



BC Ministry of Energy, Mines and Petroleum Resources
Geological Survey Branch
 OPEN FILE 1991-1

GEOLOGY OF THE LAMPREY CREEK AREA

NTS 93L/03
 Geology by Pat Desjardins and Ron Arkey
 Scale 1:50 000

LEGEND

LAYERED ROCKS

Eocene to Oligocene
ENDAKO GROUP
 EOb Back Creek volcanics: basalt flows, olivine-phyric, columnar-jointed, amygdaloidal basalt, breccia

Paleocene to Eocene
 PE_s Thadli River sediments: heterolithic, poorly sorted conglomerate, sandstone, siltstone, minor coal, wood fragments, biotite-phyric Oolite Lake tuffs

Oolite Lake Group
 Eo rhyolite to dacite flows and tuffs, layered, light grey, pink to cherty white, typically biotite-phyric; flow breccias: basal basalt flows, basalt breccias, basaltic agglomerate and tuff; minor breccia

Upper Cretaceous
KASALKA GROUP
 uKk hornblende-alkali and hornblende-biotite-alkali porphyry flows, tuff and crystal tuff; later of andesitic composition

Lower Cretaceous (Albian)
SKREENA GROUP
 IKs sandstone, siltstone, shale, micaceous greywacke, coal bearing
 IKv basalt flow volcanics: andesite flows, grey, porphyritic, thin platy, biotite, amygdaloidal

Lower Jurassic (Sinemurian to Toarcian)
HAZELTON GROUP
 LJt Tallowa Formation: unbedded andesite, dacite, rhyolite, basalt, flows and pyroclastics
 LJtb Shallow marine sedimentary facies: well-bedded limestone, calcareous sandstone, siltstone, interbedded with argillaceous and/or tuff; fossiliferous; may be early facies of Hildesheim Formation
 LJtr Siliceous porphyritic facies: well-bedded quartz-feldspar-phyric andesite flows, agglomerate, breccia, siliceous air-fall tuff, red tuff, basalt, rhyolite flows
 LJts Basaltic flow facies: massive amorphous green alkali-feldspar-phyric to aphanitic basalt flows; minor massive tuff between flows; flow-top breccia common; locally amygdaloidal
 LJta Andesite porphyritic facies: andesite air-fall tuff, breccia, felspathic epiclastics, amygdaloidal

INTRUSIVE ROCKS

Eocene
 EIn rhyolite intrusions: biotite-phyric felsic intrusives
 EN hornblende intrusions: porphyritic quartz monzonite, hornblende-quartz-biotite-alkali porphyry

Late Cretaceous
 Ka alkali intrusions: gneiss, unbedded granitic intrusions of granodiorite, diorite, or rhyolite; biotite porphyry; biotite hornblende-quartz-biotite-alkali porphyry; quartz monzonite

Early Jurassic
 EJt Tallowa intrusions: unbedded granitic intrusions

SYMBOLS

area of outcrop.....
 fault (defined, assumed).....
 geological contact (defined, assumed).....
 bedding (inclined, vertical).....
 foliation (inclined, vertical).....
 joint (inclined, vertical).....
 dyke (inclined, vertical).....
 mineral occurrence (see table).....
 assay sample locality (see table).....
 RGS sample locality (see table).....

MINERAL OCCURRENCES

Millite No.	Name	Status	Easting	Northing	Commodities
090L 159	CHISHOLM LAKE	Showing	616539	6006060	Coal
090L 160	CHISHOLM LAKE	Showing	617005	6005004	Coal
090L 182	WSC 1971-14	Showing	620560	6007382	Cu
090L 221	HAGAS	Showing	630008	6001763	Au,Cu,Zn
090L 052	RING	Showing	609755	5986272	Mo,Cu
090L 053	LUCKY SHIP	Dist. Prospect	595776	5907005	Mo
090L 309	FIRE LOOKOUT	Showing	596375	6001200	Au,Cu,Ag

SOURCES OF GEOLOGIC INFORMATION

Geology compiled from mapping done by P. Desjardins and R. Arkey, B.C. Geological Survey, 1990. A computer processible data file of geologic stations and structural measurements is available for this mapsheet.

Carter, N.C. (1981): Porphyry Copper and Molybdenum Deposits of West-central British Columbia, B.C. Ministry of Energy, Mines and Petroleum Resources, Bulletin 64, 150 pages.

Tipper, H.W. (1976): Smithers B.C. (93L), Geological Survey of Canada, Open File Map 351.

Tipper H.W. and Richards T.A. (1976): Jurassic Stratigraphy and History of North-central British Columbia, Geological Survey of Canada, Bulletin 270, 73 pages.

B.C.G.S. ROCK GEOCHEMISTRY

Map No.	Lab No.	Field No.	UTM East	UTM North	As	Ca	Cu	Fe	Mn	Pb	Pt	Si	Sr	Th	U	V	Zn	Description								
1	041569	POE90-110	600072	5995134	5.030	134	1	2	82	1.5	2.28	932	21	172	180	13	2	506	70	5.0	1.0	91	13	Narika Mt. - silicified quartz monzonite with disseminated pyrite		
2	041569	POE90-110	600072	5995134	19	0.40	150	1	17	114	1.0	0.04	700	21	110	14	811	21	65	131	5.0	1.0	43	8	Narika Mt. - silicified quartz monzonite with disseminated pyrite and mo breccia	
3	041569	POE90-114	600542	5996317	3	0.10	19	1	3	78	0.4	2.23	998	11	3	11	6	2	74	9	5.0	1.0	12	2	Tallowa Fm. - silicified quartz monzonite with disseminated pyrite and mo breccia	
4	041569	POE90-155	600550	5997275	5	0.10	19	1	3	78	0.4	2.23	998	11	3	11	6	2	74	9	5.0	1.0	12	2	Tallowa Fm. - silicified quartz monzonite with disseminated pyrite and mo breccia	
5	041562	POE90-157-2	610170	5997173	5	0.10	19	1	3	78	0.4	2.23	998	11	3	11	6	2	74	9	5.0	1.0	12	2	Tallowa Fm. - silicified quartz monzonite with disseminated pyrite and mo breccia	
6	041564	POE90-163	610237	5997981	1	0.10	2	1	2	116	0.4	2.82	1062	13	15	2	61	29	5.0	1.0	1.0	2	10	1	Dyke - basalt with ironitic alteration	
7	041565	POE90-168	620201	6009066	2	0.20	2	1	2	20	0.2	2.31	336	10	12	2	2	198	82	5.0	1.0	1.0	2	14	1	Tallowa Fm. - basalt with ironitic alteration along fractures
8	041566	POE90-184	612505	5999024	1	0.10	2	1	2	89	0.6	6.95	1728	22	1	15	14	2	41	80	5.0	1.0	97	7	Tallowa Fm. - silicified basalt with pyrite cubes and ironitic alteration	
9	041567	POE90-188	612505	5999024	1	0.10	2	1	2	89	0.6	6.95	1728	22	1	15	14	2	41	80	5.0	1.0	97	7	Tallowa Fm. - silicified basalt with pyrite cubes and ironitic alteration	
10	041568	WNC00-47	610391	5998654	13	0.10	3	1	8	0.2	1.46	31	1	1	3	2	89	13	5.0	1.0	2	10	10	1	Intrusive	
11	041572	PAR90-100	596286	6001179	500	46.30	8768	28	24	350	2.6	6.82	780	16	1	9	3	2	71	36	5.0	1.0	29	7	Tallowa Fm. - pervasive carbonate alteration with malachite staining	
12	041573	PAR90-101	596286	6001179	91	0.10	14	1	1	79	0.2	1.86	196	2	8	2	258	65	5.0	1.0	80	40	8	1	Tallowa Fm. - carbonate altered	
13	041574	PAR90-175	598932	5987485	22	0.80	53	12	17	103	0.3	0.37	138	21	1	19	3	2	235	8	5.0	1.0	10	1	Narika Mt. - Lucky Ship porphyry - silicified with disseminated sulphides	
14	041575	PAR90-181	599257	5987426	91	0.80	4	2	14	6	0.2	1.82	24	20	1	13	2	2	198	6	5.0	1.0	14	2	Narika Mt. - Lucky Ship porphyry - propylitically altered, siliceous	
15	041577	PAR90-182	599253	5987543	9	0.20	44	8	9	6	0.2	1.33	10	1	9	3	2	71	36	5.0	1.0	4	1	4	1	Narika Mt. - Lucky Ship rhyolite - quartz stockwork in breccia
16	041578	PAR90-183	599257	5987543	20	0.20	2	400	3	0.2	2.28	78	1	1	1	1	1	1	1	1	5.0	1.0	1	2	Narika Mt. - Lucky Ship rhyolite - propylitically altered, pervasive ironite alter.	
17	041579	PAR90-183	599257	5987543	21	0.10	8	25	3	0.2	0.44	4	1	1	1	1	1	1	1	1	5.0	1.0	1	2	Narika Mt. - Lucky Ship rhyolite - silicified with disseminated pyrite	
18	041579	PAR90-183	599257	5987543	21	1.30	243	23	2	110	0.2	6.60	1882	16	1	1	1	1	1	1	5.0	1.0	83	4	Narika Mt. - Lucky Ship breccia - disseminated quartz and py in fractures	
20	041581	PAR90-226	620055	6005819	5	0.10	7	1	8	0.2	1.87	360	12	3	10	2	2	314	47	16.0	3.0	37	27	Oolite Lake Group - volcanic porphyry - silicified with minor sulphides		

