

Table 1. Geochemical analyses of sediments from the Cosmos Hills, Ambler River and Shungnak quadrangles, Alaska

## ATOMIC ABSORPTION ANALYSES

## SPECTROGRAPHIC ANALYSES

## Important Heavy Metals

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## Mafic and Ultramafic Association

## Carbonate Association

## Felsic Association

## Rare Earth Association

## Other Elements

Cu  
ppmPb  
ppmZn  
ppmCu  
ppmPb  
ppmZn  
ppmMo  
ppmCo  
ppmCr  
ppmNi  
ppmMn  
ppmTi  
%Fe  
%Mg  
%Ca  
%Ba  
ppmSr  
ppmB  
ppmBe  
ppmSn  
ppmZr  
ppmLa  
ppmNb  
ppmSc  
ppmY  
ppmV  
ppmSb  
ppm

Map No.

Field No.

Stream or Valley

Approx. Altitude

Bedrock Nearby

125

106

Fire Creek

1700

Mainly phyllite; meta-conglomerate and serpentinite near head;

30

20

126

107

1300

25

20

80

20

127

108

1000

20

20

75

20

128

109

850

20

20

75

20

129

110

(N. Trib.)

750

25

15

80

130

111

700

20

20

80

20

131

112

600

25

15

75

20

132

105

Serpentine Creek

1600

Mainly phyllite; meta-conglomerate, serpentinite and minor limestone near head; limestone and marble from 900' to 1100' altitude.

35

25

133

104

1200

5

25

20

5

134

103

1000

15

25

30

20

135

102

850

20

25

40

20

136

101

750

20

25

40

20

137

100

600

15

25

30

20

138

98

Alder Creek

1600

Mainly phyllite; meta-conglomerate and serpentinite near head; limestone and marble from 900' to 1100' altitude.

15

20

139

99

1300

30

30

70

20

140

97

1000

25

25

75

20

141

96

800

30

20

80

20

142

95

700

35

20

95

20

143

94

550

35

20

85

20

144

91

Shungnak River

450

Mainly glacial drift.

10

10

145

92

440

15

15

65

20

146

93

430

15

10

45

10

147

90

Aurora Creek

550

Mainly phyllite; limestone at head above 1500' altitude. Greenschist locally abundant.

65

25

148

89

700

65

25

155

100

149

88

850

60

25

155

50

150

87

1100

48

30

140

100

151

86

1700

70

25

135

50

152

74

Tent Creek

500

Mainly phyllite with locally abundant greenschist and subordinate limestone.

40

15

153

75

550

45

15

80

50

154

76

600

75

20

85

50

155

77

(S. Bank)

610

80

20

95

156

78

690

55

20

100

50

Blank means element looked for but not detected

Samples were not analyzed for gold by the atomic absorption method

During spectrographic analysis, Au, Ag, W, As, Bi, and Cd were looked for but not detected

Atomic absorption analyses by Namok Cho, Division of Mines and Geology

Spectrographic analyses by Larry A. Shafford and Jane Bryant; computer program by Lawrence E. Heiner, Mineral Industry Research Laboratory, University of Alaska.