

THE GEOLOGICAL SURVEY OF WYOMING  
DANIEL N. MILLER, JR., STATE GEOLOGIST

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REPORT OF INVESTIGATIONS NO. 9

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ANALYSIS OF ROCK AND STREAM SEDIMENT SAMPLES  
TETON CORRIDOR AND CONTIGUOUS AREAS  
TETON COUNTY, NORTHWESTERN WYOMING

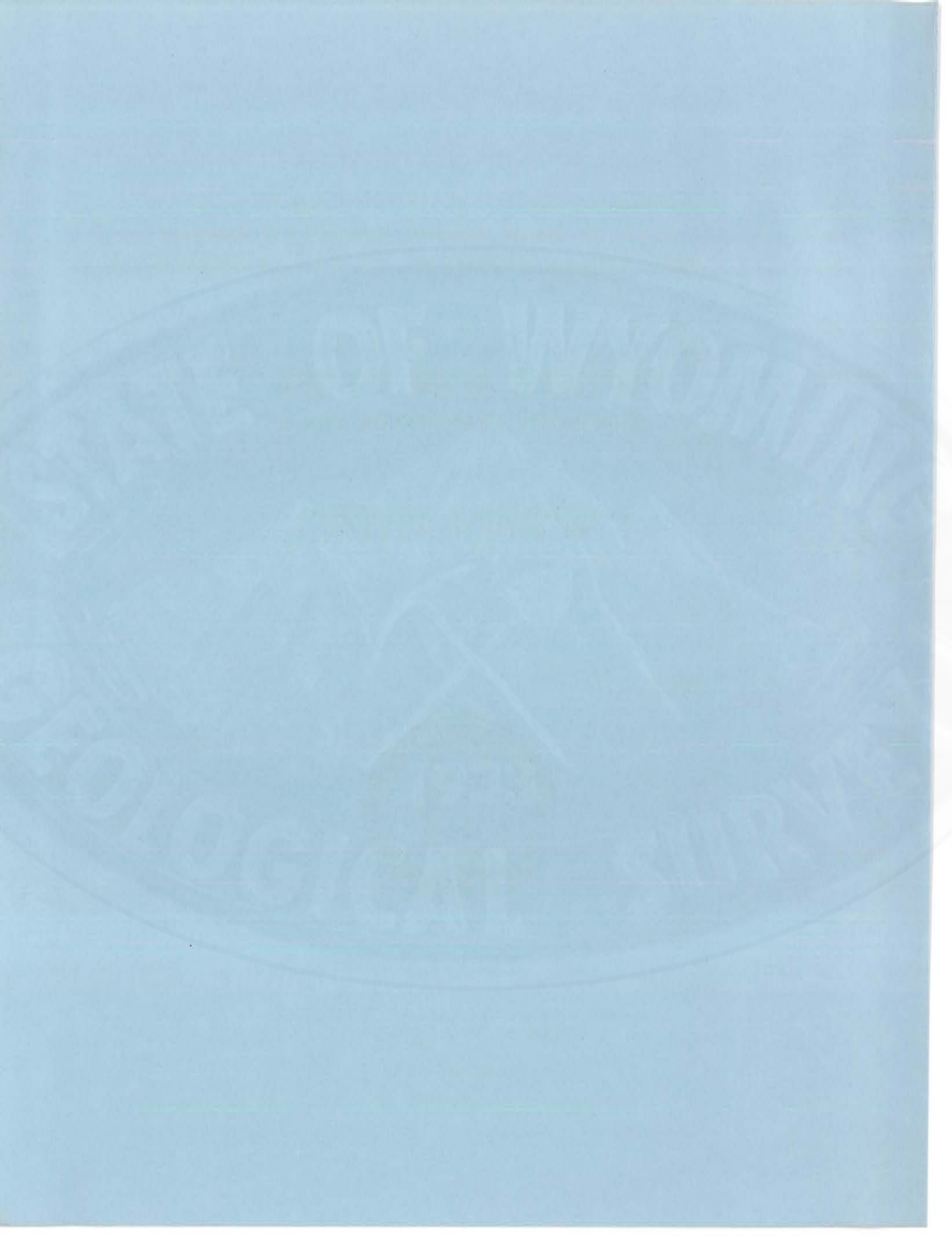
by

J. D. Love and J. C. Antweiler  
United States Geological Survey



BOX 3008, UNIVERSITY STATION  
LARAMIE, WYOMING 82071

FEBRUARY 1974



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## CONTENTS

Introduction and stratigraphic summary . . . . .	1
Explanation of tables . . . . .	3
References . . . . .	3
Table 1. Bedrock samples . . . . .	4
Table 2. Pan concentrates of bedrock samples . . . . .	18
Table 3. Stream sediment samples . . . . .	19
Table 4. Pan concentrates of stream sediment samples . . . . .	22



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INTRODUCTION

The rocks of the Teton Corridor (Plate 1), an area within the Teton National Forest lying between Yellowstone and Grand Teton National Parks, were studied and sampled by the United States Geological Survey and the United States Bureau of Mines (Love, Antweiler, and Williams, 1973, 1974). This work was part of the federal program for mineral surveys of wilderness and primitive areas in the United States. A total of 450 samples was collected and analyzed. Of this number, 316 were selected bedrock samples, 22 were pan concentrates of crushed bedrock, 64 were stream sediments, and 48 were concentrates of stream sediments. Sample localities are shown on Plate 1.

Geologic data and a summary of the more economically interesting chemical and spectrographic analyses were presented in the reports cited above. The summary, however, includes less than half of the analytical information that has been stored on magnetic tape\*. The complete set of analyses is, therefore, presented here so that it will be readily available to the public.

Sample localities are plotted on Plate 1. The bedrock samples in the tables are arranged in stratigraphic order by formation or other mappable unit with the youngest (where the age is known)

listed first. Summary rock descriptions of sampled units in the same order as in Table 1 follow:

IGNEOUS AND PYROCLASTIC ROCKS (MOSTLY PLEISTOCENE) - Welded rhyolite tuff, rhyolite flows, and interbeds of water-laid sediment.

PLEISTOCENE ROCKS - Unnamed sequence of obsidian-rich gravel, sand, and silt.

COLTER FORMATION (MIOCENE) AND BASALT (MIOCENE?) - Light gray to green and brown water-laid mafic tuff and volcanic conglomerate. Thickness about 7,000 feet. Associated with black, red, and green basalt.

WHITE RIVER FORMATION (OLIGOCENE) - Tuff and claystone, white to pale green, soft, poorly bedded, bentonitic. Thickness 100 feet or more.

PINYON CONGLOMERATE (PALEOCENE AND UPPER CRETACEOUS) - Boulder conglomerate, brown, composed of highly rounded quartzite fragments in rusty sandstone matrix. Thickness about 1,000 feet.

HAREBELL FORMATION (UPPER CRETACEOUS) - Conglomerate, sandstone, and claystone.

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\*Love, J. D., and Antweiler, J. C., 1973, Magnetic tape containing semiquantitative spectrographic analyses, and some selected chemical analyses of rocks, stream sediments, and panned concentrates from the Teton Corridor and adjacent areas, Wyoming: U. S. Geological Survey Report USGS-GD-73-009; available only from the National Technical Information Service, U. S. Dept. of Commerce, Springfield, VA 22151, as Report PB- 220 816, \$97.50.

Conglomerate is brown, composed of highly rounded quartzite pebbles, cobbles, and boulders; sandstone is brown, gray, and dull green, silty, hard, somewhat tuffaceous; claystone is gray, dark green, black, and mustard yellow, silty, tuffaceous. Thickness 5,000 feet or more.

MESAVERDE FORMATION (UPPER CRETACEOUS) - Sandstone, gray to rusty brown, massive to thick-bedded, and dark gray carbonaceous shale and siltstone; sparse thin coal beds. Thickness 800 feet or more.

BACON RIDGE SANDSTONE AND LENTICULAR SANDSTONE AND SHALE SEQUENCE (UPPER CRETACEOUS) - Sandstone, gray and brown, fine-grained except for quartzite pebble zone near base; interbedded with gray and black shale and siltstone; several coal and bentonite beds in lower part. Thickness at least 3,000 feet.

CODY SHALE (UPPER CRETACEOUS) - Shale, dull gray, interbedded with lesser amounts of gray siltstone and gray fine-grained slabby sandstone. Thickness about 1,400 feet.

FRONTIER FORMATION (UPPER CRETACEOUS) - Sandstone, gray, fine- to coarse-grained, pebbly and highly glauconitic near top; interbedded with gray and black shale; bentonite beds in lower part. Thickness about 1,000 feet.

MOWRY SHALE (LOWER CRETACEOUS) - Shale, dark gray to black, weathering silvery gray, very hard, brittle, silicified, thin-bedded; several cream-colored bentonite beds; secondarily silicified fine-grained sandstone common. Thickness about 650 feet.

MUDDY SANDSTONE MEMBER OF THERMOPOLIS SHALE (LOWER CRETACEOUS) - Sandstone, rusty gray, interbedded with black and gray siltstone and shale. Thins southwestward across area from 100 feet to 20 feet.

THERMOPOLIS SHALE (PART BELOW MUDDY SANDSTONE MEMBER; LOWER CRETACEOUS) - Shale, black, fine-grained, fissile, flaky.

Thins southwestward across area from more than 150 feet to 55 feet.

CLOVERLY AND MORRISON (?) FORMATIONS (LOWER CRETACEOUS AND POSSIBLY UPPER-MOST JURASSIC) - Upper 150 feet is hard slabby rusty ripplemarked sparkly sandstone; lower 450 feet is variegated claystone interbedded with dull red to gray fine-grained sandstone.

UPPER PART OF SUNDANCE FORMATION (UPPER JURASSIC) - Sandstone, greenish-gray, highly glauconitic, very limy, hard. Thickness 75 feet.

LOWER PART OF SUNDANCE FORMATION (UPPER AND MIDDLE JURASSIC) - Shale, gray, limy, soft, interbedded with shaly limestone; one or two red shale zones commonly present in middle part. Thickness about 400 feet.

GYPSUM SPRING FORMATION (MIDDLE JURASSIC) - Shale, dark red, soft, underlain by about an equal amount of white gypsum. The gypsum has been leached out of most outcrops, leaving a residual limy breccia. Thickness about 40 feet.

NUGGET (?) SANDSTONE (JURASSIC OR TRIASSIC) - Sandstone, salmon red, very soft, with large frosted rounded quartz grains. Thickness 2 feet.

POPO AGIE MEMBER OF CHUGWATER FORMATION (TRIASSIC) - Shale and claystone, purple and red, interbedded with slabby fine-grained red sandstone; lenses of purple limestone pebble conglomerate. Thickness 75-100 feet.

CROW MOUNTAIN SANDSTONE MEMBER OF CHUGWATER FORMATION (TRIASSIC) - Sandstone, salmon pink to dark red, containing large and small frosted rounded quartz grains. Thickness 70-100 feet.

ALCOVA LIMESTONE MEMBER OF CHUGWATER FORMATION (TRIASSIC) - Limestone and dolomite, purplish-gray, thin-bedded, slabby. Thickness 2-10 feet.

RED PEAK MEMBER OF CHUGWATER FORMATION (TRIASSIC) - Siltstone and shale, brick



red, interbedded with fine-grained red sandstone. Thickness about 800 feet.

DINWOODY FORMATION (TRIASSIC) - Siltstone, brown, hard, thin-bedded. Thickness 200 feet.

PHOSPHORIA FORMATION (PERMIAN) - Dolomite, gray, cherty, sandy; some black shale and phosphate beds. Thickness 200 feet.

TENSLEEP SANDSTONE (PENNSYLVANIAN) - Sandstone, light gray, hard, fine-grained, cherty, brittle. Thickness 380 feet.

AMSDEN FORMATION (PENNSYLVANIAN AND MISSISSIPPIAN) - Dolomite, red and green shale, chert, and sandstone. Thickness 230 feet.

#### EXPLANATION OF TABLES

The sampling procedures and methods of concentration of heavy fractions of samples are discussed in another report (Love, Antweiler, and Williams, 1974), so are not repeated here. Values shown on tables 1, 2, 3, and 4 are in parts per million except for Na, K, Fe, Mg, Ca, and Ti which are in percent. G means greater

than, N - not detected at lower limits of detection, and L - less than lower limit of detection as shown.

Gold and mercury analyses were made by atomic-absorption spectrometry (AA and INST on column heads); cold-extractable heavy-metals test (CM-CX-HM on column heads) by colorimetric comparison; other elements by 6-step semiquantitative spectrographic analysis (S on column heads). These elements are reported to the nearest number in the series 1, 0.7, 0.5, 0.3, 0.2, 0.15, 0.1, etc., which represent approximate midpoints of group data on a geometric scale.

#### REFERENCES

- Love, J. D., Antweiler, J. C., and Williams, F. E., 1973, Mineral Resources of the Teton Corridor, Teton County, Wyoming: U. S. Geol. Survey Open File Report, 86 p.
- Love, J. D., Antweiler, J. C., and Williams, F. E., 1974, Mineral Resources of the Teton Corridor, Teton County, Wyoming: U. S. Geol. Survey Bull. (in press).

TABLE 1 - REDROCK SAMPLES. IGNEOUS + PYROCLASTICS

SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
B-20	3.00	1.00	2.00	0.50	500.00	0.50N	10.00L	1000.00	2.00	10.00
B-47	2.00	0.10	0.20	0.10	300.00	0.50N	10.00L	1000.00	2.00	5.00N
B-48	2.00	0.20	0.30	0.10	300.00	0.50N	10.00L	2000.00	1.00	5.00N
B-49	5.00	0.20	0.20	0.20	500.00	0.50N	10.00L	2000.00	1.00	5.00N
B-50	2.00	0.10	0.20	0.20	700.00	0.50N	10.00L	2000.00	1.00	5.00N
B-51	3.00	0.20	0.20	0.10	500.00	0.50N	10.00L	1000.00	2.00	5.00N
B-52	2.00	0.20	0.20	0.20	700.00	0.50N	10.00L	2000.00	1.00	5.00N
B-53	2.00	0.10	0.20	0.10	200.00	0.70	10.00L	1000.00	2.00	5.00N
B-54	3.00	1.00	0.10	0.50	300.00	0.50N	20.00	700.00	3.00	7.00
B-56	3.00	0.10	0.20	0.20	500.00	0.50N	10.00L	2000.00	1.00	5.00N
B-19	5.00	1.00	2.00	0.70	500.00	0.50N	10.00L	2000.00	1.00	10.00
L72-37A	2.00	0.10	0.20	0.20	100.00	0.50N	10.00L	1000.00	2.00	5.00
L72-62-5	3.00	0.07	0.20	0.15	500.00	0.50N	10.00L	700.00	3.00	5.00
L72-37-B	2.00	0.10	0.50	0.15	500.00	0.50N	10.00L	1000.00	2.00	5.00N
L72-62-4	2.00	0.05	0.20	0.10	500.00	0.50N	10.00L	1500.00	1.00	5.00N
L72-62-3	2.00	0.07	0.20	0.10	200.00	0.50N	10.00L	300.00	3.00	5.00N
L72-62-6	2.00	0.07	0.30	0.15	500.00	1.50	10.00L	2000.00	1.50	5.00N
L72-62-2	2.00	0.07	0.20	0.10	500.00	1.50	10.00L	200.00	5.00	5.00N
L72-62-7	1.50	0.03	0.20	0.10	200.00	1.50	10.00L	700.00	1.50	5.00N
L72-62-1	2.00	0.70	0.30	0.20	1000.00	0.50N	10.00	500.00	2.00	5.00N
L72-77-1	2.00	0.10	0.10	0.10	150.00	0.50N	10.00L	500.00	2.00	5.00N
L72-77-2	2.00	0.05	0.10	0.10	500.00	0.50N	10.00L	1500.00	1.50	5.00N
L72-77-3	2.00	0.10	0.10	0.10	150.00	0.50N	10.00L	1000.00	1.50	5.00N
L72-77-4	2.00	0.02	0.10	0.20	500.00	0.50	10.00L	1500.00	1.50	5.00N
B-89	1.00	0.20	0.50	0.02	1000.00	0.50N	10.00L	20.00	7.00	5.00
B-94	1.50	0.50	1.00	0.10	2000.00	1.00	30.00	200.00	10.00	5.00N
B-955S	2.00	0.50	5.00	0.20	1500.00	0.50N	20.00	500.00	1.00	10.00
B-95GLAS	1.00	0.70	1.00	0.10	1000.00	1.00	30.00	150.00	10.00	5.00
B-96-1	0.50	0.05	0.20	0.01	1500.00	0.50N	30.00	20.00N	10.00	5.00N
B-96-2	0.50	0.05	0.10	0.02	1500.00	0.50N	20.00	20.00N	5.00	5.00
B-96-3	0.50	0.05	0.20	0.02	1500.00	0.50N	20.00	20.00N	10.00	5.00
B-97	2.00	0.70	0.50	0.10	1000.00	0.50N	15.00	150.00	10.00	5.00
B-98	0.70	0.20	0.20	0.02	1000.00	0.50N	10.00L	20.00N	10.00	5.00N
B-99	0.70	0.10	0.20	0.02	1000.00	0.50N	10.00L	20.00N	7.00	5.00N
B-100	0.50	0.20	0.10	0.02	100.00	0.50N	10.00L	20.00N	3.00	5.00N
B-102	2.00	0.10	0.50	0.10	70.00	0.50N	30.00	70.00	1.00	5.00N
B-103	5.00	0.70	0.20	0.50	3000.00	0.50N	100.00	150.00	7.00	5.00
B-104	0.50	0.05	0.20	0.02	1500.00	0.50N	20.00	20.00N	7.00	5.00N
B-105	0.70	0.15	0.30	0.02	1500.00	0.50N	10.00L	20.00N	10.00	5.00N
B-106	0.50	0.07	0.20	0.02	1500.00	0.50N	20.00	20.00N	10.00	5.00N
B-209	7.00	3.00	5.00	0.50	1000.00	0.50	10.00L	2000.00	1.00N	30.00
B-210	7.00	3.00	5.00	0.50	1000.00	0.50	10.00L	2000.00	1.00N	30.00
B-60	2.00	0.10	0.20	0.10	300.00	0.50	10.00L	1500.00	2.00	5.00
B-235	1.50	0.20	0.20	0.10	300.00	0.50N	10.00L	700.00	2.00	5.00N
B-240	1.50	0.02	0.30	0.10	300.00	1.00	10.00L	700.00	2.00	5.00N
B-267	2.00	0.10	0.30	0.10	300.00	0.50N	10.00	1500.00	5.00	5.00
B-268	2.00	0.20	0.50	0.10	300.00	0.50N	20.00	1000.00	5.00	5.00
B-269	3.00	0.70	0.50	0.10	300.00	0.50N	10.00	1000.00	7.00	5.00
B-270	2.00	0.20	0.20	0.10	200.00	0.50N	20.00	700.00	3.00	5.00
B-271	2.00	0.10	0.20	0.10	300.00	0.50N	10.00	700.00	7.00	5.00
B-294	5.00	0.10	0.50	0.20	500.00	0.50N	10.00	700.00	5.00	5.00
B-295	2.00	0.10	0.50	0.10	500.00	0.50N	20.00	700.00	5.00	5.00
B-296	2.00	0.07	0.50	0.10	300.00	0.50N	20.00	700.00	7.00	5.00
B-296A	2.00	0.07	0.50	0.10	300.00	0.50N	20.00	700.00	5.00	5.00
B-297	2.00	0.07	0.50	0.10	300.00	0.50N	20.00	500.00	7.00	5.00
L72-216	5.00	3.00	3.00	0.50	300.00	0.50N	50.00	1000.00	2.00	5.00
L72-140	3.00	0.10	0.50	0.10	300.00	0.50N	15.00	500.00	5.00	5.00
L72-149A	2.00	0.20	0.20	0.10	300.00	0.50N	15.00	300.00	3.00	5.00N
L72-149B	2.00	0.20	0.20	0.07	300.00	0.50N	15.00	300.00	5.00	5.00
L72-142	2.00	1.00	15.00	0.10	300.00	0.50N	15.00	500.00	3.00	5.00
L72-198A	2.00	0.20	0.50	0.10	300.00	0.50N	20.00	500.00	5.00	5.00
L72-198B	2.00	0.30	0.50	0.10	1000.00	0.50N	10.00	2000.00	5.00	5.00
L72-198C	2.00	0.10	0.20	0.07	300.00	0.50N	20.00	700.00	5.00	5.00
L72-198D	2.00	0.10	0.50	0.10	300.00	0.50N	10.00	700.00	3.00	5.00
L72-198E	2.00	0.07	0.20	0.10	300.00	0.50N	10.00	700.00	3.00	5.00N
L72-149C	2.00	0.10	0.20	0.10	300.00	0.50N	10.00	300.00	7.00	5.00

IGNEOUS + PYROCLASTICS

SAMPLE	S-CR	S-CU	S-LA	S-MD	S-NB	S-NI	S-PR	S-SC	S-SN	S-SR
B-20	100.00	150.00	50.00	5.00N	10.00N	30.00	30.00	15.00	10.00N	700.00
B-47	10.00N	15.00	150.00	5.00L	50.00	5.00L	30.00	5.00L	10.00N	100.00N
B-48	10.00N	10.00	70.00	5.00L	30.00	5.00L	20.00	5.00	10.00N	100.00N
B-49	10.00N	20.00	50.00	5.00	30.00	5.00L	30.00	10.00	10.00N	100.00
B-50	10.00N	10.00	30.00	5.00L	30.00	5.00L	30.00	5.00	10.00N	200.00
B-51	10.00N	5.00	150.00	5.00N	50.00	5.00L	30.00	5.00L	10.00N	100.00N
B-52	10.00N	10.00	70.00	5.00N	30.00	5.00L	30.00	5.00	10.00N	200.00
B-53	10.00N	5.00	70.00	5.00N	70.00	5.00L	30.00	5.00N	10.00N	100.00N
B-54	30.00	15.00	70.00	5.00N	20.00	7.00	30.00	10.00	10.00N	100.00N
B-56	10.00N	20.00	50.00	5.00L	30.00	5.00L	30.00	5.00	10.00N	100.00
B-19	100.00	200.00	70.00	5.00N	10.00N	30.00	50.00	15.00	10.00N	700.00
L72-37A	10.00N	10.00	100.00	5.00N	70.00	5.00	30.00	5.00N	10.00N	100.00N
L72-62-5	10.00N	20.00	150.00	5.00L	70.00	5.00	70.00	5.00L	15.00	100.00N
L72-37-B	10.00N	5.00	200.00	5.00L	50.00	5.00L	15.00	5.00	10.00N	100.00N
L72-62-4	10.00N	10.00	100.00	5.00N	30.00	5.00	30.00	5.00L	10.00L	100.00N
L72-62-3	10.00N	70.00	70.00	5.00L	30.00	5.00	70.00	5.00L	15.00	100.00N
L72-62-6	10.00N	20.00	70.00	5.00N	20.00	5.00L	30.00	5.00L	10.00L	100.00N
L72-62-2	10.00N	10.00	70.00	5.00L	70.00	10.00	100.00	5.00L	15.00	100.00N
L72-62-7	10.00N	10.00	100.00	5.00L	30.00	5.00L	15.00	5.00L	10.00L	100.00N
L72-62-1	30.00	5.00	50.00	5.00N	10.00N	7.00	15.00	10.00	10.00N	100.00
L72-77-1	10.00L	10.00	70.00	5.00N	30.00	5.00	50.00	5.00L	15.00	100.00N
L72-77-2	10.00N	10.00	50.00	5.00N	15.00	5.00L	30.00	5.00L	10.00N	100.00
L72-77-3	10.00N	5.00	100.00	5.00N	30.00	5.00L	20.00	5.00L	10.00N	100.00N
L72-77-4	10.00N	7.00	20.00	5.00N	20.00	5.00L	20.00	5.00L	10.00N	100.00
B-89	10.00N	5.00	20.00N	5.00N	30.00	5.00L	20.00	5.00L	10.00	100.00N
B-94	100.00	10.00	50.00	5.00N	30.00	20.00	20.00	10.00	10.00N	100.00N
B-9555	50.00	20.00	20.00	5.00N	10.00N	10.00	10.00L	5.00	10.00N	200.00
B-95GLAS	70.00	10.00	20.00	5.00N	30.00	10.00	30.00	5.00	10.00	100.00N
B-96-1	10.00N	5.00	20.00N	5.00N	20.00	5.00L	15.00	5.00L	10.00	100.00N
B-96-2	10.00N	20.00	20.00N	5.00N	30.00	5.00L	20.00	5.00L	10.00	100.00N
B-96-3	10.00N	5.00	20.00N	5.00N	30.00	5.00L	15.00	5.00L	10.00	100.00N
B-97	50.00	5.00	20.00	5.00N	30.00	7.00	15.00	5.00	10.00	100.00N
B-98	10.00N	7.00	20.00N	5.00N	30.00	5.00L	15.00	5.00L	10.00	100.00N
B-99	10.00N	7.00	20.00N	5.00N	30.00	5.00L	15.00	5.00L	10.00	100.00N
B-100	10.00N	7.00	20.00N	5.00N	30.00	5.00L	15.00	5.00L	10.00	100.00N
B-102	70.00	15.00	30.00	5.00N	10.00N	5.00	10.00L	5.00L	10.00N	100.00N
B-103	70.00	50.00	50.00	5.00	10.00	50.00	70.00	10.00	10.00N	100.00N
B-104	10.00N	10.00	20.00N	5.00N	20.00	5.00	10.00	5.00L	10.00	100.00N
B-105	10.00N	5.00	20.00N	5.00N	30.00	5.00	10.00	5.00L	10.00	100.00N
B-106	10.00N	50.00	20.00N	5.00N	30.00	5.00	10.00	5.00L	10.00	100.00N
B-209	300.00	50.00	70.00	5.00N	10.00	100.00	20.00	20.00	10.00N	700.00
B-210	300.00	50.00	70.00	5.00N	10.00	100.00	10.00	20.00	10.00N	300.00
B-60	10.00N	20.00	50.00	5.00N	30.00	5.00L	20.00	5.00N	10.00N	100.00N
B-235	15.00	5.00	100.00	5.00N	30.00	5.00	30.00	5.00N	10.00	100.00N
B-240	10.00N	5.00	100.00	5.00N	30.00	5.00L	20.00	5.00L	10.00	100.00N
B-267	10.00N	5.00	200.00	5.00	30.00	10.00	50.00	5.00	10.00N	100.00N
B-268	10.00N	5.00L	150.00	10.00	50.00	15.00	50.00	5.00N	15.00	100.00N
B-269	10.00N	10.00	150.00	10.00	70.00	15.00	70.00	5.00N	15.00	100.00N
B-270	10.00N	5.00	100.00	5.00N	30.00	15.00	30.00	5.00	10.00N	100.00N
B-271	10.00N	10.00	100.00	5.00	50.00	15.00	70.00	5.00N	10.00	100.00N
B-294	10.00N	5.00	200.00	10.00	70.00	5.00	50.00	5.00N	10.00N	100.00N
B-295	10.00N	20.00	150.00	10.00	50.00	5.00	70.00	5.00N	15.00	100.00N
B-296	10.00N	20.00	150.00	10.00	70.00	10.00	100.00	5.00	10.00	100.00N
B-296A	10.00N	15.00	150.00	5.00	70.00	5.00	70.00	5.00N	10.00	100.00N
B-297	10.00N	15.00	150.00	10.00	70.00	5.00	70.00	5.00N	10.00	100.00N
L72-216	150.00	15.00	50.00	5.00N	20.00N	70.00	30.00	15.00	10.00N	200.00
L72-14C	10.00N	7.00	150.00	10.00	50.00	5.00	70.00	5.00N	10.00	100.00N
L72-149A	10.00N	10.00	150.00	5.00N	50.00	5.00	30.00	5.00N	10.00	100.00N
L72-149B	10.00N	5.00L	150.00	5.00N	30.00	5.00	30.00	5.00N	10.00	100.00N
L72-142	10.00N	5.00	150.00	5.00N	20.00	10.00	30.00	5.00N	10.00N	100.00
L72-198A	10.00N	20.00	150.00	10.00	50.00	10.00	100.00	5.00	10.00	100.00N
L72-198B	10.00N	10.00	200.00	5.00	30.00	10.00	50.00	5.00	10.00N	100.00N
L72-198C	10.00N	20.00	150.00	10.00	50.00	10.00	70.00	5.00N	10.00	100.00N
L72-198D	10.00N	20.00	200.00	10.00	50.00	10.00	70.00	5.00N	15.00	100.00N
L72-198E	10.00N	5.00	150.00	5.00	30.00	10.00	50.00	5.00N	10.00	100.00N
L72-149C	10.00N	15.00	70.00	5.00N	70.00	10.00	70.00	5.00N	10.00	100.00N

IGNEOUS + PYROCLASTICS

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CM-CX-HM
B-20	150.00	15.00	200.00N	200.00	0.05N	0.03	0.0 B	0.0 B	1.00L
B-47	10.00	70.00	200.00N	300.00	0.05N	0.03L	0.0 B	0.0 B	1.00
B-48	10.00	50.00	200.00N	300.00	0.05N	0.03	0.0 B	0.0 B	1.00L
B-49	10.00	30.00	200.00N	700.00	0.05L	0.03	0.0 B	0.0 B	1.00L
B-50	10.00	30.00	200.00N	500.00	0.05N	0.03	0.0 B	0.0 B	1.00L
B-51	10.00	70.00	200.00N	200.00	0.15	0.03N	0.0 B	0.0 B	1.00L
B-52	10.00	50.00	200.00N	500.00	0.05L	0.03	0.0 B	0.0 B	1.00L
B-53	10.00	50.00	200.00N	200.00	0.05N	0.03N	0.0 B	0.0 B	1.00L
B-54	100.00	70.00	200.00N	200.00	0.05L	0.03	0.0 B	0.0 B	1.00
B-56	10.00	50.00	200.00N	500.00	0.05N	0.03	0.0 B	0.0 B	1.00
B-19	200.00	10.00	200.00N	200.00	0.05N	0.03	0.0 B	0.0 B	1.00L
L72-37A	10.00	70.00	200.00N	300.00	0.05N	0.03	0.0 B	0.0 B	1.00L
L72-62-5	10.00	100.00	200.00N	200.00	0.05N	0.03	0.0 B	0.0 B	5.00
L72-37-R	10.00	70.00	200.00N	200.00	0.05N	0.06	0.0 B	0.0 B	1.00L
L72-62-4	10.00	30.00	200.00N	70.00	0.05N	0.03N	0.0 B	0.0 B	3.00
L72-62-3	10.00	70.00	200.00N	200.00	0.05N	0.03L	0.0 B	0.0 B	5.00
L72-62-6	10.00	50.00	200.00L	200.00	0.05L	0.06	0.0 B	0.0 B	1.00
L72-62-2	15.00	70.00	200.00N	200.00	0.05L	0.03N	0.0 B	0.0 B	9.00
L72-62-7	10.00	70.00	200.00N	200.00	0.05N	0.03	0.0 B	0.0 B	1.00
L72-62-1	100.00	30.00	200.00N	200.00	0.05N	0.03	0.0 B	0.0 B	7.00
L72-77-1	10.00	70.00	200.00N	150.00	0.05N	0.03	1.80	3.20	1.00
L72-77-2	10.00	50.00	200.00N	500.00	0.05N	0.03	2.40	3.70	1.00
L72-77-3	10.00	70.00	200.00N	200.00	0.05N	0.03	2.30	4.10	1.00L
L72-77-4	10.00	30.00	200.00N	300.00	0.05N	0.02L	2.20	3.20	1.00L
B-89	10.00	30.00	200.00N	10.00	0.05N	0.03	2.30	2.80	1.00
B-94	30.00	70.00	200.00N	100.00	0.05N	0.06	0.70	1.80	9.00
B-955S	50.00	30.00	200.00N	150.00	0.05N	0.03N	0.90	0.70	5.00
B-95GLAS	30.00	70.00	200.00N	70.00	0.05N	0.03N	1.30	3.50	7.00
B-96-1	10.00	20.00	200.00N	10.00	0.05N	0.03	2.40	2.90	1.00
B-96-2	10.00	30.00	200.00N	10.00	0.05N	0.03L	2.60	2.80	1.00
B-96-3	10.00	30.00	200.00N	10.00	0.05N	0.03	2.80	3.50	1.00
B-97	30.00	30.00	200.00N	70.00	0.05N	0.03	1.60	2.20	1.00
B-98	10.00	30.00	200.00N	10.00	0.05N	0.03N	2.80	3.20	1.00
B-99	10.00	20.00	200.00N	10.00	0.05N	0.03L	2.80	3.00	1.00
B-100	10.00	20.00	200.00N	10.00	0.05N	0.03L	2.60	2.80	1.00
B-102	30.00	50.00	200.00L	70.00	0.05N	0.03	0.10	0.40	7.00
B-103	100.00	50.00	200.00L	70.00	0.05N	0.10	0.30	2.80	100.00G
B-104	10.00	20.00	200.00N	10.00	0.05N	0.03L	3.00	3.70	1.00
B-105	10.00	30.00	200.00N	50.00	0.05N	0.03L	3.20	3.40	1.00
B-106	10.00	20.00	200.00N	10.00	0.05N	0.03L	2.30	4.90	7.00
B-209	100.00	20.00	200.00N	150.00	0.05L	0.03	2.10	0.20	3.00
B-210	100.00	20.00	200.00N	100.00	0.05N	0.06	1.80	0.30	3.00
B-60	10.00	50.00	200.00N	200.00	0.05N	0.03L	2.30	3.90	1.00
B-235	10.00	70.00	200.00N	200.00	0.06	0.03L	2.10	4.00	3.00
B-240	10.00	70.00	200.00N	200.00	0.05N	0.03N	1.40	3.70	1.00
B-267	10.00	70.00	200.00N	200.00	0.05N	0.24	0.0 B	0.0 B	1.00L
B-268	10.00	100.00	200.00N	200.00	0.05N	0.02	0.0 B	0.0 B	1.00N
B-269	70.00	100.00	200.00N	200.00	0.05N	0.06	0.0 B	0.0 B	1.00N
B-270	10.00	70.00	200.00N	200.00	0.05N	0.02L	0.0 B	0.0 B	1.00N
B-271	10.00	70.00	200.00N	200.00	0.05N	0.02L	0.0 B	0.0 B	1.00N
B-294	10.00	70.00	200.00N	300.00	0.05N	0.02L	0.0 B	0.0 B	3.00
B-295	10.00	100.00	200.00N	200.00	0.05N	0.06	0.0 B	0.0 B	1.00N
B-296	10.00	100.00	200.00N	300.00	0.05N	0.02L	0.0 B	0.0 B	1.00N
B-296A	10.00	150.00	200.00N	200.00	0.05N	0.02	0.0 B	0.0 B	1.00N
B-297	10.00	100.00	200.00N	150.00	0.05N	0.02L	0.0 B	0.0 B	1.00N
L72-216	200.00	30.00	200.00N	200.00	0.05N	0.02N	0.0 B	0.0 B	1.00
L72-140	10.00L	100.00	200.00N	200.00	0.05N	0.02N	0.0 B	0.0 B	1.00N
L72-149A	10.00L	70.00	200.00N	200.00	0.05N	0.02L	0.0 B	0.0 B	1.00N
L72-149B	10.00L	70.00	200.00N	150.00	0.05N	0.02N	0.0 B	0.0 B	1.00
L72-142	10.00	70.00	200.00N	150.00	0.05N	0.02N	0.0 B	0.0 B	1.00L
L72-198A	10.00	100.00	200.00N	150.00	0.05N	0.02N	0.0 B	0.0 B	1.00L
L72-198B	15.00	100.00	200.00	150.00	0.05N	0.02L	0.0 B	0.0 B	4.00
L72-198C	10.00L	100.00	200.00N	150.00	0.05N	0.02N	0.0 B	0.0 B	3.00
L72-198D	10.00L	100.00	200.00N	150.00	0.05N	0.02N	0.0 B	0.0 B	1.00N
L72-198E	10.00L	70.00	500.00	150.00	0.05N	0.02N	0.0 B	0.0 B	3.00
L72-149C	10.00	50.00	200.00N	300.00	0.05N	0.02L	0.0 B	0.0 B	1.00N

PLEISTOCENE ROCKS										
SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
L72-148	2.00	3.00	15.00	0.20	2000.00	0.50N	10.00	1000.00	1.00	5.00N
SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
L72-148	70.00	5.00L	20.00	5.00N	20.00N	15.00	30.00	5.00	10.00N	200.00
SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CM-CX-HM	
L72-148	30.00	30.00	200.00N	200.00	0.05N	0.02L	0.0 B	0.0 B	1.00L	

COLTER FORMATION										
SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
B-10	5.00	3.00	2.00	0.50	1000.00	0.50N	10.00L	1000.00	1.00	30.00
L72-36	10.00	7.00	10.00	0.50	1000.00	0.50N	10.00L	2000.00	1.00	50.00
B-263A	5.00	2.00	10.00	0.70	1500.00	0.50N	10.00	2000.00	1.00	10.00
B-263	1.00	0.30	0.30	0.10	300.00	0.50N	20.00	500.00	1.00L	5.00
B-272	2.00	0.50	0.30	0.10	300.00	0.50N	20.00	1000.00	7.00	5.00
B-273	10.00	5.00	5.00	0.70	1000.00	0.50N	10.00	2000.00	1.00	50.00
B-274	10.00	5.00	5.00	0.70	1000.00	0.50N	30.00	2000.00	1.00	50.00
L72-127	5.00	2.00	7.00	0.30	500.00	0.50N	30.00	700.00	2.00	5.00
SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CM-CX-HM	
B-10	150.00	10.00	200.00N	100.00	0.05N	0.03	0.0 B	0.0 B	1.00L	
L72-36	200.00	20.00	200.00N	70.00	0.05N	0.03	0.0 B	0.0 B	1.00L	
B-263A	150.00	30.00	200.00N	200.00	0.05N	0.02L	0.0 B	0.0 B	1.00	
B-263	70.00	10.00	200.00N	100.00	0.05N	0.04	0.0 B	0.0 B	1.00N	
B-272	10.00	100.00	200.00N	300.00	0.05N	0.02	0.0 B	0.0 B	1.00N	
B-273	200.00	30.00	200.00N	150.00	0.05N	0.02	0.0 B	0.0 B	1.00N	
B-274	200.00	30.00	200.00N	150.00	0.05N	0.02	0.0 B	0.0 B	1.00N	
L72-127	70.00	90.00	200.00N	150.00	0.05N	0.02L	0.0 B	0.0 B	1.00N	

SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
B-10	300.00	50.00	20.00	5.00N	10.00N	70.00	15.00	20.00	10.00N	500.00
L72-36	500.00	50.00	30.00	5.00N	10.00N	70.00	15.00	30.00	10.00N	500.00
B-263A	300.00	70.00	70.00	5.00N	20.00N	50.00	50.00	20.00	10.00N	1000.00
B-263	30.00	5.00	70.00	5.00N	20.00L	20.00	20.00	5.00	10.00N	100.00N
B-272	10.00N	20.00	150.00	5.00	30.00	15.00	50.00	5.00	15.00	100.00N
B-273	500.00	50.00	70.00	5.00N	20.00	70.00	30.00	30.00	10.00N	1000.00
B-274	500.00	50.00	70.00	5.00N	20.00N	70.00	30.00	30.00	10.00N	1000.00
L72-127	100.00	7.00	70.00	5.00N	20.00L	30.00	30.00	15.00	10.00N	500.00

WHITE RIVER FORMATION										
SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
A-73	2.00	1.00	0.50	0.20	300.00	0.50N	20.00	300.00	1.00L	7.00
A-74	2.00	0.50	0.50	0.20	300.00	0.50N	10.00	300.00	1.00L	5.00
L72-132	5.00	2.00	2.00	0.30	700.00	0.50N	70.00	1000.00	1.00	7.00
L72-128	2.00	2.00	20.00	0.20	1500.00	0.50N	20.00	500.00	1.00	7.00
L72-131A	5.00	2.00	2.00	0.50	1000.00	0.50N	70.00	700.00	3.00	10.00
L72-131B	7.00	2.00	2.00	0.70	1000.00	0.50N	30.00	2000.00	1.00	7.00
SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
A-73	50.00	20.00	20.00	5.00N	20.00L	20.00	15.00	10.00	10.00N	300.00
A-74	20.00	50.00	20.00	5.00N	20.00N	5.00	20.00	5.00	10.00N	300.00
L72-132	70.00	10.00	50.00	5.00N	20.00L	30.00	30.00	10.00	10.00N	700.00
L72-128	50.00	10.00	50.00	5.00N	20.00N	20.00	30.00	7.00	10.00N	300.00
L72-131A	100.00	30.00	50.00	5.00N	30.00	50.00	30.00	15.00	10.00N	700.00
L72-131B	70.00	50.00	20.00	5.00N	20.00L	20.00	30.00	15.00	10.00N	700.00

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CM-CX-HM
A-73	70.00	30.00	200.00N	100.00	0.05N	0.08	0.0 B	0.0 B	3.00
A-74	70.00	20.00	200.00N	150.00	0.05N	0.06	0.0 B	0.0 B	3.00
L72-132	100.00	20.00	200.00N	150.00	0.05N	0.04	0.0 B	0.0 B	1.00
L72-128	50.00	30.00	200.00N	150.00	0.05N	0.06	0.0 B	0.0 B	1.00
L72-131A	150.00	10.00	200.00N	150.00	0.05N	0.06	0.0 B	0.0 B	1.00N
L72-131B	100.00	20.00	200.00N	150.00	0.05N	0.02L	0.0 B	0.0 B	3.00

PINYON CONGLOMERATE										
SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
B-16	1.00	0.20	0.10	0.20	100.00	2.00	10.00	500.00	1.00N	5.00N
B-16A	0.70	0.10	0.05	0.10	150.00	0.50	10.00L	300.00	1.00N	5.00N
B-23-1	2.00	0.50	0.20	0.20	500.00	0.50N	10.00	700.00	1.00L	5.00
B-23-2	0.50	0.20	0.07	0.10	150.00	0.50	10.00L	500.00	1.00N	5.00N
B-23-3	1.50	0.20	0.20	0.20	150.00	0.50N	10.00	700.00	1.00L	5.00
L71-150A	7.00	1.00	0.20	0.20	3000.00	0.50N	50.00	700.00	1.00	7.00
L71-150C	7.00	1.00	0.20	0.30	1000.00	0.50N	50.00	700.00	1.00	7.00
SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
B-16	20.00	30.00	20.00	5.00N	10.00N	5.00	10.00N	5.00	10.00N	100.00N
B-16A	70.00	20.00	20.00	5.00N	10.00N	5.00	10.00N	5.00L	10.00N	100.00N
B-23-1	20.00	30.00	20.00	5.00N	10.00N	5.00	10.00	5.00	10.00N	500.00
B-23-2	15.00	50.00	20.00	5.00N	10.00N	5.00	30.00	5.00N	10.00N	100.00N
B-23-3	15.00	30.00	20.00	5.00N	10.00N	5.00	10.00	5.00	10.00N	500.00
L71-150A	70.00	20.00	20.00	5.00N	20.00N	30.00	20.00	10.00	10.00N	100.00N
L71-150C	100.00	30.00	20.00	5.00	20.00N	30.00	30.00	10.00	10.00	100.00N

PINYON CONGLOMERATE

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CM-CX-HM
B-16	30.00	15.00	200.00N	300.00	0.05N	0.06	0.0 B	0.0 B	1.00L
B-16A	10.00	15.00	200.00N	300.00	0.05N	0.03L	0.0 B	0.0 B	1.00L
B-23-1	70.00	15.00	200.00N	200.00	0.05N	0.06	0.0 B	0.0 B	1.00
B-23-2	20.00	15.00	200.00N	200.00	0.05N	0.03L	0.0 B	0.0 B	1.00L
B-23-3	70.00	15.00	200.00N	200.00	0.05N	0.03L	0.0 B	0.0 B	1.00L
L71-150A	70.00	30.00	200.00N	150.00	0.05N	0.06	0.0 B	0.0 B	1.00
L71-150C	100.00	50.00	200.00N	150.00	0.05N	0.06	0.0 B	0.0 B	1.00

HAREBELL FORMATION

SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
B-27	1.00	0.30	2.00	0.20	1500.00	0.50N	10.00	1000.00	1.00L	5.00N
B-29	2.00	0.50	10.00	0.50	5000.00G	0.50N	10.00	500.00	1.00N	7.00
L72-43CL	5.00	2.00	0.20	0.50	500.00	1.50	20.00	700.00	1.00	20.00
L72-52	3.00	0.20	0.37	0.20	150.00	0.50	10.00	300.00	1.00	7.00
B-236	3.00	0.30	7.00	0.50	5000.00	0.50N	10.00L	300.00	1.00N	10.00
B-239	2.00	0.20	10.00	0.50	5000.00G	0.50N	10.00L	200.00	1.00N	5.00N
B-241	3.00	0.30	10.00	0.30	5000.00G	0.50N	10.00L	300.00	1.00N	10.00
B-28	20.00G	2.00	1.00	1.00G	5000.00G	0.50N	10.00N	300.00	1.00N	150.00
B-266	3.00	1.00	2.00	0.20	300.00	0.50N	10.00	700.00	1.00	5.00

SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
B-27	30.00	7.00	30.00	5.00N	10.00N	5.00	10.00	5.00	10.00N	200.00
B-29	150.00	5.00	50.00	5.00N	10.00	5.00	10.00	15.00	10.00N	200.00
L72-43CL	70.00	30.00	30.00	5.00N	10.00	20.00	30.00	10.00	10.00N	100.00N
L72-52	20.00	30.00	30.00	5.00N	10.00N	10.00	10.00	7.00	10.00N	500.00
B-236	100.00	7.00	50.00	5.00N	10.00N	5.00	15.00	15.00	10.00	100.00
B-239	70.00	10.00	20.00	5.00N	10.00N	5.00	15.00	10.00	10.00	150.00
B-241	70.00	5.00	30.00	5.00N	10.00N	7.00	15.00	15.00	10.00	150.00
B-28	1000.00	70.00	500.00	5.00N	20.00	50.00	20.00	30.00	10.00N	100.00N
B-266	10.00N	5.00L	20.00N	5.00N	20.00N	15.00	15.00	10.00	10.00N	500.00

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CM-CX-HM
B-27	50.00	50.00	200.00N	200.00	0.05N	0.06	0.0 B	0.0 B	1.00L
B-29	200.00	30.00	200.00N	300.00	0.30	0.03	0.0 B	0.0 B	3.00
L72-43CL	100.00	30.00	200.00N	200.00	0.05N	0.03N	0.0 B	0.0 B	1.00L
L72-52	100.00	15.00	200.00N	100.00	0.05N	0.03	0.0 B	0.0 B	1.00L
B-236	200.00	20.00	200.00N	500.00	0.05L	0.03L	0.80	1.40	25.00
B-239	200.00	30.00	200.00N	500.00	0.16	0.03	0.80	0.80	14.00
B-241	200.00	20.00	200.00N	500.00	0.28	0.03L	0.70	1.10	40.00
B-28	2000.00	150.00	200.00N	500.00	0.05N	0.02L	0.0 B	0.0 B	7.00
B-266	70.00	20.00	200.00N	150.00	0.05N	0.02N	0.0 B	0.0 B	1.00N

MESAVERDE FORMATION

SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
B-1	2.00	1.00	5.00	0.20	300.00	0.50	10.00	500.00	1.00L	5.00
B-2	1.00	1.00	7.00	0.20	200.00	1.00	10.00	200.00	1.00L	5.00
B-3	2.00	0.20	0.10	0.10	1000.00	0.50N	10.00	300.00	1.00L	5.00
B-4	20.00	0.10	1.00	0.10	50.00	0.50	20.00	200.00	1.00N	5.00N
B-11	2.00	0.20	0.10	0.20	300.00	0.50N	10.00	500.00	1.00	7.00
B-13	15.00	0.05	0.05	0.10	30.00	0.50	20.00	300.00	1.00N	5.00N
B-1A	15.00	0.05	0.10	0.10	30.00	0.50N	20.00	500.00	1.00N	5.00N
B-24	1.50	1.00	10.00	0.20	500.00	0.50	10.00	700.00	1.00L	5.00N
L72-22	1.00	1.50	10.00	0.20	2000.00	0.70	10.00	300.00	1.00N	5.00
L72-21	20.00	1.00	3.00	0.05	5000.00G	0.50N	10.00L	200.00	1.00	5.00N
L72-17A	1.00	1.00	7.00	0.15	300.00	0.50N	10.00	500.00	1.00N	5.00N
B-15	5.00	1.00	3.00	0.30	300.00	0.50N	70.00	700.00	1.00	5.00
B-25	5.00	1.00	0.70	0.30	3000.00	0.50N	100.00	700.00	2.00	5.00
L71-150B	7.00	1.00	1.00	0.30	1500.00	0.50N	50.00	500.00	2.00	10.00
L72-226	5.00	5.00	10.00	0.30	700.00	0.50N	100.00	700.00	1.00	7.00
B26	2.00	1.50	3.00	0.20	300.00	0.0 N	50.00	700.00	0.0 N	7.00
B-6	0.50	0.20	0.70	0.30	20.00	0.0 N	50.00	1500.00	3.00	0.0 N
B-5	3.00	1.50	10.00	0.20	300.00	0.0 N	500.00	3000.00	10.00	50.00

SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
B-1	30.00	10.00	20.00	5.00N	10.00N	10.00	10.00	5.00	10.00N	100.00N
B-2	30.00	10.00	20.00N	5.00N	10.00N	10.00	15.00	5.00	10.00N	100.00N
B-3	20.00	5.00	20.00N	5.00N	10.00N	7.00	10.00N	5.00	10.00N	100.00N
B-4	20.00	10.00	20.00N	30.00	10.00N	20.00	20.00	5.00	10.00N	100.00N
B-11	30.00	5.00	20.00	5.00N	10.00N	5.00	10.00	5.00	10.00N	100.00N
B-13	10.00	10.00	20.00N	7.00	10.00N	70.00	10.00	5.00	10.00N	100.00N
B-1A	10.00	10.00	20.00N	15.00	10.00N	70.00	15.00	5.00	10.00N	100.00N
B-24	20.00	5.00	20.00	5.00N	10.00N	7.00	15.00	5.00	10.00N	100.00
L72-22	20.00	20.00	20.00N	5.00N	10.00N	10.00	10.00	5.00	10.00N	100.00N
L72-21	10.00	5.00	20.00	5.00N	10.00N	5.00	10.00	5.00	10.00N	100.00N
L72-17A	15.00	20.00	20.00N	5.00N	10.00	7.00	10.00	5.00L	10.00N	100.00N
B-15	70.00	10.00	20.00	5.00N	20.00N	30.00	20.00	10.00	10.00N	100.00
B-25	100.00	20.00	70.00	5.00N	20.00L	70.00	30.00	15.00	10.00N	100.00N
L71-150B	70.00	5.00	50.00	5.00N	20.00L	50.00	30.00	10.00	10.00N	100.00N
L72-226	150.00	20.00	30.00	5.00N	20.00N	50.00	50.00	15.00	10.00N	100.00
B26	50.00	20.00	0.0 N	0.0 N	0.0 N	10.00	30.00	7.00	0.0 N	150.00
B-6	70.00	15.00	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	70.00
B-5	70.00	70.00	100.00	20.00	0.0 N	50.00	30.00	7.00	0.0 N	1000.00

MESAVERDE FORMATION

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CM-CX-HH
B-1	70.00	20.00	200.00N	200.00	0.05L	0.03L	0.0 B	0.0 B	3.00
B-2	70.00	15.00	200.00N	200.00	0.05N	0.03L	0.0 B	0.0 B	3.00
B-3	70.00	15.00	200.00N	150.00	0.05N	0.03L	0.0 B	0.0 B	1.00L
B-4	50.00	10.00	200.00N	100.00	0.05N	0.80	0.0 B	0.0 B	3.00
B-11	100.00	20.00	200.00N	200.00	0.05N	0.06	0.0 B	0.0 B	10.00
B-13	30.00	10.00	200.00N	100.00	0.05N	1.80	0.0 B	0.0 B	3.00
B-1A	70.00	10.00	200.00N	50.00	0.05N	2.30	0.0 B	0.0 B	2.00
B-24	70.00	15.00	200.00N	100.00	0.05N	0.03	0.0 B	0.0 B	1.00L
L72-22	70.00	10.00	200.00N	70.00	0.05L	0.03N	0.0 B	0.0 B	1.00
L72-21	20.00	30.00	200.00N	10.00	0.05L	0.03N	0.0 B	0.0 B	1.00L
L72-17A	70.00	10.00	200.00N	300.00	0.05N	0.06	0.0 B	0.0 B	1.00L
B-15	150.00	20.00	200.00N	500.00	0.05N	0.06	0.0 B	0.0 B	3.00
B-25	200.00	70.00	200.00N	200.00	0.05N	0.18	0.0 B	0.0 B	5.00
L71-150B	150.00	70.00	200.00N	150.00	0.05N	0.08	0.0 B	0.0 B	7.00
L72-226	150.00	50.00	200.00	150.00	0.05N	0.10	0.0 B	0.0 B	3.00
B6	100.00	0.0 N	0.0 N	100.00	0.0 B	0.12	0.0 B	0.0 B	0.0 B
B-6	50.00	20.00	0.0 N	200.00	0.0 B	0.04	0.0 B	0.0 B	0.0 B
B-5	100.00	100.00	0.0 N	150.00	0.0 B	0.06	0.0 B	0.0 B	0.0 B

BACON RIDGE SANDSTONE AND LENTICULAR SANDSTONE AND SHALE SEQUENCE

SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
B-32	2.00	1.00	20.00	0.10	2000.00	0.50N	10.00	500.00	1.00L	5.00N
B-34	2.00	0.20	0.10	0.30	30.00	0.50	30.00	700.00	1.00L	5.00N
B-35	2.00	2.00	10.00	0.20	200.00	0.50N	10.00	700.00	1.00L	5.00N
B-36	1.00	2.00	10.00	0.10	200.00	1.50	10.00	300.00	1.00N	5.00N
B-37	3.00	0.50	0.10	0.50	150.00	0.50N	20.00	700.00	1.00L	5.00
B-38	2.00	0.30	0.20	0.20	1000.00	0.50	10.00	700.00	1.00L	5.00
B-39	2.00	0.50	0.20	0.20	100.00	0.50	15.00	700.00	1.00L	5.00
B-40	2.00	2.00	10.00	0.20	2000.00	0.50N	20.00	100.00	1.00L	5.00N
B-41	2.00	2.00	5.00	0.20	1000.00	0.50N	20.00	500.00	1.00L	5.00
B-42	1.00	1.00	5.00	0.20	500.00	0.50N	10.00	300.00	1.00N	5.00
B-43	5.00	0.70	0.70	0.20	500.00	0.70	15.00	1000.00	1.00L	5.00
B-44	2.00	0.20	0.10	0.20	70.00	0.50N	10.00	300.00	1.00N	5.00N
B-58	1.00	1.00	10.00	0.10	1000.00	0.50	10.00L	700.00	1.00L	5.00N
B-59	2.00	1.00	15.00	0.20	2000.00	0.50	10.00L	700.00	1.00L	5.00
L72-42	2.00	1.00	20.00	0.20	2000.00	0.50N	10.00L	700.00	1.00L	5.00
B-61	3.00	1.00	10.00	0.20	1000.00	0.50	10.00	700.00	1.00L	5.00
B-62	3.00	1.00	2.00	0.20	150.00	0.50N	10.00	700.00	1.00L	5.00
B-237	1.00	1.00	10.00	0.10	500.00	0.50N	10.00L	200.00	1.00N	5.00N
B-238	1.00	1.00	10.00	0.10	700.00	0.50N	10.00L	200.00	1.00N	5.00N
L72-219	3.00	2.00	10.00	0.20	1000.00	0.50N	30.00	700.00	1.00	5.00
L72-217	2.00	1.00	0.50	0.10	200.00	0.50N	30.00	700.00	1.00	5.00
L-72-42	5.00	0.70	7.00	0.30	300.00	0.0 N	500.00	7000.00	50.00	15.00

SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
B-32	20.00	5.00	20.00N	5.00N	10.00N	5.00	10.00	5.00	10.00N	200.00
B-34	30.00	7.00	20.00N	5.00N	10.00	5.00L	15.00	5.00	10.00N	100.00
B-35	20.00	10.00	20.00N	5.00N	10.00N	7.00	15.00	5.00	10.00N	300.00
B-36	20.00	7.00	20.00N	5.00N	10.00N	5.00	15.00	5.00	10.00N	200.00
B-37	50.00	10.00	20.00	5.00N	10.00	10.00	10.00	7.00	10.00N	100.00
B-38	30.00	5.00	20.00	5.00N	10.00N	7.00	10.00L	5.00	10.00N	100.00N
B-39	50.00	30.00	20.00	5.00N	10.00N	30.00	10.00	5.00	10.00N	100.00N
B-40	30.00	10.00	20.00	5.00N	10.00N	10.00	15.00	5.00	10.00N	100.00
B-41	50.00	20.00	20.00	5.00N	10.00N	10.00	20.00	5.00	10.00N	100.00
B-42	20.00	30.00	20.00N	5.00N	10.00N	7.00	15.00	5.00	10.00N	100.00N
B-43	30.00	20.00	20.00	5.00N	10.00	20.00	15.00	5.00	10.00N	100.00
B-44	10.00	15.00	20.00	5.00N	10.00	5.00	10.00	5.00L	10.00N	100.00N
B-58	10.00	20.00	20.00N	5.00N	10.00N	5.00	10.00	5.00L	10.00N	300.00
B-59	15.00	30.00	20.00N	5.00N	10.00N	5.00	15.00	5.00	10.00N	500.00
L72-42	30.00	5.00	30.00	5.00N	10.00N	7.00	10.00	10.00	10.00N	300.00
B-61	20.00	20.00	20.00	5.00N	10.00N	7.00	10.00	5.00	10.00N	200.00
B-62	20.00	20.00	70.00	5.00N	10.00N	5.00	10.00	5.00	10.00N	200.00
B-237	15.00	5.00	20.00N	5.00N	10.00N	5.00	15.00	5.00N	10.00	100.00
B-238	15.00	10.00	20.00N	5.00N	10.00N	5.00	15.00	5.00N	10.00	100.00
L72-219	70.00	5.00L	20.00	5.00N	20.00N	20.00	20.00	7.00	10.00N	500.00
L72-217	20.00	5.00L	20.00N	5.00N	20.00N	10.00	15.00	5.00N	10.00N	100.00N
L-72-42	50.00	100.00	150.00	0.0 N	0.0 N	30.00	30.00	20.00	0.0 N	3000.00

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CM-CX-HH
B-32	50.00	15.00	200.00N	200.00	0.05	0.03	0.0 B	0.0 B	1.00L
B-34	70.00	10.00	200.00N	500.00	0.05N	0.03	0.0 B	0.0 B	1.00L
B-35	50.00	20.00	200.00N	200.00	0.05N	0.03	0.0 B	0.0 B	1.00L
B-36	50.00	20.00	200.00N	200.00	0.05N	0.03	0.0 B	0.0 B	1.00L
B-37	100.00	20.00	200.00N	500.00	0.05N	0.03	0.0 B	0.0 B	1.00L
B-38	100.00	20.00	200.00N	150.00	0.05N	0.03L	0.0 B	0.0 B	1.00
B-39	100.00	30.00	200.00N	300.00	0.05N	0.03	0.0 B	0.0 B	1.00L
B-40	70.00	20.00	200.00N	200.00	0.05N	0.03	0.0 B	0.0 B	5.00
B-41	70.00	20.00	200.00N	300.00	0.05N	0.03	0.0 B	0.0 B	1.00
B-42	70.00	20.00	200.00N	200.00	0.05N	0.03	0.0 B	0.0 B	1.00L
B-43	70.00	30.00	200.00N	300.00	0.05N	0.03	0.0 B	0.0 B	1.00L
B-44	50.00	10.00	200.00N	200.00	0.05N	0.03L	0.0 B	0.0 B	1.00L
B-58	30.00	10.00	200.00N	70.00	0.05L	0.03	0.0 B	0.0 B	1.00L
B-59	50.00	20.00	200.00N	70.00	0.05N	0.03N	0.0 B	0.0 B	1.00L
L72-42	70.00	20.00	200.00N	200.00	0.05N	0.06	0.0 B	0.0 B	1.00L
B-61	50.00	20.00	200.00N	70.00	0.05N	0.03N	0.50	1.70	5.00
B-62	70.00	20.00	200.00N	500.00	0.05N	0.03N	0.60	1.20	3.00
B-237	30.00	10.00	200.00N	150.00	0.05N	0.03	0.10L	0.20	3.00
B-238	30.00	10.00	200.00N	100.00	0.05N	0.03L	0.10L	0.10	1.00
L72-219	70.00	20.00	200.00N	150.00	0.05N	0.02L	0.0 B	0.0 B	5.00
L72-217	70.00	10.00	200.00L	100.00	0.05N	0.02N	0.0 B	0.0 B	1.00N
L-72-42	100.00	150.00	0.0 N	150.00	0.0 B	0.09	0.0 B	0.0 B	0.0 B

COOY SHALE

SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
L72-208	2.00	0.50	0.50	0.10	500.00	0.50N	30.00	700.00	1.00L	5.00
L72-214	5.00	2.00	5.00	0.50	700.00	0.50N	300.00	1000.00	2.00	2.00

SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
L72-208	10.00	5.00L	20.00N	5.00N	20.00N	10.00	15.00	5.00	10.00N	100.00
L72-214	100.00	20.00	50.00	5.00N	20.00	70.00	30.00	20.00	10.00N	200.00

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CH-CX-HM
L72-208	70.00	20.00	200.00L	70.00	0.05N	0.02L	0.0 B	0.0 B	1.00N
L72-214	200.00	30.00	200.00	150.00	0.05N	0.06	0.0 B	0.0 B	5.00

FRONTIER FORMATION

SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
B-30	1.50	0.70	0.20	0.20	150.00	0.50N	10.00	300.00	1.00L	5.00
B-46	1.00	0.30	0.50	0.20	700.00	1.00	10.00	300.00	1.00L	5.00N
B-55	5.00	1.00	0.30	0.20	700.00	0.50N	10.00	500.00	2.00	30.00
B-67	0.50	0.10	0.50	0.10	150.00	0.50	10.00L	500.00	1.00	5.00
B-72	1.00	0.10	0.30	0.20	50.00	0.50	10.00L	700.00	1.00L	5.00
B-73	1.00	0.20	0.50	0.10	50.00	0.50	10.00L	1000.00	1.00L	5.00
B-177	1.00	0.50	0.20	0.10	70.00	0.50N	10.00	1000.00	1.00	5.00
B-178	3.00	1.00	0.30	0.10	150.00	1.50	10.00	1000.00	2.00	5.00N
B-179	1.00	0.20	0.50	0.20	150.00	0.50N	10.00L	1000.00	2.00	5.00N
B-180	7.00	0.50	0.50	0.50	200.00	0.50N	20.00	500.00	1.00L	5.00N
B-181	1.00	0.10	0.10	0.10	20.00	0.50N	10.00	200.00	1.00L	5.00N
B-182	3.00	1.00	0.50	0.20	150.00	0.50N	10.00	100.00	1.00L	5.00N
B-288	7.00	1.00	0.70	0.20	500.00	0.50N	30.00	700.00	1.00	7.00
B-289	7.00	1.00	0.70	0.20	700.00	0.50N	70.00	700.00	3.00	5.00
B-290	7.00	1.00	0.30	0.30	500.00	0.50N	100.00	700.00	5.00	7.00
B-291	5.00	2.00	1.00	0.20	300.00	0.50N	150.00	1000.00	2.00	20.00
B-292	10.00	2.00	2.00	0.70	500.00	0.50N	200.00	700.00	5.00	5.00
B-293	7.00	2.00	10.00	0.30	5000.00G	0.50N	10.00	2000.00	1.00	5.00
L72-205	5.00	1.00	5.00	0.10	1000.00	0.50N	150.00	700.00	3.00	5.00N
L72-152	2.00	0.50	1.00	0.20	500.00	0.50N	100.00	500.00	2.00	5.00
L72-176	2.00	0.50	10.00	0.20	5000.00G	0.50N	20.00	1000.00	1.00	7.00

SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
B-30	20.00	20.00	20.00	5.00N	10.00N	5.00	10.00	10.00	10.00N	100.00
B-46	15.00	5.00	20.00N	5.00N	10.00N	5.00	10.00	5.00	10.00N	100.00
B-55	15.00	20.00	50.00	5.00N	10.00N	20.00	10.00	10.00	10.00N	100.00
B-67	10.00	5.00	50.00	5.00N	10.00N	5.00	10.00L	5.00L	10.00N	100.00
B-72	15.00	30.00	30.00	5.00N	10.00N	5.00L	15.00	5.00L	10.00N	150.00
B-73	10.00	15.00	30.00	5.00N	10.00N	5.00	10.00	5.00L	10.00N	100.00
B-177	10.00N	5.00	20.00	5.00N	20.00	5.00L	15.00	5.00L	10.00N	100.00
B-178	10.00	5.00L	30.00	5.00N	30.00	5.00L	20.00	5.00	10.00N	100.00N
B-179	10.00	5.00	30.00	5.00N	10.00	5.00L	10.00	5.00	10.00N	100.00
B-180	30.00	30.00	50.00	5.00N	20.00	5.00	20.00	15.00	10.00N	200.00
B-181	10.00N	5.00N	20.00N	5.00N	30.00	5.00L	10.00L	5.00	10.00N	100.00N
B-182	30.00	10.00	30.00	5.00	10.00	10.00	15.00	5.00	10.00N	100.00N
B-288	50.00	5.00L	30.00	5.00N	20.00L	30.00	30.00	7.00	10.00N	200.00
B-289	50.00	10.00	50.00	5.00N	20.00L	30.00	30.00	7.00	10.00N	100.00
B-290	100.00	20.00	50.00	10.00	20.00L	30.00	30.00	15.00	10.00N	100.00
B-291	10.00N	5.00L	150.00	20.00	30.00	50.00	50.00	10.00	10.00N	100.00
B-292	10.00N	5.00L	50.00	5.00N	20.00L	30.00	30.00	10.00	10.00N	100.00
B-293	10.00N	5.00L	200.00	10.00	70.00	30.00	50.00	15.00	10.00N	100.00
L72-205	50.00	5.00L	50.00	5.00N	20.00N	20.00	15.00	7.00	10.00N	200.00
L72-152	20.00	5.00L	150.00	5.00N	20.00L	20.00	15.00	7.00	10.00N	200.00
L72-176	10.00	10.00	50.00	5.00N	20.00L	20.00	30.00	10.00	10.00N	200.00

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CH-CX-HM
B-30	70.00	15.00	200.00N	200.00	0.05L	0.03L	0.0 B	0.0 B	1.00L
B-46	70.00	10.00	200.00N	200.00	0.05N	0.03	0.0 B	0.0 B	1.00
B-55	100.00	20.00	200.00N	150.00	0.05N	0.03N	0.0 B	0.0 B	3.00
B-67	50.00	10.00	200.00N	70.00	0.05L	0.03N	2.00	0.50	5.00
B-72	30.00	10.00	200.00N	200.00	0.05	0.06	1.30	2.50	1.00
B-73	50.00	10.00	200.00N	70.00	0.05L	0.03	1.50	2.10	1.00
B-177	10.00	30.00	200.00N	100.00	0.05L	0.03L	0.40	3.90	1.00
B-178	20.00	30.00	200.00N	200.00	0.05N	0.03	0.50	2.40	3.00
B-179	50.00	10.00	200.00N	70.00	0.05N	0.03L	2.80	0.50	3.00
B-180	100.00	50.00	200.00N	500.00	0.05L	0.03	0.10	0.20	3.00
B-181	20.00	10.00	200.00N	200.00	0.05N	0.06	0.10	0.30	1.00
B-182	100.00	30.00	200.00N	200.00	0.05N	0.03	0.40	1.90	1.00
B-288	70.00	20.00	200.00N	150.00	0.05N	0.04	0.0 B	0.0 B	5.00
B-289	70.00	30.00	200.00N	150.00	0.05N	0.02L	0.0 B	0.0 B	5.00
B-290	100.00	30.00	200.00N	200.00	0.05N	0.04	0.0 B	0.0 B	7.00
B-291	50.00	70.00	200.00N	200.00	0.05N	0.04	0.0 B	0.0 B	9.00
B-292	100.00	20.00	200.00N	150.00	0.05N	0.02L	0.0 B	0.0 B	1.00
B-293	20.00	70.00	200.00N	700.00	0.05N	0.02L	0.0 B	0.0 B	1.00N
L72-205	200.00	30.00	200.00L	70.00	0.05N	0.02L	0.0 B	0.0 B	3.00
L72-152	70.00	20.00	200.00L	100.00	0.05N	0.45	0.0 B	0.0 B	3.00
L72-176	100.00	20.00	200.00L	100.00	0.05N	0.02L	0.0 B	0.0 B	3.00



MOWRY FORMATION

SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-R	S-BA	S-BE	S-CO
B-57	1.00	0.20	0.50	0.30	30.00	0.50N	10.00	1500.00	1.00	5.00
B-63	1.50	0.10	0.50	0.05	1000.00	0.50	10.00	2000.00	1.00	5.00
B-64	2.00	0.50	0.05	0.20	70.00	0.50N	20.00	500.00	1.00	5.00N
B-65	1.00	0.20	10.00	0.05	2000.00	0.50N	10.00L	2000.00	2.00	5.00N
B-66	0.70	0.10	0.50	0.10	1000.00	0.50N	10.00L	500.00	1.00	5.00
B-67	0.50	0.10	0.50	0.10	150.00	0.50	10.00L	500.00	1.00	5.00
B-68	2.00	0.50	1.00	0.20	5000.00	0.50	10.00	700.00	1.00	5.00
B-69	5.00	1.00	0.50	0.20	300.00	0.50	20.00	700.00	2.00	5.00
B-70	2.00	1.00	0.30	0.10	200.00	0.50N	20.00	500.00	2.00	5.00
B-71	2.00	1.00	0.20	0.30	100.00	0.70	50.00	500.00	3.00	5.00
B-163	2.00	1.00	0.50	0.30	200.00	1.00	50.00	500.00	2.00	7.00
B-164	2.00	1.00	1.00	0.30	500.00	0.50N	10.00	500.00	1.00	5.00N
B-165	3.00	1.00	0.70	0.20	700.00	0.50	70.00	500.00	2.00	5.00N
B-166	2.00	0.70	0.50	0.30	200.00	0.50N	50.00	1500.00	2.00	5.00
B-167	3.00	0.50	0.30	0.30	150.00	0.50N	50.00	500.00	3.00	7.00
B-168	2.00	1.00	0.70	0.20	200.00	0.50	150.00	150.00	2.00	7.00
B-169	2.00	0.50	0.20	0.10	150.00	0.50N	100.00	500.00	1.50	5.00N
B-170	3.00	0.50	0.50	0.30	500.00	0.50	10.00	500.00	1.00	5.00
B-171	2.00	0.50	0.50	0.20	1000.00	0.50	10.00	700.00	2.00	5.00
B-172	2.00	1.00	0.20	0.10	500.00	0.50N	10.00	300.00	1.00	5.00N
B-173	2.00	2.00	0.50	0.20	100.00	0.50L	50.00	300.00	2.00	5.00N
B-174	3.00	1.00	1.00	0.30	200.00	0.50	30.00	700.00	1.00	7.00
B-175	3.00	0.50	1.00	0.20	1000.00	0.50N	10.00L	700.00	1.00	7.00
B-281	5.00	2.00	1.00	0.10	300.00	0.50N	200.00	700.00	7.00	5.00
B-283	5.00	1.00	0.20	0.20	150.00	0.50N	100.00	500.00	3.00	5.00
B-284	2.00	1.00	10.00	0.10	2000.00	0.50N	20.00	5000.00G	2.00	5.00
B-285	3.00	1.00	1.00	0.10	1000.00	0.50N	70.00	700.00	7.00	5.00
B-286	0.70	0.20	0.20	0.10	150.00	0.50N	10.00	300.00	2.00	5.00
B-289	7.00	1.00	0.70	0.20	700.00	0.50N	100.00	700.00	5.00	7.00
L72-154-	3.00	1.00	2.00	0.30	500.00	0.50N	100.00	700.00	2.00	5.00

SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
B-57	10.00	30.00	70.00	5.00N	50.00	5.00	20.00	5.00	10.00	100.00
B-63	15.00	20.00	50.00	5.00N	10.00N	7.00	10.00L	5.00L	10.00N	500.00
B-64	20.00	5.00	20.00	5.00N	10.00N	5.00	10.00	10.00	10.00N	100.00N
B-65	10.00	7.00	200.00	5.00N	10.00N	5.00	10.00	5.00	10.00N	700.00
B-66	10.00	7.00	30.00	5.00N	10.00N	5.00	10.00L	5.00L	10.00N	300.00
B-67	10.00	5.00	50.00	5.00N	10.00N	5.00	10.00L	5.00L	10.00N	150.00
B-68	15.00	10.00	20.00	5.00N	10.00N	7.00	10.00	5.00	10.00N	100.00
B-69	10.00N	5.00	70.00	5.00N	30.00	5.00	50.00	5.00	10.00	200.00
B-70	10.00N	5.00	20.00	5.00N	20.00	5.00L	20.00	5.00L	10.00N	100.00
B-71	50.00	10.00	30.00	5.00N	20.00	7.00	20.00	10.00	10.00N	100.00
B-163	20.00	7.00	30.00	5.00N	10.00	7.00	15.00	10.00	10.00N	100.00
B-164	10.00N	5.00L	30.00	5.00N	10.00	5.00L	20.00	10.00	10.00N	500.00
B-165	10.00N	5.00L	30.00	5.00N	30.00	5.00L	70.00	10.00	15.00	150.00
B-166	20.00	7.00	20.00	5.00N	10.00	10.00	10.00	10.00	10.00N	100.00
B-167	30.00	15.00	30.00	5.00N	10.00	7.00	20.00	10.00	10.00N	150.00
B-168	10.00N	5.00L	20.00	7.00	10.00	10.00	30.00	5.00	10.00	200.00
B-169	10.00N	5.00L	30.00	5.00L	20.00	5.00L	30.00	5.00	10.00	100.00N
B-170	30.00	20.00	20.00	5.00N	10.00	7.00	10.00	5.00	10.00N	150.00
B-171	10.00	5.00	30.00	5.00N	10.00	7.00	10.00	5.00	10.00N	100.00
B-172	10.00N	7.00	30.00	5.00N	10.00	5.00L	15.00	5.00L	10.00N	100.00
B-173	10.00N	5.00L	50.00	5.00N	15.00	5.00L	50.00	15.00	15.00	100.00
B-174	50.00	20.00	30.00	5.00N	10.00	15.00	15.00	15.00	10.00N	100.00
B-175	15.00	5.00	30.00	5.00N	20.00	15.00	10.00	5.00	10.00N	100.00
B-281	10.00	5.00L	200.00	15.00	30.00	20.00	70.00	15.00	10.00	200.00
B-283	70.00	15.00	50.00	5.00	20.00L	30.00	30.00	10.00	10.00	100.00N
B-284	10.00N	5.00L	50.00	5.00N	20.00	15.00	30.00	5.00	10.00N	2000.00
B-285	10.00N	5.00L	50.00	5.00N	30.00	20.00	30.00	5.00	10.00	100.00N
B-286	20.00	5.00	50.00	5.00N	20.00N	20.00	30.00	5.00	10.00N	100.00N
B-289	50.00	10.00	50.00	5.00N	20.00L	30.00	30.00	7.00	10.00N	100.00
L72-154-	100.00	20.00	50.00	5.00N	20.00L	30.00	20.00	10.00	10.00N	100.00N

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	GM-CX-HM
B-57	50.00	30.00	200.00N	200.00	0.05L	0.03	0.0 B	0.0 B	1.00L
B-63	50.00	50.00	200.00N	50.00	0.05N	0.03	0.60	0.80	5.00
B-64	100.00	10.00	200.00N	100.00	0.05L	0.03L	0.20	2.40	9.00
B-65	50.00	200.00	200.00N	70.00	0.05N	0.03L	0.50	0.80	5.00
B-66	20.00	30.00	200.00N	200.00	0.05	0.03	1.50	0.50	3.00
B-67	50.00	10.00	200.00N	70.00	0.05L	0.03N	2.00	0.60	5.00
B-68	50.00	30.00	200.00N	200.00	0.10	0.03	0.60	1.50	60.00
B-69	10.00	50.00	200.00N	200.00	0.05L	0.06	0.70	1.70	1.00
B-70	10.00	20.00	200.00N	100.00	0.05L	0.03	0.40	1.50	1.00
B-71	100.00	30.00	200.00N	200.00	0.05L	0.06	0.20	2.10	3.00
B-163	100.00	30.00	200.00N	300.00	0.05N	0.03L	0.50	1.40	1.00
B-164	50.00	10.00	200.00N	100.00	0.05N	0.03	1.10	1.30	3.00
B-165	10.00	30.00	200.00N	150.00	0.05N	0.06	0.70	1.90	1.00
B-166	100.00	30.00	200.00N	200.00	0.05N	0.03	1.00	1.10	1.00
B-167	70.00	30.00	200.00N	500.00	0.05N	0.06	0.60	1.20	6.00
B-168	20.00	30.00	200.00N	200.00	0.05N	0.03	0.40	1.80	3.00
B-169	10.00	30.00	200.00N	200.00	0.05N	0.03	1.50	2.00	3.00
B-170	70.00	30.00	200.00N	500.00	0.05N	0.03L	1.90	1.00	3.00
B-171	50.00	30.00	200.00N	200.00	0.05N	0.03	1.30	1.30	1.00
B-172	10.00	10.00	200.00N	100.00	0.05N	0.03L	0.90	1.50	1.00
B-173	20.00	30.00	200.00N	200.00	0.05N	0.06	0.50	3.10	1.00
B-174	100.00	30.00	200.00N	200.00	0.05N	0.06	0.60	3.20	1.00
B-175	100.00	20.00	200.00N	100.00	0.05N	0.03	1.50	1.00	3.00
B-281	30.00	70.00	200.00N	200.00	0.05N	0.10	0.0 B	0.0 B	5.00
B-283	150.00	30.00	200.00N	150.00	0.05N	0.10	0.0 B	0.0 B	7.00
B-284	15.00	20.00	200.00N	200.00	0.05N	0.10	0.0 B	0.0 B	3.00
B-285	30.00	20.00	200.00N	100.00	0.05N	0.08	0.0 B	0.0 B	7.00
B-286	10.00	20.00	200.00N	150.00	0.05N	0.08	0.0 B	0.0 B	3.00
B-289	70.00	30.00	200.00N	150.00	0.05N	0.02L	0.0 B	0.0 B	5.00
L72-154-	100.00	30.00	200.00N	150.00	0.05N	0.06	0.0 B	0.0 B	3.00

MUDDY SANDSTONE

SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CD
B-86	2.00	2.00	10.00	0.30	2000.00	0.50N	20.00	700.00	1.00N	5.00
B-158	2.00	2.00	10.00	0.25	5000.00	0.50N	20.00	1500.00	1.00L	5.00
B-159	3.00	2.00	5.00	0.30	1600.00	0.50	70.00	500.00	1.00	5.00
B-160	2.00	2.00	1.00	0.50	200.00	0.50	100.00	500.00	1.00	7.00
B-161	2.00	2.00	7.00	0.20	1500.00	0.50N	50.00	500.00	1.00	7.00
B-162	0.50	0.10	0.10	0.20	1000.00	0.50N	70.00	300.00	1.00L	5.00N
L72-154-	3.00	0.50	0.70	0.20	300.00	0.50N	50.00	1000.00	1.00	7.00
L72-154-	2.00	0.50	0.50	0.20	2000.00	0.50N	50.00	700.00	1.00	7.00
L72-154-	2.00	0.50	0.50	0.10	300.00	0.50N	20.00	700.00	1.00	7.00
L72-154-	2.00	1.00	10.00	0.20	5000.00G	0.50N	50.00	700.00	1.00	5.00

SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
B-86	50.00	5.00	20.00	5.00N	10.00N	10.00	10.00	7.00	10.00N	100.00
B-158	20.00	5.00	20.00	5.00N	10.00N	7.00	10.00	5.00	10.00N	150.00
B-159	70.00	15.00	20.00	5.00N	10.00	20.00	15.00	15.00	10.00N	100.00
B-160	50.00	15.00	20.00	5.00N	10.00	15.00	15.00	15.00	10.00N	100.00
B-161	50.00	10.00	20.00	5.00N	10.00N	20.00	10.00	10.00	10.00N	100.00
B-162	10.00	10.00	20.00	5.00N	10.00N	5.00	10.00N	5.00L	10.00N	200.00
L72-154-	50.00	5.00L	50.00	5.00N	20.00L	30.00	20.00	7.00	10.00N	100.00
L72-154-	20.00	5.00L	70.00	5.00N	20.00N	20.00	20.00	7.00	10.00N	100.00N
L72-154-	20.00	5.00L	50.00	5.00N	20.00N	20.00	15.00	7.00	10.00N	100.00N
L72-154-	70.00	5.00	50.00	5.00N	20.00L	30.00	20.00	10.00	10.00N	100.00

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CM-CX-HM
B-86	100.00	20.00	200.00N	300.00	0.05L	0.03L	0.40	0.70	5.00
B-158	70.00	20.00	200.00N	200.00	0.05N	0.03	0.40	1.10	3.00
B-159	150.00	30.00	200.00N	300.00	0.05L	0.06	0.30	1.60	5.00
B-160	50.00	20.00	200.00N	300.00	0.05L	0.03	0.30	1.90	3.00
B-161	150.00	30.00	200.00N	200.00	0.05L	0.03	0.40	0.13	1.00
B-162	20.00	30.00	200.00N	100.00G	0.05N	0.03L	0.50	0.80	1.00
L72-154-	70.00	15.00	200.00N	150.00	0.05N	0.04	0.0 B	0.0 B	3.00
L72-154-	70.00	15.00	200.00L	100.00	0.05N	0.02	0.0 B	0.0 B	3.00
L72-154-	70.00	15.00	200.00L	100.00	0.05N	0.02	0.0 B	0.0 B	1.00N
L72-154-	70.00	30.00	200.00N	200.00	0.05N	0.04	0.0 B	0.0 B	1.00

THERMOPLIS SHALE

SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CD
B-83	1.00	2.00	20.00G	0.10	5000.00G	0.50N	10.00N	150.00	1.00N	5.00N
B-84	5.00	1.00	0.10	0.50	150.00	0.50N	70.00	500.00	2.00	7.00
B-155	10.00	1.00	0.20	0.50	5000.00	0.50N	100.00	700.00	2.00	30.00
B-156	3.00	0.70	0.20	0.30	500.00	0.50N	100.00	200.00	2.00	10.00
B-157	3.00	2.00	5.00	0.30	500.00	1.00	100.00	500.00	1.00	10.00
L72-154	5.00	1.00	0.50	0.30	300.00	0.50N	100.00	500.00	2.00	10.00

SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
B-83	15.00	5.00	20.00N	5.00N	10.00N	5.00	10.00L	5.00L	10.00N	500.00
B-84	70.00	20.00	30.00	5.00N	10.00	20.00	15.00	20.00	10.00N	100.00N
B-155	100.00	50.00	70.00	5.00N	10.00	50.00	30.00	20.00	10.00N	100.00N
B-156	70.00	20.00	30.00	5.00N	10.00N	20.00	20.00	15.00	10.00N	100.00
B-157	70.00	10.00	30.00	5.00N	10.00N	20.00	15.00	15.00	10.00N	100.00
L72-154	70.00	15.00	30.00	5.00N	20.00L	30.00	30.00	10.00	10.00N	100.00N

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CM-CX-HM
B-83	20.00	10.00	200.00N	10.00	0.05N	0.03	0.30	0.30	3.00
B-84	200.00	30.00	200.00N	200.00	0.05N	0.10	0.40	1.80	11.00
B-155	200.00	50.00	200.00N	200.00	0.05N	0.06	0.40	2.10	7.00
B-156	150.00	30.00	200.00N	70.00	0.05N	0.06	0.30	2.20	5.00
B-157	200.00	30.00	200.00N	200.00	0.05N	0.10	0.40	1.90	3.00
L72-154	100.00	20.00	200.00L	150.00	0.05N	0.06	0.0 B	0.0 B	3.00

CLOVERLY MORRISON SEQUENCE

SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CD
B-85	2.00	0.50	0.07	0.70	150.00	0.50N	70.00	300.00	1.00L	5.00
B-133	3.00	1.00	3.00	0.50	500.00	0.50N	100.00	300.00	2.00	10.00
B-134	1.00	0.20	1.00	0.50	2000.00	0.50N	20.00	500.00	1.00	5.00
B-135	1.00	1.00	20.00	0.20	5000.00	0.50N	10.00	150.00	1.00N	5.00N
B-136	1.00	0.50	5.00	0.20	2000.00	0.50N	20.00	150.00	1.00	5.00
B-137	1.00	0.20	5.00	0.20	2000.00	0.50N	10.00	700.00	1.00L	5.00
B-138	3.00	1.00	2.00	0.50	500.00	0.50N	70.00	300.00	1.00	10.00
B-139	0.50	0.10	10.00	0.10	1500.00	0.50N	10.00	100.00	1.00N	5.00N
B-140	0.70	0.20	10.00	0.10	1500.00	0.50N	10.00	1000.00	1.00L	5.00N
B-141	0.70	0.10	0.50	0.20	700.00	0.50N	10.00	300.00	1.00	5.00
B-142	1.00	0.20	0.70	0.20	700.00	0.50N	20.00	200.00	1.00	5.00
B-143	0.50	0.50	20.00	0.10	1500.00	0.50	10.00L	200.00	1.00N	5.00N
B-144	2.00	1.00	2.00	0.20	700.00	0.50N	50.00	1000.00	2.00	7.00
B-145	3.00	2.00	0.70	0.20	150.00	0.50N	50.00	300.00	2.00	7.00
B-146	1.00	1.00	15.00	0.20	3000.00	5.00	10.00L	1000.00	1.00N	5.00N
B-147	1.00	1.00	20.00G	0.05	5000.00	0.50N	10.00L	150.00	1.00N	5.00N
B-148	2.00	1.00	2.00	0.30	200.00	0.50N	70.00	200.00	1.00	7.00
B-149	2.00	1.00	20.00	0.10	5000.00	0.50N	10.00L	200.00	1.00N	5.00N
B-150	1.00	0.10	0.20	0.30	150.00	0.50N	20.00	100.00	1.00	10.00
B-151	1.00	0.03	0.07	0.20	500.00	2.00	20.00	150.00	1.00N	5.00L
B-152	0.50	0.02	0.05L	0.05	70.00	0.50N	10.00L	70.00	1.00N	5.00N
B-153	0.30	0.02	0.05L	0.02	15.00	0.50N	10.00L	100.00	1.00N	5.00N
B-154	5.00	0.50	0.10	0.70	200.00	0.50N	70.00	500.00	1.00	10.00
B-201	0.50	0.02L	0.05	0.10	30.00	0.50N	10.00	300.00	1.00N	5.00N
B-207	0.50	0.30	5.00	0.20	70.00	0.50N	10.00	150.00	1.00N	5.00N
B-208	2.00	1.00	10.00	0.20	2000.00	0.50N	30.00	300.00	1.00L	7.00
L72-154-	2.00	0.50	2.00	0.30	5000.00G	0.50N	20.00	1500.00	1.00	7.00

CLOVERLY MORRISON SEQUENCE

SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
B-85	50.00	10.00	30.00	5.00N	10.00	5.00	10.00L	10.00	10.00N	100.00N
B-133	70.00	50.00	30.00	5.00N	10.00	20.00	15.00	15.00	10.00N	100.00
B-134	20.00	20.00	30.00	5.00N	10.00	5.00	10.00L	5.00	10.00N	100.00
B-135	20.00	5.00	20.00	5.00N	10.00N	5.00	10.00	7.00	10.00N	300.00
B-136	15.00	10.00	20.00	5.00N	10.00N	5.00	10.00	5.00	10.00N	200.00
B-137	10.00	10.00	20.00	5.00N	10.00N	5.00	10.00L	5.00	10.00N	200.00
B-138	50.00	10.00	30.00	5.00N	10.00	20.00	10.00L	15.00	10.00N	300.00
B-139	10.00N	10.00	20.00N	5.00N	10.00N	5.00	10.00	5.00L	10.00N	100.00
B-140	10.00	5.00	20.00N	5.00N	10.00N	5.00	10.00L	5.00L	10.00N	200.00
B-141	10.00	10.00	30.00	5.00N	10.00N	7.00	10.00N	5.00L	10.00N	100.00
B-142	10.00	15.00	20.00	5.00N	10.00N	5.00	10.00L	5.00	10.00N	100.00N
B-143	10.00	5.00	20.00N	5.00N	10.00N	5.00L	10.00L	5.00	10.00N	300.00
B-144	20.00	7.00	20.00	5.00N	10.00N	7.00	10.00	10.00	10.00N	200.00
B-145	10.00	10.00	20.00	5.00N	10.00	5.00	10.00	10.00	10.00N	200.00
B-146	10.00	5.00	20.00	5.00N	10.00N	5.00L	10.00	5.00	10.00N	300.00
B-147	10.00	5.00	20.00N	5.00N	10.00N	5.00L	10.00N	5.00N	10.00N	300.00
B-148	30.00	15.00	20.00	5.00N	10.00N	15.00	10.00	15.00	10.00N	100.00
B-149	15.00	5.00	20.00N	5.00N	10.00N	5.00	10.00	5.00L	10.00N	300.00
B-150	15.00	20.00	20.00N	5.00N	10.00N	10.00	10.00N	5.00	10.00N	100.00N
B-151	10.00	5.00	20.00	5.00N	10.00N	5.00	10.00N	5.00L	10.00N	100.00N
B-152	10.00N	5.00	20.00N	5.00N	10.00N	5.00	10.00N	5.00L	10.00N	100.00N
B-153	10.00N	20.00	20.00N	5.00N	10.00N	5.00	10.00N	5.00N	10.00N	100.00N
B-154	50.00	20.00	50.00	5.00N	10.00	30.00	15.00	15.00	10.00N	100.00N
B-201	10.00N	5.00	20.00N	5.00N	10.00N	5.00	10.00N	5.00L	10.00N	100.00N
B-207	10.00	10.00	20.00	5.00N	10.00N	5.00	10.00L	5.00L	10.00N	100.00
B-208	50.00	10.00	20.00	5.00N	10.00	10.00	10.00	10.00	10.00N	150.00
L72-154-	50.00	10.00	150.00	5.00N	20.00	20.00	30.00	10.00	10.00N	300.00

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CM-CX-HM
B-85	70.00	50.00	200.00N	1000.00	0.05N	0.03	0.40	0.70	1.00
B-133	100.00	20.00	200.00N	200.00	0.05N	0.03	0.70	2.30	3.00
B-134	30.00	30.00	200.00N	1000.00	0.05N	0.03L	0.90	1.00	7.00
B-135	30.00	20.00	200.00N	70.00	0.05N	0.03L	0.30	1.20	1.00
B-136	30.00	20.00	200.00N	150.00	0.05N	0.03	1.10	1.20	3.00
B-137	30.00	10.00	200.00N	150.00	0.05N	0.03	0.90	0.10	1.00
B-138	100.00	30.00	200.00N	200.00	0.05N	0.03L	0.80	2.10	1.00
B-139	10.00	10.00	200.00N	10.00	0.05N	0.03L	0.60	0.40	3.00
B-140	30.00	15.00	200.00N	100.00	0.05N	0.03N	0.30	0.50	3.00
B-141	30.00	30.00	200.00N	150.00	0.05N	0.03	1.30	0.50	3.00
B-142	30.00	20.00	200.00N	300.00	0.05N	0.03	1.10	1.20	5.00
B-143	10.00	70.00	200.00N	10.00	0.05N	0.03	0.30	0.40	1.00
B-144	70.00	20.00	200.00N	70.00	0.05N	0.03L	0.60	2.30	1.00
B-145	70.00	20.00	200.00N	100.00	0.05N	0.06	0.80	1.70	1.00
B-146	20.00	20.00	200.00N	70.00	0.05N	0.06	1.00	0.60	1.00
B-147	20.00	10.00N	200.00N	10.00	0.05N	0.03	0.30	0.30	1.00
B-148	150.00	20.00	200.00N	100.00	0.05N	0.06	0.20	2.10	7.00
B-149	50.00	10.00	200.00N	50.00	0.05N	0.03	0.50	0.40	1.00
B-150	50.00	15.00	200.00N	300.00	0.05N	0.03L	0.30	0.40	1.00
B-151	20.00	20.00	200.00N	300.00	0.05N	0.03	0.20	0.20	7.00
B-152	10.00	10.00N	200.00N	20.00	0.05N	0.03L	0.20	0.20	1.00
B-153	10.00	10.00N	200.00N	10.00	0.05N	0.06	0.20	0.40	1.00
B-154	100.00	50.00	200.00N	300.00	0.05N	0.03	0.60	2.60	3.00
B-201	10.00	10.00N	200.00N	150.00	0.05N	0.03	0.10	0.10L	3.00
B-207	22.00	10.00	200.00N	150.00	0.05N	0.03N	0.60	0.70	1.00
B-208	50.00	20.00	200.00N	200.00	0.05N	0.03N	1.00	1.20	1.00
L72-154-	70.00	30.00	200.00N	150.00	0.05N	0.02L	0.0 B	0.0 B	3.00

UPPER PART OF SUNDANCE FORMATION

SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
B-74	1.00	0.50	20.00	0.10	1000.00	0.50N	10.00L	500.00	1.00N	5.00
B-75	2.00	2.00	20.00	0.20	1000.00	1.00	50.00	200.00	1.00L	7.00
B-76	1.00	0.50	10.00	0.20	500.00	0.50N	30.00	1000.00	1.00N	5.00
B-130	1.00	1.00	20.00G	0.10	1000.00	0.50N	10.00L	1000.00	1.00L	7.00
B-131	1.00	0.50	20.00	0.10	500.00	0.70	10.00L	70.00	1.00N	5.00N
B-132	1.00	0.50	5.00	0.20	150.00	0.50	20.00	200.00	1.00	5.00
B-183	1.00	0.20	10.00	0.10	500.00	0.50N	10.00	300.00	1.00N	5.00
B-187	1.00	0.70	0.30	0.20	300.00	0.50N	10.00	200.00	1.00	5.00
B-188	0.20	0.50	20.00	0.05	200.00	0.50	10.00N	20.00N	1.00N	5.00N
B-189	3.00	1.00	10.00	0.20	500.00	0.50N	20.00	150.00	1.00L	10.00
B-190	2.00	1.00	5.00	0.20	700.00	1.00	70.00	150.00	1.00	10.00
B-191	1.50	1.00	5.00	0.20	500.00	0.50N	50.00	150.00	1.00	5.00
B-192	2.00	2.00	15.00	0.10	500.00	0.50N	20.00	70.00	1.00N	5.00
B-193	1.00	0.30	0.20	0.20	500.00	0.50N	20.00	150.00	1.00	5.00
B-194	2.00	1.00	5.00	0.30	2000.00	1.50	30.00	300.00	1.00	10.00
B-195	0.30	1.00	20.00G	0.02	200.00	0.50N	10.00N	20.00N	1.00N	5.00N
B-196	3.00	1.00	10.00	0.20	1000.00	0.70	15.00	300.00	1.00N	7.00
B-197	1.00	0.70	15.00	0.10	300.00	0.50N	10.00	300.00	1.00N	5.00N
B-198	0.50	0.10	5.00	0.10	200.00	0.50	10.00	150.00	1.00N	5.00
B-199	2.00	1.00	2.00	0.20	150.00	0.50N	50.00	200.00	1.00L	10.00
B-200	1.00	1.00	7.00	0.20	200.00	0.50N	20.00	500.00	1.00N	5.00
B-202	1.00	0.50	20.00	0.20	300.00	0.70	10.00	700.00	1.00N	5.00N
B-206	1.00	0.70	20.00	0.05	700.00	0.50N	10.00L	1500.00	1.00N	5.00N

UPPER PART OF SUNDANCE FORMATION

SAMPLE	S-CR	S-CU	S-LA	S-MD	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
B-74	15.00	5.00	20.00	5.00N	10.00N	5.00	10.00	5.00L	10.00N	300.00
B-75	70.00	7.00	50.00	5.00N	10.00N	5.00	15.00	15.00	10.00N	300.00
B-76	20.00	10.00	20.00	5.00N	10.00N	5.00	10.00	5.00	10.00N	300.00
B-130	20.00	5.00L	20.00	5.00N	10.00N	7.00	10.00L	5.00	10.00N	500.00
B-131	15.00	7.00	20.00N	5.00N	10.00N	5.00	10.00L	5.00L	10.00N	300.00
B-132	30.00	10.00	20.00N	5.00N	10.00N	5.00	10.00L	5.00	10.00N	200.00
B-183	15.00	7.00	30.00	5.00N	10.00N	5.00	10.00L	5.00	10.00N	300.00
B-187	10.00	5.00	20.00	5.00N	10.00	7.00	20.00	5.00	10.00N	100.00
B-188	10.00N	5.00L	20.00N	5.00N	10.00N	5.00	10.00N	5.00N	10.00N	300.00
B-189	50.00	10.00	20.00	5.00N	10.00N	15.00	20.00	10.00	10.00N	200.00
B-190	50.00	10.00	20.00	5.00N	10.00N	30.00	10.00	10.00	10.00N	100.00
B-191	30.00	5.00	20.00	5.00N	10.00N	5.00N	10.00	10.00	10.00N	100.00
B-192	50.00	10.00	20.00N	5.00N	10.00N	20.00	10.00	10.00	10.00N	100.00
B-193	15.00	5.00	20.00N	5.00N	10.00N	5.00	10.00	10.00	10.00N	200.00
B-194	50.00	20.00	20.00	5.00N	10.00N	20.00	10.00L	10.00	10.00N	100.00N
B-195	10.00	5.00	20.00N	5.00N	10.00N	5.00N	100.00	15.00	10.00N	150.00
B-196	70.00	20.00	20.00	5.00N	10.00N	15.00	30.00	5.00N	10.00N	300.00
B-197	20.00	5.00	20.00	5.00N	10.00N	7.00	30.00	10.00	10.00N	200.00
B-198	10.00	5.00	30.00	5.00N	10.00N	5.00	10.00L	5.00L	10.00N	200.00
B-199	70.00	15.00	30.00	5.00N	10.00	20.00	10.00L	10.00	10.00N	100.00
B-200	30.00	5.00	20.00	5.00N	10.00	5.00	10.00L	10.00	10.00N	300.00
B-202	30.00	10.00	20.00	5.00N	10.00N	5.00	10.00N	5.00	10.00N	300.00
B-206	20.00	5.00L	20.00	5.00N	10.00N	5.00	10.00N	5.00N	10.00N	500.00

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CM-CX-HM
B-74	20.00	20.00	200.00N	70.00	0.05	0.03	0.80	0.50	1.00
B-75	500.00	50.00	200.00N	300.00	0.05	0.03L	0.60	1.30	1.00
B-76	50.00	20.00	200.00N	200.00	0.05L	0.03N	1.10	0.90	1.00
B-130	50.00	20.00	200.00N	50.00	0.05N	0.03	0.30	0.70	5.00
B-131	30.00	15.00	200.00N	15.00	0.05N	0.03N	0.90	0.50	1.00
B-132	70.00	20.00	200.00N	700.00	0.05N	0.03	0.90	1.10	7.00
B-183	50.00	30.00	200.00N	70.00	0.05L	0.03L	1.10	0.70	1.00
B-187	50.00	15.00	200.00N	200.00	0.05N	0.03	0.90	1.50	3.00
B-188	10.00	10.00N	200.00N	10.00	0.05N	0.03L	0.30	0.20	1.00
B-189	70.00	20.00	200.00N	100.00	0.05N	0.03N	0.30	1.30	3.00
B-190	70.00	20.00	200.00N	70.00	0.05N	0.03L	0.30	2.40	1.00
B-191	50.00	15.00	200.00N	70.00	0.05L	0.03L	0.30	2.10	3.00
B-192	30.00	15.00	200.00N	50.00	0.05N	0.03L	0.10	1.00	1.00
B-193	50.00	10.00	200.00N	70.00	0.05N	0.06	0.40	2.50	1.00
B-194	100.00	20.00	200.00N	200.00	0.05N	0.03	1.10	1.50	1.00
B-195	10.00	10.00N	200.00N	10.00	0.05N	0.03N	0.20	0.20	1.00
B-196	50.00	20.00	200.00N	100.00	0.05N	0.03	0.40	1.00	3.00
B-197	30.00	20.00	200.00N	200.00	0.05N	0.03L	0.40	0.50	1.00
B-198	30.00	30.00	200.00N	100.00	0.05N	0.03N	1.00	0.30	1.00
B-199	100.00	30.00	200.00N	200.00	0.05N	0.06	0.70	1.50	1.00
B-200	70.00	30.00	200.00N	200.00	0.05L	0.03N	0.90	1.00	1.00
B-202	30.00	30.00	200.00N	100.00	0.05N	0.03N	0.60	0.60	1.00
B-206	20.00	20.00	200.00N	20.00	0.05N	0.03N	0.10	0.20	1.00

LOWER PART OF SUNDANCE FORMATION

SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
B-123	1.00	1.00	20.00G	0.10	500.00	0.50N	10.00L	30.00	1.00N	5.00N
B-124	2.00	1.00	20.00G	0.10	1000.00	0.50	10.00L	50.00	1.00N	5.00N
B-125	2.00	2.00	20.00G	0.20	500.00	0.50N	30.00	70.00	1.00	10.00
B-126	5.00	5.00	15.00	0.20	1000.00	0.50N	30.00	200.00	1.00	10.00
B-127	0.50	0.50	20.00	0.05	150.00	0.50N	10.00L	20.00N	1.00N	5.00N
B-128	5.00	1.00	20.00G	0.10	700.00	0.50N	10.00L	1500.00	1.00N	7.00
B-129	2.00	2.00	20.00	0.20	500.00	0.50N	30.00	100.00	1.00	7.00
B-203	1.00	0.70	20.00G	0.05	1000.00	0.70	10.00N	1000.00	1.00N	5.00N
B-205	0.50	1.00	20.00G	0.05	300.00	1.00	10.00L	20.00	1.00N	5.00N

SAMPLE	S-CR	S-CU	S-LA	S-MD	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
B-123	10.00	5.00	20.00N	5.00N	10.00N	5.00	10.00L	5.00L	10.00N	300.00
B-124	20.00	5.00L	20.00N	5.00N	10.00N	5.00	10.00L	5.00	10.00N	300.00
B-125	70.00	5.00	20.00	5.00N	10.00N	15.00	10.00	15.00	10.00N	300.00
B-126	70.00	7.00	20.00	5.00N	10.00	15.00	10.00	15.00	10.00N	300.00
B-127	10.00	5.00L	20.00N	5.00N	10.00N	5.00N	10.00L	5.00N	10.00N	300.00
B-128	10.00	5.00	20.00	15.00	10.00N	20.00	70.00	5.00L	10.00N	300.00
B-129	50.00	5.00	20.00	5.00N	10.00N	10.00	10.00L	15.00	10.00N	200.00
B-203	10.00N	5.00	20.00N	5.00L	10.00N	5.00	10.00L	5.00N	10.00N	700.00
B-205	10.00	5.00L	20.00N	5.00N	10.00N	5.00L	10.00L	5.00N	10.00N	500.00

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CM-CX-HM
B-123	10.00	10.00	200.00N	10.00	0.05L	0.03	0.30	0.40	1.00
B-124	20.00	20.00	200.00N	20.00	0.05N	0.03	0.40	0.40	1.00
B-125	70.00	20.00	200.00N	70.00	0.05N	0.03	0.30	2.10	3.00
B-126	100.00	20.00	200.00N	100.00	0.05N	0.03L	0.50	1.40	1.00
B-127	10.00	10.00N	200.00N	10.00	0.05N	0.03L	0.30	0.50	5.00
B-128	10.00	10.00	200.00L	10.00	0.05N	0.06	0.30	0.40	5.00
B-129	70.00	70.00	200.00N	70.00	0.05N	0.03	0.30	1.60	2.00
B-203	10.00	10.00	200.00N	10.00N	0.05N	0.03	0.10	0.10	5.00
B-205	10.00	10.00N	200.00N	10.00	0.05N	0.03L	0.20	0.20	3.00

GYPSSUM SPRING FORMATION

SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
B-121	0.50	0.50	20.00	0.10	150.00	0.50N	10.00L	30.00	1.00N	5.00N
B-122	3.00	2.00	5.00	0.30	500.00	0.50N	50.00	1000.00	1.00	5.00
B-184	3.00	2.00	0.50	0.30	300.00	0.50	30.00	200.00	1.00	10.00
B-185	3.00	2.00	0.30	0.50	300.00	0.50N	30.00	200.00	1.00	10.00
B-186	2.00	1.00	0.30	0.20	300.00	0.50	20.00	200.00	1.00	7.00
B-212	0.05N	0.70	10.00	0.00	10.00	0.50N	10.00N	20.00N	1.00N	5.00N
B-213	0.05N	0.70	10.00	0.00	10.00	0.50N	10.00N	20.00N	1.00N	5.00N
B-214	2.00	5.00	5.00	0.50	300.00	0.50N	30.00	300.00	1.00L	7.00
B-215	0.05L	1.00	20.00	0.01	20.00	1.00	10.00N	20.00N	1.00N	5.00N
B-231	2.00	2.00	5.00	0.30	200.00	0.50N	50.00	200.00	1.00L	7.00

SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
B-121	10.00N	5.00	20.00N	5.00N	10.00N	5.00L	10.00L	5.00N	10.00N	300.00
B-122	20.00	15.00	20.00	5.00N	10.00N	10.00	10.00	15.00	10.00N	200.00
B-184	20.00	15.00	20.00	5.00N	10.00	10.00	15.00	10.00	10.00N	100.00
B-185	20.00	20.00	20.00	5.00N	10.00	10.00	15.00	15.00	10.00N	100.00
B-186	15.00	10.00	20.00	5.00N	10.00	7.00	30.00	7.00	10.00N	100.00
B-212	13.00N	5.00N	20.00N	5.00N	10.00N	5.00N	10.00N	5.00N	10.00N	1000.00
B-213	10.00N	5.00N	20.00N	5.00N	10.00N	5.00N	10.00N	5.00N	10.00N	1000.00
B-214	50.00	5.00	20.00	5.00N	10.00N	15.00	10.00	15.00	10.00N	2000.00
B-215	10.00N	5.00N	20.00N	5.00N	10.00N	5.00N	10.00N	5.00N	10.00N	1000.00
B-231	30.00	5.00	20.00	5.00N	10.00N	7.00	10.00	5.00	10.00N	100.00N

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CM-CX-HM
B-121	10.00	10.00N	200.00N	10.00	0.05N	0.03	0.40	1.10	5.00
B-122	100.00	20.00	200.00N	100.00	0.05L	0.03	1.00	2.50	1.00
B-184	100.00	20.00	200.00N	200.00	0.05N	0.03	0.80	2.60	5.00
B-185	100.00	20.00	200.00N	200.00	0.05N	0.03L	0.60	2.00	1.00
B-186	50.00	15.00	200.00N	200.00	0.05N	0.03L	0.70	1.30	1.00
B-212	10.00	10.00N	200.00N	10.00N	0.05L	0.06	0.10	0.10L	1.00
B-213	10.00	10.00N	200.00N	10.00N	0.05L	0.06	0.10L	0.10L	5.00
B-214	100.00	20.00	200.00N	200.00	0.05N	0.03N	0.50	3.40	3.00
B-215	10.00	10.00N	200.00N	10.00N	0.05L	0.10	0.10	0.10L	1.00
B-231	30.00	20.00	200.00N	200.00	0.05N	0.03N	0.80	2.10	3.00

NUGGET (?)

SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
B-230	1.00	1.00	2.00	0.20	200.00	0.50N	15.00	200.00	1.00L	5.00

SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
B-230	15.00	5.00	20.00N	5.00N	10.00N	5.00	10.00L	5.00L	10.00N	100.00

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CM-CX-HM
B-230	30.00	10.00	200.00N	200.00	0.05L	0.03	0.80	1.40	1.00

POPO AGIE MEMBER OF CHUGWATER FORMATION

SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
B-118	2.00	2.00	2.00	0.50	300.00	0.50N	200.00	200.00	1.00	10.00
B-119	1.00	1.00	20.00	0.10	5000.00	0.50N	10.00	150.00	1.00N	5.00N
B-120	1.00	0.50	15.00	0.10	2000.00	0.50N	10.00L	70.00	1.00N	5.00N
B-219	0.30	0.20	0.20	0.30	700.00	0.50N	20.00	200.00	1.00L	5.00
B-220	0.50	3.00	20.00	0.10	1500.00	0.50N	10.00	150.00	1.00N	5.00N

SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
B-118	70.00	10.00	50.00	5.00N	10.00	20.00	10.00	20.00	10.00N	100.00
B-119	10.00	10.00	50.00	5.00N	10.00N	5.00	10.00	5.00	10.00N	300.00
B-120	10.00N	20.00	20.00	5.00N	10.00N	5.00	10.00	5.00L	10.00N	300.00
B-219	15.00	10.00	20.00N	5.00N	10.00N	5.00	10.00L	5.00	10.00N	100.00N
B-220	20.00	7.00	30.00	5.00N	10.00N	5.00	15.00	5.00	10.00N	500.00

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CM-CX-HM
B-118	70.00	50.00	200.00N	700.00	0.05L	0.03	0.80	2.70	1.00
B-119	70.00	50.00	200.00N	70.00	0.05L	0.03	0.30	1.00	7.00
B-120	20.00	20.00	200.00N	70.00	0.05N	0.03L	1.30	0.20	1.00
B-219	20.00	10.00	200.00N	300.00	0.05N	0.03L	1.40	1.80	1.00
B-220	20.00	30.00	200.00N	100.00	0.05N	0.03L	0.40	0.90	1.00

CROW MOUNTAIN SANDSTONE MEMBER OF CHUGWATER FORMATION

SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
B-116	1.00	2.00	5.00	0.20	500.00	0.50N	30.00	200.00	1.00L	5.00
B-117	0.50	2.00	10.00	0.20	700.00	0.50N	20.00	200.00	1.00N	5.00
B-218	1.00	0.20	0.20	0.20	500.00	0.50N	10.00	200.00	1.00L	5.00
B-225	2.00	2.00	5.00	0.30	500.00	0.50N	20.00	300.00	1.00L	5.00
B-226	0.70	2.00	2.00	0.30	500.00	0.50N	20.00	700.00	1.00N	5.00
B-227	1.00	3.00	10.00	0.30	500.00	0.50N	20.00	300.00	1.00L	7.00
B-228	1.00	2.00	20.00	0.20	1000.00	0.50N	20.00	150.00	1.00L	5.00

SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
B-116	20.00	15.00	20.00N	5.00N	10.00N	5.00	10.00	5.00	10.00N	100.00
B-117	15.00	50.00	20.00N	5.00N	10.00N	5.00	10.00L	5.00	10.00N	100.00
B-218	15.00	5.00	20.00N	5.00N	10.00N	5.00	10.00L	5.00L	10.00N	100.00N
B-225	20.00	10.00	20.00N	5.00N	10.00N	7.00	10.00L	7.00	10.00N	100.00N
B-226	15.00	5.00	20.00N	5.00N	10.00N	5.00	10.00L	5.00	10.00N	100.00N
B-227	50.00	10.00	30.00	5.00N	10.00N	7.00	10.00	10.00	10.00N	100.00
B-228	30.00	10.00	30.00	5.00N	10.00N	7.00	10.00	10.00	10.00N	300.00

CROW MOUNTAIN SANDSTONE MEMBER OF CHUGWATER FORMATION

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CM-CX-HM
B-116	20.00	10.00	200.00N	150.00	0.05L	0.03	1.40	1.80	1.00
B-117	50.00	10.00	200.00N	150.00	0.05L	0.03N	1.00	1.50	1.00
B-218	20.00	10.00	200.00N	200.00	0.05L	0.03L	1.00	1.50	7.00
B-225	100.00	20.00	200.00N	300.00	0.05L	0.03L	1.00	1.50	3.00
B-226	10.00	20.00	200.00N	500.00	0.05L	0.03	1.10	1.30	1.00
B-227	50.00	30.00	200.00N	100.00	0.05N	0.03L	1.00	1.80	1.00
B-228	100.00	30.00	200.00N	100.00	0.05N	0.03L	0.50	1.10	3.00

ALGOVA LIMESTONE MEMBER OF CHUGWATER FORMATION

SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
B-114	1.00	5.00	20.00	0.10	500.00	0.50	10.00L	70.00	1.00N	5.00N
B-115	1.00	2.00	5.00	0.30	500.00	0.50N	30.00	200.00	1.00L	5.00
B-217	0.50	7.00	10.00	0.10	150.00	0.70	10.00	150.00	1.00N	5.00N
B-223	1.00	7.00	10.00	0.07	200.00	0.50	10.00L	100.00	1.00N	5.00N
B-224	1.00	5.00	10.00	0.20	200.00	1.50	10.00	150.00	1.00L	5.00N

SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
B-114	15.00	10.00	20.00N	5.00N	10.00N	5.00L	10.00N	5.00L	10.00N	300.00
B-115	20.00	20.00	20.00	5.00N	10.00N	5.00	10.00L	10.00	10.00N	100.00
B-217	15.00	20.00	20.00N	5.00N	10.00N	5.00	10.00	5.00L	10.00N	100.00
B-223	15.00	15.00	20.00N	5.00N	10.00N	5.00	20.00	5.00L	10.00N	100.00
B-224	15.00	15.00	20.00N	5.00N	10.00N	5.00	15.00	5.00	10.00N	100.00N

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CM-CX-HM
B-114	30.00	10.00L	200.00N	20.00	0.05N	0.03N	0.20	0.80	1.00
B-115	30.00	20.00	200.00N	300.00	0.05N	0.03	0.30	0.40	1.00
B-217	20.00	10.00	200.00N	100.00	0.05N	0.03N	0.50	0.80	1.00
B-223	20.00	10.00	200.00N	10.00	0.05L	0.03L	0.20	0.80	1.00
B-224	30.00	20.00	200.00N	100.00	0.05N	0.03N	0.90	1.20	3.00

RED PEAK MEMBER OF CHUGWATER FORMATION

SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
B-110	5.00	3.00	2.00	0.30	1500.00	0.50N	50.00	300.00	1.00	10.00
B-111	2.00	0.70	7.00	0.30	500.00	0.50N	30.00	200.00	1.00	5.00
B-112	1.00	1.00	2.00	0.50	300.00	0.70	30.00	200.00	1.00L	5.00
B-113	1.50	7.00	15.00	0.10	200.00	0.50N	10.00	70.00	1.00N	5.00N
B-216	2.00	1.50	1.00	0.50	300.00	1.00	20.00	200.00	1.00L	7.00

SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
B-110	70.00	20.00	30.00	5.00N	10.00N	30.00	10.00	15.00	10.00N	100.00N
B-111	20.00	10.00	20.00	5.00N	10.00N	7.00	10.00N	10.00	10.00N	100.00
B-112	50.00	20.00	20.00	5.00N	10.00	15.00	10.00N	15.00	10.00N	100.00
B-113	15.00	5.00	20.00N	5.00N	10.00N	5.00	10.00	5.00L	10.00N	100.00
B-216	50.00	7.00	20.00	5.00N	10.00N	10.00	10.00	10.00	10.00N	100.00N

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CM-CX-HM
B-110	100.00	20.00	200.00N	70.00	0.05N	0.03L	0.60	2.90	1.00
B-111	50.00	20.00	200.00N	200.00	0.05N	0.03N	1.00	1.70	3.00
B-112	200.00	20.00	200.00N	500.00	0.05N	0.03N	1.10	2.10	1.00
B-113	30.00	10.00L	200.00N	10.00	0.05N	0.03L	0.90	3.40	1.00
B-216	70.00	30.00	200.00N	500.00	0.05N	0.03N	1.20	2.30	1.00

DINWOODY FORMATION

SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
B-107	2.00	7.00	10.00	0.20	5000.00G	0.50N	50.00	200.00	1.00	10.00
B-108	2.00	5.00	5.00	0.20	2000.00	0.50N	50.00	200.00	1.00	10.00
B-109	0.70	7.00	20.00	0.02	2000.00	0.50N	10.00L	70.00	1.00N	5.00N

SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
B-107	50.00	10.00	20.00	5.00N	10.00N	15.00	15.00	10.00	10.00N	150.00
B-108	50.00	20.00	20.00	5.00N	10.00N	20.00	10.00	10.00	10.00N	150.00
B-109	10.00N	10.00	20.00N	5.00N	10.00N	5.00L	10.00N	5.00L	10.00N	150.00

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CM-CX-HM
B-107	70.00	15.00	200.00N	70.00	0.05N	0.03N	0.40	4.50	7.00
B-108	70.00	10.00	200.00N	70.00	0.05N	0.03	0.20	3.40	9.00
B-109	10.00	10.00L	200.00N	70.00	0.05N	0.03L	0.20	0.30	1.00

PHOSPHORIA FORMATION

SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
B-92	1.00	0.50	2.00	0.05	500.00	0.50	20.00	150.00	1.00	5.00N
B-93	0.30	0.10	0.70	0.05	700.00	0.50N	10.00	70.00	1.00	5.00N
B-121	0.50	0.20	5.00	0.05	50.00	0.50N	10.00	50.00	1.00	5.00N
B-221	0.30	2.00	5.00	0.05	200.00	0.50N	10.00L	200.00	1.00N	5.00N
B-222	0.20	0.50	5.00	0.05	200.00	0.50N	10.00	70.00	1.00N	5.00N

PHOSPHORIA FORMATION

SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
B-92	150.00	7.00	70.00	5.00L	10.00N	7.00	15.00	5.00L	10.00N	100.00N
B-93	20.00	5.00	30.00	5.00N	10.00N	5.00	10.00L	5.00N	10.00N	100.00N
B-101	150.00	5.00	50.00	5.00N	10.00N	5.00	10.00	5.00L	10.00N	100.00
B-221	10.00	5.00	20.00N	5.00N	10.00N	5.00	10.00N	5.00L	10.00N	100.00N
B-222	70.00	5.00	30.00	5.00N	10.00N	5.00	10.00L	5.00L	10.00N	100.00N

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CH-CX-HM
B-92	30.00	70.00	200.00N	70.00	0.05N	0.03L	0.10	0.20	5.00
B-93	10.00	20.00	200.00N	70.00	0.05N	0.03N	0.10	0.20	9.00
B-101	30.00	70.00	200.00N	20.00	0.05N	0.06	0.20	0.40	2.00
B-221	10.00	10.00	200.00N	100.00	0.05N	0.03	0.10L	0.90	3.00
B-222	20.00	30.00	200.00N	50.00	0.05L	0.03	0.10	0.20	3.00

TENSLEEP FORMATION

SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
B-90	0.20	0.10	2.00	0.10	200.00	0.50N	10.00L	50.00	1.00N	5.00
B-91	0.07	0.05	0.05L	0.05	10.00L	0.50N	10.00L	20.00	1.00N	5.00N
B-298	0.05	0.03	0.05L	0.07	30.00	0.50N	10.00	20.00	1.00N	5.00

SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
B-90	10.00	7.00	20.00N	5.00N	10.00N	5.00L	10.00N	5.00L	10.00N	100.00N
B-91	10.00N	5.00	20.00N	5.00N	10.00N	5.00L	10.00N	5.00L	10.00N	100.00N
B-298	10.00N	5.00	20.00N	5.00N	20.00N	10.00	10.00N	5.00N	10.00N	100.00N

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CH-CX-HM
B-90	10.00	10.00N	200.00N	500.00	0.05N	0.03L	0.20	0.50	9.00
B-91	10.00	10.00N	200.00N	200.00	0.05N	0.03	0.10	0.30	1.00
B-298	10.00	10.00N	200.00N	150.00	0.05N	0.02N	0.0 B	0.0 B	1.00N

AMSDEN FORMATION

SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
B-87	2.00	3.00	10.00	0.30	2000.00	0.50N	20.00	200.00	1.00N	10.00
B-88	2.00	7.00	10.00	0.30	300.00	0.50N	20.00	150.00	1.00N	10.00

SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
B-87	70.00	100.00	30.00	5.00N	10.00N	15.00	10.00	7.00	10.00N	100.00
B-88	50.00	5.00	20.00	5.00N	10.00N	20.00	10.00L	5.00	10.00N	100.00N

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CH-CX-HM
B-87	30.00	50.00	200.00N	1000.00	0.05L	0.03L	0.10	1.10	7.00
B-88	30.00	20.00	200.00N	200.00	0.05N	0.03L	0.20	1.50	1.00

TABLE 2 - CONCENTRATES OF BEDROCK SAMPLES

SAMPLE	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
B-3C	1.00	0.10	0.20	0.20	200.00	0.50N	10.00L	150.00	1.00N	5.00H
B-8C	1.00	1.00	1.00	0.70	150.00	0.50N	10.00L	150.00	1.00N	5.00H
B-10C	5.00	5.00	10.00	0.30	1000.00	0.50N	10.00L	200.00	1.00N	30.00
B-11C	10.00	0.20	0.10	1.00G	2000.00	0.50N	50.00	150.00	1.00N	30.00
B-14C	1.00	0.70	1.00	0.70	150.00	0.50N	10.00L	150.00	1.00N	5.00H
B-22C	5.00	7.00	10.00	0.20	2000.00	0.50N	10.00L	1000.00	1.00N	30.00
B-16C	5.00	0.20	0.30	0.70	1000.00	0.50N	10.00L	200.00	1.00N	5.00H
B-2C	1.00	2.00	5.00	0.20	150.00	0.50	10.00L	200.00	1.00L	5.00H
C-71	3.00	1.00	2.00	0.70	1000.00	0.50N	10.00L	500.00	1.00N	7.00
C-73	15.00	0.70	0.50	1.00G	2000.00	0.50N	30.00	300.00	1.00N	10.00
C-75	5.00	3.00	5.00	0.70	1000.00	0.50N	10.00L	1000.00	1.00L	10.00
B-265C	7.00	5.00	5.00	0.70	1500.00	0.50N	10.00	500.00	1.00N	50.00
B-266C	10.00	0.50	2.00	1.00	1000.00	0.50N	10.00	300.00	1.00N	30.00
B-273C	7.00	7.00	10.00	0.30	1000.00	0.50N	10.00L	700.00	1.00N	70.00
B-285C	2.00	1.00	1.00	0.20	500.00	0.50N	50.00	1000.00	2.00	7.00
B-286C	2.00	0.70	0.20	0.10	500.00	0.50N	70.00	700.00	2.00	7.00
B-287C	2.00	0.70	1.00	0.50	500.00	0.50N	70.00	1000.00	1.00	7.00
B-288C	2.00	0.70	1.00	0.20	300.00	0.50N	70.00	700.00	1.00	7.00
B-268C	5.00	1.00	1.00	0.20	300.00	0.50N	50.00	700.00	5.00	7.00
B-269C	10.00	2.00	2.00	1.00	700.00	0.50N	50.00	1500.00	2.00	10.00
B-17C	10.00	0.50	0.50	1.00	1000.00	0.50N	70.00	300.00	1.00N	7.00
B-23C	7.00	2.00	3.00	0.50	1000.00	0.50N	50.00	700.00	1.00	20.00

SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR
B-3C	10.00	5.00L	30.00	5.00N	10.00N	5.00	10.00N	5.00N	10.00N	100.00N
B-8C	10.00	5.00L	70.00	5.00N	10.00	5.00	10.00N	5.00	10.00N	100.00N
B-10C	200.00	10.00	20.00N	5.00N	10.00N	100.00	10.00N	70.00	10.00N	150.00
B-11C	200.00	15.00L	150.00	5.00N	50.00	5.00	10.00	30.00	10.00N	100.00N
B-14C	10.00	5.00L	70.00	5.00N	10.00	5.00	10.00N	5.00	10.00N	100.00N
B-22C	1500.00	10.00	20.00N	5.00N	10.00N	70.00	10.00	50.00	10.00N	100.00N
B-16C	30.00	5.00	70.00	5.00N	30.00	5.00	10.00L	10.00	10.00N	100.00N
B-2C	30.00	5.00	20.00N	5.00N	10.00N	5.00	10.00	5.00	10.00N	100.00N
C-71	300.00	5.00	300.00	5.00N	20.00L	10.00	20.00	5.00N	10.00N	300.00
C-73	300.00	30.00	300.00	5.00N	30.00	10.00	10.00	5.00N	10.00N	100.00
C-75	700.00	10.00	70.00	7.00	20.00L	70.00	30.00	5.00N	10.00N	300.00
B-265C	1500.00	30.00	150.00	5.00N	20.00N	70.00	30.00	5.00N	10.00N	300.00
B-266C	70.00	5.00	700.00	5.00N	30.00	5.00	30.00	15.00	10.00	500.00
B-273C	2000.00	30.00	30.00	5.00N	20.00N	100.00	20.00	50.00	10.00N	300.00
B-285C	70.00	15.00	100.00	5.00N	20.00	20.00	30.00	10.00	10.00N	300.00
B-286C	70.00	5.00	30.00	5.00N	20.00L	20.00	30.00	10.00	10.00N	200.00
B-287C	70.00	50.00	150.00	5.00N	20.00	20.00	30.00	15.00	10.00N	300.00
B-288C	70.00	5.00	100.00	5.00N	20.00	20.00	30.00	10.00	10.00N	300.00
B-268C	200.00	15.00	150.00	15.00	70.00	30.00	200.00	10.00	10.00	100.00N
B-269C	500.00	30.00	200.00	30.00	70.00	30.00	200.00	15.00	20.00	100.00
B-17C	70.00	15.00	300.00	5.00N	30.00	20.00	30.00	15.00	10.00N	100.00N
B-23C	500.00	30.00	30.00	5.00N	20.00N	50.00	30.00	20.00	10.00N	100.00

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CM-CX-HM
B-3C	70.00	20.00	200.00N	150.00	0.35	0.05L	0.0 B	0.0 B	3.00
B-8C	50.00	20.00	200.00N	1000.00G	16.00	0.05	0.0 B	0.0 B	1.00
B-10C	200.00	20.00	200.00N	50.00	0.20	0.05	0.0 B	0.0 B	1.00
B-11C	150.00	500.00	200.00N	1000.00G	0.05L	0.05L	0.0 B	0.0 B	5.00
B-14C	30.00	20.00	200.00N	1000.00	0.05L	0.05L	0.0 B	0.0 B	3.00
B-22C	200.00	15.00	200.00N	50.00	0.05L	0.05N	0.0 B	0.0 B	1.00
B-16C	150.00	30.00	200.00N	500.00	0.05L	0.05	0.0 B	0.0 B	1.00
B-2C	50.00	20.00	200.00N	1000.00	1.30	0.05	0.0 B	0.0 B	5.00
C-71	100.00	50.00	200.00N	700.00	0.60	0.08	0.0 B	0.0 B	2.00
C-73	300.00	70.00	200.00N	1000.00G	5.50	0.04	0.0 B	0.0 B	3.00
C-75	150.00	30.00	200.00N	500.00	0.10N	0.02L	0.0 B	0.0 B	1.00
B-265C	200.00	50.00	200.00N	500.00	0.10N	0.02L	0.0 B	0.0 B	4.00
B-266C	200.00	150.00	200.00N	700.00	0.25N	0.02L	0.0 B	0.0 B	2.00
B-273C	200.00	30.00	200.00N	150.00	0.15	0.02	0.0 B	0.0 B	1.00
B-285C	70.00	50.00	200.00N	300.00	0.0 B	0.04	0.0 B	0.0 B	7.00
B-286C	70.00	20.00	200.00N	150.00	0.25N	0.06	0.0 B	0.0 B	7.00
B-287C	70.00	70.00	200.00N	1000.00	0.0 B	0.02L	0.0 B	0.0 B	5.00
B-288C	70.00	30.00	200.00N	1000.00	0.25N	0.06	0.0 B	0.0 B	5.00
B-268C	70.00	70.00	200.00	150.00	0.30	0.02L	0.0 B	0.0 B	1.00N
B-269C	150.00	100.00	200.00N	300.00	0.10N	0.02	0.0 B	0.0 B	1.00N
B-17C	150.00	70.00	200.00N	700.00	1.50	0.02L	0.0 B	0.0 B	1.00N
B-23C	200.00	30.00	200.00N	200.00	0.10	0.02	0.0 B	0.0 B	1.00



TABLE 3 - STREAM SEDIMENT SAMPLES

SAMPLE	S-FE	S-MG	S-CA	S-TI	S-MN	S-AG	S-B	S-BA	S-BE	S-CO
A-1	2.00	1.00	1.00	0.50	300.00	0.70	10.00	700.00	1.00L	5.00
A-3	2.00	1.00	2.00	0.50	500.00	0.50	10.00	500.00	1.00L	5.00
A-4	5.00	0.50	1.00	1.00	1500.00	0.50	10.00L	500.00	1.00N	10.00
A-5	2.00	0.30	0.50	0.20	300.00	1.00	30.00	500.00	1.00L	5.00
A-11	1.50	0.50	0.50	0.20	500.00	0.50	10.00	700.00	1.00L	5.00
A-13	3.00	0.70	0.50	0.50	500.00	0.50N	10.00	500.00	1.00L	5.00
A-14	2.00	1.00	1.00	0.30	200.00	0.50N	10.00	500.00	1.00N	5.00
A-15	1.00	0.50	1.00	0.20	300.00	0.50N	10.00	500.00	1.00N	5.00
A-16	1.00	0.70	1.00	0.20	200.00	0.70	10.00	500.00	1.00N	5.00
A-17	1.00	0.30	0.30	0.30	300.00	0.70	10.00	500.00	1.00L	5.00
A-18	3.00	1.00	1.00	0.50	500.00	0.50N	10.00	500.00	1.00	7.00
A-20	5.00	1.00	1.00	0.50	1500.00	0.50N	10.00L	500.00	1.00L	7.00
A-21	2.00	0.50	0.50	0.50	500.00	0.50N	10.00	700.00	1.00L	7.00
A-22	2.00	0.70	0.50	0.20	500.00	0.50N	20.00	500.00	1.00L	5.00
A-23	1.50	1.00	2.00	0.30	300.00	0.50N	20.00	700.00	1.00L	5.00
A-19M	2.00	0.50	0.50	0.50	500.00	0.50N	10.00	500.00	1.00N	5.00
A-19G	2.00	0.50	0.30	0.50	300.00	0.50N	20.00	500.00	1.00L	5.00
A-9	3.00	0.50	0.50	0.50	500.00	0.50N	10.00	500.00	1.00L	7.00
A-2	3.00	0.50	1.00	0.70	500.00	0.50N	10.00	500.00	1.00N	7.00
L72-122	7.00	2.00	1.00	0.70	300.00	2.00	10.00L	2000.00	1.00N	30.00
A-24	1.00	0.50	0.50	0.20	200.00	0.50N	20.00	500.00	1.00L	5.00
A-25	2.00	0.70	0.50	0.20	150.00	0.50N	20.00L	500.00	1.00	5.00
A-26	2.00	0.50	0.20	0.30	200.00	0.50N	30.00	500.00	1.00	5.00
A-27	2.00	0.50	0.20	0.20	1000.00	1.00	20.00	700.00	1.00	5.00
A-28	3.00	0.50	0.50	0.20	150.00	0.50N	50.00	1500.00	1.00	5.00N
A-29	1.00	2.00	10.00	0.20	700.00	0.50N	20.00	500.00	1.00L	5.00
A-30	2.00	0.50	0.50	0.20	200.00	0.50N	50.00	500.00	1.00	5.00
A-31	2.00	1.00	2.00	0.30	500.00	0.50N	50.00	700.00	1.00L	5.00
A-32	1.00	0.50	0.50	0.20	300.00	0.50N	20.00	500.00	1.00	5.00
A-33	5.00	1.00	0.20	0.50	1500.00	0.50N	50.00	500.00	1.00	30.00
A-34	1.00	0.50	2.00	0.20	500.00	0.50N	20.00	500.00	1.00L	5.00
A-35	2.00	1.00	1.00	0.30	500.00	0.50N	20.00	300.00	1.00	5.00
A-36	2.00	0.70	1.00	0.30	1000.00	0.50N	50.00	700.00	1.00	7.00
A-37	2.00	0.70	2.00	0.30	500.00	0.50N	50.00	300.00	1.00	7.00
A-38	2.00	1.00	1.00	0.30	1000.00	0.50N	20.00	700.00	1.00	7.00
A-39	2.00	1.00	1.00	0.20	500.00	0.50N	20.00	500.00	1.00	5.00
A-40	2.00	1.00	1.00	0.20	500.00	0.50N	10.00	500.00	1.00	5.00
A-41	3.00	1.00	2.00	0.30	200.00	0.50N	50.00	700.00	1.00	7.00
A-42	2.00	0.70	1.00	0.20	500.00	0.50N	10.00	700.00	1.00	5.00
A-43	5.00	1.00	1.00	0.50	300.00	0.50N	10.00	700.00	1.00L	7.00
A-44	2.00	0.70	0.50	0.20	500.00	0.50N	10.00	700.00	1.00	7.00
A-45	2.00	0.50	0.50	0.30	500.00	0.50N	10.00	500.00	1.00	5.00
A-46	1.50	0.30	0.30	0.20	150.00	0.50N	10.00	500.00	1.00L	5.00
A-47	1.00	0.20	0.30	0.20	70.00	0.50N	10.00L	700.00	1.00L	5.00
A-48	1.00	0.20	0.20	0.20	150.00	0.50N	10.00	700.00	1.00	5.00
A-49	2.00	0.30	0.20	0.20	150.00	0.50N	10.00	500.00	1.00L	5.00
A-50	1.00	0.50	0.70	0.20	150.00	0.50N	10.00	500.00	1.00L	5.00
A-51	2.00	0.70	1.00	0.20	200.00	0.70	15.00	500.00	1.00L	5.00
A-52	2.00	0.20	0.20	0.20	500.00	0.50	10.00L	1000.00	1.00	5.00
A-53	1.50	0.30	0.30	0.20	300.00	0.50N	10.00	700.00	1.50	5.00
A-54	1.50	0.30	0.20	0.20	150.00	0.50N	15.00	500.00	2.00	5.00
A-56	3.00	1.00	0.70	0.50	500.00	0.50N	15.00	500.00	1.00L	7.00
A-8	10.00	0.50	0.50	0.20	5000.00G	0.50N	10.00	3000.00	2.00	30.00
A-83	1.00	0.50	0.50	0.10	300.00	0.50N	30.00	500.00	1.00	5.00
A-84	3.00	0.50	0.20	0.10	200.00	0.50N	20.00	300.00	2.00	5.00
A-86	2.00	0.50	0.20	0.20	300.00	0.50N	10.00	300.00	1.00L	5.00
A-87	5.00	0.50	0.30	0.20	500.00	0.50N	10.00	300.00	1.00L	7.00
A-88	1.00	0.30	0.30	0.10	150.00	0.50N	10.00	300.00	1.00L	5.00
A-89	1.50	0.30	0.20	0.10	300.00	0.50N	20.00	500.00	1.00	5.00
A-90	2.00	0.10	0.20	0.10	300.00	0.50N	10.00	300.00	3.00	5.00
A-91	1.00	0.30	5.00	0.07	150.00	0.50N	10.00L	300.00	2.00	5.00N
A-92	1.50	0.50	0.30	0.10	100.00	0.50N	20.00	300.00	1.00	5.00
A-86	10.00	1.00	1.00	0.70	1000.00	0.50N	50.00	700.00	1.00	7.00
A-87	10.00	1.00	1.00	1.00	1000.00	0.50N	50.00	700.00	2.00	7.00

STREAM SEDIMENT SAMPLES

SAMPLE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SH	S-SR
A-1	70.00	5.00	150.00	5.00N	10.00	7.00	10.00	7.00	10.00N	200.00
A-3	50.00	10.00	20.00	5.00N	10.00	10.00	15.00	10.00	10.00N	100.00
A-4	100.00	5.00	150.00	5.00N	20.00	7.00	15.00	10.00	10.00N	150.00
A-5	15.00	5.00	150.00	5.00N	10.00N	5.00	10.00	5.00	10.00N	150.00
A-11	30.00	10.00	20.00	5.00N	10.00N	10.00	15.00	5.00	10.00N	100.00
A-13	30.00	5.00	70.00	5.00N	20.00	10.00	15.00	10.00	10.00N	200.00
A-14	30.00	15.00	20.00	5.00N	10.00	10.00	15.00	5.00	10.00N	100.00
A-15	15.00	7.00	20.00N	5.00N	10.00N	10.00	10.00	5.00	10.00N	100.00
A-16	15.00	5.00	20.00	5.00N	10.00N	7.00	15.00	5.00	10.00N	200.00
A-17	30.00	10.00	20.00	5.00N	10.00N	10.00	15.00	5.00	10.00N	100.00
A-18	70.00	10.00	30.00	5.00N	20.00	10.00	20.00	10.00	10.00N	200.00
A-20	50.00	10.00	50.00	5.00N	10.00	10.00	20.00	10.00	10.00N	200.00
A-21	30.00	7.00	70.00	5.00N	10.00	7.00	20.00	10.00	10.00N	200.00
A-22	30.00	5.00	20.00N	5.00N	10.00	7.00	10.00	5.00	10.00N	150.00
A-23	30.00	15.00	20.00	5.00N	10.00	10.00	15.00	5.00	10.00N	150.00
A-19M	30.00	7.00	20.00	5.00N	10.00	7.00	10.00	10.00	10.00N	100.00N
A-19G	70.00	10.00	20.00	5.00N	10.00	7.00	15.00	5.00	10.00N	150.00
A-9	30.00	10.00	30.00	5.00N	10.00	7.00	15.00	10.00	10.00N	200.00
A-2	30.00	15.00	150.00	5.00N	20.00	7.00	10.00	10.00	10.00N	100.00
L72-122	100.00	50.00	200.00	5.00N	30.00	100.00	15.00	15.00	10.00N	700.00
A-24	20.00	5.00	20.00	5.00N	10.00N	7.00	10.00N	5.00L	10.00N	100.00
A-25	20.00	7.00	20.00	5.00N	10.00N	7.00	10.00	5.00	10.00N	100.00
A-26	20.00	5.00	30.00	5.00N	10.00	5.00	15.00	5.00	10.00N	100.00
A-27	20.00	7.00	30.00	5.00N	10.00	10.00	15.00	5.00	10.00N	100.00
A-28	70.00	20.00	30.00	5.00N	20.00	15.00	15.00	10.00	10.00N	100.00
A-29	20.00	5.00	30.00	5.00N	10.00	5.00	10.00	5.00	10.00N	200.00
A-30	20.00	15.00	30.00	5.00N	10.00	7.00	10.00	5.00	10.00N	100.00
A-31	50.00	15.00	70.00	5.00N	20.00	10.00	15.00	10.00	10.00N	150.00
A-32	20.00	10.00	20.00	5.00N	10.00N	7.00	10.00	5.00	10.00N	100.00
A-33	70.00	20.00	50.00	5.00N	10.00	30.00	20.00	15.00	10.00N	100.00
A-34	20.00	5.00	20.00	5.00N	10.00N	5.00	10.00L	5.00	10.00N	100.00
A-35	20.00	10.00	20.00	5.00N	10.00	7.00	10.00	10.00	10.00N	100.00
A-36	50.00	15.00	20.00	5.00N	10.00	10.00	15.00	10.00	10.00N	100.00
A-37	50.00	15.00	20.00	5.00N	10.00	10.00	15.00	10.00	10.00N	100.00
A-38	70.00	20.00	30.00	5.00N	20.00	10.00	15.00	5.00	10.00N	100.00
A-39	30.00	5.00	30.00	5.00N	10.00	7.00	10.00	5.00	10.00N	100.00
A-40	30.00	10.00	30.00	5.00N	10.00	7.00	15.00	5.00	10.00N	100.00
A-41	70.00	20.00	30.00	5.00N	10.00	15.00	30.00	15.00	10.00N	300.00
A-42	20.00	5.00	20.00	5.00N	10.00	7.00	10.00	5.00	10.00N	150.00
A-43	100.00	10.00	150.00	5.00N	30.00	20.00	15.00	15.00	10.00N	200.00
A-44	70.00	10.00	30.00	5.00N	10.00	15.00	10.00	10.00	10.00N	150.00
A-45	70.00	5.00	30.00	5.00N	10.00	10.00	15.00	10.00	10.00N	100.00
A-46	20.00	5.00	20.00	5.00N	10.00	7.00	10.00	10.00	10.00N	100.00N
A-47	10.00	5.00	30.00	5.00N	10.00N	7.00	10.00L	5.00L	10.00N	100.00
A-48	10.00	5.00	20.00	5.00N	10.00N	5.00	10.00L	5.00L	10.00N	150.00
A-49	20.00	5.00	30.00	5.00N	10.00N	7.00	15.00	5.00	10.00N	100.00
A-50	15.00	5.00	20.00	5.00N	10.00N	5.00	10.00L	5.00L	10.00N	150.00
A-51	20.00	7.00	30.00	5.00N	10.00N	7.00	10.00	5.00	10.00N	100.00
A-52	10.00	7.00	30.00	5.00N	20.00	5.00	20.00	5.00L	10.00N	100.00
A-53	15.00	7.00	30.00	5.00N	10.00	5.00	15.00	5.00	10.00N	150.00
A-54	15.00	5.00	30.00	5.00N	15.00	5.00	10.00	5.00L	10.00N	100.00
A-56	200.00	20.00	50.00	5.00N	10.00	20.00	10.00	10.00	10.00N	200.00
A-8	20.00	15.00	70.00	20.00	10.00N	100.00	20.00	10.00	10.00N	100.00
A-83	10.00	15.00	20.00	5.00N	20.00N	10.00	20.00	5.00	10.00N	100.00
A-84	30.00	5.00	70.00	5.00N	20.00L	10.00	20.00	10.00	10.00N	100.00N
A-86	70.00	15.00	70.00	5.00N	20.00L	10.00	15.00	5.00	10.00N	100.00
A-87	150.00	20.00	300.00	10.00	50.00	20.00	20.00	15.00	10.00N	100.00
A-88	10.00N	50.00	20.00	5.00N	20.00N	5.00	15.00	5.00	10.00N	100.00N
A-89	10.00N	20.00	20.00	5.00N	20.00	10.00	30.00	5.00	10.00N	100.00N
A-90	10.00N	10.00	50.00	5.00N	30.00	5.00	30.00	5.00	10.00N	100.00N
A-91	10.00N	5.00	50.00	5.00N	20.00	5.00L	20.00	5.00N	10.00N	100.00N
A-92	50.00	15.00	30.00	5.00N	20.00N	15.00	50.00	7.00	10.00N	100.00
A-86	100.00	20.00	150.00	5.00N	30.00	50.00	20.00	15.00	10.00N	200.00
A-87	500.00	20.00	150.00	20.00	70.00	50.00	30.00	15.00	10.00N	200.00

STREAM SEDIMENT SAMPLES

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CM-CX-HM
A-1	100.00	50.00	200.00N	1000.00	0.05	0.03	0.0 B	0.0 B	1.00L
A-3	100.00	20.00	200.00N	300.00	1.20	0.06	0.0 B	0.0 B	1.00L
A-4	200.00	50.00	200.00N	1000.00	0.85	0.03L	0.0 B	0.0 B	1.00L
A-5	100.00	15.00	200.00N	500.00	0.40	0.03	0.0 B	0.0 B	1.00L
A-11	100.00	20.00	200.00N	500.00	0.05N	0.06	0.0 B	0.0 B	3.00
A-13	150.00	20.00	200.00N	700.00	0.65	0.10	0.0 B	0.0 B	1.00
A-14	100.00	20.00	200.00N	500.00	0.10	0.10	0.0 B	0.0 B	3.00
A-15	70.00	15.00	200.00N	500.00	0.05N	0.10	0.0 B	0.0 B	3.00
A-16	70.00	15.00	200.00N	300.00	0.05N	0.10	0.0 B	0.0 B	3.00
A-17	100.00	15.00	200.00N	300.00	0.05N	0.06	0.0 B	0.0 B	3.00
A-18	150.00	30.00	200.00N	1000.00	3.00	0.10	0.0 B	0.0 B	3.00
A-20	150.00	20.00	200.00N	500.00	1.30	0.06	0.0 B	0.0 B	5.00
A-21	100.00	30.00	200.00N	500.00	0.05N	0.06	0.0 B	0.0 B	5.00
A-22	100.00	15.00	200.00N	500.00	0.05N	0.06	0.0 B	0.0 B	3.00
A-23	100.00	20.00	200.00N	500.00	0.05N	0.03	0.0 B	0.0 B	5.00
A-19M	100.00	20.00	200.00N	1000.00	0.05N	0.06	0.0 B	0.0 B	3.00
A-19G	100.00	20.00	200.00N	500.00	0.80	0.06	0.0 B	0.0 B	3.00
A-9	100.00	30.00	200.00N	700.00	3.80	0.03	0.0 B	0.0 B	3.00
A-2	100.00	30.00	200.00N	1000.00	0.05L	0.03L	0.0 B	0.0 B	1.00
L72-122	150.00	20.00	200.00N	300.00	0.05N	0.02	2.60	1.10	5.00
A-24	50.00	20.00	200.00N	1000.00	0.05N	0.04	0.40	1.20	1.00
A-25	100.00	20.00	200.00N	500.00	0.05N	0.04L	0.90	1.60	1.00
A-26	100.00	30.00	200.00N	1000.00	0.05N	0.08	0.60	2.10	3.00
A-27	70.00	20.00	200.00N	300.00	0.10N	0.08	0.80	2.00	1.00
A-28	100.00	30.00	200.00N	200.00	0.10N	0.08	0.60	1.80	3.00
A-29	70.00	20.00	200.00N	200.00	0.05N	0.08	0.70	1.30	1.00
A-30	70.00	20.00	200.00N	200.00	0.13N	0.04	0.80	1.70	3.00
A-31	100.00	30.00	200.00N	500.00	0.05N	0.10	0.80	1.90	5.00
A-32	70.00	20.00	200.00N	150.00	0.10N	0.08	0.80	1.90	1.00
A-33	100.00	30.00	200.00N	200.00	0.13N	0.08	0.50	1.80	7.00
A-34	50.00	20.00	200.00N	500.00	0.10N	0.04	0.70	1.00	1.00
A-35	50.00	30.00	200.00N	700.00	0.05N	0.08	0.80	1.30	3.00
A-36	70.00	30.00	200.00N	500.00	0.05N	0.08	0.60	1.50	1.00
A-37	100.00	30.00	200.00N	500.00	0.05N	0.04	0.80	1.60	3.00
A-38	70.00	30.00	200.00N	700.00	0.05N	0.14	0.70	1.70	1.00
A-39	50.00	20.00	200.00N	500.00	0.05N	0.10	0.70	1.80	1.00
A-40	50.00	20.00	200.00N	300.00	0.05N	0.08	0.80	1.90	1.00
A-41	100.00	30.00	200.00N	200.00	0.05N	0.40	0.70	1.30	1.00
A-42	70.00	20.00	200.00N	200.00	0.05N	0.04	0.80	1.40	1.00
A-43	150.00	30.00	200.00N	1000.00	0.05N	0.04	0.80	1.30	1.00L
A-44	100.00	30.00	200.00N	200.00	1.00N	0.04	0.80	1.40	1.00L
A-45	70.00	20.00	200.00N	500.00	0.05N	0.04	0.80	1.60	1.00L
A-46	50.00	20.00	200.00N	200.00	0.05L	0.06	0.60	0.80	3.00
A-47	30.00	20.00	200.00N	200.00	0.05N	0.10	0.40	0.80	3.00
A-48	30.00	20.00	200.00N	300.00	0.05N	0.06	0.80	0.70	3.00
A-49	30.00	15.00	200.00N	150.00	0.05N	0.03	0.90	0.80	3.00
A-50	50.00	20.00	200.00N	500.00	0.05N	0.06	0.90	0.60	3.00
A-51	70.00	20.00	200.00N	700.00	0.05N	0.03	0.70	0.70	3.00
A-52	30.00	50.00	200.00N	200.00	0.05N	0.10	1.70	1.00L	11.00
A-53	50.00	20.00	200.00N	200.00	0.05N	0.10	0.70	1.40	5.00
A-54	70.00	20.00	200.00N	500.00	0.05N	0.03L	0.70	1.00	5.00
A-56	150.00	30.00	200.00N	1000.00	0.05L	0.06	0.70	0.70	3.00
A-8	70.00	20.00	200.00N	200.00	0.94	0.10	0.0 B	0.0 B	22.00
A-83	50.00	20.00	200.00N	150.00	0.05N	0.04	0.0 B	0.0 B	5.00
A-84	70.00	50.00	200.00N	150.00	0.05N	0.02L	0.0 B	0.0 B	4.00
A-86	70.00	30.00	200.00N	500.00	0.05N	0.02L	0.0 B	0.0 B	2.00
A-87	100.00	50.00	200.00N	300.00	0.05N	0.02N	0.0 B	0.0 B	2.00
A-88	30.00	10.00	200.00N	200.00	0.05N	0.04	0.0 B	0.0 B	2.00
A-89	30.00	20.00	200.00N	200.00	0.05N	0.02	0.0 B	0.0 B	3.00
A-90	10.00	50.00	200.00N	150.00	0.05N	0.02L	0.0 B	0.0 B	2.00
A-91	10.00	30.00	200.00N	150.00	0.05N	0.02N	0.0 B	0.0 B	3.00
A-92	70.00	10.00	200.00N	150.00	0.05N	0.02L	0.0 B	0.0 B	3.00
A-86	150.00	70.00	200.00N	1000.00	0.05N	0.04	0.0 B	0.0 B	3.00
A-87	150.00	70.00	300.00	700.00	0.05N	0.02	0.0 B	0.0 B	3.00



CONCENTRATES OF STREAM SEDIMENT SAMPLES

SAMPLE	S-V	S-Y	S-ZN	S-ZR	AA-AU-P	INST-HG	AA-NA %	AA-K %	CM-CX-HM
A-1C	300.00	300.00	200.00N	1000.00G	170.00	0.05	0.0 B	0.0 B	5.00
A-4C	300.00	150.00	200.00N	1000.00G	18.00	0.05	0.0 B	0.0 B	3.00
A-5C	300.00	70.00	200.00N	1000.00G	28.00	0.05N	0.0 B	0.0 B	3.00
A-6C	70.00	20.00	200.00N	1000.00G	0.62	0.05L	0.0 B	0.0 B	1.00
A-6C MG	300.00	70.00	200.00N	1000.00G	86.00	0.05L	0.0 B	0.0 B	1.00
A-7C	300.00	70.00	200.00N	1000.00G	190.00	0.07	0.0 B	0.0 B	1.00
A-8C	150.00	70.00	200.00N	1000.00G	28.00	0.05	0.0 B	0.0 B	1.00
A-9C	200.00	70.00	200.00N	1000.00G	32.00	0.07	0.0 B	0.0 B	1.00
A-11C	200.00	70.00	200.00N	1000.00G	1.30	0.07	0.0 B	0.0 B	1.00
A-13C	500.00	150.00	200.00N	1000.00G	53.00	0.05N	0.0 B	0.0 B	1.00
A-14C	500.00	150.00	200.00N	1000.00G	48.00	0.07	0.0 B	0.0 B	1.00
A-15C	150.00	200.00	200.00N	1000.00G	12.00	0.07	0.0 B	0.0 B	1.00
A-16C	100.00	100.00	200.00N	1000.00G	1.60	0.10	0.0 B	0.0 B	1.00
A-17C	150.00	50.00	200.00N	1000.00G	14.00	0.12	0.0 B	0.0 B	1.00
A-20C	700.00	150.00	200.00N	1000.00G	9.50	0.07	0.0 B	0.0 B	3.00
A-21C	100.00	150.00	200.00N	1000.00G	0.10	0.05	0.0 B	0.0 B	5.00
A-22C	70.00	30.00	200.00N	1000.00G	0.15L	0.08	0.0 B	0.0 B	1.00
A-23C	150.00	70.00	200.00N	1000.00G	0.50N	0.05	0.0 B	0.0 B	1.00
C-24	200.00	200.00	700.00	1000.00G	0.12	0.03N	0.0 B	0.0 B	1.00
C-25	70.00	150.00	200.00N	1000.00G	0.15N	0.06	0.0 B	0.0 B	1.00L
C-26	100.00	150.00	200.00N	1000.00G	0.15N	0.03	0.0 B	0.0 B	1.00
C-30	70.00	70.00	200.00N	1000.00G	0.15N	0.03L	0.0 B	0.0 B	1.00
C-32	100.00	150.00	200.00N	1000.00G	0.50N	0.03L	0.0 B	0.0 B	1.00
C-33	100.00	70.00	500.00	1000.00G	0.20N	0.06	0.0 B	0.0 B	1.00L
C-34	50.00	20.00	200.00N	300.00	0.08N	0.03	0.0 B	0.0 B	1.00L
C-35	70.00	20.00	200.00N	1000.00G	0.06N	0.10	0.0 B	0.0 B	1.00L
C-36	150.00	300.00	200.00N	1000.00G	0.10N	0.03L	0.0 B	0.0 B	1.00L
C-37	100.00	150.00	200.00N	1000.00G	0.12N	0.06	0.0 B	0.0 B	1.00L
C-42	200.00	150.00	200.00N	1000.00G	0.08	0.03L	0.0 B	0.0 B	1.00
C-44	200.00	70.00	300.00	1000.00G	0.15L	0.03L	0.0 B	0.0 B	1.00L
C-45	500.00	70.00	700.00	1000.00G	0.06	0.03L	0.0 B	0.0 B	1.00L
C-47	70.00	150.00	300.00	1000.00G	0.06L	0.06	0.0 B	0.0 B	1.00
C-49	50.00	30.00	700.00	1000.00G	0.35N	0.10	0.0 B	0.0 B	1.00
C-50	70.00	150.00	1000.00	1000.00G	0.80	0.10	0.0 B	0.0 B	1.00
C-51	100.00	300.00	700.00	1000.00G	0.45	0.03	0.0 B	0.0 B	1.00
C-52	50.00	30.00	700.00	1000.00	0.03L	0.06	0.0 B	0.0 B	1.00
C-53	70.00	70.00	500.00	1000.00G	0.20N	0.06	0.0 B	0.0 B	1.00
C-54	30.00	100.00	200.00L	1000.00G	0.03N	0.06	0.0 B	0.0 B	1.00
C-55	100.00	150.00	1000.00	1000.00G	0.05N	0.03L	0.0 B	0.0 B	1.00
P-18	300.00	30.00	1000.00	150.00	0.0 B	0.0 B	0.0 B	0.0 B	0.0 B
C-80	200.00	150.00	200.00N	1000.00G	3.00	0.02N	0.0 B	0.0 B	2.00
C-81	200.00	150.00	200.00N	1000.00G	3.00	0.02L	0.0 B	0.0 B	3.00
C-82	200.00	150.00	200.00N	1000.00G	2.00	0.02L	0.0 B	0.0 B	2.00
C-84	70.00	70.00	200.00N	1000.00	0.10N	0.10	0.0 B	0.0 B	3.00
C-89	70.00	150.00	200.00N	1000.00G	0.10	0.02L	0.0 B	0.0 B	3.00
C-92	200.00	200.00	200.00N	1000.00G	2.00	0.02N	0.0 B	0.0 B	2.00
C95	70.00	150.00	700.00	1000.00G	2.40	0.0 B	0.20	0.0 B	0.0 B
C96	700.00	200.00	500.00	1000.00G	7.70	0.0 B	0.0 B	0.0 B	0.0 B



