Province of British Columbia | Ministry of Energy, Mines and Petroleum Resources

GEOLOGICAL SURVEY BRANCH

OPEN FILE MAP 1989-24 (SHEET 1 OF 2)

GEOLOGICAL COMPILATION MAP OF THE ATLIN AREA

NTS 104N/12E & 11W

BY

DAVID V. LEFEBURE AND MICHAEL H. GUNNING

SCALE 1:20 000

LEGEND

VOLCANIC, SEDIMENTARY AND METAMORPHIC ROCKS

QUATERNARY

6 — UNCONSOLIDATED GLACIAL TILL AND POORLY SORTED ALLUVIUM

TERTIARY AND QUATERNARY

5 — OLIVINE BASALT FLOWS AND TEPHRA

LATE PALEOZOIC

CACHE CREEK GROUP

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FOURTH OF JULY BATHOLITH

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ATLIN INTRUSIONS

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* The ultramafic rocks are always spatially associated with the Cache Creek Group volcanic rocks.

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- Drill hole locality (RDH = Rotary Drill Hole) — O
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TABLE 1. ASSAY RESULTS FROM THE ATLIN MAP AREA

MAP NUMBER	Au ppb	Ag ppm*	Cu ppm*	Pb ppm*	Zn ppm*	Co ppm	Ni ppm*	Mo ppm	Cr ppm	Hg ppb	As ppm*	Sb ppm*	ROCK TYPE
DVL87-16	**110**	0.6	20	11	31	63	1270	<5	1400	<10	114	1.9	CSUM
DVL87-21	<20	<0.5	<10	<10	10	<10	5	<10	10	<1.0	<1.0	LMST
DVL87-22	20	0.5	4	28	4	3	26	2	-	10	18.4	0.5	QZV
DVL87-23	40	240	0.62%	0.22%	7.70%	8	37	2	-	83	3.8	12.0	SKRN
DVL87-25	20	50	0.26%	0.13%	0.11%	45	38	5	-	21	1.1	0.6	SKRN
DVL87-27	<20	<0.5	38	<10	89	41	61	<5	150	11	<1.0	<1.0	MVC
DVL87-30	<20	<0.5	39	10	102	48	65	<5	209	<10	1.4	<1.0	MV
DVL87-30a	<20	<0.5	60	<10	100	44	79	<5	210	<10	<1.0	<1.0	AVC
DVL87-32	<20	<0.5	17	<10	15	52	920	<5	156	10	2.3	<1.0	QZV
DVL87-35	<20	<0.5	<10	14	49	98	1827	<5	1960	<10	<1.0	<1.0	AUM
DVL87-41	60	<0.5	50	<10	93	49	70	13	210	<10	<1.0	<1.0	MV
DVL87-42	<20	<0.5	<10	15	51	100	1960	<5	1675	13	4.7	<1.0	UM
DVL87-47	40	<0.5	<10	<10	<10	81	13	<5	15	<10	1.4	<1.0	QZV
DVL87-48	**150**	<0.5	64	<10	76	20	12	<5	<10	<10	17.2	1.0	AMV
DVL87-50	<20	<0.5	12	<10	121	30	39	<5	41	<10	8.6	<1.0	SS
DVL87-51	<20	<0.5	<10	15	80	44	<10	<5	<10	<10	<1.0	<1.0	SLBG
DVL87-71	70	<0.5	38	14	78	43	300	<5	560	<10	<1.0	<1.0	DIOR
DVL87-72	**140**	45.1	<10	6600	450	83	<10	<5	<10	32	<1.0	10	QZV
DVL87-75	<20	<0.5	<10	13	26	89	1505	<5	850	12	28.2	1.7	CUM
DVL87-75a	<20	0.5	<10	<10	60	44	691	<5	993	20	130	12.7	QZV
DVL87-77	**5700**	445	665	411	158	49	450	<5	690	2000	860	850	QZV
DVL87-78	**1000**	<0.5	51	12	102	42	39	5	100	10	<1.0	<1.0	DIOR
DVL87-80	<20	<0.5	39	14	84	43	307	<5	560	10	2.9	1.7	DIOR
DVL87-82	<20	<0.5	<10	<10	35	30	<10	12	18	11	<1.0	<1.0	FJB
DVL87-97	**750**	<0.5	<10	13	54	22	41	<5	16	10	5.8	<1.0	RD
DVL87-100	<20	<0.5	38	10	77	40	278	<5	543	<10	<1.0	<1.0	DIOR
DVL87-106	<20	<0.5	30	11	117	40	318	<5	560	<10	<1.0	<1.0	FJB
DVL87-107	90	<0.5	<10	10	50	14	11	<5	14	<10	3.0	<1.0	RD
MHG87-1	<20	<0.5	<10	15	34	<10	<10	5	15	11	6.3	1.0	SBX
MHG87-3	<20	<0.5	33	24	81	28	129	7	332	10	21.2	6.9	LD
MHG87-5a	<20	<0.5	36	5	150	23	30	2	-	16	10	0.5	SS
MHG87-5b	<20	<0.5	84	11	14	19	<10	<5	<10	<10	1.4	<1.0	SS
MHG87-7	20	0.5	24	28	161	9	3	2	-	15	12.1	0.8	SS
MHG87-8	20	0.5	38	3	88	40	360	2	-	10	4.0	0.5	DIOR
MHG87-11	<20	<0.5	101	13	101	46	67	37	80	<10	1.3	1.4	MV
MHG87-12	<20	<0.5	<10	<10	34	57	960	<5	786	<10	63.8	4.8	CUM
MHG87-14a	<20	<0.5	14	14	87	44	392	7	721	<10	<1.0	<1.0	DIOR
MHG87-14b	<20	<0.5	44	13	81	39	249	6	498	<10	<1.0	<1.0	DIOR
MHG87-16	<20	<0.5	29	<10	51	32	28	<5	28	<10	4.3	<1.0	CHT
MHG87-17	<20	<0.5	76	<10	63	37	75	9	195	<10	<1.0	<1.0	RD
MHG87-18	<20	<0.5	14	15	40	84	1920	<5	900	11	2.1	<1.0	SERP
MHG87-21	<20	<0.5	<10	10	86	11	12	<5	<10	<10	<1.0	1.0	AD
MHG87-22	<20	<0.5	<10	<10	<10	<10	<10	<5	11	<10	<1.0	<1.0	LMST
MHG87-35	90	<0.5	19	<10	33	13	<10	<5	43	<10	2.3	<1.0	PS
MHG87-59	<20	<0.5	58	<10	82	14	17	<5	47	10	11.3	1.0	SS
MHG87-63	20	<0.5	22	<10	51	64	1380	<5	1200	10	590	22.1	MV

* Values given in weight per cent where indicated.

ANALYTICAL TECHNIQUES

Samples are pulverized to approximately minus 200 mesh using tungsten carbide equipment.

Au: Analysed by Acme Analytical Laboratories of Vancouver, by graphite furnace atomic absorption spectroscopy (AAS) on a 20 gram sample.

Cu, Pb, Zn, Co, Ni, Mo, As, Sb: Analysed by BCMEMPR Analytical Sciences Section, using a multi-acid HF digestion and determined by AAS.

Background corrections were made for Pb, Co, Ni, Mo, As and Sb. Cr determined by wavelength dispersive sequential X-Ray Fluorescence spectrometry.

Hg was determined by flameless AAS from a perchloric-nitric digestion.

ROCK TYPE CODES

AD = alaskite dyke, AMV = altered mafic volcanic, AUM = altered ultramafic, AVC = altered volcaniclastic, CHT = chert, CSUM = carbonate-silica altered ultramafic, CUM = carbonate altered ultramafic, DIOR = diorite, FJB = Fourth of July Batholith, LD = lamprophyre dyke, LMST = limestone, MV = mafic volvanic, MVC = mafic volcaniclastic, PS = pelitic metasediment, QZV = quartz vein, RD = rhyolite dyke, SBX = sedimentary breccia, SERP = serpentinite, SILC = silicified wallrock, SKRN = skarn, SLBG = Suprise Lake Batholith, SS = siliciclastic metasediment, UM = ultramafic.

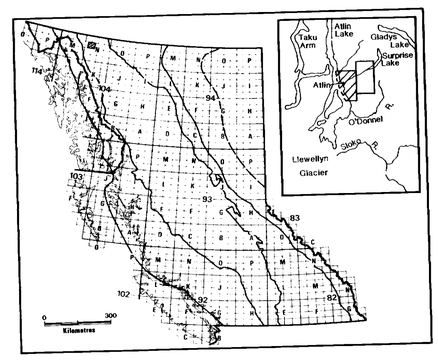
TABLE 2. FOSSIL DATA FOR THE ATLIN AREA*

SAMPLE NO.	G.S.C. NO.	MAP SHEET
MHG87-10	C154213	104N/11W

HOST ROCK: grey limestone
MAP UNIT: 2 (Cache Creek Group)
FOSSILS: Ostracode?
Conodont Taxa: elisionid? (2)
Color Alteration Index: 5

AGE: Probably Carboniferous to Permian

* Identified by Dr. M. Orchard, Geological Survey of Canada



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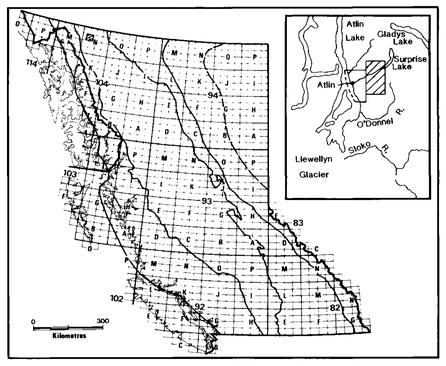

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