



MACROFOSSIL AND CONODONT DATA FROM:

**SW KLUANE LAKE (115G&F[E½]),
MOUNT ST. ELIAS (115B&C[E½]),
SW DEZADEASH (115A), NE YAKUTAT (114O)
AND TATSHENSHINI RIVER (114P) MAP AREAS,
SOUTHWESTERN YUKON AND
NORTHWESTERN BRITISH COLUMBIA**

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R.H. Flower, J.W. Haggart, T.T. Uyeno, and S.E.B. Irwin**

1993

Open File 2731

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SW KLUANE LAKE (115G&F[E½]), MOUNT ST. ELIAS (115B&C[E½]),
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(114P) MAP AREAS, SOUTHWESTERN YUKON AND
NORTHWESTERN BRITISH COLUMBIA**

INTRODUCTION

This Open File reports 330 uninterpreted fossil data listings, representing all known 213 macrofossil and 117 conodont collections made to 1993 from the Saint Elias Mountains of Canada. The region comprises SW Kluane Lake (115G&F[E½]), Mount St. Elias (115B&C[E½]), SW Dezadeash (115A), NE Yakutat (114O) and Tatshenshini River (114P) map areas (Fig. 1). The macrofossil and conodont data are presented separately in grouped listings for each of these 1:250 000 scale NTS (Fig. 2) map areas. Localities of all macrofossil (M) and conodont (C) NTS grouped listings are given on accompanying, corresponding 1:250 000 scale, screened, geological maps (Maps 1,2,3,4, and 5).

Many of the macrofossils and conodont sample collections included here, were made during the course of Operation Saint Elias, a project undertaken by the Geological Survey of Canada intermittently during the 1970s and 1980s to complete geological mapping of the Saint Elias Mountains of Canada (Dodds and Campbell, 1992a,b,c,d). Operation Saint Elias collections of macrofossils (112 lots) and conodonts (78 lots) are reported respectively: (macrofossils) in (Bamber, 1975, 1975a,b, 1976, 1978, 1978a, 1982; B.D.E. Chatterton, pers. comm., 1987; Cooper, 1978; Flower, 1979; Jeletzky, 1975, 1978; Norford, 1975, 1978, 1981, 1987a,b; Norris, 1975, 1978, 1984; Pedder, 1975, 1977a,b, 1978, 1987; Ross, 1975, 1978; Tozer, 1974, 1975, 1976, 1977a,b, 1979, 1980, 1981, 1986, 1987); and (conodonts) in (Orchard, 1992a,b,c,h). Other sources of macrofossil data were Watson (1948), (9 lots); Kindle (1953), (5 lots); Sharp and Rigsby (1956), (1 lot); Wheeler (1963), (21 lots: in Harker, 1954; McLaren 1954, 1956a,b; Muller, 1967); Muller (1967), (39 lots); Falconbridge Ltd. (pers. comm., 1982), (2 lots); Still (1984), (2 lots); P.B. Read (pers. comm., 1992), (2 lots); Haggart (1993), (1 lot); and Mihalynuk, Smith et al. (1993a,b) and Mihalynuk et al. (1993), (19 lots: 6 lots in Norford, 1992a,b; 1 lot in Norris, 1992; 4 lots in McIver, 1992). Further sources of conodont collections were Orchard (1992b), (8 lots); Orchard (1992d), (2 lots); Orchard (1992e), (6 lots); Orchard (1992f), (9 lots); Orchard (1992g), (4 lots); Orchard (1992h), (3 lots); Orchard (1992i), (4 lots); Still (1984), (2 lots); and Mihalynuk, Smith et al. (1993a,b), (1 lot).

Identifications of macrofossil collections were by E.T. Tozer (35 lots), E.W. Bamber (31 lots), A.E.H. Pedder (31 lots), B.S. Norford (14 lots), A.W. Norris (3 lots), J.A. Jeletzky (10 lots), D.J. McLaren (21 lots), P. Harker (21 lots), J.W. Haggart (1 lot) - all members of the Geological Survey of Canada; and by G.A. Cooper (National Museum of Natural History - Smithsonian Institution, Washington, D.C.) (1 lot), C.A. Ross (University of Western Washington) (3 lots), R.H. Flower (New Mexico Bureau of Mines and Mineral

Resources) (1 lot), B.D.E. Chatterton (University of Alberta, Edmonton) (1 lot), E. McIver (University of Saskatchewan, Saskatoon) (4 lots). Identifications of conodont collections were by M.J. Orchard (116 lots) and T.T. Uyeno (1 lot), both of the Geological Survey of Canada.

Not included with the fossil listings in this Open File are palynological sample locations, data and age determinations on the Amphitheatre Formation from various parts of the Saint Elias Mountains in southwestern Yukon. For this information the reader is directed to Eisbacher and Hopkins (1977), and Ridgway (1992) and Ridgway et al. (1992).

For additional stratigraphic information on the Saint Elias Mountains of Canada, the reader is referred to: Dodds and Campbell (1992a,b,c,d); Read and Monger (1976); Mihalynuk et al. (1993); Mihalynuk, Smith et al. (1993a,b); Ridgway (1992); Dodds (1988); MacIntyre and Schroeter (1985); MacIntyre (1984); Lowey (1980); Eisbacher and Hopkins (1977); Eisbacher (1976); Muller (1967); Wheeler (1963); Kindle (1953); Watson (1948); Bostock (1952); Cairnes (1915) among others. The reader is also referred to appropriate chapters and correlation charts involving the stratigraphy of the Saint Elias Mountains of Canada and adjoins in Gabrielse and Yorath (eds.) (1991).

The geological terrane setting for Saint Elias Mountains is presented in Figure 3 with an accompanying legend. The occurrence of map units referred to in individual fossil listings (this report), in the various terranes and cover rocks of the region, are tabulated in Table 1. For further information on terranes and cover rocks, and their distribution in the Saint Elias Mountains and adjoining areas, the reader should see Wheeler et al. (1991) and Gabrielse and Yorath (eds.) (1991).

Compilation of fossil data for this Open File was by C.J. Dodds. Computer compilation of this data and some curation work was undertaken by S.E.B. Irwin of the Geological Survey of Canada.

ACKNOWLEDGMENTS

The authors wish to thank the many individuals who both directly and indirectly contributed to Operation Saint Elias, particularly those who found, collected, processed and helped in the identification of fossils reported in this Open File. Unfortunately they are too numerous to list here (see acknowledgments in Dodds and Campbell, 1992a,b,c,d; and also collector's names in individual fossil listings).

They would also like to thank Pat McFeely for draughting fossil locations on the accompanying maps, and Bev Vanlier for typing assistance.

MAP AREA INDEX

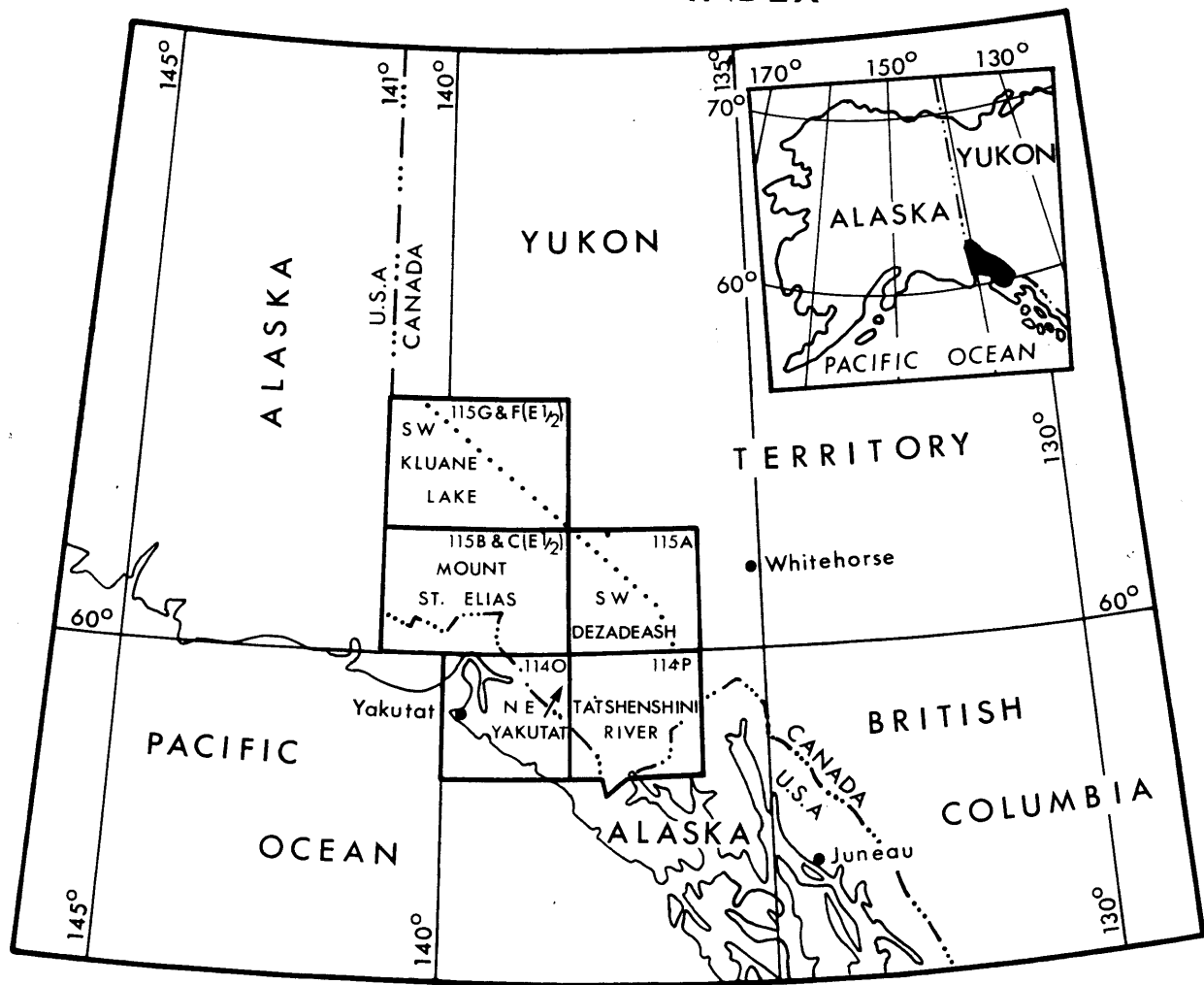


Figure 1. Map 1, SW Kluane Lake (115G & F(E1/2)); Map 2, Mount St. Elias (115B & C(E1/2)); Map 3, SW Dezadeash (115A); Map 4, NE Yakutat (114O) and Map 5, Tatshenshini River (114P).

National Topographic System (NTS) grid, Saint Elias Mountains and adjoining areas.

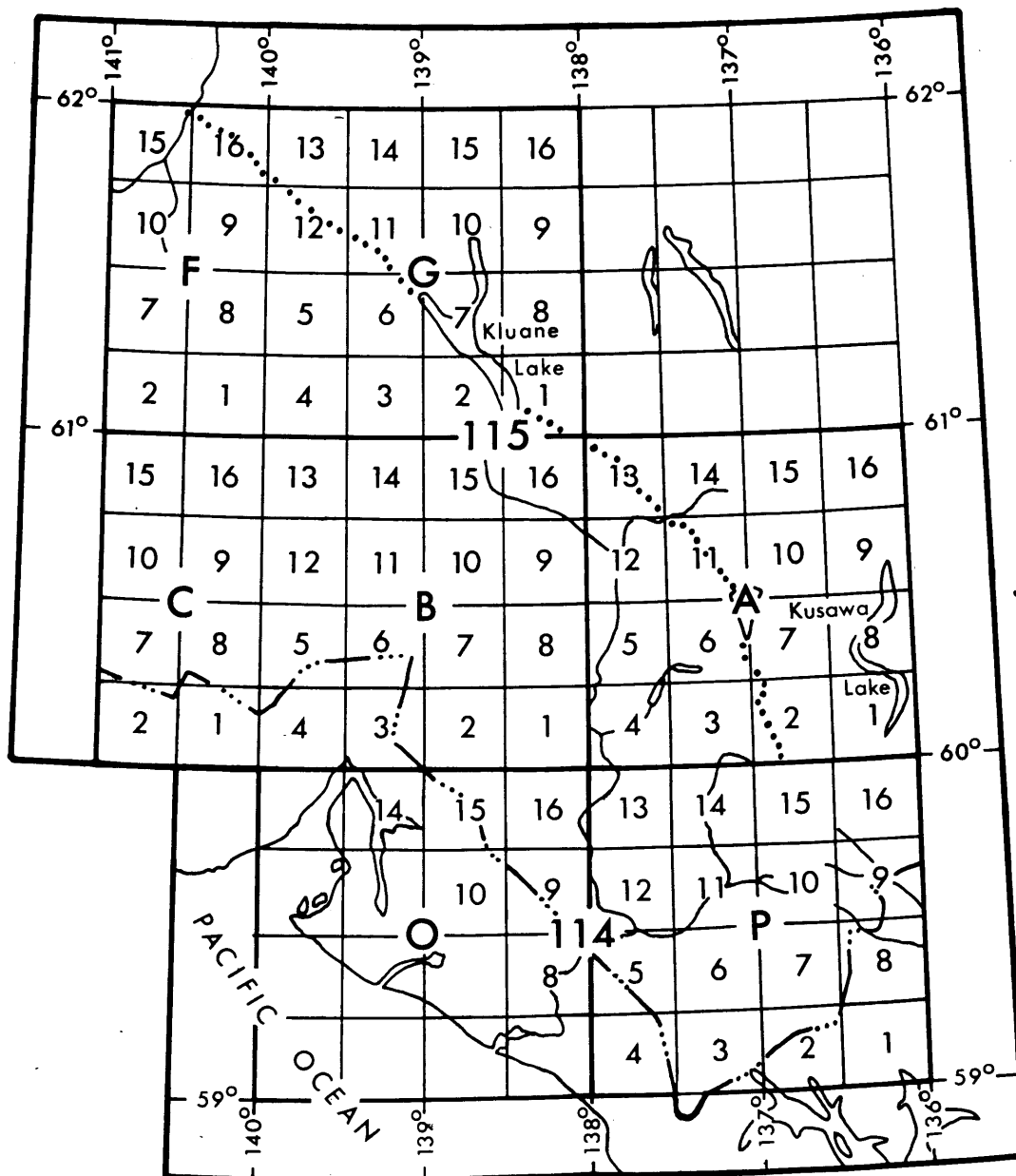


Figure 2.



LEGEND

COVER ROCKS

Tertiary

Tvs	nonmarine volcanics and sediments (mostly Wrangell Lava)
-----	---

Cretaceous

Ks	shallow marine sediments
----	--------------------------

Upper Jurassic-Lower Cretaceous

JKs	flysch, local volcanics (Gravina-Nutzotin)
-----	--

JKm	metasediments ("Kluane schist", and older rocks)
-----	--

TERRANES

YA	YAKUTAT (local Prince William)
----	--------------------------------

CG	CHUGACH
----	---------

W1,W2	WRANGELLIA (W1, W2)
-------	---------------------

W3,TU	WRANGELLIA (W3), TAKU
-------	-----------------------

W1?	WRANGELLIA (W1)?
-----	------------------

WM	WINDY-MCKINLEY
----	----------------

NS	NISLING (local undivided rocks)
----	---------------------------------

AX	ALEXANDER
----	-----------

PLUTONIC ROCKS

Tertiary

Mg	Wrangell suite (6-16 Ma): subvolcanics and granitoids
----	--

Og	Tkope suite & others (23-33 Ma): granitoids and subvolcanics
----	---

Eg	Seward suite (41-52 Ma)
----	-------------------------

Cretaceous-Tertiary

KTg	Coast Plutonic Complex (undivided)
-----	------------------------------------

KTb	gabbro-diabase plutons
-----	------------------------

Late Early Cretaceous

Kg	Kluane Ranges suite (106-121 Ma), & Alaskan-type mafic-ultramafics
----	---

Late Jurassic-earliest Cretaceous

JKg	Saint Elias suite (130-160 Ma)
-----	--------------------------------

Late Pennsylvanian-Early Permian

PPg	Icefield Ranges suite (270-290 Ma)
-----	------------------------------------

MAJOR FAULTS

T.F.S.	-	Transition Fault System
C.F.S.	-	Contact Fault System
C.S.F.S.	-	Chugach-St. Elias fault system
F.F.	-	Fairweather Fault
B.R.F.S.	-	Border Ranges Fault System
C.F.	-	Chitina Fault
H.F.	-	Hubbard Fault
D.R.F.	-	Duke River Fault
T.F.	-	Totschunda Fault
D.F.S.	-	Denali Fault System
C.S.F.	-	Chatham Strait Fault

OCCURRENCE OF MAP UNITS IN TERRANES AND COVER ROCKS

TERRANES	STRATIFIED UNITS	INTRUSIVE UNITS		STRATIFIED AND INTRUSIVE UNITS IN VARIOUS COVER ROCKS			
				JURA-CRETACEOUS COVER ROCKS		TERTIARY COVER ROCKS	
		GRANITOID	MAFIC/ ULTRAMAFIC	STRATIFIED UNITS	INTRUSIVE UNITS	STRATIFIED UNITS	INTRUSIVE UNITS
YAKUTAT (YA)	KY	Eg, Oggb				EK	
CHUGACH (CG)	KV, KVm, KVgn, KVv, KVvm	Eg	Oggb				
WRANGELLIA (WI?)	PMm, PMsv	PPy, JKg, JKgr, JKgd, Eg					
WRANGELLIA (WI)	PPs, Pc, uRN, uRC, uRM	PPy?, JKg		Ks			
ALEXANDER (AX)	IPgn, IPvm, IPvs, IPcs, Psa, Pvb, Ev, Ec, Evs, ECc, COWb, COs, COW, COWv, ODcs, OSwp, SDc, Dp, Dc, Psp, uPs, uPv, uPvs, uPc, uPpc, uPp, uPcs, uPcp, uPe	PPgd, PPqdi, PPydi, PPy, PPdi, PPg, JKg, JKgd, JKgr, Eg, Ogb, Oqd, Ogdp, Ogdp, Ogr, Ogp, Og, Of, IMg, Mf	COB uPbv?, PRub?, PRb?, Mb, KTb,	Ks		Pvs, Ps, Os, Nv, NW, NW1, NW2, NW3, NW4, NW1, NWpy, NWcg, NWm, NWu	Mf
WRANGELLIA (W2)	Pv, Pvx, Psv, Pc, Ps, PMvs, PRv, mRP, uRN, uRe, uRC, uRM, RKp?	Kg, Kgd, Kqd, Kdi, Kqm, Of, MDi, Mf	uPb, uPbv?, PRub, PRb, KTb	JKD, RKp	Kg	Os, Nv, NW, NW2, NW1, NWpy, NWcg, NWm, NWu, Pt	Mf
WRANGELLIA (W3, TAKU)	PMvs			JKD	IKub, IKb, Kgd, Of,	Os	
"COAST BELT" (?TERRANES(S))	PMgn, Msm (in part), Mc	KTg		Msm (in part)	KTg	Pv	

Table 1.

EXPLANATION OF MACROFOSSIL AND CONODONT LISTINGS

Each individual macrofossil (**M#**) and conodont (**C#**) data listing reported below, gives the following information.

(1) **FIELD NO./FLD. NO.: (M#)/(C#)**

- (a) Field sample number of collector.
- (b) (**M#**) or (**C#**) is macrofossil (**M#**) or conodont (**C#**) collection number assigned in this Open File, to key collection listings to maps 1,2,3,4 and 5 accompanying this Open File.

GSC LOC./GSC LOC. NO.

Unique catalogue number assigned to each fossil collection submitted to GSC.

(2) **LOCALITY/NTS, GEOGR**

- (a) e.g., 115F is NTS (National Topographic System, 1:250 000 scale) grid reference, together with name of 1:250 000 scale map area e.g., Kluane Lake.
- (b) UTM (Universal Transverse Mercator) grid reference: Zone; Easting, Northing.
- (c) **Lat./Long.** is latitude and longitude.
- (d) **/Description** is geographical description of fossil locality.

(3) **STRAT - Rock Unit**

- (a) Group, Formation name ("name" is informal) and/or map unit (symbols*) in which fossils occur.
N.B. (i) In most cases (except some collections from Tatshenshini River (114P) map area) Group, Formation name and/or map unit symbols* referred to in listings, are those used in GSC Open Files 2188, 2189, 2190 and 2191 (Dodds and Campbell, 1992a,b,c,d) and those on maps 1,2,3,4 and 5 accompanying this Open File.
(ii) In some cases in 114P, Group names and additional map unit symbols referred to, are those used in BCGS Open Files: 1993-12 (Mihalynuk, Smith et al., 1993a) and 1993-13 (Mihalynuk, Smith et al., 1993b).
- (b) **Lithology/Description** - lithology of rocks containing fossils.

(4) **COLLECTOR**

Name(s) of person(s) who found and/or made macrofossil or conodont sample collections in field.

(5) **IDENT. BY**

Name of paleontologist identifying fossils: affiliation, (year of reference).

(6) **FOSSILS/PALEO**

Name(s) of fossils identified in each collection.

CAI (Colour Alteration Index) is assigned numerical colour code index, signifying degree of thermal maturation of conodont specimens.

(7) **AGE**

Geological age assigned to fossil collections by identifying paleontologist.

(8) **REMARKS**

Any additional comments on collections made by identifying paleontologist. Also may include reference to any other collections of macrofossils and/or conodonts made at or close by a particular collection site.

- * For technical reasons, it was not possible to match all map unit symbols in individual fossil listings with those used on 1:250 000 scale geological maps in Dodds and Campbell (1992a,b,c,d). Should readers be unable to obtain this information from fossil locality maps 1,2,3,4 and 5 accompanying this Open File, they are referred to the legend in the report and maps accompanying Dodds and Campbell (1992a,b,c,d.).

**FOSSIL LISTINGS SW KLUANE LAKE
(115G&F[E½]) MAP AREA, YUKON**

**MACROFOSSILS: 115G LISTINGS
MACROFOSSILS: 115F[E½] LISTINGS
CONODONTS: 115G LISTINGS**

(Map 1 gives macrofossil and conodont localities)

MACROFOSSILS: 115G LISTINGS

FIELD NO. MV-74-6 (M42) GSC LOC. C-37903
 LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 576170E, 6796840N.
 Lat./Long.: 61° 18', 139° 34' 42"
 At elevation 6000 ft, about 3 km SW of Wade Mtn.
 STRAT - Skolai Group; Hasen Creek Formation, map unit Ps
 COLLECTOR - J.W.H. Monger
 IDENT. BY - E.W. Bamber: GSC (1975a, pers. comm., 1992)
 FOSSILS - Other:
 Ufimia sp.
 AGE - Upper Carboniferous or Permian
 REMARKS - See MV-74-11 (C-37905) also from very close to this site.

FIELD NO. MV-74-10a (M44) GSC LOC. C-37904
 LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 576800E, 6796750N.
 Lat./Long.: 61° 17' 57", 139° 33' 59"
 1.5 miles SW of Hoge Mtn.
 STRAT - Skolai Group; Hasen Creek Formation, map unit Ps
 COLLECTOR - J.W.H. Monger
 IDENT. BY - E.W. Bamber: GSC (1975a, pers. comm., 1992)
 FOSSILS - Other:
 brachiopod indet.
 sponges ?
 AGE - ? Carboniferous or Permian
 REMARKS - Poorly preserved fossils

FIELD NO. MV-74-11 (M43) GSC LOC. C-37905
 LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 576200E, 6796800N.
 Lat./Long.: 61° 17' 59", 139° 34' 40"
 At elevation 5750 ft. on hillside, 1.5 miles SSW of Wade Mtn.
 STRAT - Skolai Group; Hasen Creek Formation, map unit Ps
 COLLECTOR - J.W.H. Monger
 IDENT. BY - E.W. Bamber: GSC (1975a, pers. comm., 1992)
 FOSSILS - Other:
 plant fragments
 bryozoans indet.
 Spiriferella sp.
 licharewiinid brachiopod
 ? *Waagenoconcha* sp.
 orthotetid brachiopod
 productoid brachiopod, indet.
 AGE - Lower Permian
 REMARKS - Similar to the boreal Permian fauna from the Canadian Arctic

FIELD NO. MV-74-11a (M45) **GSC LOC. C-37906**
LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 576800E, 6796750N.
 Lat./Long.: 61° 17' 57", 139° 33' 59"
 At elevation 6200 ft. on hillside 1.5 miles SSW of Wade Mtn.
STRAT - Skolai Group; Hasen Creek Formation, map unit Ps
COLLECTOR - J.W.H. Monger
IDENT. BY - E.W. Bamber: GSC (1975a, pers. comm., 1992)
FOSSILS - Other:
 licharewiinid brachiopod
 productoid brachiopod
 inarticulate brachiopod
 ? plant fragments
AGE - ? Lower Permian
REMARKS - This fauna resembles the boreal fauna from the Canadian Arctic. See MV-74-11b (C-37907) also very close to this site.

FIELD NO. MV-74-11b (M46) **GSC LOC. C-37907**
LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 576800E, 6796750N.
 Lat./Long.: 61° 17' 57", 139° 33' 59"
 At elevation 6200 ft. on hillside 1.5 miles SSW of Wade Mtn.
STRAT - Skolai Group; Hasen Creek Formation, map unit Ps
COLLECTOR - J.W.H. Monger
IDENT. BY - E.W. Bamber: GSC (1975a, pers. comm., 1992)
FOSSILS - Other:
Zoophycos sp. (probable worm tracks)
AGE - Ordovician to Cenozoic
REMARKS - This trace fossil is most common in Permian rocks, but ranges from Ordovician to Cenozoic in age. See MV-74-11a (C-37906) also very close to this site.

FIELD NO. MV-74-17a (M47) **GSC LOC. C-37908**
LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 577400E, 6796250N.
 Lat./Long.: 61° 17' 40", 139° 33' 20"
 At elevation 4500 ft. by creek flowing into Hoge Creek from N side.
STRAT - Skolai Group; Hasen Creek Formation, map unit Ps
COLLECTOR - J.W.H. Monger
IDENT. BY - E.W. Bamber: GSC (1975a, pers. comm., 1992)
FOSSILS - Other:
 echinoderm fragments
 poorly preserved productoid brachiopods
AGE - Carboniferous or Permian

FIELD NO. MV-74-35 (M48)**GSC LOC. C-37909**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 581450E, 6795100N.
 Lat./Long.: 61° 17', 139° 28' 50"
 Pinnacle on top of ridge approximately 1 mile W of the foot of Burwash Glacier.

STRAT - Skolai Group; Hasen Creek Formation, map unit Ps

COLLECTOR - J.W.H. Monger

IDENT. BY - E.W. Bamber: GSC (1975a, pers. comm., 1992)

FOSSILS - Other:
 stenoscismatacean brachiopod bryozoan indet.

AGE - probably Lower Permian

FIELD NO. MV-74-44 (M49)**GSC LOC. C-37910**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 587150E, 6811950N.
 Lat./Long.: 61° 26', 139° 21' 59"
 At elevation 6300 ft. on ridge crest, between Kluane River and Tatamagouche Creek.

STRAT - Skolai Group; Hasen Creek Formation, (Golden Horn Limestone equivalent), map unit Pc

COLLECTOR - J.W.H. Monger

IDENT. BY - E.W. Bamber/C. Ross: GSC (1975a, pers. comm., 1992); U. of Western Washington (1975)

FOSSILS - Other:
 fusulinid with schwagerinid wall
 ? *Multithecopora* sp.
Bothrophyllum sp.
 bryozoans indet.

AGE - Lower Permian

FIELD NO. MV-74-47 (M50)**GSC LOC. C-37911**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 586000E, 6812500N.
 Lat./Long.: 61° 26' 19", 139° 23' 15"
 At elevation 5200 ft. in E facing cirque, W side of Shakwak valley.

STRAT - Skolai Group; Hasen Creek Formation, (Golden Horn Limestone equivalent), map unit Pc (included in PTRub)

COLLECTOR - J.W.H. Monger

IDENT. BY - E.W. Bamber: GSC (1975a, pers. comm., 1992)

FOSSILS - Other:
 "Fomichevella" sp.
 bryozoans indet.

AGE - Upper Carboniferous to Lower Permian

REMARKS - This coral genus ranges through Upper Carboniferous and Lower Permian and is common in the Stikine Assemblage and the Sverdrup Basin. See also MV-74-47a (C-37912) collected about 25 ft. below this site.

FIELD NO. MV-74-47a (M51) **GSC LOC. C-37912**
LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 586000E, 6812500N.
 Lat./Long.: 61° 26' 19", 139° 23' 15"
 At elevation 5200 ft. in E facing cirque, W side of Shakwak valley.
STRAT - Skolai Group; Hasen Creek Formation, (Golden Horn Limestone equivalent), map unit Pc (included in PTRub)
COLLECTOR - J.W.H. Monger
IDENT. BY - E.W. Bamber: GSC (1975, pers. comm., 1992)
FOSSILS - Other:
Fomichevella sp.
AGE - Upper Carboniferous and Lower Permian
REMARKS - See remarks for MV-74-47 (C-37911).

FIELD NO. MV-74-50b (M52) **GSC LOC. C-37913**
LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 583100E, 6812600N.
 Lat./Long.: 61° 26' 24", 139° 26' 31"
 At elevation 6100 ft. on ridge between Quill and Tatamagouche creeks.
STRAT - Skolai Group; Hasen Creek Formation, map unit Ps
COLLECTOR - J.W.H. Monger
IDENT. BY - E.W. Bamber: GSC (1975a, pers. comm., 1992)
FOSSILS - Other:
Fomichevella sp.
AGE - Upper Carboniferous and Lower Permian
REMARKS - See remarks for MV-74-47 (C-37911). See also conodonts from close to this site (C-095304).

FIELD NO. MV-74-114 (M53) **GSC LOC. C-37915**
LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 564150E, 6801750N.
 Lat./Long.: 61° 20' 47", 139° 48' 3"
 From talus at elevation 7400 ft. on ridge N of lower Steele Creek.
STRAT - Skolai Group; Hasen Creek Formation, map unit Ps
COLLECTOR - J.W.H. Monger
IDENT. BY - E.W. Bamber: GSC (1975a, pers. comm., 1992)
FOSSILS - Other:
Zoophycos sp.
 indet. bryozoans
 licharewiinid brachiopod
 orthotetid brachiopod
 productoid brachiopod
Spiriferella sp.
AGE - Lower Permian
REMARKS - This fauna resembles the boreal fauna from the Canadian Arctic.

FIELD NO. 36-CAd-74-1 (M54)**GSC LOC. C-37968**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 577700E, 6819400N.
 Lat./Long.: 61° 30' 8", 139° 32' 25"
 On ridge crest, SE of the upper reaches of Swede Johnson Creek, about 2 km NNE
 peak 7309 ft, Kluane Ranges.

STRAT - Chitistone/Nizina Limestone, map unit uTRC

COLLECTOR - C.J. Dodds

IDENT. BY - E.W. Bamber: GSC (1975, pers. comm., 1992)

FOSSILS - Other:
 poorly preserved bryozoans
 echinoderm fragments

AGE - insufficient material for age determination

FIELD NO. RL-74-2F (M55)**GSC LOC. C-38079**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 589250E, 6807750N.
 Lat./Long.: 61° 23' 43", 139° 19' 44"
 At 5000 ft. level between Tatamagouche Creek and peak 6372 ft.

STRAT - Nikolai Greenstone, map unit uTRN

COLLECTOR - P.B. Read

IDENT. BY - E.T. Tozer: GSC (1976, pers. comm., 1992)

FOSSILS - Other:
 juvavitinid ammonoid
Gonionotites ? sp. (one specimen, with suture line and venter)
 bivalves indet.
 orthoceraconic nautiloid indet.

AGE - Upper Triassic, Upper Carnian or Lower Norian, *Welleri* Zone or younger

REMARKS - Age is based on the juvavitinid ammonite.

FIELD NO. RL-74-12F (M56)**GSC LOC. C-38080**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 611002E, 6788627N.
 Lat./Long.: 61° 13' 5", 138° 56'
 At 7000 ft. level on NW side of ridge between Lewis Creek and Bock's Brook.

STRAT - Skolai Group; Hasen Creek Formation, map unit Ps

COLLECTOR - P.B. Read

IDENT. BY - E.W. Bamber: GSC (1975b, pers. comm., 1992)

FOSSILS - Other:
 fenestrate bryozoans
 echinoderm columnals
 ? productoid brachiopod, indet. - poorly preserved

AGE - Carboniferous or Permian

FIELD NO. RL-74-14F (M57)**GSC LOC. C-38081**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 621368E, 6773797N.
 Lat./Long.: 61° 4' 55", 138° 45'
 At 6250 ft. level on ridge between south and west forks of upper Congdon Creek.

STRAT - Skolai Group; Hasen Creek Formation, (Golden Horn Limestone equivalent), map unit Pc

COLLECTOR - P.B. Read

IDENT. BY - E.W. Bamber: GSC (1975b, pers. comm., 1992)

FOSSILS - Other:
 echinoderm columnals
 poorly preserved bryozoans

AGE - probably Paleozoic

REMARKS - Insufficient material for age determination.

FIELD NO. RL-74-15F (M58)**GSC LOC. C-38082**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 620800E, 6772848N.
 Lat./Long.: 61° 4' 25", 138° 45' 40"
 At 6575 ft. level on ridge between south and west forks of upper Congdon Creek.

STRAT - Skolai Group; Hasen Creek Formation, (Golden Horn Limestone equivalent), map unit Pc

COLLECTOR - P.B. Read

IDENT. BY - E.W. Bamber: GSC (1975b, pers. comm., 1992)

FOSSILS - Other:
 echinoderm fragments
 poorly preserved bryozoans

AGE - probably Paleozoic

REMARKS - Insufficient material for age determination.

FIELD NO. RL-74-17F (M59)**GSC LOC. C-38083**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 614800E, 6773100N.
 Lat./Long.: 61° 4' 40", 138° 52' 20"
 7850 ft. level on ridge top, 1.9 miles N of the head of Bullion Creek.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - P.B. Read

IDENT. BY - A.E.H. Pedder: GSC (1975, pers. comm., 1992)

FOSSILS - Other:
Thamnopora sp.

AGE - Silurian - Permian; probably Devonian

FIELD NO. RL-74-18F (M60)**GSC LOC. C-38084**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 614700E, 6770750N.
 Lat./Long.: 61° 3' 24", 138° 52' 31"
 5550 ft. level on N side of Bullion Creek; SE of divide to Duke River.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - P.B. Read

IDENT. BY - A.E.H. Pedder: GSC (1975, pers. comm., 1992)

FOSSILS - Other:
Dendrostella trigemme (Quenstedt)

AGE - Middle Devonian, probably Late Eifelian

FIELD NO. RL-74-19F (M61)**GSC LOC. C-38085**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 621272E, 6776580N.
 Lat./Long.: 61° 6' 25", 138° 45'
 At 6000 ft. level on SE side of ridge between Congdon Creek and south fork of Nines Creek.

STRAT - Skolai Group; Hasen Creek Formation, map unit Ps

COLLECTOR - P.B. Read

IDENT. BY - E.W. Bamber: GSC (1975b, pers. comm., 1992)

FOSSILS - Other:
Neospirifer sp.
 ? productoid brachiopods, indet.

AGE - Upper Carboniferous or Permian

FIELD NO. 83-CAd-74 (M62)**GSC LOC. C-38089**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 611500E, 6773500N.
 Lat./Long.: 61° 4' 60", 138° 55' 59"
 Upper Duke River, Donjek Ranges.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - C.J. Dodds

IDENT. BY - A.E.H. Pedder: GSC (1975, pers. comm., 1992)

FOSSILS - Other:
Dendrostella trigemme (Quenstedt)? uncertain identification

AGE - Middle Devonian, probably Late Eifelian

FIELD NO. 192-CAd-74-1 (M63)**GSC LOC. C-38090**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 592550E, 6779000N.
 Lat./Long.: 61° 8' 11", 139° 16' 53"
 Lower Bighorn Creek

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - C.J. Dodds

IDENT. BY - A.E.H. Pedder: GSC (1975, pers. comm., 1992)

FOSSILS - Other:
Amphipora sp.
Dendrostella trigemme (Quenstedt)

AGE - Middle Devonian, probably Late Eifelian

REMARKS - See 199-CAd-74-1 (C-38091) also from this locality.

FIELD NO. 199-CAd-74-1 (M64)**GSC LOC. C-38091**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 592550E, 6779000N.
 Lat./Long.: 61° 8' 11", 139° 16' 53"
 Lower Bighorn Creek.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - C.J. Dodds

IDENT. BY - A.E.H. Pedder: GSC (1975, pers. comm., 1992)

FOSSILS - Other:
Thamnopora sp.
Alveolites sp.

AGE - Silurian (less likely) or Devonian

REMARKS - See 192-CAd-74-1 (C-38090) also from this locality.

FIELD NO. 200-CAd-74-1 (M65)**GSC LOC. C-38092**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 561390E, 6786130N.
 Lat./Long.: 61° 12' 24", 139° 51' 27"
 NW side of unnamed glacier, 11.5 km SSE of the toe of Steele Glacier.

STRAT - map unit uPc

COLLECTOR - C.J. Dodds

IDENT. BY - A.E.H. Pedder: GSC (1975, pers. comm., 1992)

FOSSILS - Other:
 fossil fragments, indeterminate

AGE - indeterminate

REMARKS - See 200-CAd-74-1 (C-86419) for conodonts from this locality.

FIELD NO. 214-CAd-74-1 (M66)**GSC LOC. C-38093**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 592900E, 6787800N.
 Lat./Long.: 61° 12' 55", 139° 16' 14"
 SW side of Duke River valley; approximately 4 miles ESE of Mt. Hoge.

STRAT - map unit OSwp ?

COLLECTOR - C.J. Dodds

IDENT. BY - A.E.H. Pedder: GSC (1975, pers. comm., 1992)

FOSSILS - Other:
Alveolites ? sp.
Syringopora ? sp.

AGE - Silurian (less likely) or Devonian ?

FIELD NO. 215-CAd-74-1 (M67)**GSC LOC. C-38094**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 593200E, 6788200N.
 Lat./Long.: 61° 13' 8", 139° 15' 53"
 SW side of Duke River valley; approximately 4 miles ESE of Mt. Hoge.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - C.J. Dodds

IDENT. BY - A.E.H. Pedder: GSC (1975, pers. comm., 1992)

FOSSILS - Other:
 Organic objects, too recrystallized for identification

AGE - indeterminate

FIELD NO. K75-6F (M68)**GSC LOC. C-45973**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 615207E, 6784710N.
 Lat./Long.: 61° 10' 54", 138° 51' 27"
 At 6300 ft. level in a tributary at head of N fork of Nines Creek.

STRAT - Skolai Group; Hasen Creek Formation, map unit Ps

COLLECTOR - P.B. Read

IDENT. BY - E.W. Bamber: GSC (1976, pers. comm., 1992)

FOSSILS - Other:
 echinoderm fragments
 ? *Neospirifer* sp.
 ? orthotetid brachiopod
 chonetid brachiopod
Waagenoconcha sp.
 bryozoan indet.

AGE - Upper Carboniferous or Permian

FIELD NO. 63-CAb-77-1 (M69)**GSC LOC. C-76403**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 609400E, 6774100N.
 Lat./Long.: 61° 5' 17", 138° 58' 18"
 3 miles SSW of Dickson Creek.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - M. Downey

IDENT. BY - A.E.H. Pedder: GSC (1978, pers. comm., 1992)

FOSSILS - Other:
Thamnopora sp. indet.
Dendrostella trigemme (Quenstedt)
 digitate organisms - too recrystallized for identification

AGE - Middle Devonian, probably Eifelian, possibly Givetian

FIELD NO. 113-CAb-77-1 (M70)**GSC LOC. C-76404**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 622500E, 6770300N.
 Lat./Long.: 61° 3' 1", 138° 43' 53"
 5 miles W of Mt. Wallace.

STRAT - map unit uPpc

COLLECTOR - M. Downey

IDENT. BY - E.W. Bamber: GSC (1978, pers. comm., 1992)

FOSSILS - Other:
 fenestellid and ramose bryozoans very poorly preserved

AGE - Ordovician to Permian

REMARKS - Fusulinacean foraminifers also collected from this site see locality C-76406 (113-CAb-77-3) and C-76407 (113-CAb-77-4).

FIELD NO. 113-CAb-77-2 (M71)**GSC LOC. C-76405**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 622500E, 6770300N.
 Lat./Long.: 61° 3' 1", 138° 43' 53"
 5 miles west of Mt. Wallace.

STRAT - map unit uPpc

COLLECTOR - M. Downey

IDENT. BY - E.W. Bamber: GSC (1978, pers. comm., 1992)

FOSSILS - Other:
 fenestellid and ramose bryozoans - very poorly preserved

AGE - Ordovician to Permian

REMARKS - See remarks for locality C-76404 (113-CAb-77-1).

FIELD NO. 113-CAb-77-3 (M72)**GSC LOC. C-76406**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 622500E, 6770300N.
 Lat./Long.: 61° 3' 1", 138° 43' 53"
 5 miles W of Mt. Wallace.

STRAT - map unit uPpc

COLLECTOR - M. Downey

IDENT. BY - C.A. Ross: U. of Western Washington (1978)

FOSSILS - Other:
Parafusulina cf. *P. macdamensis* (Ross)
Parafusulina sp.

AGE - Late Permian, Guadalupian, Late Wordian or Early Capitanian.

FIELD NO. 113-CAb-77-4 (M73)**GSC LOC. C-76407**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 622500E, 6770300N.
 Lat./Long.: 61° 3' 1", 138° 43' 53"
 5 miles W of Mt. Wallace.

STRAT - map unit uPpc

COLLECTOR - M. Downey

IDENT. BY - C.A. Ross: U. of Western Washington (1978)

FOSSILS - Other:
 ? *Parafusulina* sp.

AGE - Probably Late Permian, possibly Leonardian - Late Wordian or Early Capitanian

REMARKS - Does not have specimen orientations that permit close comparisons. See 113-CAb-77-1 (C-76404), 113-CAb-77-2 (C-76405), and 113-CAb-77-3 (C-76406) also collected from this locality.

FIELD NO. 98-CAb-77-1 (M74)**GSC LOC. C-76412**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 618700E, 6767500N.
 Lat./Long.: 61° 1' 35", 138° 48' 12"
 S side of Bullion Creek, about 1/2 way between head and mouth.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - M. Downey

IDENT. BY - A.E.H. Pedder: GSC (1978, pers. comm., 1992)

FOSSILS - Other:
 tabulate coral, indet.

AGE - Paleozoic (post-Ordovician)

FIELD NO. 55-CAb-77-1 (M75)**GSC LOC. C-76414**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 605800E, 6776100N.
 Lat./Long.: 61° 6' 26", 139° 2' 14"
 About 5 miles SSE of the confluence of Grizzly Creek and Duke River.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - M. Downey

IDENT. BY - A.E.H. Pedder: GSC (1978, pers. comm., 1992)

FOSSILS - Other:
 pentamloid or stringocephalid indet. large

AGE - Silurian to Middle Devonian

FIELD NO. 285-CAd-77 (M76)**GSC LOC. C-76419**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 617900E, 6773000N.
 Lat./Long.: 61° 4' 33", 138° 48' 53"
 Ridge crest uppermost reaches of Dickson Creek.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - C.J. Dodds

IDENT. BY - A.E.H. Pedder: GSC (1978, pers. comm., 1992)

FOSSILS - Other:
 gastropods and other organic remains - too poorly preserved for identification

AGE - indeterminate

FIELD NO. (M3)**GSC LOC. O-17513**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 576504E, 6809836N.
 Lat./Long.: 61° 25', 139° 34'
 Wade Creek, about 1/2 mile upstream from junction with Maple Creek.

STRAT - Skolai Group; Hasen Creek Formation, map unit Ps

COLLECTOR - J.E. Muller

IDENT. BY - P. Harker: See Muller (1967, p. 38-39)

FOSSILS - Other:
Neospirifer - camaratus group
Spirifer alatus Schlotheim
Productus uralicus Tschern
Productus (Waagenoconchus) *humboldti* d'Orbigny
Productus (Linoproductus) *cora* d'Orbigny
Productus (Linoproductus) *weyprechtii* Toulou
Productus spp.
Spirifer spp.

AGE - Permian

FIELD NO. (M5)**GSC LOC. O-17514**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 580995E, 6808080N.
 Lat./Long.: 61° 24', 139° 29'
 Head of tributary of Maple Creek, between Tatamagouche and Wade creeks.

STRAT - Skolai Group; Hasen Creek Formation, map unit Ps

COLLECTOR - J.E. Muller

IDENT. BY - P. Harker: GSC in Muller (1967, p. 38-39)

FOSSILS - Other:
Productus (Linoproductus) cf. *P. weyprechtii* Toulou
Productus spp.

AGE - Permian

FIELD NO. (M7)**GSC LOC. O-17515**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 570440E, 6801661N.
 Lat./Long.: 61° 20' 40", 139° 41'
 Donjek River, east bank, across from Steele Creek.

STRAT - Chitistone Limestone, map unit uTRC

COLLECTOR - J.E. Muller

IDENT. BY - E.T. Tozer: GSC in Muller (1967, p. 52)

FOSSILS - Other:
Pteria polaris (Kittl)
Halobia sp. indet.

AGE - Upper Triassic, probably Carnian

FIELD NO. (M8)**GSC LOC. O-17517**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 565044E, 6804032N.
 Lat./Long.: 61° 22', 139° 47'
 Slide at head of tributary of Donjek River, between Cement and Steele creeks.

STRAT - Skolai Group; Hasen Creek Formation, map unit Ps

COLLECTOR - J.E. Muller

IDENT. BY - P. Harker: GSC in Muller (1967, p. 39)

FOSSILS - Other:
Spiriferella saranae var. *arctica* Haughton
Streptorhynchus sp.
Rhynchopora sp. cf. *R. nikitini* Tschern
Martinia sp.
Chonetes sp.
Productus weyprechtii Toulou
Productus uralicus Tschern
Productus neoinflatus Licharew
Productus cf. *P. irginae* Stuckenberg
Productus (Linoproductus) *cora* d'Orbigny
Echinoconchus sp.
Squamularia cf. *S. perplexa* McChesney
Aviculopecten sp. cf. *A. (Acanthopecten) elegantulus* Stuckenberg
Polypora sp.
 "Chaetetes" sp.
 crinoid stems
 crinoid calyces ? (poorly preserved mate)

AGE - Permian

FIELD NO. (M4)**GSC LOC. O-20271**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 576504E, 6809836N.
 Lat./Long.: 61° 25', 139° 34'
 Wade Creek, about 1/2 mile upstream from junction with Maple Creek.

STRAT - Skolai Group; Hasen Creek Formation, map unit Ps

COLLECTOR - J.E. Muller

IDENT. BY - P. Harker: GSC in Muller (1967, p. 38-39)

FOSSILS - Other:
Productus sp. cf. *P. humboldti* d'Orbigny
Productus (Linoproductus) *weyprechtii* Toulou
 ? *Marginifera* sp.
Chonetes sp.
Rhynchopora sp. cf. *R. nikitini* Tschern
Aviculopecten sp.
Pecten (Pseudamusium) *ufaensis* ? Tschern
Bellerophon sp. B
 small unidentified bivalves

AGE - Permian

FIELD NO. (M9)**GSC LOC. O-20272**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 573141E, 6800478N.
 Lat./Long.: 61° 20', 139° 38'
 A mile up gully on east side of Donjek River, 7 miles south of Wade Creek.

STRAT - McCarthy Formation, map unit uTRM

COLLECTOR - J.E. Muller

IDENT. BY - F.H. McLearn: GSC in Muller (1967, p. 53)

FOSSILS - Other:
Monotis subcircularis Gabb

AGE - Upper Triassic, Norian

FIELD NO. (M10)**GSC LOC. O-20273**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 574072E, 6798641N.
 Lat./Long.: 61° 19', 139° 37'
 One mile up gully, 1/2 mile southeast of locality O-20272 (float).

STRAT - McCarthy Formation, map unit uTRM

COLLECTOR - J.E. Muller

IDENT. BY - F.H. McLearn: GSC in Muller (1967, p. 53)

FOSSILS - Other:
Monotis subcircularis Gabb

AGE - Upper Triassic, Norian

FIELD NO. (M11)**GSC LOC. O-20274**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 578617E, 6795026N.
 Lat./Long.: 61° 17', 139° 32'
 About 3 miles up Hoge Creek.

STRAT - Skolai Group; Hasen Creek Formation, map unit Ps

COLLECTOR - J.E. Muller

IDENT. BY - P. Harker: GSC in Muller (1967, p. 40)

FOSSILS - Other:
 crinoid stems
 "*Chaetetes*"
 bryozoa
 fusulinid ? fragments

AGE - Lower Permian

FIELD NO. (M12)**GSC LOC. O-20275**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 585648E, 6808965N.
 Lat./Long.: 61° 24' 25", 139° 23' 45"
 0.5 mile up north tributary of Tatamagouche Creek, 3.5 miles up from Burwash Creek.

STRAT - map unit TRKp

COLLECTOR - J.E. Muller

IDENT. BY - H. Frebold: GSC in Muller (1967, p. 57)

FOSSILS - Other:
 "*Belemnites*" (*Pachyteuthis* ?) sp. indet.

AGE - Upper Jurassic or Lower Cretaceous

FIELD NO. M14**GSC LOC. O-20276**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 586242E, 6811921N.
 Lat./Long.: 61° 26', 139° 23'
 Top of ridge between Tatamagouche Creek and Shakwak Trench.

STRAT - Skolai Group; Hasen Creek Formation, map unit Ps

COLLECTOR - J.E. Muller

IDENT. BY - P. Harker: GSC in Muller (1967, p. 39-40)

FOSSILS - Other:
 Productus sp. ex gr. *P. cancrini* Verneuil
 Neophricodothyris sp. cf. *N. indica* Waagen
 Linoproductus sp.
 Chonetina ? sp.
 Stachella sp.
 "*Platysoma*" sp. cf. *P. indicum* Waagen
 Allorisma sp.
 unidentified bivalves
 Bellerophon sp. A

AGE - Lower Permian

REMARKS - Large species of *Allorisma* sp. possibly close to *A. komiensis* Maslennikow)

FIELD NO. (M13)**GSC LOC. O-20277**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 584962E, 6809722N.
 Lat./Long.: 61° 24' 50", 139° 24' 30"
 4.5 miles up Tatamagouche Creek.

STRAT - map unit TRKp

COLLECTOR - J.E. Muller

IDENT. BY - F.H. McLearn: GSC in Muller (1967, p. 53)

FOSSILS - Other:
 corals
 large gastropod

AGE - Mesozoic, probably Triassic

FIELD NO. (M15)**GSC LOC. O-20279**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 585535E, 6804474N.
 Lat./Long.: 61° 22', 139° 24'
 Gully N of second canyon of Burwash Creek, 10 miles upstream from Highway bridge.

STRAT - Skolai Group; Hasen Creek Formation, map unit Ps

COLLECTOR - J.E. Muller

IDENT. BY - P. Harker: GSC in Muller (1967, p. 40)

FOSSILS - Other:
 Linoproductus sp. ex gr. "*P. cora*"
 Neospirifer cameratus Morton
 Spirifer alatus Schlotheim

AGE - Lower Permian

FIELD NO. (M2)**GSC LOC. O-21409**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 571100E, 6793450N.
 Lat./Long.: 63° 5' 55", 139° 35' 35"
 Lower part of Spring Creek

STRAT - map unit SDc or uPc?
 Lithology: float

COLLECTOR - J.E. Muller

IDENT. BY - D.J. McLaren: GSC in Muller, 1967, p. 28

FOSSILS - Other:
 Alveolites sp.
 Syringopora sp.
 favositid corals
 large tetracoral
 rod algae?

AGE - probably Devonian, possibly Silurian or Mississippian

FIELD NO. (M16)**GSC LOC. O-28310**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 583083E, 6795129N.
 Lat./Long.: 61° 17', 139° 27'
 Ridge east of Burwash Glacier.

STRAT - Skolai Group; Hasen Creek Formation, (Golden Horn Limestone equivalent), map unit Pc

COLLECTOR - J.E. Muller

IDENT. BY - P. Harker: GSC in Muller (1967, p. 40)

FOSSILS - Other:
Productus sp. ex gr. *Productus arcticus-neoinflatus*
Productus sp.
Neospirifer sp.

AGE - Lower Permian

FIELD NO. (M17)**GSC LOC. O-28311**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 582005E, 6796651N.
 Lat./Long.: 61° 17' 50", 139° 28' 10"
 Ridge west of Burwash Glacier, south of limestone band.

STRAT - McCarthy Formation, map unit uTRM

COLLECTOR - J.E. Muller

IDENT. BY - E.T. Tozer: GSC in Muller, 1967, p. 53.

FOSSILS - Other:
Monotis subcircularis Gabb

AGE - Upper Triassic, Norian

FIELD NO. (M6)**GSC LOC. O-28311a**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 580995E, 6808080N.
 Lat./Long.: 61° 24', 139° 29'
 Head of tributary of Maple Creek, between Tatamagouche and Wade creeks.

STRAT - Skolai Group; Hasen Creek Formation, map unit Ps

COLLECTOR - J.E. Muller

IDENT. BY - P. Harker: GSC in Muller (1967, p. 38-39)

FOSSILS - Other:
Derbyia sp.
Linoproductus sp. ex gr. *L. cora*
Linoproductus sp. cf. *L. weyprechtii* Toulou
Productus sp. indet.
Neospirifer aff. *N. fasciger* Keyserling
Neospirifer sp. ex gr. *N. cameratus*
Spirifer sp. indet.
 large bivalve fragment

AGE - Permian

FIELD NO. (M18) **GSC LOC. O-28313**
LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 587131E, 6811943N.
 Lat./Long.: 61° 26', 139° 22'
 Top of ridge between Tatamagouche Creek and Shakwak Trench.
STRAT - Skolai Group; Hasen Creek Formation, (Golden Horn Limestone equivalent), map unit Pc
COLLECTOR - J.E. Muller
IDENT. BY - P. Harker: GSC in Muller (1967, p. 39-40)
FOSSILS - Other:
 Syringopora sp.
 Caninia sp. aff. *C. kiaeri* (Holtedahli)
 Caninia sp. aff. *C. ovibos* (Salter)
AGE - Lower Permian
REMARKS - See also MV-74-44 (C-37910) from very close to this site.

FIELD NO. (M19) **GSC LOC. O-28314**
LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 625286E, 6764798N.
 Lat./Long.: 61°, 138° 41'
 E slope of Bullion Creek, below Metalline Creek.
STRAT - map unit Dp
COLLECTOR - J.E. Muller
IDENT. BY - D.J. McLaren: GSC in Muller (1967, p. 28)
FOSSILS - Other:
 ? *Amphipora*
AGE - probably Devonian, but possibly Silurian

FIELD NO. (M20) **GSC LOC. O-28315**
LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 619465E, 6768870N.
 Lat./Long.: 61° 2' 3", 138° 47'
 Bullion Creek, 500 ft above mouth of Little Creek.
STRAT - "Bullion Creek Limestone", map unit Dc
COLLECTOR - J.E. Muller
IDENT. BY - D.J. McLaren: GSC in Muller (1967, p. 28)
FOSSILS - Other:
 ? *Amphipora*
 favositid corals cf. *Thamnopora*
AGE - probably Devonian, but possibly Silurian

FIELD NO. (M21)**GSC LOC. O-28690**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 623030E, 6777725N.
 Lat./Long.: 61° 7', 138° 43'
 Float in tributary of Congdon Creek, near pass to Nines Creek.

STRAT - map unit TRKp

COLLECTOR - J.E. Muller

IDENT. BY - J.A. Jeletsky: GSC in Muller (1967, p. 57-59)

FOSSILS - Other:
Buchia cf. *Buchia okensis* Pavlow
Buchia subokensis Pavlow or *trigonoides* (Lahusen)

AGE - Uppermost Jurassic to lowermost Cretaceous, upper Tithonian to Berriasian

FIELD NO. (M1)**GSC LOC. O-4874**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 587260E, 6797861N.
 Lat./Long.: 61° 18' 25", 139° 22' 15"
 Badlands Creek below Amphitheatre Mountain

STRAT - Amphitheatre Formation, map unit Os

COLLECTOR - H.S. Bostock/J.E. Muller

IDENT. BY - W.A. Bell/W.L. Fry: GSC in Muller, 1967, p. 83-84

FOSSILS - Other:
Alnus kenaiana Hollick
Alnus alaskana Newberry
Alnus cf. *A. alnifolia* (Goeppert) Hollick
Corylus evidens Hollick
Ulmus borealis Heer
Ulmus cf. *U. speciosa* Newberry
Salix sp.
Trochodendroides arctica (Heer)
Corylites hedridica Seward & Holtturn
Sequoia langsdorfi (Brongriart) Heer
Metasequoia occidentalis (Newberry) Chaney

AGE - Paleocene - early Eocene

FIELD NO. MV-74-1c (M77)**GSC LOC. O-91273**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 578200E, 6798500N.
 Lat./Long.: 61° 18' 52", 139° 32' 23"
 SE of Wade Mountain.

STRAT - Nikolai Greenstone?, map unit uTRN

COLLECTOR - J.W.H. Monger

IDENT. BY - E.T. Tozer: GSC (1974, pers. comm., 1992)

FOSSILS - Other:
 Bivalves and brachiopods indet, possibly *Palaeocardita*

AGE - Uncertain; if *Palaeocardita* probably Triassic

FIELD NO. MV-74-2b (M78)**GSC LOC. O-91274**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 577750E, 6798600N.
 Lat./Long.: 61° 18' 56", 139° 32' 53"
 Wade Mountain

STRAT - map unit mTrp

COLLECTOR - J.W.H. Monger

IDENT. BY - E.T. Tozer: GSC (1974, pers. comm., 1992)

FOSSILS - Other:
 Halobiid bivalve probably *Daonella* sp.

AGE - Middle or Upper Triassic; probably Middle

FIELD NO. MV-74-5 (M79)**GSC LOC. O-91275**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 576400E, 6798500N.
 Lat./Long.: 61° 18' 54", 139° 34' 24"
 SW of Wade Mountain

STRAT - McCarthy Formation, map unit uTRM

COLLECTOR - J.W.H. Monger

IDENT. BY - E.T. Tozer: GSC (1974, pers. comm., 1992)

FOSSILS - Other:
Monotis subcircularis Gabb

AGE - Triassic, Upper Norian

FIELD NO. MV-74-8d (M80)**GSC LOC. O-91276**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 577750E, 6797000N.
 Lat./Long.: 61° 18' 4", 139° 32' 55"
 S of Wade Mountain

STRAT - map unit mTrp

COLLECTOR - J.W.H. Monger

IDENT. BY - E.T. Tozer: GSC (1974, pers. comm., 1992)

FOSSILS - Other:
Daonella sp. group of *D. Tyrolensis*; cf.
Daonella degeeri (Boehm)

AGE - Triassic, Ladinian

FIELD NO. MV-74-30a (M81)**GSC LOC. O-91277**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 582250E, 6795700N.
 Lat./Long.: 61° 17' 19", 139° 27' 55"
 At head of Burwash Creek, where it flows out of "Burwash Glacier".

STRAT - Chitistone/Nizina Limestone, map unit uTRC

COLLECTOR - J.W.H. Monger

IDENT. BY - E.T. Tozer: GSC (1974, pers. comm., 1992)

FOSSILS - Other:
 ? *Sibyllonutilus* sp.

AGE - Middle or Upper Triassic

FIELD NO. MV-74-147 (M82)**GSC LOC. O-91693**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 581350E, 6810000N.
 Lat./Long.: 61° 25' 2", 139° 28' 33"
 At elevation 5300 ft. between Tatamagouche and Quill creeks.

STRAT - map unit TRKp

COLLECTOR - J.W.H. Monger

IDENT. BY - E.T. Tozer: GSC (1974, pers. comm., 1992)

FOSSILS - Other:
 Thick-whorled ammonite in section

AGE - indeterminate; probably Middle or Upper Triassic.

FIELD NO. MV-74-SC (M83)**GSC LOC. O-91695**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 588200E, 6808750N.
 Lat./Long.: 61° 24' 16", 139° 20' 53"
 N of Tatamagouche Creek.

STRAT - Nikolai Greenstone, map unit uTRN

COLLECTOR - J.W.H. Monger

IDENT. BY - J.A. Jeletzky: GSC (in Tozer, 1974)

FOSSILS - Other:
 cf. *Aulacoceras* sp.

AGE - Upper Triassic

FIELD NO. RL74-1F (M84)**GSC LOC. O-91948**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 596771E, 6790372N.
 Lat./Long.: 61° 14' 15", 139° 11' 50"
 At 5925 ft. level; 1.25 miles E of Duke River and 12.5 miles W of Ptarmigan (Windgap) Creek.

STRAT - McCarthy Formation, map unit uTRM

COLLECTOR - P.B. Read

IDENT. BY - E.T. Tozer: GSC (1975, pers. comm., 1992)

FOSSILS - Other:
Monotis subcircularis Gabb

AGE - Triassic, Upper Norian

FIELD NO. RL74-3F (M85)**GSC LOC. O-91949**

LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 591207E, 6792081N.
 Lat./Long.: 61° 15' 15", 139° 18'
 At 5250 ft. level 2 miles W of Duke River and 1.1 mile south of peak 7073 ft.

STRAT - McCarthy Formation, map unit uTRM

COLLECTOR - P.B. Read

IDENT. BY - E.T. Tozer: GSC (1975, pers. comm., 1992)

FOSSILS - Other:
Halobia or *Daonella* sp. poorly preserved fragments

AGE - Middle or Upper Triassic; probably Upper

REMARKS - See RL74-4F (O-91950) also from close to this site.

FIELD NO. RL74-4F (M86) GSC LOC. O-91950
 LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 591273E, 6792392N.
 Lat./Long.: 61° 15' 25", 139° 17' 55"
 At 5250 ft. level, 2 miles west of Duke River and 0.9 miles south of peak 7030.
 STRAT - McCarthy Formation, map unit uTRM
 COLLECTOR - P.B. Read
 IDENT. BY - E.T. Tozer: GSC (1975, pers. comm., 1992)
 FOSSILS - Other:
Monotis sp. indet. (possibly of scutiformis group)
 AGE - Triassic, Middle or Upper Norian
 REMARKS - See RL74-3F (O-91949) also from very close to this site.

FIELD NO. RL74-6F (M87) GSC LOC. O-91951
 LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 592457E, 6792732N.
 Lat./Long.: 61° 15' 35", 139° 16' 35"
 At 5200 ft. level, 1.1 miles W of Duke River and 1.0 miles SE of peak 7073 ft.
 STRAT - McCarthy Formation, map unit uTRM
 COLLECTOR - P.B. Read
 IDENT. BY - E.T. Tozer: GSC (1975, pers. comm., 1992)
 FOSSILS - Other:
Monotis subcircularis Gabb
 AGE - Triassic, Upper Norian

FIELD NO. RL74-7F (M88) GSC LOC. O-91952
 LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 593251E, 6790896N.
 Lat./Long.: 61° 14' 35", 139° 15' 45"
 At 4725 ft. level, in gully on W side of Duke River; 0.8 miles from river.
 STRAT - McCarthy Formation, map unit uTRM, (included in map unit uTRC)
 COLLECTOR - P.B. Read
 IDENT. BY - E.T. Tozer: GSC (1975, pers. comm., 1992)
 FOSSILS - Other:
Monotis spp. (? more than one level)
 AGE - Triassic, Middle and (or) Upper Norian

FIELD NO. RL74-8F (M89) GSC LOC. O-91953
 LOCALITY - 115G, Kluane Lake
 UTM: Zone 7, 594485E, 6792167N.
 Lat./Long.: 61° 15' 15", 139° 14' 20"
 At 3500 ft. level on E side of Duke River.
 STRAT - McCarthy Formation, map unit uTRM
 COLLECTOR - P.B. Read
 IDENT. BY - E.T. Tozer: GSC (1975, pers. comm., 1992)
 FOSSILS - Other:
Halobia or *Daonella* sp. indet.
 AGE - Middle or Upper Triassic; probably Upper

FIELD NO. RL74-13F (M90)**GSC LOC. O-91954**

LOCALITY - 115G, Kluane Lake
UTM: Zone 7, 603404E, 6795670N.
Lat./Long.: 61° 17', 139° 4' 15"
At 4500 ft. level, 1.6 miles W of Halfbreed Creek and 0.85 miles NE of peak 6800.

STRAT - map unit TRKp

COLLECTOR - P.B. Read

IDENT. BY - E.T. Tozer: GSC (1975, pers. comm., 1992)

FOSSILS - Other:
Coral (?) as yet undetermined

AGE - undetermined

FIELD NO. K75-9F (M91)**GSC LOC. O-93075**

LOCALITY - 115G, Kluane Lake
UTM: Zone 7, 621024E, 6783787N.
Lat./Long.: 61° 10' 18", 138° 45'
At 5600 ft. level on N side of Nines Creek N of junction of north and south forks

STRAT - Chitistone/Nizina Limestone, map unit uTRC

COLLECTOR - P.B. Read

IDENT. BY - E.T. Tozer: GSC (1976, pers. comm., 1992)

FOSSILS - Other:
fragment of ribbed bivalve
gastropod in section
ammonite ? in section

AGE - indeterminate

REMARKS - Nothing in O-93075 suggests a Paleozoic age. The fossils present do not conflict with the suggestion that they are from an equivalent of the Chitistone Limestone. In Alaska, the Chitistone Limestone locally contains a rich Upper Triassic fauna, including ammonites, gastropods, and bivalves.

MACROFOSSILS: 115F[E½] LISTINGS

FIELD NO. 92-K-8F (M40) GSC LOC. C-210050
 LOCALITY - 115F/15, Kluane Lake
 UTM: Zone 7, 512720E, 6870030N.
 Lat./Long.: 61° 57' 52", 140° 45' 27"
 At 5650' elevation on S side of Sanpete Creek, 5.13km at 118° from Hump Mountain
 STRAT - McCarthy Formation, map unit uTRM (included in uTRC)
 Lithology: bedded grey shaly limestone
 COLLECTOR - P.B. Read
 IDENT. BY - E.T. Tozer: GSC (P.B. Read, pers. comm., 1992)
 FOSSILS - Bivalves:
Monotis subcircularis Gabb
 AGE - Upper Triassic, Upper Norian, *Cordilleranus* Zone

FIELD NO. 92-K-11F (M41) GSC LOC. C-210053
 LOCALITY - 115F/15, Kluane Lake
 UTM: Zone 7, 512920E, 6868900N.
 Lat./Long.: 61° 57' 15", 140° 45' 13"
 At 5400' elevation, 5.93 km at 126° from Hump Mountain
 STRAT - McCarthy Formation, map unit uTRM (included in JKD)
 Lithology: Bedded grey limestone
 COLLECTOR - P.B. Read
 IDENT. BY - E.T. Tozer: GSC (P.B. Read, pers. comm., 1992)
 FOSSILS - Bivalves:
Monotis subcircularis Gabb
 AGE - Upper Triassic, Upper Norian, *Cordilleranus* Zone

FIELD NO. MV-74-81 (M92) GSC LOC. C-37578
 LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 500074E, 6828799N.
 Lat./Long.: 61° 35' 40", 140° 59' 55"
 About 3 km W of the source of Kletsan Creek.
 STRAT - Skolai Group; Hasen Creek Formation, (Golden Horn Limestone equivalent), map unit Pc
 COLLECTOR - J.W.H. Monger
 IDENT. BY - C.A. Ross: U. of Western Washington, Bellingham (1975)
 FOSSILS - Other:
Parafusulina sp. (primitive)
Schwagerina cf. *S. jenkinsi* (Thorsteinsson)
 AGE - Lower Permian, Lower to Middle Leonardian
 REMARKS - See also MV-74-82 (C-37581), MV-74-82f (C-37587) and MV-74-83a (C-37588) also collected from very close to this site.

FIELD NO. MV-74-82 (M93)**GSC LOC. C-37581**

LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 500074E, 6828799N.
 Lat./Long.: 61° 35' 40", 140° 59' 55"
 About 3 km W of the source of Kletsan Creek.

STRAT - Skolai Group; Hasen Creek Formation, (Golden Horn Limestone equivalent), map unit Pc

COLLECTOR - J.W.H. Monger

IDENT. BY - E.W. Bamber: GSC (1975a, pers. comm., 1992)

FOSSILS - Other:
 ? richthofenid brachiopod (incomplete specimen)

AGE - Permian

FIELD NO. MV-74-82f (M94)**GSC LOC. C-37587**

LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 500074E, 6828799N.
 Lat./Long.: 61° 35' 40", 140° 59' 55"
 About 3 km W of the source of Kletsan Creek.

STRAT - Skolai Group; Hasen Creek Formation, (Golden Horn Limestone equivalent), map unit Pc

COLLECTOR - J.W.H. Monger

IDENT. BY - E.W. Bamber: GSC (1975a, pers. comm., 1992)

FOSSILS - Other:
 aulophyllid coral

AGE - Upper Carboniferous or Permian

FIELD NO. MV-74-83a (M95)**GSC LOC. C-37588**

LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 500074E, 6828799N.
 Lat./Long.: 61° 35' 40", 140° 59' 55"
 About 3 km W of the source of Kletsan Creek.

STRAT - Skolai Group; Hasen Creek Formation, (Golden Horn Limestone equivalent), map unit Pc

COLLECTOR - J.W.H. Monger

IDENT. BY - E.W. Bamber: GSC (1975a, pers. comm., 1992)

FOSSILS - Other:
 Fomichevella sp.
 cyathopsid coral
 fusulinid foraminifers

AGE - Lower Permian

FIELD NO. SE-230-7C-74 (M96)**GSC LOC. C-39584**

LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 519200E, 6809100N.
 Lat./Long.: 61° 25' 2", 140° 38' 25"
 At about 7400 ft. on ridge approximately 4 km WNW of Mount Constantine.

STRAT - Skolai Group; Hasen Creek Formation, map unit Ps

COLLECTOR - J.G. Souther

IDENT. BY - E.W. Bamber: GSC (1975a, pers. comm., 1992)

FOSSILS - **Other:**
Antiquatonia sp.

AGE - probably Lower Permian

FIELD NO. (M22)**GSC LOC. O-31391**

LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 541321E, 6850090N.
 Lat./Long.: 61° 47', 140° 13'
 Kluane Ranges, north of the mouth of Sergerent Creek.

STRAT - Skolai Group; Hasen Creek Formation, map unit Ps

COLLECTOR - J.E. Muller

IDENT. BY - P. Harker: GSC in Muller (1967, p. 40-41)

FOSSILS - **Other:**
 corals, probably large caniniids
 bivalve ? indet.

AGE - Permian or Pennsylvanian

FIELD NO. (M23)**GSC LOC. O-31394**

LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 500884E, 6829472N.
 Lat./Long.: 61° 36', 140° 59'
 West fork of Kletsan Creek.

STRAT - Skolai Group; Hasen Creek Formation, (Golden Horn Limestone equivalent?), map unit Pc

COLLECTOR - J.E. Muller

IDENT. BY - P. Harker: GSC in Muller (1967, p. 41-42)

FOSSILS - **Other:**
Clisiophyllum ? sp.
Caninia cf. *C. ovibos* (Salter)

AGE - Permian, likely Lower Permian

FIELD NO. (M24)**GSC LOC. O-31397**

LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 500885E, 6827561N.
 Lat./Long.: 61° 35', 140° 59'
 Limestone south of forks of Kleisan Creek.

STRAT - Skolai Group; Hasen Creek Formation, (Golden Horn Limestone equivalent), map unit Pc

COLLECTOR - J.E. Muller

IDENT. BY - P. Harker: GSC in Muller (1967, p. 41-42)

FOSSILS - Other:
 lophophyllid ? corals
Dictyoclostus sp.
Waagenoconcha cf. *W. parvispinosa* Cooper
Kochiproductus cf. *K. freboldi* (Stephanson)
Neospirifer ex gr. *cameratus* (Morton)
 fusulinids, possibly *Parafusulina* sp. Poorly preserved.

AGE - Permian, likely Lower Permian

FIELD NO. (M25)**GSC LOC. O-31398**

LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 512309E, 6849863N.
 Lat./Long.: 61° 47', 140° 46'
 Saddle in Slaggard Ridge, north of Y-shaped lake.

STRAT - Skolai Group; Hasen Creek Formation, map unit Ps

COLLECTOR - J.E. Muller

IDENT. BY - P. Harker: GSC in Muller (1967, p. 41-42)

FOSSILS - Other:
 corals indet.
"Productus" sp. (possibly *P. weyprechtii* Toulou)
Spiriferella cf. *S. keilhavii* (von Buch)

AGE - Permian, likely Lower Permian

FIELD NO. (M26)**GSC LOC. O-31399**

LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 510550E, 6849857N.
 Lat./Long.: 61° 47', 140° 48'
 White River Upper Canyon, about 1000 ft upstream from old cabins.

STRAT - Skolai Group; Hasen Creek Formation, map unit Ps

COLLECTOR - J.E. Muller

IDENT. BY - P. Harker: GSC in Muller (1967, p. 41-42)

FOSSILS - Other:
Caninia ? sp.
 bryozoan fragments

AGE - Permian, likely Lower Permian

FIELD NO. (M36)**GSC LOC. O-31401**

LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 527136E, 6864802N.
 Lat./Long.: 61° 55', 140° 29'
 Kluane Ranges, just E of White River Canyon

STRAT - Skolai Group; Hasen Creek Formation, map unit Ps

COLLECTOR - J.E. Muller

IDENT. BY - P. Harker: GSC in Muller, 1967, p. 41-42

FOSSILS - **Other:**
Syringopora? sp.
 corals, somewhat crushed, possibly *Corwenia* sp.
 lophophyllid? corals

AGE - not commented on

FIELD NO. (M27)**GSC LOC. O-31402**

LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 530671E, 6861119N.
 Lat./Long.: 61° 53', 140° 25'
 Kluane Ranges, north of the tributary of Hazel Creek.

STRAT - Skolai Group; Hasen Creek Formation, map unit Ps

COLLECTOR - J.E. Muller

IDENT. BY - P. Harker: GSC in Muller (1967, p. 40-41)

FOSSILS - **Other:**
"Productus" sp.
Rhynchopora ? sp.
Cleiothyridina sp.
Neospirifer ex gr. *cameratus* (Morton)
 bryozoan fragments
 small indeterminate gastropods and bivalves

AGE - Permian or Pennsylvanian

FIELD NO. (M28)**GSC LOC. O-31403**

LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 501254E, 6827407N.
 Lat./Long.: 61° 34' 55", 140° 58' 35"
 Ridge south of forks of Kletsan Creek at bottom of the described section (Muller, 1967, p. 49).

STRAT - map unit mTrp

COLLECTOR - J.E. Muller

IDENT. BY - E.T. Tozer: GSC in Muller (1967, p. 52)

FOSSILS - **Other:**
Daonella ? sp.

AGE - Middle Triassic

FIELD NO. (M29)**GSC LOC. O-31404**

LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 501254E, 6826943N.
 Lat./Long.: 61° 34' 40", 140° 58' 35"
 Ridge south of forks of Kletsan Creek; about 920 ft above base of described section
 (Muller, 1967, p. 49).

STRAT - Nikolai Greenstone, map unit uTRN

COLLECTOR - J.E. Muller

IDENT. BY - E.T. Tozer: GSC in Muller (1967, p. 52)

FOSSILS - Other:
Halobia sp. ex gr. *Rugosa* Gumbel
 trachyceratid ammonite indet.
Atractites ? sp.

AGE - Upper Triassic, probably early Upper Triassic, Carnian

FIELD NO. (M30)**GSC LOC. O-31406**

LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 501032E, 6827407N.
 Lat./Long.: 61° 34' 55", 140° 58' 50"
 Ridge south of forks of Kletsan Creek; same beds as O-31404.

STRAT - Nikolai Greenstone, map unit uTRN

COLLECTOR - J.E. Muller

IDENT. BY - E.T. Tozer: GSC in Muller (1967, p. 52)

FOSSILS - Other:
Halobia sp. indet.
Sirenites sp. indet.

AGE - Upper Triassic, probably early Upper Triassic, Carnian

FIELD NO. (M31)**GSC LOC. O-31407**

LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 500874E, 6868408N.
 Lat./Long.: 61° 57', 140° 59'
 A gulley 0.5 miles NE of Border Monument 178.

STRAT - Dezadeash Group, map unit JKD

COLLECTOR - J.E. Muller

IDENT. BY - J.A. Jeletsky: GSC in Muller (1967, p. 58-59)

FOSSILS - Other:
Buchia cf. *B. okensis* Pavlow or *trigonoides* Lahusen
Buchia cf. *B. subokensis* Pavlow or
Buchia cf. *B. trigonoides* Lahusen

AGE - Uppermost Jurassic to lowermost Cretaceous, upper Tithonian to Berriasian

FIELD NO. (M32)**GSC LOC. O-31408**

LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 501747E, 6872122N.
 Lat./Long.: 61° 56', 140° 58'
 A gulley 1 mile east of Border Monument 178.

STRAT - Dezadeash Group, map unit JKD

COLLECTOR - J.E. Muller

IDENT. BY - J.A. Jeletsky: GSC in Muller (1967, p. 58-59)

FOSSILS - Other:
Buchia crassa Pavlow et var.
Buchia cf. terebratuloides Lahusen
 bivalves, genus and species indet.

AGE - Lower Cretaceous, early to middle Valanginian

FIELD NO. (M33)**GSC LOC. O-31409**

LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 500875E, 6866551N.
 Lat./Long.: 61° 56', 140° 59'
 A gulley 0.5 miles east of Border Monument 178.

STRAT - Dezadeash Group, map unit JKD

COLLECTOR - J.E. Muller

IDENT. BY - J.A. Jeletsky: GSC in Muller (1967, p. 58-59)

FOSSILS - Other:
Buchia cf. trigonoides Lahusen or *Buchia fischeri* (d'Orbigny)

AGE - Uppermost Jurassic to lowermost Cretaceous, upper Tithonian to Berriasian

FIELD NO. (M34)**GSC LOC. O-31410**

LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 500875E, 6866551N.
 Lat./Long.: 61° 56', 140° 59'
 A gulley 0.5 miles SE of Border Monument 178.

STRAT - Dezadeash Group, map unit JKD

COLLECTOR - J.E. Muller

IDENT. BY - J.A. Jeletsky: GSC in Muller (1967, p. 58-59)

FOSSILS - Other:
 Poor belemnite fragments probably belonging either to *Pachyteuthis* or to
Acroteuthis

AGE - Middle Jurassic to mid-Lower Cretaceous

FIELD NO. (M35)**GSC LOC. O-31411**

LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 540450E, 6850090N.
 Lat./Long.: 61° 48', 140° 14'
 Kluane Ranges, north of the mouth of Sergerent Creek.

STRAT - Skolai Group; Hasen Creek Formation, map unit Ps

COLLECTOR - J.E. Muller

IDENT. BY - P. Harker: GSC in Muller (1967, p. 40-41)

FOSSILS - Other:
Neospirifer sp.
 bryozoan fragments
 small pelecypods indet.

AGE - Permian or Pennsylvanian

FIELD NO. (M37)**GSC LOC. O-4985**

LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 503216E, 6858198N.
 Lat./Long.: 61° 51' 30", 140° 56' 20"
 Headwaters of McClellan Creek

STRAT - Amphitheatre Formation, map unit Os

COLLECTOR - J.E. Muller

IDENT. BY - D.C. McGregor: GSC in Muller, 1967, p. 83-84

FOSSILS - Other:
Corylites fosteri (Ward) Bell
Equisetum arcticum Heer
 cf. *Sequoia concinna* Heer

AGE - Early Tertiary suggested

REMARKS - The cited reports on plant fossils from Kluane Lake were written in 1958 and have not been revised (D.C. McGregor, pers. comm., 1993).

FIELD NO. (M38)**GSC LOC. O-4986**

LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 507316E, 6854800N.
 Lat./Long.: 61° 49' 40", 140° 51' 40"
 Creek S of Rabbit Creek

STRAT - Amphitheatre Formation, map unit Os

COLLECTOR - J.E. Muller

IDENT. BY - D.C. McGregor: GSC in Muller, 1967, p. 83-84

FOSSILS - Other:
 several fragments of *Alnus* or *Ulmus*

AGE - early Tertiary suggested

REMARKS - The cited reports on plant fossils from Kluane Lake were written in 1958 and have not been revised (D.C. McGregor, pers. comm., 1993).

FIELD NO. (M39)**GSC LOC. O-4987**

LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 533728E, 6817204N.
 Lat./Long.: 61° 29' 20", 140° 22'
 W cut bank of St. Clare Creek

STRAT - Amphitheatre Formation, map unit Os

COLLECTOR - J.E. Muller

IDENT. BY - D.C. McGregor: GSC in Muller, 1967 p. 83-84

FOSSILS - Other:

cf. *Ulmus*
 cf. *Alnus alnifolia*
Sapindus or *Salix*
Acanthotriletes
Calamospora
Leiotriletes(= *Deltoidospora*)

AGE - early Tertiary suggested

REMARKS - The cited reports on plant fossils from Kluane Lake were written in 1958 and have not been revised (D.C. McGregor, pers. comm., 1993).

FIELD NO. MV-74-130a (M97)**GSC LOC. O-91694**

LOCALITY - 115F E1/2, Kluane Lake
 UTM: Zone 7, 548200E, 6837260N.
 Lat./Long.: 61° 40' 2", 140° 5' 23"
 E side of Kluane Ranges, W of Donjek River (locality uncertain)

STRAT - map unit PMvs

COLLECTOR - J.W.H. Monger

IDENT. BY - E.T. Tozer: GSC (1974, pers. comm., 1992)

FOSSILS - Other:

Spondylospira sp.
 algal structures

AGE - Triassic

REMARKS - Most if not all *Spondylospira* spp. are Upper Triassic.

CONODONTS: 115G LISTINGS

GSC LOC. NO.: C-081553

NTS: Kluane Lake, 115G/5

FLD. NO.: 91-PBR-14-5 (C22)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 61° 27' 47", 139° 34' 13"

UTM: Zone 7; 576198E, 6814998N.

Description: Location most uncertain.

STRAT - Rock Unit: Skolai Group; Station Creek Formation, map unit Pv

Description: Carbonate.

PALEO - Fossils: conodonts, ichthyoliths

Conodont taxa:

CAI: 7

Neostreptognathodus? sp. (1)

AGE - Early Permian.

REMARKS - Fragments only.

GSC LOC. NO.: C-081555

NTS: Kluane Lake, 115G/5

FLD. NO.: 91-PBR-14-14 (C23)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 61° 28' 39", 139° 34' 4"

UTM: Zone 7; 576296E, 6816610N.

Description: Location uncertain.

STRAT - Rock Unit: Skolai Group; Station Creek Formation, map unit Pv

Description: Carbonate.

PALEO - Fossils: conodonts, ichthyoliths

Conodont taxa:

CAI: 5

cavusgnathoid (1)

AGE - Carboniferous - Early Permian.

GSC LOC. NO.: C-081556

NTS: Kluane Lake, 115G/6

FLD. NO.: 91-PBR-15-7 (C24)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 61° 25' 2", 139° 28' 3"

UTM: Zone 7; 581795E, 6810018N.

Description: Location uncertain.

STRAT - Rock Unit: Chitistone or Nizina? Limestone, map unit uTRC (included in uTRN)

Description: Carbonate.

PALEO - Fossils: conodonts, ichthyoliths

Conodont taxa:

CAI: 4 - 4.5

Epigondolella sp. cf. *E. triangularis* (Budurov 1972) (1)*Epigondolella* sp. indet. (10)*Epigondolella quadrata* Orchard 1991 (10)

AGE - Late Triassic, Early Norian

GSC LOC. NO.: C-081557

NTS: Kluane Lake, 115G/6

FLD. NO.: 91-PBR-15-9A (C25)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 61° 24' 27", 139° 25' 29"

UTM: Zone 7; 584100E, 6809000N.

Description: Location uncertain.

STRAT - Rock Unit: McCarthy Formation, map unit uTRM (included in TRKp)

Description: Carbonate.

PALEO - Fossils: conodonts, ichthyoliths, sphaeromorphs

Conodont taxa:

CAI: 3.5 - 4.5

ramiform elements (47)

Epigondolella carinata Orchard 1991 (13)*Epigondolella spiculata* Orchard 1991 (8)*Neogondolella steinbergensis* (Mosher 1968) (260)

AGE - Triassic, Middle Norian.

GSC LOC. NO.: C-081559

NTS: Kluane Lake, 115G/6

FLD. NO.: 91-PBR-16-1 (C26)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 61° 27' 47", 139° 28' 42"

UTM: Zone 7; 581098E, 6815109N.

Description: Location uncertain.

STRAT - Rock Unit: Skolai Group; Station Creek Formation, map unit Pv

Description: Carbonate.

PALEO - Fossils: conodonts, ichthyoliths

Conodont taxa:

CAI: 6

ramiform elements (2)

Neostreptognathodus sp. cf. *pequopensis* Behnken 1975 (1)

AGE - Early Permian, Artinskian.

GSC LOC. NO.: C-081560

NTS: Kluane Lake, 115G/5

FLD. NO.: 91-PBR-16-7 (C27)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 61° 28' 7", 139° 30' 43"

UTM: Zone 7; 579300E, 6815700N.

Description: Location uncertain

STRAT - Rock Unit: Skolai Group; Hasen Creek Formation, map unit Ps

Description: Carbonate.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 4.5

gnathodid? (1)

ramiform elements (2)

AGE - ? Carboniferous - Permian.

GSC LOC. NO.: C-081563

NTS: Kluane Lake, 115G/6

FLD. NO.: 91-PBR-17-15 (C28)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 61° 27' 35", 139° 26' 21"

UTM: Zone 7; 583200E, 6814800N.

Description: Location uncertain.

STRAT - Rock Unit: Skolai Group; Station Creek Formation, map unit Pv

Description: Carbonate.

PALEO - Fossils: conodonts, ichthyoliths

Conodont taxa:

Gnathodus? sp. (3)

CAI: 4.5 - 5.5

AGE - Carboniferous - ?Permian.

GSC LOC. NO.: C-081566

NTS: Kluane Lake, 115G/6

FLD. NO.: 91-PBR-18-13 (C21)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 61° 27' 6", 139° 24' 14"

UTM: Zone 7; 585096E, 6813935N.

Description: Location most uncertain

STRAT - Rock Unit: Skolai Group; Station Creek Formation, map unit Pv

Description: Carbonate.

PALEO - Fossils: conodonts, ichthyoliths

Conodont taxa:

coniform elements (2)

CAI:

AGE - Phanerozoic

GSC LOC. NO.: C-086306

NTS: Kluane Lake, 115G

FLD. NO.: 3-CAd-79-1 (C1)

COLLECTOR - C.J. Dodds/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 61° 12' 20", 139° 51' 53"

UTM: Zone 7; 561000E, 6786000N.

Description: On spur, NW side of unnamed glacier, 11.3 km SSE of the toe of Steele Glacier.

STRAT - Rock Unit: map unit uPpc

Description: Carbonate, thin-bedded, dark calcareous argillite, with rarer interbedded thin dark blue-grey limestone.

PALEO - Fossils: conodonts

Conodont taxa:

ramiform elements (43)

Belodella sp. (12)*Ozarkodina?* sp. (2)*Panderodus* sp. (100)*Polygnathus* ex gr. *linguiformis* Hinde 1879 (4)

CAI: 5

AGE - Early - Middle Devonian, Emsian - Eifelian.

REMARKS - 1 specimen photographed.

GSC LOC. NO.: C-086419

NTS: Kluane Lake, 115G

FLD. NO.: 200-CAd-74-1 (C2)

COLLECTOR - C.J. Dodds/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 61° 12' 24", 139° 51' 27"

UTM: Zone 7; 561390E, 6786130N.

Description: N Arm Spring Glacier, NW side of valley.

STRAT - Rock Unit: map unit uPc

Description: Carbonate, limestone/calcareous argillite sequence.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5.5

ramiform elements (3)

Streptognathodus? sp. indet. (1)

AGE - Late Carboniferous - Early Permian, ? Moscovian - Sakmarian.

REMARKS - Specimen is broken & deformed. 1 specimen photographed. See also 200-CAd-74-1 (C-38092) for macrofossils at this locality. Processed by B.E.B. Cameron.

GSC LOC. NO.: C-108126

NTS: Kluane Lake, 115G

FLD. NO.: 90-TJB-O203 (C15)

COLLECTOR - T.J. Bremner (INAC)

IDENT. BY - M.J. Orchard: GSC (1992e)

GEOGR - Lat./Long.:

UTM: Zone

Description: Duke River, south bank (location most uncertain)

STRAT - Rock Unit: Skolai Group; Hasen Creek Formation, map unit Ps (or Pc?)

Description: Carbonate.

PALEO - Fossils: conodonts, spines

Conodont taxa:

CAI: 5

ramiform elements (3)

Hindeodus sp. (1)

AGE - Carboniferous - Permian.

GSC LOC. NO.: C-108130

NTS: Kluane Lake, 115G

FLD. NO.: 90-TJB-O913 (C16)

COLLECTOR - T.J. Bremner (INAC)

IDENT. BY - M.J. Orchard: GSC (1992e)

GEOGR - Lat./Long.: 61° 27' 18", 139° 33'

UTM: Zone 7; 577299E, 6814125N.

Description: Ridge south of Wellgreen camp, location most uncertain

STRAT - Rock Unit: Skolai Group; Hasen Creek Formation, map unit Ps?

Description:

PALEO - Fossils: bryozoan?

AGE - Phanerozoic.

GSC LOC. NO.: C-108132

NTS: Kluane Lake, 115G/6

FLD. NO.: 90-TJB-1103A (C17)

COLLECTOR - T.J. Bremner (INAC)

IDENT. BY - M.J. Orchard: GSC (1992e)

GEOGR - Lat./Long.: 61° 27' 45", 135° 34' 24"

UTM: Zone 7; 469442E, 6814235N.

Description: Arch Creek south of lakes

STRAT - Rock Unit: Skolai Group; Hasen Creek Formation, map unit Ps

Description: Skeletal limestone overlying limy mudstone of sample (90-TJB-1130?).

PALEO - Fossils: ichthyoliths, sponge spicules

AGE - Phanerozoic.

GSC LOC. NO.: C-108136

NTS: Kluane Lake, 115G/5

FLD. NO.: 90-TJB-1211 (C18)

COLLECTOR - T.J. Bremner (INAC)

IDENT. BY - M.J. Orchard: GSC (1992e)

GEOGR - Lat./Long.: 61° 29' 48", 139° 40' 18"

UTM: Zone 7; 570719E, 8618627N.

Description: Arch Creek Canyon

STRAT - Rock Unit: Skolai Group; Hasen Creek Formation, map unit Ps

Description: Inverted bed of fossiliferous black limestone overlain by older argillite, inverted green tuff and argillite, green siliceous tuff and Pennsylvanian? andesitic pyroclastic rocks, This limestone resembles sample C-108130 which is mapped as part of another thrust panel 1.0 km to the SW.

PALEO - Fossils: bryozoans, zooecial linings

AGE - Phanerozoic.

GSC LOC. NO.: C-108138

NTS: Kluane Lake, 115G/6

FLD. NO.: 90-TBJ-1708 (C19)

COLLECTOR - T.J. Bremner (INAC)

IDENT. BY - M.J. Orchard: GSC (1992e)

GEOGR - Lat./Long.: 61° 26' 30", 139° 24' 42"

UTM: Zone 7; 584708E, 6812812N.

Description: Head of Linda Creek

STRAT - Rock Unit: Skolai Group; Hasen Creek Formation, (Golden Horn Limestone equivalent?), map unit Pc

Description: Crinoidal limestone 6 m thick, graded beds 2.5-37 cm thick. Skeletal fragments up to 1 cm.

PALEO - Fossils: conodonts, bryozoans

Conodont taxa:

CAI: 4

Neogondolella sp. cf. *N. idahoensis* (Youngquist, Hawley & Miller 1951)

AGE - Permian, Artinskian - Guadalupian.

GSC LOC. NO.: C-108140

NTS: Kluane Lake, 115G/6
FLD. NO.: 90-TJB-1809 (C20)

COLLECTOR - T.J. Bremner (INAC)

IDENT. BY - M.J. Orchard: GSC (1992e)

GEOGR - Lat./Long.: 61° 26' 24", 139° 22'
UTM: Zone 7; 587113E, 6812685N.

Description: Ridge south of Linda Creek, location most uncertain

STRAT - Rock Unit: Skolai Group; Hasen Creek Formation, (Golden Horn Limestone equivalent?),
map unit Pc.

Description: Highly sheared skeletal limestone with crenulated green phyllonite.

PALEO - Fossils: conodonts, ichthyoliths

AGE - Phanerozoic.

GSC LOC. NO.: C-116189

NTS: Kluane Lake, 115G
FLD. NO.: no. 8 (C3)

COLLECTOR - D.E. Brailey

IDENT. BY - M.J. Orchard: GSC (1992d)

GEOGR - Lat./Long.: 61° 16' 45", 138° 56' 5"
UTM: Zone 7; 616712E, 6795429N.Description: Exact locality not known. Very approximately on lower slope of Shakwak
Trench between Lewis and Halfbreed Creek.

STRAT - Rock Unit: Chitistone or Nizina Limestone, map unit uTRC

Description: Carbonate.

PALEO - Fossils: conodonts, ichthyoliths

Conodont taxa:

Epigondolella triangularis (Budurov 1972) (12)

CAI: 5 - 5.5

AGE - Late Triassic, Early Norian.

GSC LOC. NO.: C-116190

NTS: Kluane Lake, 115G
FLD. NO.: no. 116 (C4)

COLLECTOR - D.E. Brailey

IDENT. BY - M.J. Orchard: GSC (1992d)

GEOGR - Lat./Long.: 61° 18' 5", 139° 2' 55"
UTM: Zone 7; 604534E, 6797716N.Description: Exact locality not known. Very approximately on lower slope of Shakwak
Trench between Lewis and Halfbreed creeks.

STRAT - Rock Unit: Chitistone Limestone, map unit uTRC

Description: Carbonate.

PALEO - Fossils: conodonts

Conodont taxa:

Epigondolella triangularis (Budurov 1972) (1)

CAI: 7

AGE - Late Triassic, Early Norian.

GSC LOC. NO.: O-086477

NTS: Kluane Lake, 115G
FLD. NO.: RL-74-9F (C13)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 61° 14' 20", 139° 40"

UTM: Zone 7; 606750E, 6790800N.

Description: On ridge-top between Halfbreed and Lewis creeks.

STRAT - Rock Unit: map unit mTRp (in uTRN)

Description: Carbonate, Approximately 500 ft from top of exposure.

PALEO - Fossils: conodonts

Conodont taxa:

Neogondolella sp. (2)

CAI: 5

AGE - Triassic.

REMARKS - Processed by B.E.B. Cameron

GSC LOC. NO.: O-086483

NTS: Kluane Lake, 115G
FLD. NO.: RL-74-20F (C14)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 61° 18' 35", 139° 4' 35"

UTM: Zone 7; 603019E, 6798600N.

Description: At 4675 ft level on NE side of ridge 1.4 miles E of head of Squirrel Creek.
Grid reference 031986.

STRAT - Rock Unit: Chitistone Limestone, map unit uTRC

Description: Carbonate, Within 100 ft of the top.

PALEO - Fossils: conodonts, foraminifers, ichthyoliths, echinoderms

Conodont taxa:

ramiform element (1)

Epigondolella sp. cf. *E. spatulata* (Hayashi 1968) (3)*Epigondolella triangularis* (Budurov 1972) (45)*Neogondolella navicula* (Huckriede 1958) (170)

CAI: 4 - 7

AGE - Late Triassic, Early Norian.

REMARKS - 1 specimen photographed. Significant CAI variation. processed by B.E.B. Cameron.

GSC LOC. NO.: O-086493

NTS: Kluane Lake, 115G
FLD. NO.: K75-2F (C7)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 61° 11' 38", 138° 46' 9"

UTM: Zone 7; 619773E, 6786222N.

Description: At 4650 ft, level on SW slope of Shakwak valley, 2.7 miles NW of Nines Creek.

STRAT - Rock Unit: Chitistone Limestone, map unit uTRC (in uTRN)

Description: Carbonate, within 20 ft of top.

PALEO - Fossils: ichthyoliths

AGE - Phanerozoic

GSC LOC. NO.: O-086495

NTS: Kluane Lake, 115G

FLD. NO.: K75-7F (C8)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 61° 4' 14", 138° 38' 49"

UTM: Zone 7; 626971E, 6772724N.

Description: At 6275 ft, level on east side of Fisher Creek.

STRAT - Rock Unit: Chitistone Limestone, map unit uTRC

Description: Carbonate, within 50 ft of top.

PALEO - Fossils: conodonts, foraminifers, ichthyoliths, microgastropods

Conodont taxa:

CAI: 5

Epigondolella triangularis (Budurov 1972) (2)*Neogondolella navicula* (Huckriede 1958) (1)

AGE - Late Triassic, Early Norian.

REMARKS - Processed by B.E.B. Cameron.

GSC LOC. NO.: O-086496

NTS: Kluane Lake, 115G

FLD. NO.: K75-8F (C9)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 61° 4' 20", 138° 37' 51"

UTM: Zone 7; 627833E, 6772941N.

Description: At 6175 ft level at the head of the N fork of Williscroft Creek.

STRAT - Rock Unit: Chitistone Limestone, map unit uTRC (in UTRN)

Description: Carbonate, within 50 ft of the top.

PALEO - Fossils: conodonts, ichthyoliths, sponge spicules

Conodont taxa:

CAI: 4 - 4.5

ramiform elements (10)

Epigondolella quadrata Orchard 1991 (42)*Epigondolella triangularis* (Budurov 1972) (44)*Neogondolella hallstattensis* (Mosher 1968) (4)*Neogondolella navicula* (Huckriede 1958) (58)

AGE - Late Triassic, Early Norian.

REMARKS - 14 specimens photographed. Processed by B.E.B. Cameron.

GSC LOC. NO.: O-086497

NTS: Kluane Lake, 115G

FLD. NO.: RL-74-11F (C11)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 61° 14' 30", 139° 55"

UTM: Zone 7; 606522E, 6791119N.

Description: At 6875 ft level near ridge top between Lewis and Halfbreed creeks.

STRAT - Rock Unit: Nizina Limestone, map unit uTRC (in uTRN)

Description: Carbonate, 5 ft from base of exposure.

PALEO - Fossils: conodonts, ichthyoliths, sphaeromorphs

Conodont taxa:

CAI: 5

Metapolygnathus? sp. (6)

AGE - Middle - Late Triassic, Ladinian - Carnian.

GSC LOC. NO.: O-093401

NTS: Kluane Lake, 115G
FLD. NO.: K75-11F (C10)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 61° 1' 47", 138° 34' 26"

UTM: Zone 7; 631080E, 6768322N.

Description: 4900 ft level of Fortyeight Pup.

STRAT - Rock Unit: McCarthy Formation, map unit uTRM

Description: Carbonate.

PALEO - Fossils: conodonts

Conodont taxa:

Neogondolella sp. (5)

CAI: 5.5 - 6.5

AGE - Triassic.

REMARKS - Processed by B.E.B. Cameron.

GSC LOC. NO.: O-095304

NTS: Kluane Lake, 115G
FLD. NO.: 29-4 (C12)

COLLECTOR - P.B. Read/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 61° 26' 33", 139° 26' 45"

UTM: Zone 7; 582884E, 6812861N.

Description: On mountain slope 2.6 km SE of Quill-Nickel creek junction.

STRAT - Rock Unit: Skolai Group; Hasen Creek Formation (Golden Horn Limestone equivalent),
map unit Pc.

Description: Carbonate.

PALEO - Fossils: conodonts, agglutinated forams, (*Thurammina*), ichthyoliths

Conodont taxa:

ramiform elements (3)

Hindeodus sp. (3)*Neostreptognathodus* ex gr. *pequopensis* Behnken 1975 (7)

CAI: 2.5 - 3.5

AGE - Early Permian, Artinskian.

REMARKS - *Neostreptognathodus* are small growth stages; one has transversely elongate platform ridges, another has a submedial blade. 3 specimens photographed. See also MV-74-50b (C-37913) for macrofossils from this locality. Processed by B.E.B. Cameron.

GSC LOC. NO.: O-095310

NTS: Kluane Lake, 115G
FLD. NO.: 130-1 (C5)

COLLECTOR - R.B. Campbell/P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 61° 24', 139° 19' 34"

UTM: Zone 7; 589390E, 6808285N.

Description: On mountain slope NE of Tatamagouche Creek.

STRAT - Rock Unit: Nikolai Greenstone, map unit uTRN

Description: Carbonate, limestone in Nikolai Greenstone.

PALEO - Fossils: conodonts, ichthyoliths, microgastropods

Conodont taxa:

Epigondolella sp. cf. *E. quadrata* Orchard 1991 (1)*Epigondolella* sp. indet. (2)*Epigondolella triangularis* (Budurov 1972) (1)

CAI: 6

AGE - Late Triassic, Early Norian.

REMARKS - Processed by B.E.B. Cameron.

GSC LOC. NO.: O-095313

NTS: Kluane Lake, 115G

FLD. NO.: 1037-3 (C6)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 61° 27' 42", 139° 33' 54"

UTM: Zone 7; 576843E, 6814850N.

Description: In creek, 2.4 km WSW of Wellgreen Mine.

STRAT - Rock Unit: Skolai Group; Hasen Creek Formation (Golden Horn Limestone equivalent),
map unit Pc.

Description: Carbonate.

PALEO - Fossils: conodonts, ichthyoliths

Conodont taxa:

CAI: 4

Adetognathus sp. (1)

AGE - Late Carboniferous - Early Permian.

REMARKS - Free blade is missing but the preserved fixed blade of this right bladed specimen is not
of the *unicornis* type, and therefore, an early Pennsylvannian age can be ruled out.
Specimen photographed. Processed by B.E.B. Cameron.

**FOSSIL LISTINGS MOUNT ST. ELIAS (115B&C[E½])
MAP AREA, YUKON**

**MACROFOSSILS: 115B LISTINGS
MACROFOSSILS: 115C[E½] LISTINGS
CONODONTS: 115B LISTINGS**

(Map 2 gives macrofossil and conodont localities)

MACROFOSSILS: 115B LISTINGS

FIELD NO. MV-74-188 (M23)

GSC LOC. C-37919

LOCALITY - 115B, Mount St. Elias

UTM: Zone 7, 642700E, 6757900N.

Lat./Long.: 60° 55' 56", 138° 22' 1"

At 6500 ft. near ridge crest, just to the SE of Outpost Mtn.

STRAT - map unit uPc

COLLECTOR - J.W.H. Monger

IDENT. BY - A.W. Norris: GSC (1975)

FOSSILS - Other:

Coenites sp.*Favosites* ? sp.cf. *Rhipidium* sp.

echinoderm ossicle with single axial canal

AGE - Late Silurian and possibly Devonian, Wenlockian or Ludlovian

REMARKS - Two distinctly different lithologies are present in the sample; a pale orange limestone, and a dark almost black limestone. The pale orange limestone contains a large coarsely costate pentamerid brachiopod suggestive of *Rhipidium* sp, which indicates a Late Silurian (Wenlockian or Ludlovian) age. The remainder of the fossils are in the dark limestone and could be either Silurian or Devonian in age.

FIELD NO. 69-CAa-77-1 (M24)

GSC LOC. C-76401

LOCALITY - 115B, Mount St. Elias

UTM: Zone 7, 610800E, 6736900N.

Lat./Long.: 60° 45' 14", 138° 58' 1"

Medial moraine of Kaskawulsh Glacier.

STRAT - map unit SDc ?

COLLECTOR - J. Dudley

IDENT. BY - A.E.H. Pedder: GSC (1977b; pers. comm., 1992) and A.W. Norris: GSC (1978; pers. comm., 1992)

FOSSILS - Other:

Tetraporinus sp. indet.

high spired gastropod indet.

skeletal fragments indet.

AGE - Upper Silurian to Lower Carboniferous.

REMARKS - Fossils are from two different rock types. A.E.H. Pedder (GSC, Calgary) identified *Tetraporius* sp. from one rock type and suggested an age of Upper Silurian to Lower Carboniferous. The other lithology contained indeterminable fossils.

FIELD NO. 108-CAd-77 (M25)

GSC LOC. C-76402

LOCALITY - 115B, Mount St. Elias

UTM: Zone 7, 646700E, 6748000N.

Lat./Long.: 60° 50' 31", 138° 18' 2"

On ridge crest, approximately 3 km SW Mt. Cairnes, Kluane Ranges.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - C.J. Dodds

IDENT. BY - A.E.H. Pedder: GSC (1978; pers. comm., 1992)

FOSSILS - Other:

Dendrostella trigemme (Quenstedt)

AGE - Middle Devonian, probably Eifelian, possibly Givetian

FIELD NO. 120-CAb-77-1 (M26)**GSC LOC. C-76408**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 645400E, 6753270N.
 Lat./Long.: 60° 53' 23", 138° 19' 14"
 Head of Silver Creek, Kluane Range.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - M.P. Downey

IDENT. BY - A.E.H. Pedder: GSC (1977b; pers. comm., 1992)

FOSSILS - **Other:**
Favosites sp. indet. ex gr. *F. socialis* (Sokolov and Tesakov)

AGE - Silurian or Devonian, likely Lower Devonian

FIELD NO. 123-CAb-77 (M27)**GSC LOC. C-76409**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 644000E, 6754800N.
 Lat./Long.: 60° 54' 14", 138° 20' 43"
 Head of Silver Creek, Kluane Range.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - D.P. Downey

IDENT. BY - A.E.H. Pedder: GSC (1978; pers. comm., 1992)

FOSSILS - **Other:**
 digitate organisms, apparently as in C-076403

AGE - indeterminate

FIELD NO. 127-CAd-77-1 (M28)**GSC LOC. C-76410**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 634300E, 6755500N.
 Lat./Long.: 60° 54' 49", 138° 31' 24"
 3 miles NW of Vulcan Mountain

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - C.J. Dodds

IDENT. BY - A.E.H. Pedder: GSC (1978; pers. comm., 1992)

FOSSILS - **Other:**
Dendrostella trigemme (Quenstedt)?
 digitate organisms, apparently as in C-076403

AGE - Middle Devonian, Eifelian?

FIELD NO. 130-CAd-77 (M29)**GSC LOC. C-76411**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 634100E, 6756900N.
 Lat./Long.: 60° 55' 35", 138° 31' 34"
 5.5 km NW of Vulcan Mountain.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - C.J. Dodds

IDENT. BY - A.E.H. Pedder: GSC (1978; pers. comm., 1992)

FOSSILS - **Other:**
 tabulate coral, indet.
 gastropod, indet.

AGE - Paleozoic (post-Ordovician)

FIELD NO. 191-CAa-77-3 (M30)**GSC LOC. C-76413**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 654250E, 6747480N.
 Lat./Long.: 60° 50' 4", 138° 9' 44"
 Ridge about 5 km SW of the confluence of Telluride Creek and Jarvis River.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - J. Dudley

IDENT. BY - A.E.H. Pedder: GSC (1978; pers. comm., 1992)

FOSSILS - Other:
 biaxial crinoid ossicles

AGE - Late Lower Devonian or Middle Devonian

REMARKS - See also conodonts from 191-CAa-77-3 (C-76413) from this site, and 191-CAa-77-5 (O-95341) from very close to this locality.

FIELD NO. 308-CAa-77 (M31)**GSC LOC. C-76418**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 648200E, 6748800N.
 Lat./Long.: 60° 50' 55", 138° 16' 21"
 Ridge just S of Mt. Cairnes

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - C.J. Dodds

IDENT. BY - A.E.H. Pedder: GSC (1978; pers. comm., 1992)

FOSSILS - Other:
 indet. organic remains-silicified in dolomitic matrix

AGE - indeterminate

FIELD NO. K77-17F (M18)**GSC LOC. C-76447**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 650580E, 6752900N.
 Lat./Long.: 60° 53' 4", 138° 13' 32"
 At 6500 ft. level on ridge between Bryson Creek and headwaters of Telluride Creek.

STRAT - "Bullion Creek Limestone", map unit Dc (in Dp)

COLLECTOR - P.B. Read

IDENT. BY - A.E.H. Pedder: GSC (1977a; pers. comm., 1992)

FOSSILS - Other:
Amphipora sp.
Stachyodes ? sp.
Thamnopora sp.

AGE - Middle Devonian, almost certainly

FIELD NO. K77-23F (M32)**GSC LOC. C-76449**

LOCALITY - 115B, Mount St. Elias
UTM: Zone 7, 646800E, 6755500N.
Lat./Long.: 60° 54' 33", 138° 17' 35"
 At 7100 ft. on ridge between Silver Creek and headwaters of Telluride Creek.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - P.B. Read

IDENT. BY - A.E.H. Pedder: GSC (1977a; pers. comm., 1992)

FOSSILS - Other:
 crinoid columnals

AGE - Ordovician-Permian, probably

FIELD NO. K77-25F (M33)**GSC LOC. C-76450**

LOCALITY - 115B, Mount St. Elias
UTM: Zone 7, 646300E, 6755600N.
Lat./Long.: 60° 54' 37", 138° 18' 8"
 At 6500 ft. level in headwaters of E fork of Silver Creek.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - P.B. Read

IDENT. BY - A.E.H. Pedder: GSC (1977a; pers. comm., 1992)

FOSSILS - Other:
 Amphipora sp. indet.

AGE - Probably Devonian; possibly Upper Silurian, Lochkovian - Frasnian

REMARKS - See also K77-24F (O-95352) for conodonts from this locality.

FIELD NO. F1-JOW-53 (M1)**GSC LOC. O-23473**

LOCALITY - 115B, Mount St. Elias
UTM: Zone 7, 626000E, 6761450N.
Lat./Long.: 60° 58' 11", 138° 40' 20"
 W of mouth of Bullion Creek, at 3800 ft.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - J.O. Wheeler

IDENT. BY - D.J. McLaren: GSC (in Muller, 1967, p. 27-30)

FOSSILS - Other:
 Thamnopora sp.
 other indeterminable coral fragments

AGE - probably Devonian

FIELD NO. F2-JOW-53 (M2)**GSC LOC. O-23474**

LOCALITY - 115B, Mount St. Elias
UTM: Zone 7, 624100E, 6762100N.
Lat./Long.: 60° 58' 34", 138° 42' 25"
 2.5 miles W of mouth of Bullion Creek, at 7200 ft.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - J.O. Wheeler

IDENT. BY - D.J. McLaren: GSC (in Muller, 1967, p. 27-30)

FOSSILS - Other:
 ?*Tabulophylum* sp.

AGE - probably Devonian, possibly Upper Devonian

FIELD NO. F3-JOW-53 (M3)**GSC LOC. O-23475**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 650900E, 6747500N.
 Lat./Long.: 60° 50' 9", 138° 13' 26"
 N side of Kaskawulsh River opposite mouth of Disappointment River, at 3400 ft.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - J.O. Wheeler

IDENT. BY - D.J. McLaren: GSC (1954)

FOSSILS - Other:
Favosites sp.
Syringopora sp.

AGE - possibly Middle Devonian

REMARKS - See F4-JOW-53 (O-23476) also collected from very close to this locality.

FIELD NO. F4-JOW-53 (M4)**GSC LOC. O-23476**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 650900E, 6747500N.
 Lat./Long.: 60° 50' 9", 138° 13' 26"
 At 3500 ft. on N side of Kaskawulsh River opposite mouth of Disappointment River.

STRAT - "Bullion Creek Limestone", map Unit Dc

COLLECTOR - J.O. Wheeler

IDENT. BY - P. Harker: GSC (1954)

FOSSILS - Other:
 dark limestone with poorly preserved '*Thamnopora*' like structures
 shell fragments

AGE - probably Devonian

REMARKS - Some samples contain large numbers of small rounded pyrite nodules. See F3-JOW-53 (O-23475) also collected from very close to this locality.

FIELD NO. F5-JOW-53 (M5)**GSC LOC. O-23477**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 650300E, 6744350N.
 Lat./Long.: 60° 48' 28", 138° 14' 14"
 Near summit of 6000 ft. peak on N side of Kaskawulsh River, opposite mouth of Disappointment River.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - J.O. Wheeler

IDENT. BY - D.J. McLaren: GSC (in Muller, 1967, p. 27-30)

FOSSILS - Other:
Alveolites sp.
Atrypa sp. large
Spinatryoa sp.
 nautiloid
 crinoid fragments

AGE - Devonian, possibly Upper Devonian

FIELD NO. F6-JOW-53 (M6)**GSC LOC. O-23478**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 650950E, 6722500N.
 Lat./Long.: 60° 36' 42", 138° 14' 32"
 Limestone bluffs on N side of Kaskawulsh River, W of mouth of Jarvis River.

STRAT - "Bullion Creek Limestone", map unit Dc ?

COLLECTOR - J.O. Wheeler

IDENT. BY - P. Harker: GSC (1954)

FOSSILS - **Other:**
 large, thin shelled, finely ribbed brachiopod fragments, indet.
Pseudofavosites ? sp.

AGE - uncertain; may be Carboniferous or Permian

FIELD NO. F7-JOW-53 (M7)**GSC LOC. O-23479**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 607500E, 6741600N.
 Lat./Long.: 60° 47' 50", 139° 1' 30"
 Float in gully at 6650 ft. on N. side of Kaskawulsh Glacier.

STRAT - map unit uPp

COLLECTOR - J.O. Wheeler

IDENT. BY - D.J. McLaren: GSC (1954)

FOSSILS - **Other:**
 possibly small shells

AGE - indeterminate

FIELD NO. F8-JOW-53 (M8)**GSC LOC. O-23480**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 619500E, 6728500N.
 Lat./Long.: 60° 48' 34", 138° 48' 45"
 Westernmost medial moraine of S Arm, just S of junction with Kaskawulsh Glacier.

STRAT - map unit SDc?

COLLECTOR - J.O. Wheeler

IDENT. BY - D.J. McLaren: GSC (1954)

FOSSILS - **Other:**
Atrypa 2 sp.

AGE - probably Devonian,

REMARKS - general aspect of fossils and rock suggest Upper Devonian.

FIELD NO. F9-JOW-53 (M9)**GSC LOC. O-23481**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 636100E, 6758500N.
 Lat./Long.: 60° 56' 24", 138° 29' 17"
 At 4300 ft. on S side of tributary E of Vulcan Creek.

STRAT - map unit uPp

COLLECTOR - J.O. Wheeler

IDENT. BY - P. Harker: GSC (1954)

FOSSILS - Other:
Lithostrotion sp.

AGE - probably Late Carboniferous

REMARKS - These samples contain a large number of fragmentary corals. There is considerable recrystallization and structures are not well preserved. Thin sections do, however, show that corals of phaceloid '*Lithostrotion*' are present.

FIELD NO. F22-JOW-54 (M10)**GSC LOC. O-25042**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 634850E, 6756200N.
 Lat./Long.: 60° 55' 11", 138° 30' 46"
 At about 6000 ft. on ridge W of the upper part of Vulcan Creek.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - J.O. Wheeler

IDENT. BY - D.J. McLaren: GSC (1956a)

FOSSILS - Other:
Amphipora sp.
 ? cf. *Thamnopora*

AGE - Devonian, most likely

FIELD NO. F19-JOW-54 (M11)**GSC LOC. O-25043**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 643550E, 6748950N.
 Lat./Long.: 60° 51' 6", 138° 21' 28"
 Float from grey limestone exposed just below ridge to E of Lost Cache Creek

STRAT - "Bullion Creek Limestone", map Unit Dc

COLLECTOR - J.O. Wheeler

IDENT. BY - D.J. McLaren: GSC (1956a)

FOSSILS - Other:
 white rods- ?? corals or *Amphipora*

AGE - indeterminate

FIELD NO. F21-JOW-54 (M12)**GSC LOC. O-25044**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 630350E, 6758850N.
 Lat./Long.: 60° 56' 42", 138° 35' 38"
 At 3500 ft, on E side of Slims River valley, 2 miles SE of Bullion Creek.

STRAT - "Bullion Creek Limestone", map unit Dc (in OSwp)

COLLECTOR - J.O. Wheeler

IDENT. BY - D.J. McLaren: GSC (1956a)

FOSSILS - **Other:**
Amphipora sp.
 indeterminable tabulate corals, cf. favositids

AGE - Devonian, most likely

FIELD NO. F20-JOW-54 (M13)**GSC LOC. O-25045**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 631200E, 6758700N.
 Lat./Long.: 60° 56' 36", 138° 34' 42"
 At 4200 ft. on E side of Slims River valley, 2 miles SE of mouth of Bullion Creek.

STRAT - map unit OSwp

COLLECTOR - J.O. Wheeler

IDENT. BY - D.J. McLaren: GSC (1956a)

FOSSILS - **Other:**
 probably *Syringopora* sp.
 crinoid stem

AGE - indeterminate

FIELD NO. F17-JOW-54 (M14)**GSC LOC. O-25046**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 649900E, 6749350N.
 Lat./Long.: 60° 51' 10", 138° 14' 27"
 At 6000 ft. from moraine on glacier at head of Bryson Creek.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - J.O. Wheeler

IDENT. BY - D.J. McLaren: GSC (in Muller, 1967, p. 27-30)

FOSSILS - **Other:**
 stromatolites
 ? *Amphipora* sp.
Thamnopora sp.
 cystiphylloid coral

AGE - probably Devonian

REMARKS - The coral is not quite well enough preserved to be positive that it is a *Cystiphyllodes* and therefore Middle Devonian or a *Cystiphyllum* and therefore Silurian. *Amphipora* and the *Thamnopora* species, however, do suggest a Devonian age.

FIELD NO. F15-JOW-54 (M15)**GSC LOC. O-25049**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 650100E, 6752700N.
 Lat./Long.: 60° 52' 58", 138° 14' 4"
 W wall of Shakkwak valley, at 6350 ft. 10 miles W of Sulphur Lake.

STRAT - "Bullion Creek Limestone", map unit Dc (in Dp)

COLLECTOR - J.O. Wheeler

IDENT. BY - D.J. McLaren: GSC (1956a)

FOSSILS - Other:
Stachyodes sp.
Chaetetes sp.
Thamnopora sp.

AGE - probably Devonian

REMARKS - See F13-JOW-54 (O-25054), F14-JOW-54 (O-25056) and K77-17F (C-76447) also collected from very close to this locality.

FIELD NO. F11-JOW-54 (M21)**GSC LOC. O-25050**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 646350E, 6756750N.
 Lat./Long.: 60° 55' 14", 138° 18' 2"
 At 5500 ft, W side Shakkwak valley near head of Silver Creek.

STRAT - map unit uPc

COLLECTOR - J.O. Wheeler

IDENT. BY - D.J. McLaren: GSC (1956a)

FOSSILS - Other:
 ?? pentameroid brachiopod

AGE - indeterminate

REMARKS - Brachiopod may be a pentamerid of Silurian type, but preservation is very poor to be certain.

FIELD NO. F12-JOW-54 (M22)**GSC LOC. O-25051**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 644250E, 6760450N.
 Lat./Long.: 60° 57' 16", 138° 20' 11"
 At 5400 ft. W wall of Shakkwak valley, just W of upper Silver Creek.

STRAT - map unit TRKp

COLLECTOR - J.O. Wheeler

IDENT. BY - D.J. McLaren: GSC (1956a)

FOSSILS - Other:
 crinoid stem- ?Mesozoic form

AGE - Mesozoic

REMARKS - A single plate of a crinoid stem suggests a Mesozoic "Pentacrinus".

FIELD NO. F18-JOW-54 (M20)**GSC LOC. O-25052**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 643200E, 6748700N.
 Lat./Long.: 60° 50' 58", 138° 21' 52"
 At 7260 ft. on ridge immediately to the E of Lost Cache Creek.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - J.O. Wheeler

IDENT. BY - D.J. McLaren: GSC (in Muller, 1967, p. 27-30.)

FOSSILS - Other:
Receptaculites sp.
Schizophoria sp.
Atrypa sp.
"Reticularia" sp.

AGE - Devonian, possibly Middle Devonian

FIELD NO. F16-JOW-54 (M19)**GSC LOC. O-25053**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 648650E, 6752400N.
 Lat./Long.: 60° 52' 51", 138° 15' 41"
 W wall Shakwak valley, at 7500 ft, 10.5 miles W of Sulphur Lake.

STRAT - map unit uPvs

COLLECTOR - J.O. Wheeler

IDENT. BY - D.J. McLaren: GSC (1956b)

FOSSILS - Other:
 traces of bivalves or large brachiopods

AGE - ? Paleozoic or Mesozoic

REMARKS - Collection is too poorly preserved to allow any suggestion of age. It could be Paleozoic or Mesozoic.

FIELD NO. F13-JOW-54 (M16)**GSC LOC. O-25054**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 650100E, 6752700N.
 Lat./Long.: 60° 52' 58", 138° 14' 4"
 W wall Shakwak valley, at 6550 ft, 10 miles W of Sulphur Lake.

STRAT - "Bullion Creek Limestone", map unit Dc (in Dp)

COLLECTOR - J.O. Wheeler

IDENT. BY - D.J. McLaren: GSC (in Muller, 1967, p. 27-30.)

FOSSILS - Other:
 Amphipora traces
 non-columellate colonial corals
 spongophyllids ?

AGE - probably Devonian

REMARKS - See F14-JOW-54 (O-25056), F15-JOW-54 (O-25049), and K77-17F (C-76447) also collected from very close to this site.

FIELD NO. F14-JOW-54 (M17)**GSC LOC. O-25056**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 650100E, 6752700N.
 Lat./Long.: 60° 52' 58", 138° 14' 4"
 W wall Shakwak valley, at 6800 ft, 10 miles W of Sulphur Lake.

STRAT - "Bullion Creek Limestone", map unit Dc (in Dp)

COLLECTOR - J.O. Wheeler

IDENT. BY - D.J. McLaren: GSC (in Muller, 1967, p. 27-30.)

FOSSILS - Other:
 stromatoporoid
Disphyllum ex gr. *D. goldfussi* (Geinitz)

AGE - probably Devonian, possibly Mid Devonian

REMARKS - See F13-JOW-54 (O-25054), F15-JOW-54 (O-25049) and K77-17F (C-76447) also collected from very close to this site.

FIELD NO. MV-74-204 (M34)**GSC LOC. O-91691**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 653700E, 6752000N.
 Lat./Long.: 60° 52' 31", 138° 10' 8"
 At elevation 4500 ft, on ridge between Bryson Creek and Jarvis River.

STRAT - Nikolai Greenstone?, map unit uTRN

COLLECTOR - J.W.H. Monger

IDENT. BY - E.T. Tozer: GSC (1974; pers. comm., 1992)

FOSSILS - Other:
Halobia sp. gr. *H. zitteli*
 poorly preserved ammonite fragments

AGE - Upper Triassic

FIELD NO. MV-74-185 (M35)**GSC LOC. O-91692**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 637400E, 6759100N.
 Lat./Long.: 60° 56' 42", 138° 27' 49"
 At elevation 6100 ft, on ridge above Jesse Creek.

STRAT - map unit mTRp

COLLECTOR - J.W.H. Monger

IDENT. BY - E.T. Tozer: GSC (1974; pers. comm., 1992)

FOSSILS - Other:
 Halobiid bivalves, indet, ? *Daonella*

AGE - Middle Triassic; Middle if *Daonella*

FIELD NO. 78-CAc-74-1 (M39)**GSC LOC. O-91769**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 566800E, 6699000N.
 Lat./Long.: 60° 25' 25", 139° 47' 13"
 E of divide between Seward Glacier and upper Hubbard Glacier; 7 miles NW of Mt. Vancouver.

STRAT - Valdez Group, map unit Kv

COLLECTOR - R.B. Campbell

IDENT. BY - J.A. Jeletsky: GSC (1975)

FOSSILS - Other:
Buchia uncitoides Pavlow 1907 sensu Jeletzky 1965

AGE - Lower Valanginian (early Lower Cretaceous)

REMARKS - The apparently complete absence of completely closed or gaping shells in the studied sample of coquina is suggestive of re-deposition of *Buchia* shells either by current and wave action in the shallow water or by turbidity currents in deep water. Mass occurrence, a coquina of exclusively single valves commonly squeezed into each other.

FIELD NO. 177-CAa-77-1 (M37)**GSC LOC. O-95291**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 638900E, 6756600N.
 Lat./Long.: 60° 55' 19", 138° 26' 16"
 At ridge crest, 1 km S of head of Jesse Creek, Kluane Ranges.

STRAT - McCarthy Formation, map unit uTRM

COLLECTOR - J. Dudley

IDENT. BY - E.T. Tozer: GSC (1977a; pers. comm., 1992)

FOSSILS - Other:
Monotis cf. subcircularis Gabb

AGE - Triassic, Upper Norian, Suessi Zone

FIELD NO. 348-CAc-77-1 (M38)**GSC LOC. O-95292**

LOCALITY - 115B, Mount St. Elias
 UTM: Zone 7, 640650E, 6755800N.
 Lat./Long.: 60° 54' 51", 138° 24' 22"
 About 2 km to SE of #177-CAa-77-1.

STRAT - McCarthy Formation, map unit uTRM

COLLECTOR - C.J. Dodds

IDENT. BY - E.T. Tozer: GSC (1977a; pers. comm., 1992)

FOSSILS - Other:
Monotis cf. subcircularis Gabb

AGE - Triassic, Upper Norian, Suessi Zone

FIELD NO. K77-27F (M36)**GSC LOC. O-95293**

LOCALITY - 115B, Mount St. Elias
UTM: Zone 7, 642400E, 6761900N.
Lat./Long.: 60° 58' 6", 138° 22' 10"
 At 4275 ft. on west bank of first creek west of Silver Creek.

STRAT - McCarthy Formation, uTRM (in uTRN)

COLLECTOR - P.B. Read

IDENT. BY - E.T. Tozer: GSC (1977b; pers. comm., 1992)

FOSSILS - Other:
Monotis sp.; *M. subcircularis* Gabb or *M. ochotica* (Keyserling)

AGE - Triassic, Upper Norian

MACROFOSSILS: 115C [E½] LISTINGS

FIELD NO. 93-RAS-EB-1L0 (M44)**GSC LOC. C-203016**

LOCALITY - 115C E1/2, Mount St. Elias
UTM: Zone 7, 550800E, 6709350N.
Lat./Long.: 60° 30' 45", 140° 5'
 18.5 km ESE of summit Mt. Logan, at elevation 2260m.

STRAT - Valdez Group, map unit Kv
 Lithology: phyllitic argillite and (?) fine-grained metasandstone.

COLLECTOR - C. Roots, E. Blake

IDENT. BY - J.W. Haggart: GSC (1993)

FOSSILS - Bivalves:
 strained but unbroken, showing weak and widely spaced ribs; possibly *Buchia* sp.
 or *Birostrina* sp.
 fragment of large valve showing fine concentric ribs, indeterminate
 fragments, indeterminate

AGE - Possibly Late Jurassic to Early Cretaceous

REMARKS - The whole bivalves exhibit an elongation strain which obscures much of the original valve outline and ornamentation. However, they appear to show a pronounced umbo and beak and two specimens show the development of weak and wide, concentric ribbing. In this respect they show faint resemblance to the bivalves *Buchia crassicollis* and *Birostrina concentrica*, although neither of these identifications is considered with any confidence. The buchiid bivalves would suggest a Late Jurassic to Early Cretaceous (Valanginian) age, while *B. concentrica* is characteristic of Albian. The articulated nature of the valves of on bivalve specimen suggests the shells were likely deposited in a quiet water environment.

FIELD NO. 98-CAC-77-1 (M42)**GSC LOC. C-76415**

LOCALITY - 115C E1/2, Mount St. Elias
UTM: Zone 7, 530400E, 6748900N.
Lat./Long.: 60° 52' 34", 140° 26' 24"
 Upper Walsh Glacier, north side

STRAT - map unit SDc

COLLECTOR - R.B. Campbell

IDENT. BY - A.E.H. Pedder: GSC (1977b; pers. comm., 1992)

FOSSILS - Other:
 ? *Amphipora* sp. indet.
Favosites sp. indet.

AGE - Upper Silurian to Middle Devonian

FIELD NO. M43**GSC LOC. M43**

LOCALITY - 115C E1/2, Mount St. Elias
 UTM: Zone 7, 552500E, 6710280N.
 Lat./Long.: 60° 31' 37", 140° 2' 37"
 About 19 km ESE of Mt. Logan summit on ridge system between Hubbard and Seward glaciers.

STRAT - Valdez Group, map unit Kv

COLLECTOR - R.P. Sharp, G.P. Rigsby

IDENT. BY - R.W. Imlay: (Imlay & Reeside, 1954, p. 229)

FOSSILS - Bivalves:
Buchia okensis Pavlow
Buchia subokensis Pavlow
Buchia volgensis Lahusen

AGE - Lower Cretaceous, Berriasian

REMARKS - See Sharp and Rigsby (1956, p. 118-119) for location and stratigraphy.

FIELD NO. 161-CAC-77-1 (M40)**GSC LOC. O-95546**

LOCALITY - 115C E1/2, Mount St. Elias
 UTM: Zone 7, 534900E, 6670250N.
 Lat./Long.: 60° 10' 10", 140° 22' 16"
 Point Glorious, E side of lower Seward Glacier, Alaska

STRAT - Yakataga Formation (Pliocene-Miocene)

COLLECTOR - R.B. Campbell

IDENT. BY - J.A. Jeletsky: GSC (1978)

FOSSILS - Other:
 ? *Thyasira* sp. indet.
 ? *Cardium* (?Serripes) sp. indet.
 Indeterminate bivalves

AGE - ? post-Mesozoic

REMARKS - All fossils (pelecypods only) of lot O-95546 are too poorly preserved to be identified definitively even to the genus. Therefore, it is impossible to date this collection beyond suggesting that its pelecypods do have a general post-Mesozoic appearance.

FIELD NO. 71-CAc-77-1F (M41)

GSC LOC. O-95547

LOCALITY - 115C E1/2, Mount St. Elias
 UTM: Zone 7, 506500E, 6753000N.
 Lat./Long.: 60° 54' 50", 140° 52' 49"
 N side of Walsh Glacier, about 3 km SW of Mt. Alberta.

STRAT - map unit Ks

COLLECTOR - R.B. Campbell

IDENT. BY - J.A. Jeletsky: GSC (1978)

FOSSILS - Other:

Eotetragonites sp. indet.
 ? *Breweriaceras* (?*Leconteites*) sp. indet.
 ?*Moffittes* - or ?*Kennicottia*-like ammonite
 phylloceratid ammonite, genus & species indet.
Pecten (*Entolium*) sp. indet.
Nucula (s. lato) sp. indet.
 Indeterminate bivalves

AGE - mid- to late (but not the latest) Early Cretaceous

REMARKS - All ammonites of collection O-95547 are either fragmentary or represent innermost whorls of larger shells only. Unlike pelecypods (all swimming or deep water forms!) which are well preserved and probably endemic, these ammonites were apparently redeposited into deeper water by some gravity process and badly broken up. Because of the poor state of preservation and the scarcity of ammonite material available, the above determinations and the dating of the fauna represent a tentative suggestion only. So far as known, the genus *Eotetragonites* (Breistroffer, 1947) ranges from ?Barremian to early Albian. This suggests the mid-to late (but not the latest) Early Cretaceous age for lot O-95547. Although not identifiable definitively as to the genus, the rest of ammonites do have a distinct early Albian appearance. An early Albian age and the correlation with the early Albian part of the Matanuska Formation of southeastern Alaska are suggested for the fauna of lot O-95547.

CONODONTS: 115B LISTINGS

GSC LOC. NO.: C-076413

NTS: Mount St. Elias, 115B

FLD. NO.: 191-CAa-77-3 (C8)

COLLECTOR - R.B. Campbell/J. Dudley

IDENT. BY - T.T. Uyeno: GSC (1979)

GEOGR - Lat./Long.: 60° 50' 4", 138° 9' 44"

UTM: Zone 7; 654250E, 6747480N.

Description: Ridge about 5 km SW of confluence of Telluride Creek and Jarvis River.

STRAT - Rock Unit: "Bullion Creek Limestone", map unit Dc

Description: Carbonate, in fault dislocated limestone/argillite sequence.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5 - 6

indeterminate elements apparatus of *P. serotinus*? (Pb,M,Sb,Sc) (9)*Panderodus* sp. (7)*Pandorinellina expansa* Uyeno & Mason (1)*Polygnathus serotinus* Telford (14)AGE - Early Devonian, late Emsian, *serotinus* Zone.

REMARKS - The conodonts are deformed, but otherwise are relatively well preserved. They show some recrystallization into flat-sided, columnar apatite. Report No. 2-TTU-79; collection at ISPG. See also 191-CAa-77-3 (C-76413) for macrofossils from this site, and 191-CAa-77-5 (O-95341) for conodonts from very close to this site. Processed in Calgary.

GSC LOC. NO.: C-102711

NTS: Mount St. Elias, 115B
FLD. NO.: MV-74-166 (C10)

COLLECTOR - J.W.H. Monger

IDENT. BY - M.J. Orchard: GSC (1992c)

GEOGR - Lat./Long.: 60° 47' 35", 138° 14' 2"

UTM: Zone 7; 650550E, 6742700N.

Description: Hillside just above NE side of Kaskawulsh River, 6 km NW of confluence of Kaskawulsh and Jarvis rivers.

STRAT - Rock Unit: "Bullion Creek Limestone", map unit Dc

Description: Carbonate, massively bedded buff-grey limestone.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5.5 - 6

coniform elements (2)

ramiform elements (100)

Ozarkodina sp. (6)*Ozarkodina* sp. cf. *O. remscheidensis* (Ziegler 1960) (1)*Panderodus* sp. (10)

AGE - Late Silurian - Early Devonian.

REMARKS - 1 specimen photographed. Processed by B.E.B. Cameron.

GSC LOC. NO.: O-093549

NTS: Mount St. Elias, 115B
FLD. NO.: K77-2F (C4)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 60° 50' 9", 138° 4' 5"

UTM: Zone 7; 648500E, 6747400N.

Description: At 5275' level on E fork of Boutellier Creek.

STRAT - Rock Unit: McCarthy Formation, map unit uTRM ("lumped" in with uTRN)

Description: Carbonate.

PALEO - Fossils: conodonts

Conodont taxa:

CAI:

ramiform elements (0)

Epigondolella sp. (15)*Neogondolella* sp. (juveniles) (4)

AGE - Late Triassic, Probably Middle or Late Norian.

REMARKS - Bidentate elements may be juvenile specimens. See also K77-10F (O-095349) for conodonts from very close to this locality.

GSC LOC. NO.: O-095341

NTS: Mount St. Elias, 115B

FLD. NO.: 191-CAa-77-5 (C9)

COLLECTOR - R.B. Campbell/J. Dudley

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 60° 50' 4", 138° 9' 44"
UTM: Zone 7; 654250E, 6747480N.

Description: Ridge about 5 km SW of Jarvis River - Telluride Creek junction.

STRAT - Rock Unit: "Bullion Creek Limestone", map unit Dc

Description: Carbonate, dark limestone in calcareous argillite.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

ramiform elements (1)

Polygnathus ex gr. *linguiformis* Hinde 1879 (1)

AGE - Early Middle Devonian, Emsian - Givetian.

REMARKS - See also 191-CAa-77-3 (C-76413) from very close to this locality, for macrofossils and conodonts. Processed by B.E.B. Cameron.

GSC LOC. NO.: O-095342

NTS: Mount St. Elias, 115B

FLD. NO.: 272-CAd-77-1 (C1)

COLLECTOR - C.J. Dodds/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 60° 56' 5", 138° 29' 32"
UTM: Zone 7; 635900E, 6757900N.

Description: Upper Vulcan Creek, on E side of valley, S of Jessie Creek.

STRAT - Rock Unit: "Bullion Creek Limestone", map unit Dc

Description: Carbonate, limestone in fault zone.

PALEO - Fossils: conodonts

Conodont taxa:

CAI:

coniform element (1)

AGE - Ordovician to Middle Devonian.

REMARKS - Processed by B.E.B. Cameron.

GSC LOC. NO.: O-095343

NTS: Mount St. Elias, 115B

FLD. NO.: 151-CAc-77-1 (C2)

COLLECTOR - R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 60° 1' 51", 138° 38' 21"
UTM: Zone 7; 631550E, 6657000N.

Description: Nunatak between head of Fisher and Tweedsmuir glaciers.

STRAT - Rock Unit: "Icefield Ranges Pelitic Assemblage", map unit Psp

Description: Argillite, argillite siltstone sequence.

PALEO - Fossils: conodonts.

Conodont taxa:

CAI: 5

ramiform elements (4)

Oulodus? sp. (3)

AGE - Probably Ordovician - Early Devonian.

REMARKS - 1 specimen photographed. Processed by B.E.B. Cameron.

GSC LOC. NO.: O-095349

NTS: Mount St. Elias, 115B

FLD. NO.: K77-10F (C3)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 60° 55' 20", 138° 15' 52"

UTM: Zone 7; 648300E, 6757000N.

Description: At 5275' level on E fork of Boutellier Creek.

STRAT - Rock Unit: McCarthy Formation, map unit uTRM ("lumped in with uTRN)

Description: Carbonate.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 4.5

ramiform elements (11)

Epigondolella ex gr. *bidentata* Mosher 1968 (18)*Metapolygnathus* sp. (2)*Neogondolella* sp. (4)

AGE - Late Triassic, Probably Middle or Late Norian.

REMARKS - *Metapolygnathus* is anomalous, suggests older age. One specimen photographed. See also K77-2F (O-093549) for conodonts from very close to this locality. Processed by B.E.B. Cameron.

GSC LOC. NO.: O-095350

NTS: Mount St. Elias, 115B

FLD. NO.: K77-13F (C5)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 60° 56' 14", 138° 17' 53"

UTM: Zone 7; 646400E, 6758600N.

Description: At 5400' level on ridge between Boutellier and Silver creeks.

STRAT - Rock Unit: McCarthy Formation, map unit uTRM

Description: Carbonate.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 6 - 7

ramiform elements (4)

Epigondolella sp. (1)*Neogondolella* sp. cf. *N. steinbergensis* (Mosher 1968) (11)

AGE - Late Triassic, Probably Middle or Late Norian.

REMARKS - Epigondellid is bidentate. Processed by B.E.B. Cameron.

GSC LOC. NO.: O-095352

NTS: Mount St. Elias, 115B

FLD. NO.: K77-24F (C6)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 60° 54' 37", 138° 18' 8"

UTM: Zone 7; 646300E, 6755600N.

Description: At 6500' level in headwaters of E fork of Silver Creek.

STRAT - Rock Unit: "Bullion Creek Limestone", map unit Dc

Description: Carbonate.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

ramiform elements (12)

Icriodus sp. (1)*Polygnathus* sp. cf. *P. xylus ensensis* Ziegler, Klapper & Johnson 1976 (3)AGE - Middle Devonian, Givetian, ? *ensensis* Zone.

REMARKS - 2 specimens photographed. See also K77-25F (C-76450) for macrofossils from this locality. Processed by B.E.B. Cameron.

GSC LOC. NO.: O-095353

NTS: Mount St. Elias, 115B

FLD. NO.: K77-26F (C7)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 60° 56' 50", 138° 18' 37"

UTM: Zone 7; 645700E, 6759700N.

Description: At 4500 ft. level on E bank of Silver Creek.

STRAT - Rock Unit: McCarthy Formation, map unit uTRM

Description: Carbonate.

PALEO - Fossils: conodonts, sponge spicules

Conodont taxa:

CAI: 4.5

Epigondolella? sp. (1)*Neogondolella* sp. (2)

AGE - Late Triassic, probably Norian.

REMARKS - Processed by B.E.B. Cameron.

FOSSIL LISTINGS SW DEZADEASH (115A) MAP AREA, YUKON

MACROFOSSILS: 115A LISTINGS

CONODONTS: 115A LISTINGS

(Map 3 gives macrofossil and conodont localities)

MACROFOSSILS: 115A LISTINGS

FIELD NO. 331-CAJ-74-1 (M4) GSC LOC. C-37967
 LOCALITY - 115A, Dezadeash
 UTM: Zone 8, 341150E, 6697000N.
 Lat./Long.: 60° 22' 48", 137° 52' 54"
 W side of Alsek River valley, about 4 miles S of Marble Creek.
 STRAT - "Icefield Ranges Pelitic Assemblage", map unit Psp,
 COLLECTOR - C.J. Dodds
 IDENT. BY - E.W. Bamber: GSC (1975; pers. comm., 1992)
 FOSSILS - Other:
 echinoderm fragments
 fenestellid bryozoans
 inarticulate brachiopod
 productoid brachiopods-poorly preserved possibly includes horridonids &
 ?*Yakovlevia* sp.
 ? *Spiriferella* sp. - very poorly preserved
 AGE - Upper Carboniferous or Permian, probably the latter
 REMARKS - See also 60-CAJ-78-1 (C-79856) for other macrofossils and 331-CAJ-74-1 (C-86420)
 for conodonts from this locality.

FIELD NO. RL-74-23F (M6) GSC LOC. C-38078
 LOCALITY - 115A, Dezadeash
 UTM: Zone 8, 341500E, 6674450N.
 Lat./Long.: 60° 10' 40", 137° 51' 27"
 2.2 miles SE of outlet of lake at head of Clay Creek, at 4,000 ft level.
 STRAT - "Field Creek Volcanics", map unit Cvs
 COLLECTOR - P.B. Read
 IDENT. BY - G.A. Cooper: National Museum of Natural History, Smithsonian Institution, Washington
 D.C. (pers. comm., 1978)
 FOSSILS - Other:
 cf. *Billingsella* sp.
 cf. *Ocnerorthis* sp.
 AGE - probably Late Cambrian
 REMARKS - Collections sent to G.A. Cooper by B.S. Norford, GSC (1975; pers. comm., 1992)

FIELD NO. RL-74-29F (M10) GSC LOC. C-38086
 LOCALITY - 115A, Dezadeash
 UTM: Zone 8, 339500E, 6737250N.
 Lat./Long.: 60° 44' 25", 137° 56' 39"
 6500 ft. level on ridgetop between Sugden Creek and Kaskawulsh River.
 STRAT - "Bullion Creek Limestone", map unit Dc
 COLLECTOR - P.B. Read
 IDENT. BY - A.E.H. Pedder: GSC (1975; pers. comm., 1992)
 FOSSILS - Other:
Amphipora sp.
Thamnopora sp.
 AGE - Late Silurian - Upper Devonian

FIELD NO. RL-74-33F (M12)**GSC LOC. C-38087**

LOCALITY - 115A, Dezadeash
 UTM: Zone 8, 340733E, 6696770N.
 Lat./Long.: 60° 22' 40", 137° 53' 20"
 SE bank of Alsek River, 4.25 miles downstream from mouth of Marble Creek.

STRAT - map unit uPcp

COLLECTOR - P.B. Read

IDENT. BY - A.E.H. Pedder: GSC (1975; pers. comm., 1992)

FOSSILS - Other:
 bryozoa, too poorly preserved for identification
 crinoid ossicles

AGE - indeterminate

REMARKS - See also RL74-33F (C-38087) for conodonts from this locality.

FIELD NO. 18-CAw-74-1 (M7)**GSC LOC. C-38095**

LOCALITY - 115A, Dezadeash
 UTM: Zone 8, 346550E, 6714500N.
 Lat./Long.: 60° 32' 20", 137° 47' 50"
 E side Alsek River about 2 km S of the mouth of Raft Creek.

STRAT - map unit OSwp

COLLECTOR - L.J. Werner

IDENT. BY - A.E.H. Pedder: GSC (1975; pers. comm., 1992)

FOSSILS - Other:
Favosites ? sp. indet.
 crinoid ossicles

AGE - probably Silurian or Devonian

REMARKS - See also 40-CAd-79-1 (C-86305) for conodonts from very close to this locality.

FIELD NO. 319-CAd-77 (M9)**GSC LOC. C-76416**

LOCALITY - 115A, Dezadeash
 UTM: Zone 8, 339550E, 6738000N.
 Lat./Long.: 60° 44' 49", 137° 56' 38"
 High ridge S of head of Kimberley Creek.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - C.J. Dodds

IDENT. BY - A.E.H. Pedder: GSC (1978; pers. comm., 1992)

FOSSILS - Other:
 digitate organisms too recrystallized for identification
 ? *Dendrostella* sp.

AGE - Possibly Middle Devonian

FIELD NO. 320-CAAd-77 (M8)**GSC LOC. C-76417**

LOCALITY - 115A, Dezadeash
 UTM: Zone 8, 339750E, 6673720N.
 Lat./Long.: 60° 10' 14", 137° 53' 18"
 High ridge S of head of Kimberley Creek.
STRAT - "Bullion Creek Limestone", map unit Dc
COLLECTOR - C.J. Dodds
IDENT. BY - A.E.H. Pedder: GSC (1978; pers. comm., 1992)
FOSSILS - Other:
 tabulate coral, indet.
AGE - Paleozoic, probably post Ordovician

FIELD NO. 60-CAj-78-1 (M5)**GSC LOC. C-79856**

LOCALITY - 115A, Dezadeash
 UTM: Zone 8, 341150E, 6697000N.
 Lat./Long.: 60° 22' 48", 137° 52' 54"
 On W side of Alsek River, 8 km NE of Lowell Glacier terminus.
STRAT - "Icefield Ranges Pelitic Assemblage", map unit Psp
COLLECTOR - B. Jacobson
IDENT. BY - E.W. Bamber: GSC (1978; pers. comm., 1992)
FOSSILS - Other:
 echinoderm columnals
 horn coral, very badly crushed
 ramose bryozoans
 brachiopods, indet.-probably productoids
AGE - probably Carboniferous or Permian
REMARKS - See also 331-CAAd-74-1 (C-37967) for other macrofossils and 331-CAAd-74-1 (C-86420) for conodonts from this locality.

FIELD NO. 11-CAAd-81 (M11)**GSC LOC. C-80094**

LOCALITY - 115A, Dezadeash
 UTM: Zone 8, 341600E, 6696350N.
 Lat./Long.: 60° 22' 27", 137° 52' 22"
 On E side of Alsek River, 4 miles S of Marble Creek confluence.
STRAT - "Icefield Ranges Pelitic Assemblage", map unit Psp
COLLECTOR - C.J. Dodds
IDENT. BY - E.W. Bamber: GSC (1982; pers. comm., 1992)
FOSSILS - Other:
 productoid brachiopod, indet.
 ? *Spiriferella* sp.- very poorly preserved
 fenestellid bryozoans
AGE - Carboniferous or Permian, probably the latter
REMARKS - *Spiriferella* sp. is confined to the Permian, but the specimens in this sample are too poorly preserved for definite age assignment.

FIELD NO. (M1)**GSC LOC. M1**

LOCALITY - 115A, Dezadeash
UTM: Zone 8, 382200E, 6695300N.
Lat./Long.: 60° 22' 43", 137° 8' 12"
 About 3000 ft. level, E side of Alder Creek, 1000 ft. N of S end of canyon.

STRAT - Dezadeash Group, map unit JKD

COLLECTOR - E.D. Kindle

IDENT. BY - J.A. Jeletsky: GSC (in Kindle, 1953, p. 36.)

FOSSILS - **Bivalves:**
Buchia cf. *gigas* (Crickmay)
Buchia cf. *terebratuloides* (Lahusen)
Buchia crassicolis (Keyserling)
Buchia crassicolis (Keyserling) var. *americana* Sokolov
Buchia cf. *crassicolis* (Keyserling)
Buchia sp. indet. cf. *crassicolis* (Keyserling)
Buchia? sp. indet.

AGE - earliest Lower Cretaceous, Neocomian

REMARKS - N.B. genera referred to as *Aucella* in Kindle (1953) is now called *Buchia*.

FIELD NO. (M13)**GSC LOC. M13**

LOCALITY - 115A, Dezadeash
UTM: Zone 8, 369850E, 6715750N.
Lat./Long.: 60° 33' 30", 137° 22' 26"
 About 2900 ft. level on ridge NW side of "main" Kathleen Lakes.

STRAT - Dezadeash Group, map unit JKD

COLLECTOR - E.D. Kindle

FOSSILS - not submitted

AGE - indeterminate

REMARKS - Specimens of poor diagnostic value. Kindle (1953, p. 36, GSC Map 1019A)

FIELD NO. (M14)**GSC LOC. M14**

LOCALITY - 115A, Dezadeash
UTM: Zone 8, 350500E, 6695400N.
Lat./Long.: 60° 22' 9", 137° 42' 39"
 Source area of Shaft Creek

STRAT - Amphitheatre Formation, map unit Os

COLLECTOR - E.D. Kindle

FOSSILS - not submitted

AGE - not determined

REMARKS - Kindle (1953, p. 42, GSC Map 1019A)

FIELD NO. 306-CAd-74-3 (M15)**GSC LOC. M15**

LOCALITY - 115A, Dezadeash
UTM: Zone 8, 340600E, 6708400N.
Lat./Long.: 60° 28' 55", 137° 54' 2"
 At about 3500 ft. level on unnamed creek just to the N of Marble Creek.

STRAT - Amphitheatre Formation, map unit Os

COLLECTOR - C.J. Dodds

FOSSILS - not submitted

AGE - not determined

FIELD NO. 426-CA4-74-1 (M16)**GSC LOC. M16**

LOCALITY - 115A, Dezadeash
 UTM: Zone 8, 349000E, 6682200N.
 Lat./Long.: 60° 15' 1", 137° 43' 41"
 E of Goatherd Mountain, N of Field Creek; location as plotted uncertain, check GSC field notebook of collector.

STRAT - Amphitheatre Formation, map unit Os

COLLECTOR - C.J. Dodds

FOSSILS - not submitted

AGE - not determined

FIELD NO. (M2)**GSC LOC. M2**

LOCALITY - 115A, Dezadeash
 UTM: Zone 8, 355300E, 6693550N.
 Lat./Long.: 60° 21' 16", 137° 37' 22"
 At 4000 ft. level on NE side of Shaft Creek, some 5 miles NW of N end of Bates Lake.

STRAT - Amphitheatre Formation, map unit Os

COLLECTOR - E.D. Kindle

IDENT. BY - W.A. Bell: GSC (see Kindle, 1953, p. 42)

FOSSILS - Other:
Pterospermites? auriculaecordatus? Hollick
Acer arcticum Heer
Dillenites sp. cf. *D. ellipticus* Hollick

AGE - probably Paleocene

FIELD NO. (M3)**GSC LOC. M3**

LOCALITY - 115A, Dezadeash
 UTM: Zone 8, 360200E, 6686500N.
 Lat./Long.: 60° 17' 34", 137° 31' 45"
 At about 4000 ft. level, one mile E of the N end of Bates Lake.

STRAT - Amphitheatre Formation, map unit Os

COLLECTOR - H.S. Bostock, E.D. Kindle

IDENT. BY - W.A. Bell: GSC (in Kindle, 1953, p. 42-43)

FOSSILS - Other:
Trochodendroides arctica (Heer)
Corylites? fosteri? (Ward)
Alnus sp.
Pterospermites? auriculaecordatus? Hollick
Hicoria antiquora (Newberry)
Hamamelis? clarus Hollick
Elatocladus (Cryptomerites?) nordeskioldi (Heer)
Sequoia langsdorffii (Brongniart) Heer
Taxites olriki Heer

AGE - Paleocene

CONODONTS: 115A LISTINGS

GSC LOC. NO.: C-038087

NTS: Dezadeash, 115A

FLD. NO.: RL-74-33F (C1)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 60° 22' 40", 137° 53' 20"

UTM: Zone 8; 340580E, 6696777N.

Description: On SE bank of Alsek River, 4.25 miles downstream from mouth of Marble Creek.

STRAT - Rock Unit: map unit uPpc

Description: Carbonate.

PALEO - Fossils: conodonts, foraminifers, microgastropods, bryozoans, crinoid

Conodont taxa:

CAI:

ramiform elements (2)

Metapolygnathus? sp. (1)

AGE - Late Triassic, Probably Carnian.

REMARKS - Single specimen photographed. See also RL74-33F (C-038087) for macrofossils from this locality. Processed by B.E.B. Cameron.

GSC LOC. NO.: C-086294

NTS: Dezadeash, 115A

FLD. NO.: 100-CAd 78-1 (C7)

COLLECTOR - C.J. Dodds/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 60° 19' 30", 137° 51' 8"

UTM: Zone 8; 342500E, 6690800N.

Description: At mouth of creek canyon 8 km N of Goatherd Mountain.

STRAT - Rock Unit: map unit uPpc

Description: Carbonate, thin-bedded dark grey flaggy limestone and calcareous argillite.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

Epigondolella sp. (3)

AGE - Late Triassic, Early - Middle Norian.

REMARKS - Processed by B.E.B. Cameron.

GSC LOC. NO.: C-086303

NTS: Dezadeash, 115A

FLD. NO.: 4-CAd 79-1 (C5)

COLLECTOR - C.J. Dodds/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a; Pohler & Orchard, 1990 (table 1))

GEOGR - Lat./Long.: 60° 5' 47", 137° 49' 41"

UTM: Zone 8; 342750E, 6665300N.

Description: On NE trending ridge S of Bates River, about 2 km SE of peak 6490'.

STRAT - Rock Unit: "Goatherd Mountain Carbonate Assemblage", map unit ODcs

Description: Carbonate, dark bluish-grey, thin-bedded limestones in sequence of same.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

Juanognathus? sp. (1)*Variabiloconus bassleri* (Furnish 1938) (1)

AGE - Ordovician.

REMARKS - These tiny elements are poorly preserved and their generic placement is uncertain. 1 specimen photographed.

GSC LOC. NO.: C-086304

NTS: Dezadeash, 115A
FLD. NO.: 9-CAc-79-1 (C6)

COLLECTOR - R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 60° 19' 4", 137° 51' 6"

UTM: Zone 8; 342500E, 6690000N.

Description: 7 km N of Goatherd Mountain.

STRAT - Rock Unit: "Bullion Creek Limestone", map unit Dc

Description: Carbonate, mega-fragments (clasts) in mid-Tertiary conglomerate
(Amphitheatre Formation, unit Os)

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5 - 5.5

ramiform elements (Sc) (2)

Pelekysgnathus? sp. (1)*Polygnathous serotinus* Telford 1975 (20)AGE - Early - Middle Devonian, Emisian - Eifelian, *P. serotinus* Zone - *costatus costatus* Zone.

REMARKS - 1 specimen photographed.

GSC LOC. NO.: C-086305

NTS: Dezadeash, 115A
FLD. NO.: 40-CAAd-79-1 (C8)

COLLECTOR - C.J. Dodds/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 60° 32' 27", 137° 47' 47"

UTM: Zone 8; 346600E, 6714700N.

Description: E side Alsek River, about 2 km S of Raft Creek confluence with Alsek River.

STRAT - Rock Unit: map unit OSwp

Description: Carbonate, grey cleaved limestone.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 6

coniform elements (2)

AGE - Probably Ordovician.

REMARKS - See also 18-CAw-74-1 (C-038095) for macrofossils from very close to this site.

GSC LOC. NO.: C-086418

NTS: Dezadeash, 115A

FLD. NO.: 359-CAd 74-1 (C9)

COLLECTOR - C.J. Dodds/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 60° 12' 5", 137° 59' 29"

UTM: Zone 8; 334200E, 6677400N.

Description: E side of Alsek River valley about 5 miles S of terminus of Lowell Glacier.

STRAT - Rock Unit: "Goatherd Mountain Carbonate Assemblage", map unit ODcs

Description: Carbonate, well-bedded to massive limestone, with crinoid and rugose coral fragments.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

ramiform elements (30)

Belodella sp. (50)*Icriodus* sp. (18)*Ozarkodina* sp. cf. *O. brevis* (Bischoff & Ziegler 1957) (1)*Polygnathus* ex. gr. *linguiformis* Hinde 1879 (6)*Polygnathus* ex. gr. *robusticostatus* Bischoff & Ziegler 1957 (1)

AGE - Middle Devonian.

REMARKS - 5 specimens photographed. Processed by B.E.B. Cameron.

GSC LOC. NO.: C-086420

NTS: Dezadeash, 115A

FLD. NO.: 331-CAd-74-1 (C10)

COLLECTOR - C.J. Dodds/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 60° 22' 48", 137° 52' 54"

UTM: Zone 8; 341150E, 6697000N.

Description: W side of Alsek River valley, about 4 miles S of Marble Creek.

STRAT - Rock Unit: "Icefield Ranges Pelitic Assemblage", map unit Psp

Description: Carbonate, well-bedded, blue-grey limestone & limy siltstone/sandstone.

PALEO - Fossils: conodonts, ichthyoliths

Conodont taxa:

CAI: 5

Ellisonia sp. (50)*Neogondolella* sp. (1)

AGE - Permian-Early Triassic.

REMARKS - 1 specimen photographed. See also 331-CAd-74-1 (C-37967) and 60-CAj-78-1 (C-79856) for macrofossils from this locality. Processed by B.E.B. Cameron.

GSC LOC. NO.: C-102135

NTS: Dezadeash, 115A

FLD. NO.: 13-CAd-81-1 (C11)

COLLECTOR - C.J. Dodds/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 60° 22' 14", 137° 52' 54"

UTM: Zone 8; 341100E, 6695950N.

Description: On E side of Alsek River, about 7 km downstream from mouth of Marble Creek.

STRAT - Rock Unit: map unit uPcp

Description: Carbonate, collected from N fold hinge of near vertically dipping fold, well-bedded blue-grey limestone (per. cl.).

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

ramiform elements (1)

Epigondolella sp. cf. *triangularis* (Budurov 1972) (4)

AGE - Late Triassic, Early Norian.

GSC LOC. NO.: C-102143

NTS: Dezadeash, 115A

FLD. NO.: 27-CAb-81-1 (C12)

COLLECTOR - R.B. Campbell/D. Brown

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 60° 18' 57", 137° 49' 44"

UTM: Zone 8; 343750E, 6689740N.

Description: Approximately 7 km NE of terminus of Lowell Glacier; N of Goatherd Mountain.

STRAT - Rock Unit: map unit uPcp

Description: Carbonate, large (150 m long), massive knob of grey, fine grained limestone.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5.5 - 6

Epigondolella triangularis (Budurov 1972) (2)

AGE - Late Triassic, Early Norian.

GSC LOC. NO.: C-102144

NTS: Dezadeash, 115A

FLD. NO.: 28-CAb-81-1 (C13)

COLLECTOR - R.B. Campbell/D. Brown

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 60° 19' 19", 137° 50' 57"

UTM: Zone 8; 342650E, 6690450N.

Description: Approximately 7 km NE of terminus Lowell Glacier, N of Goatherd Mountain.

STRAT - Rock Unit: map unit uPcp

Description: Carbonate, light grey massive limestone.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5 - 5.5

Epigondolella quadrata Orchard 1991 (2)*Epigondolella triangularis* (Budurov 1972) (5)

AGE - Late Triassic, Early Norian.

GSC LOC. NO.: O-086485

NTS: Dezadeash, 115A
FLD. NO.: RL 74-24F (C2)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 60° 24' 25", 137° 29' 25"

UTM: Zone 8; 362824E, 6699120N.

Description: At 4725' on ridge crest between Beloud Creek and unnamed creek to NW.

STRAT - Rock Unit: Skolai Group; Hasen Creek Formation, map unit Pc

Description: Carbonate.

PALEO - Fossils: conodonts, brachiopod debris, coral debris

Conodont taxa:

CAI: 7

ramiform elements (2)

Neogondolella ex. gr. *idahoensis* (Youngquist, Hawley & Miller 1951) (4)

AGE - Early Permian.

REMARKS - Processed by B.E.B. Cameron.

GSC LOC. NO.: O-086490

NTS: Dezadeash, 115A
FLD. NO.: RL 74-32F (C3)

COLLECTOR - P.B. Read

IDENT. BY - M.J. Orchard: GSC (1992b)

GEOGR - Lat./Long.: 60° 27' 50", 137° 30' 20"

UTM: Zone 8; 362224E, 6705491N.

Description: At 4500' on N side of Cottonwood Creek; NW of head of Victoria Creek.

STRAT - Rock Unit: Skolai Group, Hasen Creek Formation, map unit Pc

Description: Carbonate.

PALEO - Fossils: conodonts, ichthyoliths, coral debris

Conodont taxa:

CAI: 4

Neogondolella sp. (7)

AGE - Probably Permian.

REMARKS - 1 specimen photographed Processed by B.E.B. Cameron.

GSC LOC. NO.: O-093406

NTS: Dezadeash, 115A
FLD. NO.: MV-74-179 (C4)

COLLECTOR - J.W.H. Monger

IDENT. BY - M.J. Orchard: GSC (1992c)

GEOGR - Lat./Long.: 60° 4' 26", 137° 17' 12"

UTM: Zone 8; 372750E, 6661650N.

Description: At approximately 3900' elevation, 4 miles ESE of E end of Onion Lake.

STRAT - Rock Unit: "Bullion Creek Limestone", map unit Dc

Description: Carbonate.

PALEO - Fossils: conodonts, crinoid columnals

Conodont taxa:

CAI: 5

coniform element (1)

ramiform elements (10)

Icriodus sp. (6)*Polygnathus* ex gr. *linguiformis* Hinde 1879 (1)

AGE - Probably Middle Devonian.

REMARKS - Processed by B.E.B. Cameron.

**FOSSIL LISTINGS NE YAKUTAT (1140) MAP AREA,
BRITISH COLUMBIA**

MACROFOSSILS: 1140 LISTINGS

(Map 4 gives macrofossil localities)

MACROFOSSILS: 1140 LISTINGS

FIELD NO. 92-MMI-46-12A (M1)

GSC LOC. C-208165

LOCALITY - 114O/16, Yakutat

UTM: Zone 7, 351925E, 6646600N.

Lat./Long.: 59° 55' 55", 143° 38' 59"

5 km SW of headwaters Tough Creek

STRAT - "Icefield Ranges Pelitic Assemblage", map unit Psp (GSC, 1992); map unit SPsc1 (BCGS, 1993)

COLLECTOR - M.G. Mihalynuk (BCGS)

IDENT. BY - B.S. Norford: GSC (1992b)

FOSSILS - Other:

?Coenites sp.

?Cystihalysites sp.

AGE - probably Silurian

REMARKS - Part of collection sent to T. Uyeno for search for conodonts. The fossils in this sample are extensively recrystallized but the presence of a halysitid coral indicates an age within the span late Middle Ordovician to Late Silurian; however it is unlikely that the collection is Ordovician.

FIELD NO. (M2)

GSC LOC. M2 (1140)

LOCALITY - 114O/16, Yakutat

UTM: Zone 7, 663000E, 6647750N.

Lat./Long.: 59° 56' 12", 138° 4' 58"

At about 4200 ft, 1 km E of Super Cub Lake

STRAT - "Icefield Ranges Pelitic Assemblage", map unit Psp (GSC, 1992); map unit SPsc2 (BCGS, 1993)

COLLECTOR - M.G. Mihalynuk? (BCGS)

FOSSILS - not submitted

AGE - not determined

FIELD NO. (M3)

GSC LOC. M3 (1140)

LOCALITY - 114O/16, Yakutat

UTM: Zone 7, 641600E, 6651700N.

Lat./Long.: 59° 58' 48", 138° 27' 45"

W edge of tributary glacier, E side of Tweedsmuir Glacier, about 2 km S of British Columbia border.

STRAT - map unit SDc (GSC, 1992); map unit SPsc1 (BCGS, 1993)

COLLECTOR - M.G. Mihalynuk? (BCGS)

FOSSILS - not submitted

AGE - not determined

FIELD NO. (M4)**GSC LOC. M4 (1140)**

LOCALITY - 1140/16, Yakutat
 UTM: Zone 7, 650000E, 6648750N.
 Lat./Long.: 59° 57' 2", 138° 18' 52"
 About 5 km W of headwaters of Tough Creek

STRAT - "Icefield Ranges Pelitic Assemblage", map unit Psp (GSC, 1992); map unit IPzc2a
 (BCGS, 1993)

COLLECTOR - M.G. Mihalynuk (BCGS)

FOSSILS - not submitted

AGE - not determined

FIELD NO. (M5)**GSC LOC. M5 (1140)**

LOCALITY - 1140/16, Yakutat
 UTM: Zone 7, 650350E, 6645600N.
 Lat./Long.: 59° 55' 20", 138° 18' 37"
 About 5 km SW of headwaters of Tough Creek.

STRAT - "Icefield Ranges Pelitic Assemblage", map unit Psp (GSC, 1992); map unit SPsc1
 (BCGS, 1993)

COLLECTOR - M.G. Mihalynuk (BCGS)

FOSSILS - not specified

AGE - not specified

**FOSSIL LISTINGS TATSHENSHINI RIVER (114P) MAP AREA,
BRITISH COLUMBIA**

MACROFOSSILS: 114P LISTINGS

CONODONTS: 114P LISTINGS

(Map 5 gives macrofossil and conodont localities)

MACROFOSSILS: 114P LISTINGS

FIELD NO. 1-CAAd-82-1 (M32) GSC LOC. C-102507
 LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 411500E, 6605500N.
 Lat./Long.: 59° 34' 49", 136° 34' 1"
 E side of Inspector Creek at about 3900 ft. level, approximately 1 km N of triangulation
 5121 ft.
 STRAT - map unit uPs
 COLLECTOR - T. Heah, Falconbridge Ltd.
 FOSSILS - Other:
 indeterminate macrofossils
 AGE - indeterminate
 REMARKS - Samples too deformed and recrystallized for identification.

FIELD NO. 2-CAAd-82-1 (M33) GSC LOC. C-102508
 LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 412900E, 6604200N.
 Lat./Long.: 59° 34' 8", 136° 32' 30"
 At about 3600 ft. level just S of summit of Copper Butte
 STRAT - map unit uPs
 COLLECTOR - B. Downing, Falconbridge Ltd.
 FOSSILS - Other:
 indeterminate
 AGE - indeterminate
 REMARKS - Samples too deformed and recrystallized of identification.

FIELD NO. 15-CAAd-86-1 (M10) GSC LOC. C-142613
 LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 379800E, 6619600N.
 Lat./Long.: 59° 41' 56", 137° 8' 9"
 Carmine Mountain area, approximately 10 km S of peak 6342 ft.
 STRAT - map unit uPpc (GSC, 1992); map unit uTrTs? (BCGS, 1993)
 COLLECTOR - C.J. Dodds
 IDENT. BY - E.T. Tozer: GSC (1986, pers. comm., 1992)
 FOSSILS - Other:
Placites sp.
Alloclionites sp.
Himavatites or *Neohimavatites* (fragment of very large species) sp.
Leislingites sp.
Halorites sp.
 AGE - Late Triassic, Middle Norian, *Columbianus* Zone
 REMARKS - Fauna is older than "Sutton fauna" previously known from the Carmine Mountain area.
 Collection is from very close to localities of 79-CAj-78-1 (C-79647) and 4-CAC-79-1
 (C-82661). See also 15-CAAd-86-2 (C-142620) for conodonts from this site. Fauna is
 probably from the youngest subzone of the *Columbianus* Zone.

FIELD NO. 41-CAd-86-2 (M11)**GSC LOC. C-142614**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 415000E, 6585000N.
 Lat./Long.: 59° 23' 49", 136° 29' 48"
 Nunatak about 2 km NNW of summit of Mount Henry Clay.

STRAT - map unit Pvb

COLLECTOR - Guy della Val, Stryker Freeport Res. Ltd

IDENT. BY - E.T. Tozer: GSC (1986, pers. comm., 1992)

FOSSILS - Other:
Monotis subcircularis Gabb.

AGE - Upper Triassic, Upper Norian, *Cordilleranus* Zone

FIELD NO. 34-CAd-86-1 (M12)**GSC LOC. C-142615**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 396700E, 6606500N.
 Lat./Long.: 59° 35' 9", 136° 49' 45"
 On ridge approximately 2 km SSW of confluence of Michael Creek and O'Connor River.

STRAT - "Icefield Ranges Pelitic Assemblage", map unit Psp

COLLECTOR - Guy della Val, Stryker Freeport Res. Ltd.

IDENT. BY - B.S. Norford: GSC (1987a, pers. comm., 1992)

FOSSILS - Other:
 ? *Climacograptus* sp.
 ? *Glossograptus* sp.
 ? *Orthograptus* sp.
 ? isograptid graptolite ?
Dicellograptus sp.

AGE - Middle or Late Ordovician

REMARKS - See also 216-CAj-78-1 (C-79860).

FIELD NO. 73-CAd-86 (M13)**GSC LOC. C-142619**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 419400E, 6616500N.
 Lat./Long.: 59° 40' 50", 136° 25' 53"
 Ridge on E side upper Dick Creek valley, Kusawak Range

STRAT - map unit uPs

COLLECTOR - J. Hofer

IDENT. BY - B.D.E. Chatterton: U. of Alberta (pers. comm., 1987)

FOSSILS - Other:
Dechenella aff. *D. algida* (Ormiston, 1967)

AGE - Middle Devonian, Givetian

REMARKS - This species is only known from the Bird Fiord Formation of Bathurst Island, Canadian Arctic. The Bird Fiord Formation is Givetian in this location, based upon trilobite and conodont biostratigraphy. The next closest species, *Dechenella crepuscula* (Ormiston, 1967), occurs slightly lower in the Bird Fiord Formation in the same area, and is also considered to be Givetian in age.

FIELD NO. 74-CAAd-86-1 (M14)**GSC LOC. C-142621**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 410650E, 6579650N.
 Lat./Long.: 59° 20' 53", 136° 34' 16"
 Ridge N of middle part of Tsirku Glacier, 6.5 km SW of Mt. Henry Clay; just above
 1987 drill site on Grizzly Heights property (Stryker/Freeport Resources Ltd.).

STRAT - map unit Pvb

COLLECTOR - Guy della Val, Stryker Freeport Res. Ltd

IDENT. BY - A.E.H. Pedder: GSC (1987, pers. comm., 1992)

FOSSILS - Other:
Minussiella ? sp. indeterminate

AGE - probably Middle Devonian

REMARKS - The identified rugose coral is poorly preserved and cannot be identified with certainty, however, it is likely to be a species of *Minussiella*. At present, *Minussiella* is known from Eifelian strata of the Minusinsk Basin, Altay Mountains, Mongolian Altay, all in Russian Asia, western Mongolia and Bathurst Island, and Givetian strata of the Kuznetsk and Minusinsk basins and western Canada (Horn Plateau Reef). See Pedder (1986).

FIELD NO. 48-DGA-87-1 (M15)**GSC LOC. C-142629**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 400000E, 6597690N.
 Lat./Long.: 59° 30' 27", 136° 46'
 On ridge, W side of Michael Creek; about 11 km S of O'Connor River.

STRAT - "Icefield Ranges Pelitic Assemblage", map unit Psp

COLLECTOR - C.J. Dodds

IDENT. BY - B.S. Norford: GSC (1987b, pers. comm., 1992)

FOSSILS - Other:
 graptolite fragments
 ? *Climacograptus* sp.

AGE - probably Middle Ordovician

FIELD NO. 50-DGA-87-1 (M16)**GSC LOC. C-142630**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 400000E, 6598830N (Figure 1).
 Lat./Long.: 59° 31' 4", 136° 46' 2"
 On ridge, W side of Michael Creek; about 11 km S of O'Connor River.

STRAT - "Icefield Ranges Pelitic Assemblage", map unit Psp

COLLECTOR - C.J. Dodds

IDENT. BY - B.S. Norford: GSC (1987b, pers. comm., 1992)

FOSSILS - Other:
 inarticulate brachiopod
 ? *Caryocaris* sp.
 conodont
 ? *Acrograptus* sp.
 ? *Climacograptus* sp.
Cryptograptus schaeferi Lapworth
Pseudoclimacograptus decoratus (Harris and Thomas)
Glossograptus hincksi (Hopkinson)
Glyptograptus (sensu lato) sp.
 ? *Pseudophyllograptus* sp.

AGE - early Middle Ordovician, Llanvirn *Pseudoclimacograptus decoratus* Zone

FIELD NO. 43-DGA-87-3 (M17)**GSC LOC. C-142631**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 399250E, 6596700N.
 Lat./Long.: 59° 29' 54", 136° 46' 46"
 On ridge, W side of Michael Creek; about 11km S of O'Connor River.

STRAT - "Icefield Ranges Pelitic Assemblage", map unit Psp

COLLECTOR - C.J. Dodds

IDENT. BY - B.S. Norford: GSC (1987b, pers. comm., 1992)

FOSSILS - Other:
 straight cephalopod, indeterminate

AGE - Paleozoic

FIELD NO. 111b-DGA-87-1 (M18)**GSC LOC. C-142639**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 344400E, 6624600N.
 Lat./Long.: 59° 43' 55", 137° 46' 4"
 On west ridge of "Windy Craggy Mountain".

STRAT - "Tats Group", map unit uTrTs (BCGS, 1993); map unit uPpc (GSC, 1992)

COLLECTOR - C.J. Dodds/J. Fox, Geddes Resources Ltd.

IDENT. BY - E.T. Tozer: GSC (1987, pers. comm., 1992)

FOSSILS - Other:
 ? rhynchonelloid brachiopods

AGE - possibly Paleozoic

REMARKS - Coquinoid rock composed of poorly preserved shells, possibly rhynchonelloid brachiopods. See also 111b-DGA-87-2 (C-142638) for conodonts from this location.

FIELD NO. 92-MMI-MSM-34-2 (M38)**GSC LOC. C-168133**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8v, 380450E, 6631800N (Figure 1).
 Lat./Long.: 59° 48' 31", 137° 7' 52"
 8 km N of Carmine Mountain

STRAT - "Goatherd Mountain Carbonate Assemblage", map unit ODcs (GSC, 1992); map unit Pza2 (BCGS, 1993)

COLLECTOR - M.T. Smith (BCGS)

IDENT. BY - B.S. Norford: GSC (1992b)

FOSSILS - Other:
 dichograptid fragments
 ?*Acrograptus* sp.
 ?*Brachiograptus* sp.
Cryptograptus schaeferi Lapworth
Didymograptus cf. *D. gracilis* Törnquist
Glossograptus sp.
Glyptograptus (sensu lato) sp.
 ?*Holmograptus* sp.
Isograptus cf. *I. caduceus australis* Cooper
 ?*Loganograptus* sp.
Paraglossograptus tentaculatus (Hall)
Pseudoclimacograptus sp.
 ?*Pseudophyllograptus* sp.
Pterograptus sp.
Tetragraptus cf. *T. quadribrachiatus* (Hall)
 ?*Tetragraptus* sp.

AGE - early Middle Ordovician, Llanvirn, *Pseudoclimacograptus decoratus* Zone

REMARKS - The graptolite fauna of C-168133 is indicative of the Pacific Faunal Province, which embraced the western and northern North America, Australasia and China. Contemporary early Middle Ordovician rocks in Europe and eastern Canada belong to a different faunal province.

FIELD NO. 92-MMI-30-7 (M40) **GSC LOC. C-168134**
LOCALITY - 114P/11, Tatshenshini River
 UTM: Zone 8, 378600E, 6612400N.
 Lat./Long.: 59° 38' 2", 137° 9' 11"
 O'Connor River, 2.5 km from mouth
STRAT - "Icefield Ranges Pelitic Assemblage", map unit Psp (GSC, 1992); map unit SPscr (BCGS, 1993)
COLLECTOR - M.G. Mihalynuk (BCGS)
IDENT. BY - B.S. Norford: GSC (1992b)
FOSSILS - Other:
Monograptus sp.
AGE - Early Silurian - Early Devonian

FIELD NO. 92-MMI-JTI-24-3 (M43) **GSC LOC. C-189451**
LOCALITY - 114P/13, Tatshenshini River
 UTM: Zone 8v, 355900E, 6634000N (Figure 1).
 Lat./Long.: 59° 49' 14", 137° 34' 12"
 Alkie Icefield (informal name, up Alkie Creek)
STRAT - "Goatherd Mountain Carbonate Assemblage", map unit ODcs (GSC, 1992); map unit Pza1 (BCGS, 1993)
COLLECTOR - J. Timmerman (BCGS)
IDENT. BY - B.S. Norford: GSC (1992a)
FOSSILS - Other:
?Callograptus sp.
?Climacograptus sp.
Dicranograptus cf. *D. ramosus* (Hall)
Orthograptus spp.
O. calcaratus acutus Elles and Wood
O. aff. O. truncatus intermedius Elles and Wood
AGE - Middle Ordovician, Caradoc, *Climacograptus bicornis* Zone

FIELD NO. 92-MMI-JT-13-5 (M39) **GSC LOC. C-189459**
LOCALITY - 114P/14, Tatshenshini River
 UTM: Zone 8, 378750E, 6634770N.
 Lat./Long.: 59° 50' 5", 137° 9' 48"
 11.5 km N of Carmine Mountain
STRAT - "Goatherd Mountain Carbonate Assemblage", map unit ODcs (GSC, 1992); map unit IPzc3 (BCGS, 1993)
COLLECTOR - J. Timmerman (BCGS)
IDENT. BY - B.S. Norford: GSC (1992b)
AGE - indeterminate

FIELD NO. 92-MSM-MDE-BCM-16-9 (M44)

GSC LOC. C-189479

LOCALITY - 114P/11, Tatshenshini River
 UTM: Zone 8, 367000E, 6624700N.
 Lat./Long.: 59° 44' 26", 137° 21' 58"
 5 km S of Sediment Creeks, 6 km W of Tatshenshini River

STRAT - "Alkie Group", map unit eTAs (BCGS, 1993); map unit Ps (GSC, 1992)

COLLECTOR - M.T. Smith (BCGS)

IDENT. BY - E. McIver: U. of Saskatchewan (1992)

FOSSILS - Other:
Metasequoia occidentalis (Newberry) Chaney

AGE - Early Tertiary

REMARKS - The opposite phyllotaxy of these leaves indicates that they belong to *Metasequoia* Miki; the taxon is reported from the Campanian to late Miocene in North America.

FIELD NO. 92-MSM-MDE-BCM-16-9 (M45)

GSC LOC. C-189480

LOCALITY - 114P/11, Tatshenshini River
 UTM: Zone 8, 369400E, 6624450N.
 Lat./Long.: 59° 44' 21", 137° 19' 24"
 S of Sediments Creek

STRAT - "Alkie Group", map unit eTAs (BCGS, 1993); map unit Ps (GSC, 1992)

COLLECTOR - M.T. Smith (BCGS)

IDENT. BY - E. McIver: U. of Saskatchewan (1992)

FOSSILS - Other:
 cf. *Betulaceae*
 unidentified stem

AGE - Early Tertiary

REMARKS - The leaves on this specimen block are not well preserved and positive identification can not be made. They resemble leaves of alders, but as neither the margin or overall form is preserved for any of them, this is best considered a guess.

FIELD NO. 92-DMA-BCM-39 (M46)

GSC LOC. C-189491

LOCALITY - 114P/14, Tatshenshini River
 UTM: Zone 8, 365500E, 6636900N.
 Lat./Long.: 59° 50' 59", 137° 24' 3"
 N of Sediments Creek, 9 km at 1590 m elevation.

STRAT - "Alkie Group", map unit eTAs (BCGS, 1993); map unit Ps (GSC, 1992)

COLLECTOR - M. Deschênes (BCGS)

IDENT. BY - E. McIver: U. of Saskatchewan (1992)

FOSSILS - Other:
Equisetum sp.
 cf. *Juglandaceae*
 cf. *Hicoria antiquora* (Newberry) Knowlton
 cf. *Betulaceae*
 unidentified stem or narrow leaf

AGE - Early Tertiary

REMARKS - *Equisetum* remains, such as those preserved on one of the specimen blocks, are reported from the mid-Permian to present. Some of the angiosperm leaves appear to belong to the walnut family, others could be alders.

FIELD NO. 92-JTI-MDA-BCM-16-1 (M47)

GSC LOC. C-208161

LOCALITY - 114P/14, Tatshenshini River

UTM: Zone 8, 365450E, 6636675N.

Lat./Long.: 59° 50' 51", 137° 24' 5"

8 km N of Sediments Creek - 9 km; elevation 1590 m

STRAT - "Alkie Group", map unit eTAs (BCGS, 1993); map unit Ps (GSC, 1992)

COLLECTOR - M. Dechênes (BCGS)

IDENT. BY - E. McIver: U. of Saskatchewan (1992)

FOSSILS - Other:

cf. *Fagaceae*cf. *Juglandaceae*

AGE - Early Tertiary

REMARKS - Some of the leaves on this specimen block are fairly well preserved. Unfortunately they are incomplete and no positive identification can be made. Some are probably beech or oak. A small leaf on the other side of the block has the form of a walnut leaf, but it is not well enough preserved to be identified.

All taxa identified in collections C-168133, C-189459, C-168134, and C-208163 are known from the Paleocene, but walnuts and beeches are not common in Western Canada until the mid to late Paleocene. I would suggest a late Paleocene or Eocene age for these remains. Until a better collection of leaves is available, however, only an Early Tertiary age can be proposed with any confidence.

FIELD NO. 92-MMI-JTI-28-1-BCDM (M42)

GSC LOC. C-208162

LOCALITY - 114P/12, Tatshenshini River

UTM: Zone 8, 355050E, 6623150N.

Lat./Long.: 59° 43' 22", 137° 34' 39"

Lower section of Henshi Glacier (N side)

STRAT - "Goatherd Mountain Carbonate Assemblage", map unit ODcs (GSC, 1992); map unit SPsc1 (BCGS, 1993)

COLLECTOR - J. Timmerman (BCGS)

IDENT. BY - A.W. Norris: GSC (1992)

FOSSILS - Other:

Gasterocoma? bicaula Johnson & Lane 1969

echinoderm ossicle with cross-like axial canal

echinoderm ossicle with five-pointed star axial canal

AGE - late Early to earliest Middle Devonian, Emsian to earliest Eifelian

REMARKS - The widely distributed echinoderm ossicle with "two-holes" or "dumb-bell" shape axial canals (*Gastrocoma bicaula*) ranges from a high level in the conodont *dehiscens* Zone, throughout the *gronbergi*, *inversus*, *serotinus*, and *patulus* zones of most of the Emsian, and earliest part of the Eifelian, late Early to earliest Middle Devonian (Norris, 1985, fig. 3). However, it is most common in rocks of Emsian, late Early Devonian. *Gastrocoma? bicaula* is commonly associated with ossicles exhibiting a five-pointed star axial canal, and a cross-like axial canal, both of which are present in sample C-208162. Throughout the Mackenzie Valley area *G.? bicaula* occurs in an interval below the Hume Formation and equivalent rocks.

A polished hand specimen containing abundant *G.? bicaula* from the lower part of the Dunedin Formation of northeastern B.C. has been illustrated by Morrow (1978, fig. 19, p. 12).

A much smaller form of *Gastrocoma?* sp. of Givetian, late Middle Devonian age, is known from the higher parts of the Dunedin Formation of northeastern B.C. associated with *Stringocephalus* sp. (Taylor & Mackenzie, 1970; Morrow, 1978); and from members B and C of the Dawson Bay Formation of southwestern Manitoba (Norris et al., 1982).

FIELD NO. 92-MMI-JTI-18-3 (M41)**GSC LOC. C-208163**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 340950E, 6652400N.
 Lat./Long.: 59° 58' 48", 137° 51' 1"
 3 km W of Alsek River, 3 km S of Yukon border

STRAT - "Goatherd Mountain Carbonate Assemblage", map unit ODcs (GSC, 1992); map unit COzs1 (BCGS, 1993)

COLLECTOR - J. Timmerman (BCGS)

IDENT. BY - B.S. Norford: GSC (1992b)

FOSSILS - Other: inarticulate brachiopod

AGE - Phanerozoic

REMARKS - The fragment of inarticulate brachiopod in C-208163 is rather large; large forms are prominent in the Lower Ordovician and lower Middle Ordovician rocks of the Skoki and Glenogle formations of the Rocky Mountains but the specimen itself can not provide any significant biostratigraphic information.

FIELD NO. MV-74-181 (M19)**GSC LOC. C-37916**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 393000E, 6650000N.
 Lat./Long.: 59° 58' 31", 136° 55' 1"
 At elevation 4250 ft, ridge crest, 5 km SE of triangulation 6856 ft, Squaw Range.

STRAT - Skolai Group; Station Creek Formation, map unit Pv

COLLECTOR - J.W.H. Monger

IDENT. BY - E.W. Bamber: GSC (1975a, pers. comm., 1992)

FOSSILS - Other:
 fenestrate bryozoans
 ? bivalves indet.
 ? linoproductid brachiopods
 probable ammonite (identified by W.W. Nassichuk, GSC)

AGE - Late Carboniferous or Permian

REMARKS - A more exact age determination is not possible because of the extremely poor preservation of this collection. See 50-CAj-78-1 (C-79855) also collected from this locality.

FIELD NO. 52-CAj-78-4 (M20)**GSC LOC. C-79646**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 390700E, 6632500N.
 Lat./Long.: 59° 49' 3", 136° 56' 56"
 Scottie Mountain, Squaw Range.

STRAT - map unit uPc

COLLECTOR - B. Jacobson

IDENT. BY - E.T. Tozer: GSC (1979, pers. comm., 1992)

FOSSILS - Other:
 Hexacorals
Minetrigonia suttonensis (Clapp & Shimer)
 at least 8 other species of Bivalvia
 at least 2 species of gastropods *Placites* sp.

AGE - Upper Triassic, Upper Norian

FIELD NO. 79-CAj-78-1 (M21)**GSC LOC. C-79647**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 379800E, 6619600N.
 Lat./Long.: 59° 41' 56", 137° 8' 9"
 In saddle, 7.5 km NE of confluence of the O'Conner and Tatshenshini rivers.

STRAT - map unit uPpc

COLLECTOR - B. Jacobson

IDENT. BY - E.T. Tozer: GSC (1979, pers. comm., 1992)

FOSSILS - Other:
Minetrigonia suttonensis (Clapp & Shimer)
 several other Bivalve genera
Placites sp.

AGE - Upper Triassic, Upper Norian

REMARKS - The presence of *Minetrigonia suttonensis* suggests a possible correlation with the type Sutton Formation, of Vancouver Island. See 4-CAc-79-1 (C-82661) and 15-CAd-86-1 (C-142613) also see 15-CAd-86-2 (C-142620) for conodonts from this locality..

FIELD NO. 6-CAd-78-1 (M22)**GSC LOC. C-79853**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 383500E, 6650400N.
 Lat./Long.: 59° 58' 35", 137° 5' 14"
 Squaw Creek ridge, Squaw Range.

STRAT - map unit uPc

COLLECTOR - C.J. Dodds

IDENT. BY - E.W. Bamber: GSC (1978, pers. comm., 1992)

FOSSILS - Other:
 echinoderm columnals

AGE - Ordovician to Recent

FIELD NO. 26-CAd-78-1 (M23)**GSC LOC. C-79854**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 389500E, 6635400N.
 Lat./Long.: 59° 50' 36", 136° 58' 19"
 Squaw Range, 3-4 km NE of triangulation station 6210 ft.

STRAT - map unit uPc

COLLECTOR - C.J. Dodds

IDENT. BY - E.W. Bamber: GSC (1978, pers. comm., 1992)

FOSSILS - Other:
 echinoderm columnals

AGE - Ordovician to Recent

FIELD NO. 50-CAj-78-1 (M24)**GSC LOC. C-79855**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 393000E, 6650000N.
 Lat./Long.: 59° 58' 31", 136° 55' 1"
 At elevation 4250 ft, ridge crest, 5 km SE of triangulation 6856 ft, Squaw Range.

STRAT - Skolai Group; Station Creek Formation, map unit Pv

COLLECTOR - B. Jacobson

IDENT. BY - E.W. Bamber: GSC (1978, pers. comm., 1992)

FOSSILS - Other:
 fenestrate bryozoans
 large ?spiriferid and ?productoid brachiopods
 ? bivalves
 horn coral, indet. - completely crushed

AGE - probably Carboniferous or Permian

REMARKS - See MV-74-181 (C-37916) also collected from this locality.

FIELD NO. 127-CAj-78 (M25)**GSC LOC. C-79857**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 379300E, 6632600N.
 Lat./Long.: 59° 48' 55", 137° 9' 8"
 On ridge crest, 5.5 km NW of triangulation 6342 ft. (north of Carmine Mountain).

STRAT - "Goatherd Mountain Carbonate Assemblage", map unit ODcs

COLLECTOR - B. Jacobson

IDENT. BY - B.S. Norford: GSC (1978, pers. comm., 1992); R.H. Flower, New Mexico Bureau of Mineral Resources (1979)

FOSSILS - Other:
 ellesmeroceroid cephalopod
 endoceroid cephalopod
 cf. *Pararaphistoma* sp.
 cf. *Roubidouxia* sp.
 possible brachiopod

AGE - Early Ordovician, probably Middle to Late Canadian (late Tremadoc to Arenig)

REMARKS - Cephalopods and gastropods were identified by R.H. Flower.

FIELD NO. 121-CAj-78-1 (M26)**GSC LOC. C-79858**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 380200E, 6630900N.
 Lat./Long.: 59° 48' 1", 137° 8' 6"
 On ridge crest, 1 km NW of triangulation 6342 ft. (N of Carmine Mountain).

STRAT - "Goatherd Mountain Carbonate Assemblage", map unit ODcs

COLLECTOR - B. Jacobson

IDENT. BY - B.S. Norford: GSC (1978, pers. comm., 1992)

FOSSILS - Other:
 echinoderm and ?gastropod fragments
 solitary rugose coral

AGE - late Middle Ordovician to Permian

FIELD NO. 216-CAj-78-1 (M27)**GSC LOC. C-79860**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 396700E, 6606500N.
 Lat./Long.: 59° 35' 9", 136° 49' 45"
 On ridge, 2 km SE of confluence of Michael Creek with O'Connor River

STRAT - "Icefield Ranges Pelitic Assemblage", map unit Psp

COLLECTOR - B. Jacobson

IDENT. BY - B.S. Norford: GSC (1978, pers. comm., 1992)

FOSSILS - Other:
 ? *Climacograptus* sp.

AGE - Middle Ordovician to Early Silurian

REMARKS - See also 34-CAd-86-1 (C-142615) for another collection from this site.

FIELD NO. 36-CAd-81-1 (M28)**GSC LOC. C-80095**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 333500E, 6640200N.
 Lat./Long.: 59° 52' 3", 137° 58' 26"
 On E side Alsek River, approximately 4.8 km N of the start of Turnback Canyon.

STRAT - "Goatherd Mountain Carbonate Assemblage", map unit ODcs

COLLECTOR - C.J. Dodds

IDENT. BY - B.S. Norford: GSC (1981, pers. comm., 1992)

FOSSILS - Other:
 possible fossils

AGE - indeterminate

REMARKS - Coarse cylindrical objects possibly represent cephalopods, corals, archaeocyathids, or stromatoporoids but their sections fail to reveal any skeletal structure. Small spherical hollow grains are very suggestive of charophytes (Devonian to recent) but their walls are dolomitized and the apparent ornament perhaps could be explained as random dolomite crystals. See also 36-CAd-81-1 (C-102150) for conodonts from this location.

FIELD NO. 4-CAc-79-1 (M29)**GSC LOC. C-82661**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 374500E, 6619600N.
 Lat./Long.: 59° 41' 50", 137° 13' 48"
 In saddle, 7.5 km NE of the confluence of the O'Connor and Tatshenshini rivers.

STRAT - map unit uPpc

COLLECTOR - R.B. Campbell

IDENT. BY - E.T. Tozer: GSC (1980, pers. comm., 1992)

FOSSILS - Other:
 gastropods
 Arcestes sp. indet.
 Placites sp. indet.

AGE - Upper Triassic, probably uppermost Triassic

REMARKS - Possible equivalent to Sutton Limestone fauna on Vancouver Island. See also 79-CAj-78-1 (C-79647) and 15-CAd-86-1 (C-142613), collected from very close to this site.

FIELD NO. 20-CAC-79-1 (M30)**GSC LOC. C-82664**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 375700E, 6615800N.
 Lat./Long.: 59° 39' 49", 137° 12' 23"
 Rock outcrop in flood plain of Tatshenshini River, 1.5 km N of its confluence with
 O'Conner River.

STRAT - "Goatherd Mountain Carbonate Assemblage", map unit ODcs

COLLECTOR - R.B. Campbell

IDENT. BY - A.W. Norris: GSC (1984, pers. comm., 1992)

FOSSILS - Other:
Favosites sp.
 indet. costate pentamerid fragment
Spinatrypa sp.
Gasterocoma ? *biccula* Johnson & Lane, 1969
 large echinoderm ossicle with single axial canal
 echinoderm ossicle with five pointed star-shaped axial canal

AGE - late Early to early Middle Devonian, Zlichovian-to-Dalejan to Eifelian

REMARKS - The most diagnostic elements of this sample are echinoderm ossicles with double and cross-like axial canals referred to as *Gasterocoma* ? *biccula* Johnson and Lane, 1969.

FIELD NO. (M1)**GSC LOC. M1**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 393500E, 6635750N.
 Lat./Long.: 59° 50' 51", 136° 54' 3"
 3 miles N 30° E of Scottie Mountain

STRAT - map unit uPpc
 Lithology: dark grey argillaceous limestone

COLLECTOR - K.DeP. Watson

IDENT. BY - W.A. Bell: GSC (in Watson, 1948, p. 21)

FOSSILS - Other:
 unidentifiable productid ?

AGE - Carboniferous or Permian?

FIELD NO. (M2)**GSC LOC. M2**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 391000E, 6647800N.
 Lat./Long.: 59° 57' 18", 136° 57' 6"
 At about 5500 ft. level below ridge to N of central part of Talbot Creek.

STRAT - map unit PTRv?

COLLECTOR - K. DeP. Watson

IDENT. BY - F.H. MacLearn: GSC (in Watson, 1948, p. 23)

FOSSILS - Other:
Belemnites? sp.

AGE - Mesozoic

FIELD NO. (M3)**GSC LOC. M3**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 391200E, 6649750N.
 Lat./Long.: 59° 58' 21", 136° 56' 57"
 At about 5200 ft. level on ridge between Talbot and Langton creeks

STRAT - Skolai Group; Station Creek Formation, map unit Pv

COLLECTOR - K.DeP. Watson

IDENT. BY - F.H. MacLearn: GSC (in Watson, 1948, p. 23)

FOSSILS - Other:
 Belemnoid?
 crinoid stems

AGE - probably Mesozoic

FIELD NO. BC-1-1984 (M34)**GSC LOC. M34**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 417100E, 6586350N.
 Lat./Long.: 59° 24' 34", 136° 27' 37"
 Across from Mount Henry Clay prospect at about 4800 ft. level, 3 km NNE of Mount Henry Clay summit, Alaska

STRAT - not known

COLLECTOR - J.C. Still, U.S. Bureau of Mines (1984)

FOSSILS - Other:
 indeterminate

AGE - indeterminate

FIELD NO. BC-2-1984 (M35)**GSC LOC. M35**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 417500E, 6586100N.
 Lat./Long.: 59° 24' 26", 136° 27' 12"
 Across from Mount Henry Clay prospect, at about 5200 ft. level, 2.6 km NNE of Mount Henry Clay summit, Alaska

STRAT - "Bullion Creek Limestone" equivalent?, map unit Dc?

COLLECTOR - J.C. Still, U.S. Bureau of Mines (1984)

IDENT. BY - C.J. Dodds: GSC

FOSSILS - Other:
 Gasterocoma? bicaula Johnson & Lane 1969

AGE - Late Early to earliest Middle Devonian, Emsian to earliest Eifelian

REMARKS - See comments by A.W. Norris (GSC) for 92-JTI-MMI-28-1-BCDM (C-208162)

FIELD NO. (M36)**GSC LOC. M36**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 400400E, 6607780N.
 Lat./Long.: 59° 35' 53", 136° 45' 52"
 At about 3000 ft. level on E side of creek, immediately to E of Michael Creek

STRAT - map unit Ps

COLLECTOR - C.J. Dodds

IDENT. BY - J. White: GSC (pers. comm., 1987)

FOSSILS - Other:
 "broad leaves"
 "plant debris"

AGE - very tentative, Early Tertiary?

REMARKS - Collection only cursorily examined.

FIELD NO. (M37)**GSC LOC. M37**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 389800E, 6623950N.
 Lat./Long.: 59° 44' 26", 136° 57' 38"
 At about 5600 ft. level on ridge crest, 9 km S of Scottie Mountain.

STRAT - "Bullion Creek Limestone", map unit Dc

COLLECTOR - C.J. Dodds

IDENT. BY - C.J. Dodds: GSC

FOSSILS - Other:
 Gasterocoma? bicaula Johnson & Lane 1969

AGE - Late Early to earliest Middle Devonian, Emsian to earliest Eifelian

REMARKS - Determination of collection is tentative. See comments on echinoderm ossicle with
 "two holes" or "dumb-bell" shaped axial canals (*Gasterocoma? bicaula*) by A.W. Norris
 (GSC) under 92-JTI-MMI-28-1-BCDM (C-208162)

FIELD NO. (M4)**GSC LOC. M4**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 390950E, 6650600N.
 Lat./Long.: 59° 58' 48", 136° 57' 15"
 At about 4400 ft. level on S tributary to Langton Creek

STRAT - Skolai Group; Station Creek Formation, map unit Pv

COLLECTOR - K. DeP. Watson

IDENT. BY - F.H. MacLearn: GSC (in Watson, 1948, p. 23)

FOSSILS - Other:
 Lima? sp.

AGE - Probably Mesozoic

FIELD NO. (M48)**GSC LOC. M48**

LOCALITY - 114P/11, Tatshenshini River
 UTM: Zone 8, 381700E, 6624600N.
 Lat./Long.: 59° 44' 39", 137° 6' 17"
 E of Carmine Mountain

STRAT - "Goatherd Mountain Carbonate Assemblage", map unit ODcs (GSC, 1992); map unit SPsc (BCGS, 1993)

COLLECTOR - M.T. Smith (BCGS)

FOSSILS - not specified

AGE - not specified

FIELD NO. (M49)**GSC LOC. M49**

LOCALITY - 114P/13, Tatshenshini River
 UTM: Zone 8, 349100E, 6648400N.
 Lat./Long.: 59° 56' 50", 137° 42' 5"
 At about 4800 ft. level, 3 km ESE of triangulation 5896 ft, S of Range Creek

STRAT - "Goatherd Mountain Carbonate Assemblage", map unit ODcs (GSC, 1992); map unit IPzc6? (BCGS, 1993)

COLLECTOR - M.G. Mihalynuk (BCGS)

FOSSILS - not specified

AGE - not specified

FIELD NO. (M5)**GSC LOC. M5**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 419500E, 6614750N.
 Lat./Long.: 59° 39' 54", 136° 25' 44"
 At about 5700 ft. level, southern part of Kusawak Range, 4.5 miles N of Mount Glave.

STRAT - map unit Ps

COLLECTOR - K.DeP. Watson

IDENT. BY - W.A. Bell: GSC (in Watson, 1948, p. 30-31)

FOSSILS - Other:

Celastrus taurinensis Ward
Corylites hebridica Seward & Holtum
Magnolia sp. nov. cf. *M. inglefieldi* Heer (pars)
Trochodendroides arctica (Heer)
Castanea castaneaefolia (Unger) Knowlton (non *Castanea orientalis* Chaney)
Juglans nigelloides Berry
Plantanus sp.
Acer arcticum Heer
Alnus alnifolia (Goeppert) Hollick
Alnus sp.
Carpinites truncatus Hollick
Carpolithus (Trochodendroides) arachioides (Lesquereux)
Castanea sp.
Ceanothus? sp.
Diospyros cf. *wilcoxiana* Berry
Grewiopsis alaskana Hollick
Hicoria magnifica Knowlton
Myrica sp.
Pterospermites auriculaecordatus? Hollick cf. *Populus guadini* Hollick (non Fisher-Ooster)
Quercus groenlandica Heer
Salix groenlandica? Heer

Salix sp. (pistillate ament.)
Sapindus? glendivensis Knowlton
Ulnus borealis Heer
Vitis olriki Heer
Sequoia nordenskioldi Heer
Taxites olriki Heer
Sequoia langdorii (Brongniart) Heer

AGE - Paleocene

FIELD NO. (M50)

GSC LOC. M50

LOCALITY - 114P/14, Tatshenshini River
 UTM: Zone 8, 387500E, 6639800N.
 Lat./Long.: 59° 52' 56", 137° 36"
 At about 5500 ft. level on ridge, headwaters of Kudwat Creek, WNW of triangulation
 6210 ft.
 STRAT - map unit uPc (GSC, 1992); map unit Pmc (BCGS, 1993)
 COLLECTOR - M.T. Smith (BCGS)
 FOSSILS - not specified
 AGE - not specified

FIELD NO. (M51)

GSC LOC. M51

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 387900E, 6641750N.
 Lat./Long.: 59° 54', 137° 14"
 At about 5600 ft. level on ridge, headwaters of Talbot Creek
 STRAT - map unit uPpc? or Dc? (GSC, 1992); map unit Pmc (BCGS, 1993)
 COLLECTOR - M.T. Smith (BCGS)
 FOSSILS - not specified
 AGE - not specified

FIELD NO. (M6)

GSC LOC. M6

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 415800E, 6618750N.
 Lat./Long.: 59° 42', 136° 29' 46"
 Head of Nadahini Creek, E flank Kusawak Range, 2 km. S of peak 6612 ft.
 STRAT - map unit Ps
 COLLECTOR - K.DeP. Watson
 IDENT. BY - W.A. Bell: GSC (in Watson, 1948, p. 30-31)
 FOSSILS - Other:
 indeterminate plant fragments
 AGE - Probably Paleocene

FIELD NO. (M7)**GSC LOC. M7**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 414400E, 6620400N.
 Lat./Long.: 59° 42' 52", 136° 31' 18"
 At about 5600 ft. level, E flank of Kusawak Range, 1.2 km W of peak 6612 ft.

STRAT - map unit Ps

COLLECTOR - K.DeP. Watson/C.J. Dodds

IDENT. BY - W.A. Bell: GSC (in Watson, 1948, p. 30-31)

FOSSILS - Other:
 indeterminate plant fossils

AGE - Paleocene?

REMARKS - C.J. Dodds made a second collection from this locality in 1978.

FIELD NO. (M8)**GSC LOC. M8**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 413500E, 6620000N.
 Lat./Long.: 59° 42' 39", 136° 32' 15"
 At about 4600 ft. level, E flank of Kusawak Range, 2.2 km WSW of peak 6612 ft.

STRAT - map unit Ps

COLLECTOR - K.DeP. Watson/C.J. Dodds

IDENT. BY - W.A. Bell: GSC (in Watson, 1948, p. 30-31)

FOSSILS - Other:
 indeterminate plant fossils

AGE - Paleocene?

REMARKS - C.J. Dodds made second collection from this locality in 1978.

FIELD NO. (M9)**GSC LOC. M9**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 399800E, 6636000N.
 Lat./Long.: 59° 51' 5", 136° 47' 19"
 At about 4300 ft. level, NE flank of Datlaska Range, some 9 km N of Mount Parton

STRAT - map unit Nv

COLLECTOR - K.DeP. Watson

IDENT. BY - W.A. Bell: GSC (in Watson, 1948, p. 32)

FOSSILS - Other:
Prunus? sp. (possibly *Prunus integrifolia*
 cf. *Sequoia couttsiae* Heer
Pityophyllum sp.

AGE - not older than Paleocene but could be Oligocene or Miocene

FIELD NO. 22-CAb-81-1 (M31)**GSC LOC. O-98728**

LOCALITY - 114P, Tatshenshini River
 UTM: Zone 8, 392500E, 6639100N.
 Lat./Long.: 59° 52' 38", 136° 55' 13"
 On ridge 8 km N of Scottie Mountain, elevation about 5500 ft, Squaw Range.

STRAT - map unit uPpc

COLLECTOR - D. Brown

IDENT. BY - E.T. Tozer: GSC (1981, pers. comm., 1992)

FOSSILS - Other:
Monotis sp.

AGE - Upper Triassic, Upper Norian, *Cordilleranus* Zone

REMARKS - See also 22-CAb-81-1 (C-102142) for conodonts from this site.

CONODONTS: 114P LISTINGS

GSC LOC. NO.: C-086289**NTS: Tatshenshini River, 114P****FLD. NO.: 10-CAd 78-1 (C4)**

COLLECTOR - C.J. Dodds/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 48' 56", 136° 46' 40"
 UTM: Zone 8; 400300E, 6632000N.
 Description: Ridge about 3 miles due N of Mount Parton, Datlasaka Range.

STRAT - Rock Unit: map unit uPc
 Description: Carbonate, thin-bedded, blue-grey limestone interbedded with dark blue-grey limestone.

PALEO - Fossils: conodonts, bryozoans?
 Conodont taxa: *Epigondolella* sp. (5) **CAI: 5 - 5.5**

AGE - Late Triassic, Early Norian.

REMARKS - Processed by B.E.B. Cameron

GSC LOC. NO.: C-086290**NTS: Tatshenshini River, 114P****FLD. NO.: 13-CAd 78-1 (C5)**

COLLECTOR - C.J. Dodds/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 49' 34", 136° 47' 46"
 UTM: Zone 8; 399300E, 6633200N.
 Description: Ridge about 4 miles N of Mt. Parton, Datlasaka Range.

STRAT - Rock Unit: map unit uPc
 Description: Carbonate, Same as 10-CAd-78-1.

PALEO - Fossils: conodonts
 Conodont taxa: *Epigondolella* sp. indet. (3) **CAI: 5**

AGE - Late Triassic, probably Early Norian.

REMARKS - Processed by B.E.B. Cameron.

GSC LOC. NO.: C-086291

NTS: Tatshenshini River, 114P

FLD. NO.: 47-CAj 78-1,2 (C6)

COLLECTOR - B. Jacobson/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 57' 30", 136° 58' 24"

UTM: Zone 8; 389800E, 6648200N.

Description: Ridge, NE of Talbot Creek, Squaw Range.

STRAT - Rock Unit: McCarthy Formation, map unit uTRM

Description: Carbonate, calcareous argillite.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

Neogondolella sp. cf. *N. navicula* (Huckriede 1958) (8)

AGE - Late Triassic, probably Early Norian.

REMARKS - Processed by B.E.B. Cameron.

GSC LOC. NO.: C-086292

NTS: Tatshenshini River, 114P

FLD. NO.: 49-CAAd 78-1 (C7)

COLLECTOR - C.J. Dodds/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 46' 31", 136° 55' 24"

UTM: Zone 8; 392000E, 6627750N.

Description: NE trending ridge SE of Rainbo Lakes, approximately 1 km NE of peak 6430'.

STRAT - Rock Unit: "Bullion Creek Limestone", map unit Dc

Description: Carbonate, thin crinoid bearing limestone in black shale.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5.5 - 6.5

ramiform elements (6)

Ozarkodina sp. cf. *O. brevis* Bischoff & Ziegler 1957 (1)*Polygnathus* ex. gr. *linguiformis* Hinde 1879 (3)*Polygnathus* sp. cf. *P. ex. gr. varcus* Stauffer (1)AGE - Middle Devonian, Givetian, ?*varcus* Zone.

REMARKS - 2 specimens photographed. Processed by B.E.B. Cameron.

GSC LOC. NO.: C-086293

NTS: Tatshenshini River, 114P

FLD. NO.: 73-CAj-78-1 (C8)

COLLECTOR - B. Jacobson/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a; Pohler & Orchard 1990 (table 1))

GEOGR - Lat./Long.: 59° 58' 20", 137° 29' 57"

UTM: Zone 8; 360500E, 6650750N.

Description: On main ridge crest 5.5 km ESE of Peak 7834', N of Range Creek.

STRAT - Rock Unit: "Goatherd Mountain Carbonate Assemblage", map unit ODCs

Description: Carbonate, thin-bedded grey limestone.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

Drepanoistodus sp. (8)*Variabiloconus bassleri* (Furnish 1938) (4)

AGE - Ordovician.

REMARKS - 2 specimens photographed. Processed by B.E.B. Cameron.

GSC LOC. NO.: C-086300

NTS: Tatshenshini River, 114P

FLD. NO.: 11-CAC-79-1 (C9)

COLLECTOR - R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 30' 17", 136° 46' 47"

UTM: Zone 8; 399250E, 6597400N.

Description: Ridge 11 km S of join of Michael Creek with O'Conner River

STRAT - Rock Unit: "Icefield Ranges Pelitic Assemblage", map unit Psp

Description: Argillite, black calcareous argillite sequence, black calcareous limestone.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

ramiform elements (3)

Distomodus? sp. (1)*Oulodus?* sp. (1)

AGE - ? Silurian.

GSC LOC. NO.: C-086301

NTS: Tatshenshini River, 114P

FLD. NO.: 19-CAC-79-1 (C10)

COLLECTOR - R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 45' 31", 137° 37' 26"

UTM: Zone 8; 352600E, 6627250N.

Description: E side upper East Arm glacier.

STRAT - Rock Unit: "Goatherd Mountain Carbonate Assemblage", map unit ODcs

Description: Carbonate, grey limestone float

PALEO - Fossils: conodonts, microgastropods

Conodont taxa:

CAI: 5 - 6.5

ramiform elements (100)

Belodella sp. (11)*Dvorakia* sp. (5)*Neopanderodus* sp. (3)*Panderodus* sp. (18)*Polygnathus* ex. gr. *costatus* Klapper 1971 (8)*Polygnathus eiflii* Bischoff & Ziegler 1957 (3)*Polygnathus linguiformis linguiformis* Hinde 1879 (21)*Polygnathus parawebbi* B morphotype Chatterton 1978 (12)*Polygnathus trigonicus* Bischoff & Ziegler 1957 (1)

AGE - Middle Devonian, Eifelian.

REMARKS - This faunule resembles that from the Wadleigh Limestone of SE Alaska described by Savage (1977). 5 specimens photographed.

GSC LOC. NO.: C-086302

NTS: Tatshenshini River, 114P

FLD. NO.: 21-CAc-79-1 (C11)

COLLECTOR - R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 42' 41", 136° 57' 51"

UTM: Zone 8; 389500E, 6620700N.

Description: Hum Bird mining property 4 miles E of Shini Creek and 4 miles N of Fault Creek.

STRAT - Rock Unit: "Bullion Creek Limestone", map unit Dc

Description: Carbonate, dark grey limestone

PALEO - Fossils: conodonts

Conodont taxa:

ramiform elements (10)

Belodella sp. (10)*Panderodus* sp. (18)*Pandorinellina exigua* (Philip 1966) (3)*Pelekysgnathus* sp. (3)

CAI: 6 - 7

AGE - Early Devonian, Pragian - Emsian.

REMARKS - 1 specimen photographed.

GSC LOC. NO.: C-086417

NTS: Tatshenshini River, 114P

FLD. NO.: 17-CAc 79-1 (C12)

COLLECTOR - R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 39' 24", 136° 44' 14"

UTM: Zone 8; 402100E, 6614250N.

Description: Headwaters of O'Conner River, just below Samuel Glacier.

STRAT - Rock Unit: map unit uPpc

Description: Carbonate, argillite sequence, close to Oligocene intrusion, black calcareous argillite

PALEO - Fossils: conodonts

Conodont taxa:

Neogondolella sp. (1)

CAI: 6.5

AGE - Middle-Late Triassic.

REMARKS - CAI value due to location close to Oligocene intrusive.

GSC LOC. NO.: C-086421

NTS: Tatshenshini River, 114P

FLD. NO.: 40-CAc 78-1 (C1)

COLLECTOR - C.J. Dodds/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 52' 9", 135° 55' 56"

UTM: Zone 8; 391800E, 6638200N.

Description: Ridge due S of Gold Run Creek, Squaw Range.

STRAT - Rock Unit: map unit uPc

Description: Carbonate, thinly bedded platy limestone.

PALEO - Fossils: conodonts

Conodont taxa:

ramiform elements (10)

Neogondolella sp.

CAI: 5

AGE - Possibly Triassic.

REMARKS - Processed by B.E.B. Cameron.

GSC LOC. NO.: C-086422

NTS: Tatshenshini River, 114P
FLD. NO.: 42-CA4 78-1 (C2)

COLLECTOR - C.J. Dodds/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 52' 26", 136° 55' 6"

UTM: Zone 8; 392600E, 6638700N.

Description: Ridge S of Gold Run Creek, Squaw Ridge.

STRAT - Rock Unit: map unit uPc

Description: Carbonate, thin bedded platy limestone.

PALEO - Fossils: conodonts

Conodont taxa:

Neogondolella sp. (1)

CAI: 5

AGE - Probably Triassic.

REMARKS - Processed by B.E.B. Cameron.

GSC LOC. NO.: C-101380

NTS: Tatshenshini River, 114P

FLD. NO.: 82-MJO-28529 (C19)

COLLECTOR - M.J. Orchard/Falconbridge

IDENT. BY - M.J. Orchard: GSC (1992f)

GEOGR - Lat./Long.: 59° 43' 36", 137° 44' 23"

UTM: Zone 8; 345950E, 6623960N.

Description: Windy Craggy property, 1986 drill hole location; DDH 5b, 387-388' (Gammon & Chandler 1986)

STRAT - Rock Unit: "Tats Group", map unit uTRTv2 (BCGS, 1993); map unit uPv or uPpc? (GSC, 1992)

Description: Carbonate, grey limey siltstone.

PALEO - Fossils: conodonts

Conodont taxa:

ramiform elements (1)

Epigondolella sp. (1)

CAI: 5.5

AGE - Late Triassic, Norian.

REMARKS - A very small, early growth stage.

GSC LOC. NO.: C-101387

NTS: Tatshenshini River, 114P

FLD. NO.: 82-MJO-28536 (C20)

COLLECTOR - M.J. Orchard/Falconbridge

IDENT. BY - M.J. Orchard: GSC (Orchard 1986, chert faunules No.11.; 1992f)

GEOGR - Lat./Long.: 59° 43' 36", 137° 44' 23"

UTM: Zone 8; 345950E, 6623960N.

Description: Windy Craggy property, 1986 drill hole location; DDH 5b, 106-107 ft. (Gammon & Chandler 1986)

STRAT - Rock Unit: "Tats Group", map unit uTRTv2 (BCGS, 1993); map unit uPv or uPpc? (GSC, 1992)

Description: Chert, Grey limey siltstone.

PALEO - Fossils: conodonts

Conodont taxa:

ramiform element (1)

Epigondolella sp. (2)

CAI: 5.5

AGE - Late Triassic, Norian, probably Early

REMARKS - Both epigondolellids are bidentate, early growth stages.

GSC LOC. NO.: C-101394

NTS: Tatshenshini River, 114P
FLD. NO.: 82-MJO-28543 (C21)

COLLECTOR - M.J. Orchard/Falconbridge

IDENT. BY - M.J. Orchard: GSC (1992f)

GEOGR - Lat./Long.: 59° 43' 40", 137° 44' 25"

UTM: Zone 8; 345925E, 6624060N.

Description: Windy Craggy property 1986 drill hole location; DDH 9, 56-57' (Gammon & Chandler 1986).

STRAT - Rock Unit: "Tats Group", map unit uTRTv2 (BCGS, 1993); map unit uPv or uPpc? (GSC, 1992)

Description: Carbonate, black limy argillite.

PALEO - Fossils: conodonts, foraminifers, sponge spicules

Conodont taxa:

CAI: 5.5

ramiform elements (3)

Epigondolella sp. (2)*Neogondolella* sp. (1)

AGE - Late Triassic, Norian.

REMARKS - All elements are early growth stages.

GSC LOC. NO.: C-101395

NTS: Tatshenshini River, 114P
FLD. NO.: 82-MJO-28544 (C22)

COLLECTOR - M.J. Orchard/Falconbridge

IDENT. BY - M.J. Orchard: GSC (1992f)

GEOGR - Lat./Long.: 59° 43' 40", 137° 44' 25"

UTM: Zone 8; 345925E, 6624060N.

Description: Windy Craggy property, from Falconbridge DDH 9 (1982), 75-80 ft. interval (Gammon & Chandler 1986).

STRAT - Rock Unit: "Tats Group", map unit uTRTv2 (BCGS, 1993); map unit uPv? or uPpc? (GSC, 1992)

Description: Carbonate, grey limy siltstone.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5.5

ramiform elements (2)

Epigondolella sp. cf. *E. quadrata* Orchard 1991 (2)

AGE - Late Triassic, Early Norian.

GSC LOC. NO.: C-101396

NTS: Tatshenshini River, 114P
FLD. NO.: 82-MJO-28545 (C23)

COLLECTOR - M.J. Orchard/Falconbridge

IDENT. BY - M.J. Orchard: GSC (1992f)

GEOGR - Lat./Long.: 59° 43' 40", 137° 44' 25"

UTM: Zone 8; 345925E, 6624060N.

Description: Windy Craggy property. From Falconbridge drill hole DDH 9, 134-135 ft. (Gammon & Chandler 1986).

STRAT - Rock Unit: "Tats Group", map unit uTRTv2 (BCGS, 1993); map unit uPv? or uPpc? (GSC, 1992)

Description: Carbonate, grey limy siltstone.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5.5

ramiform elements (40)

Epigondolella triangularis (Budurov 1972) (15)*Neogondolella* sp. (3)

AGE - Late Triassic, Early Norian.

GSC LOC. NO.: C-101400

NTS: Tatshenshini River, 114P

FLD. NO.: 82-MJO-28549 (C24)

COLLECTOR - M.J. Orchard/Falconbridge

IDENT. BY - M.J. Orchard: GSC (1992f)

GEOGR - Lat./Long.: 59° 43' 41", 137° 44' 36"

UTM: Zone 8; 345750E, 6624125N.

Description: Windy Craggy property. Falconbridge drill hole DDH 11, 444-445 ft.
(Gammon & Chandler 1986).

STRAT - Rock Unit: "Tats Group", map unit uTRTv2 (BCGS, 1993); map unit uPv? or uPpc (GSC, 1992)

Description: Carbonate. Nodular grey limy argillite.

PALEO - Fossils: conodonts, foraminifers, ammonoids

Conodont taxa:

CAI: 4.5 - 5

ramiform elements (4)

Epigondolella sp. cf. *E. quadrata* Orchard 1991 (4)

AGE - Late Triassic, Early Norian.

GSC LOC. NO.: C-102128

NTS: Tatshenshini River, 114P

FLD. NO.: 8-CAd-81-1 (C3)

COLLECTOR - C.J. Dodds/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 44' 54", 136° 57' 55"

UTM: Zone 8; 389550E, 6624800N.

Description: On ridge crest, 3.5 km SSW of peak 6430 ft, to the S of Rainbo Lakes.

STRAT - Rock Unit: "Bullion Creek Limestone", map unit Dc

Description: Carbonate, in dark blue, well-bedded (but deformed and recrystallized)
limestone which is associated with meta chert.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

ramiform elements (1)

AGE - Ordovician - Triassic.

GSC LOC. NO.: C-102130

NTS: Tatshenshini River, 114P

FLD. NO.: 9-CAd-81-1 (C13)

COLLECTOR - C.J. Dodds/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 44' 47", 136° 57' 42"

UTM: Zone 8; 389750E, 6624600N.

Description: Just to the W of 8-CAd-81-1.

STRAT - Rock Unit: "Bullion Creek Limestone", map unit Dc

Description: Carbonate, pinkish orange limestone with crinoidal debris.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5 - 5.5

ramiform element (1)

Icriodus sp. (7)*Pelekysgnathus* sp. (1)

AGE - Probably Middle Devonian.

REMARKS - The icriodid has a laterally offset blade. 2 specimens photographed.

GSC LOC. NO.: C-102142

NTS: Tatshenshini River, 114P

FLD. NO.: 22-CAb-81-1 (C14)

COLLECTOR - D. Brown/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 52' 38", 136° 55' 13"

UTM: Zone 8; 392500E, 6639100N.

Description: On ridge 8 km NNE of Scottie Mountain, elevation 5500'; Squaw Ranges.

STRAT - Rock Unit: map unit uPpc

Description: Carbonate, dark limestone and fossil "hash", crinoid stems (recrystallized), corals(?).

PALEO - Fossils: conodonts, foraminifers, ichthyoliths, microgastropods

Conodont taxa:

CAI: 6.5 - 7.5

Epigondolella ex gr. *bidentata* Mosher 1968 (16)*Neogondolella* sp. cf. *N. steinbergensis* (Mosher 1968) (9)

AGE - Late Triassic, Late Norian.

REMARKS - One specimen photographed. See also 22-CAb-81-1 (O-98728) for macrofossils from this locality.

GSC LOC. NO.: C-102146

NTS: Tatshenshini River, 114P

FLD. NO.: 29-CAd-81-1 (C15)

COLLECTOR - C.J. Dodds/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 58' 36", 137° 2' 4"

UTM: Zone 8; 386245E, 6650350N.

Description: On ridge approximately 2.5 km SE of the junction of Paddy Creek and Squaw Creek.

STRAT - Rock Unit: Nikolai Greenstone, map unit uTRN

Description: Carbonate, in 10 m, laminated grey limestone.

PALEO - Fossils: conodonts, ichthyoliths

Conodont taxa:

CAI: 5

ramiform elements (3)

Metapolygnathus sp. (28)

AGE - Late Triassic, probably Carnian.

GSC LOC. NO.: C-102148

NTS: Tatshenshini River, 114P

FLD. NO.: 31-CAd-81-1 (C16)

COLLECTOR - C.J. Dodds/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 59' 2", 137° 2' 22"

UTM: Zone 8; 386200E, 6651150N.

Description: On ridge crest approximately 2 km SE of the junction of Paddy Creek and Squaw Creek.

STRAT - Rock Unit: Nikolai Greenstone, map unit uTRN

Description: Carbonate, in thick (? impossible to estimate) dark grey laminated limestone.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

Metapolygnathus sp. (62)

AGE - Late Triassic, probably Carnian.

REMARKS - 2 specimens photographed.

GSC LOC. NO.: C-102150

NTS: Tatshenshini River, 114P

FLD. NO.: 36-CAd-81-1 (C17)

COLLECTOR - C.J. Dodds/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a; Pohler & Orchard 1990 (table 1))

GEOGR - Lat./Long.: 59° 52' 3", 137° 58' 26"

UTM: Zone 8; 333500E, 6640200N.

Description: On E side of Alsek River approximately 4.75 km N of the start of Turnback Canyon.

STRAT - Rock Unit: "Goatherd Mountain Carbonate Assemblage", map unit ODcs

Description: Carbonate, in laminates/blue-grey limestone sequence.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5.5

coniform element (1)

AGE - Probably Ordovician-Silurian.

REMARKS - See also C-080095 for macrofossils from this site.

GSC LOC. NO.: C-102154

NTS: Tatshenshini River, 114P

FLD. NO.: 49-CAb-81-1 (C18)

COLLECTOR - R.B. Campbell/D. Brown

IDENT. BY - M.J. Orchard: GSC (1992a; Pohler & Orchard 1990 (table 1))

GEOGR - Lat./Long.: 59° 52' 56", 137° 59' 54"

UTM: Zone 8; 332200E, 6641900N.

Description: Approximately 13.5 km NNW of first turn of Turnback Canyon on N side of Alsek River.

STRAT - Rock Unit: "Goatherd Mountain Carbonate Assemblage", map unit ODcs

Description: Carbonate, well-bedded limestone, grey fined grained limestone.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

Protopanderodus sp. (1)

AGE - Ordovician, Arenig to Ashgill.

REMARKS - 1 specimen photographed.

GSC LOC. NO.: C-102643

NTS: Tatshenshini River, 114P

FLD. NO.: 83-DY-2739 (C36)

COLLECTOR - K.M. Dawson

IDENT. BY - M.J. Orchard: GSC (1992h; Pohler & Orchard 1990 (table 1))

GEOGR - Lat./Long.: 59° 39' 42", 137° 46' 56"

UTM: Zone 8; 343250E, 6616800N.

Description: On ridge crest some 3km NW of toe of Tats Glacier.

STRAT - Rock Unit: "Goatherd Mountain Carbonate Assemblage", map unit ODcs (GSC, 1992); map unit IPzc3 (BCGS, 1993)

Description: Carbonate, 10 m carbonate unit S of Tats Glacier. Blue-grey limestone.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 6

coniform element (1)

AGE - Probably Ordovician.

REMARKS - Lat./Long. and UTM have been updated since OF-1992-5 was printed. A single proximal fragment of a bi-carinate coniform element. Resembles the species in other Ordovician samples from the St. Elias Mountains. Sample rerun at CF Minerals.

GSC LOC. NO.: C-102648

NTS: Tatshenshini River, 114P

FLD. NO.: 83-DY-2798 (C37)

COLLECTOR - K.M. Dawson

IDENT. BY - M.J. Orchard: GSC (1992h)

GEOGR - Lat./Long.: 59° 43' 59", 137° 44' 49"

UTM: Zone 8; 345575E, 6624670N.

Description: At about 1860m elevation on the NE ridge of "Windy Craggy Mountain".

STRAT - Rock Unit: "Tats Group", map unit uTRTv2 (BCGS, 1993); map unit uPv? or uPpc? (GSC, 1992)

Description: Carbonate, 12 m weakly recrystallized limestone between 2 flaws, (80 m below ore).

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

Epigondolella quadrata Orchard 1991 (14)*Epigondolella triangularis* (Budurov 1972) (60)*Neogondolella* sp. (3)

ramiform elements (3)

AGE - Late Triassic, Early Norian.

REMARKS - Lat./Long, UTM, and locality description have been updated since report OF-1992-5 was printed.

GSC LOC. NO.: C-102867

NTS: Tatshenshini River, 114P

FLD. NO.: 82-WD-9-30 (C25)

COLLECTOR - D. Macintyre/(BCGS)/Falconbridge

IDENT. BY - M.J. Orchard: GSC (1992g)

GEOGR - Lat./Long.: 59° 43' 40", 137° 44' 25"

UTM: Zone 8; 345925E, 6624060N.

Description: Windy Craggy property. Falconbridge drill hole DDH 9, 30 ft. depth (Gammon & Chandler 1986).

STRAT - Rock Unit: "Tats Group", map unit uTRTv2 (BCGS, 1993); map unit uPv? or uPpc? (GSC, 1992)

Description: Carbonate, From hanging wall of Windy Craggy deposit. Stratigraphic position uncertain due to fault offsets which displace hanging wall.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

ramiform elements (1)

AGE - Ordovician-Triassic.

GSC LOC. NO.: C-102868

NTS: Tatshenshini River, 114P
FLD. NO.: 82-WD-005C (C26)

COLLECTOR - D. MacIntyre/(BCGS)

IDENT. BY - M.J. Orchard: GSC (1992g)

GEOGR - Lat./Long.: 59° 44' 3", 137° 44' 41"

UTM: Zone 8; 345700E, 6624800N.

Description: At about 1950 m elevation on NE ridge of "Windy Craggy Mountain".

STRAT - Rock Unit: "Tats Group", map unit uTRTv2 (BCGS, 1993); map unit uPv or uPpc? (GSC, 1992)

Description: Carbonate. From hanging wall of Windy Craggy deposit-30-50 m? above top of ore zone limestone interbedded with calcareous siltstone and dacitic tuff, breccia

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5 - 6

Epigondolella sp. indet. (2)*Epigondolella quadrata* Orchard 1991 (1)*Metapolygnathus* sp. (1)*Polygnathus* sp. (1)

AGE - Late Triassic, Early Norian.

REMARKS - The Devonian-Mississippian polygnathid is presumably reworked within the breccia, as may be the Metapolygnathid.

GSC LOC. NO.: C-103037

NTS: Tatshenshini River, 114P
FLD. NO.: 83-DY-2744 (C38)

COLLECTOR - K.M. Dawson

IDENT. BY - M.J. Orchard: GSC (1992h)

GEOGR - Lat./Long.: 59° 43' 43", 137° 45' 20"

UTM: Zone 8; 345075E, 6624200N.

Description: At about 1850 m elevation, on SW ridge of "Windy Craggy Mountain".

STRAT - Rock Unit: "Tats Group", map unit uTRTs (BCGS, 1993); map unit uPpc (GSC, 1992)

Description: Carbonate. 1.5 m dark grey limestone (-220 m)

PALEO - Fossils: conodonts

Conodont taxa:

CAI:

ramiform elements (1)

AGE - Ordovician-Triassic.

REMARKS - Lat./Long, UTM, locality description have been update since report OF-1992-5. Slide not located.

GSC LOC. NO.: C-103038

NTS: Tatshenshini River, 114P
FLD. NO.: 83-DY-2747 (C39)

COLLECTOR - K.M. Dawson

IDENT. BY - M.J. Orchard: GSC (1992h)

GEOGR - Lat./Long.: 59° 43' 41", 137° 45' 25"

UTM: Zone 8; 344980E, 6624140N.

Description: At about 1775 m elevation on the SW ridge of "Windy Craggy Mountain".

STRAT - Rock Unit: "Tats Group", map unit uTRTs (BCGS, 1993); map unit uPpc (GSC, 1992)

Description: Argillite. Upper black limestone below dacite flow (-370 m).

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

Epigondolella triangularis (Budurov 1972) (4)

AGE - Late Triassic, Early Norian.

REMARKS - Lat./Long, UTM, and local description was update since report OF-1992-5 was printed.

GSC LOC. NO.: C-103040

NTS: Tatshenshini River, 114P

FLD. NO.: 83-DY-2752 (C40)

COLLECTOR - K.M. Dawson

IDENT. BY - M.J. Orchard: GSC (1992h)

GEOGR - Lat./Long.: 59° 43' 41", 137° 45' 29"

UTM: Zone 8; 344920E, 6624130N.

Description: At about 1720 m elevation on the SW ridge of "Windy Craggy Mountain".

STRAT - Rock Unit: "Tats Group", map unit uTRTs (BCGS, 1993); map unit uPpc (GSC, 1992)

Description: Argillite, 25 m limestone (-460 m).

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5 - 6

ramiform elements (2)

Epigondolella quadrata Orchard 1991 (7)*Epigondolella triangularis* (Budurov 1972) (2)*Epigondolella* sp. indet. (3)

AGE - Late Triassic, Early Norian.

REMARKS - Lat./Long, UTM, and locality description have been updated since report OF-1992-5 was printed. One specimen photographed.

GSC LOC. NO.: C-103043

NTS: Tatshenshini River, 114P

FLD. NO.: 83-DY-2760 (C41)

COLLECTOR - K.M. Dawson

IDENT. BY - M.J. Orchard: GSC (1992h)

GEOGR - Lat./Long.: 59° 43' 40", 137° 45' 36"

UTM: Zone 8; 344810E, 6624125N.

Description: At about 1680 m elevation on the SW ridge of "Windy Craggy Mountain".

STRAT - Rock Unit: "Tats Group", map unit uTRTs (BCGS, 1993); map unit uPpc (GSC, 1992)

Description: Argillite. Black limestone, 4 m (-620 m).

PALEO - Fossils: conodonts, ichthyoliths, sponge spicules

Conodont taxa:

CAI: 6.5

Metapolygnathus? sp. (1)

AGE - Late Triassic, late Carnian - Middle Norian

REMARKS - Lat./Long, UTM, and locality description has been updated since report OF-1992-5 was printed.

GSC LOC. NO.: C-103044

NTS: Tatshenshini River, 114P

FLD. NO.: 83-DY-2764 (C42)

COLLECTOR - K.M. Dawson

IDENT. BY - M.J. Orchard: GSC (1992h)

GEOGR - Lat./Long.: 59° 43' 35", 137° 45' 48"

UTM: Zone 8; 344615E, 6623980N.

Description: At about 1575 m elevation on the SW ridge of "Windy Craggy Mountain".

STRAT - Rock Unit: "Tats Group", map unit uTRTs (BCGS, 1993); map unit uPpc (GSC, 1992)

Description: Carbonate. Marble in c.s. hfls (-900 m), adj. by sills.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 6 - 7

Epigondolella sp. cf. *E. triangularis* (Budurov 1972) (1)*Epigondolella quadrata* Orchard 1991 (2)*Metapolygnathus nodosus* (Hayashi 1968) (2)*Metapolygnathus primitius* (Mosher 1970) (5)

AGE - Late Triassic, Early Norian.

REMARKS - Lat./Long, UTM, and locality description have been updated since report OF-1992-5 was printed. Collection has several older species than other Early Norian collections. One specimen photographed.

GSC LOC. NO.: C-103045

NTS: Tatshenshini River, 114P

FLD. NO.: 83-CAAd-2-1 (C27)

COLLECTOR - C.J. Dodds/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 39' 25", 137° 46' 7"

UTM: Zone 8; 344000E, 6616250N.

Description: About 2 km NW of the toe of Tats Glacier.

STRAT - Rock Unit: "Tats Group", map unit uTRTs (BCGS, 1993); map unit uPpc (GSC, 1992)

Description: Carbonate.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

Epigondolella sp. (3)

AGE - Late Triassic, Early - Middle Norian.

GSC LOC. NO.: C-103046

NTS: Tatshenshini River, 114P

FLD. NO.: 83-CAAd-3-1 (C28)

COLLECTOR - C.J. Dodds/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 39' 25", 137° 45' 35"

UTM: Zone 8; 344500E, 6616250N.

Description: About 2 km NW of toe of Tats Glacier.

STRAT - Rock Unit: "Tats Group", map unit uTRTs (BCGS, 1993); map unit uPpc (GSC, 1992)

Description: Carbonate.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

Epigondolella sp. indet. (12)*Epigondolella quadrata* Orchard 1991 (3)*Epigondolella triangularis* (Budurov 1972) (8)

AGE - Late Triassic, Early Norian.

GSC LOC. NO.: C-103048

NTS: Tatshenshini River, 114P

FLD. NO.: 83-CAAd-7-1 (C29)

COLLECTOR - C.J. Dodds/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 45' 28", 137° 43' 12"

UTM: Zone 8; 347200E, 6627350N.

Description: About 3.5 km NE of Windy Craggy Mountain.

STRAT - Rock Unit: "Tats Group", map unit uTRTv1 (BCGS, 1993); map unit uPv (GSC, 1992)

Description: Carbonate.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

Epigondolella sp. (2)

AGE - Late Triassic, Early Norian.

GSC LOC. NO.: C-103049

NTS: Tatshenshini River, 114P

FLD. NO.: 83-DY-2778 (C43)

COLLECTOR - K.M. Dawson

IDENT. BY - M.J. Orchard: GSC (1992h)

GEOGR - Lat./Long.: 59° 43' 59", 137° 44' 44"

UTM: Zone 8; 345650E, 6624680N.

Description: At about 1850 m elevation on the NE ridge of "Windy Craggy Mountain".

STRAT - Rock Unit: "Tats Group", map unit uTRTv (BCGS, 1993); map unit uPv? or uPpc? (GSC, 1992)

Description: Argillite. Top 5 m; N 1/2 of 30 m limestone immediately S of basalt, ore (+480 m).

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

Epigondolella quadrata Orchard 1991 (2)*Epigondolella triangularis* (Budurov 1972) (17)*Neogondolella navicula* (Huckriede 1958) (3)*Metapolygnathus primitius* (Mosher 1970) (2)

AGE - Late Triassic, Early Norian.

REMARKS - Lat./Long, UTM, and locality description have been updated since report OF-1992-5 was printed. Rerunning of this sample produced a slightly different faunule from that originally recovered-composite sample?; both are Early Norian. Two specimens photographed.

GSC LOC. NO.: C-103257

NTS: Tatshenshini River, 114P

FLD. NO.: 83-MJO/WD-31 (C31)

COLLECTOR - D. MacIntyre/(BCGS)

IDENT. BY - M.J. Orchard: GSC (1992g)

GEOGR - Lat./Long.: 59° 44' 59", 137° 41' 14"

UTM: Zone 8; 349000E, 6626380N.

Description: About 4.5 km ENE of "Windy Craggy Mountain".

STRAT - Rock Unit: "Tats Group", map unit uTRTv2 (BCGS, 1993); map unit uPv (GSC, 1992)

Description: Carbonate.

PALEO - Fossils: conodonts, ichthyoliths

Conodont taxa:

CAI: 5.5 - 7

ramiform elements (5)

Epigondolella quadrata Orchard 1991 (80)*Epigondolella triangularis* (Budurov 1972) (120)*Neogondolella navicula* (Huckriede 1958) (20)

AGE - Late Triassic, Early Norian.

REMARKS - Sample processed in Victoria.

GSC LOC. NO.: C-103262

NTS: Tatshenshini River, 114P

FLD. NO.: 84-MJO-WD-10 (C32)

COLLECTOR - D. MacIntyre (BCGS)

IDENT. BY - M.J. Orchard: GSC (1992g)

GEOGR - Lat./Long.: 59° 42' 52", 137° 47' 30"

UTM: Zone 8; 342975E, 6622700N.

Description: At about 1400 m elevation, W side of Tats Glacier, 3 km SW of "Windy Craggy Mountain".

STRAT - Rock Unit: "Tats Group", map unit uTRTv2 (BCGS, 1993); map unit uPv (GSC, 1992)

Description: Carbonate, limy siltstone

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

Epigondolella sp. cf. *E. triangularis* (Budurov 1972) (1)

AGE - Late Triassic, Early Norian.

GSC LOC. NO.: C-103887

NTS: Tatshenshini River, 114P

FLD. NO.: 83-CAd-21-1 (C30)

COLLECTOR - C.J. Dodds/R.B. Campbell

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 43' 52", 137° 47' 4"

UTM: Zone 8; 343450E, 6624550N.

Description: About 2.5 km to the W of "Windy Craggy Mountain".

STRAT - Rock Unit: "Tats Group", map unit uTRTs (BCGS, 1993); map unit uPpc (GSC, 1992)

Description: Carbonate.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

ramiform elements (1)

Epigondolella sp. (3)

AGE - Late Triassic, Early Norian.

GSC LOC. NO.: C-116307

NTS: Tatshenshini River, 114P

FLD. NO.: 83-MJO-SJ-1 (C33)

COLLECTOR - M.J. Orchard/St. Joe Canada Ltd.

IDENT. BY - M.J. Orchard: GSC (1992f)

GEOGR - Lat./Long.: 59° 46' 4", 137° 37' 19"

UTM: Zone 8; 352750E, 6628250N.

Description: Small nunatuk about 11 km NW of the terminous of East Arm Glacier.

STRAT - Rock Unit: "Icefield Ranges Pelitic Assemblage", map unit Psp (GSC, 1992); map unit SPsa (BCGS, 1993)

Description: Carbonate. Sample from St. Joes-EA 568, 576, 574, 571.

PALEO - Fossils: conodonts, sphaeromorphs

Conodont taxa:

CAI: 5

Polygnathus sp. (1)

AGE - Middle - Late Devonian.

GSC LOC. NO.: C-116311

NTS: Tatshenshini River, 114P

FLD. NO.: 83-MJO-SJ-5 (C34)

COLLECTOR - M.J. Orchard/St. Joe Canada Ltd.

IDENT. BY - M.J. Orchard: GSC (1992f)

GEOGR - Lat./Long.: 59° 42' 37", 137° 36' 56"

UTM: Zone 8; 352850E, 6621850N.

Description: Close to X showing (St. Joe Canada Ltd.), on W side of East Arm Glacier, 7 km above its terminous.

STRAT - Rock Unit: "Tats Group", map unit uTRTv1 (BCGS, 1993); map unit uPpc (GSC, 1992)

Description: Carbonate. Sample from St. Joes, behind X-showing-EA 640, 751, 636, 638.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

Epigondolella sp. cf. *E. quadrata* Orchard 1991 (1)*Epigondolella* sp. indet. (4)

AGE - Late Triassic, Early Norian.

GSC LOC. NO.: C-116315

NTS: Tatshenshini River, 114P

FLD. NO.: 83-MJO-SJ-9 (C35)

COLLECTOR - M.J. Orchard/St. Joe Canada Ltd.

IDENT. BY - M.J. Orchard: GSC (1992f)

GEOGR - Lat./Long.: 59° 43' 53", 137° 38' 42"

UTM: Zone 8; 351300E, 6624250N.

Description: On W side of East Arm Glacier, about 9.5 km NW of its terminous.

STRAT - Rock Unit: "Tats Group", map unit uTRTv3 (BCGS, 1993); map unit uPv (GSC, 1992)

Description: Carbonate, Sample from St. Joes-E 521.

PALEO - Fossils: tubes

AGE - Phanerozoic

GSC LOC. NO.: C-118289

NTS: Tatshenshini River, 114P
FLD. NO.: 84-DG-45170 (C45)

COLLECTOR - J.C. Still/U.S. Bureau of Mines

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 43' 48", 137° 45' 4"

UTM: Zone 8; 345330E, 6624340N.

Description: At approximately 1993 m (6540') elevation on SE ridge of "Windy Craggy Mountain".

STRAT - Rock Unit: "Tats Group", map unit uTRTv2 (BCGS, 1993); map unit uPpc (GSC, 1992)

Description: Carbonate.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

?Metapolygnathus communisti Hayashi 1968 (1)*Epigondolella* sp. indet. (13)*Epigondolella quadrata* Orchard 1991 (4)*Epigondolella triangularis* (Budurov 1972) (7)*Metapolygnathus primitius* (Mosher 1970) (6)*Neogondolella* sp. (3)

AGE - Late Triassic, Early Norian.

REMARKS - Fauna appears mixed from at least two levels of the Lower Norian.

GSC LOC. NO.: C-118290

NTS: Tatshenshini River, 114P
FLD. NO.: 84-DG-45174 (C44)

COLLECTOR - J.C. Still/U.S. Bureau of Mines

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 43' 35", 137° 44' 16"

UTM: Zone 8; 346060E, 6623900N.

Description: SE ridge approximately 1645 m (5400') elevation on "Windy Craggy Mountain".

STRAT - Rock Unit: "Tats Group", map unit uTRTv2 (BCGS, 1993); map unit uPpc (GSC, 1992)

Description: Carbonate.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 4.5

ramiform element (1)

AGE - Permian - Triassic.

GSC LOC. NO.: C-118507

NTS: Tatshenshini River, 114P

FLD. NO.: 85-DY-3151 (C46)

COLLECTOR - K.M. Dawson

IDENT. BY - M.J. Orchard: GSC (1992h)

GEOGR - Lat./Long.: 59° 20' 54", 136° 34' 45"

UTM: Zone 8; 410200E, 6579700N.

Description: Grizzly Heights property (Stryker Freeport Resources Ltd.), about 6.5 km SW of Mount Henry Clay, just below 1987 drill site.

STRAT - Rock Unit: map unit Pvb

Description: Carbonate. Dense thin bedded dark grey limestone, shaly partings, 1 m.

PALEO - Fossils: conodonts, pellets

Conodont taxa:

CAI: 5

Icriodus sp. (9)

drepanodiform element (2)

AGE - Early-Middle Devonian

REMARKS - Lat./Long, UTM, and locality description have been updated since report OF-1992-5 was printed. Probable age specified by collector as Norian(?).

GSC LOC. NO.: C-118510

NTS: Tatshenshini River, 114P

FLD. NO.: 85-DY-3154 (C47)

COLLECTOR - K.M. Dawson

IDENT. BY - M.J. Orchard: GSC (1992h)

GEOGR - Lat./Long.: 59° 20' 54", 136° 34' 45"

UTM: Zone 8; 410200E, 6579700N.

Description: Grizzly Heights property (Stryker Freeport Resources Ltd.), about 200 m below C-118507.

STRAT - Rock Unit: map unit Pvb

Description: Carbonate. Dark grey, gritty limestone, 20 m overlain by 50 m red brown weathering limy siltstone.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5.5

ramiform elements (2)

Ozarkodina paucidentata Murphy & Matti 1982 (1)

AGE - Latest Silurian-Early Devonian, Pridolian-Lochkovian.

REMARKS - Lat./Long. and UTM have been update since report OF-1992-5 was printed. Probable age specified by collector as Norian(?).

GSC LOC. NO.: C-118526

NTS: Tatshenshini River, 114P

FLD. NO.: 85-DY-3178 (C48)

COLLECTOR - K.M. Dawson

IDENT. BY - M.J. Orchard: GSC (1992h)

GEOGR - Lat./Long.: 59° 22' 36", 136° 25' 22"

UTM: Zone 8; 419150E, 6582650N.

Description: Site in SE Alaska, Glacier Creek, top of ridge above barite beds. About 100 m above barite zone.

STRAT - Rock Unit: "Glacier Creek Volcanic sequence", unknown map unit

Description: Carbonate, 1.5 m of shaly brown limestone.

PALEO - Fossils: conodonts, ichthyoliths

Conodont taxa:

CAI: 5 - 7

Neogondolella sp. (5)

AGE - Probably Triassic, ?Late.

REMARKS - Lat./Long. and UTM have been updated since report OF-1992-5 was printed. Probable age specified by collector as Norian(?).

GSC LOC. NO.: C-142601

NTS: Tatshenshini River, 114P

FLD. NO.: 86-CAd-14-1 (C49)

COLLECTOR - C.J. Dodds

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 41' 52", 137° 8' 28"

UTM: Zone 8; 379500E, 6619500N.

Description: In saddle, 7.5 km NE of the confluence of O'Connor and Tatshenshini rivers.

STRAT - Rock Unit: map unit uTRTs? (BCGS, 1993); map unit uPpc (GSC, 1992)

Description: Carbonate.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

ramiform elements (2)

Parvigondolella? sp. (1)

AGE - Late Triassic, Late Norian?

REMARKS - Probable age specified by collector as Late Triassic. Information found in notebook 01, page 5.

GSC LOC. NO.: C-142602

NTS: Tatshenshini River, 114P

FLD. NO.: 86-CAd-17-1 (C50)

COLLECTOR - C.J. Dodds

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 41' 42", 137° 8' 46"

UTM: Zone 8; 379200E, 6619200N.

Description: In saddle, 4 km NE of the confluence of O'Connor and Tatshenshini rivers.

STRAT - Rock Unit: map unit uTRTs? (BCGS, 1993); map unit uPpc (GSC, 1992)

Description: Carbonate.

PALEO - Fossils: conodonts, sponge spicules

Conodont taxa:

CAI: 5

Epigondolella ex gr. *bidentata* Mosher 1968 (2)

AGE - Late Triassic, Late Norian.

REMARKS - Probable age specified by collector as ?Triassic. Information found in notebook 1, page 6.

GSC LOC. NO.: C-142604

NTS: Tatshenshini River, 114P

FLD. NO.: 86-CAd-27-1 (C51)

COLLECTOR - C.J. Dodds

IDENT. BY - M.J. Orchard: GSC (1992a; Pohler & Orchard, 1990 (table 1))

GEOGR - Lat./Long.: 59° 29' 32", 136° 56' 1"

UTM: Zone 8; 390500E, 6596250N.

Description: E side middle section of Tkope river valley.

STRAT - Rock Unit: "Icefield Ranges Pelitic Assemblage", map unit Psp

Description: Carbonate.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 6

ramiform elements (1)

AGE - Ordovician?

REMARKS - Probable age specified by collector as Lower Paleozoic. Information found in notebook 01, page 10.

GSC LOC. NO.: C-142608

NTS: Tatshenshini River, 114P

FLD. NO.: 86-CAd-57-1 (C52)

COLLECTOR - C.J. Dodds

IDENT. BY - M.J. Orchard: GSC (1992a; Pohler & Orchard 1990 (table 1))

GEOGR - Lat./Long.: 59° 33' 37", 136° 43' 31"

UTM: Zone 8; 402500E, 6603500N.

Description: Valley bottom; approximately 7 km SE of confluence of Micheal Creek and O'Connor River.

STRAT - Rock Unit: map unit Pvb

Description: Carbonate.

PALEO - Fossils: conodonts, inarticulate brachiopods

Conodont taxa:

CAI: 6.5

coniform element (1)

Proconodontus? sp. (3)

AGE - Late Cambrian - Early Ordovician.

REMARKS - Strata of unit Pvb in O'Connor River and Michael Creek area are probably equivalent to "Northern Alsek Ranges Greywacke-Gabbro Assemblage", unit COWb and COc (Dodds and Campbell, 1992; Dodds, 1988).

GSC LOC. NO.: C-142609

NTS: Tatshenshini River, 114P

FLD. NO.: 86-CAd-67-1 (C53)

COLLECTOR - C.J. Dodds

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 44' 49", 136° 57' 26"

UTM: Zone 8; 390000E, 6624650N.

Description: Approximately 10 km E of Carmine Mountain.

STRAT - Rock Unit: "Bullion Creek Limestone", map unit Dc?

Description: Carbonate. Blue-grey limestone within debris.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 6

Siphonodella? sp. (2)

AGE - Late Devonian - Early Carboniferous, Frasnian - Tournaisian.

REMARKS - Probable age specified by collector as Devonian. Information found in notebook 1, page 20.

GSC LOC. NO.: C-142620

NTS: Tatshenshini River, 114P

FLD. NO.: 86-CAAd-15-2 (C54)

COLLECTOR - C.J. Dodds

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 41' 56", 137° 8' 9"
UTM: Zone 8; 379800E, 6619600N.

Description: Carmine Mountain area, approximately 10 km S of peak 6342'.

STRAT - Rock Unit: map unit uTrTs? (BCGS, 1993); map unit uPpc (GSC, 1992)

Description: Carbonate.

PALEO - Fossils: conodonts, ichthyoliths, sponge spicules, microgastropods, microbivalves

Conodont taxa:

CAI: 4.5

Epigondolella sp. cf. *E. mosheri* Kozur & Mostler 1971 (6)*Neogondolella* sp. (2)AGE - Late Triassic, Late Norian, ? upper *bidentata* Zone.REMARKS - Probable age specified by collector as Norian. Information found in notebook 01, page 5. This sample is from a 3rd macrofossil location of the "Sutton Limestone" locality. Previous collections reputed to be Latest Norian (E.T. Tozer).
N.B. macrofossils from this 3rd collection includes a variety of ammonoids. See also C-142613 for macrofossils from this locality. Also C-79647 and C-82661 for macrofossils from very close to this locality.

GSC LOC. NO.: C-142621

NTS: Tatshenshini River, 114P

FLD. NO.: 87-DGA-74-1 (C55)

COLLECTOR - C. Dodds

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 20' 53", 136° 34' 16"
UTM: Zone 8; 410650E, 6579650N.Description: Ridge N of middle part Tsirku Glacier, 6.5 km SW of Mount Henry Clay.
Grizzly Heights property (Stryker Freeport Resources Ltd.)

STRAT - Rock Unit: map unit Pvb

Description: Carbonate.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 2 - 3

ramiform elements (2)

Epigondolella sp. (3)

AGE - Late Triassic, Norian.

REMARKS - CAI seems low for this area - could this be contamination? Probable age specified by collector as Devonian. Associated with poorly preserved macrofossils. Information found in notebook 01, page 22.

GSC LOC. NO.: C-142627

NTS: Tatshenshini River, 114P

FLD. NO.: 87-DGA-47-1 (C59)

COLLECTOR - C.J. Dodds

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 30' 5", 136° 45' 53"

UTM: Zone 8; 400100E, 6597000N.

Description: On ridge, W side Michael Glacier, 11 km to S of O'Connor River.

STRAT - Rock Unit: "Icefield Ranges Pelitic Assemblage", map unit Psp

Description: Carbonate.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

ramiform elements (2)

Belodella? sp. (1)

AGE - Ordovician - Middle Devonian.

REMARKS - Probable age specified by collector as Lower Paleozoic (Ordovician to Silurian?).

Information found on page 15 of notebook 1. Sample processed in Kelowna.

GSC LOC. NO.: C-142635

NTS: Tatshenshini River, 114P

FLD. NO.: 87-DGAd-6-1 (C57)

COLLECTOR - C.J. Dodds/S. Dennison

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 38' 33", 137° 39' 52"

UTM: Zone 8; 349800E, 6614400N.

Description: In small cirque 3 km NE of S end of "Tats Lake".

STRAT - Rock Unit: "Tats Group", map unit uTRTs (BCGS, 1993); map unit uPpc (GSC, 1992)

Description: Carbonate, black calcareous argillite.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

ramiform elements (10)

Epigondolella triangularis (Budurov 1972) (28)

AGE - Late Triassic, Early Norian.

REMARKS - Sample processed in Kelowna. Probable age specified by collector as Late Triassic?.

Information found in notebook 1.

GSC LOC. NO.: C-142637

NTS: Tatshenshini River, 114P

FLD. NO.: 87-DGA-111a-2 (C61)

COLLECTOR - C.J. Dodds

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 43' 55", 137° 46' 4"

UTM: Zone 8; 344400E, 6624600N.

Description: On W ridge, "Windy Craggy Mountain".

STRAT - Rock Unit: "Tats Group", map unit uTRTs (BCGS, 1993); map unit uPpc (GSC, 1992)

Description: Carbonate, surface section.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 4 - 6

ramiform elements (15)

Epigondolella quadrata Orchard 1991 (20)*Epigondolella triangularis* (Budurov 1972) (30)*Metapolygnathus* sp. cf. *M. primitius* (Mosher 1970) (1)

AGE - Late Triassic, Early Norian.

REMARKS - Sample processed in Kelowna. Information found in Dodds notebook 1, page 32. See also C-142639 for macrofossils and C-142638 for conodonts from this locality.

GSC LOC. NO.: C-142638

NTS: Tatshenshini River, 114P
FLD. NO.: 87-DGA-111b-2 (C56)

COLLECTOR - C.J. Dodds

IDENT. BY - M.J. Orchard: GSC (1992)

GEOGR - Lat./Long.: 59° 43' 55", 137° 46' 4"

UTM: Zone 8; 344400E, 6624600N.

Description: On W ridge of "Windy Craggy Mountain".

STRAT - Rock Unit: "Tats Group", map unit uTRTs (BCGS, 1993); map unit uPpc (GSC, 1992)

Description: Carbonate.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 4 - 4.5

ramiform elements (4)

Epigondolella quadrata Orchard 1991 (10)*Epigondolella triangularis* (Budurov 1972) (5)

AGE - Late Triassic, Early Norian.

REMARKS - Information found in notebook 01, page 32. See also C-142639 for macrofossils and C-142637 for conodonts from this locality.

GSC LOC. NO.: C-142643

NTS: Tatshenshini River, 114P
FLD. NO.: 87-DGA-137-1 (C58)

COLLECTOR - C.J. Dodds

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 21' 6", 136° 34' 17"

UTM: Zone 8; 410650E, 6580050N.

Description: Grizzly Heights property (Stryker Freeport Resources Ltd.)

STRAT - Rock Unit: map unit Pvb

Description: Carbonate, surface section.

PALEO - Fossils: ichthyoliths

AGE - Phanerozoic.

REMARKS - Sample processed in Kelowna. Probable age specified by collector as Devonian. See also C-142644 for conodonts from near this locality.

GSC LOC. NO.: C-142644

NTS: Tatshenshini River, 114P
FLD. NO.: 87-DGA-138-1 (C60)

COLLECTOR - C.J. Dodds

IDENT. BY - M.J. Orchard: GSC (1992a)

GEOGR - Lat./Long.: 59° 20' 54", 136° 34' 45"

UTM: Zone 8; 410650E, 6579700N.

Description: Just below C-142643 at 1940 m Grizzly Heights property, above N side of Tsirku Glacier.

STRAT - Rock Unit: map unit Pvb

Description: Carbonate.

PALEO - Fossils: conodonts

Conodont taxa:

CAI: 5

ramiform elements (10)

Dvorakia sp. (1)*Polygnathus* ex gr. *linguiformis* Hinde 1879 (3)

AGE - Middle Devonian.

REMARKS - Sample processed in Kelowna. Probable age specified by collector as Devonian. Information found on page 41 of notebook 1. See also C-142643 for conodonts from close to this locality.

GSC LOC. NO.: C-158355

NTS: Tatshenshini River, 114P/12W
FLD. NO.: 90-CHL-1 (C65)

COLLECTOR - C. Leitch/B. Downing/Geddes Resources Ltd.

IDENT. BY - M.J. Orchard: GSC (1992i)

GEOGR - Lat./Long.: 59° 43' 58", 137° 46' 7"

UTM: Zone 8; 344350E, 6624680N.

Description: Windy Craggy property (Geddes Resources Ltd.), close to localities of
C-142638 and C-142639

STRAT - Rock Unit: "Tats Group", map unit uTRTs (BCGS, 1993); map unit uPpc (GSC, 1992)

Description: Carbonate.

PALEO - Fossils: conodonts, radiolarians

Conodont taxa:

CAI: 5

ramiform elements (12)

Epigondolella quadrata Orchard 1991 (29)*Epigondolella triangularis* (Budurov 1972) (6)*Neogondolella navicula* (Huckriede 1958) (6)

AGE - Late Triassic, Early Norian.

GSC LOC. NO.: C-158356

NTS: Tatshenshini River, 114P/12W
FLD. NO.: 90-CHL-2 (C62)

COLLECTOR - C. Leitch/B. Downing/Geddes Resources Ltd.

IDENT. BY - M.J. Orchard: GSC (1992i)

GEOGR - Lat./Long.: 59° 43' 58", 137° 46' 7"

UTM: Zone 8; 344350E, 6624680N.

Description: Windy Craggy property (Geddes Resources Ltd.), close to localities of
C-142638 and C-142639.

STRAT - Rock Unit: "Tats Group", map unit uTRTs (BCGS, 1993); map unit uPpc (GSC, 1992)

Description: Carbonate.

PALEO - Fossils: conodonts, radiolarians

Conodont taxa:

CAI: 5

ramiform elements (4)

Epigondolella quadrata Orchard 1991 (4)*Epigondolella triangularis* (Budurov 1972) (14)

AGE - Late Triassic, Early Norian.

GSC LOC. NO.: C-158357

NTS: Tatshenshini River, 114P/12W
FLD. NO.: 90-CHL-3 (C63)

COLLECTOR - C. Leitch/B. Downing/Geddes Resources Ltd.

IDENT. BY - M.J. Orchard: GSC (1992i)

GEOGR - Lat./Long.: 59° 43' 58", 137° 46' 7"

UTM: Zone 8; 344350E, 6624680N.

Description: Windy Craggy property (Geddes Resources Ltd.), close to localities for
C-142638 and C-142639.

STRAT - Rock Unit: "Tats Group", map unit uTRTs (BCGS, 1993); map unit uPpc (GSC, 1992)

Description: Carbonate.

PALEO - Fossils: conodonts, radiolarians

Conodont taxa:

CAI: 5

ramiform elements (20)

Epigondolella quadrata Orchard 1991 (25)*Epigondolella triangularis* (Budurov 1972) (25)*Neogondolella navicula* Huckriede 1958 (1)

AGE - Late Triassic, Early Norian.

GSC LOC. NO.: C-158358

NTS: Tatshenshini River, 114P/12W

FLD. NO.: 90-CHL-4 (C64)

COLLECTOR - C. Leitch/B. Downing/Geddes Resources Ltd.

IDENT. BY - M.J. Orchard: GSC (1992i)

GEOGR - Lat./Long.: 59° 43' 58", 137° 46' 7"

UTM: Zone 8; 344350E, 6624680N.

Description: Windy Craggy property (Geddes Resources Ltd.), close to the localities for C-142638 and C-142639.

STRAT - Rock Unit: "Tats Group", map unit uTRTs (BCGS, 1993); map unit uPpc (GSC, 1992)

Description:

PALEO - Fossils: conodonts, sponge spicules

Conodont taxa:

CAI: 5

ramiform elements (2)

Epigondolella quadrata Orchard 1991 (11)*Epigondolella triangularis* (Budurov 1972) (17)*Neogondolella* sp. (2)

AGE - Late Triassic, Early Norian.

GSC LOC. NO.: C-189553

NTS: Tatshenshini River, 114P/12

FLD. NO.: 90DMA-90-16 (C66)

COLLECTOR - D. MacIntyre/BCGS

IDENT. BY - M.J. Orchard: GSC (1991; Part of BCGS 1990 file)

GEOGR - Lat./Long.:

UTM: Zone 8; 344650E, 6624000N.

Description: Windy Craggy - above portal

STRAT - Rock Unit: "Tats Group", map unit uTRTs? (BCGS, 1993); map unit uPpc (GSC, 1992)

Description: Carbonate, Isolated outcrop

PALEO - Fossils: conodonts

Conodont taxa:

CAI: ~5

ramiform elements (2)

Epigondolella sp. (1)

AGE - Late Triassic, Norian.

REMARKS - Probable age specified by collector as Triassic. *Epigondolella* is early growth stage and therefore its morphology is specifically undiagnostic to substage. Processed at University of Victoria.

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