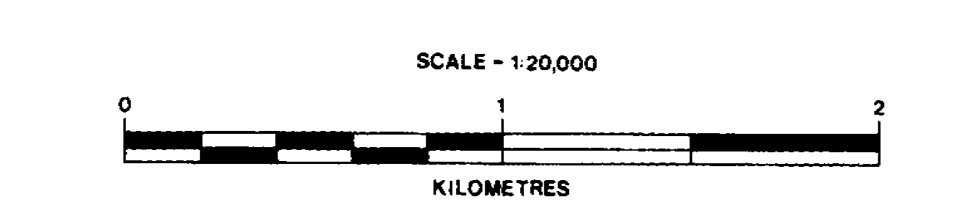


OPEN FILE MAP 1987-10 a
GEOLOGY AND MINERAL OCCURRENCES IN THE HEDLEY GOLD CAMP, SOUTHERN BRITISH COLUMBIA (92H/8E)
 GEOLOGICAL MAPPING BY G.E. RAY AND G.L. DAWSON
 ASSISTED BY M. MILLS AND I. WEBSTER
 RELEASED JANUARY 1987



LEGEND

QUATERNARY
 7a, alluvium, colluvium

TERTIARY
 MARRON FORMATION: 11, basalt flows
 SPRINGBROOK FORMATION: 10, sandstone

EROSIONAL UNCONFORMITY

UNCERTAIN AGE
 MINOR INTRUSIONS: 9a, quartz monzonite; 9b, quartz eye rhyolite; 9c, andesite; 9d, diorite; 9e, basalt

MIDDLE TO LATE JURASSIC
 SIMILKAMEEN INTRUSIONS (includes Cahill Creek and Pennask Plutons): 8a, granodiorite; 8b, apatite

MIDDLE JURASSIC
 HEDLEY INTRUSIONS: 7a, hornblende porphyritic diorite (<50% mafic); 7b, equigranular diorite (<50% mafic); 7c, matrix diorite and/or gabbro (>50% mafic); 7d, quartz diorite

UNCERTAIN AGE
 WHISTLE CREEK SEQUENCE (UNIT C): 6a, feldspar crystal andesite ash tuff; 6b, feldspar crystal andesite lapilli tuff; 6c, quartz-feldspar crystal dacite ash tuff and lapilli tuff; 6d, interbedded argillite and pebble conglomerate

WHISTLE CREEK SEQUENCE (UNIT B): 5a, quartz-feldspar crystal dacite lapilli tuff; 5b, quartz-feldspar crystal dacite ash tuff; 5c, dacite ash tuff; 5d, mafic ash tuff; 5e, andesite ash and lapilli tuff

CONTACT RELATIONSHIP UNCERTAIN

LATE TRIASSIC
 WHISTLE CREEK SEQUENCE (UNIT A): 4a, andesite ash tuff; 4b, tuffaceous siltstone; 4c, andesite lapilli tuff; 4d, andesite tuff breccia; 4e, basaltic ash tuff; 4f, thin limestone beds; 4g, argillite; 4h, siltstone

WHISTLE CREEK SEQUENCE (COPPERFIELD CONGLOMERATE): 3, limestone boulder conglomerate

CONTACT OCCUPIED BY THE CAHILL CREEK PLUTON

PALEOZOIC AND TRIASSIC
 ALEX MOUNTAIN GROUP: 1a, siltstone; 1b, argillite; 1c, greenstone; 1d, ash tuff; 1e, limestone and/or marble; 1f, chert; 1g, gabbro

SYMBOLS

Geological Contact: Defined, assumed
 Bedding, Top Known: Inclined, overturned
 Bedding, Top Unknown: Inclined, vertical
 Axial Trace of Fold: Anticline
 Syncline
 Axial Plane of Minor Fold: Inclined
 Flunge of Minor Fold: Axis
 Fault: Approximate, assumed (solid circle indicates downthrown side)
 Mineralized outcrop (pyrite, arsenopyrite, malachite)
 Location of gold mineralization with property number (listed in Table 1)
 Microfossil locality with sample number (listed in Table 2)
 Massive, nonbedded or unfoliated outcrop
 Topographical Contour (100-foot interval)

TABLE 1 - GOLD PROPERTIES

Property Number	Property Name	MINFILE Number	Property Name	Property Number	MINFILE Number
1	Toronto, Calma	82H/8E-55	16	Isa	82H/8E-108
2	Isa, Isy B	-59	17	Beavry, Made Leaf	-62
3	Flavica	-61	18	Red	-58
4	Red Mountain	-62	19	Steelesom	-53
5	Carly	-64	20	Paley	-49
6	Isle Hill	-55	21	Isle Hill	-54
7	Chilly	-60	22	Good Hope	-52
8	Hedley Arrangement, Peggy, Whitford	-65	23	French Oregon	-59
9	Mason Fracture	-57	24	French Oregon	-59
10	Suriname	-37	25	Mission, Pitt	-52
11	Baldy	-44	26	Beavry	-51
12	Riley	-47	27	Don	-110
13	Hedley Springs	-44	28	East House	-50
14	Kingston	-62	29	Arcan	-55
15	Red Hosiery	-49			

TABLE 2 - MICROFOSSIL AGES

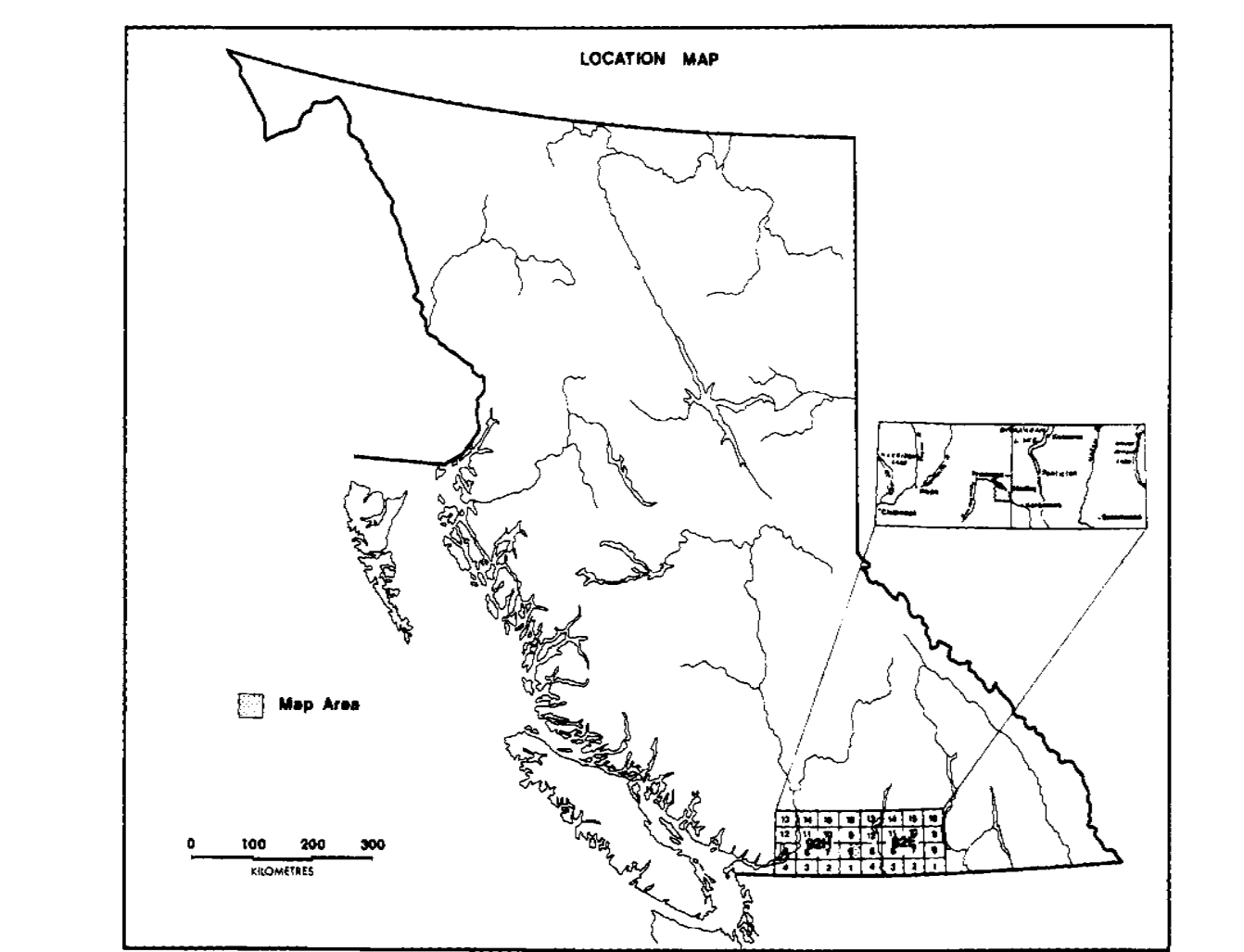
Sample No.	Lithology	Rock Type	Age	Preliminary Age	OSC Location No.
1	1 m thick limestone bed	2a	C	Probably Early Norian	C-103729
2	8 cm bedded limestone	2a	C	Early Norian	C-103722
3	0.5 m thick limestone bed	2a	C	Early Norian	-
4	0.5 m thick limestone bed with chert pebbles (chert contains fossiliferous boulder conglomerate)	3	C	Carman	-
5	chert pebbles with limestone boulder conglomerate	3	RT	Pernan	-
6	limestone chert with limestone boulder conglomerate	3	C	Late Carman or Early Norian	-
7	limestone chert with limestone boulder conglomerate (chert contains blue chert)	3	C	Early Norian	C-103724
8	2th limestone bed	2b	C	Late Norian	C-103726
9	8th limestone bed	2b	C	Late Carman or Early Norian	C-103727
10	0.5-1.0 m thick limestone	2a	C	Middle or Late Norian	-
11	3th limestone bed	2a	C	Late Carman or Early Norian	C-103725

*Correlation identified by M.J. Orchard, OSC, Vancouver, British Columbia (Personal Communication, 1985, 1986)
 †Radioactive identified by J. Collins, Laboratories de Stratigraphie, Paris, France (Personal Communication, 1985)

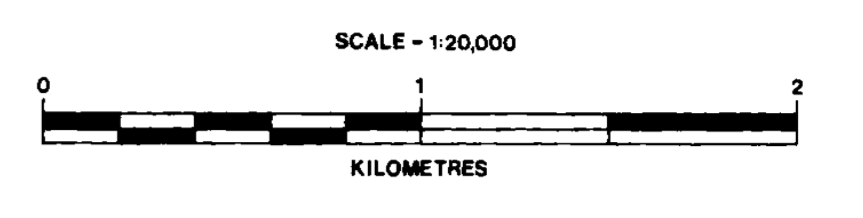
Note: For a detailed description of the geology, mineralization and stanniferous in this map sheet see G.E. Ray, G.L. Dawson and B. Simpson, British Columbia Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork 1986, A Summary of Field Activities and Current Research, Paper 1987-1 Floor Number 2-15.

The geology on this map is preliminary and is based largely on fieldwork conducted during the 1986 summer season. Additional mapping will be undertaken in 1987.

Details on the Hedley Intrusions: Nickel Plate - Stanniferous Mountain area from C. Cammell (1910), H.S. Boskop (1940), and J.W. Lee (1961); Banbury Mine area from M.R. Sanford (1986, Personal Communication).



OPEN FILE MAP 1987 - 10 B
OCCURRENCES OF SKARN AND SKARN RELATED ALTERATION IN THE HEDLEY GOLD CAMP, SOUTHERN BRITISH COLUMBIA (92H/8E)
 GEOLOGICAL MAPPING BY G.E. RAY AND G.L. DAWSON
 ASSISTED BY M. MILLS AND I. WEBSTER
 RELEASED JANUARY 1987



- LEGEND**
- QUATERNARY**
 Till, alluvium, colluvium
- TERTIARY**
 MARRON FORMATION: 11, basalt flows
 SPRINGBROOK FORMATION: 10, sandstone
- EROSIONAL UNCONFORMITY**
- UNCERTAIN AGE**
 MINOR INTRUSIONS: 9a, quartz monzonite; 9b, quartz eye rhyolite; 9c, andesite; 9d, diorite; 9e, basalt
- MIDDLE TO LATE JURASSIC**
 SIMILIKAMEEN INTRUSIONS (includes Cahill Creek and Pennask Plutons): 8a, granodiorite; 8b, apatite
- MIDDLE JURASSIC**
 HEDLEY INTRUSIONS: 7a, hornblende porphyritic diorite (<50% mafic); 7b, equigranular diorite (>50% mafic); 7c, mafic diorite and/or gabbro (>50% mafic); 7d, quartz diorite
- UNCERTAIN AGE**
 WHISTLE CREEK SEQUENCE (UNIT C): 6a, feldspar crystal andesite ash tuff; 6b, feldspar crystal andesite lapilli tuff; 6c, quartz-feldspar crystal dacite ash tuff and lapilli tuff; 6d, interbedded argillite and pebble conglomerate
 WHISTLE CREEK SEQUENCE (UNIT B): 5a, quartz-feldspar crystal dacite lapilli tuff; 5b, quartz-feldspar crystal dacite ash tuff; 5c, dacite dust tuff; 5d, maroon coloured dacite lapilli tuff with fawn; 5e, andesite ash and lapilli tuff
- CONTACT RELATIONSHIP UNCERTAIN**
- LATE TRIASSIC**
 WHISTLE CREEK SEQUENCE (UNIT A): 4a, andesite ash tuff; 4b, luffaceous siltstone; 4c, andesite lapilli tuff; 4d, andesite tuff breccia; 4e, basaltic ash tuff; 4f, thin limestone beds; 4g, argillite; 4h, siltstone
 WHISTLE CREEK SEQUENCE (COPPERFIELD CONGLOMERATE): 3, limestone boulder conglomerate
- HEDLEY SEQUENCE:** 2a, predominantly siltstone; argillite; thin limestone and/or marble beds; tuff; 2b, predominantly argillite; siltstone; thin limestone and/or marble beds; tuff; 2c, limestone and/or marble; 2d, andesite ash tuff; luffaceous siltstone; 2e, polymictic pebble conglomerate
- CONTACT OCCUPIED BY THE CAHILL CREEK PLUTON**
- PALEOZOIC AND TRIASSIC**
 APEX MOUNTAIN GROUP: 1a, siltstone; 1b, argillite; 1c, greenstone; 1d, ash tuff; 1e, limestone and/or marble; 1f, chert; 1g, gabbro
- SYMBOLS**
- Geological Contact: Defined, assumed
 Bedding, Top Known: Inclined, overturned
 Bedding, Top Unknown: Inclined, vertical
 Axial Trace of Fold: Anticline, Syncline
 Axial Plane of Minor Fold: Inclined
 Plunge of Minor Fold Axis
 Fault: Approximate, assumed (solid circle indicates downthrown side)
 Mineralized outcrop (pyrite, arsenopyrite, malachite)
 Location of gold mineralization with property number, (listed in Table 1)
 Microfossil locality with sample number (listed in Table 2)
 Massive, nonbedded or unfoliated outcrop
 Topographical Contour (100-foot interval)

TABLE 1 - GOLD PROPERTIES

Property Number	Property Name	MINFILE Number	Property Number	Property Name	MINFILE Number
1	Tanana, Galena	92H/8E-65	16	8a	92H/8E-108
2	Soa, Sky B	-119	17	Barbury, Maple Leaf	-48
3	Pownee	-61	18	Red	-138
4	Red Mountain	-82	19	Snowstorm	-53
5	Canby	-64	20	Patty Z	-48
6	Nicol Plate	-38	21	Gold Hill	-54
7	Canby	-63	22	Good Hope	-60
8	Hedley Amalgamated, Peppy, Whitehead	-56	23	French, Oregon	-58
9	Massey, Frison	-57	24	Masson, First	-58
10	Summit	-47	25	Summit	-51
11	Bullock	-37	26	Lost Horse	-51
12	Patty	-62	27	Lost Horse	-51
13	Hedley Tailings	-144	28	Lost Horse	-50
14	Kristan	-49	29	Arian	-55
15	Rubi Hovelsy	-49	29	Arian	-55

TABLE 2 - MICROFOSSIL AGES

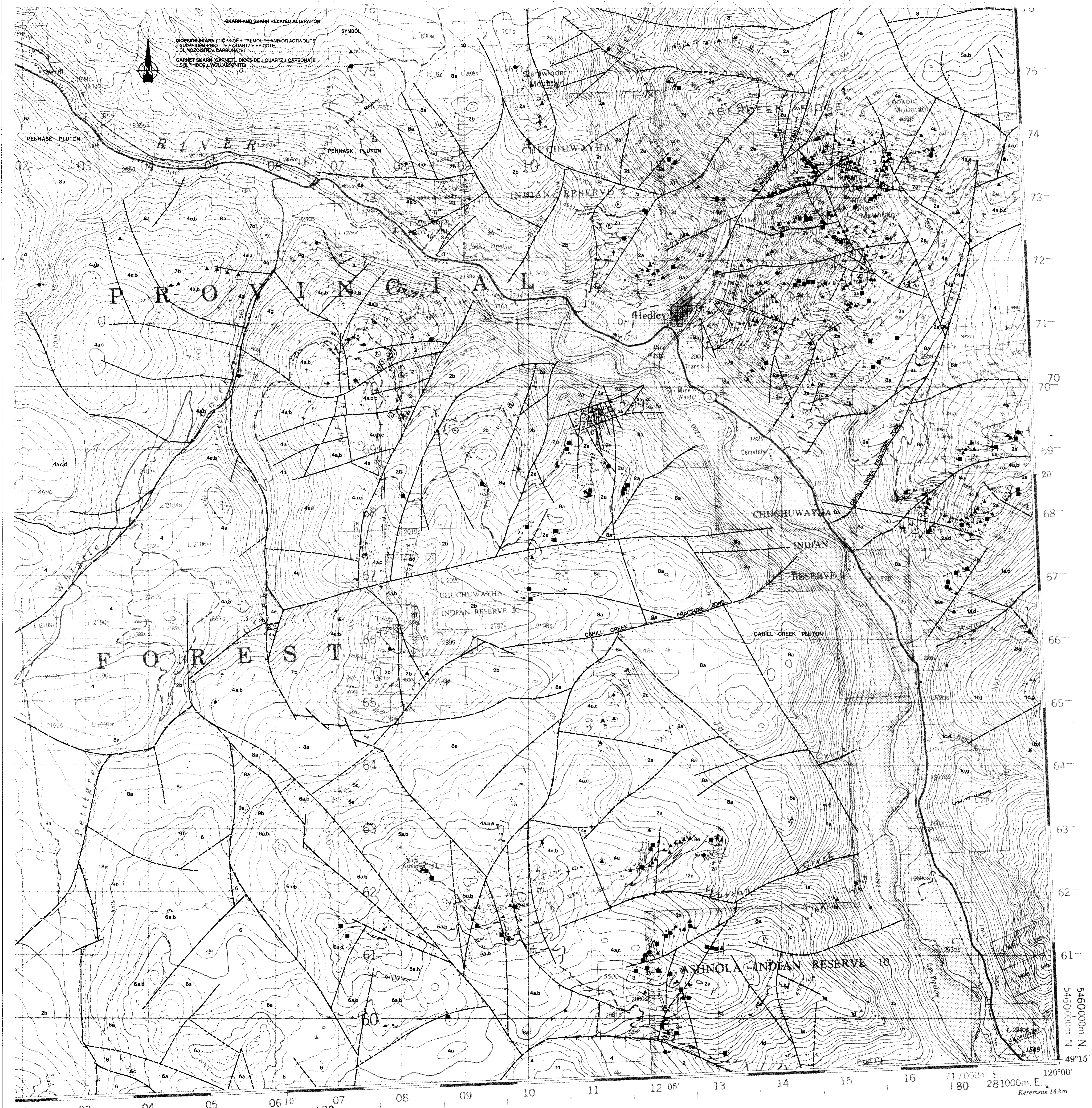
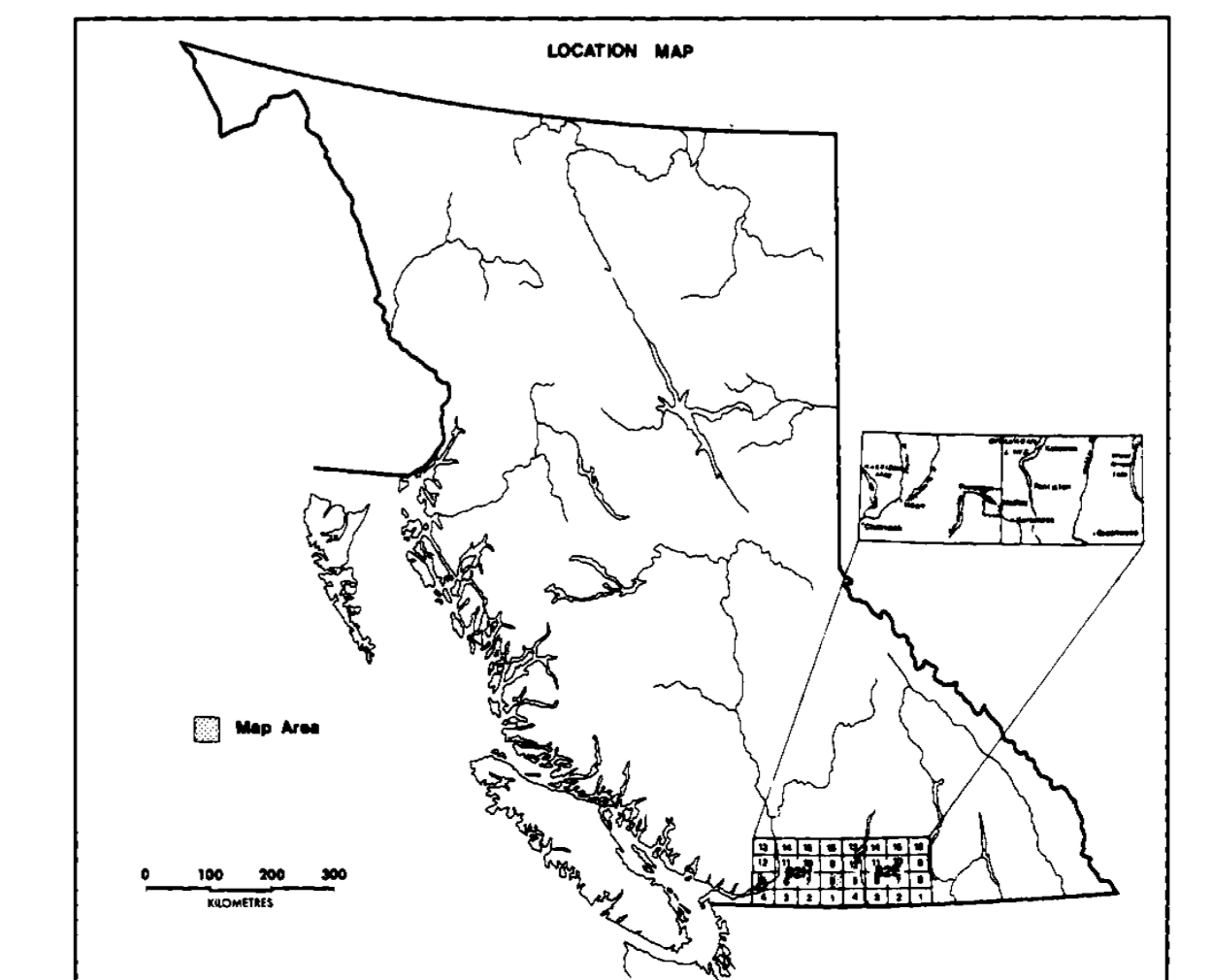
Sample No.	Lithology	Rock Unit	Fossil Type	Preliminary Ages	OSC Location No.
1	1 m thick limestone bed	2a	C	Probably Early Norian	C-103723
2	Thin bedded limestone	2a	C	Early Norian	C-103722
3	0.25 m thick limestone bed	2b	C	Early Norian	-
4	0.5 m diameter limestone clast within limestone boulder conglomerate	3	C	Canian	-
5	Clast (concrete or mud stone) chert pebble within limestone boulder conglomerate	3	Rt	Permian	-
6	Limestone clast within limestone boulder conglomerate	3	C	Late Canian or Early Norian	-
7	Limestone clast within limestone boulder conglomerate, (clast contains brachiopod fossils)	3	C	Early Norian	C-103724
8	Thin limestone bed	2b	C	Late Norian	C-103725
9	Thin limestone bed	2b	C	Late Canian or Early Norian	C-103727
10	0.3 - 0.8 m thick limestone	2b	C	Middle or Late Norian	-
11	Thin limestone bed	2b	C	Late Canian or Early Norian	C-103726

*Coordinates identified by H.J. Doherty, OSC, Vancouver, British Columbia (Personal Communication, 1985, 1986).
 †Coordinates identified by F. Condy, Laboratoire de Stratigraphie, Paris, France (Personal Communication, 1986).

Note: For a detailed description on the geology, mineralization and skarn alteration in this map sheet see G.E. Ray, G.L. Dawson and R. Simpson, British Columbia Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork 1986, A Summary of Field Activities and Current Research, Paper 1987-1, Report Number 2-10.

The geology on this map is preliminary and is based largely on fieldwork conducted during the 1986 summer season. Additional mapping will be undertaken in 1987.

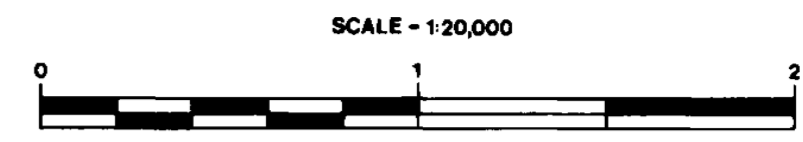
Details on the Hedley Intrusions: Nicol Plate - Oremaster Mountain area from C. Cammell (1910), U.S. Geol. Surv. (1940), and J.W. Lee (1951); Barbury Mine area from M.R. Sanford (1988, Personal Communication).



OPEN FILE MAP 1987-10 c

OCCURRENCES OF CONTACT METAMORPHIC MINERAL ASSEMBLAGES RELATED TO THE SIMILKAMEN INTRUSIONS, HEDLEY GOLD CAMP SOUTHERN BRITISH COLUMBIA (92H/8E)

GEOLOGICAL MAPPING BY G.E. RAY AND G.L. DAWSON ASSISTED BY M. MILLS AND I. WEBSTER
RELEASED JANUARY, 1987



LEGEND

- QUATERNARY
 - Till, alluvium, colluvium
- TERTIARY
 - MARROW FORMATION: 11, basalt flows
 - SPRINGBROOK FORMATION: 10, sandstone
- EROSIONAL UNCONFORMITY
- UNCERTAIN AGE
 - MINOR INTRUSIONS: 9a, quartz monzonite; 9b, quartz eye rhyolite; 9c, andesite; 9d, diorite; 9e, basalt
- MIDDLE TO LATE JURASSIC
 - SIMILKAMEN INTRUSIONS (includes Cahill Creek and Pennask Plutons): 8a, granodiorite; 8b, granite
- MIDDLE JURASSIC
 - HEDLEY INTRUSIONS: 7a, hornblende porphyritic diorite (<50% mafic); 7b, equigranular diorite (<50% mafic); 7c, mafic diorite and/or gabbro (>50% mafic); 7d, quartz diorite
- UNCERTAIN AGE
 - WHISTLE CREEK SEQUENCE (UNIT C): 6a, feldspar crystal andesite ash tuff; 6b, feldspar crystal andesite lapilli tuff; 6c, quartz-feldspar crystal dacite ash tuff and lapilli tuff; 6d, interbedded argillite and pebble conglomerate
 - WHISTLE CREEK SEQUENCE (UNIT B): 5a, quartz-feldspar crystal dacite lapilli tuff; 5b, quartz-feldspar crystal dacite ash tuff; 5c, dacite dust tuff; 5d, maroon coloured dacite lapilli tuff with lam.; 5e, andesite ash and lapilli tuff
- CONTACT RELATIONSHIP UNCERTAIN
- LATE TRIASSIC
 - WHISTLE CREEK SEQUENCE (UNIT A): 4a, andesite ash tuff; 4b, tuffaceous siltstone; 4c, andesite agapiti tuff; 4d, andesite tuff breccia; 4e, basaltic ash tuff; 4f, thin limestone beds; 4g, argillite; 4h, siltstone
 - WHISTLE CREEK SEQUENCE (COPPERFIELD CONGLOMERATE): 3, limestone boulder conglomerate
- CONTACT OCCUPIED BY THE CAHILL CREEK PLUTON
- PALEOZOIC AND TRIASSIC
 - APEX MOUNTAIN GROUP: 1a, siltstone; 1b, argillite; 1c, greenstone; 1d, ash tuff; 1e, limestone and/or marble; 1f, chert; 1g, gabbro

SYMBOLS

- Geological Contact: Defined, assumed
- Bedding, Top Unknown: Inclined, overturned
- Axial Trace of Fold: Anticline, Syncline
- Axial Plane of Minor Fold: Inclined
- Plunge of Minor Fold Axis
- Fault: Approximate, assumed (solid circle indicates downthrown side)
- Mineralized outcrop (pyrite, arsenopyrite, malachite)
- Location of gold mineralization with property number, (listed in Table 1)
- Microfossil locality with sample number (listed in Table 2)
- Massive, nonbedded or unfoliated outcrop
- Topographical Contour (100-foot interval)

TABLE 1 - GOLD PROPERTIES

Property Number	Property Name	MINFILE Number	Property Number	Property Name	MINFILE Number
1	Toronto, Gabena	92HSE: 65	16	Se	92HSE: 108
2	Gold, Mt. B	61	17	Red	138
3	Florence	61	18	Field	138
4	Red Mountain	62	19	Shoemaker	53
5	Canby	64	20	Pinky 2	49
6	Nadler Plate	68	21	Gold Hill	54
7	Dully	69	22	Good Hope	60
8	Hedley Amalgamated, Peggy Whirlwind	68	23	French, Oregon	59
9	Mason Fraction	36	24	Victoria	58
10	Sunshine	37	25	Melrose, First	52
11	Bullock	47	26	Specialist	51
12	Palmy	14	27	Malrose	52
13	Palmy, Holdings	14	28	Leil Horse	52
14	Kingston	14	29	Alton	55
15	Polo Norway	29			

TABLE 2 - MICROFOSSIL AGES

Sample No.	Lithology	Rock Unit	Fossil Type	Preliminary Ages	OSG Location No.
1	1 m thick limestone bed	2a	C	Robbly Early Norian	C-10372
2	8 m thick limestone bed	2a	C	Early Norian	C-10372
3	0.2 m thick limestone bed	2a	C	Early Norian	C-10372
4	0.6 m diameter limestone chert within limestone boulder conglomerate	3	C	Carman	-
5	Clast contains ovoid siliceous chert within limestone boulder conglomerate	3	Rf	Permian	-
6	Limestone chert within limestone boulder conglomerate	3	C	Late Carman or Early Norian	-
7	Limestone chert within limestone boulder conglomerate (slat concretion)	3	C	Early Norian	C-10374
8	Thin limestone bed (slat concretion)	2c	C	Late Carman or Early Norian	C-10375
9	Thin limestone bed	2c	C	Late Carman or Early Norian	C-10375
10	0.3-0.6 m thick limestone bed	2a	C	Middle or Late Norian	C-10376
11	Thin limestone bed	2a	C	Late Carman or Early Norian	C-10376

*Locations identified by M.J. O'Leary, GSC, Vancouver, British Columbia (Personal Communication, 1985, 1986)
†Locations identified by F. Cooley, Laboratoire de Stratigraphie, Paris, France (Personal Communication, 1985)

Note: For a detailed description of the geology, mineralization and stream alteration in this map sheet see G.E. Ray, G.L. Dawson and R. Simpson, British Columbia Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork 1986, A Summary of Field Activities and Current Research, Paper 1987-1, Report Number 2-10.
The geology on this map is preliminary and is based largely on fieldwork conducted during the 1986 summer season. Additional mapping will be undertaken in 1987.
Details on the Hedley Intrusions: Heddley - Sparrowhawk Mountain area from C. Mansall (1913), U.S. Geological Survey (1940), and J.W. Lee (1961); Barbary Mine area from M.F. Sanford (1985, Personal Communication).

