

FAIRFIELD SOILS _____(F)

Location and Extent: Fairfield soils are common on the Fraser River floodplain; the largest areas are on Nicomen Island and in Matsqui Valley. Pure map units total about 820 ha while soil complexes dominated by Fairfield soils account for 2880 ha. The complexes are mostly with Monroe, Page and Dewdney soils.

Topography and Elevation: Fairfield soils are usually gently undulating to gently rolling with slopes between 2 and 6 percent. They usually occupy the lower slopes and shallow depressions when associated with Monroe soils and the upper slopes and lower ridges where associated with Page soils. From 5 to 10 m above sea level is the usual elevational range.

Parent Material and Texture: Fairfield soils have developed from medium and some moderately fine textured, laterally accreted, stone-free, Fraser River floodplain deposits, 50 cm or more deep, that overlie sand. Surface and subsurface textures are mostly silt loam, occasionally varying to very fine sandy loam or silty clay loam. The upper subsoil is also silt loam but with increased depth, grades to sand or loamy sand, sometimes containing thin, silty lenses.

Soil Moisture Characteristics: Fairfield soils are imperfectly drained. They are moderately pervious and have high water holding capacity and slow to moderate surface runoff. A fluctuating groundwater table is present, whose height is partially dependent on the water level in the Fraser River (seepage occurs through the sandy underlay). It also rises into the upper soil layers during periods of heavy rain. Areas lying outside the dykes are susceptible to flooding during the freshet period.

General Soil Description: Fairfield soils have a friable to firm, dark grayish brown to dark brown, silty, cultivated surface layer which is about 20 cm thick. It is underlain by about 20 cm of partially leached, grayish-brown or light brownish gray, firm to friable, silty material containing common, brownish or reddish mottles. This partially leached zone then grades to grayish-brown, firm, moderately prismatic structured, slightly clay enriched, silty material about 35 cm thick. Brownish and reddish mottles are present also. This layer, in turn, grades to a massive, grayish, silty zone up to 30 cm thick and again, containing reddish and brownish mottles. Below this is olive-gray to grayish-brown, medium to fine sand. Soil reaction varies from strongly to moderately acid in the upper soil layers and grades to moderately or slightly acid in the subsoil. Soil classification is *Gleyed Eluviated Melanic Brunisol*.

Commonly Associated Soils: Monroe, Page, Dewdney, Matsqui and Hjorth soils are generally closely associated with Fairfield soils, either in soil complexes or adjacent map polygons. Dewdney soils are similar to Fairfield soils except that the underlying sand occurs between 20 and 50 cm of the surface. Monroe and Matsqui soils differ by being well or moderately well drained (occupy higher topographic landscape positions relative to Fairfield soils) while Page and Hjorth soils are poorly drained and lie at lower elevations in the undulating landscape.

Vegetation: Almost all areas of Fairfield soils are cleared, cultivated and used for a variety of agricultural crops. Small, uncleared areas (usually located outside the dykes) have dominantly deciduous vegetation, including black cottonwood, red alder, vine and bigleaf maple, willow, salmonberry, and blackberry. Rooting is essentially unrestricted to at least 75 cm for most vegetation although species very sensitive to fluctuating watertables will be limited to depths less than 75 cm.

General Land Use Comments: (1) Fairfield soils are among the best in the Lower Fraser Valley. They are suitable for most crops except those very sensitive to a fluctuating watertable and occasional "wet-feet". Fairfield soils frequently occur as small areas and are often closely intermingled with other soils thereby providing problems for management on an individual basis. (2) Rather low bearing strengths may cause problems for heavy structures through differential settling. Basements and other excavations are likely to contain water during periods when the watertable is high. Septic tank effluent disposal is also impaired during these periods. (3) Black cottonwood and hybrid European poplars do very well on Fairfield soils. Limited plot data indicates potential wood production by cottonwood is in excess of 15 m³/ha/yr.

FAIRFIELD

UNIT TYPE: SERIES

DATE OF SURVEY: 70 SURVEYOR: MAL KELOWNA, B.C.M.A. & R.A.B.
 SAMPLING PURPOSE: DETAILED SURVEY

LOCATION	CLASSIFICATION	SLOPE
LATITUDE (N): 49 07 12	GLEYED ELUVIATED MELANIC BRUNISOL (1978)	X TYPE: 4.0 COMPLEX
LONGITUDE (W): 122 17 46		
PRECISION (SEC): 02		
ELEVATION (M): 6		
STATUS: MODAL SOIL		

PARENT MATERIAL & LANDFORM

UPPER STRATIGRAPHIC UNIT

SPEC. CLASTIC 1: SILTY
 GENETIC MAT. 1: FLUVIAL
 SURFACE EXPRES.: LEVEL

DRAINAGE: IMPERFECTLY DRAINED
 RUNOFF: MEDIUM
 PERVIOUSNESS: MODERATE

ADDITIONAL NOTES

SITE LOCATED NEAR HIGHWAY OVERPASS OVER C.P.R. NORTH OF MATSQUI VILLAGE.

PROFILE DESCRIPTION

HORIZON	THICKNESS DEPTH (CM)	HORIZON BOUNDARY	COLOUR 1	TEXTURE	STRUCTURE 1	STRUCTURE 2
A P	0- 27	ABRUPT	10.0YR4.0/2.0 MATRIX MOIST 10.0YR2.5/5.5 MATRIX DRY	SILT LOAM	MODERATE MEDIUM TO FINE SUBANGULAR BLOCKY	
A EGJ	27- 37	GRADUAL	10.0YR5.5/2.0 MATRIX MOIST 10.0YR7.0/2.5 MATRIX DRY	SILT LOAM	MODERATE MEDIUM SUBANGULAR BLOCKY	
B TJGJ1	37- 57	GRADUAL	10.0YR5.0/2.0 MATRIX MOIST 10.0YR6.0/2.5 MATRIX DRY	SILT LOAM	WEAK MEDIUM PRISMATIC	MODERATE COARSE SUBANGULAR BLOCKY
B TJGJ2	57- 75	ABRUPT	2.5Y5.0/2.0 MATRIX MOIST 2.5Y6.0/2.0 MATRIX DRY	SILTY CLAY LOAM	WEAK MEDIUM PRISMATIC	MODERATE COARSE SUBANGULAR BLOCKY
II BC	75-100	DIFFUSE	2.5Y4.5/2.0 MATRIX MOIST	FINE SANDY LOAM	MASSIVE	
II C G	100-127	CLEAR	5.0Y5.0/2.0 MATRIX MOIST	FINE SANDY LOAM	MASSIVE	
III C G	127-175		10.0YR5.0/2.0 MATRIX MOIST	FINE SAND	SINGLE GRAIN	

HORIZON	THICKNESS DEPTH (CM)	CONSISTENCE	ROOTS 1	MOTTLES 1	CLAY FILMS 1
A P	0- 27	FIRM HARD	ABUNDANT		
A EGJ	27- 37	FIRM HARD	PLENTIFUL	COMMON MEDIUM PROMINENT 7.5YR4.0/4.0	
B TJGJ1	37- 57	FIRM HARD	PLENTIFUL	COMMON MEDIUM PROMINENT 7.5YR4.0/4.0	MANY THIN ON PED FACES- UNSPECIFIED
B TJGJ2	57- 75	FIRM HARD	PLENTIFUL	COMMON MEDIUM PROMINENT 7.5YR4.5/5.0	MANY THIN ON PED FACES- UNSPECIFIED
II BC	75-100	FRIABLE SLIGHTLY HARD	FE#	MANY MEDIUM PROMINENT 5.0YR3.0/3.0	FE# THIN
II C G	100-127	FRIABLE SLIGHTLY HARD	FE#	MANY COARSE PROMINENT 7.5YR4.5/5.0	
III C G	127-175	LOOSE	FE#	MANY COARSE PROMINENT 10.0YR4.0/3.0	

PHYSICAL & CHEMICAL DATA

PH 1					PH 2					ORGANIC CARBON %	NITROGEN %
HORIZON-DEPTH(CH.)	SAMPLE STATE	METHOD	VALUE	SAMPLE STATE	METHOD	VALUE					
A P 0-27	2	1	5.7	2	4	5.0	2.78	.24			
A EGJ 27-37	2	1	5.7	2	4	4.8	.64	.07			
B TJGJ1 37-57	2	1	5.7	2	4	4.9	.52	.06			
B TJGJ2 57-75	2	1	5.8	2	4	5.0		.05			
II BC 75-100	2	1	5.8	2	4	5.0		.04			
III C G 100-127	2	1	6.0	2	4	5.0					
III C G 127-175	2	1	6.0	2	4	5.2					

HORIZON-DEPTH(CH.)	EXCHANGEABLE CATIONS BUFF.(ME/100G)				C. E. C. DETERMINED						
	CA	MG	NA	K	P1 PPM.	P2 PPM.	S PPM.	CU PPM.	ZN PPM.	MN PPM.	
A P 0-27	9.84	1.64	.12	.17	20.4	5.6	41.0	4.6	31.0	109.4	22.0
A EGJ 27-37	7.87	1.43	.11	.11	14.5	3.2	40.9	2.8	37.3	76.6	5.6
B TJGJ1 37-57	10.27	2.16	.11	.14	17.2	4.6	49.8	2.1	42.1	79.6	8.2
B TJGJ2 57-75	9.83	2.41	.10	.12	16.5	3.7	40.4	1.3	38.6	74.7	11.8
II BC 75-100	4.87	1.27	.06	.05	9.2	4.4	46.7	1.8	34.0	60.3	5.3
III C G 100-127										56.0	5.1
III C G 127-175									22.9	48.6	7.1

HORIZON-DEPTH(CH.)	PARTICLE SIZE(%)			
	TOTAL SAND	62-2 U SILT	2U CLAY TOTAL	.2U CLAY TOTAL
A P 0-27				
A EGJ 27-37	7	70	23	10
B TJGJ1 37-57	1	71	26	11
B TJGJ2 57-75				
II BC 75-100				
III C G 100-127				
III C G 127-175				

FAIRFIELD

UNIT TYPE: SERIES

DATE OF SURVEY: 65 SURVEYOR: MAL KELDNA, B.C.M.A. & R.A.B.
 SAMPLING PURPOSE: DETAILED SURVEY

<u>LOCATION</u>	<u>CLASSIFICATION</u>	<u>SLOPE</u>
LATITUDE(N): 49 12 18 LONGITUDE(W): 122 43 13 PRECISION (SEC): 05 ELEVATION (M): 4	GLEVED ELUVIATED MELANIC BRUNISOL(1978) STATUS: MODAL SOIL	% TYPE: 2.0 CLASS: COMPLEX GENTLY UNDULATING

PARENT MATERIAL & LANDFORM

UPPER STRATIGRAPHIC UNIT

SPEC. CLASTIC: SILTY
 GENETIC MAT.: FLUVIAL
 SURFACE EXPRES.: LEVEL

DRAINAGE: IMPERFECTLY DRAINED
 PERVIOUSNESS: MODERATE

 PROFILE DESCRIPTION

HORIZON	THICKNESS DEPTH(CM)	HORIZON BOUNDARY	COLOUR 1	TEXTURE	STRUCTURE 1	STRUCTURE 2
A P	0- 18	ABRUPT	10.0YR3.5/3.0 MATRIX MOIST 10.0YR5.0/2.0 MATRIX DRY	SILT LOAM	WEAK TO MODERATE FINE SUBANGULAR BLOCKY	
A EU	18- 27	CLEAR	10.0YR5.0/4.0 MATRIX MOIST	SILT LOAM	WEAK MEDIUM SUBANGULAR BLOCKY	
B TJGJ1	27- 45	CLEAR	10.0YR5.0/4.0 MATRIX MOIST	SILT LOAM	MODERATE MEDIUM SUBANGULAR BLOCKY	
B TJGJ2	45- 75	CLEAR	10.0YR4.0/2.0 MATRIX MOIST	SILT LOAM	MODERATE MEDIUM SUBANGULAR BLOCKY	
II B G	75-100	CLEAR	2.5Y4.5/2.0 MATRIX MOIST	LOAMY FINE SAND	WEAK COARSE SUBANGULAR BLOCKY	SINGLE GRAIN
C G	100-		2.5Y5.5/2.0 MATRIX MOIST	SILT LOAM	MASSIVE	

HORIZON DEPTH(CM)	THICKNESS	CONSISTENCE	ROOTS 1	MOTTLES 1	CLAY FILMS 1
A P	0- 18	FRIABLE	ABUNDANT		
A EJ	18- 27	FIRM	PLENTIFUL	FEW FINE FAINT	
B TJGJ1	27- 45	FIRM	PLENTIFUL	COMMON MEDIUM FAINT 10.0YR3.0/4.0	COMMON THIN
B TJGJ2	45- 75	FIRM	FEW	MANY COARSE DISTINCT 5.0YR3.0/3.5	FEW THIN
II B G	75-100	FRIABLE		MANY COARSE DISTINCT 7.5YR3.0/2.0	
C G	100-	FIRM		MANY FINE DISTINCT 7.5YR3.0/2.0	

 PHYSICAL & CHEMICAL DATA

HORIZON-DEPTH(CM.)	PH 1		METHOD	VALUE	ORGANIC CARBON %	NITROGEN %	EXCHANGEABLE CATIONS BUFF.(ME/100G)				C. E. C. DETERMINED
	SAMPLE STATE	STATE					CA	MG	NA	K	
A P	0- 18	2	1	5.2	3.19	.25	3.38	2.65	.09	.05	23.5
A EJ	18- 27	2	1	5.7	1.28	.12	1.80	.36	.06	.00	13.8
B TJGJ1	27- 45	2	1	5.7	.52	.05	2.12	.67	.09	.00	10.7
B TJGJ2	45- 75	2	1	5.7			4.39	1.35	.08	.00	11.4
II B G	75-100	2	1	5.9							
C G	100-	2	1	5.7							

HORIZON-DEPTH(CM.)	P1 PPM.		P2 PPM.	
	P1	P2	P1	P2
A P	0- 18	16.0	29.0	
A EJ	18- 27	13.5	27.0	
B TJGJ1	27- 45	16.5	29.0	
B TJGJ2	45- 75	9.5	23.0	
II B G	75-100			
C G	100-			

Horizon (Depth-cm)	Clay Mineralogy									
	Coarse Clay (0.002 - 0.0002 mm)					Fine Clay (<0.0002 μ)				
	>65% est.	40-65% est.	20-40% est.	<20% est.	Trace	>65% est.	40-65% est.	20-40% est.	<20% est.	Trace
Aej (18-27)	montmorillonite, vermiculite		mica, interstratified vermiculite-mica, chlorite, quartz, plagioclase feldspars, amphiboles, kaolinite			montmorillonite		chlorite		vermiculite, mica, kaolinite, quartz, interstratified vermiculite-chlorite

FAIRFIELD

UNIT TYPE: SERIES

DATE OF SURVEY: 63 SURVEYOR: GGR KELUANA, B.C.M.A. & R.A.B.
 SAMPLING PURPOSE: DETAILED SURVEY

<u>LOCATION</u>	<u>CLASSIFICATION</u>	<u>SLOPE</u>
LATITUDE(N): 49 08 00	GLEYED ELUVIATED MELANIC BRUNISOL(1978)	% TYPE: 3.0 CLASS: COMPLEX GENTLY UNDULATING
LONGITUDE(W): 122 16 02		
PRECISION (SEC): 05		
ELEVATION (M): 6		
STATUS: MODAL SOIL		

PARENT MATERIAL & LANDFORM

UPPER STRATIGRAPHIC UNIT

SPEC. CLASTIC: SILTY
 GENETIC MAT.: FLUVIAL
 SURFACE EXPRES.: LEVEL

DRAINAGE: IMPERFECTLY DRAINED
 RUNOFF: MEDIUM
 PERVIOUSNESS: MODERATE

PROFILE DESCRIPTION

HORIZON	THICKNESS DEPTH(CM)	HORIZON BOUNDARY	COLOUR 1	TEXTURE	STRUCTURE 1	STRUCTURE 2
A P	0- 23	ABRUPT	10.0YR4.0/1.5 MATRIX MOIST 10.0YR5.0/2.0 MATRIX DRY	SILT LOAM	MODERATE MEDIUM SUBANGULAR BLOCKY	
A EJ	23- 35	GRADUAL	10.0YR5.0/2.0 MATRIX MOIST 10.0YR6.0/3.0 MATRIX DRY	SILTY CLAY LOAM	WEAK PLATY	WEAK MEDIUM SUBANGULAR BLOCKY
B MGJ	35- 55	DIFFUSE	10.0YR5.0/2.0 MATRIX MOIST 10.0YR6.5/3.0 MATRIX DRY		MODERATE MEDIUM SUBANGULAR BLOCKY	
BC 1	55- 80	GRADUAL	10.0YR4.5/2.0 MATRIX MOIST 10.0YR6.5/3.0 MATRIX DRY	SILTY CLAY LOAM	MASSIVE	
BC 2	80- 98	ABRUPT	10.0YR5.0/2.0 MATRIX MOIST 10.0YR6.0/3.0 MATRIX DRY	VERY FINE SANDY LOAM	WEAK MEDIUM SUBANGULAR BLOCKY	
II C GJ	98-			FINE SAND	SINGLE GRAIN	

HORIZON	THICKNESS DEPTH(CM)	CONSISTENCE	ROOTS 1	MOTTLES 1
A P	0- 23	FRIABLE	PLENTIFUL	
A EJ	23- 35	FIRM	FEW	FEW FINE FAINT
B MGJ	35- 55	FIRM	FEW	COMMON MEDIUM 10.0YR5.0/6.0
BC 1	55- 80	FIRM		COMMON MEDIUM 10.0YR5.0/4.0
BC 2	80- 98	FRIABLE		COMMON FINE 10.0YR5.0/6.0
II C GJ	98-	LOOSE		FEW FINE FAINT

PHYSICAL & CHEMICAL DATA

HORIZON-DEPTH(CM.)	SAMPLE STATE	METHOD	VALUE	ORGANIC CARBON %	NITROGEN %	EXCHANGEABLE CATIONS BUFF.(ME/100G)				C. E. C. DETERMINED	
						CA	MG	NA	K		
A P	0- 23	2	1	5.4	4.06	.33	10.30	1.60	.10	.30	30.2
A EJ	23- 35	2	1	5.5	1.10	.12	8.40	1.40	.20	.10	23.0
B MGJ	35- 55	2	1	5.8	.52	.06	10.20	2.20	.20	.10	20.5
BC 1	55- 80	2	1	5.6	.70	.07	9.80	2.20	.20	.10	19.7
BC 2	80- 98	2	1	5.8			6.90	1.80	.10	.80	15.2
II C GJ	98-	2	1	6.2			1.80	.80	.10	.00	5.1

HORIZON-DEPTH(CM.)	P1 PPM.	P2 PPM.
A P	0- 23	48.0
A EJ	23- 35	122.0
B MGJ	35- 55	16.1
BC 1	55- 80	63.0
BC 2	80- 98	11.2
II C GJ	98-	45.0
		8.4
		28.0
		9.0
		30.0
		40.6
		70.0

FAIRFIELD

UNIT TYPE: SERIES

DATE OF SURVEY: 66 SURVEYOR: MAL KELUANA, B.C.M.A. & R.A.B.
 SAMPLING PURPOSE: DETAILED SURVEY

LOCATION	CLASSIFICATION	SLOPE	
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LATITUDE(N): 49 10 47	GLEIYED ELUVIATED MELANIC BRUNISOL(1978)	% TYPE1: 3.0	
LONGITUDE(W): 122 04 17		CLASS: COMPLEX	
PRECISION (SEC): 05	STATUS: MODAL SOIL		UNDULATING
ELEVATION (M): 7			

PARENT MATERIAL & LANDFORM

UPPER STRATIGRAPHIC UNIT

SPEC. CLASTIC I: SILTY
 GENETIC MAT.: FLUVIAL
 SURFACE EXPRES.: VENEER

MIDDLE STRATIGRAPHIC UNIT

SPEC. CLASTIC I: SANDY
 GENETIC MAT.: FLUVIAL

DRAINAGE: IMPERFECTLY DRAINED
 RUNOFF: MEDIUM
 PERVIOUSNESS: MODERATE

ADDITIONAL NOTES

THE A EJGJ IS SLIGHTLY VESICULAR.

PROFILE DESCRIPTION

HORIZON	THICKNESS DEPTH(CM)	HORIZON BOUNDARY	COLOUR 1	TEXTURE	STRUCTURE 1	STRUCTURE 2
A P	0- 15	ABRUPT	10.0YR4.0/1.0 MATRIX MOIST	SILTY CLAY LOAM	MODERATE MEDIUM SUBANGULAR BLOCKY	
A EJGJ	15- 30	GRADUAL	10.0YR4.0/2.0 MATRIX MOIST	SILTY CLAY LOAM	MODERATE MEDIUM SUBANGULAR BLOCKY	
B MGJ	30- 55	CLEAR	10.0YR4.0/3.0 MATRIX MOIST	SILTY CLAY LOAM	MODERATE MEDIUM TO COARSE SUBANGULAR BLOCKY	
BC	55- 73	ABRUPT	10.0YR4.5/2.0 MATRIX MOIST	SILT LOAM	MASSIVE	WEAK MEDIUM SUBANGULAR BLOCKY
II C G	73-		10.0YR5.5/2.0 MATRIX MOIST	SAND	SINGLE GRAIN	

HORIZON	THICKNESS DEPTH(CM)	CONSISTENCE	ROOTS 1	MOTTLES 1
A P	0- 15	FRIABLE	ABUNDANT	
A EJGJ	15- 30	FRIABLE	PLENTIFUL	COMMON FINE FAINT 7.5YR4.0/4.0
B MGJ	30- 55	FRIABLE	PLENTIFUL	MANY MEDIUM FAINT 7.5YR4.0/4.0
BC	55- 73	FRIABLE	PLENTIFUL	MANY FINE DISTINCT 5.0YR4.0/4.0
II C G	73-	LOOSE	FEW	FEW FINE

PHYSICAL & CHEMICAL DATA

HORIZON-DEPTH(CM.)	PH 1			PH 2			ORGANIC CARBON %	NITROGEN %
	SAMPLE STATE	METHOD	VALUE	SAMPLE STATE	METHOD	VALUE		
A P 0- 15	2	1	5.3	2	4	5.1	2.20	.20
A EJGJ 15- 30	2	1	5.5	2	4	5.3	.93	.10
B MGJ 30- 55	2	1	6.0	2	4	5.5	.58	.06
BC 55- 73	1	1	6.1	2	4	5.5	.23	.04
II C G 73-	2	1	6.3	2	4	5.3		

HORIZON-DEPTH(CM.)	EXCHANGEABLE CATIONS BUFF.(ME/100G)				C. E. C.			
	CA	MG	NA	K	DETERMINED	P1 PPM.	P2 PPM.	S PPM.
A P 0- 15	4.34	1.44	.11	.15	17.8	1.2	125.0	1.5
A EJGJ 15- 30	4.30	1.42	.11	.16	15.5	.8	144.0	3.0
B MGJ 30- 55	4.08	1.43	.10	.15	13.2	.5	125.0	1.5
BC 55- 73	3.18	1.08	.08	.11	10.5	1.2	129.0	1.5
II C G 73-	1.74	.63	.07	.07	6.0	2.1	88.0	2.0

FAIRFIELD

UNIT TYPE: SERIES

DATE OF SURVEY: 61 SURVEYOR: VKC KELDNA, B.C.M.A. & R.A.B.
 SAMPLING PURPOSE: DETAILED SURVEY

LOCATION	CLASSIFICATION	SLOPE	
LATITUDE(N): 49 11 28	GLEEYED ELUVIATED MELANIC BRUNISOL(1978 STATUS: MODAL SOIL	% TYPE: 1.0 CLASS: COMPLEX GENTLY UNDULATING	
LONGITUDE(W): 121 49 05			
ELEVATION (M): 13			

PARENT MATERIAL & LANDFORM

UPPER STRATIGRAPHIC UNIT

SPEC. CLASTIC: SILTY
 GENETIC MAT.: FLUVIAL
 SURFACE EXPRES.: VENEER

MIDDLE STRATIGRAPHIC UNIT

SPEC. CLASTIC: SANDY
 GENETIC MAT.: FLUVIAL

DRAINAGE: MODERATELY WELL DRAINED
 RUNOFF: VERY SLOW
 PERVIOUSNESS: MODERATE

PROFILE DESCRIPTION

HORIZON	THICKNESS DEPTH(CM)	HORIZON BOUNDARY	COLOUR 1	TEXTURE	STRUCTURE 1	STRUCTURE 2
A P	0- 17	ABRUPT	10.0YR3.0/2.0 MATRIX MOIST	SILTY CLAY LOAM	MODERATE MEDIUM SUBANGULAR BLOCKY	
B HGJ1	17- 35	GRADUAL	10.0YR4.5/2.0 MATRIX MOIST	SILTY CLAY LOAM	WEAK TO MODERATE SUBANGULAR BLOCKY	
B HGJ2	35- 65	CLEAR	10.0YR5.0/3.0 MATRIX MOIST	VERY FINE SANDY LOAM	WEAK MEDIUM SUBANGULAR BLOCKY	
II CB	65-		10.0YR5.0/3.0 MATRIX MOIST	LOAMY SAND	STRATIFIED	SINGLE GRAIN

HORIZON	THICKNESS DEPTH(CM)	CONSISTENCE	ROOTS 1	MOTTLES 1
A P	0- 17	FRIABLE	FEW	
B HGJ1	17- 35	FRIABLE	PLENTIFUL	COMMON DISTINCT 10.0YR5.0/8.0
B HGJ2	35- 65	FRIABLE	FEW	MANY DISTINCT 10.0YR5.0/8.0
II CB	65-	VERY FRIABLE		MANY DISTINCT 10.0YR5.0/8.0

PHYSICAL & CHEMICAL DATA

HORIZON-DEPTH(CM.)	SAMPLE STATE	METHOD	VALUE	ORGANIC CARBON %	NITROGEN %	EXCHANGEABLE CATIONS BUFF. (ME/100G)				C. E. C. DETERMINED
						CA	MG	NA	K	
A P	0- 17	1	5.5	3.38	.33	7.19	3.86	.18	.28	26.4
B HGJ1	17- 35	2	5.5	.38	.08	6.85	3.77	.18	.35	18.7
B HGJ2	35- 65	2	5.8	.38	.05	4.12	3.29	.18	.20	12.1
II CB	65-	1	6.0	.35	.04	1.91	2.30	.21	.20	6.5

HORIZON-DEPTH(CM.)	D1 DDM.	
A P	0- 17	2.0
B HGJ1	17- 35	5.0
B HGJ2	35- 65	7.0
II CB	65-	7.0

FAIRFIELD

UNIT TYPE: SERIES

DATE OF SURVEY: 66 SURVEYOR: MAL KELONNA, B.C.M.A. & R.A.B.
 SAMPLING PURPOSE: DETAILED SURVEY

<u>LOCATION</u>	<u>CLASSIFICATION</u>	<u>SLOPE</u>	
LATITUDE(N): 49 13 57	GLEVED ELUVIATED MELANIC BRUNISOL(1978)	% TYPE: CLASS:	2.0 COMPLEX
LONGITUDE(W): 121 49 15	STATUS: MODAL SOIL		GENTLY UNDULATING
PRECISION (SEC): 05			
ELEVATION (M): 12			

PARENT MATERIAL & LANDFORM

UPPER STRATIGRAPHIC UNIT

SPEC. CLASTIC: SILTY
 GENETIC MAT.: FLUVIAL
 SURFACE EXPRES.: LEVEL

DRAINAGE: IMPERFECTLY DRAINED
 PERVIOUSNESS: MODERATE

PROFILE DESCRIPTION

HORIZON	THICKNESS DEPTH(CM)	HORIZON BOUNDARY	COLOUR 1	TEXTURE	STRUCTURE 1	STRUCTURE 2
A P	0- 22	ABRUPT	10.0YR3.0/2.0 MATRIX MOIST	SILTY CLAY LOAM	MODERATE MEDIUM SUBANGULAR BLOCKY	MODERATE FINE SUBANGULAR BLOCKY
B MGJ	22- 37	GRADUAL	10.0YR4.0/3.0 MATRIX MOIST	SILTY CLAY LOAM	MODERATE MEDIUM SUBANGULAR BLOCKY	
BC	37- 52	ABRUPT	10.0YR4.0/3.0 MATRIX MOIST	SILTY CLAY LOAM	MODERATE MEDIUM SUBANGULAR BLOCKY	
A HB	52- 57	ABRUPT	10.0YR3.0/1.0 MATRIX MOIST	SILTY CLAY LOAM	MODERATE MEDIUM SUBANGULAR BLOCKY	
C GJ1	57- 77	GRADUAL	10.0YR4.5/4.0 MATRIX MOIST	SILTY CLAY LOAM	MODERATE MEDIUM SUBANGULAR BLOCKY PSEUDO	
C GJ2	77-		10.0YR4.0/4.0 MATRIX MOIST	SILTY CLAY LOAM	MODERATE MEDIUM SUBANGULAR BLOCKY PSEUDO	

HORIZON	THICKNESS DEPTH(CM)	CONSISTENCE	ROOTS 1	MOTTLES 1	MOTTLES 2
A P	0- 22	FRIABLE	ABUNDANT		
B MGJ	22- 37	FRIABLE	ABUNDANT	COMMON FINE FAINT 5.0YR4.0/6.0	7.5YR4.0/4.0
BC	37- 52	FIRM	PLENTIFUL	COMMON MEDIUM DISTINCT 5.0YR4.0/4.0	
A HB	52- 57	FRIABLE	PLENTIFUL		
C GJ1	57- 77	FIRM	FEW	COMMON MEDIUM DISTINCT 5.0YR3.5/4.0	
C GJ2	77-	FIRM	FEW	MANY MEDIUM PROMINENT 5.0YR3.0/4.0	5.0YR4.0/8.0

PHYSICAL & CHEMICAL DATA

HORIZON-DEPTH(CM.)	SAMPLE STATE	METHOD	VALUE	ORGANIC CARBON %	NITROGEN %	EXCHANGEABLE CATIONS BUFF.(ME/100G)				C. E. C. DETERMINED	
						CA	MG	NA	K		
A P	0- 22	2	1	6.1	2.26	.19	12.13	2.04	.10	.13	21.6
B MGJ	22- 37	2	1	6.3	.87	.08	9.36	1.48	.09	.10	16.2
BC	37- 52	2	1	6.3	.59	.06	10.59	1.47	.11	.18	17.1
A HB	52- 57	2	1	6.2	2.26	.15	13.61	1.22	.13	.14	24.7
C GJ1	57- 77	2	1	6.4	.70	.07	8.35	1.08	.10	.09	17.5
C GJ2	77-	2	1	6.3			9.26	1.40	.09	.13	15.1

HORIZON-DEPTH(CM.)	P1 PPM.	P2 PPM.
A P	0- 22	6.5
B MGJ	22- 37	10.5
BC	37- 52	2.5
A HB	52- 57	4.5
C GJ1	57- 77	33.0
C GJ2	77-	5.5

FAIRFIELD

UNIT TYPE: SERIES

DATE OF SURVEY: 72 SURVEYOR: HAL UBC

LOCATION ----- LATITUDE (N): 49 07 55 LONGITUDE (W): 122 14 51 PRECISION (SEC): 05 ELEVATION (M): 6	CLASSIFICATION ----- GLEYED ELUVIATED MELANIC BRUNISOL (1978) STATUS: MODAL SOIL
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PARENT MATERIAL & LANDFORM

UPPER STRATIGRAPHIC UNIT

SPEC. CLASTIC I: SILTY
 GENETIC MAT. I: FLUVIAL
 SURFACE EXPRES. I: VENEER

MIDDLE STRATIGRAPHIC UNIT

SPEC. CLASTIC I: SANDY
 GENETIC MAT. I: FLUVIAL

PHYSICAL & CHEMICAL DATA

HORIZON-DEPTH (CM.)	PH 1		METHOD	VALJE	BULK DENSITY	MOISTURE STATUS			ATTERBURG LIMITS	
	SAMPLE STATE					1/3 BAR.	15 BAR.	% FIELD MOISTURE	PLASTIC LIMIT	LIQUID LIMIT
A p 0-20	2		4	5.1	1.15	40.3	13.7	30.9	36.6	52.8
B mgj 20-51	2		4	5.3	1.26	38.9	11.0	30.2	29.8	41.4
BC 51-102	2		4	5.3	1.33	36.4	9.0	31.3	27.9	33.4
IICg 102-127	2		4	5.3	1.41	7.0	2.9	29.5		

Horizon	Depth cm	Particle Density gm/cc			Shrinkage Limit %		Optimum Moisture %	Particle Size %							
		Air Dry	Oven Dry	Max. Dry	Air Dry	Oven Dry		>5.1 cm	<5.1 cm	<2.5 cm	<5 mm	<1 mm	<0.074 mm	<0.05 mm	<0.002 mm
Ap	0-20	2.55	2.67	93.5	35.0	36.8	24.5					100.0	98.0	95.0	28.2
Bmgj	20-51	2.63	2.76	101.2	31.0	32.8	19.2					100.0	97.3	95.3	22.3
BC	51-102	2.65	2.75	106.4	32.3	33.7	17.0					100.0	96.8	90.9	15.9
IICg	102-127	2.66	2.71	102.6	29.5	30.2	11.3					100.0	17.4	7.0	1.0