	5X	3X	2X	3X	3X	5X
Co	0.5X	0.5X	1X	0.5X	0.5X	0.7X	0.7X	1X	0.7X	1.5X
Mo	1X	2X	2X	2X	2X	2X	2X	2X	2X	3X
Al	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
Si	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
P	50	70	70	70	70	70	50	50	50	50
Ba	1000	1000	1000	1000	1000	1000	1500	1500	1500	1000
De	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bl	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Ce	5	10	30	15	20	20	20	20	20	30
Cr	100	150	200	200	200	200	300	200	200	200
Cu	50	50	70	70	70	70	50	50	50	70
Ca	15	15	15	15	15	15	15	15	10	20
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	20	20	20	20	20	30	20	30	20
Hf	1000	1000	1000	1000	1000	1000	1500	1000	1500	1500
Mn	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	(20	20	20	20	20	20	20	20	20
Ni	30	30	30	30	30	50	50	50	50	50
Pb	10	20	20	20	20	20	30	30	30	30
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Bc	10	10	30	20	20	30	20	20	20	30
Bn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Br	500	300	300	300	300	300	300	300	300	500
Tl	3000	3000	3000	3000	3000	3000	2000	3000	3000	5000
V	200	100	200	150	150	200	150	200	200	200
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	(10	10	15	10	15	10	10	10	10	20
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	100	100	100	100	100	150	100	100	100	100

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SAMPLE NO.
ROCK AGE
ROCK TYPE
HAT. TYPE
1 MI. QUAD
4 MI. QUAD
SECTION
TOWNSHIP
RANGE

	4533 CRET METSSED STR SED C7 SEWARD	4534 CRET METSSED BTR SED C7 SEWARD	4535 CRET METSSED BTR SED C7 SEWARD	4536 CRET METSSED BTR SED C7 SEWARD	4537 CRET METSSED BTR SED CB SEWARD	4538 CRET METSSED BTR SED DB SEWARD	4539 CRET METSSED BTR SED DB SEWARD	4540 CRET METSSED BTR SED DB SEWARD	4541 CRET METSSED BTR SED DB SEWARD	4542 CRET METSSED BTR SED DB SEWARD
Au	18	.440	(.100	(.020	(.020	(.100	(.040	(.040	.080	(.020
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	35.000	30.000	30.000	30.000	20.000	30.000	45.000	30.000	20.000	25.000
Pb	30.000	25.000	20.000	15.000	15.000	20.000	25.000	15.000	15.000	20.000
Zn	120.000	90.000	80.000	90.000	80.000	90.000	90.000	85.000	85.000	85.000
As										
Sb										
W										
Fe	3X	3X	2X	2X	3X	5X	3X	2X	5X	5X
Ca	1.5X	1X	2X	0.7X	1X	0.7X	1X	0.7X	1X	0.7X
Na	2X	2X	1X	1X	2X	2X	1X	1X	2X	2X
Al	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
Si	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
K	50	70	30	50	70	70	50	50	70	70
Rb	1000	1500	500	1000	1000	1500	1000	1000	1500	1000
Be	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bi	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cl	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Co	20	20	10	10	15	20	10	10	20	10
Cr	200	200	100	200	200	200	150	150	200	300
Cu	50	50	50	50	50	50	50	50	50	50
Ga	15	20	10	10	20	20	10	10	20	10
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	20	20	30	20	20	20	30	20	20
Mn	1500	1500	1000	1000	1500	1500	1000	1000	1500	1000
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	50	70	20	50	50	70	20	20	50	50
Pb	30	30	20	20	20	20	20	20	20	20
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	20	20	20	20	30	20	10	10	10	20
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	300	500	500	500	500	300	300	300	300	300
Tl	3000	3000	2000	3000	5000	5000	3000	2000	5000	3000
V	200	200	100	100	200	200	100	100	200	200
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	15	10	15	15	15	10	10	10	10	10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	100	200	100	100	200	200	100	100	100	100

SAMPLE NO.	4543	4544	4545	4546	4547	4548	4549	4550	4551	4552
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METBED	METSED	METBED	METBED	METSED	METBED	METSED	METSED	METSED	METSED
MAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	DD	DD	C7	C7	C7	C7	C7	C7	C7	C7
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	20	20	7	7	1	1	6	31	31	36
TOWNSHIP	8N	8N	7N	7N	7N	7N	7N	8N	8N	8N
RANGE	2W	2W	1E	1E	1W	1W	1E	1E	1E	1W
Au	.800	.250	(.020	(.020	(.040	18	(.020	(.020	(.020	(.020
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	20.000	25.000	45.000	65.000	50.000	45.000	45.000	40.000	40.000	45.000
Ph	15.000	20.000	20.000	20.000	20.000	30.000	15.000	20.000	20.000	20.000
Zn	85.000	85.000	105.000	125.000	110.000	120.000	105.000	105.000	110.000	110.000
As										
Sb										
W										
Fe	5X	2X	3X	5X	5X	5X	5X	5X	5X	3X
Cn	0.7X	0.5X	0.5X	0.7X	0.5X	0.5X	0.7X	0.7X	0.7X	0.7X
Mo	2X	2X	2X	3X	2X	2X	2X	3X	3X	2X
Aq	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	70	50	70	70	70	70	70	70	70	70
Da	1000	1000	1000	1500	1000	1500	1000	1500	1500	1000
De	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bl	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Co	15	5	20	30	20	20	20	20	20	20
Cr	500	100	150	200	100	100	500	200	200	100
Cu	50	30	100	150	100	70	70	70	70	70
Ga	20	10	20	20	20	20	20	20	20	20
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	30	20	20	20	20	20	20	20	20
Mn	1500	1000	1000	1500	1000	1000	1000	1500	1500	1500
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	50	50	50	70	50	50	50	50	50	20
Pb	20	10	15	20	20	30	15	20	20	20
Sb	(100	100	(100	(100	(100	(100	(100	100	(100	(100
Sc	20	20	20	30	20	30	30	30	20	20
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	300	300	300	300	200	300	300	300	300	300
Tl	3000	3000	3000	5000	3000	3000	3000	5000	3000	3000
V	200	200	200	200	200	200	200	200	200	200
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	10	10	10	20	10	10	15	10	15	20
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	100	100	200	100	100	100	100	100	100	200

SAMPLE NO. ROCK AGE ROCK TYPE MAT. TYPE 1 MI. QUAD 4 MI. QUAD SECTION TOWNSHIP RANGE	4553 CRET METBED STR SED D7 BEWARD 25 8N 1W	4554 CRET METBED STR SED D7 BEWARD 25 8N 1W	4555 CRET METBED STR SED D7 BEWARD 25 8N 1W	4556 CRET METBED STR SED D7 BEWARD 25 8N 1W	4557 CRET METBED STR SED C7 BEWARD 4 5N 1W	4558 CRET METBED STR SED C7 BEWARD 4 5N 1W	4559 CRET METBED STR SED C7 BEWARD 4 5N 1W	4560 CRET METBED STR SED C7 BEWARD 33 6N 1W	4561 CRET METBED STR SED C7 BEWARD 32 6N 1W	4562 CRET METBED STR SED C7 BEWARD 32 6N 1W
	<.020	<.020	<.020	<.020	<.040	<.100	<.040	<.020	.050	<.020
Au	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Ag	20.000	20.000	20.000	20.000	20.000	30.000	35.000	40.000	40.000	40.000
Cu	15.000	15.000	20.000	10.000	25.000	15.000	25.000	20.000	25.000	30.000
Pb	85.000	80.000	80.000	75.000	85.000	105.000	105.000	100.000	105.000	105.000
Zn										
As										
Sb										
W										
Fe	3X	5X	5X	5X	5X	2X	5X	5X	5X	5X
Ca	1X	1X	1X	1X	1X	0.7X	0.5X	0.5X	0.5X	0.5X
Hg	2X	2X	2X	2X	2X	2X	2X	2X	2X	2X
Aq	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	70	70	70	50	70	50	100	100	100	100
Ba	1000	1000	1500	1500	1000	1000	1500	1000	1000	1000
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Ce	20	20	20	20	15	5	20	20	30	30
Cr	100	100	100	100	100	70	200	150	150	150
Cu	50	50	50	100	50	50	70	70	100	70
Co	20	20	20	20	20	10	20	15	20	20
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	20	30	30	20	30	30	20	<20	<20	<20
Mn	1000	1500	1500	1500	1000	1000	1500	1000	1000	1000
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	20	20	20	20	20	<20	20	20	20	20
Ni	20	20	20	20	20	10	50	50	50	50
Pb	20	20	20	20	20	10	20	20	30	20
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	20	20	20	20	20	10	30	20	20	20
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	300	300	300	300	200	200	200	200	200	200
Tl	5000	5000	5000	5000	5000	2000	5000	3000	3000	3000
V	200	200	200	200	200	200	200	200	200	200
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	10	10	10	10	10	10	20	10	10	10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	200	100	100	100	100	70	200	100	100	100

SAMPLE NO.	4563	4564	4565	4566	4567	4568	4569	4570	4571	4572
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
HAT. TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
1 MI. QUAD	STR 6ED	STR 6ED	STR 6ED	STR 6ED	STR 6ED	STR 6ED	STR 6ED	STR 6ED	STR 6ED	STR 6ED
4 MI. QUAD	C7	C7	C7	C7	C7	C7	C7	C7	C7	C7
SECTION	BEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
TOWNSHIP	28	28	21	21	20	20	17	17	28	28
RANGE	6N	6N	6N	6N	6N	6N	6N	6N	7N	7N
	1W	1W	1W	1W	1W	1W	1W	1W	1W	1W
Au	(.020	(.020	(.020	(.020	(.020	(.020	(.020	(.040	(.020	(.020
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	30.000	45.000	30.000	35.000	40.000	40.000	40.000	40.000	20.000	30.000
Pb	15.000	30.000	20.000	20.000	20.000	20.000	25.000	20.000	15.000	20.000
Zn	85.000	120.000	85.000	85.000	95.000	100.000	95.000	100.000	85.000	90.000
As										
Sb										
W										
Fe	5%	5%	5%	5%	5%	7%	5%	5%	2%	5%
Ca	1%	0.7%	0.5%	1%	0.7%	0.7%	0.7%	0.7%	0.5%	0.7%
Mo	3%	2%	2%	2%	2%	2%	2%	2%	1%	2%
Al	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
Si	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
K	100	100	100	100	100	100	100	100	50	50
Na	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Ba	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bi	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Co	30	30	20	20	20	30	20	30	10	30
Cr	100	150	150	100	100	150	100	150	70	150
Cu	70	100	70	70	100	100	100	100	30	70
Ga	20	20	20	20	20	15	20	20	10	20
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
Mn	1000	1000	1000	1000	1000	1000	1000	1500	1000	1000
Nb	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Ni	20	20	20	20	20	20	20	20	20	20
Pb	50	50	50	30	50	50	50	50	20	50
Sb	20	20	20	20	20	20	20	20	15	20
Se	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Te	30	30	20	20	30	30	30	30	10	20
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	200	200	200	200	200	200	200	300	300	300
Tl	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
V	200	200	200	200	200	200	200	200	200	200
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	10	20	10	10	10	15	15	10	10	10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	100	100	100	100	100	150	100	100	70	100

SAMPLE NO.	4573	4574	4575	4576	4577	4578	4579	4580	4581	4582
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD
MA1. TYPE	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED	BTR BED
1 MI. QUAD	C7	D7	D7	D7	D7	D7	D7	D7	D7	D7
4 MI. QUAD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD
SECTION	28	12	12	12	12	12	12	12	12	12
TOWNSHIP	7N	8N	8N	8N	8N	8N	8N	8N	8N	8N
RANGE	1W	2W	2W	2W	2W	2W	2W	2W	2W	1W
Au	(.020	2.900	1.900	3.100	.420	2.800	.220	.790	.330	.220
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	25.000	35.000	35.000	30.000	35.000	40.000	35.000	30.000	40.000	30.000
Pb	20.000	75.000	60.000	80.000	45.000	75.000	45.000	45.000	20.000	45.000
Zn	90.000	120.000	125.000	120.000	125.000	125.000	120.000	115.000	115.000	105.000
As										
Sb										
W										
Fe	5%	2%	5%	7%	7%	5%	3%	5%	5%	5%
Ca	0.7%	0.7%	0.7%	0.7%	1%	0.7%	0.7%	0.7%	0.5%	1%
Mg	3%	2%	3%	3%	3%	3%	2%	3%	2%	3%
Al	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
Si	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
P	50	30	30	50	50	100	50	70	70	100
Rn	1500	1000	1500	2000	1500	1500	1500	1500	1000	1000
Re	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Ir	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Co	30	20	20	50	20	50	30	30	30	50
Cr	150	100	150	200	150	200	500	300	200	200
Cu	100	100	50	100	70	100	70	70	70	100
Ga	20	15	15	20	20	20	15	15	15	20
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
Ln	(20	30	20	(20	(20	(20	20	20	20	(20
Mn	1000	1000	1000	1500	1000	1500	1000	1000	1000	1500
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	20	20	20	20	20	(20	20
Ni	50	30	50	50	50	70	30	50	50	100
Pb	20	50	50	700	150	50	150	50	20	50
Sh	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	30	20	30	30	30	30	20	30	30	30
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	300	300	300	300	300	200	200	200	200	200
Tl	3000	3000	3000	5000	5000	5000	3000	5000	5000	5000
V	200	200	200	200	200	200	200	200	300	300
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	15	10	15	15	15	10	10	15	15	15
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	100	100	70	100	100	100	70	100	100	100

521

SAMPLE NO.	4583	4584	4585	4586	4587	4588	4589	4590	4591	4592
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
MAT. TYPE	BTR SED	STR SED	STR SED	BTR SED	STR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	D7	D7	D7	D7	D7	C7	C7	C7	C7	C7
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	30	24	24	24	24	10	10	10	11	11
TOWNSHIP	9N	9N	9N	9N	9N	6N	6N	6N	6N	6N
RANGE	1W	2W	2W	2W	2W	2W	2W	2W	2W	2W
Au	4.000	(.100	.060	.250	.120	(.040	(.040	(.040	(.100	(.100
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cv	25.000	20.000	25.000	30.000	30.000	45.000	30.000	40.000	40.000	35.000
Pb	55.000	45.000	20.000	35.000	25.000	20.000	15.000	15.000	15.000	15.000
Zn	105.000	105.000	85.000	100.000	100.000	100.000	75.000	90.000	95.000	00.000
As										
Sb										
W										
Fe	7X	7X	5X	3X	5X	2X	3X	5X	7X	5X
Ca	1X	1X	1X	0.7X	0.7X	0.7X	1.5X	0.5X	0.7X	0.5X
Hq	5X	5X	2X	2X	2X	1X	2X	2X	2X	2X
Ar	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	70	70	70	50	70	50	50	70	70	50
Ba	1000	1500	1500	1000	1000	1000	500	500	1000	1500
Be	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bl	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Co	50	50	50	20	20	20	50	50	50	20
Cr	200	300	200	150	200	100	200	200	300	200
Cu	100	100	100	50	100	70	70	100	100	100
Ga	20	30	30	20	20	10	20	15	20	20
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
Li	(20	(20	(20	20	20	30	(20	20	(20	20
Mn	1500	1500	1000	1000	1000	1000	1500	1500	2000	1000
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	(20	(20	(20	20	20	20	20
Ni	100	100	50	50	50	30	50	70	100	50
Pb	50	50	20	30	50	20	20	30	20	20
Sh	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	30	30	20	20	20	10	30	20	30	20
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	200	200	300	300	300	300	300	300	300	300
Tl	5000	5000	5000	3000	5000	3000	5000	5000	5000	5000
V	300	300	300	200	200	200	300	200	200	200
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	20	20	15	10	15	15	15	15	20	10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	200	500	100	100	150	100	100	100	150	100

SAMPLE NO.
ROCK AGE
ROCK TYPE
MAT. TYPE
1 MI. QUAD
4 MI. QUAD
SECTION
TOWNSHIP
RANGE

4593
CRET
METBED
BTR SED
C7
SEWARD
11
6N
2W

4594
CRET
METBED
BTR SED
C7
SEWARD
12
6N
2W

4595
CRET
METBED
BTR SED
C7
SEWARD
12
6N
2W

4596
CRET
METBED
BTR SED
C7
SEWARD
12
6N
2W

4597
CRET
METBED
BTR SED
C7
SEWARD
12
6N
2W

4598
CRET
METBED
BTR SED
C7
SEWARD
13
6N
2W

4599
CRET
METBED
BTR SED
C7
SEWARD
13
6N
2W

4600
CRET
METBED
BTR SED
C7
SEWARD
23
7N
2W

4601
CRET
METBED
BTR SED
C7
SEWARD
23
7N
2W

4602
CRET
METBED
BTR SED
C7
SEWARD
23
7N
2W

As
Ag
Ca
Pb
Zn
As
Sb
W

<.100
<.200
35.000
15.000
85.000

<.020
<.200
30.000
15.000
75.000

<.100
<.200
40.000
50.000
110.000

5.000
<.200
35.000
100.000
110.000

2.600
<.200
35.000
50.000
100.000

1.200
<.200
30.000
75.000
100.000

1.900
<.200
35.000
100.000
110.000

1B
1B
1B
1B
1B

<.100
<.200
40.000
15.000
85.000

<.200
40.000
20.000
110.000

Fe
Ca
Hg

5X
0.5X
2X

5X
0.7X
2X

5X
0.5X
2X

5X
0.5X
2X

5X
0.5X
2X

5X
0.7X
2X

5X
0.7X
2X

2X
1X
1X

1.5X
0.7X
0.5X

2X
0.3X
0.7X

Ag
As
B
Ba

<1
<500
100
1000

<1
<500
50
1500

<1
<500
100
1500

1
<500
50
700

<1
<500
50
700

<1
<500
50
1000

<1
<500
70
1000

<1
<500
50
500

<1
<500
20
300

<1
<500
50
700

Be
Bl
Cd
Co

<2
<10
<50
50

<2
<10
<50
20

<2
<10
<50
50

<2
<10
<50
20

<2
<10
<50
15

<2
<10
<50
15

<2
<10
<50
20

<2
<10
<50
10

<2
<10
<50
5

<2
<10
<50
10

Cr
Cu
Ga
Ge

200
50
20
<20

150
70
15
<20

200
100
20
<20

150
70
10
<20

100
50
20
<20

100
50
15
<20

100
70
15
<20

50
50
10
<20

30
50
10
<20

70
70
15
<20

La
Mn
Mo
Nb

<20
1500
<2
20

<20
1500
<2
20

<20
1500
2
20

20
1000
<2
20

20
1000
<2
20

20
1000
<2
20

20
1000
<2
20

20
1000
<2
20

50
700
<2
<20

30
1500
<2
20

Ni
Pb
Sb
Sc

70
20
<100
30

50
10
<100
30

100
30
<100
30

50
100
<100
20

50
50
<100
20

50
100
<100
20

50
30
<100
20

20
15
<100
10

10
15
<100
10

30
20
<100
10

Sn
Sr
Tl
V

<10
300
5000
200

<10
300
3000
200

<10
300
5000
200

<10
300
3000
150

<10
300
3000
200

<10
300
3000
150

<10
300
5000
150

<10
200
2000
200

<10
200
1500
100

<10
200
2000
150

W
Y
Zn
Zr

<50
15
<200
150

<50
10
<200
100

<50
15
<200
200

<50
10
<200
150

<50
10
<200
100

<50
10
<200
100

<50
10
<200
100

<50
10
<200
30

<50
10
<200
30

<50
10
<200
70

SAMPLE NO.	4603	4604	4605	4606	4607	4608	4609	4610	4611	4612
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
HAT. TYPE	STR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	C7	C7	C7	C7	C7	C7	C7	C7	C7	C7
4 MI. QUAD	SEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD
SECTION	24	24	24	24	19	19	19	19	19	19
TOWNSHIP	7N	7N	7N	7N	7N	7N	7N	7N	7N	7N
RANGE	2W	2W	2W	2W	1W	1W	1W	1W	1W	1W
Au	19	19	(.200	(.200	15	(.200	19	15	(.100	(.040
Ag	19	(.200	(.200	(.200	18	(.200	(.200	(.200	(.200	(.200
Cu	18	40.000	40.000	40.000	18	40.000	25.000	30.000	30.000	25.000
Pb	18	15.000	20.000	15.000	18	40.000	15.000	15.000	15.000	15.000
Zn	18	90.000	115.000	105.000	18	100.000	90.000	90.000	00.000	85.000
As										
Sb										
W										
Fe	3X	5X	2X	5X	5X	5X	2X	5X	5X	3X
Co	0.7X	1X	0.5X	0.3X	0.3X	0.5X	0.7X	0.5X	0.5X	0.5X
Mo	2X	2X	2X	3X	3X	3X	1X	2X	3X	2X
Ag	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	50	70	50	70	100	70	70	70	70	50
Po	1000	1500	700	1000	1000	1000	1000	1500	1500	1000
Re	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Os	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Ir	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Cd	15	30	10	20	20	20	10	20	20	15
Ce										
Cr	100	200	150	150	200	150	100	200	200	150
Cu	50	100	50	50	70	50	50	50	50	50
Zn	15	15	10	15	20	15	15	20	20	20
Co	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
Ge										
La	20	20	30	20	20	20	20	20	20	20
Mn	1500	2000	1000	1500	1500	1500	1000	1000	1500	1000
Nb	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nh	20	20	20	20	20	20	20	20	20	20
Ni	30	100	30	30	50	30	20	50	50	50
Pb	20	20	20	20	20	15	15	20	20	20
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Bc	20	20	15	20	20	20	15	20	20	20
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	300	500	200	200	200	200	200	200	200	300
Tl	3000	5000	2000	3000	3000	3000	3000	5000	5000	2000
V	150	300	200	200	150	200	200	200	200	150
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	10	(10	10	10	10	10	10	15	15	10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200

SAMPLE NO.	4613	4614	4615	4616	4617	4618	4619	4620	4621	4622
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD
HAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR BED	STR SED	STR SED	STR SED
1 MI. QUAD	C7	C7	C7	C7	C7	C7	C8	C8	C8	C8
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	29	29	29	29	29	29	21	21	21	21
TOWNSHIP	7N	7N	7N	7N	7N	7N	7N	7N	7N	7N
RANGE	1W	1W	1W	1W	1W	1W	2W	2W	2W	2W
Av	<.020	<.100	<.100	<.020	<.020	<.100	18	18	18	18
Aq	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	18	18
Cu	25.000	30.000	25.000	25.000	25.000	35.000	35.000	25.000	18	18
Pb	15.000	20.000	20.000	15.000	15.000	20.000	20.000	25.000	18	18
Zn	85.000	90.000	90.000	75.000	75.000	75.000	95.000	120.000	18	18
As										
Sb										
W										
Fe	5X	3X	3X	2X	3X	1.5X	2X	5X	3X	3X
Ca	0.5X	0.2X	0.15X	0.3X	0.2X	0.2X	0.5X	0.2X	0.5X	0.7X
Hg	2X	2X	2X	2X	2X	1X	2X	3X	1.5X	2X
Aq	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	70	50	100	70	70	50	50	100	70	50
Ba	1000	1000	1000	700	1000	500	1000	1500	700	1000
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Co	15	10	20	10	15	5	7	20	15	15
Cr	150	200	200	150	150	100	150	200	200	200
Cu	50	50	20	50	50	50	50	50	50	50
Ca	20	15	20	15	20	10	15	30	15	15
Ce	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	50	20	20	20	20	50	50	20	20	20
Mn	1000	1000	1000	700	1000	700	1000	1500	1000	1000
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	20	20	20	<20	20	20	20	30	20	20
Ni	50	50	50	30	50	20	50	70	50	70
Pb	10	10	20	15	15	10	20	20	20	20
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	20	20	20	15	20	10	10	20	20	20
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	300	300	300	300	300	200	200	200	200	200
Tl	3000	3000	3000	3000	3000	2000	2000	3000	3000	3000
V	200	200	200	200	200	200	200	200	100	200
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	10	10	15	10	10	10	10	15	20	15
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	150	100	100	70	150	50	50	100	100	100

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SAMPLE NO.	4623	4624	4625	4626	4627	4628	4629	4630	4631	4632
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD
NAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	CB	CB	CB	CB	CB	CB	CB	CB	CB	CB
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	16	16	16	16	16	9	8	8	8	5
TOWNSHIP	7N	7N	7N	7N	7N	7N	7N	7N	7N	7N
RANGE	2W	2W	2W	2W	2W	2W	2W	2W	2W	2W
Au	(.200	(.200	19	(.100	(.020	(.040	(.100	(.020	19	.030
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	30.000	30.000	25.000	25.000	30.000	20.000	20.000	15.000	20.000	20.000
Pb	25.000	20.000	20.000	20.000	20.000	15.000	15.000	15.000	15.000	15.000
Zn	110.000	110.000	100.000	110.000	95.000	85.000	65.000	85.000	95.000	90.000
As										
Sb										
W										
Fe	3X	5X	5X	5X	2X	2X	1X	3X	3X	5X
Cn	0.3X	0.2X	0.7X	0.5X	0.7X	0.7X	1X	0.7X	0.7X	0.7X
Hg	1.5X	2X	2X	2X	1.5X	1.5X	0.5X	1.5X	1X	2X
Ag	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
R	50	70	50	70	30	50	20	50	50	50
Dn	700	1000	1000	1000	500	700	300	1000	1000	1000
De	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Di	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Co	15	20	20	20	15	10	(5	15	15	20
Cr	200	200	200	300	100	150	70	500	100	150
Cu	50	70	70	70	50	50	30	50	30	50
Ca	15	20	15	20	15	10	10	15	15	15
Ce	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	20	20	(20	30	20	50	30	20	(20
Mn	1000	1000	1000	1000	700	1000	500	1000	1000	1000
Mo	(2	(2	(2	2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	20	(20	(20	(20	(20	(20	(20
Ni	50	100	100	100	50	50	15	50	20	50
Pb	20	30	20	20	15	10	10	20	10	15
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	20	20	20	20	10	20	(10	20	15	20
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	200	200	200	200	200	200	100	300	300	300
Tl	3000	3000	3000	3000	2000	3000	700	3000	2000	3000
V	200	150	100	200	100	100	50	150	100	200
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	10	15	15	15	15	10	(10	15	10	20
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	100	100	150	150	100	100	30	100	100	150

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SAMPLE NO.	4633	4634	4635	4636	4637	4638	4639	4640	4641	4642
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	CB	CB	CB	C7	C7	C7	C7	C7	C7	C7
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	5	6	6	23	23	23	23	14	14	14
TOWNSHIP	7N	7N	7N	6N	6N	6N	6N	6N	6N	6N
RANGE	2W	2W	2W	1W	1W	1W	1W	1W	1W	1W
Ag	IS	(.020	(.040	(.040	(.200	(.020	(.020	(.100	(.200	(.020
Au	IS	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	IS	20.000	15.000	40.000	45.000	50.000	50.000	60.000	55.000	55.000
Pb	IS	15.000	15.000	20.000	20.000	25.000	25.000	25.000	30.000	25.000
Zn	IS	75.000	85.000	110.000	110.000	110.000	110.000	120.000	135.000	125.000
As										
Sb										
W										
Fe	5X	5X	5X	5X	7X	5X	5X	5X	5X	3X
Co	0.5X	1X	0.5X	0.7X	0.7X	1X	0.5X	0.5X	0.5X	0.5X
Mn	2X	1.5X	2X	2X	2X	2X	1.5X	2X	2X	1.5X
Ao	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
Ar	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
P	50	50	50	70	70	50	70	100	70	50
Pa	1500	1000	1500	1500	1500	1000	1000	1500	1000	1000
Rf	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Rh	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Ce	15	15	20	30	30	50	20	50	30	20
Cr	200	100	150	200	200	150	200	300	200	200
Cu	50	50	70	100	100	100	100	150	100	100
Ga	15	15	15	20	20	20	p10	20	20	15
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
Ln	20	20	20	(20	(20	(20	(20	(20	(20	(20
Hf	1000	1000	1000	1000	1500	1500	1000	1000	1000	1000
Mo	(2	(2	(2	(2	(2	(2	(2	2	2	(2
Nb	(20	(20	(20	(20	20	20	20	20	20	20
Ni	100	50	70	70	100	100	50	70	70	50
Pb	15	15	20	30	30	20	20	30	30	15
Sh	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	30	20	30	30	30	30	20	30	30	20
Sq	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	200	500	300	300	300	500	200	200	200	200
Tl	3000	5000	5000	5000	5000	5000	3000	5000	5000	3000
V	200	200	200	200	200	200	200	150	200	200
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	15	10	20	20	20	20	20	50	50	30
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	200	70	100	100	100	200	100	100	100	100

SAMPLE NO.	4643	4644	4645	4646	4647	4648	4649	4650	4651	4652
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD
HAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. DUAD	C7	C7	C7	C7	C7	C7	C7	C7	C7	C7
4 MI. DUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	11	11	2	2	2	35	2	2	3	3
TOWNSHIP	6N	6N	6N	6N	6N	7N	5N	5N	5N	5N
RANGE	1W	1W	1W	1W	1W	1W	2W	2W	2W	2W
Au	(.040	(.020	(.040	(.020	(.020	(.020	(.020	(.200	.000	(.100
Ag	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	45.000	45.000	45.000	45.000	45.000	40.000	45.000	45.000	30.000	35.000
Pb	25.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000	15.000
Zn	130.000	120.000	115.000	105.000	115.000	110.000	110.000	120.000	95.000	95.000
As										
Sb										
W										
Fe	3X	5X	5X	5X	5X	5X	3X	3X	3X	3X
Co	0.5X	0.7X	0.5X	0.7X	0.7X	0.7X	0.5X	0.7X	0.5X	0.5X
Mo	2X	2X	2X	2X	2X	1.5X	1X	1.5X	2X	2X
Al	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
Si	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	50	50	70	70	70	50	70	70	70	70
Na	1000	1000	1500	1000	1000	1000	700	700	1000	1000
K	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Cl	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Ca	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Mg	20	30	30	30	30	30	30	30	30	30
Cr	200	200	200	200	200	200	100	100	200	200
Cu	70	100	100	70	100	70	100	100	50	100
Ga	15	15	20	20	20	15	15	20	20	20
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	(20	(20	(20	20	20	20	20	20	20
Mn	700	1000	1000	1500	1000	1000	1000	1000	1000	1000
Ni	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	(20	20	20	20	20	20	20
Ni	50	50	100	70	100	70	50	50	50	50
Pb	20	20	20	20	20	15	15	15	15	15
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	20	20	30	30	30	20	20	20	20	30
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	200	200	200	200	200	200	200	200	300	200
Tl	3000	5000	5000	5000	5000	3000	3000	3000	3000	3000
V	150	200	200	200	200	200	200	150	200	200
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	30	20	20	20	30	20	20	20	10	20
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	100	100	150	150	100	200	100	100	100	100

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SAMPLE NO.	4653	4654	4655	4656	4657	4658	4659	4660	4661	4662
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METBED	METBED	METBED	METBED	METBED	METBED	METBED	METBED	METBED	METBED
HAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	C7	C7	C7	C7	C8	C7	C7	C8	C8	C8
4 MI. QUAD	SEWARD	SEWARD	SEWARD	BEWARD	SEWARD	BEWARD	BEWARD	SEWARD	BEWARD	SEWARD
SECTION	3	3	10	9	9	9	9	9	9	16
TOWNSHIP	5N	5N	5N	5N	5N	5N	5N	5N	5N	5N
RANGE	2W	2W	2W	2W	2W	2W	2W	2W	2W	2W
As	.750	.030	.080	<.100	<.040	19	.080	.030	.050	.780
Aq	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cv	30.000	30.000	30.000	30.000	35.000	35.000	25.000	25.000	30.000	25.000
Pb	15.000	15.000	15.000	20.000	15.000	20.000	15.000	15.000	15.000	30.000
Zn	85.000	85.000	90.000	100.000	95.000	110.000	85.000	105.000	85.000	100.000
As										
Sb										
W										
Fe	3X	2X	3X	5X	5X	5X	3X	5X	3X	5X
Co	0.7X	0.7X	0.7X	0.7X	0.5X	0.7X	0.5X	0.7X	0.5X	0.7X
Hq	2X	2X	2X	2X	2X	2X	1.5X	2X	1.5X	1.5X
Aq	<1	<1	<1	<1	<1	<1	30	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	50	50	70	50	70	70	50	50	50	50
Ba	1000	700	1000	1000	700	700	500	700	500	700
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bl	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Ce	30	30	30	30	20	20	10	30	20	20
Cr	150	150	100	300	100	150	200	100	150	150
Cu	70	70	70	70	70	70	100	50	50	50
Ca	20	15	20	20	20	20	20	20	15	15
Ga	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	20	20	20	20	<20	<20	20	20	20	<20
Mn	1000	1000	1000	1000	1000	1500	1000	1000	700	700
Mo	<2	<2	<2	<2	<2	<2	2	<2	<2	<2
Nb	20	20	20	20	20	20	<20	20	<20	20
Ni	50	30	50	50	100	70	70	50	50	100
Pb	10	10	10	10	20	20	20	15	15	10
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	30	20	20	20	20	20	15	20	20	20
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	300	300	300	200	300	300	300	300	300	200
Tl	5000	5000	5000	5000	5000	5000	3000	7000	5000	5000
V	200	200	150	200	100	100	150	200	100	100
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	15	10	10	20	10	20	10	15	15	10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	100	70	70	100	100	150	150	100	200	100

SAMPLE NO.	4663	4664	4665	4666	4667	4668	4669	4670	4671	4672
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
MAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	C7	C7	C7	C7	C7	C7	C7	C7	C7	C7
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	12	1	1	1	6	6	6	6	18	6
TOWNSHIP	7N	7N	7N	7N	7N	7N	7N	7N	7N	7N
RANGE	2W	2W	2W	2W	1W	1W	1W	1W	1W	1W
As	19	<.100	.650	<.100	<.200	<.100	<.020	<.200	18	<.040
Aq	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	18	<.200
Ce	50.000	55.000	50.000	40.000	40.000	35.000	30.000	35.000	18	35.000
Pb	30.000	35.000	30.000	20.000	20.000	20.000	15.000	15.000	18	25.000
Zn	130.000	150.000	140.000	155.000	105.000	105.000	90.000	100.000	18	105.000
As										
Sb										
W										
Fe	5X	5X	5X	5X	5X	3X	3X	3X	5X	5X
Ca	0.5X	0.3X	0.5X	0.5X	0.5X	0.5X	0.7X	1X	0.7X	0.7X
Hg	2X	1.5X	1.5X	1X	2X	1.5X	1X	1X	2X	2X
Aq	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	50	70	70	70	50	70	50	30	30	50
Ba	700	700	700	500	700	500	500	500	700	1000
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Co	70	20	20	15	20	10	10	10	20	10
Cr	200	150	150	100	150	100	100	100	200	100
Cu	70	70	70	50	50	50	30	50	70	70
Ca	20	20	15	15	20	20	15	10	20	20
Ce	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	<20	<20	20	<20	<20	<20	<20	20	20	20
Mn	1500	1000	1500	1000	1000	1000	700	1000	1500	1000
Mo	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	20	20	20	20	20	20	20	<20	20	<20
Ni	50	50	50	70	50	50	50	30	30	50
Pb	30	30	20	20	20	10	10	10	20	15
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	20	20	20	20	30	20	20	20	20	20
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	200	200	200	200	200	200	500	300	300	200
Tl	5000	5000	5000	5000	7000	5000	5000	5000	5000	5000
V	100	100	100	100	100	100	100	70	100	150
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	10	20	20	20	20	10	10	10	10	10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	100	100	100	100	100	100	70	70	100	100

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SAMPLE NO.	4673	4674	4675	4676	4677	4678	4679	4680	4681	4682
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSFD	METSFD	METSFD	METSFD	METSFD	METSFD	METSFD	METSFD	METSFD	METSFD
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	C7	C7	C7	C7	C7	C7	C7	C7	C7	C7
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	7	35	35	27	20	20	17	17	9	9
TOWNSHIP	7N	7N	7N	7N	7N	7N	7N	7N	7N	7N
RANGE	1W	1W	1W	1W	1E	1E	1E	1E	1E	1E
As	(.020	(.020	(.020		(.040	(.100	(.020	(.020	(.020	(.020
An	(.200	(.200	(.200		(.200	(.200	(.200	(.200	(.200	(.200
Cu	40.000	40.000	40.000		40.000	40.000	45.000	45.000	45.000	40.000
Pb	20.000	20.000	20.000		25.000	20.000	20.000	20.000	20.000	20.000
Zn	115.000	110.000	110.000		115.000	110.000	110.000	105.000	115.000	110.000
Ag										
Sb										
W										
Fe	7X	7X	3X	2X	5X	5X	5X	5X	5X	7X
Cs	0.7X	0.7X	0.7X	0X	0.5X	0.5X	0.7X	0.5X	0.3X	0.5X
Hg	2X	2X	1.5X	0X	2X	2X	2X	2X	2X	2X
Au	(1	(1	(1	0	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	0	(500	(500	(500	(500	(500	(500
P	70	50	50	0	50	50	50	50	70	50
Po	1000	1000	700	0	700	700	700	700	700	700
Re	(2	(2	(2	0	(2	(2	(2	(2	(2	(2
Bi	(10	(10	(10	0	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	0	(50	(50	(50	(50	(50	(50
Co	20	30	20	0	30	20	20	20	30	30
Cr	200	150	150	0	200	200	150	100	150	200
Cu	70	100	70	0	100	70	50	70	100	70
Ga	20	20	15	0	15	20	20	20	20	20
Ge	(20	(20	(20	0	(20	(20	(20	(20	(20	(20
Ln	(20	(20	(20	0	(20	(20	(20	(20	(20	(20
Mn	1000	1000	700	0	1000	1000	700	700	700	700
Nb	(2	(2	(2	0	(2	(2	(2	(2	(2	(2
Nb	20	20	20	0	20	20	20	20	20	20
Ni	50	50	50	0	70	70	50	50	50	50
Pb	15	15	20	0	20	20	20	20	20	20
Sb	(100	(100	(100	0	(100	(100	(100	(100	(100	(100
Sc	20	30	20	0	30	30	30	20	20	30
Sn	(10	(10	(10	0	(10	(10	(10	(10	(10	(10
Sr	200	200	200	0	200	200	200	200	200	200
Tl	7000	5000	3000	0	5000	5000	5000	5000	5000	5000
V	200	200	150	0	100	150	150	100	100	100
W	(50	(50	(50	0	(50	(50	(50	(50	(50	(50
Y	20	15	30	0	20	20	20	20	20	20
Zn	(200	(200	(200	0	(200	(200	(200	(200	(200	(200
Zr	100	100	100	0	100	100	100	100	100	100

SAMPLE NO.	4683	4684	4685	4686	4687	4688	4689	4690	4691	4692
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	D7	D7	D7	D7	D7	D7	D7	D7	D7	D7
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	7	7	7	1B	1B	13	13	13	14	14
TOWNSHIP	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N
RANGE	1E	1E	1E	1E	1E	1W	1W	1W	1W	1W
Al	.030	(.020	(.020	(.040	(.020	(.040	(.100	(.040	(.100	.800
Au	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200	(.200
Cu	45.000	45.000	50.000	40.000	40.000	45.000	45.000	40.000	40.000	40.000
Pb	25.000	20.000	25.000	10.000	20.000	15.000	20.000	20.000	20.000	15.000
Zn	115.000	110.000	120.000	105.000	110.000	110.000	110.000	95.000	90.000	95.000
As										
Sb										
W										
Fg	5X	3X	5X	5X	3X	3X	5X	5X	5X	3X
Co	0.5X	0.2X	0.5X	0.2X	0.2X	0.2X	0.2X	0.2X	0.2X	0.7X
Mo	2X	1.5X	2X	2X	2X	1X	2X	2X	2X	1X
Aq	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
Ag	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	70	50	50	70	70	50	70	50	70	30
Ba	500	500	700	700	500	500	700	700	700	700
Be	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bi	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Ce	30	20	20	30	20	20	30	20	30	30
Cr	200	150	200	150	150	150	150	15	200	100
Cu	70	70	70	50	50	70	70	70	70	50
Ge	20	20	20	20	20	20	20	20	20	20
Gr	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	(20	20	(20	20	20	20	20	20	20	20
Mn	700	700	700	1000	1000	700	1000	1000	1000	1500
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	70	50	50	50	50	50	50	50	50	50
Pb	20	20	15	15	20	15	15	10	15	15
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	30	15	20	30	20	20	20	20	20	20
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	200	300	200	200	200	200	200	200	200	300
Tl	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
V	100	100	100	100	100	70	100	100	100	100
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	20	10	15	15	15	15	15	10	10	10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	200	70	100	100	100	70	100	100	70	100

SAMPLE NO.	4693	4694	4695	4696	4697	4698	4699	4700	4701	4702
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METBED	METBED	METBED	METBED	METBED	METBED	METBED	METBED	METBED	METBED
MAT. TYPE	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED
1 MI. QUAD	C7	C7	C7	C7	D7	D7	D7	D7	D7	D7
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	5	5	5	5	12	12	1	1	1	2
TOWNSHIP	6N	6N	6N	6N	9N	9N	9N	9N	9N	9N
RANGE	1W	1W	1W	1W	2W	2W	2W	2W	2W	2W
As	<.020	<.020	<.200	<.100	<.100	<.040	18	<.040	<.040	1.900
Aq	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	55.000	40.000	45.000	40.000	40.000	40.000	40.000	50.000	40.000	40.000
Pb	25.000	15.000	20.000	20.000	20.000	25.000	30.000	30.000	30.000	45.000
Zn	105.000	90.000	105.000	100.000	105.000	105.000	145.000	115.000	110.000	115.000
As										
Sb										
W										
Fe	3X	5X	3X	5X	5X	3X	5X	3X	5X	5X
Ca	0.5X	0.7X	0.7X	0.7X	0.7X	0.7X	0.7X	0.7X	1X	0.7X
Hq	1X	3X	3X	3X	3X	3X	5X	3X	3X	3X
Aq	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	50	50	50	70	50	50	70	50	70	70
Ba	500	1000	1000	1000	1000	1000	1500	1000	1500	1500
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bl	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Co	30	15	10	10	15	15	15	10	20	20
Cr	100	100	70	100	200	100	200	100	200	300
Cu	50	100	50	70	100	50	70	50	100	100
Ca	20	10	10	10	20	10	15	10	15	20
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	20	20	50	50	50	50	20	50	20	50
Mn	1000	500	500	500	500	500	700	500	700	700
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	50	50	30	30	70	50	70	50	50	70
Pb	20	10	10	10	20	15	20	15	20	50
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	20	10	10	15	20	10	20	10	10	20
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	200	500	500	700	500	500	500	500	500	500
Tl	5000	3000	3000	2000	3000	3000	5000	2000	3000	5000
V	100	50	50	50	50	50	50	30	50	70
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	10	10	10	10	15	10	15	15	10	15
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	100	50	50	50	100	50	70	70	50	70

SAMPLE NO.	4703	4704	4705	4706	4707	4708	4709	4710	4711	4712
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	D7	D7	D7	D7	C7	C7	D6	D6	D6	D6
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	2	35	35	22	4	34	27	14	14	26
TOWNSHIP	9N	10N	10N	9N	7N	8N	8N	8N	8N	9N
RANGE	2W	2W	2W	1W	1E	1E	1E	1E	1E	2E
Au	15	<.100	<.100	<.020	3.000	<.020	.020	.040	<.040	<.020
Ag	<.200	.600	.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	40.000	40.000	35.000	40.000	35.000	45.000	45.000	40.000	40.000	30.000
Pb	45.000	50.000	35.000	20.000	15.000	25.000	20.000	15.000	10.000	15.000
Zn	120.000	115.000	110.000	110.000	100.000	105.000	110.000	95.000	95.000	90.000
As										
Sb										
W										
Fe	5%	1.5%	5%	5%	7%	7%	7%	7%	7%	3%
Co	0.5%	0.5%	0.7%	0.7%	1%	0.7%	0.7%	0.7%	1%	1%
Mn	3%	1.5%	5%	3%	5%	5%	5%	5%	5%	2%
Al	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Si	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
P	70	50	70	70	50	30	30	50	30	50
Ca	1500	700	1500	1000	1500	1500	1500	1500	1500	1000
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
B	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cl	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
K	20	5	15	30	30	30	30	30	20	10
Cr	200	20	100	100	200	100	100	200	200	70
Ni	70	30	100	150	150	150	100	100	100	100
Na	10	<10	30	20	20	20	10	20	15	10
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Ln	20	50	20	20	20	20	20	20	20	20
Hf	500	200	700	1000	1000	1000	1000	1000	1000	700
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	20	<20	20	20	20	20	20	20	20	20
Al	70	20	50	50	30	50	50	70	70	20
Pb	20	15	30	10	15	20	20	20	20	15
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	20	10	20	15	20	20	20	30	20	10
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	700	200	500	500	500	500	500	500	500	500
Tl	3000	2000	5000	5000	10000	10000	10000	10000	10000	7000
V	50	30	70	70	70	70	50	50	70	70
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	15	10	15	10	10	10	10	10	15	10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	50	30	100	70	300	50	200	300	100	50

CAMPLE NO.
ROCK AGE
ROCK TYPE
MAT. TYPE
1 MI. QUAD
4 MI. QUAD
SECTION
TOWNSHIP
RANGE

	4713 CRET METBED STR SED D6 SEWARD 31 9N 3E	4714 CRET METBED STR SED D6 SEWARD 31 9N 3E	4715 CRET METBED STR SED D6 SEWARD 30 9N 3E	4716 CRET METBED STR SED D6 SEWARD 11 9N 2E	4717 CRET METBED BED RK/Q C7 SEWARD 13 6N 2W	4718 CRET METBED QUARTZ C7 SEWARD 14 6N 2W	4719 CRET METBED BED RK/Q C7 SEWARD 14 6N 2W	4720 CRET METBED BED RK/Q C7 SEWARD 14 6N 2W	4721 CRET METBED QUARTZ C7 SEWARD 14 6N 2W	4722 CRET METBED BED RK/Q C7 SEWARD 14 6N 2W
	(.020	(.020	(.020	(.020	8.900	15.000	2.000	54.000	40.000	12.000
Au	(.200	(.200	(.200	(.200	2.200	9.200	(.200	13.000	11.000	1.800
Ag	15.000	15.000	15.000	40.000						
Cu	5.000	5.000	5.000	20.000						
Pb	50.000	50.000	45.000	95.000						
Zn										
As										
Sb										
M										
Fe	3X	3X	3X	7X	1X	1X	1X	1X	1.5X	3X
Ca	2X	1.5X	2X	0.7X	7X	0.1X	0.02X	0.1X	10X	5X
Hq	3X	3X	3X	3X	0.1X	0.1X	0.05X	0.2X	0.3X	2X
Ag	(1	(1	(1	(1	3	5	1	20	10	5
As	(500	(500	(500	(500	500	500	(500	(500	(500	(500
B	30	30	50	70	(10	(10	(10	10	10	50
Ba	1000	1000	1000	1500	100	100	(10	300	100	1500
Be	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bi	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Ce	15	15	10	15	(5	(5	(5	(5	(5	15
Cr	100	100	50	150	20	15	10	10	50	500
Cu	20	10	10	150	20	30	10	30	20	50
Ca	10	10	10	30	(10	(10	(10	(10	(10	20
Ce	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	(20	20	20	20	20	20	20	20	20	50
Mn	700	700	700	700	1000	300	300	1000	1500	1000
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	20	20	20	20	(20	(20	(20	(20	(20	20
NI	30	30	30	50	10	15	15	15	15	150
Pb	15	10	10	10	200	300	10	200	100	20
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	20	20	20	30	(10	(10	(10	(10	(10	20
Sr	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Br	500	500	500	300	500	(100	(100	100	1000	300
Tl	7000	7000	3000	7000	200	500	100	300	30	3000
V	70	70	70	100	30	50	20	30	30	100
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	15	15	15	15	(10	(10	(10	(10	(10	20
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	150	200	50	70	20	20	(20	20	20	100

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SAMPLE NO.	4723	4724	4725	4726	4727	4728	4729	4730	5001	5002
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	FELINT	FELINT
MAT. TYPE	QUARTZ	SED RK/Q	FEL PLUT	QUARTZ	QUARTZ	SED RK/Q	SED RK/Q	SED RK/Q	STR SED	STR SED
1 MI. QUAD	C7	C7	C7	C7	C7	C7	C7	C7	D4	D3
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	14	14	14	14	14	32	32	32	1	7
TOWNSHIP	6N	6N	6N	6N	6N	7N	7N	7N	8N	8N
RANGE	2W	2W	2W	2W	2W	1E	1E	1E	7E	8E
Au	29.000	31.000	11.000		.150	.030	.030	(.020	(.020	(.020
Ag	22.000	8.800	2.600		(.200	(.200	(.200	(.200		
Cu	65.000	50.000	(5.000		15.000				15.000	5.000
Pb	1650.000	50.000	25.000		25.000				5.000	5.000
Zn	415.000	125.000	25.000		55.000				80.000	85.000
As										
Sb										
W									(2.000	(2.000
Fe	1X	7X	2X	0.5X	3X	5X	5X	5X	2X	2X
Ca	0.3X	0.7X	1X	0.03X	10X	1.5X	1.5X	1X	1X	1X
Hg	0.05X	5X	1.5X	0.02X	2X	3X	2X	3X	1X	1.5X
Al	10	5	5	5	(1	(1	(1	(1	(1	(1
As	500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	(10	70	30	(10	500	50	100	50	20	10
Ba	(10	2000	500	10	1500	2000	1500	1000	500	1000
Be	(2	(2	(2	(2	2	(2	(2	(2	(2	(2
Bi	10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Ce	(5	30	(5	(5	20	(20	20	20	5	15
Cr	10	500	30	10	200	300	300	300	100	100
Cu	100	100	5	7	50	30	70	70	30	20
Ga	(10	30	20	(10	20	15	15	20	15	20
Ce	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	50	(20	20	20	20	20	20	30	50
Hn	200	1000	500	200	1500	1500	1500	1000	1000	1500
Mo	(2	2	(2	(2	(2	2	50	(2	(2	(2
Nb	(20	20	(20	(20	20	20	20	20	(20	(20
Ni	10	150	20	5	30	20	70	70	50	20
Pb	500	100	50	300	20	15	20	20	10	20
Bb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	(10	30	(10	(10	15	30	20	20	10	15
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	(100	200	1000	(100	500	500	500	700	200	100
Tl	200	5000	1000	50	2000	5000	3000	3000	2000	3000
V	20	300	50	20	150	200	200	200	70	50
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	(10	50	(10	(10	(10	20	10	20	(10	10
Zn	700	(200	(200	200	(200	(200	(200	(200	(200	(200
Zr	(20	200	30	(20	70	200	200	200	70	70

SAMPLE NO.
ROCK AGE
ROCK TYPE
HAT. TYPE
1 MI. QUAD
4 MI. QUAD
SECTION
TOWNSHIP
RANGE

	5003	5004	5005	5006	5007	5008	5009	5010	5011	5012
	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
	FELINT	FELINT	FELINT	FELINT	FELINT	FELINT	FELINT	FELINT	FELINT	MAFINT
	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED
	D3	D3	D3	D3	D3	D3	D3	D3	D3	D3
	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD
	31	29	21	33	3	3	15	2	35	35
	9N	9N	9N	9N	0N	0N	0N	0N	9N	9N
	8E	8E	8E	8E	8E	8E	8E	0E	8E	8E
Au	(.020	(.100	(.040	(.020	(.100	(.020	(.200	(.020	(.020	(.100
Ag										
Cu	5.000	5.000	(5.000	5.000	5.000	(5.000	10.000	10.000	(5.000	5.000
Pb	5.000	5.000	5.000	15.000	10.000	5.000	10.000	10.000	5.000	5.000
Zn	95.000	30.000	20.000	50.000	30.000	15.000	55.000	25.000	15.000	30.000
As										
Sb										
W	(2.000	(2.000	(2.000	(2.000	18	(2.000	18	(2.000	(2.000	(2.000
Fe	2%	2%	1%	.3%	2%	2%	2%	1.5%	2%	3%
Cn	1%	2%	1%	0.5%	1.5%	1%	1.5%	1%	1%	5%
Mo	1%	1%	0.3%	1%	0.3%	0.5%	0.5%	0.2%	0.3%	2%
Al	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
Si	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
P	10	10	10	30	10	10	10	10	10	10
Ca	1000	500	700	1000	500	1000	500	500	1000	100
Ba	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bi	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50 20
Co	10	5	(5	5	10	(5	5	(5	(5	30
Cr	100	10	70	150	(10	200	10	(10	200	70
Cu	30	10	2	10	10	5	15	20	2	30
Ga	15	15	10	15	15	15	15	15	10	10
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	20	20	20	100	30	100	20	20	20
Mn	1500	1000	500	1000	1500	500	1000	1000	500	2000
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Nb	(20	20	(20	20	(20	(20	(20	(20	(20	20
Ni	20	10	5	20	(5	10	5	5	5	20
Pb	20	15	10	10	15	15	15	10	10	(10
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	15	15	(10	15	10	(10	(10	(10	(10	30
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	200	200	100	100	200	200	200	200	100	100
Tl	3000	5000	1000	3000	2000	2000	2000	3000	2000	7000
V	50	50	20	100	50	50	50	30	30	100
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	10	30	(10	10	20	(10	20	(10	10	10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	70	100	100	70	300	50	100	30	30	200

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SAMPLE NO.
ROCK AGE
ROCK TYPE
MAT. TYPE
1 MI. QUAD
4 MI. QUAD
SECTION
TOWNSHIP
RANGE

5013
TERT
MAFINT
STR SED
D3
SEWARD
1
8N
8E

5014
TERT
MAFINT
MAF PLUT
D3
SEWARD
31
9N
9E

5015
TERT
FELINT
FEL PLUT
D3
SEWARD
32
9N
8E

5016
TERT
MAFINT
STR SED
D3
SEWARD
25
9N
8E

5017
TERT
FELINT
STR SED
D3
SEWARD
23
9N
8E

5018
TERT
FELINT
STR SED
D3
SEWARD
14
9N
8E

5019
TERT
FELINT
STR SED
D3
SEWARD
11
9N
8E

5020
TERT
FELINT
BTR SED
D3
SEWARD
13
9N
8E

5021
TERT
FELINT
BTR SED
D3
SEWARD
2
9N
8E

5022
TERT
FELINT
BTR SED
D3
SEWARD
34
10N
8E

(.020

(.020

(.200

(.040

(.100

(.020

(.040

(.020

Au

Ag

Cu

Pb

Zn

As

Sb

W

Fe

Co

Mg

Ag

As

B

Ba

Be

Bi

Cd

Ce

Cr

Cu

Ca

Ge

La

Mn

Mo

Nb

Ni

Pb

Sb

Sc

Sn

Sr

Tl

V

W

Y

Zn

Zr

5.000
5.000
50.000

(2.000

10X
7X
2X

(1
(500
20
100

(2
(10
(50
50

30
30
20
(20

(20
3000
2
20

5
(10
(100
50

(10
200
10000
300

(50
10
(200
(20

15.000
5.000
50.000

(2.000

5X
7X
2X

(1
(500
20
200

(2
(10
(50
20

150
30
20
(20

(20
1500
(2
(20

20
10
(100
30

(10
150
5000
200

(50
20
(200
30

(2.000

2X
5X
0.5X

(1
(500
10
1000

(2
(10
(50
(5

10
10
15
(20

20
700
(2
(20

(5
15
(100
(10

(10
200
2000
70

(50
10
(200
500

(2.000

2X
2X
0.5X

(1
(500
10
700

(2
(10
(50
(5

10
10
15
(20

20
1000
(2
(20

5
15
(100
15

(10
200
2000
70

(50
10
(200
150

(2.000

1.5X
1.5X
0.2X

(1
(500
10
200

(2
(10
(50
(5

(10
20
15
(20

50
700
(2
(20

(5
10
(100
(10

(10
100
2000
50

(50
10
(200
20

(2.000

3X
1X
0.7X

(1
(500
10
1000

(2
(10
(50
(5

200
2
10
(20

(20
1000
(2
(20

10
15
(100
10

(10
100
3000
70

(50
10
(200
70

(2.000

2X
2X
1X

(1
(500
10
500

2
(10
(50
(5

10
15
15
(20

100
2000
(2
20

(5
15
(100
20

(10
200
7000
70

(50
50
(200
1000

(2.000

3X
2X
1X

(1
(500
15
1000

(2
(10
(50
(5

150
5
15
(20

30
1000
(2
(20

15
15
(100
10

(10
200
2000
100

(50
10
(200
50

SAMPLE NO.	5023	5024	5025	5026	5027	5028	5029	5030	5031	5032
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	FELINT	FELINT	FELINT	FELINT	FELINT	FELINT	FELINT	METSBD	METSBD	METSBD
MAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	D3	D3	D3	D3	D3	D3	D3	A1	A1	A1
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	28	28	33	31	9	9	8	35	35	26
TOWNSHIP	10N	10N	10N	10N	9N	9N	9N	18	18	18
RANGE	8E	8E	8E	8E	8E	8E	8E	12E	12E	12E
Ar	<.100	<.200	<.020	<.020	<.200	18	<.200	<.200	<.200	<.200
Ag										
Cu	10.000	5.000	<5.000	5.000	5.000	18	5.000			
Pb	5.000	10.000	5.000	5.000	5.000	18	10.000			
Zn	50.000	60.000	15.000	45.000	20.000	18	25.000			
As										
Sb										
W	<2.000	<2.000	<2.000	<2.000	<2.000	18	<2.000	18		
Fe	5X	2X	2X	2X	3X	1X	2X	5X	1X	5X
Ca	2X	1X	1.5X	0.5X	3X	1X	1.5X	0.3X	0.5X	0.5X
Hg	2X	1X	1X	0.5X	1X	0.3X	0.5X	1X	0.3X	2X
Aq	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	15	15	15	20	10	10	10	70	20	70
Ba	500	300	700	1000	700	500	500	700	100	500
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Co	30	5	5	5	5	7	10	10	5	20
Cr	100	50	10	150	<10	<10	<10	50	10	70
Cu	30	20	10	5	5	20	5	100	20	100
Ca	15	15	15	15	20	15	15	30	10	30
Ga	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	20	20	200	20	100	200	50	<20	30	<20
Mn	2000	1000	1000	1000	2000	1500	2000	1000	1000	1000
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	<20	<20	<20	<20	<20	<20	<20	20	<20	20
Ni	50	30	5	7	5	5	5	50	5	50
Pb	10	10	15	20	20	15	20	15	<10	20
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	20	10	10	<10	20	<10	10	20	<10	20
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	200	200	200	100	200	100	100	100	200	100
Tl	3000	3000	5000	2000	3000	2000	1000	5000	2000	7000
V	200	100	70	30	70	50	50	200	100	300
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	10	<10	20	<10	50	10	20	10	<10	10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	70	50	500	100	50	20	200	100	20	200

SAMPLE NO.	5033	5034	5035	5036	5037	5038	5039	5040	5041	6001	
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	CRET	
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	
MAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	
1 MI. QUAD	A1	A1	A1	A1	A1	A1	A1	A1	A7	D7	
4 MI. QUAD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	CORDOVA	CORDOVA	
SECTION	7	5	28	22	13	6	5	28	23	6	
TOWNSHIP	18	18	1N	1N	1N	1N	1N	2N	2N	119	
RANGE	13E	13E	13E	13E	13E	14E	14E	14E	14E	6W	
Au			<.040			<.100				<.020	<.040
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu											
Pb											
Zn											35.000
As											120.000
Sb											
W											
Fe	5X	3X	5X	5X	5X	5X	5X	3X	5X	3X	
Ca	0.5X	0.3X	0.5X	0.2X	0.2X	0.15X	0.2X	0.2X	0.5X	2X	
Hg	2X	1X	2X	1.5X	1X	2X	1X	1X	1.5X	1X	
Al	<1	<1	<1	<1	5	<1	<1	<1	<1	<1	
Ar	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	
B	70	50	50	50	50	50	50	30	50	20	
Ba	700	500	700	500	500	500	500	700	500	1000	
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	
Ce	50	20	20	20	20	30	20	20	20	30	
Cr	70	50	70	50	50	50	30	20	30	100	
Cu	100	50	100	50	50	70	50	50	20	50	
Co	30	20	20	20	20	20	20	20	20	20	
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	
La	<20	<20	<20	<20	<20	<20	<20	20	<20	30	
Mn	1000	1000	1000	700	1000	1000	700	1000	2000	1000	
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
Nb	20	20	20	20	20	20	20	20	20	20	
Ni	50	30	30	30	30	30	30	30	30	50	
Pb	20	10	15	20	20	20	20	20	10	20	
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	
Se	20	10	15	20	10	20	15	10	10	20	
Si											
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Sr	100	200	150	200	150	200	200	200	200	300	
Tl	7000	5000	3000	5000	5000	5000	5000	5000	5000	5000	
V	300	200	200	200	200	200	200	200	200	100	
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	
Y	10	10	10	10	10	10	10	10	10	10	
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	
Zr	150	100	100	100	70	100	150	70	100	100	

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SAMPLE NO.	6002	6003	6004	6005	6006	6007	6008	6009	6010	6011
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	TERT
ROCK TYPE	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD	METSBD
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	BL/SS/CG
1 MI. QUAD	D7	D7	D7	D7	D7	D7	D7	D7	D7	D7
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	31	25	26	23	23	23	20	20	22	3
TOWNSHIP	108	108	108	108	108	108	108	108	108	138
RANGE	6W	7W	7W	7W	7W	7W	6W	6W	7W	7W
As	<.040	<.020	<.100	<.040	<.020	<.020	<.020	<.020	<.020	
Aq										
Ce	15.000	20.000	10.000	15.000	15.000	15.000	15.000	15.000	10.000	
Pb										
Zn	90.000	90.000	90.000	95.000	65.000	65.000	65.000	65.000	70.000	
As										
Sb										
W										
					3X				3X	
Fe					1X				1X	
Ca					2X				2X	
Hg										
					<1				<1	
Aq					<500				<500	
As					20				20	
B					1000				1000	
Ba										
Be					<2				<2	
Bi					<10				<10	
Cd					<50				<50	
Co					30				30	
					70				70	
Cr					30				20	
Cu					20				15	
Ga					<20				<20	
Ge										
					30				20	
La					1000				1000	
Mn					<2				<2	
Mo					20				20	
Nb										
					50				50	
Ni					10				10	
Pb					<100				<100	
Sb					20				20	
Sc										
					<10				<10	
Sn					500				300	
Sr					7000				7000	
Tl					150				150	
V										
					<50				<50	
W					10				10	
Y					<200				<200	
Zn					150				100	
Zr										

SAMPLE NO.	6012	6013	6014	6015	6016	6017	6018	6019	6020	6021
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
NAT. TYPE	STR SED	SL/89/CG	SL/89/CG	SULFIDES	SULFIDES	SULFIDES	SULFIDES	SULFIDES	SL/88/CC	SULFIDES
1 MI. QUAD	D7	D7	D7	D7	D7	D7	D7	D7	D7	D7
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	2	3	3	3	3	3	3	3	3	3
TOWNSHIP	139	139	139	139	139	139	139	139	139	139
RANGE	7W	7W	7W	7W	7W	7W	7W	7W	7W	7W
Au	<.020			3.700	.520				.400	.360
Ag				30.000	9.800				17.000	3.200
Cu	7400.000			14000.000	165000.000				155000.000	27500.000
Pb	45.000			165.000	5.000				5.000	30.000
Zn	430.000			290000.000	1950.000				450.000	180000.000
As										
Sb										
W										
Fe	0.5X	7X	10X	15X	20X				15X	20X
Ca	1X	0.1X	1.5X	3.0X	0.02X				<0.02X	7.0X
Hg	0.05X	2X	5X	0.5X	1.0X				0.5X	2.0X
Ag	<1	<1	<1	150	20				30	2
As	<500	<500	<500	<500	<500				<500	<500
B	10	10	10	30	30				20	20
Ba	100	1000	1500	20	200				20	10
Be	2	<2	<2	<2	<2				<2	<2
Bi	<10	<10	<10	<10	100				<10	<10
Cd	<50	<50	<50	1500	<50				<50	1500
Ce	<5	15	30	<5	150				50	70
Cr	10	50	100	<10	<10				<10	<10
Cu	2000	2000	200	>10000	>10000				>10000	>10000
Ca	<10	10	20	50	10				10	15
Ge	<20	<20	<20	<20	<20				<20	<20
La	50	20	20	20	20				<20	<20
Mn	300	700	2000	200	50				20	200
Mo	<2	<2	2	20	15				5	15
Nb	<20	20	20	20	20				20	20
Ni	<5	15	50	<5	10				5	5
Pb	10	10	10	300	10				10	30
Sb	<100	<100	<100	<100	<100				<100	<100
Sc	<10	<10	20	<10	<10				<10	<10
Sn	<10	<10	<10	300	<10				<10	300
Sr	100	100	300	100	<100				<100	200
Tl	500	2000	7000	20	50				100	100
V	50	70	150	<10	10				10	10
W	<50	<50	<50	<50	<50				<50	<50
Y	<10	<10	15	<10	<10				<10	<10
Zn	<200	<200	700	>10000	2000				1000	>10000
Zr	<20	70	70	<20	<20				<20	<20

SAMPLE NO.	6022	6023	6024	6025	6026	6027	6028	6029	6030	6031
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSBD	METSBD	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL
MAT. TYPE	SL/88/CG	PHYLLITE	MAF VOLC	SULFIDES	MAF VOLC	MAF VOLC	SL/88/CG	SULFIDES	MAF VOLC	SL/88/CG
1 MI. QUAD	D7	D7	D7	D7	D7	D7	D7	D7	D7	D7
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	3	3	36	36	36	36	36	36	36	36
TOWNSHIP	139	139	118	118	118	118	118	118	118	118
RANGE	7W	7W	8W	8W	8W	8W	8W	8W	8W	8W
Au	(.020	.840	(.020	(.020	(.020			.030		(.020
Ag	3.400	4.000	(.200	6.000	.200			50.000		1.800
Cu	58000.000	15500.000	280.000	10000.000	200.000			49000.000		5900.000
Pb	5.000	45.000	15.000	50.000	20.000			110.000		5.000
Zn	9000.000	25000.000	380.000	8000.000	145.000			4900.000		765.000
As										
Sb										
W										
Fe	15%	15%	7%	15%	10%			20%		15%
Ca	5.0%	8.2%	7.0%	0.7%	5.0%			1.0%		0.15%
Mo	5%	3.0%	18%	7.0%	7.0%			5.0%		3.0%
Ag	5	5	(1	7	(1			150		1
As	(500	(500	(500	(500	(500			(500		(500
B	20	20	10	15	10			20		20
Ba	200	200	10	(10	(10			10		(10
Be	(2	(2	(2	(2	(2			(2		(2
Bi	(10	(10	(10	(10	(10			(10		(10
Cd	(50	200	(50	(50	(50			(50		(50
Ce	100	30	20	100	30			300		150
Cr	20	50	1000	700	1000			150		20
Cu	>10000	>10000	500	>10000	300			>10000		10000
Co	15	20	10	15	15			10		10
Ge	(20	(20	(20	(20	(20			(20		(20
La	(20	(20	(20	(20	(20			(20		(20
Mn	500	100	2000	1500	1500			300		200
Mo	10	15	(2	2	(2			3		5
Nb	20	20	(20	(20	(20			(20		(20
Ni	10	15	100	100	100			70		15
Pb	10	50	10	50	10			100		10
Sb	(100	(100	(100	(100	(100			(100		(100
Sc	(10	(10	50	30	70			10		(10
Sn	(10	(10	(10	(10	(10			(10		(10
Sr	200	(100	100	(100	100			(100		100
Tl	1500	2000	5000	2000	5000			1500		1500
V	50	70	100	100	150			50		30
W	(50	(50	(50	(50	(50			(50		(50
Y	10	(10	15	10	15			(10		(10
Zn	1500	>10000	500	300	200			7000		1500
Zr	20	20	20	(20	20			(20		(20

SAMPLE NO.	6032	6033	6034	6035	6036	6037	6038	6039	6040	6041
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL
MAT. TYPE	BL/BB/CG	MAF VOLC	MAF VOLC	MAF VOLC	MAF VOLC	SULFIDES	MAF VOLC	SCHIST	MAF VOLC	MAF VOLC
1 MI. QUAD	D7	D7	D7	D7	D7	D7	D7	D7	D7	D7
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	36	36	36	6	6	6	6	6	6	6
TOWNSHIP	118	119	119	128	128	128	128	128	128	128
RANGE	8W	8W	8W	7W	7W	7W	7W	7W	7W	7W

(.020
12.000
49500.000
20.000
2400.000

Av										
Aq										
Cu										
Pb										
Zn										
As										
Sb										
W										
Fe		10X		10X	10X	20X	10X	15X	10X	7X
Co		2.0X		15X	15X	1.0X	15X	0.2X	10X	7.0X
Hg		7.0X		10.0X	10.0X	7.0X	10.0X	10.0X	10.0X	10.0X
Ag		<1		<1	<1	10	<1	<1	<1	<1
As		<500		<500	<500	<500	<500	<500	<500	<500
B		10		10	15	30	10	20	10	<10
Ba		100		10	20	10	<10	10	<10	100
Be		<2		<2	<2	<2	<2	<2	<2	<2
Bi		<10		<10	<10	<10	<10	<10	<10	<10
Cd		<50		<50	<50	<50	<50	<50	<50	<50
Ce		30		50	50	300	30	50	30	20
Cr		700		1000	1500	1000	1500	1000	700	150
Cu		700		500	300	>10000	700	2000	500	300
Ca		15		15	15	15	10	30	10	10
Ge		<20		<20	<20	<20	<20	<20	<20	<20
La		<20		<20	<20	<20	<20	<20	<20	<20
Mn		1500		1500	3000	500	200	7000	5000	2000
Mo		2		<2	<2	10	<2	5	<2	<2
Nb		20		<20	<20	<20	<20	20	20	20
Ni		50		100	100	50	100	100	150	50
Pb		<10		<10	<10	<10	10	10	<10	10
Sb		<100		<100	<100	<100	<100	<100	<100	<100
Sc		50		100	100	15	70	30	70	50
Sn		<10		<10	<10	<10	<10	<10	<10	<10
Sr		200		200	200	100	200	100	200	200
Tl		5000		7000	7000	2000	3000	3000	5000	7000
V		100		200	200	100	150	150	200	150
U		<50		<50	<50	<50	<50	<50	<50	<50
Y		10		15	15	<10	10	<10	10	10
Zn		500		<200	<200	3000	<200	1000	500	<200
Zr		30		20	20	20	<20	<20	20	70

SAMPLE NO.	6042	6043	6044	6045	6046	6047	6048	6049	6050	6051
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL
MAT. TYPE	SULFIDES	SULFIDES	SULFIDES	SULFIDES	SULFIDES	SULFIDES	MAF VOLC	SULFIDES	MAF VOLC	MAF VOLC
1 MI. QUAD	D7	D7	D7	D7	D7	D7	D7	D7	D7	D7
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	6	6	6	6	31	31	31	31	31	31
TOWNSHIP	128	128	128	128	118	118	118	118	118	118
RANGE	7W	7W	7W	7W	7W	7W	7W	7W	7W	7W
Au	<.020	<.020	<.020		<.020	.050		.030	<.020	.050
Ag	4.800	5.600	22.000		.800	38.000		28.000	.800	11.000
Cv	27000.000	46000.000	52500.000		3100.000	97500.000		84000.000	1850.000	24500.000
Pb	20.000	15.000	1250.000		15.000	30.000		10.000	20.000	10.000
Zn	1000.000	2850.000	28500.000		2500.000	3000.000		2550.000	1000.000	170.000
As										
Sb										
W										
Fe	7X	>20X	15X		10X	20X		>20X	10X	7X
Ca	0.02X	0.1X	2.0X		5X	1X		0.2X	5X	2X
Hg	0.1X	0.7X	2.0X		3X	0.3X		0.3X	3X	2X
Al	3	10	50		1	20		50	<1	50
As	<500	<500	<500		<500	<500		<500	<500	<500
B	50	50	15		15	50		70	10	10
Ba	10	50	10		500	500		200	100	200
Be	<2	<2	<2		<2	<2		<2	<2	<2
Bi	<10	<10	<10		<10	<10		<10	<10	<10
Cd	<50	<50	100		<50	<50		<50	<50	<50
Ce	5	700	200		70	200		700	70	20
Cr	<10	20	30		500	200		50	500	100
Cu	>10000	>10000	>10000		7000	>10000		>10000	5000	>10000
Ca	10	20	<10		15	10		50	15	10
Ge	<20	<20	<20		<20	<20		<20	<20	<20
La	<20	<20	<20		<20	<20		<20	<20	<20
Mn	200	200	50		2000	.1000		1000	2000	1500
Mo	20	30	5		<2	5		10	<2	<2
Nb	<20	20	20		<20	<20		<20	<20	<20
Ni	5	50	30		150	50		100	150	50
Pb	10	<10	700		<10	10		<10	<10	<10
Sb	<100	<100	<100		<100	<100		<100	<100	<100
Sc	<10	<10	<10		30	<10		<10	50	10
Sn	<10	150	<10		<10	<10		<10	<10	<10
Sr	100	500	<100		<100	<100		<100	<100	100
Tl	100	20	500		5000	1000		700	7000	3000
V	10	<10	20		200	100		50	500	200
W	<50	<50	<50		<50	<50		<50	<50	<50
Y	<10	10	<10		10	<10		<10	20	<10
Zn	500	5000	>10000		5000	5000		5000	2000	<200
Zr	<20	<20	<20		20	<20		<20	20	50

SAMPLE NO.	6052	6053	6054	6055	6056	6057	6058	6059	6060	6061
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	HAFVOL	METSED	METSED
NAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	HAF VOLC	BTR SED	BTR SED
1 MI. QUAD	D7	D7	A7	A7	A7	A7	A7	C6	C5	C4
4 MI. QUAD	CORDOVA	CORDOVA	VALDEZ	VALDEZ	VALDEZ	VALDEZ	VALDEZ	CORDOVA	CORDOVA	CORDOVA
SECTION	22	15	15	15	10	11	17	36	31	16
TOWNSHIP	108	109	109	109	109	109	108	158	139	148
RANGE	8W	8W	8W	8W	8W	8W	7W	5W	3W	1W
Av	<.100	<.040	<.200	<.100	<.200	<.200	.100	<.020	<.040	<.040
Ag	<.200	<.200	<.200	<.200	<.200	<.200	<.200	.200	<.200	<.200
Cu	100.000	20.000	50.000	90.000	35.000	45.000	25.000	90.000	60.000	140.000
Pb	70.000	35.000	60.000	50.000	55.000	40.000	30.000	15.000	30.000	20.000
Zn	250.000	140.000	200.000	200.000	215.000	180.000	115.000	110.000	160.000	100.000
As										
Sb										
W										
Fe	3X	3X	3X	3X	5X	5X	5X	10X	7X	7X
Ca	0.3X	0.5X	0.5X	0.5X	0.3X	0.5X	1X	5X	1X	5X
Hg	1X	1X	1X	1X	1.5X	1.5X	1.5X	3X	1.5X	5X
Ag	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	1000	<500	<500	<500	<500	<500	<500	<500
B	50	30	30	30	50	30	30	30	20	15
Ba	700	700	1000	1000	1000	1000	1000	50	500	300
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Co	20	20	20	20	20	20	20	70	30	30
Cr	100	70	70	100	100	100	100	300	70	100
Cu	100	50	70	100	50	30	30	200	100	200
Ca	20	15	15	15	20	20	20	50	15	20
Ce	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	20	20	20	20	20	20	20	<20	<20	<20
Mn	1500	1000	1500	1500	2000	1500	1000	2000	5000	1500
Mo	<2	<2	<2	<2	<2	<2	<2	<2	10	<2
Nb	20	20	20	20	20	20	20	<20	20	20
Ni	50	30	50	20	50	30	30	100	50	50
Pb	150	20	70	100	20	15	10	<10	10	10
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	20	10	10	10	20	20	20	30	20	50
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	200	200	200	200	200	200	500	100	200	200
Tl	3000	3000	2000	3000	3000	3000	3000	10000	3000	5000
V	100	100	100	100	200	100	100	300	100	200
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	20	15	10	10	10	10	15	70	20	20
Zn	1000	<200	<200	<200	200	<200	<200	<200	<200	<200
Zr	100	200	100	100	100	100	100	200	200	100

SAMPLE NO.	6062	6063	6064	6065	6066	6067	6068	6069	6070	6071
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
HAT. TYPE	SCHIST	SULFIDES	SCHIST	SCHIST	SCHIST	STR SED	SULFIDES	STR SED	STR SED	STR SED
1 MI. QUAD	C4	C4	C4	C4	C4	C4	C4	C4	C4	C4
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	16	16	16	16	16	16	16	16	16	16
TOWNSHIP	148	148	148	148	148	148	148	148	148	148
RANGE	1W	1W	1W	1W	1W	1W	1W	1W	1W	1W
Au		<.020	<.020	<.020	.030	.020	.060	<.020	<.100	<.020
Ag		3.600	8.200	11.000	4.800	.200	14.000	<.200	<.200	<.200
Ce		12000.000	34000.000	5750.000	14000.000	120.000	55000.000	150.000	65.000	120.000
Pb		1150.000	2650.000	2050.000	485.000	20.000	1000.000	25.000	25.000	20.000
Zn		7300.000	19500.000	1800.000	1400.000	95.000	16500.000	110.000	350.000	85.000
As										
Sb										
H										
Fe		15%	15%	10%	10%	7%	15%	7%	2%	5%
Ca		0.5%	0.7%	0.5%	0.2%	5%	0.15%	5%	1%	10%
Mg		7.0%	5.0%	5.0%	5.0%	5%	7.0%	5%	0.5%	5%
881 Ag		2	10	2	5	<1	20	<1	<1	<1
As		<500	<500	<500	<500	<500	<500	<500	<500	<500
B		10	20	10	15	15	20	15	10	20
Ba		1000	500	3000	<10	300	20	300	200	500
Be		<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi		<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd		<50	<50	<50	<50	<50	<50	<50	<50	<50
Co		30	200	5	15	30	70	30	10	50
Cr		50	50	15	30	150	30	100	20	100
Cu		10000	>10000	3000	>10000	150	>10000	300	50	300
Ga		10	15	15	10	20	15	15	<10	15
Ge		<20	<20	<20	<20	<20	<20	<20	<20	<20
La		<20	<20	<20	<20	<20	<20	20	50	20
Mn		200	200	500	500	1500	500	1500	3000	2000
Mo		2	10	3	5	<2	10	<2	2	<2
Nb		20	20	20	20	20	20	20	<20	20
Ni		20	30	5	7	50	15	50	5	50
Pb		700	2000	1500	500	10	700	10	<10	10
Sb		<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc		<10	10	<10	10	50	<10	50	<10	50
Sn		<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr		<100	<100	100	<100	200	<100	200	100	200
Ti		2000	3000	2000	3000	5000	3000	7000	2000	7000
V		70	100	70	70	200	50	500	200	300
W		<50	<50	<50	<50	<50	<50	<50	<50	<50
Y		<10	<10	<10	<10	20	<10	20	<10	20
Zn		7800	>10000	1500	1000	<200	>10000	<200	<200	<200
Zr		20	20	20	30	100	20	50	<20	100

SAMPLE NO.	6072	6073	6074	6075	6076	6077	6078	6079	6080	6081
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
MAT. TYPE	BTR SED	SULFIDES	PHYLLITE	PHYLLITE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	C4	C4	C4	C4	C4	C4	C4	C4	C4	C5
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	21	16	4	4	21	28	32	31	6	23
TOWNSHIP	149	149	148	148	148	148	148	149	159	155
RANGE	1W	1W	1W	1W	1W	1W	1W	1W	1W	2W
Ag	<.040	<.020	<.020	<.020	<.020	<.040	<.200	<.100	<.040	<.020
Au	<.200	.400	.200	.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	160.000	5250.000	85.000	135.000	160.000	55.000	40.000	60.000	45.000	25.000
Pb	20.000	30.000	20.000	20.000	20.000	15.000	30.000	15.000	35.000	25.000
Zn	90.000	215.000	130.000	80.000	90.000	125.000	100.000	130.000	100.000	100.000
As										
Sb										
W										
Fe	7%	7%	5%	7%	10%	5%	5%	7%	7%	7%
Ca	5%	7.0%	2.0%	7%	10%	0.7%	2%	2%	0.7%	1%
Hg	3%	5.0%	5.0%	5%	2%	2%	2%	2%	3%	2%
Ag	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	20	10	<10	20	20	70	50	70	50	50
Ba	500	1000	1500	1000	700	1000	1000	1500	1500	1500
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Co	50	50	10	30	30	30	20	20	20	20
Cr	100	50	30	100	100	100	100	100	100	70
Cu	200	10000	200	700	500	100	70	100	100	70
Ca	15	15	10	20	30	20	20	20	20	15
Ce	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	20	<20	20	20	30	20	20	20	20	20
Mn	1500	500	1000	1500	1000	2000	2000	2000	2000	2000
Nb	<2	3	<2	<2	2	<2	<2	<2	<2	<2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	50	50	15	50	30	30	30	30	50	50
Pb	<10	50	20	<10	20	15	20	20	20	10
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	50	20	10	50	100	30	30	30	30	20
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	200	200	500	200	200	200	200	300	200	200
Ti	5000	5000	5000	7000	7000	5000	5000	5000	5000	5000
V	300	150	100	500	300	200	200	200	200	200
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	20	15	10	20	20	15	20	20	10	10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	100	20	50	70	30	100	50	100	100	100

SAMPLE NO.	6082	6083	6084	6085	6086	6087	6088	6089	6090	6091
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	MAFVOL.	MAFVOL	MAFVOL
MAT. TYPE	STR SED	STR SED	SL/SS/CG	HILL PR	HILL PR	STR SED	STR SED	STR SED	STR SED	SL/SS/CG
1 MI. QUAD	C5	R4	R4	R4	R4	R4	R4	C5	C4	C4
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	27	22	22	22	22	22	22	24	24	24
TOWNSHIP	159	169	169	169	169	169	169	149	149	149
RANGE	2W	1E	1E	1E	1E	1E	1E	2W	2W	2W
Au	(.200	(.100	(.020	25.000	50.000	(.100	(.040	(.020	(.040	(.020
Ag	(.200	(.200	.200	2.000	2.600	(.200	(.200	(.200	(.200	.400
Cu	40.000	40.000	160.000	210.000	85.000	45.000	40.000	75.000	135.000	205.000
Pb	45.000	25.000	25.000	75.000	2500.000	30.000	30.000	10.000	15.000	25.000
Zn	155.000	135.000	120.000	230.000	75.000	140.000	135.000	65.000	80.000	100.000
As										
Sb										
W										
Fe	5%	5%	7%	3%	5%	5%	5%	10%	10%	3%
Co	0.7%	1%	1.0%	0.5%	0.5%	1%	1.5%	7%	7%	0.7%
Mn	1%	5%	3.0%	1.2	0.5%	3%	3%	7%	5%	3%
Al	(1	(1	(1	(1	(1	(1	(1	(1	(1	(1
As	(500	(500	(500	3000	7000	(500	(500	(500	(500	(500
B	70	20	15	10	20	20	10	10	10	10
Ba	1500	1500	1500	500	700	1000	1000	200	100	700
Be	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Bi	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Ce	15	10	15	5	10	10	15	20	20	7
Cr	100	70	100	15	50	50	50	100	100	100
Cu	100	100	500	300	150	50	70	150	300	500
Ga	20	15	15	10	10	10	10	15	15	15
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La	20	(20	20	20	(20	20	20	(20	(20	(20
Hf	1500	1500	500	200	1000	1500	1000	1500	1000	1500
Hg	(2	(2	(2	(2	(2	(2	2	(2	2	(2
Nb	20	20	20	(20	20	20	20	20	20	20
I										
Ni	30	20	30	7	50	15	10	30	30	30
Pb	20	50	20	100	5000	30	30	10	10	20
Sb	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sc	20	15	20	(10	10	10	10	30	30	20
Sn	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Sr	200	200	500	200	100	200	200	200	200	100
Ti	3000	7000	7000	1500	2000	5000	5000	10000	10000	5000
V	200	100	150	70	70	70	50	200	150	150
W	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Y	10	10	10	(10	(10	10	(10	10	15	10
Zn	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
Zr	100	50	70	20	30	50	30	50	30	50

SAMPLE NO.	6092	6093	6094	6095	6096	6097	6098	6099	6100	6101
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	METGED	METGED	METBED	MAFVOL	MAFVOL	METSED	MAFVOL
MAT. TYPE	BTR SED	SULFIDES	BTR SED	BTR SED	BTR SED	BTR BED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	C4	C4	B2	B2	B2	B2	B2	B2	B2	B2
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	13	13	14	16	28	33	1	12	23	30
TOWNSHIP	148	148	178	178	178	178	188	188	188	188
RANGE	2W	2W	4E	4E	4E	4E	4E	4E	4E	5E
Au	<.020		<.020	<.200	<.040	<.040	<.020	<.020	<.100	<.100
Ag	<.200		<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	65.000		55.000	40.000	40.000	25.000	100.000	80.000	95.000	175.000
Pb	10.000		20.000	20.000	20.000	15.000	20.000	15.000	15.000	20.000
Zn	95.000		110.000	130.000	125.000	100.000	100.000	60.000	80.000	85.000
As										
Sb										
W										
Fe	7X		5X	5X	5X	5X	7X	7X	7X	10X
Ca	7X		2X	2X	1.5X	2X	3X	5X	3X	7X
Hg	7X		5X	3X	5X	3X	7X	10X	7X	10X
Al	<1		<1	<1	<1	<1	<1	<1	<1	<1
As	<500		<500	<500	<500	<500	<500	<500	<500	<500
B	10		20	10	10	10	30	20	20	20
Ba	1500		1000	1500	500	1000	300	200	200	100
Be	<2		<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10		<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50		<50	<50	<50	<50	<50	<50	<50	<50
Co	15		10	10	15	5	15	20	20	30
Cr	100		100	50	100	70	100	500	150	150
Cu	150		150	50	50	100	150	200	150	300
Ca	10		15	10	10	10	10	10	10	10
Ce	<20		<20	<20	<20	<20	<20	<20	<20	<20
La	<20		20	20	20	20	20	<20	<20	<20
Mn	1000		1000	1000	1000	1000	1500	1500	1000	1500
Mo	<2		<2	<2	<2	<2	2	2	2	2
Nb	20		20	20	20	<20	<20	<20	20	20
Ni	20		20	20	20	10	30	50	30	50
Pb	10		30	20	20	20	20	10	10	10
Sb	<100		<100	<100	<100	<100	<100	<100	<100	<100
Sc	20		15	10	10	10	20	20	20	30
Sn	<10		<10	<10	<10	<10	<10	<10	<10	<10
Sr	300		500	500	500	500	500	200	200	500
Tl	5000		5000	5000	7000	7000	7000	7000	7000	7000
V	100		100	50	70	100	100	150	100	200
W	<50		<50	<50	<50	<50	<50	<50	<50	<50
Y	10		<10	<10	10	<10	10	<10	10	10
Zn	<200		<200	<200	<200	<200	<200	<200	<200	<200
Zn	30		50	70	50	70	30	70	50	50

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SAMPLE NO. ROCK AGE ROCK TYPE MAT. TYPE 1 MI. QUAD 4 MI. QUAD SECTION TOWNSHIP RANGE	6102 TERT METBED STR BED B2 CORDOVA 36 189 4E	6103 TERT METBED STR BED B2 CORDOVA 1 198 4E	6104 TERT METBED STR BED A2 CORDOVA 7 198 5E	6105 TERT METBED STR BED A2 CORDOVA 12 198 4E	6106 TERT METBED STR BED A2 CORDOVA 24 198 4E	6107 TERT METBED STR BED A2 CORDOVA 30 198 5E	6108 TERT SED STR BED A2 CORDOVA 22 198 5E	6109 TERT SED STR BED B2 CORDOVA 3 198 5E	6110 TERT SED STR BED B2 CORDOVA 35 189 5E	6111 TERT SED STR BED B2 CORDOVA 9 189 5E
Av	<.100	<.100	<.040	<.040	<.100	<.040	<.020	<.020	<.020	<.020
Aq	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200
Cu	145.000	55.000	170.000	60.000	35.000	60.000	40.000	50.000	55.000	35.000
Pb	10.000	20.000	10.000	15.000	20.000	20.000	25.000	25.000	25.000	20.000
Zn	80.000	150.000	90.000	110.000	115.000	120.000	125.000	160.000	135.000	115.000
As										
Sb										
W										
Fe	7Z	5Z	7Z	5Z	2Z	7Z	5Z	5Z	5Z	5Z
Ca	7Z	1Z	10Z	1.5Z	0.7Z	2Z	0.5Z	0.5Z	0.7Z	0.2Z
Hg	7Z	5Z	3Z	1Z	0.7Z	2Z	2Z	2Z	2Z	1.5Z
Ag	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	20	20	100	30	30	50	100	100	70	70
Ba	200	700	300	1500	700	1500	700	1000	500	700
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Ce	20	15	30	20	15	30	20	20	30	20
Cr	100	50	500	70	50	200	150	150	150	200
Cu	200	100	200	70	30	100	70	100	100	70
Co	15	10	15	15	10	20	20	20	20	10
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	20	20	20	30	30	20	20	20	20	20
Mn	1500	2000	2000	2000	2000	3000	1000	1000	1000	500
Mo	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	20	20	<20	20	20	20	20	20	20	20
Ni	30	20	70	50	20	100	50	50	50	50
Pb	10	20	<10	15	10	20	20	20	20	20
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	20	15	50	15	10	30	20	20	20	20
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	200	500	300	500	500	500	100	200	100	100
Tl	10000	5000	7000	3000	2000	5000	3000	3000	3000	5000
V	150	50	300	100	100	200	200	200	200	200
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	10	10	20	10	10	10	10	10	20	10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	50	30	100	100	50	100	100	100	100	100

SAMPLE NO.	6112	6113	6114	6115	6116	6117	6118	6119	6120	6121
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSBD	METSBD	MAFVOL	MAFVOL	MAFVOL	METSBD	METSBD	METSBD	MAFVOL	METSBD
MAT. TYPE	BTR SED	BTR SED	MAF VOLC	STR BED	STR BED	STR BED	STR SED	STR SED	STR SED	STR SED
1 MI. QUAD	B6	B6	B5	B5	B5	B5	C5	B6	B7	B7
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	14	26	26	26	25	20	1	23	32	1
TOWNSHIP	168	168	168	168	168	168	168	178	178	188
RANGE	4W	4W	4W	4W	4W	3W	3W	6W	6W	7W

	2X	5X	3X	5X	5X	5X	5X	7X	10X	7X
Au										
Ag										
Cu										
Pb										
Zn										
As										
Sb										
W										
Fe	0.7X	1.5X	1X	1.5X	1X	0.3X	1X	1X	10X	2X
Ca	0.5X	2X	2X	3X	2X	2X	2X	3X	7X	2X
Hg										
Ag	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	20	50	50	70	70	70	70	30	30	50
Ba	300	1000	3000	1000	700	1000	1000	100	100	1000
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Ce	20	20	30	20	20	15	30	30	50	30
Cr	30	100	100	150	150	150	150	200	200	150
Cu	20	50	50	100	100	100	100	100	200	150
Ca	15	20	20	20	20	20	20	20	20	20
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	50	20	20	20	20	20	20	<20	<20	20
Mn	3000	1500	5000	2000	1500	1000	2000	2000	2000	2000
Mo	<2	<2	<2	<2	<2	<2	<2	2	2	<2
Nb	<20	<20	20	20	20	20	20	20	20	20
Ni	5	50	50	70	50	50	50	70	100	50
Pb	15	20	30	15	30	20	20	20	<10	10
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	<10	20	15	30	20	20	30	50	50	30
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	100	300	300	300	200	200	300	300	100	200
Ti	1000	3000	3000	5000	5000	5000	7000	7000	7000	5000
V	100	200	200	300	200	200	300	300	300	200
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	<10	10	10	15	10	10	20	20	50	20
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	20	150	200	100	100	150	150	100	100	100

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SAMPLE NO.	6122	6123	6124	6125	6126	6127	6128	6129	6130	6131
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METBED	METSED	METSED	METSED	METSED
HAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	B7	B7	B7	B7	B8	B8	B8	B8	B8	B7
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	11	16	20	35	5	31	30	21	21	11
TOWNSHIP	189	189	189	189	198	189	189	189	189	189
RANGE	7W	7W	7W	8W	8W	8W	8W	8W	8W	8W

	7X	5X	3X	3X	3X	3X	5X	3X	5X	3X
Au										
Ag										
Cu										
Pb										
Zn										
As										
Sb										
W										
Fe	1X	0.5X	0.5X	0.5X	0.2X	0.2X	0.5X	0.5X	0.2X	0.3X
Co										
Mg	3X	2X	2X	1.5X	1X	1.5X	3X	1X	2X	1.5X
Aq	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	100	70	50	50	70	70	70	50	100	70
Ba	2000	1000	1000	1000	700	700	1000	700	1000	1000
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Ce	30	15	20	10	10	15	20	15	15	15
Cr	200	100	100	100	70	70	150	70	100	100
Cu	150	50	50	20	30	30	50	50	30	50
Ca	30	20	15	15	15	20	20	15	20	20
Ce	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Lu	20	20	20	20	20	20	20	30	20	20
Mn	2000	1000	1000	1000	1000	1000	2000	1000	1500	1000
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	20	20	20	20	20	20	20	20	20	20
Ni	100	50	50	30	30	30	50	30	30	30
Pb	20	20	15	10	15	20	20	20	20	20
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	30	20	20	10	10	15	20	15	20	20
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	200	200	200	200	200	200	200	200	200	200
Tl	7000	3000	3000	3000	3000	3000	5000	3000	5000	3000
V	200	200	200	200	200	200	200	150	200	200
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	20	10	10	10	10	10	10	10	10	10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	200	70	100	70	70	100	100	100	100	50

461

SAMPLE NO.	6132	6133	6134	6135	6136	6137	6138	6139	6140	6141
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSSED	MAFVOL	MAFVOL	METSSED	METSSED	METSSED	SED	SED	MAFVOL	MAFVOL
MAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	B7	B7	B7	B7	B7	B7	B2	B2	B2	B2
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	11	6	6	29	9	27	32	4	19	8
TOWNSHIP	189	189	188	178	168	169	178	188	168	168
RANGE	8W	7W	7W	7W	6W	6W	5E	5E	5E	5E

Av
Ag
Cu
Pb
Zn
As
Sb
W

Fe	3X	5X	5X	3X	3X	2X	5X	5X	5X	5X
Ca	0.3X	0.5X	0.5X	0.5X	0.5X	0.2X	0.7X	1X	0.5X	0.7X
Hq	2X	2X	2X	1.5X	1.5X	0.7X	2X	2X	1X	2X
Ag	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	70	50	50	50	50	50	50	50	50	20
Ba	1000	1500	1000	500	1000	700	700	700	700	700
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Ce	15	20	20	15	20	10	20	20	20	20
Cr	150	100	100	50	70	50	100	200	70	50
Cu	50	50	50	50	10	15	70	100	50	50
Ca	20	15	15	15	10	15	20	15	20	15
Ce	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	20	20	20	20	20	30	20	20	20	<20
Mn	1000	1000	1000	1500	1500	3000	1500	1000	1000	700
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	20	20	20	20	20	20	20	20	20	<20
Ni	50	50	50	30	30	20	50	70	30	50
Pb	20	20	10	15	10	15	10	10	10	10
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	20	20	20	15	15	10	20	20	10	10
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	200	200	200	200	200	200	100	100	100	100
Tl	3000	3000	5000	2000	3000	2000	5000	5000	3000	5000
V	200	200	200	100	100	100	200	200	150	150
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	10	10	10	10	10	<10	10	10	10	<10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	100	70	100	100	100	50	50	70	70	100

SAMPLE NO.	6142	6143	6144	6145	6146	6147	6148	6149	6150	6151
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	METSBD	METSBD
MAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	B2	B2	B1	B1	B1	C1	C1	C1	B7	B7
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	22	24	16	15	7	5	1	33	25	28
TOWNSHIP	169	169	169	169	169	169	169	158	169	169
RANGE	5E	5E	6E	6E	7E	7E	7E	8E	7W	7W

Au										
Ag										
Cu										
Pb										
Zn										
As										
Sb										
W										
Fe	7Z	3Z	2Z	3Z	3Z	3Z	7Z	5Z	3Z	5Z
Co	2Z	5Z	15Z	5Z	10Z	10Z	5Z	0.5Z	1Z	1Z
Hg	5Z	5Z	2Z	5Z	2Z	3Z	5Z	2Z	2Z	5Z
Aq	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	10	10	<10	10	10	20	50	100	20	50
Ba	1000	200	1500	2000	500	1000	500	700	1000	1500
Be	<2	<2	<2	<2	<2	2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Ce	20	30	<5	20	20	10	50	20	30	30
Cr	150	50	30	30	30	30	200	100	70	70
Cu	70	100	20	30	50	30	100	70	30	70
Ca	20	20	15	15	15	10	20	15	15	20
Ce	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	<20	<20	300	<20	<20	20	<20	<20	<20	<20
Mn	1000	700	1000	1000	1000	1000	1000	700	1500	1500
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Ni	70	70	10	70	70	70	100	70	50	70
Pb	20	10	20	20	10	15	20	20	10	30
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	10	10	15	15	10	15	20	10	10	15
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	100	200	300	500	500	300	200	100	200	200
Tl	10000	7000	5000	5000	7000	5000	10000	7000	5000	7000
V	200	100	100	100	150	150	200	200	150	200
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	10	10	20	20	10	20	15	10	<10	10
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	300	100	300	500	200	1000	200	100	50	100

SAMPLE NO.	6152	6153	6154	6155	6156	6157	6158	6159	6160	6161
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	FELINT
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	STR SED	STR SED	PAN CON	MAF VOLC	MAF VOLC	STR SED
1 MI. QUAD	B7	B7	B7	B8	B8	B8	B4	B7	B7	C6
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	29	30	25	4	7	19	22	36	36	26
TOWNSHIP	169	169	169	178	178	178	168	179	178	139
RANGE	7W	8W	8W	8W	8W	8W	1E	8W	8W	8W
Au										
Ag										
Cu										
Pb										
Zn										
As										
Sb										
W										
Fe	2X	5X	3X	5X	3X	2X	20X		10X	3X
Ca	0.5X	0.7X	0.7X	1X	0.7X	0.5X	0.05X		5X	1.5X
Hg	2X	5X	3X	5X	2X	1X	0.02X		3X	0.5X
Ag	<1	<1	<1	<1	<1	<1	1000		<1	<1
As	<500	<500	<500	<500	<500	<500	>10000		<500	<500
B	30	30	30	20	20	20	30		50	10
Ba	700	1500	700	1000	1500	1000	200		500	1500
Be	<2	<2	<2	<2	<2	<2	<2		<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10		<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50		<50	<50
Ce	20	30	20	20	15	20	200		50	<5
Cr	50	100	50	70	70	50	10		200	<10
Cu	30	50	50	50	50	30	150		150	10
Ga	15	20	10	20	20	15	20		30	10
Ge	<20	<20	<20	<20	<20	<20	<20		<20	<20
La	20	<20	<20	<20	<20	50	<20		<20	100
Mn	1000	1000	2000	1500	1000	700	100		2000	500
Mo	<2	<2	<2	<2	<2	<2	50		<2	<2
Nb	<20	<20	<20	<20	<20	<20	<20		<20	<20
Ni	20	50	30	50	50	20	500		50	5
Pb	20	20	10	10	20	10	200		<10	30
Sb	<100	<100	<100	<100	<100	<100	300		<100	<100
Sc	10	15	10	10	10	10	<10		50	<10
Sn	<10	<10	<10	<10	<10	<10	<10		10	<10
Str	100	100	100	200	100	200	<100		100	200
Tl	3000	5000	3000	5000	5000	5000	1500		10000	2000
V	200	150	150	150	100	100	20		700	10
W	<50	<50	<50	<50	<50	<50	<50		<50	<50
Y	<10	10	<10	<10	<10	<10	<10		50	10
Zn	<200	<200	<200	<200	<200	<200	<200		<200	<200
Zr	100	100	70	70	200	70	20		30	150

SAMPLE NO.
ROCK AGE
ROCK TYPE
MAT. TYPE
1 MI. QUAD
4 MI. QUAD
SECTION
TOWNSHIP
RANGE

	6162 TERT METBED STR BED C6 CORDOVA 14 138 5W	6163 CRET METBED STR BED D7 CORDOVA 10 119 7W	6164 CRET METBED STR BED D7 CORDOVA 10 119 7W	6165 CRET METBED STR BED D7 CORDOVA 22 118 7W	6166 CRET METBED STR BED D7 CORDOVA 14 119 7W	6167 CRET METBED STR BED D7 CORDOVA 14 119 7W	6168 CRET METBED STR BED D7 CORDOVA 23 118 7W	6169 CRET METBED STR BED D7 CORDOVA 32 108 7W	6170 CRET METBED STR BED D7 CORDOVA 29 108 7W	6171 CRET METBED STR BED D7 CORDOVA 6 119 7W
Au										
Ag										
Cu										
Pb										
Zn										
As										
Sb										
W										
Fe	5X 2X	3X 1.5X	3X 1.5X	5X 1X	3X 1.5X	3X 1X	3X 1X	3X 0.7X	5X 0.7X	3X 3X
Ca	7X	3X	2X	3X	1X	2X	2X	2X	5X	3X
Hg										
Aq	<1	<1	<1	<1	<1	<1	<1	<1	<1	1
As	(500	(500	(500	(500	(500	(500	(500	(500	(500	(500
B	20	10	10	10	10	10	10	10	10	10
Ba	2000	1500	1500	2000	1500	2000	1500	2000	2000	2000
Be										
Bi	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Cd	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
Ce	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
Co	15	5	7	15	7	5	7	15	5	7
Cr										
Cu	50	50	20	50	30	50	30	50	30	200
Ca	100	20	20	150	70	10	70	15	150	20
Ce	15	10	10	10	10	10	15	15	15	15
Ge	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
La										
Mn	20	20	50	20	20	50	70	20	20	700
Nb	1000	500	1500	1000	500	500	500	500	700	1000
Mo	(2	(2	(2	(2	(2	(2	(2	(2	(2	(2
Ni	(20	(20	(20	(20	(20	(20	(20	(20	(20	(20
Pb										
Sb	20	15	10	30	15	15	20	20	30	10
Sc	50	10	(10	10	10	10	10	10	30	30
Sn	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
Sr	10	10	(10	10	10	10	10	10	15	15
Tl										
V										
W	20	15	10	30	15	15	20	20	30	10
Y	50	10	(10	10	10	10	10	10	15	15
Zn	(100	(100	(100	(100	(100	(100	(100	(100	(100	(100
	10	10	(10	10	10	10	10	10	15	15
	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
	500	500	500	500	500	500	500	500	7000	7000
	5000	7000	7000	7000	7000	7000	5000	7000	7000	7000
	100	50	100	150	100	50	50	30	100	100
	(50	(50	(50	(50	(50	(50	(50	(50	(50	(50
	(10	(10	(10	(10	(10	(10	(10	(10	(10	(10
	(200	(200	(200	(200	(200	(200	(200	(200	(200	(200
	30	50	50	50	100	70	50	30	70	200

186

SAMPLE NO.	6172	6173	6174	6175	6176	6177	6178	6179	6180	6181
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METBED	METBED	METBED	METBED	METBED	METBED	METBED	METBED	METBED	METBED
HAT. TYPE	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED	BTR SED
1 MI. QUAD	D7	D7	D7	D7	D7	D7	D7	D7	D7	D7
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	1	1	11	13	13	24	13	13	30	18
TOWNSHIP	118	118	118	118	118	118	118	118	118	118
RANGE	8W	8W	8W	8W	8W	8W	8W	8W	7W	7W

	5X	3X	5X	5X	2X	3X	3X	2X	3X	5X
Au										
Aq										
Cu										
Pb										
Zn										
As										
Sb										
W										
Fe	5X	3X	5X	5X	2X	3X	3X	2X	3X	5X
Ca	0.7X	0.7X	0.7X	0.7X	0.5X	1X	0.5X	0.7X	0.7X	0.7X
Hq	5X	1X	2X	2X	1X	2X	2X	1.5X	1.5X	2X
Aq	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	15	30	50	50	50	20	30	30	50	50
Ba	2000	1500	1500	1500	1000	500	1500	700	700	1500
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Ce	20	5	20	20	30	20	15	20	50	20
Cr	70	100	150	150	100	150	100	100	100	200
Cu	150	100	100	50	70	100	50	150	150	50
Ga	15	20	30	20	15	15	20	15	15	30
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	20	30	20	20	30	20	30	30	20	20
Mn	1500	1500	2000	1500	3000	1500	1000	3000	5000	1500
Mo	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Ni	50	50	50	50	30	30	30	30	30	50
Pb	50	10	30	30	20	20	20	20	20	20
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	15	10	20	20	10	20	10	10	15	20
Sr	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Tl	200	200	200	200	200	200	200	200	200	200
V	5000	3000	5000	5000	3000	3000	3000	2000	3000	5000
W	150	150	150	150	150	150	100	150	150	200
Y	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Zn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Zp	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
	50	50	100	100	70	50	100	50	50	100

199

SAMPLE NO.	6182	6183	6184	6185	6186	6187	6188	6189	6190	6191
ROCK AGE	CRET	CRET	CRET	CRET	CRET	TERT	CRET	CRET	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METBED	METSED	METSED	MAFVOL	MAFVOL
MAT. TYPE	STR SED	STR SED	STR SED	STR SED	BTR SED	BTR SED	BTR SED	BTR SED	MAF VOLC	MAF VOLC
1 MI. QUAD	D7	D7	D7	D7	D7	D7	D7	D7	D1	D1
4 MI. QUAD	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA	BEWARD	BEWARD
SECTION	19	20	20	19	19	6	7	35	35	35
TOWNSHIP	118	118	118	118	118	128	128	118	118	118
RANGE	7W	7W	7W	8W	7W	7W	6W	7W	11W	11W

As
Ag
Cu
Pb
Zn
As
Sb
W

	5X	2X	3X	3X	5X	3X	5X	3X	7X	7X
Fe	0.5X	0.2X	0.5X	0.5X	0.7X	2X	0.7X	0.5X	10X	10X
Ca	2X	0.7X	1X	1.5X	2X	2X	2X	1.5X	3X	3X
Hg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ag	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
As	50	50	50	50	50	20	50	50	15	15
B	1500	700	1000	1000	1500	700	1500	1500	300	300
Ba	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Be	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Bi	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Cd	20	30	20	20	20	20	20	20	70	70
Ce	150	70	150	100	150	100	150	100	700	300
Cr	100	30	30	30	300	300	30	50	200	200
Cu	20	15	20	20	30	10	20	20	20	20
Ga	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Ce	20	50	30	20	20	20	20	20	<20	<20
La	1500	1500	1500	1000	1500	2000	1000	1500	2000	2000
Mn	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Mo	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Nb	50	20	30	30	30	30	30	30	150	100
Ni	30	20	20	20	30	10	20	20	<10	10
Pb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sb	20	10	10	15	20	20	20	15	50	50
Sc	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sn	200	200	200	200	200	200	200	200	<100	<100
Sr	5000	2000	3000	3000	3000	3000	5000	3000	7000	7000
Tl	200	100	100	150	200	100	100	100	500	500
V	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
W	20	10	10	20	20	20	20	20	20	20
Y	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zn	100	70	70	100	70	50	100	70	50	50
Zr										

SAMPLE NO.	6192	6193	6194	6195	6196	6197	6198	6199	6200	6201
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
RICK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL
KAT. TYPE	MAF VOLC	MAF VOLC	MAF VOLC	MAF VOLC	STR SED	MAF VOLC	MAF VOLC	MAF VOLC	QUARTZ	QUARTZ
1 MI. QUAD	D1	D1	D1	D1	D1	D1	D1	D1	D1	D1
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	30	30	30	30	3	3	3	3	4	33
TOWNSHIP	119	119	119	119	129	129	129	129	129	119
RANGE	11W	10W	10W	10W	11W	11W	11W	11W	11W	11W

Av						.030	.060		.020	.040
Aq						.400	1.000		6.000	5.200
Cu						850.000	2900.000		16000.000	12500.000
Pb						10.000	50.000		20.000	105.000
Zn						25.000	20.000		85.000	300.000
As										
Sb										
W										

Fe	5%	10%	5%	7%	5%	5%	7%		10%	120%
Co	15%	10%	2%	15%	7%	2%	0.7%		10%	0.5%
Mn	3%	3%	2%	5%	3%	2%	3%		3%	5%

Aq	(1	(1	(1	(1	(1	(1	1		15	5
As	(500	(500	(500	(500	(500	(500	(500		(500	(500
B	10	10	10	10	10	15	20		30	70
Ba	50	50	30	30	200	10	30		10	150

Br	(2	(2	(2	(2	(2	(2	(2		(2	(2
Bi	(10	(10	(10	(10	(10	(10	(10		(10	(10
Cd	(50	(50	(50	(50	(50	(50	(50		(50	(50
Ce	50	70	10	100	50	20	30		30	2000

Cr	700	50	100	200	500	50	10		200	10
Cu	150	200	300	200	100	1500	5000		10000	10000
Ga	15	30	10	20	20	10	15		30	30
Ge	(20	(20	(20	(20	(20	(20	(20		(20	(20

La	(20	(20	(20	(20	20	(20	(20		(20	(20
Mn	2000	2000	1500	2000	2000	500	300		2000	500
Hg	(2	(2	(2	(2	(2	2	3		(2	50
Nb	(20	(20	(20	(20	(20	(20	(20		(20	(20

Ni	200	100	50	150	50	20	20		50	100
Pb	(10	(10	10	10	20	(10	20		10	50
Sb	(100	(100	(100	(100	(100	(100	(100		(100	(100
Sc	30	50	(10	50	50	(10	(10		20	(10

Sn	(10	(10	(10	(10	10	(10	(10		(10	(10
Sr	(100	(100	(100	(100	100	(100	(100		200	(100
Tl	5000	10000	1000	10000	5000	1000	2000		5000	1000
V	300	700	100	500	200	200	200		200	50

W	(50	(50	(50	(50	(50	(50	(50		(50	(50
Y	10	30	(10	20	30	(10	(10		(10	(10
Zn	(200	(200	700	(200	(200	(200	(200		(200	(200
Zr	20	100	(20	20	70	(20	20		< 20	20

201

SAMPLE NO.	6202	6203	6204	6205	6206	6207	6208	6209	6210	6211
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	FELINT	FELINT	FELINT	FELINT
MAT. TYPE	QUARTZ	QUARTZ	QUARTZ	MAF VOLC	MAF VOLC	MAF VOLC	FEL PLUT	FEL PLUT	QUARTZ	FEL PLUT
1 MI. QUAD	D1	D1	D1	D1	D1	D1	D2	D2	D2	D2
4 MI. QUAD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD
SECTION	33	33	33	33	33	33	18	18	18	18
TOWNSHIP	118	118	118	118	118	118	10N	10N	10N	10N
RANGE	11W	11W	11W	11W	11W	11W	12E	12E	12E	12E
As	<.020	<.020	<.020							
Aq	.200	5.600	1.800							
Cu	650.000	6750.000	4200.000					235.000		
Pb	10.000	20.000	10.000					10.000		
Zn	55.000	155.000	150.000					15.000		
As										
Sb										
W										
Fe	15%	10%	7%	20%	7%	7%		3%	15%	5%
Ca	7%	0.7%	0.07%	0.03%	10%	15%		0.7%	<0.02%	<0.02%
Hq	3%	2%	0.3%	1%	10%	10%		1.5%	0.03%	0.2%
Aq	<1	7	<1	<1	<1	<1		<1	5	30
As	<500	<500	<500	<500	<500	<500		<500	500	500
B	15	10	10	30	10	15		20	<10	<10
Ba	200	10	10	15	50	10		3000	10	50
Be	<2	<2	<2	<2	<2	<2		<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10		<10	15	20
Cd	<50	<50	<50	<50	<50	<50		<50	<50	<50
Ce	70	500	300	1000	50	70		10	30	<5
Cr	200	50	<10	<10	500	1000		15	<10	<10
Cu	500	7000	5000	5000	200	300		500	1500	700
Ga	30	15	<10	20	15	15		15	10	<10
Ge	<20	<20	<20	<20	<20	<20		<20	<20	<20
La	<20	<20	<20	<20	<20	<20		<20	<20	<20
Mn	2000	1000	200	700	3000	3000		700	30	200
Mo	<2	3	<2	50	<2	<2		<2	20	20
Nb	<20	<20	<20	<20	<20	<20		<20	<20	<20
Ni	50	100	20	5	100	200		10	<5	5
Pb	<10	10	<10	<10	<10	<10		10	50	100
Sb	<100	<100	<100	<100	<100	<100		<100	<100	<100
Sc	50	20	<10	<10	50	70		10	<10	<10
Sn	<10	<10	<10	<10	<10	<10		<10	<10	<10
Sr	<100	<100	<100	<100	100	100		100	<100	<100
Tl	>10000	5000	500	3000	10000	10000		7000	70	500
V	500	200	10	100	500	300		50	<10	<10
W	<50	<50	<50	<50	<50	<50		<50	<50	<50
Y	50	10	<10	<10	20	20		20	<10	<10
Zn	<200	<200	<200	<200	<200	<200		<200	500	200
Zr	100	<20	<20	<20	70	50		500	<20	<20

SAMPLE NO.	6212	6213	6214	6215	6216	6217	6218	6219	6220	6221
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	CRET
ROCK TYPE	FELINT	FELINT	METBED	METBED	METBED	METBED	METBED	METSED	METSED	METSED
MAT. TYPE	FEL PLUT	FEL PLUT	STR SED	BL/BS/CG	BL/BS/CG	STR SED	STR SED	STR SED	STR SED	QUARTZ
1 MI. QUAD	D2	D2	D2	D2	D2	D2	D2	D2	D2	D3
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	18	18	8	10	11	3	3	3	11	12
TOWNSHIP	10N	10N	10N	10N	10N	10N	10N	10N	10N	10N
RANGE	12E	12E	11E	10E	10E	10E	10E	10E	10E	8E
Au										.070
Ag										.600
Cu	285.000									15.000
Pb										90.000
Zn	40.000									25.000
As										10.000
Sb										
W										
Fe	3X		2X	7X	5X	2X	3X	3X	1.5X	
Ca	0.15X		0.7X	0.7X	1.5X	1X	2X	0.7X	0.5X	
Hg	0.5X		1X	3X	2X	1X	2X	1.5X	0.5X	
Ag	<1		<1	<1	<1	<1	<1	<1	<1	
As	<500		<500	<500	<500	<500	<500	<500	<500	
B	20		20	150	150	30	30	50	30	
Ba	300		700	500	1000	500	700	700	50	
Be	<2		<2	<2	<2	<2	<2	<2	<2	
Bi	<10		<10	<10	<10	<10	<10	<10	<10	
Cd	<50		<50	<50	<50	<50	<50	<50	<50	
Co	<5		5	10	15	5	20	30	10	
Cr	15		200	100	150	70	100	100	50	
Cu	300		30	100	100	30	100	100	100	
Ca	20		10	30	15	10	20	15	10	
Ce	<20		<20	<20	<20	<20	<20	<20	<20	
La	20		50	<20	<20	20	20	20	20	
Mn	100		700	1500	2000	1000	1500	1500	1000	
Mo	<2		<2	<2	<2	<2	<2	<2	<2	
Nb	<20		20	<20	<20	<20	20	20	<20	
Ni	<5		10	50	100	20	30	50	10	
Pb	300		10	20	10	30	100	30	100	
Sb	<100		<100	<100	<100	<100	<100	<100	<100	
Sc	<10		10	20	15	10	20	20	10	
Sn	<10		<10	<10	<10	<10	<10	<10	<10	
Sr	100		200	150	200	200	200	200	200	
Tl	3000		2000	10000	10000	2000	3000	3000	2000	
V	50		70	200	200	100	150	100	70	
W	<50		<50	<50	<50	<50	<50	<50	<50	
Y	10		10	15	10	10	10	10	<10	
Zn	<200		<200	<200	200	<200	500	<200	<200	
Zr	200		30	150	200	50	100	100	100	

SAMPLE NO.	6222	6223	6224	6225	6226	6227	6228	6229	6230	6231
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSED	METSED	METSED	METBED	METSED	METSED	METBED	METBED	METBED	METSED
MAT. TYPE	8L/89/CG	QUARTZ	8L/89/CG	QUARTZ	QUARTZ	8L/88/CG	QUARTZ	8L/88/CG	QUARTZ	QUARTZ
1 MI. QUAD	D3	D3	D3	D3	D3	D3	D3	D3	D3	D3
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	12	12	12	12	12	12	12	1	1	1
TOWNSHIP	10N	10N	10N	10N	10N	10N	10N	10N	10N	10N
RANGE	8E	8E	8E	8E	8E	8E	8E	8E	8E	8E
		(.020			29.000		.060			.750
Av		(.200			1.800		(.200			.200
Aq		10.000			50.000		10.000			5.000
Cu		5.000			65.000		5.000			15.000
Pb		30.000			105.000		15.000			5.000
Zn		10.000			(10.000		(10.000			850.000
As										
Sb										
W										

SAMPLE NO. ROCK AGE ROCK TYPE MAT. TYPE 1 MI. QUAD 4 MI. QUAD SECTION TOWNSHIP RANGE	6232 CRET METSSED STR BED D3 SEWARD 6 10N 9E	6233 CRET METSSED STR BED D3 SEWARD 6 10N 9E	6234 CRET METSSED STR BED D3 SEWARD 6 10N 9E	6235 CRET METSSED STR BED D3 SEWARD 6 10N 9E	6236 CRET METSSED QUARTZ D3 SEWARD 6 10N 9E	6237 CRET METSSED QUARTZ D3 SEWARD 6 10N 9E	6238 CRET METSSED SL/BS/CG D3 SEWARD 6 10N 9E	6239 CRET METSSED STR BED D3 SEWARD 1 10N 8E	6240 CRET METSSED QUARTZ D3 SEWARD 12 10N 8E	6241 CRET METSSED QUARTZ D3 SEWARD 12 10N 8E
Au	<.020	<.020	<.020	<.020				.040		
Ag	<.200	<.200	<.200	<.200				<.200		
Cu	45.000	15.000	45.000	50.000				10.000		
Pb	10.000	5.000	20.000	25.000				5.000		
Zn	85.000	45.000	95.000	100.000				55.000		
As	<10.000	20.000	20.000	40.000				20.000		
Sb										
W										
Fe	3X	2X	5X	2X			5X	3X		
Ca	0.5X	1.5X	0.5X	0.2X			3X	1.5X		
Hg	2X	2X	2X	1.5X			3X	1X		
Ag	<1	<1	<1	<1			<1	2		
As	<500	<500	<500	<500			<500	<500		
B	30	20	50	50			10	15		
Ba	700	500	1000	1000			1500	500		
Be	<2	<2	<2	<2			<2	<2		
Bi	<10	<10	<10	<10			<10	<10		
Cd	<50	<50	<50	<50			<50	<50		
Ce	15	10	20	20			10	10		
Cr	100	100	300	100			500	150		
Cu	70	30	150	50			100	30		
Ga	20	15	20	15			20	10		
Ge	<20	<20	<20	<20			<20	<20		
La	20	20	20	20			20	30		
Mn	1000	1000	1500	1000			1000	1000		
Mo	<2	<2	<2	<2			7	<2		
Nb	20	<20	<20	20			20	<20		
Ni	50	30	150	50			30	50		
Pb	20	20	15	20			20	15		
Sb	<100	<100	<100	<100			<100	<100		
Sc	20	10	20	20			20	20		
Sn	<10	<10	<10	<10			<10	<10		
Sr	200	500	200	200			200	500		
Tl	3000	3000	5000	3000			5000	3000		
V	100	50	200	100			200	100		
W	<50	<50	<50	<50			<50	<50		
Y	10	10	10	10			15	20		
Zn	<200	<200	<200	<200			<200	<200		
Zr	100	100	100	70			100	100		

SAMPLE NO.	6242	6243	6244	6245	6246	6247	6248	6249	6250	6251
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
HAT. TYPE	QUARTZ	BL/BB/CG	QUARTZ	QUARTZ	QUARTZ	QUARTZ	STR BED	BL/BB/CG	BL/BB/CG	QUARTZ
1 MI. QUAD	D3	D3	D3	D3	D3	D3	D3	D3	D3	D3
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	12	12	12	12	5	5	5	5	5	5
TOWNSHIP	10N	10N	10N	10N	10N	10N	10N	10N	10N	10N
RANGE	8E	8E	8E	8E	9E	9E	9E	9E	9E	9E
As	55.000	.760	12.000	6.700	.020	.080	<.020	<.020	<.020	<.020
Ag	32.000	.200	16.000	2.200	<.200	<.200	<.200	<.200	.200	<.200
Ce	25.000	50.000	15.000	20.000	5.000	15.000	25.000	25.000	90.000	45.000
Pb	600.000	20.000	105.000	100.000	5.000	10.000	10.000	15.000	45.000	20.000
Zn	110.000	95.000	40.000	150.000	5.000	20.000	75.000	75.000	75.000	45.000
As	20.000	20.000	30.000	20.000	<10.000	<10.000	20.000	<10.000	<10.000	<10.000
Sb										
W										
Fe							3X	3X	5X	2X
Ca							0.5X	3X	2X	5X
Hg							1.5X	3X	3X	1X
Ag							<1	<1	<1	<1
As							<500	<500	<500	<500
B							30	50	50	20
Ba							1000	1000	1000	2000
Be							<2	<2	<2	<2
Bl							<10	<10	<10	<10
Cd							<50	<50	<50	<50
Co							10	5	10	5
Cr							100	300	300	200
Cu							70	30	150	50
Ga							10	20	20	10
Ge							<20	<20	<20	<20
La							20	20	20	20
Mn							1000	1500	1000	500
Mo							<2	<2	2	<2
Nb							<20	20	20	<20
Ni							50	30	20	20
Pb							10	20	50	20
Sb							<100	<100	<100	<100
Sc							20	15	30	<10
Sn							<10	<10	<10	<10
Sr							300	700	500	300
Tl							3000	5000	7000	1000
V							100	200	500	70
W							<50	<50	<50	<50
Y							15	10	20	<10
Zn							<200	<200	<200	<200

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SAMPLE NO.	6252	6253	6254	6255	6256	6257	6258	6259	6260	6261
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
MAT. TYPE	8L/88/CG	STR SED	STR SED	BTR SED	STR SED	STR SED	STR SED	8L/88/CG	8L/88/CG	STR SED
1 MI. QUAD	D3	D3	D3	D3	D3	D3	D3	D3	D3	D3
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	5	14	14	14	13	13	24	13	13	14
TOWNSHIP	10N	10N	10N	10N	10N	10N	10N	10N	10N	10N
RANGE	9E	9E	9E	9E	9E	9E	9E	9E	9E	9E
Au		<.020	<.020	<.020	<.020	<.020	<.040	<.020		<.020
Ag		.200	<.200	<.200	<.200	.200	.200	<.200		<.200
Cu		20.000	20.000	20.000	30.000	20.000	80.000	170.000		40.000
Pb		5.000	5.000	5.000	5.000	5.000	10.000	15.000		5.000
Zn		45.000	45.000	40.000	45.000	40.000	100.000	125.000		70.000
As		20.000	20.000	10.000	40.000	30.000	40.000	10.000		20.000
Sb										
W										
Fe		2X	3X	2X	2X	3X	5X	7X		5X
Ca		2X	2X	2X	3X	3X	1X	2X		2X
Hg		1X	1.5X	1.5X	1X	1.5X	1X	3X		2X
Ag		<1	<1	<1	<1	<1	<1	<1		<1
As		<500	<500	<500	<500	<500	<500	<500		<500
B		30	20	20	20	30	20	30		30
Ba		500	700	1000	1000	1000	1000	1000		1000
Be		<2	<2	<2	<2	<2	<2	<2		<2
Bi		<10	<10	<10	<10	<10	<10	<10		<10
Cd		<50	<50	<50	<50	<50	<50	<50		<50
Ce		5	10	10	10	5	20	20		30
Cr		100	100	100	200	100	70	300		200
Cu		50	100	30	30	70	100	200		100
Ca		10	10	10	10	10	15	20		15
Co		<20	<20	<20	<20	<20	<20	<20		<20
La		20	20	20	20	20	30	20		20
Mn		1000	1500	1000	1000	3000	3000	3000		1000
Mo		<2	<2	<2	<2	<2	2	2		<2
Nb		20	20	20	20	20	20	20		20
Ni		50	70	70	50	70	50	50		100
Pb		20	20	20	20	10	30	20		20
Sb		<100	<100	<100	<100	<100	<100	<100		<100
Sc		10	10	20	20	15	20	20		20
Sn		<10	<10	<10	<10	<10	<10	<10		<10
Sr		500	500	500	500	500	200	200		300
Ti		5000	5000	5000	5000	10000	3000	3000		3000
V		70	70	70	70	100	100	150		100
W		<50	<50	<50	<50	<50	<50	<50		<50
Y		15	15	20	20	20	20	20		15
Zn		<200	<200	<200	<200	<200	<200	<200		<200
Zr		200	200	300	150	150	100	150		100

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SAMPLE NO.	6262	6263	6264	6265	6266	6267	6268	6269	6270	6271
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
HAT. TYPE	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED	STR BED
1. MI. QUAD	D3	D3	D3	D3	D3	D3	D3	D3	D3	D3
4 MI. QUAD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD
SECTION	24	24	24	16	21	21	21	21	21	21
TOWNSHIP	10N	10N	10N	10N	10N	10N	10N	10N	10N	10N
RANGE	9E	9E	9E	9E	9E	9E	9E	9E	9E	9E
Au	<.200	<.100	<.020	<.100	<.020	<.020	<.020	<.020	<.020	<.200
Ag	.200	.200	<.200	<.200	<.200	<.200	<.200	.200	.200	<.200
Cu	20.000	95.000	20.000	20.000	25.000	20.000	25.000	20.000	15.000	25.000
Pb	5.000	10.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
Zn	45.000	115.000	40.000	75.000	65.000	55.000	55.000	65.000	70.000	65.000
As	20.000	50.000	10.000	30.000	20.000	20.000	20.000	20.000	10.000	20.000
Sb										
W										
Fe	3X	5X	3X	3X	3X	3X	3X	3X	5X	3X
Ca	3X	1X	2X	2X	2X	2X	3X	2X	2X	2X
Hg	2X	1.5X	2X	1X	1.5X	1X	1.5X	1X	2X	1X
Al	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	20	70	20	20	20	20	10	20	30	20
Ba	1000	1500	700	700	700	700	1000	1000	1500	500
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Ce	10	5	10	15	20	10	15	20	30	20
Cr	150	150	150	200	200	200	200	200	300	100
Cu	50	150	30	50	50	30	30	30	50	50
Ca	20	20	10	20	20	20	15	20	20	20
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
La	20	50	20	20	20	20	20	20	20	20
Mn	1500	2000	1500	1000	1000	1000	1000	1000	1000	1000
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nb	20	<20	20	20	20	<20	<20	20	20	<20
Ni	50	50	50	70	100	50	70	50	50	50
Pb	30	20	10	20	20	20	20	20	30	20
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Sc	20	20	20	20	20	10	20	20	30	20
Sn	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sr	500	100	500	500	500	500	500	500	500	500
Tl	5000	5000	5000	3000	5000	3000	5000	5000	7000	5000
V	100	200	100	150	100	100	100	100	150	100
W	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Y	30	20	30	10	20	10	20	20	20	20
Zn	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Zr	200	70	200	100	500	100	200	100	100	150

SAMPLE NO.
ROCK AGE
ROCK TYPE
MAT. TYPE
1 MI. QUAD
4 MI. QUAD
SECTION
TOWNSHIP
RANGE

6272
CRET
METSSED
STR BED
D3
SEWARD
21
10N
9E

6273
CRET
METSSED
STR BED
D3
SEWARD
21
10N
9E

6274
CRET
METSSED
STR BED
D3
SEWARD
21
10N
9E

6275
CRET
METSSED
STR BED
D3
SEWARD
21
10N
9E

6276
CRET
METSSED
STR BED
D3
SEWARD
28
10N
9E

6277
CRET
METSSED
STR BED
D3
SEWARD
28
10N
9E

6278
CRET
METSSED
BL/88/CG
D3
SEWARD
21
10N
9E

6279
CRET
METSSED
BL/88/CG
D3
SEWARD
21
10N
9E

6280
CRET
METSSED
QUARTZ
D4
SEWARD
9
10N
7E

6281
CRET
METSSED
QUARTZ
D4
SEWARD
9
10N
7E

Au	<.020	<.020	<.020	<.020	<.200	<.040	<.020	.050
Ag	<.200	.200	.200	<.200	<.200	<.200	<.200	<.200
Cu	10.000	30.000	15.000	25.000	25.000	15.000	40.000	5.000
Pb	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
Zn	65.000	50.000	70.000	55.000	65.000	50.000	85.000	15.000
As	20.000	30.000	20.000	30.000	30.000	40.000	<10.000	
Sb								
W								

Fe	3X	3X	5X	3X	3X	3X	5X
Ca	2X	2X	2X	2X	2X	2X	2X
Hg	2X	1X	2X	2X	2X	2X	3X

Ag	<1	<1	<1	<1	<1	<1	<1
As	<500	<500	<500	<500	<500	<500	<500
B	20	20	20	20	20	20	20
Ba	2000	1000	1000	700	1000	1000	700

Be	<2	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50	<50
Co	10	5	10	10	20	10	15

Cr	200	200	500	100	300	150	200
Cu	30	50	30	50	70	30	50
Ca	20	10	15	15	15	15	20
Ce	<20	<20	<20	<20	<20	<20	<20

La	20	20	20	20	20	<20	20
Mn	1000	1000	1500	1000	1000	1000	1500
Mo	<2	<2	<2	<2	<2	<2	<2
Nb	20	<20	20	<20	<20	<20	20

Ni	50	50	70	50	50	50	50
Pb	20	20	10	20	20	20	20
Sb	<100	<100	<100	<100	<100	<100	<100
Sc	20	20	30	20	20	20	20

Sn	<10	<10	<10	<10	<10	<10	<10
Sr	500	500	500	500	500	500	700
Ti	3000	5000	5000	3000	5000	5000	5000
V	100	100	200	100	150	100	100

W	<50	<50	<50	<50	<50	<50	<50
Y	10	15	20	20	15	20	15
Zn	<200	<200	<200	<200	<200	<200	<200
Zr	150	200	150	150	150	150	150

SAMPLE NO.	6282	6283	6284	6285	6286	6287	6288	6289	6290	6291
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
MAT. TYPE	SED RK/D	BL/BB/CG	QUARTZ	BL/BB/CG	BL/BB/CG	BL/BB/CG	QUARTZ	BL/BB/CG	STR BED	STR BED
1 MI. QUAD	D4	A4	A4	A4	A4	A4	A4	A4	A4	D4
4 MI. QUAD	SEWARD	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	ANCHOR	SEWARD
SECTION	9	32	32	32	32	32	32	32	32	32
TOWNSHIP	10N	11N	11N	11N	11N	11N	11N	11N	11N	11N
RANGE	7E	7E	7E	7E	7E	7E	7E	7E	7E	7E
As	.530	.270	2.800	.070	<.020	<.020	1.800	<.020	<.020	<.020
Ag	.200	.200	.600	<.200	<.200	.400	<.200	<.200	<.200	<.200
Cu	20.000	30.000	15.000	30.000	15.000	5.000	130.000	25.000	20.000	20.000
Pb	15.000	15.000	20.000	20.000	20.000	160.000	10.000	15.000	15.000	15.000
Zn	65.000	80.000	80.000	70.000	70.000	165.000	55.000	100.000	95.000	95.000
As		600.000	350.000	70.000	20.000	70.000	<10.000	30.000	40.000	40.000
Sb		3.000	2.000	7.000	4.000	3.000	4.000	3.000	2.000	2.000
H										
Fe		5X		3X			5X	5X	5X	5X
Ca		5X		5X			5X	0.5X	0.7X	0.7X
Hg		2X		2X			5X	3X	5X	5X
Ag		<1		<1			<1	<1	<1	<1
As		700		<500			<500	<500	<500	<500
B		50		70			<10	50	50	50
Ba		1000		1500			1500	1500	1500	1500
Be		<2		2			<2	<2	<2	<2
Bi		<10		<10			<10	<10	<10	<10
Cd		<50		<50			<50	<50	<50	<50
Ce		20		15			20	20	20	30
Cr		200		300			300	300	300	500
Cu		50		30			200	50	50	50
Ga		20		20			20	20	20	20
Ge		<20		<20			<20	<20	<20	<20
La		20		20			<20	20	20	20
Mn		1000		700			1000	1000	1000	1000
Mo		<2		<2			<2	<2	<2	<2
Nb		20		20			20	20	20	20
Ni		50		50			100	70	100	100
Pb		20		20			<10	20	30	30
Sb		<100		100			<100	<100	<100	<100
Sr		15		15			15	30	30	30
Sn		<10		<10			<10	<10	<10	<10
Br		500		100			500	200	200	200
Ti		3000		3000			5000	5000	5000	5000
V		100		100			200	200	200	200
W		<50		<50			<50	<50	<50	<50
Y		10		10			10	10	10	15
Zn		<200		<200			<200	<200	<200	<200
Zr		100		100			200	100	100	100

SAMPLE NO.	6292	6293	6294	6295	6296	6297	6298	6299	6300	6301
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED
MAT. TYPE	STR BED	STR BED	STR BED	STR BED	STR BED	BL/88/CG	QUARTZ	BL/88/CG	BED RK/D	QUARTZ
1 MI. QUAD	D4	A4	D4	D4	D4	D3	D3	D3	D3	D3
4 MI. QUAD	SEWARD	ANCHOR	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	32	32	4	4	34	14	14	14	14	14
TOWNSHIP	11N	11N	10N	10N	11N	10N	10N	10N	10N	10N
RANGE	7E	7E	7E	7E	7E	8E	8E	8E	8E	8E
Av	<.020	<.200	<.020	<.100	<.200	<.020			.570	.990
Aq	.200	.200	<.200	<.200	<.200	<.200		<.200	<.200	.200
Cu	30.000	35.000	25.000	40.000	20.000	25.000		50.000	40.000	40.000
Pb	15.000	15.000	15.000	20.000	20.000	20.000		20.000	20.000	20.000
Zn	90.000	90.000	95.000	115.000	80.000	55.000		85.000	50.000	50.000
As	40.000	40.000	20.000	100.000	30.000	<10.000		550.000	140.000	140.000
Sb	4.000	2.000	2.000		18					
W										
Fe	3%	5%	5%	3%	3%	3%				
Ca	0.5%	1%	0.5%	0.5%	0.5%	0.5%				
Hq	2%	3%	3%	2%	2%	2%				
Ag	<1	<1	<1	<1	<1	<1				
As	<500	<500	<500	<500	<500	<500				
B	50	50	50	50	50	50				
Ba	1000	2000	2000	1500	1500	1000				
Be	<2	<2	<2	<2	<2	<2				
Bi	<10	<10	<10	<10	<10	<10				
Cd	<50	<50	<50	<50	<50	<50				
Ce	20	20	20	30	20	10				
Cr	150	500	200	200	100	500				
Cu	50	100	30	70	30	20				
Ga	15	15	20	15	15	15				
Ge	<20	<20	<20	<20	<20	<20				
La	20	20	20	20	20	20				
Mn	1000	1500	1000	1500	1500	1000				
Mo	<2	<2	<2	<2	<2	<2				
Nb	20	<20	20	<20	<20	20				
Ni	70	150	50	50	30	20				
Pb	20	<10	20	20	20	20				
Sb	<100	<100	<100	<100	<100	150				
Sc	20	20	30	20	20	20				
Sn	<10	<10	<10	<10	<10	<10				
Sr	200	200	300	200	200	200				
Ti	3000	7000	5000	3000	3000	2000				
V	100	300	200	100	100	100				
W	<50	<50	<50	<50	<50	<50				
Y	10	<10	20	20	15	10				
Zn	<200	<200	<200	<200	<200	<200				
Zr	100	200	100	150	100	100				

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SAMPLE NO.	6302	6303	6304	6305	6306	6307	6308	6309	6310	6311
ROCK AGE	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	TERT
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	METSSED	FELINT
NAT. TYPE	QUARTZ	SL/SB/CG	SED RK/Q	BTR BED	SULFIDES	BTR BED	BTR BED	BTR BED	QUARTZ	FEL PLUT
1 MI. QUAD	D3	D3	D3	D3	D3	D3	D3	D3	D3	D4
4 MI. QUAD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD	BEWARD
SECTION	14	14	14	14	19	15	16	16	16	14
TOWNSHIP	10N	10N	10N	10N	10N	10N	10N	10N	10N	10N
RANGE	8E	8E	8E	8E	9E	8E	8E	8E	7W	6E
Au	2.100	<.020		<.200		<.020	<.200	<.020		
Ag	<.200	<.200		<.200		<.200	<.200	<.200		
Cu	5.000	30.000		35.000		20.000	30.000	20.000		
Pb	15.000	10.000		25.000		25.000	25.000	20.000		
Zn	50.000	90.000		105.000		125.000	130.000	120.000		
As	80.000	70.000		20.000		20.000	60.000	500.000		
Sb										
W										
Fe				5X		3X	1.5X	5X		
Ca				0.2X		0.5X	0.7X	0.5X		
Hq				2X		2X	0.5X	1X		
Ag				<1		<1	<1	<1		
As				<500		<500	<500	500		
B				50		30	20	50		
Ba				1000		1000	300	1000		
Be				<2		<2	<2	<2		
Bi				<10		<10	<10	<10		
Cd				<50		<50	<50	<50		
Ce				15		20	10	30		
Cr				100		200	20	150		
Cu				50		30	30	50		
Co				20		15	10	20		
Ce				<20		<20	<20	<20		
La				20		20	30	<20		
Mn				1500		2000	1500	3000		
Mo				<2		<2	<2	2		
Nb				20		20	<20	20		
Ni				50		50	20	50		
Pb				10		10	10	10		
Sb				<100		<100	<100	<100		
Sc				20		20	<10	20		
Sn				<10		<10	<10	<10		
Sr				200		200	200	200		
Tl				5000		3000	1500	3000		
V				200		100	70	150		
W				<50		<50	<50	<50		
Y				<10		10	<10	10		
Zn				<200		<200	<200	<200		
Zr				70		100	30	50		

SAMPLE NO.	6312	6313	6314	6315	6316	6317	6318	6319	6320	6321
ROCK AGE	CRET	CRET	CRET	TERT	CRET	CRET	TERT	TERT	TERT	TERT
ROCK TYPE	METSED	METSED	METSED	FELINT	METSED	METSED	FELINT	FELINT	FELINT	FELINT
MAT. TYPE	SED RK/Q	MILL PR	QUARTZ	FEL PLUT	QUARTZ	SL/L8	MAF VOLC	FEL PLUT	FEL PLUT	SL/88/CG
1 MI. QUAD	D4	D4	D4	D4	D4	D4	D4	D4	D4	D4
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	14	14	24	24	24	31	31	31	31	31
TOWNSHIP	10N	10N	10N	10N	10N	9N	9N	9N	9N	9N
RANGE	6E	6E	6E	6E	6E	6E	6E	6E	6E	6E

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Au		3.200	17.000							
Ag		2.000	14.000							
Cu		70.000	5.000							
Pb		120.000	240.000							
Zn		140.000	50.000							
As		10.000	200.000							
Sb										
W		10.000	(2.000)							
Fe		5%	1%			7%	1%	1.5%		
Ca		1%	1.5%			0.5%	1%	0.5%		
Mg		2%	0.1%			3%	0.1%	0.2%		
Al										
Ag		1	30			<1	<1	<1		
As		<500	500			<500	<500	<500		
B		10	10			200	<10	30		
Ba		300	200			1000	2000	1500		
Be		<2	<2			<2	<2	<2		
Bi		<10	<10			<10	<10	<10		
Cd		<50	<50			<50	<50	<50		
Ce		10	<5			20	<5	<5		
Cr		200	200			300	200	50		
Cu		100	10			50	20	20		
Co		15	<10			20	20	20		
Ce		<20	<20			<20	<20	<20		
La		<20	20			20	100	20		
Mn		700	1000			2000	500	500		
Mo		2	<2			2	<2	<2		
Nb		20	<20			20	<20	<20		
Ni		30	10			70	5	5		
Pb		200	500			20	50	50		
Sb		<100	100			<100	<100	<100		
Sc		15	<10			30	<10	<10		
Sn		20	<10			<10	<10	<10		
Sr		100	100			200	<100	<100		
Tl		2000	500			7000	1000	1500		
V		70	20			200	10	15		
W		<50	<50			<50	<50	<50		
Y		10	<10			<10	10	30		
Zn		<200	<200			<200	<200	<200		
Zr		50	20			100	150	150		

SAMPLE NO.	6322	6323	6324	6325	6326	6327	6328	6329	6330	6331
ROCK AGE	TERT	TERT	CRET	CRET	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	FELINT	FELINT	METBED	METBED	FELINT	MAFVOL	MAFVOL	MAFVOL	FELINT	MAFVOL
MAT. TYPE	FEL PLUT	FEL PLUT	STR SED	QUARTZ	QUARTZ	BTR SED	MAF VOLC	MAF VOLC	FEL PLUT	MAF VOLC
1 MI. QUAD	D4	D4	D5	D5	D4	B3	B3	B2	B2	B2
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	31	31	26	26	25	19	19	26	26	27
TOWNSHIP	9N	9N	9N	9N	9N	4N	4N	4N	4N	4N
RANGE	6E	6E	5E	5E	5E	10E	10E	10E	10E	10E

Av				.130	<.020					
Aq				<.200	<.200					
Cv				10.000	15.000	30.000				
Pb				<5.000	5.000					
Zn				10.000	10.000	55.000				
As				100.000	<10.000					
Sb										
W										
Fe			5%			3%	10%	10%	10%	10%
Ca			0.5%			2%	15%	15%	15%	15%
Hg			2%			2%	7%	7%	7%	7%
Ag			<1			<1	<1	<1	<1	<1
As			<500			<500	<500	<500	<500	<500
B			50			10	10	10	10	10
Ba			700			10	<10	10	10	10
Be			<2			<2	<2	<2	<2	<2
Bi			<10			<10	<10	<10	<10	<10
Cd			<50			<50	<50	<50	<50	<50
Ce			5			7	50	70	70	70
Cr			500			300	300	200	200	200
Cu			50			20	70	200	200	200
Ga			15			10	20	30	20	20
Ge			<20			<20	<20	<20	<20	<20
La			50			20	<20	<20	<20	<20
Mn			500			700	1500	2000	2000	2000
Mo			<2			<2	<2	<2	<2	<2
Nb			20			20	20	20	20	20
Ni			20			20	100	70	70	70
Pb			10			<10	<10	<10	<10	<10
Sb			<100			<100	<100	<100	<100	<100
Sc			20			20	50	50	50	50
Sni			<10			<10	<10	<10	<10	<10
Sr			200			200	100	100	100	100
Ti			3000			3000	10000	10000	10000	10000
V			100			100	200	300	500	500
W			<50			<50	<50	<50	<50	<50
Y			20			<10	20	30	20	20
Zn			<200			<200	<200	500	<200	<200
Zr			100			20	70	70	50	50

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SAMPLE NO.	6332	6333	6334	6335	6336	6337	6338	6339	6340	6341
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL
MAT. TYPE	MAF VOLC	STR BED	STR BED	MAF VOLC	BCHIST	BCHIST	BL/BB/CG	BL/BB/CG	MAF VOLC	SULFIDES
1 MI. QUAD	B2	B2	B2	B2	B2	B2	B2	B2	B2	B3
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	27	15	15	15	15	15	3	3	3	31
TOWNSHIP	4N	3N	3N	3N	3N	3N	3N	3N	3N	4N
RANGE	10E	10E	10E	10E	10E	10E	10E	10E	10E	10E
Au										(.020
Ag										
Cu	105.000	35.000	415.000		115000.000			195.000	235.000	5050.000
Pb										
Zn	25.000	60.000	55.000		1000.000			125.000	30.000	40.000
As										
Sb										
W										
Fe	10X	5X	5X			15X		5X	7X	10X
Ca	20X	10X	7X			0.2X		2X	20X	20X
Hg	5X	3X	5X			1X		2X	5X	3X
Ag	<1	<1	1			15		<1	<1	2
As	<500	<500	<500			<500		<500	<500	<500
B	20	10	10			30		10	10	15
Ba	10	10	<10			50		500	50	10
Be	<2	<2	<2			<2		<2	<2	<2
Bi	<10	<10	<10			<10		<10	<10	<10
Cd	<50	<50	<50			<50		<50	<50	<50
Co	50	20	20			300		20	30	30
Cr	50	1000	1000			100		200	500	200
Cu	200	200	100			>10000		500	500	7000
Ca	20	15	20			20		20	15	20
Ce	<20	<20	<20			<20		<20	<20	<20
La	<20	<20	<20			<20		<20	<20	<20
Mn	2000	1000	1000			500		700	3000	2000
Mo	<2	<2	<2			2		15	<2	3
Nb	20	20	20			20		20	20	20
Ni	15	70	100			70		70	100	70
Pb	<10	<10	<10			<10		30	<10	<10
Sb	<100	<100	<100			<100		<100	100	<100
Sc	50	30	50			10		30	30	30
Sn	<10	<10	<10			<10		<10	<10	<10
Sr	100	100	100			<100		100	100	700
Tl	10000	5000	5000			1000		5000	5000	5000
V	300	200	200			70		200	150	200
W	<50	<50	<50			<50		<50	<50	<50
Y	50	10	20			<10		20	20	20
Zn	<200	<200	<200			1000		<200	<200	<200
Zr	200	30	30			<20		100	70	20

SAMPLE NO. ROCK AGE ROCK TYPE MAT. TYPE 1 MI. QUAD 4 MI. QUAD SECTION TOWNSHIP RANGE	6352 TERT MAFVOL MAF VOLC B2 SEWARD 29 3N 10E	6353 TERT MAFVOL MAF VOLC B2 SEWARD 29 3N 10E	6354 TERT MAFVOL STR BED B2 SEWARD 29 3N 10E	6355 TERT MAFVOL STR BED B3 SEWARD 10 2N 9E	6356 TERT MAFVOL MAF VOLC B3 SEWARD 10 2N 9E	6357 TERT MAFVOL MAF VOLC B3 SEWARD 10 2N 9E	6358 TERT MAFVOL MAF VOLC B3 SEWARD 10 2N 9E	6359 TERT METBED PHYLLITE A3 SEWARD 33 18 9E	6360 TERT METBED BL/88/CG A3 SEWARD 34 19 9E	6361 TERT METBED BL/88/CG A3 SEWARD 9 28 9E
Au										
Ag							25.000			
Cu			250.000	150.000	60.000					
Pb			70.000	430.000	170.000		130.000			
Zn										
As										
Sb										
W										
Fe			5X	5X	10X					
Ca			7X	7X	2X					
Hg			5X	5X	5X					
Ag			<1	<1	<1		<1			
As			<500	<500	<500		<500			
B			<10	<10	10		10			
Ba			50	10	200		20			
Be			<2	<2	<2		<2			
Bi			<10	<10	<10		<10			
Cd			<50	<50	<50		<50			
Ce			50	20	20		20			
Cr			300	200	200		100			
Cu			200	100	100		100			
Ga			10	15	20		20			
Ge			<20	<20	<20		<20			
La			30	30	<20		<20			
Mn			1500	2000	3000		2000			
Mo			<2	<2	5		<2			
Nb			<20	<20	20		20			
Ni			50	30	50		30			
Pb			<10	<10	<10		<10			
Sb			<100	<100	<100		<100			
Sc			30	50	30		30			
Sn			<10	<10	<10		<10			
Sr			100	200	100		100			
Tl			5000	5000	5000		7000			
V			70	100	300		300			
W			<50	<50	<50		<50			
Y			30	20	20		30			
Zn			<200	<200	<200		<200			
Zr			30	50	50		100			

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SAMPLE NO.	6362	6363	6364	6365	7001	7002	7003	7004	7005	7006
ROCK AGE	TERT	TERT	TERT	TERT	TERT	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	METSSED	METSSED	MAFVOL	MAFVOL	FELINT	METSSED	METSSED	METSSED	METSSED	METSSED
MAT. TYPE	SL/88/CG	SL/88/CG	STR 8ED	SL/88/CG	FEL PLUT	QUARTZ	SL/88/CG	QUARTZ	QUARTZ	SL/88/CG
1 MI. QUAD	A3	A3	A3	A3	D4	D4	D4	D4	D4	D4
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	9	9	14	11	9	9	9	9	9	9
TOWNSHIP	28	28	28	28	10N	10N	10N	10N	10N	10N
RANGE	9E	9E	8E	8E	7E	7E	7E	7E	7E	7E
Au					.440	2.400	.150	2.400	1.500	.198
Ag					.200	2.600	.400	1.800	2.000	.400
Cu			50.000		<5.000	15.000	100.000	75.000	110.000	45.000
Pb					10.000	30.000	15.000	25.000	90.000	15.000
Zn			100.000		35.000	5.000	125.000	120.000	30.000	115.000
As										
Sb										
W										
Fe			3X		2X	0.3X	5X	5X	1.5X	5X
Ca			7X		7X	0.05X	0.1X	0.7X	1.5X	0.5X
Hg			5X		3X	0.07X	2X	1.5X	1X	3X
Ap			<1		<1	<1	<1	1	<1	<1
As			<500		500	<500	<500	500	<500	500
B			10		100	10	100	150	20	150
Ba			200		150	20	1000	700	200	700
Be			<2		<2	<2	<2	<2	<2	<2
Bi			<10		<10	<10	<10	<10	<10	<10
Cd			<50		<50	<50	<50	<50	<50	<50
Co			15		5	<5	50	15	<5	20
Cr			200		150	<10	300	200	30	300
Cu			30		3	20	200	150	150	100
Ga			10		10	<10	20	20	<10	20
Ge			<20		<20	<20	<20	<20	<20	<20
La			20		<20	<20	<20	<20	20	<20
Mn			1500		700	500	1500	1000	700	1000
Mo			<2		<2	<2	<2	<2	<2	<2
Nb			<20		<20	<20	<20	<20	<20	<20
Ni			30		100	<5	150	100	<5	100
Pb			<10		10	<10	<10	20	15	10
Sb			<100		<100	<100	<100	<100	<100	<100
Sc			30		<10	<10	30	20	<10	20
Sn			<10		<10	<10	<10	<10	<10	<10
Sr			200		500	100	<100	100	200	100
Tl			5000		1000	500	5000	5000	700	5000
V			100		20	10	200	150	30	200
W			<50		<50	<50	<50	<50	<50	<50
Y			20		<10	<10	20	15	<10	15
Zn			<200		<200	<200	<200	<200	<200	<200
Zr			20		20	<20	100	70	20	150

SAMPLE NO.	7007	7008	7009	7010	7011	7012	7013	7014	7015	7016
ROCK AGE	CRET	CRET	CRET	CRET	CRET	TERT	CRET	CRET	TERT	TERT
ROCK TYPE	METSSED	METSSED	METSSED	METSSED	METSSED	FELINT	METSSED	METSSED	FELINT	FELINT
MAT. TYPE	QUARTZ	SL/SS/CG	QUARTZ	QUARTZ	SL/SS/CG	FEL PLUT	QUARTZ	QUARTZ	FEL PLUT	STR SED
1 MI. QUAD	D4	D4	D4	D4	D4	D4	D5	D5	D5	D5
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	9	9	9	13	13	13	22	22	22	22
TOWNSHIP	10N	10N	10N	10N	10N	10N	9N	9N	9N	9N
RANGE	7E	7E	7E	6E	6E	6E	5E	5E	5E	5E
Av	3.300	.020	3.900							<.020
Ag	5.600	.200	2.800							.200
Cu	75.000	40.000	80.000							85.000
Pb	20.000	10.000	40.000							25.000
Zn	140.000	100.000	145.000							115.000
As										20.000
Sb										
W										
Fe	5X	5X	5X	0.7X	3X	1.5X	5X	1.5X	3X	
Ca	10X	1X	1.5X	0.03X	0.3X	0.03X	3X	1X	2X	
Hq	3X	2X	3X	0.3X	2X	0.15X	5X	0.7X	1X	
Ag	30	<1	5	<1	<1	<1	<1	<1	<1	
As	7000	<500	1500	<500	<500	<500	700	<500	<500	
B	200	70	200	<10	50	500	20	<10	50	
Ba	500	500	500	700	1000	500	1000	200	300	
Be	<2	<2	<2	<2	<2	<2	<2	<2	<2	
Bi	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Cd	<50	<50	<50	<50	<50	<50	<50	<50	<50	
Co	20	10	15	<5	5	<5	20	5	5	
Cr	300	300	300	<10	70	<10	200	50	<10	
Cu	150	100	150	15	30	30	150	50	20	
Ga	15	10	15	<10	10	20	15	<10	20	
Ge	<20	<20	<20	<20	<20	<20	<20	<20	<20	
La	<20	<20	<20	<20	<20	<20	<20	<20	<20	
Mn	2000	1500	1000	300	1000	500	1500	700	500	
Mo	<2	<2	<2	<2	<2	<2	<2	<2	<2	
Nb	<20	<20	<20	<20	<20	<20	<20	<20	<20	
Ni	100	100	100	5	70	5	100	20	5	
Pb	15	10	20	<10	<10	15	10	<10	15	
Sb	<100	<100	<100	<100	<100	<100	<100	<100	<100	
Sr	20	20	20	<10	10	<10	20	<10	<10	
Tl	<10	<10	<10	<10	<10	<10	<10	<10	<10	
V	700	100	200	100	100	<100	300	200	300	
W	5000	7000	5000	300	5000	1500	7000	2000	3000	
Y	150	150	150	<10	100	<10	150	50	20	
Zn	<50	<50	<50	<50	<50	<50	<50	50	<50	
Zr	10	10	15	<10	10	20	10	<10	<10	
	<200	<200	<200	<200	<200	<200	<200	<200	<200	
	50	70	100	<20	50	70	300	20	150	

SAMPLE NO.	7017	7018	7019	7020	7021	7022	7023	7024	7025	7026
ROCK AGE	TERT	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET	CRET
ROCK TYPE	FELINT	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED	METSED
MAT. TYPE	STR SED	QUARTZ	QUARTZ	QUARTZ	QUARTZ	QUARTZ	BL/SS/CG	BL/SS/CG	QUARTZ	QUARTZ
1 MI. QUAD	D5	D4	D4	D4	D4	D4	D4	D4	D4	D4
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	22	16	16	16	16	16	16	16	16	1
TOWNSHIP	9N	9N	9N	9N	9N	9N	9N	9N	9N	9N
RANGE	5E	6E	6E	6E	6E	6E	6E	6E	6E	6E
Au	<.100	1.500	3.600	3.900					3.800	
Ag	.200	.400	.400	.200					1.400	
Cu	45.000	60.000	55.000	40.000					85.000	
Pb	15.000	30.000	50.000	45.000					70.000	
Zn	60.000	110.000	135.000	115.000					95.000	
As	10.000	250.000	650.000	450.000					1800.000	
Sb		3.000	3.000	2.000					7.000	
W										
Fe		7%	5%	5%			5%		7%	0.5%
Ca		0.7%	0.2%	0.1%			0.2%		0.3%	0.15%
Hg		5%	1%	0.7%			2%		2%	0.2%
Al		<1	<1	<1			<1		<1	<1
As		<500	500	<500			<500		700	<500
B		300	500	500			200		700	10
Ba		1000	1000	1000			1000		1000	100
Be		<2	<2	<2			<2		<2	<2
Bi		<10	<10	<10			<10		<10	<10
Cd		<50	<50	<50			<50		<50	<50
Ce		30	10	10			20		10	<5
Cr		200	150	70			150		200	<10
Cu		150	150	200			200		200	200
Ga		20	20	10			20		30	<10
Ge		<20	<20	<20			<20		<20	<20
La		<20	<20	<20			<20		<20	20
Mn		3000	1500	3000			1500		2000	700
Mo		<2	<2	<2			<2		<2	<2
Nb		<20	<20	<20			<20		20	<20
Ni		100	100	100			100		100	<5
Pb		20	30	20			10		50	<10
Sb		<100	<100	<100			<100		<100	<100
Sc		20	15	10			20		20	<10
Sn		<10	<10	<10			<10		<10	<10
Sr		200	<100	<100			100		<100	<100
Tl		7000	5000	7000			10000		10000	700
V		200	200	150			300		300	20
W		<50	<50	<50			<50		<50	<50
Y		20	10	<10			10		10	<10
Zn		<200	<200	<200			<200		<200	<200
Zr		100	100	50			150		150	<20

220

SAMPLE NO. ROCK AGE ROCK TYPE MAT. TYPE 1 MI. QUAD 4 MI. QUAD SECTION TOWNSHIP RANGE	7027 CRET METSSED QUARTZ D4 SEWARD 1 9N 6E	7028 CRET METSSED QUARTZ D5 SEWARD 15 9N 5E	7029 CRET METSSED QUARTZ D5 SEWARD 15 9N 5E	7030 CRET METSSED SL/88/CG C4 SEWARD 34 8N 6E	7031 CRET METSSED SL/89/CG C4 SEWARD 34 8N 6E	7032 CRET METSSED SL/89/CG C4 SEWARD 34 8N 6E	7033 CRET METSSED SCHIST C4 SEWARD 34 8N 6E	7034 TERT FELINT FEL PLUT C4 SEWARD 34 8N 6E	7035 CRET METSSED SCHIST C4 SEWARD 34 8N 6E	7036 CRET METSSED STR SED C4 SEWARD 34 8N 6E
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Au		(.020	(.020	.240						(.200
Ag		.200	.200	140.000						.600
Cu		20.000		42500.000						45.000
Pb		10.000		35.000						10.000
Zn		5.000		2950.000						105.000
As		10.000		35000.000						750.000
Sb		1.000		16.000						
W										

Fe	2X		5X					3X	7X	5X
Cu	1X		20X					2X	1X	2X
Hg	1X		0.5X					0.7X	2X	3X
Ag	<1		<1					<1	<1	1
As	<500		<500					<500	<500	<500
B	20		100					50	20	10
Ba	700		1500					500	1000	<10
Be	<2		5					<2	<2	<2
Bi	<10		<10					<10	<10	<10
Cd	<50		<50					<50	<50	<50
Ce	<5		<5					<5	20	10
Cr	20		<10					10	150	1000
Cu	20		200					150	200	50
Ca	<10		50					10	15	10
Ge	<20		<20					<20	<20	<20
La	20		<20					<20	20	<20
Mn	1000		2000					1000	1500	2000
Mo	<2		<2					<2	<2	<2
Nb	<20		<20					<20	<20	20
Ni	50		<5					20	100	30
Pb	<10		15					100	10	<10
Sb	<100		<100					<100	<100	<100
Sc	<10		<10					<10	20	20
Sn	<10		<10					<10	<10	<10
Sr	100		1000					100	200	100
Tl	2000		700					3000	10000	7000
V	50		300					<10	200	200
W	<50		<50					<50	<50	<50
Y	<10		<10					<10	10	10
Zn	<200		<200					200	<200	<200
Zr	20		<20					50	100	30

SAMPLE NO.	7037	7038	7039	7040	7041	7042	7043	7044	7045	7046
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL
HAT. TYPE	MAF VOLC	QUARTZ	QUARTZ	QUARTZ	QUARTZ	QUARTZ	MAF VOLC	MAF VOLC	BTR SED	QUARTZ
1 MI. QUAD	B2	B2	B2	B2	B2	B2	B2	B2	B2	B2
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	2	2	2	2	2	3	3	3	3	35
TOWNSHIP	4N	4N	4N	4N	4N	4N	4N	4N	4N	5N
RANGE	10E	10E	10E	10E	10E	10E	10E	10E	10E	10E

Au										
Aq										
Cu	6300.000	3450.000	1950.000	27500.000	18500.000	3300.000		215.000	19000.000	
Pb								55.000		
Zn	120.000	110.000	125.000	50.000	30.000	1650.000		175.000	80.000	
As										
Sb										
W										
Fe	10%	7%	15%		5%	7%	7%		5%	7%
Ca	2%	3%	0.7%		5%	7%	5%		2%	5%
Mg	5%	1.5%	2%		0.2%	2%	5%		5%	2%
Ag	<1	<1	<1		2	<1	<1		<1	7
As	<500	<500	<500		<500	<500	<500		<500	<500
B	10	<10	20		<10	<10	<10		10	<10
Ba	20	<10	20		<10	10	200		<10	<10
Be	<2	<2	<2		<2	<2	<2		<2	<2
Bi	<10	<10	<10		<10	<10	<10		<10	<10
Cd	<50	<50	<50		<50	<50	<50		<50	<50
Co	500	50	150		5	20	70		10	20
Cr	500	50	<10		20	300	500		1500	150
Cu	10000	2000	1500		>10000	5000	500		50	>10000
Ga	20	10	15		10	15	15		20	10
Ce	<20	<20	<20		<20	<20	<20		<20	<20
La	<20	<20	<20		<20	<20	<20		<20	<20
Mn	2000	1500	1500		1000	2000	5000		2000	2000
Mo	<2	<2	10		<2	<2	<2		<2	<2
Nb	<20	<20	<20		<20	<20	<20		20	<20
Ni	200	30	5		10	100	200		50	50
Pb	<10	<10	<10		<10	<10	<10		<10	<10
Sb	<100	<100	<100		<100	<100	<100		<100	<100
Sc	50	10	20		<10	20	50		30	20
Sn	<10	<10	<10		<10	<10	<10		<10	<10
Sr	<100	100	<100		500	100	100		100	500
Ti	5000	3000	5000		1500	7000	10000		7000	3000
V	200	150	200		200	200	500		200	200
W	<50	<50	<50		<50	<50	<50		<50	<50
Y	10	<10	10		<10	10	20		10	<10
Zn	<200	<200	<200		<200	3000	<200		<200	<200
Zr	20	<20	20		<20	20	50		50	20

SAMPLE NO. ROCK AGE ROCK TYPE MAT. TYPE 1 MI. QUAD 4 MI. QUAD SECTION TOWNSHIP RANGE	7047 TERT MAFVOL QUARTZ B2 SEWARD 35 5N 10E	7048 TERT MAFVOL MAF VOLC B2 SEWARD 7 3N 11E	7049 TERT MAFVOL SULFIDES B2 SEWARD 7 3N 11E	7050 TERT MAFVOL MAF VOLC B2 SEWARD 7 3N 11E	7051 TERT MAFVOL SCHIST B2 SEWARD 7 3N 11E	7052 TERT MAFVOL MAF VOLC B2 SEWARD 13 3N 10E	7053 TERT MAFVOL SULFIDES B2 SEWARD 13 3N 10E	7054 TERT MAFVOL MAF VOLC B2 SEWARD 13 3N 10E	7055 TERT MAFVOL MAF VOLC B2 SEWARD 13 3N 10E	7056 TERT MAFVOL MAF VOLC B2 SEWARD 13 3N 10E
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Au										(.020
Ag										1.600
Cu	95.000	24000.000				50.000	11000.000			11500.000
Pb										5.000
Zn	180.000	425.000				40.000	850.000			115.000
As										
Sb										
M										

Fe	20%	10%	5%	5%		5%	>20%			>20%
Ca	1%	20%	5%	5%		10%	0.2%			0.05%
Hg	3%	0.5%	1.5%	2%		7%	1%			1%

Ag	<1	70	2	1		<1	2			2
As	<500	<500	<500	<500		<500	<500			<500
B	30	20	<10	<10		<10	50			30
Ba	50	10	200	500		500	700			50

De	<2	<2	<2	<2		<2	<2			<2
Bi	<10	<10	<10	<10		<10	<10			<10
Cd	<50	<50	<50	<50		<50	<50			<50
Ce	100	300	70	50		50	200			300

Cr	100	<10	50	20		500	50			70
Cu	200	>10000	2000	1500		150	>10000			>10000
Ca	20	50	10	15		10	50			30
Ge	<20	<20	<20	<20		<20	<20			<20

La	<20	<20	<20	<20		<20	<20			<20
Mn	2000	1500	1000	1000		3000	500			500
Mo	10	<2	<2	<2		<2	30			20
Nb	<20	<20	<20	<20		<20	<20			<20

Ni	50	50	10	10		100	15			100
Pb	<10	<10	<10	<10		<10	<10			<10
Sb	<100	<100	<100	<100		<100	<100			<100
Sc	30	30	20	20		20	<10			<10

Sn	<10	<10	<10	<10		<10	<10			<10
Sr	100	700	200	200		200	<100			500
Tl	5000	10000	3000	5000		5000	500			30
V	200	500	150	200		200	50			200

W	<50	<50	<50	<50		<50	<50			<50
Y	10	15	10	20		15	<10			<10
Zn	<200	<200	<200	<200		<200	1000			<200
Zr	20	50	70	100		70	<20			<20

SAMPLE NO.	7057	7058	7059	7060	7061	7062	7063	7064	7065	7066
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL	MAFVOL
MAT. TYPE	STR SED	STR SED	MAF VOLC	MAF VOLC	BTR SED	QUARTZ	MAF VOLC	QUARTZ	QUARTZ	SULFIDES
1 MI. QUAD	B2	B2	B2	B2	B2	B2	B2	B2	B2	B2
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	14	14	14	14	27	27	27	10	10	10
TOWNSHIP	3N	3N	3N	3N	3N	3N	3N	2N	2N	2N
RANGE	10E	10E	10E	10E	10E	10E	10E	10E	10E	10E

Au						<.020				
Ag						28.000				
Cu	35.000	310.000			95.000	44000.000		21500.000	25000.000	
Pb	15.000	15.000			15.000	15.000		15.000	10.000	
Zn	240.000	240.000			235.000	490.000		950.000	4700.000	
As										
Sb										
W										

Fe	5X	7X	5X			10X	7X	5X	7X	
Co	5X	5X	5X			1.5X	10X	0.1X	0.2X	
Hg	3X	5X	0.3X			1X	7X	3X	2X	

Ag	<1	<1	<1			20	<1	15	15	
As	<500	<500	<500			<500	<500	<500	<500	
B	10	10	<10			20	10	10	10	
Ba	<10	10	<10			10	30	<10	1000	

Be	<2	<2	<2			<2	<2	<2	<2	
Bi	<10	<10	<10			<10	<10	<10	<10	
Cd	<50	<50	<50			<50	<50	<50	<50	
Ce	20	20	500			70	50	10	70	

Cr	1000	1500	<10			50	700	200	100	
Cu	200	100	200			>10000	300	10000	>10000	
Ca	15	20	30			10	20	10	15	
Ce	<20	<20	<20			<20	<20	<20	<20	

La	20	<20	<20			<20	<20	<20	<20	
Mn	1500	2000	1000			700	1500	2000	1500	
Mo	<2	<2	<2			2	<2	<2	<2	
Nb	20	20	<20			<20	<20	<20	<20	

Ni	50	50	<5			20	100	20	20	
Pb	<10	<10	<10			<10	<10	<10	<10	
Sb	<100	<100	<100			<100	<100	<100	<100	
Sc	20	30	20			<10	30	10	<10	

Sn	<10	<10	<10			<10	<10	<10	<10	
Sr	200	100	200			100	200	<100	100	
Ti	2000	7000	2000			700	5000	2000	2000	
V	100	200	20			100	200	70	50	

W	<50	<50	<50			<50	<50	<50	<50	
Y	10	20	50			<10	30	<10	<10	
Zn	<200	<200	<200			200	<200	200	5000	
Zr	20	30	500			<20	30	20	100	

224

SAMPLE NO.
ROCK AGE
ROCK TYPE*
MAT. TYPE
1 MI. QUAD
4 MI. QUAD
SECTION
TOWNSHIP
RANGE

7067
TERT
MAFVOL
SCHIST
B2
SEWARD
10
2N
10E

7068
TERT
MAFVOL
SL/SS/CG
B2
SEWARD
10
2N
10E

7069
TERT
MAFVOL
SL/SS/CG
B2
SEWARD
10
2N
10E

7070
TERT
MAFVOL
SL/SS/CG
B2
SEWARD
10
2N
10E

7071
TERT
MAFVOL
SULFIDES
B2
SEWARD
10
2N
10E

7072
TERT
MAFVOL
SL/SS/CG
B2
SEWARD
10
2N
10E

7073
TERT
MAFVOL
SULFIDES
B2
SEWARD
10
2N
10E

7074
TERT
MAFVOL
SL/SS/CG
B2
SEWARD
16
2N
10E

7075
TERT
MAFVOL
SULFIDES
B2
SEWARD
16
2N
10E

7076
TERT
MAFVOL
SL/SS/CG
B2
SEWARD
16
2N
10E

Au
Ag
Cu
Pb
Zn
As
Sb
U

25.000	1300.000	1750.000	17500.000	3700.000	25500.000
15.000	20.000	20.000	10.000	135.000	630.000
140.000	100.000	4950.000	4500.000	8150.000	83000.000

Fe
Ca
Hg

5X	7X	10X	10X	15X	10X	20X	3X
0.7X	0.7X	0.3X	0.7X	0.1X	0.05X	<0.02X	0.2X
3X	5X	7X	7X	3X	0.3X	0.3X	3X

Ag
As
B
Ba

<1	<1	1	1	10	2	30	<1
<500	<500	<500	<500	<500	<500	<500	<500
20	<10	10	10	20	30	50	10
1000	50	700	1500	10	1000	500	1500

Be
Bl
Cd
Ce

<2	<2	<2	<2	<2	<2	<2	<2
<10	<10	<10	<10	<10	<10	<10	<10
<50	<50	<50	<50	<50	<50	100 20	<50
20	30	50	50	30	50	200	10

Cr
Cu
Ca
Ge

200	100	150	300	150	150	100	300
200	70	2000	2000	>10000	5000	>10000	200
20	20	20	20	20	10	30	20
<20	<20	<20	<20	<20	<20	<20	<20

La
Mn
Mo
Nb

20	<20	<20	<20	<20	<20	<20	20
1000	2000	2000	3000	2000	500	500	1000
<2	<2	<2	<2	<2	<2	20	<2
<20	<20	<20	<20	<20	<20	<20	<20

Ni
Pb
Sb
Sc

100	50	30	70	20	10	15	50
<10	<10	<10	<10	<10	100	200	10
<100	<100	<100	<100	<100	<100	<100	<100
20	30	20	30	<10	<10	<10	15

Sn
Sr
Ti
V

<10	<10	<10	<10	<10	<10	<10	<10
200	200	100	100	<100	100	100	200
5000	7000	3000	5000	1000	1000	500	5000
200	200	100	200	100	50	20	150

W
Y
Zn
Zr

<50	<50	<50	<50	<50	<50	<50	<50
20	20	20	30	<10	<10	<10	10
<200	<200	700	5000	5000	5000	>10000	200
100	100	70	50	30	50	20	100

SAMPLE NO.	7077	7078	7079	7080	7081	7082	7083	7084	7085	7086
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METBED	METBED	METBED	METBED	METBED	METBED	METBED	METSED	METBED	METSED
MA1, TYPE	BTR BED	SL/98/CG	SL/89/CG	BULFIDES	SL/89/CG	SULFIDES	SULFIDES	SULFIDES	SL/99/CG	BULFIDES
1 MI. QUAD	A3	A3	A3	A3	A3	A3	A3	A3	A3	A3
4 MI. QUAD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD	SEWARD
SECTION	5	5	32	33	34	34	33	34	34	34
TOHNSHIP	1N	1N	2N	19	18	19	19	19	18	19
RANGE	10E	10E	10E	9E	9E	9E	9E	9E	9E	9E

Au										
Ag										
Cu	45.000		280.000							
Pb	30.000		15.000							
Zn	125.000		135.000							
As										
Sb										
W										
Fe	3X		5X							
Ca	1X		1X							
Hg	2X		0.5X							
Ag	<1		<1							
As	<500		<500							
B	15		10							
Ba	1000		500							
Be	<2		<2							
Bi	<10		<10							
Cd	<50		<50							
Ce	10		20							
Cr	100		300							
Cu	30		500							
Co	15		20							
Ce	<20		<20							
La	20		20							
Mn	1000		1000							
Mo	<2		<2							
Nb	<20		20							
Ni	30		50							
Pb	10		10							
Sb	<100		<100							
Sc	20		10							
Sn	<10		<10							
Sr	200		500							
Ti	5000		3000							
V	70		100							
U	<50		<50							
Y	30		10							
Zn	<200		<200							
Zr	30		200							

SAMPLE NO.
ROCK AGE
ROCK TYPE
MAT. TYPE
1 MI. QUAD
4 MI. QUAD
SECTION
TOWNSHIP
RANGE

7087
TERT
METSED
SULFIDES
D3
BLYING
36
28
8E

7088
TERT
METSED
SL/88/CG
D3
BLYING
36
28
8E

7089
TERT
METSED
SULFIDES
D3
BLYING
36
28
8E

7090
TERT
METSED
SL/88/CG
D3
BLYING
36
28
8E

7091
TERT
METSED
SL/88/CG
D3
BLYING
36
28
8E

7092
TERT
METSED
SULFIDES
D3
BLYING
36
28
8E

7093
TERT
METSED
SULFIDES
D3
BLYING
36
28
8E

7094
TERT
METSED
SL/88/CG
D3
BLYING
36
28
8E

7095
TERT
METSED
SULFIDES
D3
BLYING
36
28
8E

7096
TERT
METSED
SULFIDES
D3
BLYING
36
28
8E

Element	7087	7088	7089	7090	7091	7092	7093	7094	7095	7096
Au										10500.000
Ag					550.000	99000.000	24000.000			10.000
Cu	34500.000		11000.000		10.000	10.000	10.000			1600.000
Pb	10.000		10.000		65.000	2900.000	900.000			
Zn	1550.000		450.000							
As										
Sb										
Hg										
Fe	15%		10%	10%	7%	>20%	10%			15%
Ca	0.2%		0.3%	0.3%	0.3%	0.07%	0.2%			0.1%
Mg	0.5%		0.7%	0.7%	0.7%					0.3%
Al										
Si										
K										
Na										
Cl										
S										
P										
Cr										
Mn										
Ni										
Co										
Nb										
Mo										
Ti										
V										
Cr	200		200	200	200	30	200			200
Cu	>10000		10000	>10000	1000	>10000	>10000			>10000
Ga	20		30	20	20	20	20			30
Ge	<20		<20	<20	<20	<20	<20			<20
La	<20		<20	20	<20	<20	<20			<20
Mn	1500		1000	1500	1000	700	1500			1000
Nb	3		2	2	2	20	5			10
Nb	<20		<20	<20	20	<20	<20			<20
Ni	50		50	50	50	100	20			50
Pb	<10		<10	<10	<10	<10	<10			<10
Sb	<100		<100	<100	<100	<100	<100			<100
Sc	<10		10	10	10	<10	<10			<10
Sn	<10		<10	<10	<10	<10	<10			<10
Sr	<100		100	100	100	<100	<100			<100
Tl	1000		3000	3000	3000	500	2000			1000
V	70		100	100	150	20	50			30
W	<50		<50	<50	<50	<50	<50			<50
Y	<10		<10	<10	<10	<10	<10			<10
Zn	3000		1000	2000	<200	5000	2000			3000
Zr	100		200	200	300	<20	200			<20

SAMPLE NO.	7097	7098	7099	7100	7101	7102	7103	7104	7105	7106
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	METBED	METBED	METBED	METBED	METBED	METBED	METBED	MAFVOL	MAFVOL	MAFVOL
MAT. TYPE	SULFIDES	BCHIST	SL/88/CG	SL/88/CG	SL/88/CG	BTR BED	BTR BED	SULFIDES	SULFIDES	SL/88/CG
1 MI. QUAD	D3	D3	D3	D3	D3	A3	A3	D3	D3	D3
4 MI. QUAD	BLYING	BLYING	BLYING	BLYING	BLYING	BEWARD	BEWARD	BLYING	BLYING	BLYING
SECTION	36	36	36	36	36	34	34	5	5	5
TOWNSHIP	28	28	28	28	28	18	18	38	38	38
RANGE	8E	8E	8E	8E	8E	9E	9E	8E	8E	8E

Au										
Ag					16000.000	480.000	260.000	40.000	4000.000	50.000
Cu	26000.000				10.000	65.000	25.000	20.000	900.000	
Pb	5.000				1750.000	300.000	300.000	150.000	15500.000	
Zn	3750.000									
As										
Sb										
W										
Fe	10X				7X	5X	1/8X	3X	20X	5X
Ca	0.5X				1X	0.2X	1/8X	2X	0.3X	0.7X
Mo	0.5X				0.7X	2X	1/8X	3X	0.2X	0.5X
Ag	10				1	<1	1/8	<1	5	<1
As	<500				<500	<500	1/8	<500	10000	<500
B	15				10	20	1/8	20	50	30
Ba	1000				300	1000	1/8	1000	1000	1000
Be	<2				<2	<2	1/8	<2	<2	<2
Bi	<10				<10	<10	1/8	<10	<10	<10
Cd	<50				<50	<50	1/8	<50	<50	<50
Co	200				70	200	1/8	20	10	20
Cr	300				300	70	1/8	150	20	100
Cu	>10000				>10000	500	1/8	30	5000	150
Ca	20				20	10	1/8	15	20	15
Ce	<20				<20	<20	1/8	<20	<20	<20
La	<20				<20	20	1/8	30	<20	<20
Mn	1000				2000	7000	1/8	1000	500	700
Mo	2				<2	<2	1/8	<2	20	<2
Nb	20				<20	<20	1/8	<20	<20	20
Ni	100				30	100	1/8	50	100	50
Pb	<10				<10	20	1/8	10	200	20
Sb	<100				<100	<100	1/8	<100	<100	<100
Sc	<10				10	10	1/8	30	<10	20
Sn	<10				<10	<10	1/8	<10	<10	<10
Sr	100				200	200	1/8	300	<100	100
Tl	3000				5000	2000	1/8	5000	1000	5000
V	100				100	70	1/8	100	70	200
W	<50				<50	<50	1/8	<50	<50	<50
Y	<10				<10	30	1/8	30	<10	10
Zn	7000				5000	<200	1/8	<200	>10000	200
Zr	150				200	50	1/8	50	20	200

SAMPLE NO.	7107	7108	7200	7201	7202	7203	7204
ROCK AGE	TERT	TERT	TERT	TERT	TERT	TERT	TERT
ROCK TYPE	MAFVOL	MAFVOL	METSBD	METSBD	METSBD	METSBD	MAFVOL
MAT. TYPE	BULFIDES	BL/SB/CG	SULFIDES	PHYLLITE	PHYLLITE	PHYLLITE	SULFIDES
1 MI. QUAD	D3	D3	C4	C4	C4	C4	C5
4 MI. QUAD	BLYING	BLYING	CORDOVA	CORDOVA	CORDOVA	CORDOVA	CORDOVA
SECTION	5	5	16	4	4	4	10
TOWNSHIP	39	39	149	149	149	149	149
RANGE	8E	8E	1W	1W	1W	1W	2W

Av			<.020	<.020	<.020	<.020	.100
Ag			2.200	.200	<.200	.200	2.600
Cu			7400.000	65.000	75.000	160.000	44000.000
Pb			85.000	25.000	80.000	20.000	10.000
Zn			1400.000	135.000	650.000	315.000	330.000
As							
Sb							
W							

Fe	7X	7X	10X	5X	5X	7X
Ca	0.1X	5X	0.7X	2.0X	1.0X	1.5X
Hg	0.1X	3X	5.0X	3.0X	3.0X	5.0X

Ag	<1	<1	2	<1	<1	<1
As	<500	<500	<500	<500	<500	<500
B	20	10	10	10	<10	10
Ba	200	300	50	1000	2000	3000

Be	<2	<2	<2	<2	<2	<2
Bi	<10	<10	<10	<10	<10	<10
Cd	<50	<50	<50	<50	<50	<50
Co	20	50	20	15	10	15

Cr	20	100	30	50	50	70
Cu	300	150	10000	150	200	300
Ca	10	30	10	10	10	15
Ce	<20	<20	<20	<20	<20	<20

La	20	20	<20	20	20	20
Mn	150	1500	2000	500	500	1000
Mo	20	20	3	<2	<2	2
Nb	<20	20	20	20	20	20

Ni	10	50	15	20	15	20
Pb	<10	10	70	20	100	20
Sb	<100	<100	<100	<100	<100	<100
Sc	<10	30	15	15	10	15

Sn	<10	<10	<10	<10	<10	<10
Sr	200	100	100	500	500	500
Tl	200	10000	3000	5000	3000	5000
V	20	200	70	100	70	150

W	<50	<50	<50	<50	<50	<50
Y	<10	10	10	10	10	10
Zn	<200	<200	1000	<200	500	200
Zr	<20	300	30	50	50	50