

B

Soil Types

Table B-1 Soil Type Descriptions

Interpreted Soil Type	Description	Simplified Soil Type
B	Bedrock of the Kuskokwim group.	WB/B
WB	Weathered Kuskokwim group bedrock that is weathered in situ.	WB/B
N	Native unconsolidated soils not otherwise specified that are undisturbed by anthropogenic activity.	N/DN
N (loess)	Glacially derived windblown silt and very fine sand that is undisturbed by anthropogenic activity.	N/DN
N (KG)	Native soil that is derived from Kuskokwim group bedrock and contains clasts of the same.	N/DN
RDCA	Red Devil Creek alluvium that is undisturbed by anthropogenic activity.	RDCA
KRA	Kuskokwim River alluvium that is undisturbed by anthropogenic activity.	KRA
KRA and/or RDCA	Red Devil Creek alluvium and/ore Kuskokwim River alluvium	KRA and/or RDCA
DN	Native unconsolidated soils not otherwise that have been disturbed by anthropogenic activity.	N/DN
DN (loess)	Glacially derived windblown silt and very fine sand that has been disturbed by anthropogenic activity.	N/DN
DN (KG)	Disturbed native soil that is derived from Kuskokwim Group bedrock and contains clasts of the same.	N/DN
DN (KG, MZ)	Disturbed native soil that is derived from Kuskokwim group bedrock within the mineralized zone.	N/DN
DN (KG and loess)	Disturbed native soil that comprises a mixture of soil derived from Kuskokwim group bedrock and glacially-derived windblown silt and very fine sand.	N/DN
DN (cut & fill)	Disturbed native soil interpreted to comprise spoils from cut and fill earth modification.	N/DN
DN with local F	Predominantly disturbed native soil that locally contains non-native debris.	DN with F
Mixed RDCA, Soil, and T/WR	Mixed Red Devil Creek alluvium and possibly other soil, and tailings and/or waste rock encountered in Red Devil Creek channel downstream of the Main Processing Area and delta.	RDCA, DN, and T/WR

Table B-1 Soil Type Descriptions

Interpreted Soil Type	Description	Simplified Soil Type
N or DN	Native soil not otherwise specified that may or may not have been disturbed.	N/DN
N or DN (loess)	Glacially derived windblown silt and very fine sand where anthropogenic effect cannot be determined.	N/DN
N, DN, or F	Soil of uncertain type that may comprise native or disturbed native soil or fill.	N/DN or F
DN or F	Soil of uncertain type that may comprise disturbed native soil or fill.	N/DN or F
SO	Sluiced overburden deposits.	SO
SO or DN or N	Either sluiced overburden, or disturbed native soil, or undisturbed native soil.	SO or N/DN
T/WR	Mine waste that includes tailings (thermally processed or) and/or waste rock. May also contain vitreous material and furnace dusts.	T/WR
WR	Waste rock that occurs in discrete zones and is apparently not mixed with tailings.	WR
FT	Flotation tailings.	FT
Tailings	Tailings (thermally processed ore) that is apparently not mixed with waste rock.	Tailings
T/WR & FT	A mixture of tailings and/or waste rock and flotation tailings.	T/WR & FT
F	Extensively reworked native soils that contain wood, debris, or other non-native materials.	F
T/WR (road base)	Tailings and/or waste rock that is observed to be a road surfacing material.	T/WR
Stockpiled Ore	A mound of rock exclusively composed of ore intended for the flotation process.	Stockpiled Ore

Table B-4 Surface and Subsurface Soil Types, Surface Mined Area

Area	Sample ID	Bottom Depth of Soil Interval (feet bgs)	Interpreted Soil Type	Red Porous Rock	Vitrious Material	Stibnite	Elemental Hg	Cinnabar	Realgar	Orpiment	Vein Material	Distinctive Red Rind
	10SM29SS	SS	DN (loess)									
	10SM30SS	SS	DN (loess)									
	11SM31SB02	2	WB									
	11SM31SB04	4	WB									
	11SM31SB06	6	WB									
	11SM31SB08	8	WB									
	11SM31--10 NS	10	B									
	11SM31--12 NS	12	B									
	11SM31--14 NS	14	B									
	11SM31--16 NS	16	B									
	11SM31--18 NS	18	B									
	11SM31--20 NS	20	B									
	11SM31--22 NS	22	B									
	11SM31--24 NS	24	B									
	11SM31--26 NS	26	B									
	11SM31--28 NS	28	B									
	11SM31--30 NS	30	B									
	11SM31--32 NS	32	B									
	11SM31--34 NS	34	B									
	11SM31--36 NS	36	B									
	11SM31--38 NS	38	B									
	11SM31--40 NS	40	B									
	11SM31--42 NS	42	B									
	11SM31--44 NS	44	B									
	11SM31--46 NS	46	B									
	11SM31--48 NS	48	B									
	11SM31--50 NS	50	B									
	11SM31--52 NS	52	B									
See Table B-1 for soil type descriptions												
Key:												
bgs = below ground surface												
NS = Not Sampled												

Table B-5 Surface and Subsurface Soil Types, Dolly Sluice and Delta

Area	Sample ID	Bottom Depth of Soil Interval (feet bgs)	Interpreted Soil Type	Red Porous Rock	Vitrious Material	Stibnite	Elemental Hg	Cinnabar	Realgar	Orpiment	Vein Material	Distinctive Red Rind	
Dolly Sluice and Delta	10DS01SS	SS	SO										
	11DS01SB02	2	SO										
	11DS01SB04	4	SO										
	11DS01SB06	6	SO										
	11DS01SB08	8	SO										
	11DS01SB10	10	SO										
	11DS01SB12	12	SO										
	11DS01SB14	14	KRA										
	11DS01SB16	16	KRA										
	10DS02SS	SS	SO										
	11DS02SB02	2	SO										
	11DS02SB04	4	SO										
	11DS02SB06	6	SO										
	11DS02SB08	8	SO										
	11DS02SB10	10	SO										
	11DS02SB12	12	KRA										
	11DS02SB14	14	KRA										
	10DS03SS	SS	DN										
	See Table B-1 for soil type descriptions												
	Key:												
bgs = below ground surface													

Table B-6 Surface and Subsurface Soil Types, Rice Sluice and Delta

Area	Sample ID	Bottom Depth of Soil Interval (feet bgs)	Interpreted Soil Type	Red Porous Rock	Vitrious Material	Stibnite	Elemental Hg	Cinnabar	Realgar	Orpiment	Vein Material	Distinctive Red Rind	
Rice Sluice and Delta	10RS01SS	SS	SO										
	11RS01SB02	2	SO										
	11RS01SB04	4	SO										
	11RS01SB06	6	SO										
	11RS01SB08	8	SO										
	11RS01SB10	10	SO										
	11RS01SB12	12	SO										
	11RS01SB14	14	KRA										
	10RS02SS	SS	SO										
	11RS02SB02	2	SO										
	11RS02SB04	4	SO										
	11RS02SB06	6	SO										
	11RS02SB08	8	SO										
	11RS02SB10	10	SO										
	11RS02SB12	12	SO										
	11RS02SB14	14	KRA										
	11RS02SB16	16	KRA										
	10RS03SS	SS	SO or DN or N										
	See Table B-1 for soil type descriptions Key: bgs = below ground surface												

Table B-7 Surface and Subsurface Soil Types, Pre-1955 Main Processing Area

Area	Sample ID	Bottom Depth of Soil Interval (feet bgs)	Interpreted Soil Type	Red Porous Rock	Vitrious Material	Stibnite	Elemental Hg	Cinnabar	Realgar	Orpiment	Vein Material	Distinctive Red Rind
Pre-1955 Main Processing Area	10MP424344SS	SS	T/WR	X		X		X			X	
	10MP5051525354SS	SS	T/WR	X		X		X	X	X	X	
	10MP55565758SS	SS	T/WR	X							X	
	10MP42SS	SS	T/WR	X		X		X			X	
	10MP43SS	SS	T/WR								X	
	10MP44SS	SS	T/WR									
	10MP45SS	SS	T/WR			X		X			X	
	11MP45SB02	2	T/WR	X		X		X	X	X		
	11MP45SB04	4	T/WR	X				X	X	X	X	
	11MP45SB06	6	T/WR and F									
	11MP45SB08	8	T/WR	X				X	X	X		
	11MP45SB10	10	T/WR N	X				X				
	11MP45SB12	12	N									
	10MP46SS	SS	T/WR	X				X				
	11MP46SB02	2	T/WR	X						X	X	
	11MP46SB04	4	T/WR	X						X	X	
	11MP46SB06	6	T/WR	X		X		X	X	X	X	
	11MP46SB08	8	T/WR	X						X	X	
	11MP46SB10	10	T/WR	X		X			X		X	
	11MP46SB12	12	WR			X						
	11MP46SB14	14	WR			X						
	11MP46SB16	16	WR			X				X		
	11MP46SB18	18	WR N			X				X		
	11MP46SB20	20	N									
	10MP47SS	SS	T/WR	X								
	11MP47SB02	2	WR	X				X	X		X	
	11MP47SB04	4	WR					X	X			
	11MP47SB06	6	WR					X	X			
	11MP47SB08	8	WR					X	X			
	11MP47SB10	10	WR					X	X			
	11MP47SB12	12	WR					X	X			

Table B-7 Surface and Subsurface Soil Types, Pre-1955 Main Processing Area

Area	Sample ID	Bottom Depth of Soil Interval (feet bgs)	Interpreted Soil Type	Red Porous Rock	Vitrious Material	Stibnite	Elemental Hg	Cinnabar	Realgar	Orpiment	Vein Material	Distinctive Red Rind
Pre-1955 Main Processing Area	10MP54SS	SS	F	X								
	11MP54SB02	2	F DN or F									
	11MP54SB04	4	DN or F									
	11MP54SB06	6	DN or F									
	11MP54SB08	8	DN or F									
	10MP55SS	SS	T/WR									
	11MP55SB02	2	T/WR	X		X		X			X	
	11MP55SB04	4	T/WR N or DN					X				
	11MP55SB06	6	N or DN WB									
	10MP56SS	SS	N or DN									
	11MP56SB02	2	N or DN									
	11MP56SB04	4	N or DN									
	11MP56SB06	6	N or DN									
	11MP56SB08	8	N or DN									
	11MP56SB10	10	WB									
	10MP57SS	SS	T/WR									
	11MP57SB02	2	T/WR	X		X		X			X	
	11MP57SB04	4	T/WR	X		X		X	X		X	
	11MP57SB06	6	N or DN									
	11MP57SB08	8	N or DN									
	11MP57SB10	10	N or DN									
	10MP58SS	SS	T/WR	X								X
	11MP58SB02	2	T/WR									
	11MP58SB04	4	T/WR					X			X	
	11MP58SB06	6	T/WR									
	11MP58SB08	8	T/WR			X			X	X	X	
	11MP58SB10	10	T/WR		X	X		X	X	X	X	

Table B-7 Surface and Subsurface Soil Types, Pre-1955 Main Processing Area

Area	Sample ID	Bottom Depth of Soil Interval (feet bgs)	Interpreted Soil Type	Red Porous Rock	Vitrious Material	Stibnite	Elemental Hg	Cinnabar	Realgar	Orpiment	Vein Material	Distinctive Red Rind
	MW06 16-18 NS	18	N									
	MW06 18-20 NS	20	N									
	MW06 20-22 NS	22	N									
	MW06 22-24 NS	24	N									
See Table B-1 for soil type descriptions												
Key:												
bgs = below ground surface												
NS = Not Sampled												

Table B-8 Surface and Subsurface Soil Types, Post-1955 Main Processing Area

Area	Sample ID	Bottom Depth of Soil Interval (feet bgs)	Interpreted Soil Type	Red Porous Rock	Vitrious Material	Stibnite	Elemental Hg	Cinnabar	Realgar	Orpiment	Vein Material	Distinctive Red Rind
Post-1955 Main Processing Area	10MP030405SS	SS	T/WR	X							X	
	10MP06070809SS	SS	T/WR	X		X		X			X	
	10MP01SS	SS	N									
	11MP01SB02	2	N									
	11MP01SB04	4	N									
	11MP01SB06	6	N									
	11MP01SB08	8	N									
	11MP01SB10	10	N									
	11MP01SB12	12	N									
	11MP01SB14	14	N									
	11MP01SB16	16	N									
	10MP02SS	SS	Stockpiled Ore						X	X		X
	10MP03SS	SS	T/WR	X								X
	10MP04SS	SS	T/WR	X								X
	10MP05SS	SS	T/WR	X								X
	10MP06SS	SS	T/WR	X								X
	10MP07SS	SS	T/WR	X								X
	10MP08SS	SS	T/WR	X			X		X			X
	10MP09SS	SS	T/WR				X		X			X
10MP10SS	SS	T/WR	X					X				

Table B-8 Surface and Subsurface Soil Types, Post-1955 Main Processing Area

Area	Sample ID	Bottom Depth of Soil Interval (feet bgs)	Interpreted Soil Type	Red Porous Rock	Vitriuous Material	Stibnite	Elemental Hg	Cinnabar	Realgar	Orpiment	Vein Material	Distinctive Red Rind
	11MP20--22 NS	22	B									
	11MP20--24 NS	24	B									
	11MP20--26 NS	26	B									
	11MP20--28 NS	28	B									
	11MP20--30 NS	30	B									
	11MP20--31 NS	31	B									
	10MP21SS	SS	F									
	11MP21SB02	2	DN (cut & fill)									
	11MP21SB04	4	DN (cut & fill)									
	11MP21SB06	6	DN (cut & fill)									
	11MP21SB08	8	DN (cut & fill)									
	11MP21SB10	10	DN (cut & fill)									
	11MP21SB12	12	DN (cut & fill)									
	11MP21SB14	14	DN (cut & fill)									
	11MP21SB16	16	N									
	10MP22SS	SS	T/WR	X							X	
	11MP22SB02	2	T/WR	X							X	
	11MP22SB04	4	T/WR	X		X					X	
	11MP22SB06	6	T/WR	X		X						
	11MP22SB08	8	T/WR	X		X						
	11MP22SB10	10	T/WR	X		X					X	
	11MP22SB12	12	T/WR									
	11MP22SB14	14	T/WR									
	11MP22SB16	16	DN (cut & fill)									
	10MP23SS	SS	T/WR	X							X	
	11MP23SB02	2	T/WR									
	11MP23SB04	4	T/WR		X			X	X		X	
	11MP23SB06	6	T/WR		X	X		X			X	
	11MP23SB08	8	T/WR					X				
	11MP23SB10	10	T/WR					X				
	11MP23SB12	12	T/WR			X		X				

Table B-8 Surface and Subsurface Soil Types, Post-1955 Main Processing Area

Area	Sample ID	Bottom Depth of Soil Interval (feet bgs)	Interpreted Soil Type	Red Porous Rock	Vitrious Material	Stibnite	Elemental Hg	Cinnabar	Realgar	Orpiment	Vein Material	Distinctive Red Rind
	MW03SB 14-16 NS	16	N or DN									
	MW03SB 16-18 NS	18	N or DN									
	MW03SB 18-20 NS	20	N or DN									
	MW03SB 20-22 NS	22	N or DN									
	MW03SB 22-24 NS	24	N or DN									
	MW03SB 24-26 NS	26	N or DN									
	MW07 0-2 NS	2	N or DN									
	MW07 2-4 NS	4	N or DN									
	MW07 4-6 NS	6	N or DN									
	MW07 6-8 NS	8	N or DN									
	MW07 8-10 NS	10	N or DN									
	MW07 10-12 NS	12	N or DN									
	MW07 12-14 NS	14	N or DN									
	MW07 14-16 NS	16	N or DN									
	MW07 16-18 NS	18	N or DN									
	MW07 18-20 NS	20	N or DN									
	MW07 20-21 NS	21	N or DN									
	10OP01SS	SS	Tailings	X							X	
See Table B-1 for soil type descriptions												
Key:												
bgs = below ground surface												
NS = Not Sampled												

Table B-9 Surface and Subsurface Soil Types, Red Devil Creek Downstream Alluvial Area and Delta

Area	Sample ID	Bottom Depth of Soil Interval (feet bgs)	Interpreted Soil Type	Red Porous Rock	Vitrious Material	Stibnite	Elemental Hg	Cinnabar	Realgar	Orpiment	Vein Material	Distinctive Red Rind
	11RD20--22 NS	24	B									
	11RD20--23 NS	23	B									
See Table B-1 for soil type descriptions Key: bgs = below ground surface NS Not Sampled												