



LEGEND

MIDDLE DEVONIAN AND/OR OLDER

Pv METAVOLCANIC UNIT: (GSC Open File 2337)
mafic and intermediate metavolcanic rocks with minor metasedimentary and felsic meta-volcanic interlayers
 (property scale mappable units, stratigraphic sequence unknown)

Q quartz vein:
 milky white quartz vein or lens

Gbrfp biotite-quartz-feldspar Gneiss:
 pale grey-green, weakly to moderately foliated, coarse grained, biotite-quartz-feldspar gneiss, has the appearance of a weakly to moderately foliated porphyritic intrusion

Py Massive Sulphide Horizon:
 massive sulphide, primarily medium to coarse grained euhedral pyrite in a carbonate and barite in matrix, sphalerite occurs locally in brown banded horizons, chalcopyrite rarely visible

Argillite:
 black argillite and phyllite, occurring as a thin intermittent horizon, often associated with Sgm, bleached varieties grade into Sgm, known localities restricted to hanging wall of North Lens and foot wall of South Lens, distinctive but uncommon unit, most occurrences are too small to map

Sgm quartz-muscovite/sericite Schist:
 rusty weathering to white, quartz-muscovite/sericite schist, envelopes massive sulphide horizon in most areas, generally contains from 5 to 30% euhedral disseminated pyrite, commonly sheared, with quartz porphyroblasts in a talcose groundmass, mariposite may be present locally

Gamb quartz-muscovite-biotite Gneiss:
 fine grained, quartz dominant, thinly laminated leucocratic gneiss, sugary texture, low concentrations and variable ratios of muscovite, biotite, pyrite and hornblende, interbanded chlorite schist can be a significant component, these areas are mapped as Gbrfp/Sac: interbanded quartz-muscovite-biotite gneiss and quartz-chlorite schist, 30 to 50 cm bands

Sac quartz-chlorite Schist:
 olive green, fine grained, chlorite schist with highly deformed quartz segregations ranging in size from centimetre to metre scale

Seb chlorite-biotite Schist:
 pale olive green chlorite schist, with alternating medium brown biotite-bearing layers

Gbrfp hornblende-quartz-feldspar Gneiss:
 pale green, coarse grained, weakly foliated hornblende porphyritic metavolcanic?

Bm biotite-muscovite Gneiss:
 thinly laminated biotite-muscovite quartz-feldspathic gneiss, light and dark laminations pinch out over lens of centimetres to metre scale

Symbols

- Geological Boundary: defined, inferred, assumed
- Fault: defined, inferred
- Thrust Fault
- Joint plane with evidence of displacement
- Joint: inclined
- Foliation: vertical, inclined
- outcrop
- small outcrop
- cliff
- adit, waste dump
- rock sample location: bedrock, float
- mineralized float occurrence
- fericrete
- py pyrite
- cpy chalcopyrite
- gn galena
- sph sphalerite
- ba barite

Red Gulch Creek, showing rapids, chutes and falls

Rock Geochemical Analyses and Assay

Sample No	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ba ppm	Cu %	Zn %	Au ppt	Au opt	Ag opt
PD-E-94-001	145	5	111	0.1	1626				24	
PD-E-94-002	71	8	34	0.1	620				14	
PD-E-94-112					90321	0.007	5.98		0.003	0.41
PD-E-94-206	16636	517	1865	63.0	191939				910	
PD-E-94-207	12	27			2909				2	
US-E-94-012	59551	69	3410	70.6		5.750	0.43		0	0.202
US-E-94-013	13745	1160	2656	54.5					280	
US-E-94-014	952	816	3.1						43	
US-E-94-015	65	157	347	0.6					26	
US-E-94-015A	214	328	682	1.5					23	
US-E-94-016	1955	24	266	1.3					18	
US-E-94-016A	2074	15	241	1.4					26	
US-E-94-017	47	10	63	0.4					12	
US-E-94-017A	27	3	49	0.3					33	
US-E-94-018	76	9	34	0.6					15	
US-E-94-019	578	10	31	1.0					46	
US-E-94-020	346	18	12	0.8					42	
US-E-94-021	26	12	44	1.5					50	
US-E-94-022	1236	174	100	17.5		0.133			620	
US-E-94-023	843	28	130	23.9					730	
US-E-94-024	45	8	48	1.1					35	
US-E-94-025	175	4	256	3.3					150	
US-E-94-026	121	48	120	2.7					37	
US-E-94-027	97	93	88	2.4					88	
US-E-94-028	203	241	187	4.2					110	
US-E-94-029	112	24	28	0.8					28	
US-E-94-030	307	22	387	0.7					24	
US-E-94-031	15	19	22	0.4					22	
US-E-94-032	272	24	198	1.3					46	
US-E-94-033	81248	80	3069	189.2		10.429			3660	
US-E-94-034	325	538	175	11.9					100	
US-E-94-039	51	50	225	1.0					19	
US-E-94-040	215	324	52	12.1					270	
US-E-94-041	27	43	11	2.8					67	
US-E-94-042	15583	63	519	38.6					320	
US-E-94-043	164	297	514	1.0					21	
US-E-94-044	48	29	194	0.1					5	
US-E-94-045	4635	60	247	14.2					330	
US-E-94-046	6027	407	54855	40.3					300	
US-E-94-047	3052	29	1348	45.1	1353				1390	
US-E-94-048	38797	54	1025	60.6	1369				750	
US-E-94-052	4778	4585	6218	43.8	15682				660	
US-E-94-053	7028	751	9580	42.1	54572				910	
US-E-94-054	16302	139	4813	19.2	16407				870	
US-E-94-055	17480	322	2965	27.3	18247				760	
US-E-94-056	2838	47	46187	7.5	99200				390	
US-E-94-057	99299	91	16348	206.2	3425				6140	
US-E-94-058	14216	513	7483	70.4	1461				380	
R223626					650	23.300	1.65		1420	1100

MAPPED BY	ATNA RESOURCES LTD.			
U. Schmidt 09/94	ECSTALL PROPERTY			
	RED GULCH CREEK			
	GEOLOGY			
REVISED BY				
	SCALE	NTS	DATE	FIG. No
	1:1000	103H/13	Feb. 1995	4

* Check plots
farther north
SEE PHOTO COPY
US-E-94-44

129°00'45"

These contacts
were drawn to
compare with
contacts

STEEP SLOPE
NOT MAPPED

SAMPLE LOCATION
DETAIL
US-E-94-33
US-E-94-57
US-E-94-58

NORTH LENS

SAMPLE LOCATION
DETAIL
US-E-94-52 (Sph)
US-E-94-19
US-E-94-18
US-E-94-20
US-E-94-21
US-E-94-22
US-E-94-23

SOUTH LENS

STEEP SLOPE
NOT MAPPED

FALLS

* (Py, Py)
US-E-94-12 Gbqfp

PD-E-94-1

