



BC
 Ministry of Energy, Mines and Petroleum Resources

OPEN FILE 1992-2 (SHEET 1 OF 2)

GEOLOGY, MINERAL OCCURRENCES & GEOCHEMISTRY OF THE TAHLTAN LAKE - CHUTINE RIVER AREA, NORTHWESTERN BRITISH COLUMBIA
 NTS 104G/12W, 13

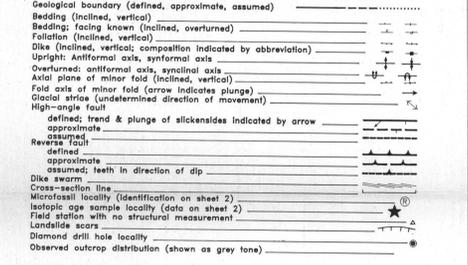
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Kilometres 0 1 2 3 4 Kilometres

SCALE 1 : 50 000

*** Comments and additional contributions would be appreciated (854) 358-8130 ***
 *** Descriptions of map units can be found in Brown et al. (1992) ***

- STRATIFIED ROCKS**
- QUATERNARY**
 Qal Alluvium, unconsolidated glaciofluvial deposits
- MIOCENE(?) - RECENT(?)**
 Mb Dark brown weathering, columnar jointed potassic andesite flows, minor tuff
- UPPER TRIASSIC**
- STIKINE GROUP**
 UTS Un differentiated volcanic and sedimentary rocks; arg = argillite; L = micritic limestone; LBX = limestone breccia/conglomerate; ts = tuffaceous waste
 UTSv Volcanic rocks; undifferentiated; tsal = tuffaceous siltstone
- Open File 1990-1**
 b Mafic volcanic rocks; augite-porphyrific basalt to basaltic andesite flows and breccia; pyroxene-rich crystal lithic lapilli tuff; volcanic wacke, dark green to olive-green, medium-grained, massive, minor plagioclase
 p Bladed plagioclase-porphyrific basalt or basaltic andesite, locally pillowed
 a Intermediate volcanic rocks; massive, green andesite flow-breccia containing 10-20% equant plagioclase phenocrysts; red-brown to purple plagioclase-rich volcanic breccia and tuff; fine-grained, massive, green to olive olivine andesite
 r Holocrystic monzonite crystal lithic lapilli tuff-breccia, commonly containing carbonate clasts, plagioclase and lesser pyroxene crystals
 f Felsic volcanic rocks; rhyolite/dacite; subaqueous felsic ash tuff, laminated, pale to dark green; shrapstone, siliceous wacke/breccia, pale to dark green, siliceous angular fragments
- UTSV1 Mafic volcanic rocks; clinopyroxene-hornblende phyrific basalt flows, crystal-lithic tuff
 UTSV2 Intermediate volcanic rocks; massive, hornblende-plagioclase-rich andesite block-tuff, minor flows, green & monzonite lithic fragments; UTSV2im = monzonite & green
 = limestone boulder conglomerate, a light grey, well-bedded, hornblende-rich tuff
 UTSV3 Massive, medium-grained, plagioclase-rich, tuffaceous wacke
 UTSV4 Bladed plagioclase phyrific basalt or basaltic andesite flows
- UTSs Sedimentary rocks; (s) = undifferentiated, well-bedded, tuffaceous siltstone, wacke, minor argillite, intraformational limestone-bearing conglomerate
- Open File 1990-2**
 Upper Carnian-Lower Norian
 UTSa1 Stikine River-Glomerate Creek area: Grey arkosic wacke with limestone clasts, siltstone, graphitic shale, rare black chert; rare granitoid-bearing polymict conglomerate/breccia; L1 = discontinuous limestone lenses
- MIDDLE TO UPPER TRIASSIC**
 Tc Chert, ribbon chert, siliceous siltstone; monzonite & green ash tuff
- STIKINE ASSEMBLAGE**
- LOWER PERMIAN**
 PS Grey calcarenite, minor argillite, siltstone, minor siliceous layers;
 P1 = recrystallized limestone
- PERMIAN OR OLDER**
 pPS Undifferentiated foliated volcanic and sedimentary rocks
- Open File 1990-3**
 pPSs Sedimentary facies: Foliated argillite, siltstone, calcareous siltstone and conglomerate, minor tuff and limestone
 pPSv Volcanic facies: Foliated, pyroxene-plagioclase phyrific, andesite flows and/or sills, crystal tuff and lithic lapilli tuff; a = massive andesite; p = pillow basalt; ps = green & lesser monzonite chert
 pPSi White to grey recrystallized limestone in both pPSs and pPSv
- UNKNOWN AGE**
 B Amphibolite (from Souther, 1972)
- INTRUSIVE ROCKS**
- TERTIARY AND OLDER DIKES**
 Andesite (A), basalt (B), felsite (F), rhyolite (R), syenite (S)
- Eocene**
 Egn Well-jointed, medium to coarse-grained (hornblende) biotite granite
- EARLY JURASSIC (?)**
 eja Medium-grained, biotite pyroxene alkali-feldspar syenite, equigranular to megacrystic porphyritic phenocrysts, partially preserved biotite clinopyroxene border phase (Tjcp)
- ejm** Medium-grained hornblende monzonite to monzodiorite
- LATE TRIASSIC (?) - JURASSIC (?)**
 TJ hd, hbd, hbd, bmd, bhmd, bhmd, hqm, bhmd, hqmd, qmd, hqd, ton
 Mafic minerals: Rock name:
 b = biotite
 h = hornblende
 md = monzodiorite
 qm = quartz monzonite
 qmd = quartz monzodiorite
 gd = granodiorite
 ton = tonalite
- ALASKAN-TYPE ULTRAMAFIC ROCKS**
 Tjcp Magnesian biotite clinopyroxenite



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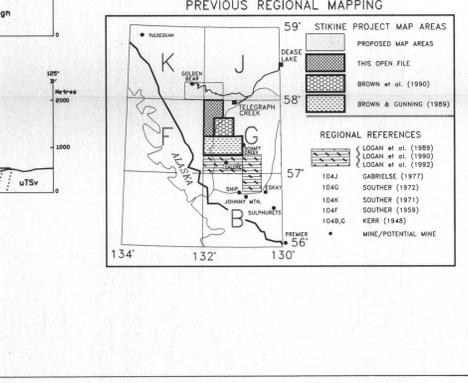
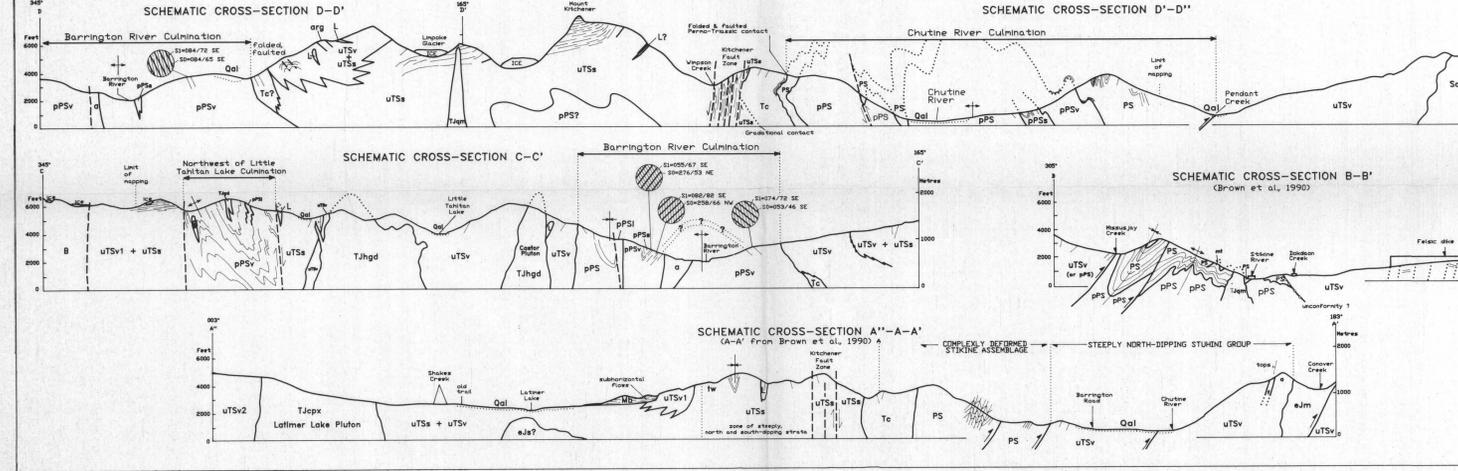
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REGIONAL STREAM SEDIMENT SAMPLE PERCENTILES FOR SELECTED ROCK UNITS IN THE CHUTINE AND TAHLTAN RIVERS MAP AREAS (104G12 AND 13)

ROCK UNIT	PERCENTILE	Au	Ag	Cu	Pb	Zn	Ni	Co	Mo	Sn	W	F	U	As	Sb	Hg	Ba	Fe
STRIKE (m)	75%	15	0.2	76	11	92	36	17	3	3	420	3.4	18	1	30	110	1100	1100
STRIKE (m)	95%	72	0.5	125	27	152	92	25	6	13	5	620	13.2	63	4.5	100	1484	1484
STUNNI (m)	75%	14	0.3	88	14	120	41	20	3	4	380	3.1	21	1.6	90	1100	1100	1100
STUNNI (m)	95%	103	0.6	137	32	227	91	30	6	8	530	8.2	64	4.6	220	1614	1614	1614
INTRUSION (m)	75%	11	0.2	54	13	80	21	14	3	3	430	10.8	6	0.5	25	1200	1200	1200
INTRUSION (m)	95%	65	0.5	149	41	146	54	24	9	6	630	29.2	34	1.4	95	1700	1700	1700

Note: Data from the Regional Geochemical Survey for Isot (104B), Sundum (104F), Telegraph Creek (104G) and Tulequeah (104H) map areas was sorted on codes for the above map units.
Rock codes are: Strike assemblage = C-Pav, P-C, m; Stunni Group = U-TV, U-Tp, U-Ts, U-Tw, U-Tv; Intrusions = J-KG, J-KG, K-Tp, K-Tp, P-Tp, T-A, Tg, Tg-Tv.
The assigned map unit is based on lithology at the stream sediment sample site as determined from 1:100,000 geology maps and may not reflect source lithology.

STREAM SEDIMENT GEOCHEMISTRY: TAHLTAN LAKE AND PART OF THE CHUTINE RIVER MAP AREAS (104G13, 12W)

RG5	UTM ZONE 9	Au(1)	Au(2)	Ag	Cu	Pb	Zn	Ni	Co	Mo	Sn	W	F	U	As	Sb	Hg	Ba	Fe	V
1009	324901	6392191	1	0.1	17	9	52	6	10	5	3	12	250	10.2	4	0.5	1054	305	259	64
1114	345502	6405262	1	0.1	40	4	64	15	11	4	27	1.5	2	0.5	1.5	0.5	841	209	318	106
1037	353906	6392382	1	2	0.2	12	52	141	24	1	4	2	900	1.6	12	0.7	30	656	469	30
1038	35474	6392319	3	0.1	8	5	20	6	4	1	3	8	150	19.9	1	0.1	5	1030	131	272
1042	323203	6391026	24	0.1	16	50	44	14	2	1	2	210	2.2	10	1	10	962	356	277	71
1096	322491	6397905	4	0.1	20	12	37	13	6	11	24	2	270	1.8	0.8	10	315	346	0.6	64
1097	322004	6398654	2	0.5	63	15	167	32	15	5	7	2	365	3.5	1.5	1.1	44	1215	645	312
1098	322029	6400100	10	0.2	102	9	46	24	15	4	8	2	295	2.1	10	0.5	30	1260	432	81
1099	323109	6401872	90	15	4	46	84	23	12	6	17	2	456	2.9	11	2.0	20	747	584	1.9
1100	321752	6400815	15	0.1	74	12	80	21	13	4	2	340	3.8	2.2	1.1	20	1062	300	258	95
1102	323380	6398996	5	0.5	91	12	207	39	14	3	6	2	240	3.2	9	2.2	75	1200	1106	42
1096	322491	6397905	4	0.1	20	12	37	13	6	11	24	2	270	1.8	0.8	10	315	346	0.6	64
1097	322004	6398654	2	0.5	63	15	167	32	15	5	7	2	365	3.5	1.5	1.1	44	1215	645	312
1098	322029	6400100	10	0.2	102	9	46	24	15	4	8	2	295	2.1	10	0.5	30	1260	432	81
1099	323109	6401872	90	15	4	46	84	23	12	6	17	2	456	2.9	11	2.0	20	747	584	1.9
1100	321752	6400815	15	0.1	74	12	80	21	13	4	2	340	3.8	2.2	1.1	20	1062	300	258	95
1102	323380	6398996	5	0.5	91	12	207	39	14	3	6	2	240	3.2	9	2.2	75	1200	1106	42
1103	325824	6405068	78	15	0.2	169	9	108	27	20	4	2	270	2.1	19	10	20	647	603	44
1104	325483	6404639	8	0.1	113	10	74	17	14	3	2	240	2.2	6	0.4	30	1270	428	314	104
1105	327793	6401445	11	0.2	62	38	60	43	20	1	2	270	2.8	1.2	0.5	130	720	387	87	85
1106	328300	6399017	4	0.2	54	27	124	32	20	1	3	230	3.4	3.5	1.6	25	1470	892	463	92
1107	331591	6397906	4	0.2	50	10	73	31	11	1	2	240	2.8	10.2	2.0	10	1190	523	346	62
1108	333924	6397622	40	5	0.1	252	19	13	38	17	1	2	240	2.8	10.2	2.0	10	1190	523	346
1110	330424	6404880	37	54	0.5	110	149	37	16	8	4	2	300	2.5	29	12	15	1470	807	439
1115	331086	6402951	55	87	0.3	125	8	24	18	3	4	2	300	2.5	29	12	15	1470	807	439
1116	337063	6404748	3	0.5	80	50	106	38	15	5	5	275	2.0	3.7	1.2	20	991	472	389	117
1120	336701	6408861	20	7	0.3	108	114	16	12	1	4	2	150	7.8	5	0.5	120	1400	1153	326
1122	342481	6407204	15	2	0.2	8	178	36	18	2	2	200	2.7	6	0.2	60	2176	683	344	110
1123	342447	6407303	1	0.6	84	7	177	36	17	7	8	2	340	2.8	6	2.0	65	2176	683	344
1124	338330	6404329	1	0.3	65	7	149	24	16	3	4	2	240	2.2	4	0.9	100	2099	725	355
1127	335115	6407070	65	37	0.3	107	9	46	17	14	1	2	300	2.2	10	0.7	15	1200	549	331
1128	335265	6405371	40	16	0.5	114	100	40	16	8	7	2	345	3.4	18	30	65	1670	649	359
1142	332030	6404664	16	0.2	121	14	110	21	18	1	4	2	170	2.0	13	0.5	125	599	2086	366
1143	332132	6412398	3	0.3	104	8	113	21	19	2	2	2	100	1.7	26	2.2	75	757	776	432
1144	334029	6416821	25	18	0.3	72	11	68	13	1	4	8	210	1.7	16	1.3	7	757	776	432
1145	323522	6409272	15	0.1	50	12	88	15	11	1	3	2	225	1.6	13	0.7	15	645	438	314
1146	323839	6424978	5	0.1	42	9	53	19	12	2	1	2	220	1.2	10	0.2	10	686	478	322
1148	323460	6421192	12	0.5	96	22	74	17	16	6	4	2	210	2.2	16	0.5	17	769	452	378
1149	324220	6416057	16	0.1	69	14	72	15	14	16	9	2	290	1.3	16	0.8	15	695	423	356
1150	327427	6416517	16	0.2	114	104	25	24	9	4	5	210	1.4	16	0.4	0.7	65	433	229	511
1151	328064	6419201	30	33	0.1	82	7	17	12	20	1	4	195	6.4	1	0.8	30	405	640	370
1152	327898	6418022	13	20	0.3	125	15	118	26	21	3	4	250	2.1	34	2.2	45	798	785	472
1153	327898	6418022	13	20	0.3	125	15	118	26	21	3	4	250	2.1	34	2.2	45	798	785	472
1154	329689	6417936	1	0.4	172	272	72	24	27	5	2	2	265	5.0	54	8.4	390	855	856	
1155	333881	6415559	296	8	0.2	161	10	168	32	22	2	4	2	180	1.9	15	2.3	65	822	905
1157	334781	6415570	1	0.1	103	10	90	16	20	1	0.1	103	1.0	16	0.4	0.7	65	433	229	
1158	334875	6416038	1	0.6	688	85	110	24	26	10	4	2	470	3.2	0.4	0.4	55	965	802	468
1159	335870	6411990	24	29	0.1	106	9	69	17	13	1	5	270	2.0	10	0.6	25	1120	480	301
1162	333358	6410784	28	27	0.1	165	8	67	43	20	1	2	460	5.8	1	0.7	136	1070	338	
1163	327468	6411446	14	0.2	80	10	81	17	11	2	9	2	240	2.3	21	2.0	10	1031	599	225
1164	327460	6411446	14	0.3	81	10	83	17	12	4	9	2	260	2.0	25	2.1	5	1102	596	225
1165	327853	6411027	75	0.3	188	19	93	20	20	2	0.2	388	1.9	10	0.4	0.5	120	1267	329	
1166	329058	6411484	1	0.1	118	8	145	33	20	4	3	2	200	1.9	20	2.5	60	1311	471	
1167	330134	6410177	238	326	0.5	481	6	169	15	17	10	4	475	8.4	2	0.3	90	896	510	
1178	327148	641015	7	0.1	125	137	35	22	9	1	2	330	1.7	18	1.5	86	1070	338		
1275	331163	6424678	3	0.1	81	8	92	24	19	1	1	2	160	1.1	6</					