

Geology of the Canim Lake Area NTS 92P/15

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Scale 1:50 000

0 5 kilometres

QUATERNARY

- Qal Unconsolidated glacial, fluvial and alluvial deposits
- Qv Basalt; much of it overlain by a thin veneer of unit Qal

EOCENE

Kamloops Group

- EKv Basalt, andesite and volcanic breccia; lesser amounts of conglomerate, sandstone and dacite
- EKcg Conglomerate and sandstone

EOCENE?

- Es Siltstone and mudstone

EARLY CRETACEOUS

- Kg Biotite-hornblende monzogranite and granodiorite

JURASSIC OR CRETACEOUS

- JKqmd Hornblende-biotite quartz monzodiorite, quartz diorite and granodiorite

EARLY JURASSIC

- IJs Sandstone and conglomerate

EOCENE?

- EJgd Hornblende-biotite granodiorite, monzogranite and tonalite

LATE TRIASSIC - EARLY JURASSIC

- TJqmd Biotite-hornblende quartz monzodiorite, quartz diorite, granodiorite, tonalite and diorite
- TJm Hornblende-biotite monzonite, quartz monzonite, monzodiorite and diorite
- TJd Hornblende diorite, monzodiorite, quartz monzonite and gabbro; locally includes monzonite and syenite
- TJp Clinopyroxenite, hornblende clinopyroxenite, hornblende and mafic gabbro; locally includes olivine clinopyroxenite, wehrlite, diorite, monzodiorite and intrusion breccia

MIDDLE AND LATE TRIASSIC

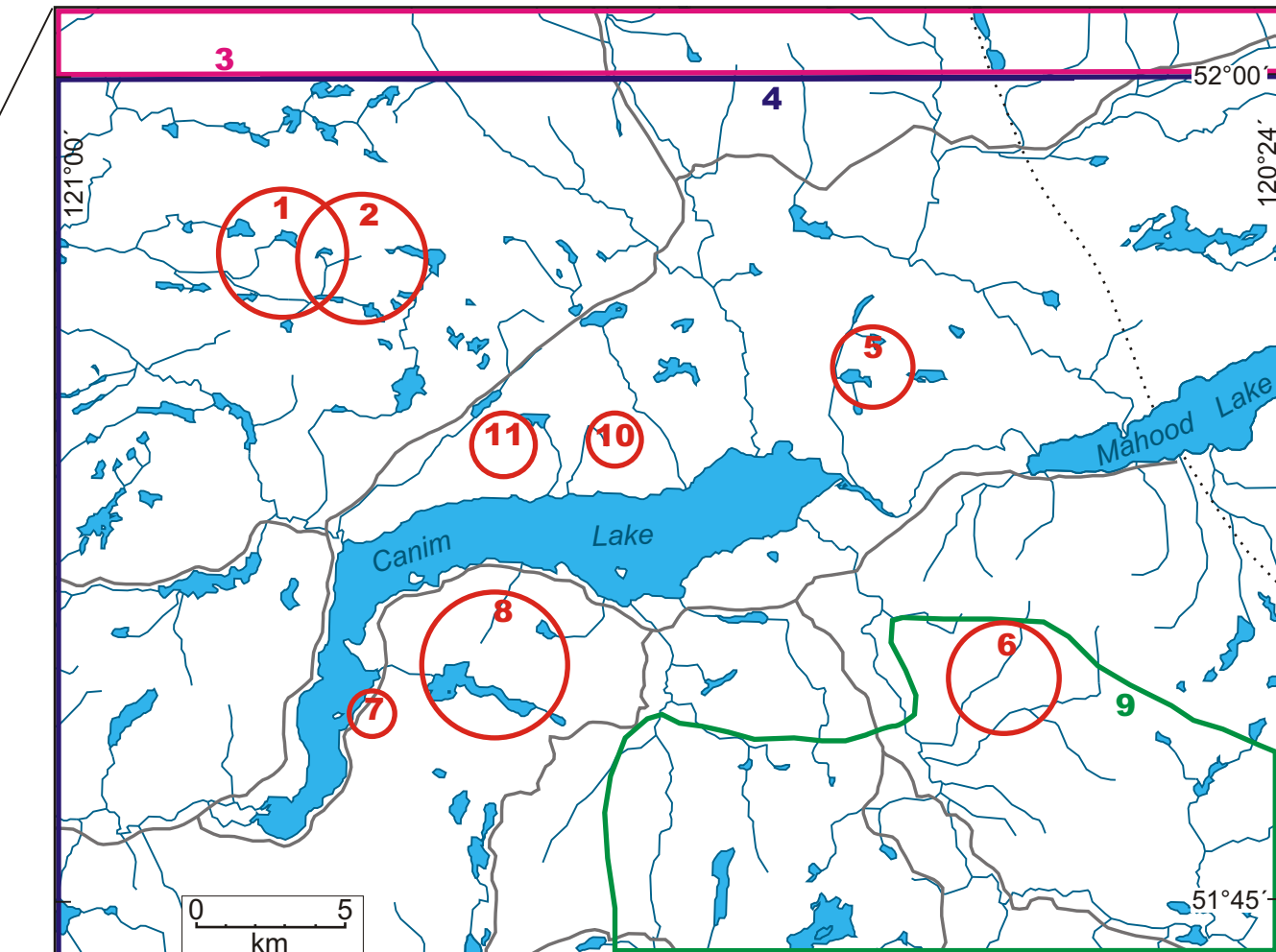
Nicola Group

- Volcaniclastic succession
 - uTNsv Volcanic sandstone, siltstone, conglomerate and breccia; locally includes pyroxene-feldspar-phryic basalt, argillite, calcareous sandstone, sandy limestone, slate and chert
 - uTNsvb Breccia subunit: mafic volcanic breccia with clasts dominated by pyroxene-phryic basalt; lesser amounts of pillowed to massive pyroxene-feldspar-phryic basalt, volcanic sandstone, conglomerate and siltstone; minor amounts of limestone
 - uTNsv Basalt subunit: pyroxene-feldspar-phryic basalt; minor amounts of volcanic breccia
- Meridian Lake succession
 - uTNms Siltstone and argillite; minor amounts of sandstone
- Lemieux Creek succession
 - muTNls Slate, phyllite and siltstone; lesser amounts of sandstone, calcareous sandstone and limestone

SYMBOLS

- Geological contact (defined, approximate, inferred).....
- Fault (defined, approximate, inferred).....
- Bedding, tops known (horizontal, inclined, overturned).....
- Bedding, tops unknown (inclined, vertical).....
- Slaty cleavage or schistosity (inclined, vertical).....
- Crenulation cleavage (inclined).....
- Axis of mesoscopic fold.....
- Mineral occurrence with MINFILE number (Table 1).....
- Assay sample (Table 2).....
- Field station (shown only where not indicated by another symbol).....
- Limit of mapping.....
- Topographic contour (100 metre interval).....
- Road (paved, major gravel trunk road, all others).....

Geological interpretation based mainly on mapping by the BC Geological Survey in 2005
Additional sources of information shown below



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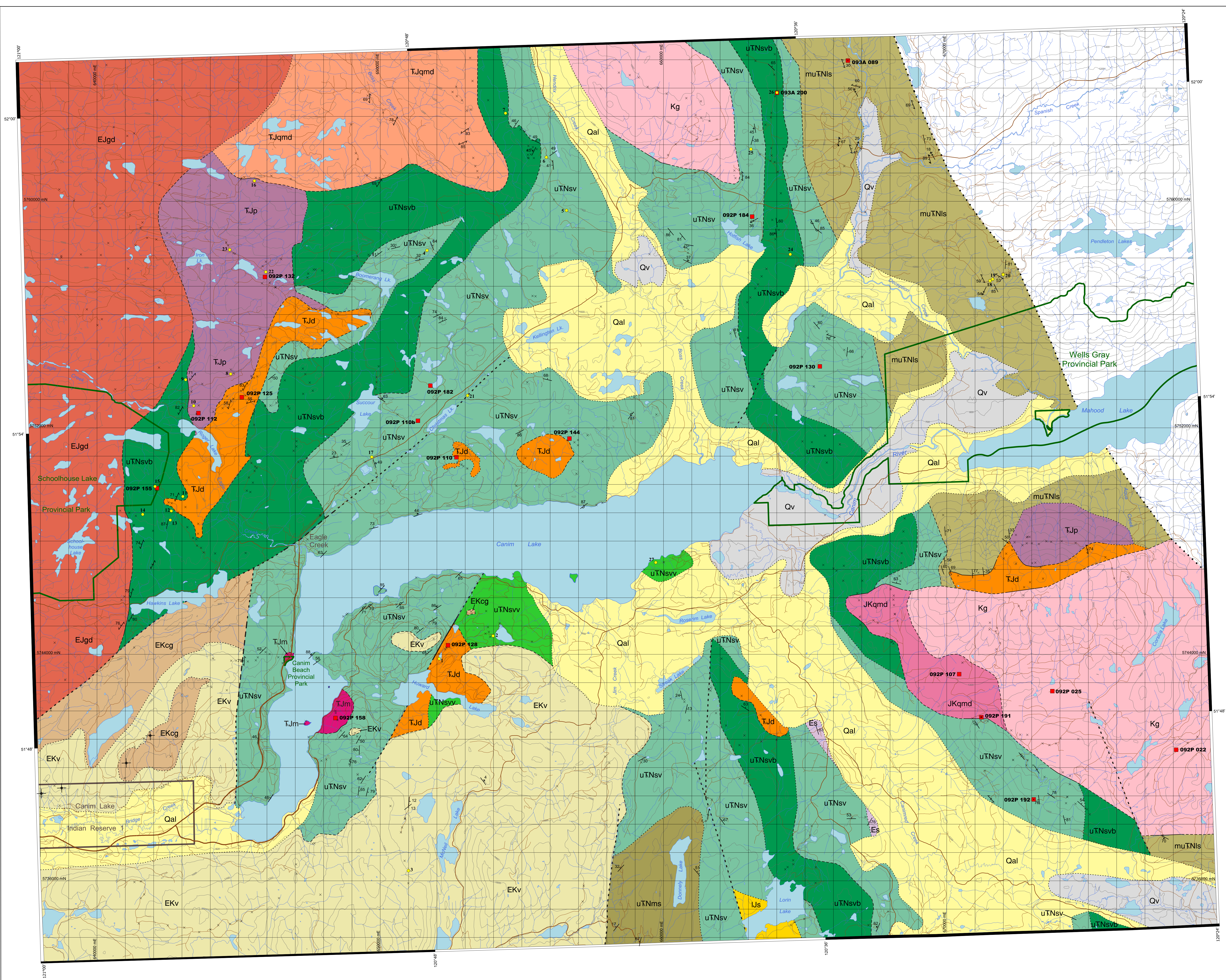


TABLE 2: ASSAY DATA; SAMPLES COLLECTED DURING 2005 FIELD SEASON

Map Reference	Sample	Easting	Northing	Rock Type	Element															
					Unit	Mo	Cu	Pb	Zn	Ag	Ni	Co	Fe	As	Sb	Bi	P	Cr	Ba	B
					Method	ARMS	ARMS	ARMS	ARMS	ARMS	ARMS	ARMS	ARMS	ARMS	ARMS	ARMS	ARMS	ARMS	ARMS	ARMS
					Lab	ACM	ACM	ACM	ACM	ACM	ACM	ACM	ACM	ACM	ACM	ACM	ACM	ACM	ACM	ACM
					Detect limit	0.01	0.01	0.01	0.1	2	0.1	0.1	0.01	0.1	0.02	0.02	0.001	0.5	0.5	1
1	05ABO-11	652080	5743844	weathered/alterd diorite, malachite	uTNsv	0.37	512.42	5.29	109	142	13	22	5.64	0.4	0.04	-0.02	0.167	22.8	58.2	7
2	05ABO-16	653084	5744653	andesite with disseminated pyrite	uTNsv	1.74	154.52	4.35	63	74	15.2	25.8	5.61	2.4	0.17	0.08	0.158	21.3	51.3	14
3	05ABO-29	650995	5736359	gossan in volcanic breccia	uTNsv	0.73	36.31	10.31	54.8	31	27.5	18.1	5.01	1.08	0.08	0.16	0.226	65.3	163.8	1
4	05ABO-33	651651	5752658	rudy zone along basalt/sandstone contact	uTNsv	0.61	48.5	2.19	44.4	103	97.2	20	4.09	26.7	0.75	0.03	0.089	154.3	51.3	-1
5	05ABO-38	656576	5756880	float: gossanous pyritic siltstone	uTNsv	1.03	38.38	4	29.7	27.7	13.9	12.9	4.76	2.5	0.32	0.07	0.058	19.9	48.3	3
6	05ABO-42	655863	5761596	pyrite siltstone	uTNsv	0.93	69.43	6.23	69.3	489	20.9	10.4	4.94	4.2	0.78	0.11	0.07	27.3	73.6	3
7	05ABO-48	654423	5763112	gossan: probable volcanic breccia host	uTNsv	0.34	97.66	2	52	75	87.3	28.8	3.94	5.7	0.83	0.04	0.107	182.8	80.5	7
8	05ABO-70	644717	5753802	hornblende pyroxenite with traces of sulphide mineral	uTNsv	0.4	174.07	2.47	47.4	109	18.7	19.2	2.91	1	0.06	-0.02	0.204	103.3	288.7	1
9	05ABO-72	643130	5753700	foliated volcanic breccia, malachite, magnetite, pyrrhotite	uTNsv	0.54	145.3	2.15	59.3	1241	17	24.9	6.68	1.6	0.07	0.11	0.23	46.7	92.1	1
10	05ABO-74	643414	5752780	intrusion breccia: magnetite, pyrrhotite	uTNsv	0.18	67.11	7.5	133.8	49	18.9	27.2	6.15	0.6	0.06	0.08	0.353	62.1	74.9	2
11	05ABO-84	643230	5749575	altered volcanic breccia with boronite in Knap veins	uTNsv	0.33	781.7	1.28	14.5	717	13	3.6	1.84	1.6	0.2	0.08	0.213	107.3	137	3
12	05ABO-95	642524	5749054	chlorite-epidote-feldspar-calcite-altered volcanic breccia, pyrite, boronite	uTNsv	1.66	100.01	1.04	20.8	55	20.6	11.5	3.27	1.5	0.14	-0.02	0.109	88.9	81.9	2
13	05ABO-99	642586	5748743	calcite-veined basalt, malachite	uTNsv	0.52	401.43	1.23	34.6	106	17.8	19	3.39	2.3	0.16	-0.02	0.148	24.5	39.3	2
14	05ABO-103	641613	5748943	epidote-chlorite-Kap- altered volcanic breccia	uTNsv	0.61	39.86	1.42	40.7	34	2.7	14	3.43	4.8	0.42	0.03	0.307	8.2	42.3	2
15	05ABO-104	642409	5749929	limestone, malachite	uTNsv	0.17	796.79	0.97	10.4	80	42	6.1	0.94	2.1	0.07	-0.02	0.06	39.2	11.1	-1
16	05ABO-112	645557	5760726	chlorite-epidote-Ksp-magnetite-altered hornblende	uTNsv	0.28	66.56	0.46	26	24	22.3	32.4	11.2	0.4	0.29	0.03	0.009	3	37.7	3
17	05PSC-8	649700	5750689	rusty silicified rock	uTNsv	0.44	60.07	2.04	44.2	154	5.5	19	3.65	12.3	0.37	0.09	0.334	34	100.6	3
18	05PSC-20	671529	5757194	pyrite-rich silty phyllite	uTNsv	15.2	52.58	8.38	49	946	18.9	6.4	1.95	-0.1	0.53	0.17	0.147	69.1	186.2	-1
19	05PSC-21.1	671621	5757249	pyrite silty sandstone	uTNsv	8.62	34.9	7.1	121.1	210	41.2	16.7	3.3	34.7	2.01	0.12	0.153	25.8	68.8	-1
20	05PSC-23	671983	5757414	rusty pyrite lens in siltstone	uTNsv	19.37	25.97	23.33	30.8	331	34.2	31.6	12.03	72.4	4.04	0.06	0.307	141	22	1
21	05PSC-32	653084	5753141	silica-pyrite-altered rock	uTNsv	4.26	47.93	4.49	20.9	123	30.5	27.3	5.76	1.5	1.29	2.88	0.106	26.2	29.8	9
22	05PSC-59	645959	5757507	mineralized pyroxenite, pyrite, chalcopyrite, malachite, boronite	uTNsv	0.45	1426.31	2.45	38.8	805	1163	56.7	12.92	0.6	0.18	0.09	0.006	33.2	309.3	2
23	05PSC-62	644686	5756230	silicified pyritic rock	uTNsv	0.35	8.22	1.28	47.9	74	117.2	55.3	9.46	44.1	3.17	0.02	0.068	298	43	10
24	05PSC-97	664476	5758128	tsilwanite-altered rock	uTNsv	1.33	116.06	5.93	69.1	99	17.7	21.1	4.87	18.8	6.1	0.07	0.187	20.1	49.3	9
25	05PSC-143	663088	5761843	silica-pyrite-altered siltstone	uTNsv	4.04	143.83	12.32	165.6	1934	89.2	29.4	5.23	-1.1	1.78	0.12	0.211	109.3	50.9	5
26	05PSC-151.4	664008	5763841	Art showing: rusty, silicified felsite with clasts of pyrite-arsenopyrite	uTNsv	0.85	4.05	5.64	1.2	245	7.5	12	2.62	1914.8	7.02	0.06	0.46	13.2	119.9	11
27	05PSC-261	659727	5747244	silicified, pyrite-calcite-altered basalt	uTNsv	0.4	358.79	21.04	145.9	1873	42.7	48.3	8.66	44.7	2.48	1.55	0.233	124.7	17.2	3

Notes: Rock samples jaw crushed and split at GSB, Victoria; steel milled at Acme. ACM=Acme Analytical, Vancouver. ARMS=Aqua Regia digestion - ICPMS (one gram sample). FAIC=Fire assay (30 gram sample) - inductively coupled plasma emission spectrometry finish

TABLE 1: MINERAL OCCURRENCES

MINFILE No.	Name	Easting	Northing	Commodities	Description
092P 022	Double Lake	678100	5740830	Mo, Cu	molysdenite, pyrite, chalcopyrite disseminated in granite and along fracture planes
092P 025	CL	673730	5742700	Mo	molysdenite in quartz veins and along fractures
092P 107	Hood	670440	5743300	Cu, Mo	pyrrhotite, pyrite, chalcopyrite, trace molysdenite disseminated in diorite
092P 110	Christmas	662860	5750860	Au, Cu	pyrite, pyrrhotite (rare chalcopyrite) in volcanic and volcaniclastic rocks cut by diorite dikes/sills
092P 110b	Lisa	651330	5752250	Au	quartz-carbonate vein rubble, arsenopyrite
092P 112	July	643580	5752520	Cu	pyrite, chalcopyrite, boronite disseminated in diorite to monzonite dikes, intrusion breccia, pyroxenite
092P 125	Beer	645110	5753080	Cu	pyrite, pyrrhotite, chalcopyrite, boronite, malachite as disseminations and stringers, mainly in dioritic rocks
092P 128	Sleeping Giant	652590	5744320	Cu	pyrite, chalcopyrite, boronite disseminated in diorite, monzonite and diorite breccia
092P 130	Decapion Creek	665520	5754170	Cu, Zn, Ag	pyrite, pyrrhotite, trace chalcopyrite as disseminations; sphalerite in calcite-quartz stringers
092P 132	Island Lake	645930	5757330	Cu, Au, Pt, Pd, Co	pyrite, pyrrhotite, chalcopyrite, magnetite disseminated in ultramafic-mafic intrusive rocks and in quartz-carbonate-altered shear zones
092P 144	Well	656880	5751620	Cu	pyrite, minor chalcopyrite disseminated in volcanic sandstone and tuff
092P 155	Clay	642120	5749870	Cu, Au	boronite, chalcopite, chalcopyrite, malachite as blebs, disseminations and fracture coatings; mainly in volcanic breccia and limestone
092P 158	Canim	648420	5741750	Cu, Ag, Au	pyrite, chalcopyrite, magnetite, quartz in fractures and stockwork
092P 162	Cale	651770	5733490	Au, Ag, Cu	pyrite, pyrrhotite, arsenopyrite, chalcopyrite in quartz veins, quartz-carbonate veins and shears
092P 164	Hoffman Lake	663130	5754660	Cu, Zn, Ag, Au	quartz-carbonate veins: pyrite, chalcopyrite, sphalerite
092P 191	SHE-397	671222	5747779	Cu	chlorite-sulphide veins in quartz diorite, magnetite, pyrite, chalcopyrite
092P 192	SHE-174	673070	5738876	Cu, Pb, Zn	auriferous breccia, pyrite, pyrrhotite, chalcopyrite, galena, sphalerite
093A 089	DL	666510	5746071	Au, Ag, Pb	quartz veins, calcite, pyrite, galena, tetrahedrite, chalcopyrite
093A 200	Art	6763833	5763833	Cu, Au	pyrite, arsenopyrite in fault zone cutting felsite

1:50 000 topographic base produced from TRIM database supplied by LandData B.C.
Transverse Mercator Projection, Zone 10, North American Datum 1983

Recommended citation:
Schiarizza, P. and Boulton, A. (2006). Geology of the Canim Lake area, NTS 92P/15; BC Ministry of Energy, Mines and Petroleum Resources, Open File 2006-8, 1:50 000 scale