

PRECAMBRIAN

INTRUSIVE AND METAMORPHIC ROCKS

POST KINEMATIC INTRUSIVE ROCKS

28

Pink and white felsic pegmatite

METAMORPHIC AND ANATECTIC ROCKS

27

Loonhead Lake Intrusions: Gneissic, locally pegmatitic, granodiorite and monzonite, as discrete bodies and as multibasic component in migmatites of unit 13c

26

Wilson Bay Gneiss Dome (25-26)  
Pink medium-grained magnetite-bearing granoblastic oligoclase-quartz-microcline biotite gneiss  
a) Fine-grained variety containing strong planar fabric and streaky colour lamination (meta-gneiss?)  
b) Light grey to white magnetite-bearing granoblastic oligoclase-quartz-biotite gneiss

SYN- TO LATE KINEMATIC INTRUSIVE ROCKS

24

Barron Lake Pluton: Biotite-bearing granite and leucogranite with microcline phenocrysts

23

Norris Lake Pluton: Plagioclase-rich hornblende leucotonalite

22 22c

Reed Lake Pluton:  
a) Hornblende-bearing quartz leucodiorite  
b) Plagioclase-rich biotite and hornblende leucotonalite  
c) Apatite and melanocrystic rocks of contact aureole

21

Ham Lake Pluton: Gneissic biotite and hornblende-bearing quartz-rich leucotonalite and granodiorite, in part garnetiferous

20 20a

Woosley Lake Pluton: Gneissic biotite and hornblende-bearing quartz-rich leucotonalite and granodiorite, in part garnetiferous  
a) Apatite and melanocrystic rocks of contact aureole

EARLY KINEMATIC INTRUSIVE ROCKS

19

Meta-gabbro, amphibolite; derived mainly from sills of the Jostland Lake Gabbro

18(3)

Jostland Lake Gabbro (Differentiated gabbro sills)  
a) Granophyre Zone: Quartz diorite, tonalite and minor diorite, characterized by phenocrysts of biotite quartz  
b) Leucocratic to mesocratic plagioclase-hornblende-biotite orthogneiss ± microcline ± garnet  
c) Granophytic quartz diorite and diorite with syntectonic actinolite  
d) Granophytic tonalite

18(2)

2) Ferrogabbro Zone: Ferrogabbro  
a) Metacarbonate hornblende-plagioclase orthogneiss

18(1)

1) Gabbro Zone: Gabbro and leucogabbro  
a) Metacarbonate to mesocratic plagioclase-hornblende orthogneiss  
b) Porphyritic leucogabbro

MISSI GROUP

17

Buff to pink 'granitized' gneiss derived from rocks of unit 16, particularly those of unit 16(3)

16

Meta-subgreywacke and meta-arkose, undivided

16(3)

3) Buff plagioclase-quartz-microcline-biotite paragneiss

16(2)

2) White to light grey plagioclase-quartz-biotite paragneiss ± microcline

16(1)

1) Light grey quartz-plagioclase-biotite paragneiss ± garnet ± sillimanite, typically finely laminated

AMISK GROUP

METASEDIMENTARY ROCKS

FILE LAKE FORMATION (13-15)

15

Corley Lake Member: Meta-pelite with large garnet porphyroblasts

14 14a

Mafic metavolcanic gneiss  
a) Felsic metavolcanic gneiss, 'quartz-eyes' common

13

Lithic greywacke, feldspathic greywacke, siltstone and shale with primary sedimentary structures of turbidites  
a) Meta-siltstone with ubiquitous porphyroblasts of actinolite  
b) Grey garnetiferous biotite gneiss ± staurolite ± sillimanite  
c) Grey garnetiferous biotite biotite gneiss

12

YAKYAW FORMATION: 'Tuffaceous sandstone, siltstone and mudstone interbedded with pebbly volcanic sandstone

11

PARISIAV FORMATION: Garnetiferous gneissic felsic metaconglomerate; pebbles are largely volcanic and matrix-supported

INTRUSIVE ROCKS

10

Quartz-feldspar tonalite porphyry

9

Diorite

METAVOLCANIC ROCKS

WOOSLEY LAKES AREA

8

Garnetiferous felsic metavolcanic gneiss

7

Garnetiferous mafic fragmental porphyritic metavolcanic gneiss  
a) Garnetiferous mafic metavolcanic gneiss

BUTLER-FUSSEY LAKES AREA

6

Fragmental dacite

5 5a 5b

Flow basalt and andesite; minor hyaloclastic breccia  
a) Porphyritic basalt  
b) Fragmental basalt and andesite  
c) Mafic metavolcanic gneiss

STORZUK-MORTON LAKES AREA

4

Flow dacite; minor autoclasic breccia  
a) Meta-dacite with porphyroblasts of actinolite

3.3c 3a 3b 3d

STORZUK FORMATION: Flow basalt and andesite, locally porphyritic  
a) Basalt and andesite breccia, commonly porphyritic; includes hyaloclastic and pillow breccia  
b) Felsic tuffs and flows (may be in part equivalent to strata of either unit 2 or 4)  
c) Mafic metavolcanic gneiss  
d) Felsic metavolcanic gneiss (may be equivalent to strata of unit 4)

2

DICKSTONE FORMATION: Flow rhyolite and dacite, rhyolite and dacite lapilli tuff; minor rhyolite and dacite breccia  
a) Mainly flow rocks  
b) Mainly pyroclastic rocks

1

PRESTON FORMATION: Flow basalt and andesite  
a) Banded garnetiferous mafic metavolcanic gneiss

INDEX FOR WHOLE ROCK CHEMICAL ANALYSES

UNIT NUMBER (Map 78-1-1)	ANALYSIS GIVEN IN TABLE COLUMN (this report)	REFERENCE NUMBER (this figure)
1	21	74
1a	22	45
2	31	81
2a	32	75
3	33	80
3a	34	76
3b	35	77
3c	36	78
3d	37	79
4	38	82
4a	39	83
5	210	58
5a	211	59
5b	212	60
6	38	92
6a	39	93
6b	40	94
6c	41	95
6d	42	96
6e	43	97
6f	44	98
6g	45	99
6h	46	100
6i	47	101
6j	48	102
6k	49	103
6l	50	104
6m	51	105
6n	52	106
6o	53	107
6p	54	108
6q	55	109
6r	56	110
6s	57	111
6t	58	112
6u	59	113
6v	60	114
6w	61	115
6x	62	116
6y	63	117
6z	64	118
7	121	7
7a	122	8
7b	123	9
7c	124	10
7d	125	11
7e	126	12
7f	127	13
7g	128	14
7h	129	15
7i	130	16
7j	131	17
7k	132	18
7l	133	19
7m	134	20
7n	135	21
7o	136	22
7p	137	23
7q	138	24
7r	139	25
7s	140	26
7t	141	27
7u	142	28
7v	143	29
7w	144	30
7x	145	31
7y	146	32
7z	147	33
8	148	34
8a	149	35
8b	150	36
8c	151	37
8d	152	38
8e	153	39
8f	154	40
8g	155	41
8h	156	42
8i	157	43
8j	158	44
8k	159	45
8l	160	46
8m	161	47
8n	162	48
8o	163	49
8p	164	50
8q	165	51
8r	166	52
8s	167	53
8t	168	54
8u	169	55
8v	170	56
8w	171	57
8x	172	58
8y	173	59
8z	174	60
9	175	61
9a	176	62
9b	177	63
9c	178	64
9d	179	65
9e	180	66
9f	181	67
9g	182	68
9h	183	69
9i	184	70
9j	185	71
9k	186	72
9l	187	73
9m	188	74
9n	189	75
9o	190	76
9p	191	77
9q	192	78
9r	193	79
9s	194	80
9t	195	81
9u	196	82
9v	197	83
9w	198	84
9x	199	85
9y	200	86
9z	201	87
10	202	88
10a	203	89
10b	204	90
10c	205	91
10d	206	92
10e	207	93
10f	208	94
10g	209	95
10h	210	96
10i	211	97
10j	212	98
10k	213	99
10l	214	100
10m	215	101
10n	216	102
10o	217	103
10p	218	104
10q	219	105
10r	220	106
10s	221	107
10t	222	108
10u	223	109
10v	224	110
10w	225	111
10x	226	112
10y	227	113
10z	228	114

Geology by  
A. H. BAILES, 1970-1972

The approximate magnetic declination at the east edge of the map-area is 14°22' (1969) and is decreasing by 1.1' annually.

Anticline, antiform (upright, overturned)

Syncline, synform (upright, overturned)

Direction of plunge of fold

Age of fold (indeterminate, F<sub>1</sub>, F<sub>2</sub>, F<sub>3</sub>)

Cross Section Line (Cross Section shown on FIGURE 98)

Sample sites of whole rock chemical analyses  
(this report: Harrison, 1966; W.D. McNeill, pers. comm., 1978; see list to right)

FIGURE 94. Distribution of major folds and structural subareas, and location of sample sites of whole rock chemical analyses.