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**BC Geological Survey  
Assessment Report  
19989b**

LOG NO: 0515	RD.
ACTION:	
FILE NO:	

**1989 McNEIL REPORT**

**VOLUME 2**

**APPENDICES III, IV**

**III DIAMOND DRILL LOG RECORDS  
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**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**19,989**

**part 2  
of 3**

**APPENDIX III**

**DIAMOND DRILL LOG RECORDS**

COMMENCED: November 1, 1989	DISTRICT: Fort Steele	COLLAR DIP: -45°	TESTS @: None
COMPLETED: November 5, 1989	PROPERTY: McNeil Creek	BEARING: 210°	
LOGGED BY: P. Klewchuk	LOCATION: Moyie River	LENGTH: 137.8 m	
DATE LOGGED: November 8, 1989	CO-ORD.: 5,471,115N; 570,480E	CORE SIZE: HQ	
TARGET: Shear Zone with PbS	ELEV.: 1280 m (UTM)	% RECOVERY:	ppm except Au ppb

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
0.0-22.7m	<p><b>OVERBURDEN</b> Originally cased to 15.5 m; cored hard pan and boulders; then set casing to 23.5m. Core suggests bedrock is at 22.7m.</p>					
22.7-26.5m	<p><b>SILTSTONE</b> Quite massive, but with narrow thin bedded and laminated zones. Bedding is at 55° to c/a. Color is mainly med. gray. The dominantly massive character suggests this may be part of the underlying fragmental.</p> <p>Rubble immediately below 26.5m is core; Casing was reamed after hole was initially drilled to 15.5m.</p>					
26.5-47.2m	<p><b>FRAGMENTAL</b> Massive, med.gray; core has relatively few fractures. A quartzitic siltstone matrix hosts about 20% small fragments which tend to be elongate, up to 1cm long (a few get up to 4cm long). A vague fabric at 51° to c/a is developed in parts of the zone. Clasts tend to be argillaceous, light gray to very dark gray. Some clasts are rounded 3 to 10mm diam. There are many recognizable very small clasts; clasts may range down in size to matrix. At 44.7m a 10cm thick band of fault breccia is at 80° to c/a. Fault gouge is also present in broken core at 46.9m. Most fractures throughout the interval are rusty from surface oxidation. Pyrite is common on some fracture surfaces. Just above the contact at 47.2m, a narrow zone of the fragmental consists of a mass of ragged, interconnected clasts which are aligned roughly parallel to the (broken) contact at 47.2m, at 75° to c/a.</p>					
47.2-48.8m	<p><b>QUARTZITE</b> Fairly massive, some faint internal laminations. Color is light gray to med. blue-gray, somewhat mottled. Laminations at 48.3m are at 55° to c/a</p> <p>50% core loss between 47.9 and 50.9; much of the zone is broken but rubbly core near 48.7 may be where much of the core loss is.</p>					
48.8-62.2m	<p><b>ARGILLITE &amp; SILTSTONE</b> Core is quite broken, laminated to med. thick bedded, med.gray colored. Bedding is typically quite contorted, with bedding angles ranging from 60° to 0° to c/a. This is probably a large slump unit with relatively large sized fragments which have been contorted during slumping. Brecciation with brownish clay matrix, representing minor faulting, occurs at 49.0m, 51.8m, 54.5m. Some core loss is associated with those zones. Fracture surfaces are rusty oxidized throughout the interval. Pyrite is common on numerous fractures and occurs as irregular veinlets locally. One sub-rounded, banded argillite fragment, 4cm across, occurs at 56.2m</p>					
62.2-62.8m	<p><b>FAULT ZONE</b> Rounded to angular fragments of med. gray siltstone and argillite are separated in a matrix of med. gray (chloritic?) fault gouge. A weak cleavage is present at 55° to c/a.</p>					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
62.8-82.3m	<p><b>MASSIVE FRAGMENTAL</b> Generally similar to interval from 26.5 to 47.2; quite massive, light to med. gray. Less than 5% rounded to sub-angular fragments. Weak fabric is developed at 40° to 60° to c/a. Some fractures are coated with pyrite; veinlets of Py get up to 1.5mm thick. Fragmental is compositionally a siltstone or argillaceous siltstone; fragments are generally lighter-colored than matrix and more argillaceous.</p> <p>Note: 81.4 to 82.9m 50m core loss, probably at 82.4m 82.9 to 84.4m 1.3m core loss.</p>					
82.3-82.9m	<p><b>SILICIFIED ZONE, probably a fault</b> Pale gray to grayish-white; bleached with mottled texture. Open fractures with med. coarse grained pyrite encrusting fracture surfaces; both cubes and pyritohedrons are present. Moderately developed chlorite occurs through the zone.</p> <p>Sample: 56153 82.3-82.9 m 0.6 m 0.3 m recovered</p>	13	20	28	0.1	125
82.9-99.5m	<p><b>SILTSTONE -possible slump unit</b> Laminated to med. thick bedded. Quite uniformly med. to dark gray colored. Recognizable bedding is contorted on a small scale and ranges from 0° to 60° to c/a. In places individual beds have been broken, displaced 1 or 2mm and the fractures are now healed; style of deformation is conformable with a massive slump unit; the interval may be part of the fragmental unit. Patchy silicification occurs in the upper 5m with local development of bleached concretions with spots of chlorite and light pink garnet aggregates up to 3mm diam.</p>					
99.5-102.0m	<p><b>ALTERED SILTSTONE</b> Mottled pale brownish-gray bleaching occurs throughout and essentially obliterates bedding. Considerable healed fracturing is present; locally pyrite and yellowish dolomite(?) are developed along drusy fractures. The entire zone is pervasively silicified with one 12cm wide band of intense silicification (pale gray, massive, glassy) developed at 101.6m, at 60° to c/a.</p>					
102.0-102.7m	<p><b>SILICIFIED ZONE; possible FAULT</b> Mottled pale gray to blue-gray color, massive dense fine-grained, cherty-looking quartz. Chlorite and pyrite occur disseminated and as thin ribbons throughout and pyrite occurs encrusted on a few lensey cavities.</p> <p>Sample: 56154 102.0-102.7 m 0.7 m</p>	7	3	7	0.1	2
102.7-111.7m	<p><b>MASSIVE SILTSTONE, possible slump unit</b> Generally quite homogeneous-looking, med. to dark gray. Much of the zone looks weakly brecciated with occasional vague clasts. Locally there is more distinct brecciation or fragmental developed with ragged-edged, irregular clasts. Bedding is recognizable in a few places, tends to be laminated to thin bedded and disrupted - contorted with small scale healed offsets, compatible with slumping. Pyrite and yellowish dolomite (?) are present on numerous fractures.</p>					
111.7-112.3m	<p><b>FAULT ZONE</b> Fault gouge and breccia with angular fragments of med. gray siltstone. Gouge material is clay-rich, yellow to med. gray colored. Shearing is at 35° to 45° to c/a.</p>					
112.3-123.0m	<p><b>SILTSTONE, minor QUARTZITE AND ARGILLITE</b> Med. and thin bedded, med. and dark gray. Bedding is fairly consistent through much of the zone at 65-70° to c/a but there is also widespread disruption of bedding. Most of this fragmental character occurs from 112.3 to 116.0m but there are narrow zones of disruption below also. 116.0 to 117.2m is quartzite; mottled med. gray color with an overprinting of silicification and chloritization. 119.7-120.4m is a probable marker band but is quite faintly developed.</p>					



FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
123.0-124.7m	<b>LAMINATED ARGILLITE</b> Light-med. gray colored, beds vary from 1mm to 4cm, averaging about 6mm. Bedding is mainly at 45° to c/a but the bottom 20cm are disrupted, evidently by slumping or syndepositional faulting; healed brecciation and folding appear to have developed prior to lithification.					
124.7-126.2m	<b>FAULT ZONE</b> Most of the zone is clay-altered with recognizable bedding at 60° to c/a. Lithology is laminated argillite similar to overlying interval (123-124.7). Immediately below 124.7m is 15cm of light-med gray clay matrix fault breccia. Recognizable shearing is at 65° to c/a.					
126.2-132.6m	<b>FRAGMENTAL</b> The entire zone consists of a mass of angular, ragged fragments of mainly argillite and siltstone. Matrix is more quartz-rich; silty quartzite, but there is only 10-15% matrix. Angular fragments tend to be aligned at 40 to 45° to c/a but locally the fabric varies from 0° to 90° to c/a. Patchy alteration consisting of silicification and chloritization is present at a few places; a zone of stronger alteration straddles the contact at 132.6m.					
132.6-137.8m	<b>SILTSTONE, minor QUARTZITE, minor FRAGMENTAL</b> Thin and med. bedded, mainly med. gray. Narrow 3-4cm wide zones are fragmental with ragged angular clasts that are typically aligned parallel to bedding at 70° to c/a. The entire zone may be part of a slump fragmental unit. Patchy alteration in a few quartzite beds consists of pale yellow-green bleaching with pale green chlorite and pink garnet porphyroblasts.					
137.8m	<b>END OF HOLE</b>					

Deepened		DISTRICT: Fort Steele	COLLAR DIP: -90°	TESTS a: None
COMMENCED: Sept. 2, 1989	Nov. 8/89	PROPERTY: McNeil Creek	BEARING:	
COMPLETED: Sept. 6, 1989	Nov. 12/89	LOCATION:	LENGTH: 304.8 m	
LOGGED BY: Peter Klewchuk		CO-ORD.: 4859N, 3332E	CORE SIZE: HQ	
DATE LOGGED: Sept, Nov, 1989		ELEV.: 1482 m	% RECOVERY: ---	ppm except Au ppb
TARGET: Lower Middle Aldridge Contact				

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
0.0-8.5m	CASING; OVERBURDEN No Core					
8.5-304.8m	GABBRO Coarse grained, dark green quite mafic with est. 15-20% plagioclase. Amphiboles are chloritic altered. Thin veins of pale green-gray chlorite are locally common. A few limonitic fractures at ~30° to c/a occur in the upper part of the hole. Numerous thin felsic veins are present, 1-2 mm wide, most are at 60-70° to c/a but there are various attitudes. At 25.0 m narrow chloritic shear at 25° to c/a 1.5 m wide. Po occurs within scattered quartz veins and is locally disseminated in gabbro. Commonly there is very minor Cpy with the Po. 48.2-50.2 m Brecciated with pale gray-green chlorite (?) matrix veins which range from <1 cm to 3 cm wide; most are narrow. Prominent attitude is 60-70° to c/a, veins are usually discontinuous. 72.8 m Veining at 10-15° to c/a with quartz, epidote, pyrite & minor pyrrhotite. Epidote veining extends along thin subsidiary veinlets but is concentrated along the main Quartz-Ep-Py veins. At 74.7 m a series of chloritic, possibly epidotized veinlets at 30° to c/a with minor quartz, Py & Po. 80.2-81.3 m Contains 2 epidote-pyrrhotite veins up to 2 cm thick, massive Po locally up to 1 cm thick. Veins are at 10-15° to c/a. Minor Cpy occurs disseminated in thin veinlets on margins of main veins. Epidote occurs through the zone in thin veinlets as well as in the main veins. Sample: 80.2-81.3 m 1.1 m At 86.3-89.9 a series of Quartz-epidote-Po-Py veinlets crosses the core at ~40° to 50° to c/a. 115.8-116.1 m Minor brecciation with quartz veining, epidote, some shearing & fracturing, predominantly at ~15° to c/a. 128.0 m Minor fault with shear zone 3-4 cm wide, at 30-35° to c/a. A distinctive but subtle fabric occurs below here at ~40° to c/a down to at least 130.5 m. 132.9-134.4 m Stronger epidote veining; 1.5 cm wide massive epidote veins, typically at ~20° to c/a, offset by healed fractures which are at 40° to 70° to c/a and approximately at 90° to epidote veins. 135.6-135.9 m Fault zone; fault breccia and gouge; chloritic clay-rich material with epidote veining. 145.8-146.9 m Strong epidote alteration with shearing, brecciation, quartz veining and abundant disseminated pyrite (2-3%). Minor Po is also present. Sample: 145.8-146.9 m 1.1 m 157.6 m Narrow fault zone with clay gouge. Fine-grained pyrite in veinlets at 30-35° to c/a, 1-1.5 cm wide. 164.9 m Quartz-epidote veins, localized breccia with minor Po veins, range in attitude from 40° to <5° to c/a. 187.8 m End of Original Hole The gabbro is not a typical sill; the amount of epidote alteration and brecciation are not compatible with normal sill character.  Note: <u>Hole was deepened from 187.8 m to 304.8'. From November 8 to November 12, 1989. Core from deepened hole starts at 183.9 m.</u>					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
8.5-304.8m	cont'd					
183.9-209.7 m	Massive, coarse grained, granular texture. Amphiboles are chloritized, feldspars are very pale green altered. Numerous veinlets of pale green to apple green epidote are common. Localized healed fracturing with Quartz veining, minor Po, e.g. at 187 m, at 25° to c/a. Locally very strongly epidote veined. Veins form a matrix for healed brecciation - very irregular stockwork. Locally feldspars are epidote-altered within gabbro of normal texture.					
209.7-230.6 m	More massive gabbro. Very minor epidote. Feldspars are generally more pale greenish, almost white in places, i.e. less altered. 'Contact' at 209.7 m is not a distinctive change but general character of zone above is that of a dyke, and character of zone below is more like a sill. Fractures at 221.9 at 30° to c/a and at 223.7 at 20° to c/a.					
230.6-243.5 m	Epidote-altered; scattered irregular veins of epidote; some are brecciated and healed pale gray feldspar, chloritized amphiboles.					
243.5-275.8 m	More massive gray-green gabbro, pale gray feldspars, chloritized amphiboles. Scattered quartz vein mostly at 15° to 40° to c/a. Usually <1 cm wide. At 265.2 m a 2-5 cm 'vein' of dark green to almost black pyroxene occurs with sheared, chloritic gabbro, at 20° to c/a. At 266.7 m core is sheared over -60 cm, at 0° to 30° to c/a, strongly chloritic with thin quartz epidote, pyroxene veins (not magnetic). Core is more chloritic, darker green, adjacent to shear zone for -1.5-2 m with dark green to black chlorite-pyroxene veins at 30° to c/a. Scattered through the footwall zone.					
275.8-304.8 m	Epidote-altered gabbro. Gray-green color, more gray than overlying zone. Scattered irregular thin veins of gray-green to apple-green epidote; many tend to be at 20° to 40° to c/a. Minor Po is locally associated with epidote, particularly with thin quartz veins. Quartz veins are also scattered through the interval, commonly at 30-40° to c/a. At 297.2 m, 10 cm wide shear zone at 35° to c/a with gray-green clay alteration developed adjacent to narrow 1.5 cm central banded quartz vein.					
304.8m	END OF HOLE					

COMMENCED: September 8, 1989	DISTRICT: Fort Steele	COLLAR DIP: -90°	TESTS @: None
COMPLETED: September 22, 1989	PROPERTY: McNeil Creek	BEARING:	
LOGGED BY: Peter Klewchuk	LOCATION:	LENGTH: 401.1 m	
DATE LOGGED: September 12- ,1989	CO-ORD.: 4510N, 2900E	CORE SIZE: HQ	
TARGET: L.M.C. for bedded sulphides	ELEV.: 1460 m	% RECOVERY:	ppm except Au ppb

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
0.0-13.7m	CASING; NO CORE					
13.7-58.5m	GABBRO Medium grained, quite uniform throughout. Medium to dark gray-green color. Est. 35% white feldspar, 65% chloritized amphibole. Narrow veinlets of white feldspar cut the gabbro at various angles; veinlets are lensey, ie. they pinch out - probably tension gash fillings some are branching. Locally epidote occurs with thin feldspar and quartz veinlets. More healed fracturing, with chlorite, feldspar and epidote, occurs below about 47 m. Near 53.6 m texture is more fine grained and dark green and more massive looking. Contact at 58.5 m is at 70° to c/a.					
58.5-119.2m	QUARTZITE, MINOR SILTSTONE Rocks are quite bleached - alteration from sill, with moderate development of biotite porphyroblasts 1-2 mm diam. Mostly thin & medium bedded although alteration masks bedding considerably. Numerous hairline fractures and veinlets with quartz, feldspar and minor pyrite cut the core. Fracture surfaces are commonly chloritic. Generally, bleaching is more intense at FW of sill and diminishes downward, chloritization increases away from sill. Core is variably brecciated with usually narrow veins of chlorite, quartz and feldspar. Narrow zones are more brecciated and fractured, with quartz veining and some oxidation - evidently minor fault zones, e.g. at 97.0 m and 102.7 m and 105.8 m. Below 106.0 m bedding becomes more distinct; it is recognizable but considerably masked by alteration. Bedding angle is about 70° near 63 m, increasing to 45° at 107 m.					
119.2-119.9m	FAULT ZONE Brecciated and strongly silicified pale gray to very pale greenish-gray. Original lithology probably siltstone. Minor quartz veining, 1 - 1.5 cm wide, occurs along the most prominent fracture, near 119.9 m and at 30° to c/a. Black fine-grained pyrite is smeared along fracture surfaces near quartz vein. Sample: 56301 119.2-119.9 m 0.7 m	2	2	5	0.1	1
119.9-150.9m	QUARTZITE AND QUARTZITIC SILTSTONE Generally medium and thick-bedded; light to medium gray colored, usually somewhat greenish from chloritic alteration. The entire interval is variably bleached and silicified with a mottled coloration of gray, purple and green hues. Core is typically quite broken with most fractures coated with chlorite and patchy pyrite. Localized weak brecciation is usually more chloritic, with associated Py & Po & ZnS. Weak zinc mineralization and Po occurs as very narrow, irregular fracture fillings; eg. at 123.7, 145.1, and from 146.2 to 146.9 m. Bedding: 50° at 121.9 m; 52° at 124.1 m; 50° at 129.8 m; 45° at 136.2; 58° at 145.5 m; 51° at 143.6 m.					
150.9-152.7m	FAULT ZONE Fault breccia and gouge at 151.2 m - about 4 cm wide, but the entire interval is moderately brecciated and cleaved at 45-50° to c/a. Fault bx, gouge at 151.2 m is at 60° to c/a. Zone is chloritic with narrow, irregular quartz and Po veinlets.					
152.7-182.2m	QUARTZITE AND QUARTZITIC SILTSTONE, MINOR SILTSTONE Thick, medium and rarely thin bedded. Medium gray to light gray-green colored, locally darker gray where more silty. Variably fractured with chlorite and rare pyrite on fractures. Minor Cpy and Po are also present in some fractures and, at 175.0 m, minor PbS, ZnS and Po occur along a weakly vuggy fracture which is oriented at 0° to c/a. Bedding: 59° at 157.3 m; 61° at a 166.5 m; 54° at 172.5 m; 50° at 179.0 m.					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
182.2-182.6m	<p>ALTERED SILTSTONE WITH BANDED SULFIDES</p> <p>Medium-dark gray laminated siltstone, silicified with mottled pale greenish bleaching. Sulphides occur throughout the interval but are concentrated in a central 30 cm thick section. Po and ZnS are quite abundant with minor Cpy and PbS. The sulfides, especially ZnS and Po, tend to occur as narrow bands along bedding planes; there is a distinctive stratiform character, although metamorphic overprinting has produced re-crystallization and irregular aggregation of the sulfide such that the irregular, rounded (commonly connected) masses of sulfides also cross-cut the stratigraphy. The sulphides are not uniformly distributed laterally within the core; assuming an east dip, the north side is more zinc-rich while the south side is more Po-rich. Bedding at 58° to c/a.</p> <p>Sample: 53320    182.2-182.6 m    0.4 m    Fe = 11.34%</p>	%	%	%	oz/t	oz/t
		.02	.03	1.74	.03	.001
182.6-189.6m	<p>QUARTZITE AND SILTY QUARTZITE</p> <p>Medium gray with greenish bleaching. Thin and medium bedded although bedding is rather indistinct. Fractures are chloritic, minor Py and very minor Cpy along fractures. Bedding is at 50° to c/a.</p>					
189.6-196.3m	<p>SILTSTONE</p> <p>Dark gray to black, medium and thin bedded to laminated. Vague mottled gray-green bleaching is rather weakly developed throughout. Pyrrhotite occurs locally in indistinct bands, disseminated along laminae or bedding planes. Minor fracture filling of Po, ZnS and Cpy are also present. Bedding is at 50°.</p>					
196.3-212.0m	<p>QUARTZITE, MINOR SILTSTONE</p> <p>Typically medium and light gray, pale greenish from chloritic alteration. Thick and medium (?) bedded; very few bedding planes are recognizable. Core is quite broken with chlorite common on fracture surfaces and minor pyrite often present. A few pyrite veins get up to 3 mm wide - these are in localized breccia zones where alteration is more intense. Bedding: 67° at 204.5 m; 59° at 207.0 m; 65° at 208 , in finely laminated siltstone.</p>					
212.0-221.9m	<p>SILTSTONE</p> <p>Medium to dark gray, thin and medium bedded, some laminated intervals. Some beds are lensey and discontinuous. Core is moderately broken with chloritic fractures, minor pyrite. At 220 m a 20 cm band of core is more silicified, sheared at 50° to c/a with pyrite and chlorite on fractures.</p> <p>Bedding: 55° at 212.5 m; 46° at 217.2 m.</p>					
221.9-224.8m	<p>QUARTZITES</p> <p>No obvious bedding; probably thick bedded. Pale greenish-gray. Core is quite broken with weakly chloritized fracture surfaces. At 223.7 m a 4-5 cm wide quartz vein cuts core at 25° to c/a. Quartz is brecciated with fracture veining of Py and Po.</p>					
224.8-228.5m	<p>SILTSTONE, SILTY ARGILLITE, MINOR SILTY QUARTZITE</p> <p>Medium and thin bedded, some lensey bedded. Generally medium to dark gray color. Core is fairly broken with chloritic fractures. At 227.8 minor brecciation with an irregular 1 cm wide quartz vein at 45° to c/a, 70° to bedding with minor Po.</p> <p>Bedding: 53° at 225.5 m; 63° at 227.8 m.</p>					
228.5-270.7m	<p>QUARTZITE &amp; SILTY QUARTZITE</p> <p>Mostly light and medium gray colored. Medium and thick bedded. Bleaching and silicification are variably developed within the interval. Core is moderately broken with many narrow zones (1/2-1 m) quite strongly broken. Fracture surfaces are commonly chloritic. Minor sulfide mineralization is scattered through the interval; at 229.7 a 2 cm wide band of brecciation at 40° to c/a carries white quartz and minor ZnS in the matrix. At 251.5 m a 20 cm wide band of more intensely bleached and silicified quartzites carries about 5% irregular patchy vein sulfides, mainly Po with minor Cpy. At 266.2 m a narrow 6 cm wide 'foliated' zone carries 2-3% finely dissem. Po with minor Cpy. Minor pyrite is common on some fracture surfaces with chlorite. Bedding: 45° at 230.7 m; 60° and wavy at 244 m;</p>					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
228.5-270.7m	cont'd 60° at 261.6 m. Sample: 56302 251.3-251.6 m 0.3 m	217	32	54	0.1	4
270.7-302.0m	CHLORITIC-ALTERED SILTSTONE AND QUARTZITE Hanging wall alteration zone of underlying fault. At about 270.7 m the core becomes more chloritic and evidence of greater tectonic disturbance becomes more apparent. Core is quite chloritic, moderately brecciated, quite fractured and locally is foliated. At 271.3 a moderate foliation is developed at 40° to c/a; at 272.3 m the foliation is at 19° to c/a. At 273.4 m a rounded elongate clast 3 cm x 1.3 cm is aligned roughly parallel to bedding at 65° to c/a. Clast is very fine-grained, very pale greenish gray color in a chloritic quartzite host. Bedding at 275.8 m is at 37° to c/a. At 277.8 m and 278.6 m thin veinlets of Po and Py occur at 17 to 25° to c/a. Minor brecciation quartz veining and dissem. Py mineralization occurs from 280 to 288 m. At 291 m bedding is at 15° to c/a. From 294 m to 300 m core is moderately brecciated with matrix of narrow, irregular veins of quartz, chlorite and pyrite. From 297.2 to 298.4 m, one quartz-chlorite-pyrite vein cuts the core at 0° to c/a; this shear zone curves into the core from one side at the top and goes out the opposite side at the bottom indicating sigmoid fracturing. From 297.8 m to 302 m core is quite foliated, at 18° to c/a. Silicification is evident with very thin (<1 mm wide) darker gray, planar to pygmatic quartz veinlets. 1-2% pyrite occurs in this zone with Py occurring as disseminated grains and in small foliation-parallel lenses. Sample: 56303 297.3-298.5 m 1.2 m	9	5	22	0.1	2
302.0-348.4m	MAJOR FAULT ZONE - probably McNeil Creek Fault 302.0 to 303.6 m is broken, brecciated, chloritized siltstone or quartzite. Minor pale gray quartz veining, up to 3 cm wide, occurs parallel to cleavage at about 15° to c/a. Intense mylonitic shearing with silicification is present at 303 m, at 25° to c/a. Dissem. Py occurs with quartz vein, chlorite and silicified zones. Sample: 56304 303.0-303.6 m 0.6 m Box 79 303.6-312.7 m is massive, sheared chlorite with ~5% irregular quartz veins and patches and ~1% dissem. pyrite. Color ranges from a light (almost epidote-colored) green to a very dark green, almost black. A wavy shearing occurs throughout, ranging from 0° to 40° to c/a, averaging about 25°. Samples: 56305 303.6-304.6 m 1.0 m 56306 306.6-307.6 m 1.0 m 56307 311.7-312.7 m 1.0 m 312.7-321.3 m is very broken core, chloritized and silicified quartzites or siltstones. Patches of light gray quartz occur through this interval, giving the impression of a series of quartz veins up to 20 or 30 cm wide. Very minor pyrite, <1/2%, occurs scattered through the interval. Cleavage when it can be seen in larger fragments, tends to be at ~40° to c/a. 321.3-348.4, chloritized, brecciated and silicified siltstone and quartzite. Sedimentary bedding is readily recognizable here but the entire interval is still strongly chloritized. Minor quartz veining and fine dissem. pyrite are fairly common. At 325 m a 50-60 cm zone of brecciated quartz carries dissem. Py and fine lavender-colored hematite. Sample: 56308 324.7-325.3 m 0.6 m Box 85 Bedding angle ranges from 48° to 67°.	4	6	39	0.1	3
348.4-356.8m	ARGILLACEOUS SILTSTONE Thin and medium bedded. Dark gray-green, quite chloritic; core is quite broken. Very minor pyrite occurs with chlorite on fracture surfaces. Bedding is locally disrupted by minor folding associated with faulting. Most bedding is at ~65° to c/a.	1	8	71	0.2	4
356.8-357.3m	FAULT ZONE Chloritic & quartz-rich fault breccia and gouge. Pale gray-green color. Fine to rarely medium grained pyrite is dissem. through most of the interval. Cleavage is wavy (and most of the zone is broken) but averages 60° to c/a.	5	14	127	0.1	3
		4	12	62	0.1	1
		4	4	7	0.1	5

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
357.3-387.7m	<p>SILTSTONE, minor QUARTZITE</p> <p>Core is moderately to strongly broken. Pervasive chloritic alteration results in an overall gray-green color. Bedding ranges from laminated to medium, possible thick bedded. Mainly thin and medium bedded. Narrow zones of brecciation, minor faulting scattered through the interval. Pyrite mineralization is common in minor amounts (&lt;1/2%) through all of the interval.</p> <p>From ~372 m to 375 m is more quartzitic; core is quite broken.</p> <p>Bedding: 35° at 365.5; 30° at 369 m; 0° at 371.8 m (local); 41° at 377 m; 30° at 384 m.</p>					
387.7-393.5m	<p>QUARTZITE</p> <p>Broken core; appears to be medium and thick bedded. Green-gray colored-chloritic alteration. Fracture surfaces are chloritic with associated dissem. pyrite. No distinctive bedding planes noted.</p>					
393.5-401.1m	<p>SILTSTONE &amp; QUARTZITE</p> <p>~60% is darker green chloritic siltstone, 40% is lighter green quartzite. Core is all quite strongly broken. Minor pyrite occurs throughout; typically disseminated on chloritic fractures, locally almost vein-like concentrations of fractures.</p> <p>Bedding: 20° at 394.4 m; no other distinctive bedding.</p>					
401.1m	END OF HOLE					

COMMENCED: September 25, 1989	DISTRICT: Fort Steele	COLLAR DIP: -45°	TESTS @: None
COMPLETED: September 29, 1989	PROPERTY: McNeil Creek	BEARING: Az 285°	
LOGGED BY: Peter Klewchuk	LOCATION:	LENGTH: 111.3 m	
DATE LOGGED: October 1, 1989	CO-ORD.: 4606N; 2931E	CORE SIZE: HQ	
TARGET: Aeromag anomaly	ELEV.: 1420 m	% RECOVERY:	ppm except Au ppb

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
0-15.8m	CASING					
15.8-20.9m	SILTSTONE & QUARTZITE Core is broken and weathered but the zone consists of mixed lithologies ranging from laminated argillite and silty argillite to med. thick quartzites. Fractured surfaces tend to be limonitic from surface weathering. Bedding: 70° at 17.0 m; 65° at 20.5 m.					
20.9-30.2m	QUARTZITE, MINOR SILTSTONE & SILTY ARGILLITE Core is broken and weathered. Probably med. thick beds; more argillaceous zones are laminated and thin bedded and darker green colored. Quartzites are a pale to med. gray-green color; the entire zone is strongly chloritic-altered. Bedding: 75° at 25.0 m; 82° at 28.7 m.					
30.2-34.4m	SILTSTONE & ARGILLITE Laminated and thin bedded throughout. Broken core with limonitic fracture surfaces. Variably greenish-colored from chloritic alteration. Bedding is 68° throughout.					
34.4-42.7m	SILTSTONE Vaguely laminated; appears to be thin bedded. Gray green colored, lighter than preceding interval. Core is still broken and quite rusty. Apparent bedding is at 70° to c/a.					
42.7-42.8m	FAULT GOUGE Minor fault zone; 10 cm of crushed rock with limonitic orange-brown-yellow clay matrix					
42.8-55.0m	QUARTZITE AND SILTSTONE Med. gray-green colored; appears to be med. and thin bedded; bedding planes are not distinct. Fracture surfaces are rusty throughout the interval but decreasing downward. Most fractures cut apparent bedding at 40°; both are at 70° to c/a. Fine dissem. Py occurs through much of the interval; <<1/2% Minor brecciation at 53 m with localized stock work of white to light gray quartz veining.					
55.0-64.5m	FAULT ZONE McNEIL CREEK FAULT 55.0-55.9 m Gray fault gouge mixed with brecciated, silicified, chloritized siltstone 55.9-57.9 m Sheared, brecciated, chloritic siltstone with 30% quartz veining. Quartz, chlorite and minor pyrite form a matrix to the breccia and more massive quartz veins are cut by quartz-chlorite-pyrite veins. Foliation is at 70° to 80° to c/a. Sample: 56351 56.9-57.9 m 1.0 m 50% Quartz veining	1	3	7	0.1	1
57.9-64.5 m	Moderately to strongly foliated, chloritic siltstone (?) Gray-green colored varying from light gray to dark green, almost black. The zone is probably sheared siltstone but now consists mainly of chlorite, quartz and pyrite. Pyrite is disseminated through parts of the core and tends to be concentrated along shear surfaces. Max. Py concentration over any appreciable width is about 4%. Zones of fault gouge, up to 15 cm wide, occur between 58.5 and 60.4 m.					
61.0-61.8 m	is about 70% foliated light gray quartz with crenulated bands of chlorite <1/2 mm thick. Minor pyrite occurs as disseminations and discontinuous laminations. A series of foliation-parallel bands of magnetite from <1/2 mm to 8 mm wide are scattered through this quartz-rich zone.					



FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
55.0-64.5m	Cont'd Samples: 56352 60.0-61.0 1.0 m Strongly chloritic 2-3% pyrite 56353 61.0-61.8 0.8 m Qtz., chlorite, magnetite, pyrite 56354 61.8-63.1 1.3 m Strongly sheared, chloritic, minor pyrite 56355 63.1-64.5 1.4 m Strongly 20% Qtz. veining At 63.1 m a cross-shear at 55° to c/a, 80° to overlying foliation, is associated with irregular thin quartz veining sub-parallel to the cross-shear. Foliation below this cross-shear is at 30° to the cross-shear, at 80° to c/a. Evidently the fault zone is not a simple foliated structure.	3	2	56	0.1	1
		2	4	13	0.1	1
		1	2	67	0.1	5
		5	4	42	0.1	17
64.5-66.5m	SILTSTONE Strongly brecciated, chloritized and silicified. Core is very broken. Est. 10-15% Qtz. veining, up to 2 cm wide, with associated chloritization. Pale gray-green color, mottled Sample: 56356 64.5-66.5 2.0 m	1	2	16	0.1	17
66.5-75.0m	GABBRO Dark gray-green, relatively fine-grained. Strongly altered; chloritized, locally silicified with stock work brecciation of small quartz veins, and in places hematized with irregular patches of pink to lavender hematite. 'Typical' gabbro texture is not present; no distinct, recognizable feldspars noted; the rock is a quite strongly brecciated and sheared, chloritic material, but is probably a chloritized gabbro dike. Core is typically quite broken; shearing varies from 0° to 60° to c/a. Minor pyrite occurs throughout; usually as fine disseminations, locally as irregular, patchy concentrations. Minor QV at 73.1 m is 3 cm wide, at 60° to c/a, with very minor dissem. Py. At 72.8 m fragments of 're-drilled' bleached very thin bedded and laminated siltstone must be cave. Both HW and FW contacts of this intrusive are in broken, sheared core.					
	Samples: 52022 65.8-66.5 m 0.7 m 52023 66.5-68.0 m 1.5 m 52024 68.0-69.5 m 1.5 m 52025 69.5-71.0 m 1.5 m 52026 71.0-72.5 m 1.5 m 52027 72.5-74.0 m 1.5 m 52028 74.0-75.5 m 1.5 m	5	3	5	2	
		1	3	2	2	
		5	6	4	4	
		2	1	2	2	
		1	4	2	2	
		2	4	5	2	
		5	6	6	3	
75.0-99.8m	ALTERED, SHEARED SILTSTONE & QUARTZITE Typically brecciated, broken core, variably silicified and chloritized. Recognizable bedding planes are rare; at 75.1 m; at 30° to c/a; at 86.0 m, 60° to c/a; at 91.7 m, 60° to c/a. Shearing is common with shear zones typically at 30° to 60° to c/a, minor clay fault gouge and breccia are scattered through most of the zone. Patches of strong, pervasive silicification, healed brecciation, chloritization and minor dissem. pyrite occur between 84.0 and 92.0 m. Contact at 99.8m is fairly sharp at 65-70° to c/a, but the contact zone is sheared sub-11 to the contact at 60° to c/a.					
99.8-111.3m	GABBRO Probably a dike. Generally dark green, strongly chloritic; only 10% feldspar evident (may be masked by chloritization). Texture is quite variable. Narrow shear and breccia zones at 50° to c/a are scattered throughout the intrusive. Quartz, calcite and epidote veins are common, comprising about 15% of the rock. Most veins are irregular, forming a matrix to brecciated gabbro. Most of the core is weakly to strongly magnetic; locally there are narrow veins of black magnetite and black-reddish veins of magnetite and hematite. These tend to be associated with quartz-calcite veining.					

FOOTAGE		DESCRIPTION	ANALYSIS			
FROM	TO		Au	Pt	Pd	Rh
99.8-111.3m		cont'd				
		Samples: 52029 99.4-100.1 m 0.7 m	1	7	6	3
		52030 100.1-100.6 m 0.5 m	4	7	3	2
		52031 100.6-101.5 m 0.9 m	1	2	5	2
		52032 101.5-102.5 m 1.0 m	1	6	4	2
		52033 102.5-103.5 m 1.0 m	1	4	3	2
		52034 103.5-105.0 m 1.5 m	1	5	2	2
		52035 105.0-106.5 m 1.5 m	1	1	2	2
		52036 106.5-108.0 m 1.5 m	3	2	4	2
		52037 108.0-109.5 m 1.5 m	2	3	2	2
		52038 109.5-110.2 m 0.7 m	1	2	3	2
		52039 110.2-111.0 m 0.8 m	4	6	2	2
111.3m		END OF HOLE				

COMMENCED: September 30, 1989	DISTRICT: Fort Steele	COLLAR DIP: -90°	TESTS @: None
COMPLETED: October 3, 1989	PROPERTY: McNeil Creek	BEARING:	
LOGGED BY: Peter Klewchuk	LOCATION:	LENGTH: 164.6 m	
DATE LOGGED: October 31, 1989	CO-ORD.: 4606N, 2931E	CORE SIZE:	
TARGET: Aeromag Anomaly	ELEV.: 1420 m	% RECOVERY:	ppm except Au ppb

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
0.0-3.0m	CASING, NO CORE					
3.0-16.3m	SILTSTONE AND ARGILLITE, minor QUARTZITE Laminated to thin bedded. Altered; numerous beds are biotite - spotted and zones of purple and pale green bleaching are present; this alteration is probably related to overlying gabbro sill. Fractures are rusty from surface oxidation. Bedding: 55° at 6.6 m; 58° at 10.4 m; 58° at 14.0 m.					
16.3-32.6m	SILTSTONE AND QUARTZITE, minor ARGILLITE Core is quite broken; appears to be predominantly medium thick beds with narrow argillaceous laminated sections. Oxidation from surface weathering is present through the interval but decreases downward. Color varies from dark gray, almost black (siltstones) to light gray (quartzites). 16.8 to 17.1 m is altered to a mottled, foliated hornfelsic - texture of chlorite, quartz and feldspar. Limonitic spotting suggest oxidation of minor pyrite. At 23.2 m an irregular band 2-5 cm wide appears hydrothermally altered with patchy disseminated Cpy and Po. Sample: 56151 23.2-23.3 m 0.1 m	9337	293	434	12.4	97
32.6-37.3m	QUARTZITES Light to medium gray, massive; thick or very thick bedded. Rare bedding planes and faint internal laminations are at 50° to c/a. Core is generally quite broken. Minor siltstone is present below 36.5 m.					
37.3-41.8m	SILTSTONE & ARGILLITE Thin bedded and laminated, light, medium and dark gray. Bedding at 50° to c/a. Weak cross bedding present at 41.1 m. Chloritic-altered from 40.2 m (and lower) with very minor fine dissem. pyrite.					
41.8-46.0m	QUARTZITE & SILTSTONE Quite strongly altered; bleached, silicified and chloritized. Medium (and thick (??)) bedded to laminated. Chlorite is common on fracture surfaces and minor dissem. Py is common with chlorite. Bedding is at 50° to c/a.					
46.0-48.5m	ARGILLITE & SILTSTONE Thin bedded and laminated; a few medium thick beds. Bedding at 40-43° to c/a. Color is medium-dark gray with a few very light gray bands; possible marker at 48.2 m. Core is quite broken and numerous fractures are oxidized. More siliceous beds tend to be chloritic altered and silicified.					
48.5-51.2m	BRECCIATED SILTSTONE; FAULT ZONE Much of the core is strongly broken, chloritic; larger pieces are healed weak breccias. Minor fault gouge with thin quartz veins occur at the base of the interval. Shearing tends to be at 50° to c/a.					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
51.2-124.4m	<p><b>QUARTZITE, minor SILTSTONE</b></p> <p>Mainly thick and very thick bedded, some medium beds, rare thin beds. Mostly light gray, slightly greenish, glassy to fine-grained granular; some silicification with associated chloritization is present, patchy throughout the interval. At 67.2 m a 2 cm wide band of chlorite and pyrite cuts the core at 40° to c/a. Pyrite occurs as ragged branching masses; looks like an epigenetic overprinting. The band is not continuous and is probably associated with weak brecciation which is evident through parts of the interval. Breccia fractures are commonly chloritic with minor pyrite. At 67.6 m a narrow zone of dissem. ragged patches of pyrite and chlorite carries a few specks of ZnS. Bedding: 56° at 55.5 m; 56° at 64.3 m; 50° at 75.0 m.</p> <p>From 72.0 m to 72.6 m is a zone of silicified breccia; Quartzite is sheared and brecciated at 40° to 60° to c/a with a matrix of thin white quartz veins. From 92.0 to 92.8 m is a similar breccia, with localized minor fault gouge; fault-related alteration. Chlorite and minor pyrite are common on fractures. Minor sulfides occur throughout the interval; pyrite is the most common occurring dissem. and as veins on fractures; locally there is minor ZnS and Cpy, e.g. at 100.0 m. Below about 109 m increased fracturing and shearing are evident. Within this zone, orientation of shearing changes from 40° to c/a to 15° to c/a (the change is not gradational within the interval).</p> <p>Chlorite, pervasive silicification quartz veining and minor pyrite are fairly common in this lower zone.</p>					
124.4-134.0m	<p><b>SILTSTONE &amp; QUARTZITE: FAULT HANGING WALL ALTERATION ZONE</b></p> <p>Bedding is at 25° to c/a with parallel and sub-parallel cleavage. Silicification, chloritization and dissem./pyrite mineralization are common throughout. In a few places pale gray quartz veins occur generally parallel to bedding; at 124.4 minor PbS, Cpy and ZnS associated with Py within a series of parallel quartz veins.</p> <p>Bedding tends to be more disturbed and cleavage is generally stronger toward 134/0 m.</p> <p>Sample: 56152 124.4-124.5 m 0.1 m</p>	80	1985	18	4.1	1
134.0-134.5m	<p><b>QUARTZ-CHLORITE ZONE</b></p> <p>Foliated at 30° to c/a; wavy-banded. Est. 80% Quartzite, 20% Chlorite with minor dissem. Py.</p>					
134.5-153.3m	<p><b>FAULT ZONE</b></p> <p>Very strongly chloritized sediments; minor laminated and thin bedded zones suggest more argillaceous sediments. Cleavage varies from 10° to 30° to c/a, typically wavy on a small scale and with local minor folds. Color varies from medium gray-green to dark green. Narrow quartz and quartz-calcite veinlets are scattered through much of the interval; locally these form a matrix for minor breccias. Most veinlets parallel cleavage but a few cross-cut at 90°. Dissem. pyrite is common through most of the zone, locally getting up to 3 or 4%. Below 148.9 m core is more broken, more brecciated with localized fault breccia, gouge and irregular quartz veining. Nebulous patches of purple hematite occur with some of the silicification.</p>					
153.3-164.6m	<p><b>GABBRO</b></p> <p>Contact at 153.3 m is not distinct and is in broken core. Core is quite broken, strongly chloritic; brecciated with thin quartz vein matrix. Shearing/cleavage is present throughout; gabbro may be part of the fault zone; shearing tends to be at 20° to 40° to c/a. More competent pieces of massive gabbro core are also pervasively crenulated, at 20° to c/a. Color is medium-dark green, feldspars are not distinctive; may be discolored by chloritization. Dissem. Py. is common throughout, as isolated 1-2 mm ragged grains and larger patches up to 1 cm diam. Pyrite averages 1-2% but locally makes up 3-4% of core.</p>					

FOOTAGE		DESCRIPTION	ANALYSIS			
FROM	TO		Au	Pt	Pd	Rh
153.3	164.6m	cont'd				
		Samples: 52040 153.0-154.5 m 1.5 m	1	3	2	2
		52041 154.5-156.0 m 1.5 m	3	5	3	2
		52042 156.0-157.5 m 1.5 m	1	4	2	2
		52043 157.5-159.0 m 1.5 m	1	1	2	2
		52044 159.0-161.0 m 2.0 m	1	1	2	2
		52045 161.0-162.5 m 1.5 m	3	1	2	2
		52046 162.5-164.0 m 1.5 m	3	2	2	2
		52047 164.0-164.6 m 0.6 m	1	1	2	2
164.6		END OF HOLE				

COMMENCED: October 5, 1989	DISTRICT: Fort Steele	COLLAR DIP: -90°	TESTS @: None
COMPLETED: October 12, 1989	PROPERTY: McNeil Creek	BEARING:	
LOGGED BY: Peter Daignault	LOCATION:	LENGTH: 255.7 m	
DATE LOGGED: Oct. 12 - Nov. 9/89	CO-ORD.: 4278N; 2707E	CORE SIZE: HQ	
TARGET: Bedded Sulphides	ELEV.: 1473 m	% RECOVERY:	ppm except Au ppb

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
0 - 4.6m	CASING					
4.6 - 14.0m	<p>SILTSTONE WITH INTERBEDDED QUARTZITE</p> <p>Medium gray. Joints and some bedding plane surfaces have limonitic staining 4.7-5.0 highly fragmented core with 3 mm finely granular to pasty gouge at 60° to c/a. Similar pasty to coarsely granular gouge occurs at: 6.9 m (2-3 mm at 60° to c/a); 7.6 m (1 mm at 60° to c/a); 8.8 m (2 mm at 60° to c/a); 13.6 m (2.3 cm 65° c/a). Note: All gouge zones are parallel to bedding.</p> <p>Bedding to c/a angles are mainly 60°-65°. Principle joint planes are 45°- 60° to c/a and approx. orthogonal to the bedding. Strongly fractured core 10.7 - 11.0 m. One (1) low angle (10° to c/a) irregular joint at 12.8 m partially coated with f. grn. Py, locally in acicular radiating clumps. At 7.3 m, 2 cm bed with grains up to 1 mm. 8.8 - 9.25 m: thinly bedded, very slightly brownish med. gray siltstone with 7 to 8 cm. band of quartzite (speckled black with ≤1 mm biotite clots, and very siliceous uniformly pale slightly bluish gray glassy 1 cm upper contact) in middle. A similarly siliceous band (3 - 4 cm) of quartzite occurs @ 9.25 m. Occasional short (&lt;30 cm) interval of thin-med.bedded siltstone from 9.6 - 14.0 m.</p>					
14.0-15.2m	<p>SILTSTONE</p> <p>Thinly bedded with alternating light to med. dark gray beds. Locally med. grayish-brown beds. The brownish beds (0.1 - 0.5 cm) are noticeably softer (due to micro-biotite? flakes). At 15.2 m appears like turbidite with lenticular blebs of dark siltstone/argillite enclosed in sandy matrix. Scour channel (4 cm x 0.5 cm) within the sandy unit. Bedding to c/a 65°.</p>					
15.2-16.9m	<p>QUARTZITE Med. gray with occasional thin siltstone interbed. Very competent with pieces up to 30 cm long.</p>					
16.9-18.7m	<p>SILTSTONE</p> <p>Med. dark, gray to bluish gray, thin bedded. Bedding to c/a 60°.</p>					
18.7-28.7m	<p>QUARTZITE &amp; MINOR SILTSTONE</p> <p>Massive to well bedded, light med. gray quartzite and med.dk. gray siltstone. Bedding to c/a angles 60°- 65°. Fine hair-line fractures common (~10/m), coated with quartz/ calcite. Core locally bleached pale yellowish gray. 2-3 cm healed brecciated siltstone argillite at 21.7 m, weakly min. po.</p>					
28.7-29.7m	<p>SILTSTONE</p> <p>Med.-dark gray, well min. on fractures with irregular shaped smear of py (up to 1-2 cm) occ. partially oxidized. Bedding to c/a 60°.</p>					
29.7-39.6m	<p>QUARTZITE AND SILTSTONE</p> <p>Light gray to med-dark bluish gray (lighter zones bleached) and minor (&lt; 1/3) apparently weakly bedded med. gray siltstone. Locally weak-mod Fe-oxide staining on fracture. Bedding to c/a 60°. Core highly fragmented from approx. 33.0-33.4; 36.6-37.4; 38.4-38.6. Slightly brownish med. gray siltstone from 39.0-39.6.</p>					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
39.6-51.5m	<p>QUARTZITE WITH MINOR (&lt;10%) SILTSTONE                      Quartzite mainly light gray, siliceous, massive, with lesser amount med-gray to med. bluish gray. Occ. short (&lt;2 cm) sections of med-brownish-gray siltstone. Bedding obscured by striae produced by drill rods. 50-60% of the core is highly fractured. Core Recovery: 80% (43.9-47.2); 50% (47.2-49.7).</p>					
51.1-53.9m	<p>SILTSTONE                      Med. gray to med. brownish gray. Locally grades into Quartzite. Bedding to c/a 60°. Irregularly shaped blotches of fine grained Py on occ. low angle (to core axis) fractures.</p>					
53.9-57.2m	<p>QUARTZITE                      Pale gray, massive? (Bedding obscured for most of length) to weakly bedded (Bedding to c/a 55° to 60°). Numerous hair-line fractures throughout with occ. quartz/cal. fracture &lt;1 mm. Core strongly fractured at 56.2 m and 57.2 m.</p>					
57.2-64.9m	<p>QUARTZITE                      Impure med. to dark gray, locally pale, slightly greenish gray (bleached?). At 60.0 m, one (1) pale gray quartz pebble (1 x 1.5 cm) in greenish gray quartzitic matrix. Vaguely outlined rip-up clasts at 62.7 m in bleached pale slightly greenish gray massive quartzite. 6.3-64.3 m is transitional between quartzite and siltstone. Bedding to c/a is 60°.</p>					
64.9-71.5m	<p>QUARTZITE                      Med. gray to leached pale gray. Massive to well-bedded. Bedding to c/a is 60°. Pale hair-line fractures common. 2-3 cm micro-fractured barren white opaque to semi-transparent quartz vein with sharp to gradational contact with surrounding quartzite; possible a low temperature recrystallized "sweat" from surrounding quartzites. Quartz vein 10° to core axis from 68.5-69.0 m.</p>					
71.5-88.1m	<p>QUARTZITE AND SILTSTONE                      Mixed lithology ranging from fine grained massive to weakly bedded pale gray quartzite to locally thin bedded med-dark siltstone. Bedding to c/a is 60°. 100% core recovery. Competent rock with individual pieces up to 50 cm long. Fine hair-line fracturing throughout, occ. with minor fine grained Py. 3-4 mm granular gouge parallel bedding at 82.4 m. 1-2 mm granular gouge with euhedral Py (1 mm) at 71.55 m. At 71.65 m, two bands (2 cm apart) 0-2 mm thick of Po, minor Py and trace Cpy; bedded sulphides in biotite-rich siltstone. Occ. fleck chlorite and numerous small (0.1 mm) flakes of muscovite on plane with sulphides.</p> <p>Sample: 39356 71.65-71.72 m 0.07 m</p> <p>At 75.6 one band (1-3 mm thick) of bedded? Py and minor Po. Mineralization intimately associated with clear quartz, with locally very minute, poorly developed quartz crystals in vugs.</p> <p>Sample: 39357 75.60-75.65 m 0.05 m</p> <p>At 83.9 one (1) band (4-5 cm thick, bedding to c/a ) of conformable bedded sulphides (15-20%, Po, very minor Py). Biotite rich contacts with enclosing beds having fine grained dissem. Po. On F/W side is a short (5 cm) thin (&lt;1 mm) siliceous irregular veinlet with sporadic Po and Cpy and Sphalerite mineralization.</p> <p>Note: The F/W contact is underlain by siliceous, glossy, dark green to greenish gray, chalcedony? bed with numerous very fine pale healed fractures at right angles to bedding (desiccation cracks?)</p> <p>Sample: 39358 83.90-84.10 m 0.2m</p>	232	21	146	0.2	1
		55	17	63	0.1	5
		253	32	175	0.5	16
88.1-97.8m	<p>QUARTZITE AND SILTSTONE                      Med. to dark gray siltstones are siliceous and hard, bedding mainly obscured by drill rod striae (bedding to c/a 55-60°) 88.1-91.7: mod-highly broken core, (particularly from 88.1-90.6 which is badly broken) with numerous fractures surfaces covered with irregular to round clots of fine grained Py smears. At 93.0, 1.5-4.0 cm thick band of bedded (?) sulphides (Py plus Po with trace Cpy) sulphides in a siliceous and biotitic ground mass. Host rock is dark gray-grayish black hard siltstone with moderate very fine grained dissem. Po:</p>					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
88.1-97.8m	cont'd One contact (F/W) is a 0.5-1.0 cm bed of highly siliceous, glossy, dark green to dark greenish gray chalcedony (?). Sample: 39359 93.00-93.11 m 0.11 m Note: The mineralization and associated lithology of this sample is almost identical to that of Sample 39358. 94.8-96.8 SHEAR ZONE in med. gray siliceous siltstones and minor quartzite. 94.8-95.2 strongly sheared with locally fine grained granular and paste like gouge zones up to 1 cm thick; 25-30° between fault planes and core axis. 95.8-96.0 m irregular frag. (up to 2.5 x 1.5cm) in a quartz/calcite weakly chloritic (?) (pale yellowish green) matrix. Fragments contain Po as very fine grain disseminations and along extremely fine fractures. Sample: 39360 95.8-96.0 m 0.20 m At 96.8 approx. 0.06m highly sheared rock and 2 mm gouge; 45° between shear planes and core axis. The intervening sections between strong shear/gouge zones and breccia is stressed with numerous fine hair-like fractures, occ. filled with up to 2 mm calcite.	263	21	103	0.3	11
97.8-101.8m	QUARTZITE Pale gray numerous irregular, frequently discontinuous hair-line fractures, occ. with calcite (0.2 mm max.) fill. Core recovery 95+ %. 101.3-101.8 m badly broken core.					
101.8-147.9m	SILTSTONE AND QUARTZITE 101.8 - 105.0 Mainly dark gray siliceous siltstone with minor quartzite. Moderately broken core except for badly broken 104.8-105.0. Obscure bedding. 105.0-106.4 pale gray finely fractured quartzite. Badly broken core although "recovery" appears good. 106.1-106.4 m dark greenish gray with occ. fine grain dissem. Po. Sample: 39361 106.2-106.4 0.2 m Box 36 Quartzite 107.6 - 107.8 Two rip-up clasts of siliceous/biotitic material containing fine grain Po, trace Py, Cpy and Arseno. Cpy is on fracture at approx. right angle to long axis of rip up clast. One clast approx. 2 x 7 cm, the other 3 x 2 cm. Strongly biotitic contacts at clast boundary. Similar in character to Samples 39358, 39359. Sample: 39362 107.6-107.8 m 0.2 m Box 36 108.1-108.3, strongly biotitic and chloritic siltstone, dark gray to greenish gray with very fine grained disseminated Po. Sample: 39363 108.1-108.3 m 0.2 m Box 36 109.7-111.2, quartzite pale gray. 111.2-115.0, siltstone dark gray, siliceous, local small sections of quartzite. Bedding to c/a: 57° at 112.2 m. At 112.2, a 0-2 mm bed of medium orange brown sphalerite overlying a 2 cm band of slightly brownish gray siltstone. Sample: 39364 112.15-112.25 m 0.1 m Box 37 Note: at 112.9 m, occ. minute fleck sphalerite associated with Po, Py min. within small (max. 1.5 x 3.0 cm) siliceous chloritic rip-up clasts. At 114.4 m, 2.5 cm thick bed apparently conformable with enclosing bed: may be intrusive; sharp to diffuse margin. Bed is pale gray to white with small (1-2 mm) round pinkish garnet ? porphyroblasts. Tiny (1 mm) elongated grains of chlorite (?) and occ. magnetite with chloritic rim are concentrated in a plane near either margin and are also present within the bed. Very fine grain Po and minor Py are present particularly within the diffuse margins. Bedding to c/a: 65°. 115.0-117.5 m, medium gray to medium brownish gray, relatively soft (biotite-rich ?) siltstone. Locally Po-rich as at 115.4 m. Sample: 39365 115.4-115.5 m 0.1 m Box 39 At 116.0 m, 3 cm chalcedony? bed, apparently conformable with surrounding beds. Pale greenish gray with greasy lustre. Possible use as a marker horizon. Note: Geological sample taken, and sent for petrography. At 118.2, 1 cm granular gouge zone; angle to c/a: 70°. 117.5-119.6, mainly light to dark gray quartzite 119.6-122.8, mainly medium-dark gray siliceous siltstone with occ. short quartzite interval. Bedding to c/a: 65°. 122.8-128.8, mainly light medium gray quartzite, massive to moderate well defined bed. Bedding to c/a 55° medium to dark gray siltstone interval 126.4-127.5. From 128.0-128.2 a 2 cm wide quartz veinlet weakly min. Po, minor Py, trace Cpy. Veinlet at 10° to c/a. Top end lost in broken rock, bottom (F/W) contact cut off by healed fracture; 30° to c/a. Sample: 39366 128.0-128.3 m 0.3 m	34	25	49	0.1	1
		42	22	69	0.2	13
		609	31	92	0.3	17
		76	47	982	0.2	2
		23	8	98	0.1	7
		37	17	36	0.1	6



FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
101.8-147.9m	cont'd 128.8-132.0; medium gray to medium dark brownish gray siliceous siltstone. 132.0-133.7; mainly pale medium gray quartzite. 133.7-135.2; mainly medium gray to medium brownish gray siltstone. Bedding to c/a: 65° 135.2-137.4; mainly medium gray quartzite, typically micro fractured. 136.2-137.2 badly fragmented core. 137.4-144.2; mainly medium to medium dark gray siliceous siltstone with locally short section of softer slightly brownish gray siltstone, and very minor quartzite. Bedding to c/a: 59° at 142.0 m. 144.2-147.9; mainly pale gray to medium slightly bluish gray quartzite.					
147.9-152.2m	SILTSTONE Medium dark gray, locally dark grayish-black and strongly biotitic. 147.9-148.2; very dark gray to black, relatively very soft. 148.2-150.9; medium dark gray, locally well bedded. Core well broken (majority of pieces < 5 cm in length). Bedding to c/a: 63° at 149.1; 66° at 149.9. 150.9-154.0; strongly broken core on planes of weakness; joints, bedding (?) surfaces. 154.0-155.2; relatively competent medium gray slightly sandy siltstone, low angle cross bedded at 154.4 with bedding to c/a: 65°.					
152.2-159.2m	QUARTZITE Silty-sandy, pale-medium gray. Numerous thin (<2 mm) healed quartz/calcite fractures erratically oriented except for one set at 35-45° to c/a.					
159.2-171.2m	SILTSTONE Dark grayish black (biotitic) to coarser grained very slightly brownish medium gray, locally weakly chloritized. At 159.2, 2-3 mm pasty gray gouge at 55° to c/a, followed by 0.3-0.4 m rock rubble with thin secondary Py irregularly smeared on joint surfaces. Medium gray, massive, weakly chloritic quartzite with occ. small (<1 mm) porphyroblastic garnet, and having gradational boundaries with the siltstone occur at: 161.0-161.8; 163.5-163.9; 167.5-167.9. At 166.9, a 1-1.5 cm pale gray siliceous bed with small (<2 mm) round porphyroblastic garnets and discontinuous biotitic blebs with chlorite on margins. bedding to c/a: 62°. Locally well defined bedding with Bedding to c/a: 60° at 162.7; 62° at 165.8; 69° at 168.2; 63° at 171.5.					
171.2-175.6m	QUARTZITE Medium gray, sandy, generally massive; finer grained interbed at 173.7 with bedding to c/a: 60°. 174.2-174.3; scattered small (<2 mm) porphyroblastic garnets in chloritized quartzite.					
175.6-180.6m	SILTSTONE & QUARTZITE 175.6-176.8; medium gray-grayish black, silicified. 176.8-179.7; mainly medium-dark gray quartzite and minor strongly silicified dark grayish black siltstone with indistinct bedding. 179.7-180.6; mainly dark grayish black thin-bedded silicified biotitic siltstone with bedding to c/a: 65°. 178.1-178.5; rock rubble.					
180.6-186.0m	QUARTZITE Mainly sandy quartzite. Numerous fine hair-line healed fractures, particularly in more glossy (finer grained) sections. Locally weakly chloritized occ. white quartz and quartz/calcite veinlet up to 3 mm thick at 30-40° to c/a. Rock rubble (no gouge): 182.0-182.4; 182.8-183.5.					
186.0-204.0m	SILTSTONE & QUARTZITE Basically medium gray with localized chloritized greenish gray sections. The section has been silicified as indicated by the hard siltstones with masked bedding. Occ. short section with well developed thin-medium bedding. Bedding to c/a: 65° at 190.9; 66° at 198.4. At 188.7, 1-2 cm relatively soft brownish gray siltstone bed, exhibiting one well developed flame structure. At 191.9, a 0.5-3 cm light gray bed with small (<3 mm) garnet porphyroblasts scattered throughout. The contacts are locally defined by a thin (<3 mm)					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
186.0-204.0m	<p>cont'd</p> <p>white quartz zone, but more commonly by discontinuous clots of biotite and chlorite. Concretion? At 192.0 an approx. 2 x 6 cm rip-up clast of a Type "A" mineralization consisting of Po. min. in grayish white siliceous and locally biotitic (and minor chloritic) ground mass which is in turn enclosed in a layer of siliceous glossy chloritic material with locally finely developed flame structure within 2-3 cm of the enveloping massive siltstone.</p> <p>At 192.5 an approx. 3 cm bed, grayish with mod. strong biotite concentration and 1-3 mm garnet porphyroblast throughout.</p> <p>Note: Not the classic concretionary type as exemplified by the bed at 192.0. 193.3-193.5 numerous small garnets in dark gray, chloritic veined siltstone. At 193.7 one narrow (&lt;5 cm) flame-structured squeezed clast (brownish-gray) with chloritized boundaries enclosed by dark grayish black siltstone.</p>					
204.0-211.0m	<p>SILTSTONE</p> <p>Mainly silicified medium to medium-dark gray and slightly greenish gray. Appears to be weakly-moderately chloritized throughout. Generally strongly broken core. Py on occ. joint surface. Sphalerite on fracture at 202.0. Well mineralized very fine grained dissem. Po. 202.9-203.1; bedding obscure throughout most of the section. Bedding to c/a: 67° at 205.8. At 206.1-206.4; concretion (?) - siliceous &amp; chloritic with occ. small (1-2 mm) garnet porphyroblast randomly scattered, thin (1-3 mm) quartz and calcite veining. Near lower contact with contorted white siltstone, albitized with irregular pieces of dull greasy snow white albite up to 1 x 2.5 cm, and numerous small (&lt;1 mm) black sub-hedral grains of tourmaline (?).</p>					
211.0-213.4m	<p>SILTSTONE &amp; QUARTZITE</p> <p>Medium gray with locally weakly brownish or greenish overtones. Siltstone silicified. Mod. to well broken with shear fracturing developing at 35° to c/a. Weakly chloritized from 212.9-213.4 well min. Py and invaded by irregular bounded and variable thickness (1 mm-2 cm) of quartz/calcite veining.</p>					
213.4-228.6m	<p>McNEIL CREEK/FAULT ZONE</p> <p>213.4-214.1; original rock moderately-strongly chloritized, medium to medium dark greenish gray with well developed foliation resulting from innumerable healed slightly wavy shear-induced fractures; (rock is still relatively competent compared to succeeding sections), Py mineralization as minute specks (&lt;0.1 mm) up to 1-2 mm clots, is ubiquitous. 214.1-218.8, zone of extreme shearing of pale - medium green quartzite (?). Most of core is easily parted with a knife along innumerable ways to locally crenulated shear surfaces. Rock is highly chloritized and locally weakly calcitic with occ. irregular white calcite veinlets. Rock is slightly porous. Majority of foliation imparted by the shearing is oriented 30-45° to c/a. At the contact at 214.1 there is 7 cm of pasty to finely granular gouge at 35° to c/a.</p> <p>218.8-228.6, shatter zone. Mainly rock rubble with some coherent pieces up to 20 cm. Chloritic alteration on many fracture surfaces with a fine white soft mineral (talc?) finely coating numerous fracture surfaces. Occ. irregularly sinuous and frequently discontinuous barren white quartz veining, generally &lt;0.5 cm. Occ. thin (&lt;0.5 cm) granular gouge zone; thickness &amp; orientation difficult to determine due to generally rubbly nature of the core. From 218.8-219.5 highly sheared (&lt;30° c/a and dark green chloritized).</p> <p>211.8-212.0, a 2 cm dark gray bed, well mineralized (5-15%) with fine grain Py is offset by 5-6 microfaults (0.5-2 cm apparent offsets). Py common as very fine disseminations and fracture coating. Note: The rock type is a pale, very slightly lemonish, gray quartzite. From 223.3-223.6 pale yellowish alteration, chloritized, silicified and brecciated, min. fine grain Py.</p>					
	<p>Samples: 53344 222.7-223.3 m 0.6 m Box 77</p> <p>53345 223.3-223.6 m 0.3 m Box 77</p> <p>53346 223.6-224.1 m 0.5 m Box 77</p>	1	6	22	0.1	1
		2	8	19	0.1	5
		1	2	16	0.1	3

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
228.6-233.6m	<p>QUARTZITE</p> <p>Pale gray to pale slightly lemonish gray, glossy, massive, min. fine grain Py as dissem. and fracture coating. Fracture surfaces slightly talcose (?). Micro-fractured.</p>					
233.6-236.5m	<p>QUARTZITE</p> <p>Altered to pale slightly lemonish gray, with talc (?) well developed on fracture surfaces. Softer than normal. Majority of core is highly broken. Very fine grain Py occurs as dissem. and fracture coatings. Occ. quartz veining.</p>					
236.5-239.8m	<p>SILTSTONE</p> <p>Medium gray, chloritized on some fracture faces. Slickensided quartz/chlorite veinlets with very fine grain Py common. No observable bedding. Core strongly broken; mainly rock rubble.</p>					
239.8-255.7m	<p>QUARTZITE</p> <p>Pale gray to slightly lemonish gray. Very similar description to the interval 233.6-236.5. Only trace amounts Py. Core generally very heavily broken. Occ. narrow quartz veinlet with 50% barren white quartz between 246.2-246.5 with 1-2 cm granular gouge at 246.3.</p> <p>Sample: 56201 246.1-246.5 m 0.4 m</p> <p>core gradually becoming darker and chloritized to medium grayish green. Quartzite becomes siltier with more argillitic material from about 252 m with narrow quartz/calcite fracture fill.</p>	1	12	13	0.1	3
255.7	END OF HOLE (839')					

COMMENCED: October 13, 1989	DISTRICT: Fort Steele	COLLAR DIP: -90°	TESTS @: None
COMPLETED: October 21, 1989	PROPERTY: McNeil Creek	BEARING:	
LOGGED BY: P.Daignault	LOCATION:	LENGTH: 276.1 m	
DATE LOGGED: October 17-22, 1989	CO-ORD.: 4594N; 3039E	CORE SIZE: HQ	
TARGET: Bedded Sulphides	ELEV.: 1455 m	% RECOVERY:	ppm except Au ppb

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
0.0-3.0m	CASING/OVERBURDEN					
3.0-32.2m	GABBRO Undifferentiated, fine to med.grain, med-dark gray. Occ. fine (<1mm) epidote filled fracture, parallel to sub-parallel the core axis. 100% Core Recovery with "sticks" up to 8.5 dm long. 3.0 - 15.5 m, weak to med. Fe-oxide staining on fracture surfaces. 3.0 - 4.2 m, mainly rubble. 4.2 - 15.5 m, mainly 6-8 breaks/m; 15.5 - 32.2 m: 3-4 breaks/m. Flow banding (?) at approx. right angle to c/a; at 11.2 m, 17.1 m, and 28.3 m is suggested by subtle changes in grain size and/or mineralogy. At 30.6 m small boomerang-shaped patch of very fine grain dark, chocolate brown mineral on healed siliceous narrow (<1-2 mm) fracture that locally contains epidote and occ. fleck fine grain Py. Sample: 39367 30.60-30.75 m 0.15 m Box 9	53	3	13	0.1	6
32.2-60.5m	GABBRO At 40.2 m Fault gouge ( 0.5 m) at 70° to c/a. 45.4 - 46.3, & 47.2 - 48.8 m badly broken core due to breakage on sub-parallel epidote and chlorite filled fractures. Slightly leached and rusty Fe-oxide staining. Gabbro is med-dark gray. Epidote veins (<0.5cm) up to 45° to Core axis occ. with minor Po. 53.8 - 58.8 m generally very fine (<1 mm) fractures healed with pale gray quartz frequently in irregular "spider-web" pattern. At 53.65 1-2 mm sphalerite filled discontinuous fracture at 65° to c/a. Sample: 39368 53.6-53.7 m 0.1 m Box 17	44	13	11	0.1	6
60.5-75.0m	GABBRO Dark greenish-gray, fine-med grain. Generally somewhat darker than previous gabbro. Epidote veining almost completely absent. Occ. (1-2/m) fine (0.5-2mm) healed quartz filled fracture. Excellent core recovery, only 2-3 breaks/m; one stick 1.2 m long.					
75.0-77.6m	SHEAR ZONE In fine grain dark grayish gray to dark green gabbro. Shearing 20° to c/a.					
77.6-83.8m	GABBRO Med. dark greenish gray fine grain near shear with white feldspar becoming larger ( 1 mm) further away from shear. Not as coarse grained as the Gabbro overlying the shear. The shearing may be preferentially induced in the finer grained gabbro (?)					
83.8-85.0m	GABBRO (LAMPROPHYRE ?) Mottled black and med. intensity green (hornblende, minor magnetite (?) and pyroxene). Weakly magnetic.					
85.0-98.8m	GABBRO (LAMPROPHYRE ?) Mainly fine grain dark green melanocratic (relatively few feldspar relative to top of unit. At 91.4 m 12 cm quartz vein with 4 cm granular gouge at high angle to c/a. Core bleached for 0.6 m either side. At 94.2 m, 1.5 cm quartz/calcite veinlet at 40° to c/a. 96.3-98.8 several generally fine (<1 mm) up to 1 cm, quartz/calcite veins.					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
	Note: The finer grained dark green gabbro from 83.8-98.8 may be a lamprophyre correlatable with the biotite rock (lamprophyre?) in D.D.H. M-89-8.					
98.8-99.0	SILTSTONE Med. greenish gray with 3 or 4 thin 0.5 cm black argillaceous (?) beds.					
99.0-104.8m	QUARTZITE Pale gray, glossy. Numerous clasts and disturbed bedding - Turbidite sequence. From 101.2-102.4 salt and pepper texture bleached very pale greyish-white to yellowish-gray (yellowish pale gray section, 101.6-102.4 m is fractured and stained with Fe (?) and Mn oxides and sphalerite (?). Sample: 39369 101.6-102.4 m 0.8 m Box 31	7	2	7	0.1	6
104.8-107.6m	SILTSTONE AND QUARTZITE Mainly siliceous med. gray siltstone (turbidite sequence with cross-bedding, rip-up clasts, scour, distorted bedding, flame structures). At 106.1, 0.5 cm quartz/calcite veinlet with sharp contacts at 50° to c/a contains one small (3 x 4 mm) bleb of Galena and sphalerite min. (3 mm x 15 mm). Sample: 39370 106.0-106.2 m 0.2 m From 106.2 - 107.6 numerous hairline fractures coated with Sphalerite (?), and core is locally strongly broken. From 106.7 - 106.8 m pale grayish white to medium gray folded quartzite. Sample: 39371 106.2-107.6 m 1.4 m	4	13	42	0.1	2
107.6-108.7m	SCHIST (Biotite, muscovite (sericite?) and possibly minor chlorite). Med. gray to slightly greenish gray. Spangled with anhedral to subhedral blebs of silvery sericite (?). "Ghosts" of fragments (rip-up clasts?, inclusions ? of relatively unaltered material) are apparent ~108.1 m. Hairline fractures both parallel and cutting schistosity are stained brown (sphalerite?). Some very faint brown staining appears to be parallel to the schistosity (original bedding?). Upper contact 23° to c/a lower contact 20° to c/a possibly an altered intrusive (gabbroic?) Sample: 39372 107.6-108.7 m 1.1 m	12	15	209	0.1	5
108.7-120.0m	QUARTZITE (?) Pale to med. gray locally speckled with very fine grain black rnd to bladed specks (salt and pepper texture) (possibly chlorite); core recovery 118.3 - 118.9 ( 65°). From 116.7 - 117.7 med.-dark reddish brown stain on fractures. Strongly broken core 117.2 - 119.2 m.					
120.0-123.4m	SILTSTONE Med. greenish gray, siliceous, locally quartzite. 120.4 - 120.7 m broken core. At 122.2 m a single 1 mm grain Galena in a 2-4 mm thick quartz/calcite veinlet at 40° to core axis. Bedding obscure ( 50°? to c/a)					
123.4-134.7m	QUARTZITE Light-med. gray numerous fine healed hair-line fractures from 0.1 mm - 3 mm with quartz/calc. fill and occ. Py. Badly broken core 122.8 - 123.6; 125.1 - 127.3; 127.6 - 128.1. Core recovery 124.5 - 126.8 (<80%); 126.8 - 127.3 (<40%); 128.5 - 128.8 (50%) Strongly broken core throughout. 128.3 - 128.5 m Pale gray, glossy, well fractured with occ. thin (1 mm) calcite fill. 128.8-129.2, slightly greenish-gray, chloritic. 129.2-130.7, very siliceous, weakly chloritic siltstone. Bedding planes very poorly defined. Bedding at 45° to c/a.					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
134.7-140.0m	SILTSTONE Med. brownish to med. greenish gray with occ. minor quartzite section. Core is generally badly broken. Locally numerous very fine hair-line fractures with occ. fracture up to 2 mm with quartz/calcite fill. Bedding to c/a: 50° at 135.3 m; 51° at 138.1 m.					
140.0-149.0m	QUARTZITE Pale-med. gray to grayish green (chloritized). Generally the core is highly broken. Numerous hair-line fractures throughout. Core recovery: 143.3 - 143.6 ( 35%); 143.6 - 144.7 (45%); 144.7-145.7 ( 30%); 145.7-147.1 ( 70%).					
149.0-157.1	SILTSTONE Silicified, med-dark gray, locally chloritized to greenish gray, locally grades to quartzite. Numerous very fine fractures; some chloritic. Occ. quartz/calcite veinlet; 3-5 cm at 151.3 (40°-50° to c/a) 0-2 cm at 154.0 ( 35° to c/a). Bedding to c/a angles: 48° at 151 m; 49° at 152.1 m; 50° at 153.1 m; 51° at 155.9 m; 53° at 156.3. Fold at 153.6 with axis oriented 70° to core axis. Bedding 50° to c/a immediately above fold axis, 50° to c/a immediately below fold axis Dilated beds over fold axis have been filled with white quartz and calcite.					
157.1-160.8m	SILTSTONE Med. gray strongly silicified, locally bleached and weakly chloritic. Numerous fine hair-line to 2 mm thick quartz/calcite filled fracture.					
160.8-166.0m	SILTSTONE Med. grayish brown to med-dark gray. 50% of core strongly broken. Locally very siliceous Thin bedded section relatively well defined from 163.2-164.3 m. Occ. fine hair-line fracture. Bedding to c/a angle 53° at 163.4 m. Approx. 6 cm bedded Po, Py at 165.2 m. Sample: 39373 165.2-165.3 m 0.1 m	270	76	247	0.2	1
166.0-167.2	QUARTZITE Pale-med. gray min. fine grain dissem Py and Po on fractures.					
167.2-175.6m	SILTSTONE Med. slightly greenish gray (167.2 - 169.3 m), med.-dark gray to slightly bluish gray (169.3 - 175.6). Fault gouge (2-3 mm granular, pale gray) at 174.7 m, at 43° to c/a. Badly broken core 174.7 - 175.6 m. Siltstone is locally very siliceous. Numerous irregular hair-line fractures. Bedding to c/a 39° at 172.5 m; 49° at 173.1; 45° at 174.6m.					
175.6-179.3m	QUARTZITE Pale-med. gray. Numerous hair-line fractures throughout. Highly broken core 175.6-177.3. Three beds of quartzite light gray-med. bluish gray dappled with dark blotches ( 3 mm) and occ. fleck fine grain Py as follows: 177.2-177.35; 177.55-177.70; 178.05-178.30. Bedding to c/a: 49° at 177.6.					
179.3-183.5m	SILTSTONE Siliceous, light med. gray to med-dark slightly bluish gray. From 179.3-183.5 relatively competent with pieces of core up to 0.4 m long. Very fine, disseminated Po, Py throughout most of this section. At 183.1, 2-3 cm band of thin rhythmically (fine, coarse) bedded siltstone. Note: This is not bedded sulphides as originally suspected. Bedding to c/a 46° at 182.7 m. Very weak sphal. min. between 181.2 and 184.7. Samples: 39387 179.5-180.1 m 0.6 m 39388 180.1-180.6 m 0.5 m 39389 180.6-181.2 m 0.6 m 39375 181.2-181.4 m 0.2 m 39374 181.4-181.7 m 0.3 m Dark bluish-gray siltstone 39376 181.7-182.7 m 1.0 m 39377 182.7-183.2 m 0.5 m	11	20	97	0.1	1
		54	50	254	0.1	2
		96	190	260	0.3	1
		82	432	480	0.8	4
		113	331	191	0.9	2
		26	15	147	0.1	11
		13	24	190	0.1	2

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
183.5-195.7m	Cont'd.					
	39390 183.2-183.5 m 0.3 m	31	14	59	0.1	2
	39391 183.5-183.8 m 0.3 m	112	31	5161	0.1	24
	39392 183.8-184.1 m 0.3 m	31	22	73	0.1	2
	39393 184.1-184.4 m 0.3 m	62	31	34	0.2	5
	39394 184.4-184.7 m 0.3 m	5	11	47	0.1	1
	39395 184.7-185.7 m 1.0 m	17	7	47	0.1	1
	Calculated Average 180.1-183.2 m 3.1 m	54	80	219	0.3	5
	Calculated Average 180.1-183.8 m 3.7 m	57	71	607	0.3	6
	2-3 cm of disseminated (bedded?) sphalerite in discontinuous siliceous bands at 183.65 overlaying 1 cm of rhythmically bedded yellowish gray thin bedded sediment. Occasional small (<1 mm) fleck in quartzite 184.4 - 184.7.					
195.7-209.6m	QUARTZITE					
	Pale-med. gray, locally slightly greenish gray. Generally strongly broken core. Py ubiquitous. Mottled gray, pint and greenish gray 196.6 - 197.1 m					
	199.0-199.9 Medium dark gray to slightly greenish gray siliceous siltstone					
	199.9-200.6 Core recovery approx. 50%; 200.10-200.25 is extremely fragmented with some pasty gouge.					
	200.6-201.2 Badly broken quartzite, slightly sheared appearance.					
	201.4-202.1 Badly broken core. Sheared with localized thin gouge.					
	202.1-204.7 Quartzite: pale to med. gray locally chloritized, numerous hairline fractures. Core moderately to locally strongly broken.					
	204.7-206.0 Core highly broken, no gouge, strongly chloritized.					
	206.0-207.3 Core reasonably competent. quartzite has been strongly chloritized and is locally highly pyritic.					
	207.3-209.6 Strongly broken core but no gouge. Chloritized, med. greyish green.					
	Note: 199.9-209.6 represents a zone of generally strong fracturing (Shear zone?)					
209.6-214.3m	QUARTZITE AND SILTSTONE					
	Weak-mod. chloritization throughout. Siltstones generally are silicified. Broken core					
	210.4-210.9. Bedding to c/a 57° at 211.3; 50° at 214.7. Strongly broken core 213.4-214.0					
	214.8-216.3 Strongly broken core mainly controlled by fractures sub-parallel to c/a.					
214.3-226.2m	SILTSTONE WITH MINOR QUARTZITE					
	Locally very siliceous. Med. to med-dark gray, locally slightly greenish gray. Numerous fine hair-line fracture in more siliceous sections, locally grading into quartzite. Core is med.-well broken 217.4-217.9; 219.0-219.7. Bedding to c/a 46° 217.1; 44° at 218.8					
	Occ. slump structure, clast, disturbed bedding. At 220.2 m, 2.5 cm bed with ~10-15% sulphides (mainly Po minor Py, Trace Cpy, Sph) in a quartz-biotite rich ground mass. Weak Sphalerite min. along occ. hair-line fracture within 5 cm of bed.					
	Sample: 39378 220.2-220.3 m 0.1 m	195	82	358	1.0	12
	Strongly broken core, mainly along parallel to sub-parallel fractures from 222.2-224.1 m					
226.2-227.6m	QUARTZITE					
	Med. gray to greenish gray. Dappled with chlorite flecks 227.1-227.4. Strongly broken core due to sub-parallel (to c/a) fractures.					
227.6-234.8m	SILTSTONE					
	Chloritic, locally silicified, massive to weakly defined bedding. Strongly broken core to 224.0. At 227.8 1 cm crushed rock and pasty gouge 15° to c/a. At 229.9 Sphalerite along fracture for 1 cm length; 1 mm wide. Bedding to c/a 53° at 233.1 m.					
234.8-244.6m	QUARTZITE					
	Med. gray locally pale gray to slightly greenish-gray (weakly chloritized) Core is generally well broken; Numerous joints sub-parallel (5-10°) to c/a. Numerous fine healed fractures. Very broken 239.3 - 240.5 m with slight amount of gouge (<1 mm?) at 239.4, and strongly sheared fragmental gouge (~1 cm) at 240.4 m, at ~32° to c/a;					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
234.8-244.6m	cont'd 0.5 cm gouge (~56° to c/a) at ~241.3; ~2 cm pasty gouge (~40° to c/a) at 241.4; 3 cm granular sheared gouge at 241.5. From 243.7-244.7 core is chloritized quartzite with chloritic fractures sub-parallel to c/a imparting a foliated appearance. Colour is pale- med. greenish gray to purplish. Weak sphalerite min. on occ. sub-parallel fracture. Sample: 39379 243.7-244.7 m 1.0 m	79	89	347	0.2	5
244.6-262.5m	SILTSTONE WITH MINOR QUARTZITE 244.6-249.9; medium gray siltstone, siliceous, locally weakly chloritic. Relatively good core with pieces up to 0.3 m. 249-251.4; quartzite medium greenish-gray, chloritized, numerous healed hair-line fractures. 251.4-257.3 siltstone med-dark gray, locally very siliceous and weakly chloritized: Massive to ill defined bedding; appears turbated at 255.4 m. 258.4-259.4 dark gray, relatively soft, strongly biotitic, and locally min. with very fine dissem. Po, minor Py, trace Cpy. Sample: 39380 257.8-258.7 m 0.9 m  Bedding to c/a is 95° at 257.8 m. 259.4 - 260.5 m siltstone mainly dark gray - dark grayish black, locally weakly chloritic A few hair-line healed fractures, occ. up to 1 mm thick with quartz/calcite. 259.4 - 260.5: three, 1 mm fractures filled with Po, Py; fractures are 10° to c/a. Sample: 39381 259.9-260.2 m 0.3 m	220	16	155	0.1	18
262.5-265.4m	QUARTZITE AND SILTSTONE Quartzite is med. gray to greenish gray. Bedding to c/a at 262.5 is 37°. At 264.6, one rounded pebble (0.7 x 2.0 cm) at base of med. gray sandy siltstone.					
265.4-268.1m	QUARTZITE Light gray, bleached, with numerous thin (<2 mm) quartz/calcite veins, mainly between 30° - 45° of core axis.	37	11	86	0.1	42
268.1-276.1m	QUARTZITE AND SILTSTONE Medium gray silty quartzite and medium dark gray siltstone, locally siliceous. Chloritic throughout. Badly broken core between 269.0 and 269.7 with 4 cm granular gouge at 269.0 m ( 57° to c/a) and 3 cm granular gouge at 269.3 ( 43° to c/a).  END OF HOLE AT 276.1 m ( 906')					



COMMENCED: October 22, 1989	DISTRICT: Fort Steele	COLLAR DIP: -90	TESTS @:
COMPLETED: December 6, 1989	PROPERTY: McNeil Creek	BEARING:	548.6 m: 88 1/2°
LOGGED BY: P.M. Daignault	LOCATION:	LENGTH: 1083.9 m	1083.9 m: 86°
DATE LOGGED: Oct. 24- Dec. 16, 1989	CO-ORD.: 4376N, 2948E	CORE SIZE: HQ: 0.0-602.3 m; NQ 602.3-1083.9 m	
TARGET: L.M.C. & Bedded Sulphides	ELEV.: 1500 m	% RECOVERY:	ppm except Au ppb

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
0.0-18.3m	CASING Note: The first 5 cm of core at 18.3 m is a med. gray quartzite with small ( $\leq 1$ mm) pink garnet porphyry blasts scattered throughout. This piece is presumably part of the cased overburden.					
18.3-87.5m	GABBRO 18.3 - med grn., med. dark grnish gry speckled white by feldspars grains. More or less equigranular subhedral white feldspar (~45% of rock content) uniformly spread throughout irregular shaped and occasionally lath-like dark green pyroxene (?) (~55% of rock) giving an overall massive structure. Occ. green grayish quartz. Locally very weakly magnetic. 18.3 - 19.2; mod. broken core 18.3 - 24.4; very weakly oxidized with Fe-oxide staining on fracture surfaces. 22.2 - 24.4; granulated to sand size fragments, the previous metre has a rough pitted surface. 24.4 - 25.7; flow banded. Rock is noticeably fresher looking than the gabbro on either side. Med. grained streak, and blotches of up to 60% feldspar are more or less erratically segregated from medium gray fine-medium greenish gray differentiate consisting mainly of pyroxene(?), chlorite and minor gray quartz. Has locally crude foliation provided by the relatively feldspar-rich segregated streaks with an angle to c/a of 33° - 42°. Note: At 25.7 there is ~2-3 cm of granulated rock and gouge; no reasonable angle to c/a could be determined. 25.7 - 29.2; relatively rough, locally slightly pitted, surface, weak-moderately oxidized with strongly broken rock and minor gouge at 26.0 - 26.2; 26.7 - 26.8; 27.2 - 27.3 29.2 - 30.3; relatively fresh, smooth gabbro with very slight pale yellow (Fe-oxide) stain on feldspar. Pieces of core up to 2 dm. At 29.5, ~3 cm crushed rock 30.3 - 34.0 Fine grained, chloritic with low angle (~5 -10°) mainly quartz (minor calcite) filled fractures with locally strong Fe-oxide staining and minor gouge. 34.0 - 35.1; relatively fresh med-grained gabbro. 35.4 - 36.3; med. grained gabbro with heavily Fe-oxide stained low (5-10°) angle fractures, locally with up to 5 cm gouge. Core bleached from 0.5 - 2 cm in from fractures. 36.3 - 61.3; fine-medium grained, somewhat more grayish than greenish gray; possibly slightly more quartz. Locally crudely flow banded (?) (roughly planar segregations of feldspar and clots) but with no consistent orientation (28°-70° to c/a) 40.4 - 42.2; low angle quartz/ calc-filled fractures in a generally finer grained relatively soft medium gray to dark greenish gray gabbro. Strongly Fe-oxide stained along fractures. Coarser (fine-medium grain) in middle of section. Looks like a chilled margin at 42.2 m. The section 40.4 - 42.2 may represent a separate flow or sill intrusion or more likely an altered, (chloritized) section of the gabbro associated with the fractures. 49.2 - 49.5; broken core Fault Zone: 55.7 - 57.6; broken core; 56.3 - 56.7 rock rubble with minor pasty gouge and moderately Fe-oxide stained. 57.6 - 60.5; diminishing evidence of flow banding, becoming more massive. 60.5 - 61.3; broken core altered to brownish gray. At 60.5, ~3 cm highly sheared, rusty brown rock, at ~35° to c/a. 61.3 - 66.5; medium grained, massive, equigranular, medium gray to slightly greenish gray, mafelsic with white feldspars constituting ~50% of volume and medium green amphibole (?) the remainder. The green mineral has a ragged outline making identification difficult. 66.3-72.3; texture the same. Rock appears more mafic; dark gray with small irregular, poorly defined segregations of lighter material.					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
18.3-87.5m	<p>cont'd</p> <p>72.3-76.0; Medium green, medium gray, equigranular, generally massive with slight variations in proportion of mafic/felsic minerals.</p> <p>Quartz/calcite veining (45-60° to c/a) up to 3 cm thick frequently have associated medium brownish gray alteration holes. The more prominent ones are as follows:</p> <p>0 - 1.5 cm veinlet at 75.1 with 8 cm H/W halo;</p> <p>0.5 - 1.0 cm veinlet at 76.0 m with ~8 cm halo either side;</p> <p>0.3 cm veinlet at 77.9 with 1 cm halo; 2-4 cm mainly qtz. veinlet with 20 cm halo on F/W side.</p> <p>From 83.5 to 86.0; weakly chloritized, becoming medium slightly greenish gray with numerous fine fractures, frequently with pale gray alteration halo up to 3 mm wide.</p> <p>86.0 - 87.5; strongly chloritized dark green gabbro resulting in masked texture.</p> <p>86.0 - 86.4 appears to be a healed fracture zone with irregular chloritized fragments within a pale gray quartz matrix. 3-4 mm of massive Py over ~3 cm at ~86.1 m. Broken Core</p> <p>86.4 - 86.5.</p> <p>Samples: 39382 86.0-86.4 m 0.4 m</p> <p>39383 86.4-87.5 m 1.1 m Trace Sphalerite (?)</p>	39	6	55	0.2	3
		9	10	88	0.1	11
87.5-88.8m	<p>QUARTZ VEIN</p> <p>Very pale gray to medium bluish gray. Micro-fractured throughout. Irregularly shaped patches (&lt;5 cm longest dimension) of dark green chloritic material, presumably altered inclusions of gabbroic country rocks. Occ. dark streak of fine grained hornblende (?). Irregular H/W contact at ~29° to c/a; sharp F/W contact at 56° to c/a.</p> <p>Samples: 39384 87.5-88.8 m 1.3 m</p> <p>39385 88.8-89.1 m 0.3 m</p>	3	2	4	0.1	3
		6	7	86	0.1	1
88.8-101.0	<p>GABBRO</p> <p>Medium green with equigranular white feldspar (40-50%) in a drk slightly greenish gray to black matrix of irregularly shaped ragged-edged biotite. Massive. Numerous planar to irregular quartz veinlets from hair-line fractures to occ. 1-2 cm thick. Some of the thicker veinlets have pale gray to pale brownish gray alteration halos up to 3 cm wide. Angle with c/a of the planar fractures is 20-70°.</p> <p>Occ. very fine fractures (&lt;0.1 mm) radiate out from a common center.</p>					
101.0-103.5m	<p>BIOTITE ROCK (LAMPROPHYRE ?)</p> <p>Very soft fine grain drk greenish black; mainly biotite and chlorite, weakly magnetic. Appears to have gradational contacts with enclosing gabbro, but very sharp contacts with an enclosed 20 cm piece of gabbro at 102.0 - 102.2. Locally (e.g. at 101.6-101.8) with acicular black amphibole (hornblende?) up to 7 mm long.</p>					
103.5-144.6m	<p>GABBRO</p> <p>As described for 88.8-101.0 interval</p> <p>Slightly darker gray 107.9-110.4</p> <p>At 109.0, 2.5 cm, siliceous veinlet with 3-4 mm granular gouge (71° to c/a) at H/W contact.</p> <p>Note: Rock is more or less massive throughout with locally a suggestion of flow banding produced by slightly lighter or darker bands produced by varying relative percentages of feldspar and mafic minerals. The angle of the presumed flow banding with c/a is 70-90°.</p> <p>The section has numerous thin (&lt;2 mm) healed quartz/calc fractures with little or no associated alteration halo. 100% core recovery throughout with individual "sticks" of core up to 0.65 m in length. Low angle (~10° to c/a) joint at 134.1</p> <p>A 1.5 cm siliceous &amp; weakly chloritic fracture fill at 85° to c/a at 134.7 m. At 141.5 m, 0.5 cm gray fault gouge at ~50° to c/a. Low angle (~19° to c/a) joint at 143.2 m.</p>					
144.6-158.2m	<p>GABBRO</p> <p>Gradual transition from the above gabbro to a fine grained, medium-dark gray to slightly greenish gray generally massive gabbro. Approx. 25% subhedral fine grain white feldspar, 2-3% greenish quartz. Remainder amphibole, biotite, minor chlorite and pyroxene?</p> <p>Possibly a more dioritic phase of the gabbro intrusive.</p>					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
144.6-158.2m	cont'd As the contact at 158.2 (with strongly biotitic rock) is approached the feldspar content decreases and becomes finer grained and the rock is more chloritic. Locally increased concentrations of feldspar throughout the section (at a steep angle to c/a) may represent very weakly developed flow structure. very fine, hair-line and up to 3-4 mm quartz/cal fractures are throughout the core with the majority being oriented at 45-60° to the c/a. Occ. narrow pale brownish-gray alteration halo associated with the fractures.					
158.2-164.3m	BIOTITE ROCK (LAMPROPHYRE ?) Mainly biotite & black amphibole (?). Contact at 158.2 at 38° to c/a with 1-2 mm gouge and 2-6 mm quartz/calcite veinlet parallel to contact. Fracture pattern from 158.2-161.2 is parallel to sub-parallel to c/a. Weakly magnetic. From 159.6-160.7; narrow (1 mm-2.5 cm) fractures filled with quartz, calcite, chlorite and biotite-rock fragments more or less parallel to c/a. Sample: 39386 159.6-160.7 m 1.1 m Contact at 164.3 is sub-parallel to core over the interval 164.1-164.6. Geological sample (not for assay) taken at 164.3 m. The contact at 164.3 has a 1.0-1.5 cm chilled margin.	8	10	148	0.2	1
164.3-165.3m	LAMPROPHYRE (?) Chloritized mottled black and dark green. Probably different phase of the Lamprophyre intrusive. Very weakly magnetic (?). Geological sample taken at 165.0 m. Sharp contact at 165.3 is 10° to c/a.					
165.3-168.5m	BIOTITE ROCK (LAMPROPHYRE ?) Dark grayish-black, min. black tourmaline (?) with minor biotite, chlorite. Geological sample taken at 167.0. Sample: 53325 167.0-167.1 m 0.1 m Note: 166.4-166.7 appears similar to the interval 164.3-165.3.	7	10	102	0.4	23
168.5-171.2m	LAMPROPHYRE (?) Lighter phase (medium gray, gradational on both contacts into dark grayish-black). Geological sample taken at 169.7. This lamprophyre is biotite rich.					
171.2-185.0m	LAMPROPHYRE (?) Continues with slightly different type of mineralization. More or less typical geological sample taken at 177.8 m. Rock is generally soft, fine grained, very dark gray to grayish black melonocratic. Locally coarse grained as at 174.3 (Geological sample taken) 181.1-183.3 strongly chloritized medium to medium-dark greenish gray. Hard (silicified) close to main contact at 185.0 and near inclusion of pale gray quartzite 184.2-184.6. Small (<2 cm) displacements along fine healed fractures make for irregular contacts with the quartzite inclusion and at the main contact at 185.0; however, in all cases the contact appears to be at a high angle to (~70°) to the c/a. Note: The lamprophyre appears to be highly variable in mineral composition, and although contacts between differing mineralogies are generally noticeably gradational, the lamprophyre may be partly a multiple intrusion as evidenced by the chilled margin at 164.3m. The lamprophyre section was sampled for gold and platinum group elements with the following results.					
	Samples: 52048 156.5-158.0 m 1.5 m	1	9	17		2
	52049 158.0-159.6 m 1.6 m	4	11	16		3
	39386 159.6-160.7 m 1.1 m	1				
	52050 160.7-162.0 m 1.3 m	4	16	16		2
	52051 162.0-163.0 m 1.0 m	4	16	19		2
	52052 163.0-164.3 m 1.3 m	3	22	27		2
	52053 164.5-166.0 m 1.5 m	1	22	34		2
	52054 166.0-167.5 m 1.5 m	8	25	179		2
	52055 167.5-169.0 m 1.5 m	9	24	25		2
	52056 169.0-170.5 m 1.5 m	4	12	27		2

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
171.2-185.0m	cont'd					
	Samples: 52057 170.5-172.0 m 1.5 m	1	14	19		2
	52058 172.0-173.5 m 1.5 m	6	26	48		2
	39059 173.5-175.0 m 1.5 m	15	24	34		2
	52060 175.0-176.5 m 1.5 m	8	25	32		2
	52061 176.5-177.8 m 1.3 m	1	16	30		2
	52062 177.8-179.5 m 1.7 m	2	19	24		2
	52063 179.5-181.3 m 1.8 m	4	14	32		2
	52064 181.3-182.8 m 1.5 m	1	12	17		2
	52065 182.8-183.3 m 0.5 m	1	33	25		2
	52066 183.3-184.4 m 1.1 m	1	2	2		3
	52067 184.4-184.6 m 0.2 m	1	1	2		2
	52068 184.6-185.3 m 0.7 m	1	1	6		2
	52069 185.3-186.0 m 0.7 m	1	1	2		2
185.0-185.3m	SILTSTONE Silicified, thick to thin bedded. Medium gray. Two thin ( $\leq 3$ mm) black argillaceous (?) beds from 169.3-169.4, may possibly be minor conformable off-shoots of the Lamprophyre. Bedding to c/a is $65^\circ$ .					
185.3-187.2m	QUARTZITE Pale gray, glossy, thinly bedded; 185.9-186.1 with bedding to c/a at $72^\circ$ .					
187.2-188.7m	QUARTZITE Pale gray-grayish white with salt and pepper texture. Black (pepper) spots are extremely fine (average diam. $\sim 0.1$ mm). At 187.4, one egg-shaped rounded white quartz cobble (2 cm x 1.4 cm)					
188.7-199.8m	QUARTZITE 188.7-190.0; pale gray, glossy, with occ. "pepper" specks. 190.0-199.8; pale gray to med. slightly greenish (weakly chloritized) gray, very occ. short section of silicified siltstone. 189.0-191.0; strongly broken core. At 193.7, 0-1 mm Py on discontinuous fracture at $90^\circ$ to c/a. 194.0-194.5; fine fractures with minor Po, Py, possible trace Cpy. Sample: 39396 194.0-194.5 m 0.5 m Box 57 At 195.7, 2 cm wide fracture zone with $\leq 0.5$ cm gouge at $65^\circ$ to c/a. At 197.5, 1 cm siliceous siltstone bed in quartzite. Bedding to c/a is $66^\circ$ .	245	19	61	0.1	7
198.8-213.2m	SILTSTONE (silicified) & QUARTZITE 200.3-201.8; fine to thick bedded with locally fine fractures with chloritic halo. Bedding to c/a is $63^\circ$ at 201.4 m. 201.8-204.2; thin to thickly bedded with weak-moderate chloritization throughout most of length. Med gray to greenish gray. Bedding well defined. Bedding to c/a angles are: $65^\circ$ at 202.8; $63^\circ$ at 203.9. From 202.8-202.95; minor sphalerite on 2 hair-line fractures. Sample: 39397 202.8-202.95 m 0.15 m Box 60 207.0-209.1; sandy quartzite with chloritized fractures. At 207.1, a 0.5 cm pinkish chalcedony band. At 212.6, 4 cm granular gouge at $57^\circ$ to c/a.	40	17	97	0.1	5
213.2-216.2m	SILTSTONE Silicified, medium-dark gray, thick-thin bedded. Locally very weakly min. disseminated Py trace Po, possible trace Cpy. At 216.2, minute fleck Cpy with Po on chloritic fracture at base of medium brown "chalcedony" bed. Bedding to c/a angles: $66^\circ$ at 213.5; $60^\circ$ at 215.7 m Samples: 39398 213.2-214.2 m 1.0 m 39399 214.2-215.2 m 1.0 m 39400 215.2-216.2 m 1.0 m 216.2-217.2 m 1.0 m 217.2-217.5 m 0.3 m	49	19	105	0.1	5
		76	24	115	0.3	1
		68	48	112	0.4	1
		14	100	112	0.1	1
		71	30	122	0.3	1

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
213.2-216.2m	cont'd At ~217.25 a 3 cm slightly grayish medium brown fine grained siltstone with occ. small clot ( $\leq 3$ mm) and minor fine dissemination of Po, trace Py, and minutely thin trace Cpy on ~3 mm of very fine fracture. At base of siltstone bed is at a 3 mm chloritic and siliceous bed with trace of Sphalerite.					
216.2-225.4m	QUARTZITE AND SANDY QUARTZITE Minor silicified siltstone. Color varies from pale gray to medium slightly greenish gray (weakly chloritic) with some of the coarser sandy quartzites being slightly brownish gray. A rhythmic series of fining-upward sediments from fine sandstone grade up to fine siltstone or amorphous quartzite. Bedding to c/a angles: $61^\circ$ at 219.6; $61^\circ$ at 224.7. Numerous fine hair-line fractures throughout, occ. with chloritic alteration. Heavily fractured (healed) 224.2-224.7 with 1-2 cm band of healed fault breccia at 224.6.					
225.4-228.2m	SILTSTONE Strongly silicified, thin-thickly bedded, medium to medium-dark gray, with occ. short weakly chloritic sections. Core is locally well broken parallel to bedding plane. Bedding to c/a angles: $57^\circ$ at 227.7. From 226.1-226.3, occ. small ( $\leq 1$ mm) bleb of remobilized dark reddish brown sphalerite associated with a chloritized fine fracture at $\sim 17^\circ$ to c/a. Sample: 53323 226.1-226.4 m 0.3 m Box 68 One minute microscopic fleck Sphal. in dark grayish-black siltstone with very weak, very finely dissem. Po at 227.2 m. Sample: 53324 227.2-227.3 m 0.1 m Box 69	175	135	250	0.4	1
228.2-231.2	QUARTZITE & SANDY QUARTZITE Medium gray, locally chloritized and with numerous fine, hair-line fractures with a chloritic halo, usually not more than 1-2 mm wide.					
231.2-232.7m	SILTSTONE Thick to thin bedded, locally silicified, light-medium gray to slightly greenish-gray. Bedding to c/a: $59^\circ$ at 232.1 m.					
232.7-243.5m	SILTSTONE & QUARTZITE Pale slightly greenish gray in some of the silty quartzites through to dark gray in silicified siltstone. Moderately broken core with pieces up to 4-5 dm in dark quartzite and highly silicified siltstone. Bedding to c/a angles: $59^\circ$ - $66^\circ$ at 236.5; $62^\circ$ at 240.7 m At 236.5, 3-4 cm bed of dark grayish black silicified siltstone min. (2-3%) with very fine grained dissem. Po. At 239.7, a single 0.5 mm circular fleck of galena ? At 240.7, very weak sphal. min. on two hair-line fractures.					
243.5-246.0m	SILTSTONE Sandy, thick bedded Note: 243.55-244.0 is a particularly uniformly very thin-bedded to laminated siltstone (not a marker) with alternating beds of pale gray to brownish gray for first 1.5 dm and then alternating pale gray and medium gray. Majority of beds between 1 mm & 1 cm in thickness. Darker boundaries of beds are mod. biotitic.					
246.0-247.9m	SILTSTONE Dark gray to grayish black, locally silicified, very thin bedded to laminated. Bedding to c/a angle: $64^\circ$ at 247.3 m					
247.9-249.0m	QUARTZITE Glossy, locally sandy, weakly-moderate chloritic.					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
249.0-253.6m	<b>SILTSTONE &amp; QUARTZITE</b> Medium gray. Highly variable from thick bedded silty sandstone to very thin-bedded to laminated siliceous siltstone. Bedding to c/a angles: 66° at 251.3; 58° at 253.3.					
253.6-278.6m	<b>QUARTZITE WITH MINOR SILTSTONE</b> Mainly silty-sandy quartzite, medium gray, massive to locally medium bedded. Occ. chloritic fracture and locally weakly chloritic. 257.2-258.9, mainly thin bedded to laminated medium dark gray siltstone. Bedding to c/a angle: 65° at 258.6 m. At 253.8, fracture surface (40° to c/a) 75% coated with minute (<1 mm) pyrite euhedra. At 254.3, fracture surface thinly coated with ~0.1 mm pyrite cubes and small ~0.1 mm intergrown fluorite (?) grains (cubic, soft, vitreous-adamantine, colorless). Relatively competent rock with "sticks" up to 0.6 m. Occ. fracture coated with white extremely soft talc-like clay mineral, particularly common between 313.2 and 317.0 m. Thin bedded to laminated medium gray to grayish-black siltstone, 269.3-270.0. Bedding to c/a angle: 60° At 270.2 m, ~4 cm of fragmental gouge. (Fragments ≤ 1-2 cm, in granular matrix) at ~65° to c/a. At 271.6, trace sphalerite on chloritic fracture in ~1 cm pale greenish chalcedony bed. Occ. minute fleck sphalerite, with very fine grained Py on very thin (~1 mm) quartz filled fracture at 25° to c/a, with chloritized zone up to 2 cm from fracture. At 273.7 ~10 cm fragmental crush zone. 275.4-276.7, highly fractured mainly pale-medium gray, locally pale greenish-gray, quartzite, and glossy in part.					
278.6-288.4m	<b>SILTSTONE &amp; QUARTZITE (45%)</b> 278.6-280.2, dark gray-grayish black, locally siliceous, siltstone. Bedding to c/a angle: 61° at 278.9 m. 281.9-282.3, siltstone rubble. 282.8-284.2, mainly dark gray to locally grayish-black siltstone. Generally strongly broken core. 285.6-286.4, dark gray siltstone 287.3-288.4, medium dark gray siliceous siltstone.. Note: The intervening quartzites are sandy to slightly glossy and weakly chloritic. Generally medium gray in color.					
288.4-305.1m	<b>QUARTZITE</b> Generally medium gray with greenish zones due to chloritic halo's surrounding fractures. Note: 291.5-291.6, siliceous biotitic, dark gray siltstone with Po & Cpy mineralization, intimately associated, in irregular clots up to 2 mm diam. Also dissem. Po. Sample: 53326 291.5-291.6 m 0.1 m Silicified medium-dark gray siltstone from 296.3-297.3; 297.7-298.0. Dissem. Po in a biotitic, & siliceous matrix from 297.7-297.8. Joint parallel to bedding from 297.8-298.0 covered (1-2% of area) with irregular circular (<3 mm diam.) blebs of Py. 2-3 cm crushed rock at 299.6 at high angle (~70°) to c/a. From 301.7-302.0, a 2 cm white, barren, quartz vein at ~20° to c/a. Note: Sub-parallel (to c/a) joints throughout.	915	398	301	2.5	7
305.1-308.0m	<b>SILTSTONE</b> Dark grayish-black to dark gray and silicified. Bedding to c/a angle: 59° at 305.8. ~50% strongly broken core.					
308.0-313.7m	<b>QUARTZITE</b> Mainly dull, medium gray, silty. Occ. fine fracture with minor Py and/or Po mineralization One speck sphalerite at 313.1. The slightly glossy sections tend to be weakly-moderately chloritic and are strongly micro-fractured. The dull silty quartzites are weakly-moderately covered by hair-line fractures, from some of which chloritization zones of variable width (1 mm - 1 cm) have developed. <u>Badly broken core</u> : 308.5-309.1; 309.5-310.2 (with 2.5-4.0 cm granular & fragmental gouge at 309.5, and ~1 cm pasty gray gouge at 310.0) 310.8 & 311.5 (with 3 narrow 1-1.5 cm gouge zones between 310.8 & 311.12, and 5 cm granular pasty gouge at ~65-70° to c/a at 311.4); 313.3-313.7. At 312.8, 3-4 small ≤2 mm) flecks of sphalerite in medium gray weakly chloritized quartzite.					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
317.3-318.8m	QUARTZITE Strongly broken, pale gray to medium greenish gray.					
318.8-321.3m	FAULT ZONE Highly broken and locally sheared and/or crushed rock with granular gouge zones at 318.6; 320.3 (4-5 cm); 321.3 (3-4 cm).					
321.3-324.9m	SILTSTONE Medium gray, locally siliceous, thin to very thin bedded. At 321.8, 2-4 cm siliceous & biotitic bed mineralized with dissem. Po, Py; up to ~20% total sulphide in one small area Note: The bed is underlain by a 3-4 cm greenish, glossy "chalcedony" bed. Core is medium-well broken. Bedding to c/a: 70°.					
324.9-329.8m	QUARTZITE Pale-medium gray, glossy. Strongly broken (rock rubble in places). Numerous micro-fractures with secondary Py on fractures.					
329.8-340.9m	SILTSTONE & QUARTZITE Medium-gray. Locally weakly chloritized. Occ. fracture with secondary Py. Quartzite sections are amorphous, glossy to dull, & silty. Py on occ. fracture. Much of the siltstone is siliceous with poorly defined bedding. A few flecks sphalerite at 333.7. Bedding to c/a: 55° at 330.5. Sheared rock rubble 332.0-332.4. Bedding to c/a: 50° at 338.1 m.					
340.9-343.8m	SILTSTONE Medium-dark gray, very thin to thin bedded, locally very weakly min. with very fine grained dissem. Po, Py. Bedding to c/a: 57° at 340.9; ~50° at 343.6					
343.8-347.1m	QUARTZITE Pale-medium gray, glossy, well broken, secondary Py on occ. fracture.					
347.1-350.5m	SILTSTONE Dark gray to grayish-black. Most of bedding is obscured by drill rotation striae and/or local silicification; what bedding is observable is mainly thin-bedded. Locally, very weakly min. with very fine grained dissem. Po, Py and rare fleck (<1 mm) sphalerite. Bedding to c/a: 50° at 349.8. Samples: 53327 347.1-348.1 m 1.0 m 53328 348.1-349.1 m 1.0 m 53329 349.1-350.1 m 1.0 m 53330 350.1-350.5 m 0.4 m	22 31 37 18	12 11 6 11	43 63 70 56	0.2 0.1 0.1 0.1	5 3 1 2
350.5-352.3m	QUARTZITE Medium to medium-dark gray, semi-glossy, massive well broken to rubbly. Several micro-fractures.					
352.3-353.8m	QUARTZITE Mainly quartzite with minor siltstone. Quartzites are medium to medium dark gray, locally greenish gray to medium green (chloritized). The siltstones are generally silicified and usually gradational with the quartzites, making clear demarcation between the differing lithologies difficult. Bedding to c/a: 54° at 356.9; 55° at 359.8 m; 64° at 362.5. Numerous micro-fractures, occ. with quartz & quartz/calcite fill ≤2 mm. One fleck (≤ 1.5mm) sphalerite at 357.7. At 362.5 an approx. 10 cm band (Concretion), weakly min. sphalerite, which grades from very pale grayish white at the H/W to a greenish gray at the F/W. Chlorite is present throughout, irregular aggregates (≤2 mm) give the bed a speckled appearance to the top half of the bed. Pale pinkish garnet porphyro blasts are ubiquitous, tending to decrease in size from H/W contact (≤3-4 mm) to ~1 mm within ~2 cm of the F/W contact. The lower 2 cm of the bed becomes biotitic (very fine grained) and is mineralized with round medium brown sphalerite grains (≤2 mm diam.) in a thin (≤1 cm) discontinuous layer near (~0.5 cm) the F/W contact. This layer is relatively rich in very fine grained					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
352.3-353.8m	cont'd dissem. (bedded) Po. The F/W rock is a siliceous biotitic siltstone weakly min. with extremely fine dissem. Fe sulphides (Po ?). Note: The lower half of the 10 cm bed looks like part of a gradational (in mineralogy) sedimentary sequence and would suggest that the bed is part of the depositional environment and not an intrusive feature. Samples: 53331 362.4-362.7 m 0.3 m 53332 362.7-363.6 m 0.9 m 53333 363.6-364.2 m 0.6 m	27	12	1223	0.4	2
		35	7	115	0.1	1
		27	9	92	0.3	2
364.2-366.7m	QUARTZITE Medium brownish-gray to medium greenish-gray (chloritized), glossy to fine grained silty dull quartzite. Dissem. fine grained $\leq 2$ mm blebs (remobilized porphyro blastic aggregates ?) of medium slightly pinkish brown to brown sphalerite appears to be concentrated in the slightly brownish gray sections; in particular the sphalerite is mainly in the section from 364.4-365.4. Very fine grained iron sulphides are observable disseminated throughout the core in trace amounts, tending to be concentrated, up to 1-2%, in the more biotitic sections. Weakly-strongly micro-fractured throughout, frequently with narrow halos of chloritic alteration emanating from the fractures. Samples: 53334 364.2-364.4 m 0.2 m 53335 364.4-364.9 m 0.5 m 53336 364.9-365.15m 0.25 m 53337 365.15-365.4m 0.25 m 53338 365.4-366.4 m 1.0 m 53339 366.4-367.0 m 0.6 m  Calculated Average 364.4-365.4 m 1.0 m Calculated Average 362.4-365.4 m 3.0 m	16	74	46	0.4	4
		45	75	776	0.3	2
		36	147	318	0.7	3
		45	273	343	1.0	1
		49	66	65	0.4	2
		7	10	26	0.1	1
		63	143	554	0.6	2
		34	58	363	0.4	2
	Note: Only trace sphalerite mineralization beyond 365.4 m. At 366.7 a 1.5-2 cm quartz vein (Bedding to c/a: 55°) with chloritic margins and minor sphalerite min. on contacts.					
366.7-372.5m	SILTSTONE medium-drk gray, silicified for the most part. Silicification and core rotation striae tend to obscure bedding; thin bedded ? Very fine erratic fractures throughout. No observed sphalerite min. Local short sections of strongly broken core. Bedding to c/a: 63° at 371.1					
372.5-375.0m	QUARTZITE Mainly medium gray, locally bleached. Numerous micro fractures. One set of fractures (30-45° to c/a well min. Py).					
375.0-376.7	SILTSTONE Medium-dark gray, harder (more siliceous ?) near contacts with H/W & F/W quartzites. Moderately-heavily broken core.					
376.7-378.4m	QUARTZITE Pale-medium gray. Py on occ. fracture semi-glossy to silty.					
378.4-389.2m	SILTSTONE WITH MINOR QUARTZITE Siltstone is medium gray to local short ( $\leq 1$ dm) grayish black interval. Mainly silicified. Occ. short section ( $\leq 1$ m) which is lighter gray, gradational to a silty quartzite. Core is moderately to strongly broken; mainly rock rubble 384.0-384.4; 384.8-385.7; 385.9-386.8. Occ. sub-parallel joint contributes to the high degree of breakage. Mainly thin bedded where bedding is observable. Numerous micro-fractures, particularly in the lighter colored, more siliceous members, occ. with Py coating. Bedding to c/a: 61° at 383.0; At 388.4, occ. very small ( $\leq 1$ mm) flecks brown Sphalerite on 2 cm long micro fracture.					



FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
389.2-395.4m	<p><b>SILTSTONE</b></p> <p>Medium to medium-dark gray. Mainly thin bedded to locally laminated. Occ. hair-line fracture. Weakly-moderately broken core with strongly broken to rubbly section 393.6-394.4 bounded by sheared contacts at 393.6 (56° to c/a) and 394.4</p> <p>Bedding to c/a: 60° at 391.0; 59° at 393.0; 56° at 395.1. From 389.3-389.4, a clast (concretion) of siliceous &amp; biotitic material heavily (25-30%) mineralized with Po, minor Py, and a localized area (~0.5-2 cm) rich in Cpy. The clast is enveloped in a halo (3-4cm thick of dark grayish-black biotitic siltstone very well min (~10%) with very fine grained Po.</p> <p>Sample: 53340 389.3-389.4 m 0.1 m</p> <p>At 392.1 a 6 cm wide siliceous &amp; biotitic bed well min. with dissem. Py, Po and Sph. grains up to 0.5 mm diam. The bed is underlain by a siliceous dark gray very fine grained bed with Chloritic alteration along hair-line shrinkage fractures at right angles to the bedding.</p> <p>Sample: 56498 392.1-392.25 m 0.15 m</p>	948	33	180	0.5	3
395.4-401.8m	<p><b>SILTSTONE</b></p> <p>Mainly medium gray, silicified, and locally grading into silty quartzites. Moderately broken core with one piece 0.5 m long, but locally strongly broken. Occ. hair-line fractures. The more siliceous members are weakly min. with very fine grained Py (?) and with occ. thin (&lt;1 mm) quartz/calcite filled fracture weakly min. Po, Py. Fleck of sphalerite observed at 399.3, 400.4, 401.1. Bedding to c/a: 59° at 395.4; 57° at 397.5.</p>					
401.8-403.7m	<p><b>SILTSTONE</b></p> <p>Medium gray to very slightly brownish gray. Thinly bedded to laminated. Medium-well broken core. Occ. irregular hair-line fracture. Bedding to c/a: 54° at 402.1; 56° at 403.5</p>					
403.7-410.7m	<p><b>SILTSTONE</b></p> <p>Silicified dark grayish-black and generally becoming lighter to a medium gray siltstone. Bedding is generally obscured; however unit appears to be mainly medium bedded. Moderately to well broken core. Occ. randomly-oriented hair-line fracture. Joint set sub-parallel the c/a. Bedding to c/a: 56° at 407.0; 55° at 409.8.</p>					
410.7-412.4m	<p><b>QUARTZITE</b></p> <p>Pale-medium gray, massive. Heavily broken core. Very weakly min., very fine grained Py. At 410.8, minor Py, Po, mainly on fractures with one minute fleck sphalerite.</p>					
412.4-420.0m	<p><b>SILTSTONE</b></p> <p>Mainly dark gray to medium gray, locally slightly greenish-gray, particularly in the lighter more siliceous section. silicified throughout. Bedding obscured. Micro-fracturing throughout. Moderate to well broken core. Joint set at 30° to c/a. At 413.4, pasty gouge. At 414.5 m, ~1.5 cm of sheared rock at 50° to c/a. At 416.5 bedding to c/a: 63°. 419.7-419.9, light-medium brown "chalcedony" bed in low angle (~10° to c/a) contact with underlying bed. Upper contact micro-faulted and flame structured.</p> <p>Sample: 53342 419.7-419.9 m 0.2 m</p>	18	24	22	0.1	1
420.0-427.9m	<p><b>SILTSTONE</b></p> <p>Medium-dark gray to light grayish brown, medium bedded to locally laminated. 420.0-420.3 laminated beds (~2 cm below dark grayish-black silicified siltstone) followed by turbidite sequence. Bedding to c/a: 56° at 421.6. 422.2-422.8; badly broken to rock rubble with narrow (3-4 cm) zone of micro-sheared core at 427.2 m at ~65° to c/a. At 423.0 an approx. 5 cm wide bed with small (&lt;3 mm) pale pinkish porphyroblastic garnet. The upper part of the bed is pale grayish white with dark biotite rich splotches at the contact with the overlying siltstone bed (very dark slightly greenish (chloritized) gray with very fine green, weakly dissem. Po). The aforementioned garnetiferous bed is in gradational (mineralogically) contact with the underlying dark greenish gray siltstone which is also very weakly min. with minute dissem. Po grains; this latter siltstone bed continues to ~430.4. At 430.3, an approx. 2 cm wide medium gray, slightly bluish, siliceous siltstone with fine grained dissem. Po, dark irregular small (&lt;1 mm) blebs of</p>					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
420.0-427.9m	cont'd secondary biotite, and possible trace sphalerite. Bedding to c/a: 58° at 430.3. From 424.1-425.3, light-medium grayish brown, with 424.1-424.4 being a turbidite sequence exhibiting soft sediment slump structures) deformation, followed by very thin bedded to laminated siltstone. Bedding to c/a: 57° at 425.2. More siliceous, grading into quartzite between 426.1-427.1. From 427.1-427.9, medium grayish-brown, progressing from very thin bedded to laminated. Contact with underlying quartzite at 427.9 is very sharp. Bedding to c/a: 64° at 427.3. contact at 427.9: 53° to c/a. Slumping & scour of laminated beds at 427.6.					
427.9-450.0m	<b>SILTSTONE &amp; QUARTZITE</b> Highly variable sequence including light gray glossy to medium gray sandy quartzite through to dark bluish-gray silicified siltstone, to rarely medium grayish brown laminated siltstone. Contacts are gradational to sharp. Core is moderately broken to locally strongly broken. 427.9-429.7 mainly medium gray to medium dark bluish gray quartzite. At 430.8 a 1.5 cm barren white quartz vein at 15-20° to c/a. From 432.3-433.3 a healed breccia sub-parallel to core and 1-2.5 cm thick in medium gray quartzite. Angular to sub-rounded pale-medium gray quartzite fragments up to 1-2.5 cm in size in a calcite, and very fine grained magnetite and chloritic matrix. Fragments chloritized around boundaries. Sub-rounded blebs (up to 2 mm) of Py tend to be concentrated between quartzite fragments in the matrix. Mainly Po, magnetite and chlorite near upper contact of breccia with a strongly healed microfractured very slightly pinkish to brownish 2-3 cm chalcedony bed. Bedding to c/a: 65° at 434.6 434.9-435.3, rhythmically bedded sulphides (Po up to 5%) in a dark gray biotite and silicified siltstone at 59° to c/a. Sample: 53343 434.9-435.3 m 0.4 m 1-2 cm crushed rock at 438.2 m at ~61° to c/a. At 445.7, an approx. elliptical (0.5-2 cm) well rounded pale gray quartzite pebble in dark gray silicified siltstone. Bedding to c/a 60° at 451.2 m	40	32	51	0.1	5
450.0-461.8m	<b>SILTSTONE</b> Dark gray to very slightly bluish gray, silicified. Bedding is generally obscured; where visible is usually thin bedded to very thin bedded. Occ. hair-line micro-fracture particularly in the lighter, more siliceous members. Weak chloritization occurs as narrow halos around occ. fracture. Very weak Po mineralization as very fine grained disseminations is common. One minute (~0.5 mm) fleck sphalerite at 457.1 At 457.8 joint (?) surface ~75% coated with Po and trace Cpy. 1 mm bedded Po, Py at 457.9 1 mm bedded Po, Py at 457.9. 457.9-458.05, rather indistinct very thin bedded to laminated with bedding to c/a: 55°. At 459.7, medium-dark brownish color on fracture surface, possibly sphalerite in part. Sample: 53347 459.7-459.8 m 0.1 m Box 155 459.8-459.9, very thin bedded light gray to dark bluish-gray silicified siltstone beds in marked color contrast to the very dark bluish-gray M/W & F/W beds. The upper contact is 1 cm brownish chalcedony bed. Bedding to c/a: 57°. 459.9-460.4, very dark bluish-gray silicified siltstone with very rare fleck brown sphalerite (<2 mm) on hair-line fractures. Top of unit exhibits shrinkage cracks. Unit is very weakly min. with very fine grained dissemination Po? Sample: 53348 459.8-460.4 0.6 m Note: Drillers "footage block" marked "Cave" at 461.9 m.	60	55	70	0.2	1
461.8-483.7m	<b>SILTSTONE</b> Medium to medium-drk gray, generally silicified. Moderately to strongly broken core. Very fine irregular fractures randomly distributed. Bedding generally obscured. Bedding to c/a: 55° at 464.7 (thin-bedded); 54° at 467.0 (very thin-bedded to laminated); 52° at 472.9 (laminated); 59° at 475.0 (very thin-bedded); 57° at 477.5 (thin-bedded to laminated); 54° at 482.0 m. At 475.2 an approx. 3 dm pale grayish to grayish-white band with clumps of pinkish round small (<3 mm) garnet porphyroblasts concentrated within the first 7 cm of the bed and over ~4 cm at the 2 dm mark. The upper contact is very sharp and grayish-white. The lower part of the bed (arbitrarily taken as at 2 dm from top) is gradational with the	43	80	102	0.4	2

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
461.8-483.7m	<p>cont'd</p> <p>subsequent silicified &amp; weakly chloritized medium-dark gray siltstone. At 477.3, a 2-3 cm siliceous very pale gray bed (gradational contacts) with small (<math>\leq 3</math> mm) circular blebs of biotite, frequently as a halo around a siliceous and/or chloritic center. 477.4-477.8 medium gray to pale brownish gray thin-bedded to laminated siltstone. Medium to dark-gray siliceous and garnetiferous from 478.4-478.6 and 479.5-479.6.</p> <p>Note: Locally heavily broken core with short runs; drillers blocks at 479.9, 480.2, 480.4, 481.9, 483.0.</p> <p>483.0-483.7, rock rubble with minor (~1-2 cm) granular gouge at ~483.6 m.</p>					
483.7-495.4m	<p>QUARTZITE</p> <p>Sandy with finer grained phases locally grading into siltstone. Occ. garnetiferous zone. Pale to medium-gray to medium brownish gray. Mainly medium bedded.</p> <p>483.7-484.5m, pale-medium gray, sandy, locally weakly garnetiferous. Medium-well broken core. 484.35-484.5, numerous irregular hair-line fractures with medium-brown sphalerite mineralization. A narrow (0.7-1.5 cm) black argillite band in middle of interval.</p> <p>Sample: 53349 484.35-484.5 m 0.15 m</p> <p>484.5-487.0, mainly medium brownish gray, very thin-bedded to medium bedded. Numerous small (<math>\leq 1</math> mm) very pale pinkish garnets in a 2 cm pale gray section at 485.4.</p> <p>Bedding to c/a: <math>50^\circ</math> at 484.8. Weakly magnetic (pyrrhotite) at 485.2. Two small (<math>\leq 1</math> cm) elliptical siliceous gray pebbles at 484.8; one (2.5x0.5 cm) at 485.2. 487.0-489.3, pale medium gray silty sandstone mainly thin bedded. Strongly broken to rock rubble from 487.0-487.8 with 2-3 cm granular gouge, preceded by rock rubble at 487.8 and at <math>55^\circ</math> to c/a.</p> <p>Bedding to c/a: <math>49^\circ</math> at 489.1; <math>59^\circ</math> at 488.2; <math>57^\circ</math> at 488.6. 487.8-489.3, moderately broken core. 489.3-495.4, pale-medium gray sandy to silty, mainly medium to thick bedded. The lighter gray zones tend to be garnetiferous. Locally weakly magnetic. (very fine grained magnetite?). Bedding to c/a: <math>59^\circ</math> at 490.2; <math>60^\circ</math> at 491.5. At 490.9, very fine grained magnetite (?) as bedding plane fill (<math>\leq 0.5</math> mm). 490.9-491.1, weakly magnetic due to presence of very fine grained magnetite (?) as small (<math>\leq 1</math> mm) blebs in a medium, slightly brownish, gray sandy quartzite, followed by 3 dm (491.1-491.4) of pale gray sandy (thick bedded) garnetiferous and very weakly magnetic quartzite.</p> <p>Strongly broken core 492.7-493.1; at 493.5 and 493.9-494.1.</p> <p>494.4-494.6; concretion, mainly pale glossy gray and garnetiferous (<math>\leq 3</math> mm) to medium gray and silty, and mineralized with fine grained reddish brown sphalerite and very fine grained magnetic Po.</p> <p>Sample: 5350 494.4-494.6 m 0.2 m</p>	54	32	378	0.8	1
495.4-499.0m	<p>QUARTZITE</p> <p>pale-medium gray, glossy heavily micro-fractured becoming medium gray to medium slightly greenish gray, as it grades into silicified medium to medium-dark greenish gray siltstone. Contact at 499.0 is arbitrary.</p>					
499.0-500.6m	<p>SILTSTONE</p> <p>Medium gray to slightly greenish gray, silicified, locally garnetiferous. Heavily broken core.</p>					
500.6-504.2m	<p>QUARTZITE</p> <p>Sandy, medium-thick bedded, light-medium gray, weakly chloritized, locally finer grained and slightly brownish medium gray. Garnetiferous in the coarser grained, lighter gray portions. Py on fractures. At 503.4 an 1-3 cm pale gray silty well rounded quartzite pebble in fine grained slightly brownish gray siltstone. Bedding to c/a: <math>55^\circ</math> at 503.5 m.</p>					
504.2-508.8m	<p>QUARTZITE</p> <p>Finer grained (silty), medium brownish gray, massive with a lighter gray garnetiferous section between 506.0 and 507.0. Core moderately to strongly broken.</p>					
508.8-510.6m	<p>SILTSTONE &amp; QUARTZITE</p> <p>Medium gray, glossy locally garnetiferous quartzite with interbeds of very thin bedded medium grayish brown siltstones. Bedding to c/a: <math>40^\circ</math> at 509.9.</p>					
		283	31	756	0.1	5

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
510.6-513.5m	<b>SILTSTONE</b> Silicified weakly chloritized, with numerous hair-line micro-fractures. Dark greenish gray and broken to rock rubble from 510.6-513.2. From 513.2-513.7 mainly very thin bedded grayish brown. Bedding to c/a: 50° at 513.5. From 511.5-512.0, rock rubble with bits of granular, gouge: Main locus of fault (?)					
513.7-553.5m	<b>QUARTZITE (~85%) &amp; SILTSTONE (~20%)</b> Pale-medium gray slightly glossy and locally garnetiferous quartzites and sandy quartzites interbedded with minor medium brownish gray generally thin-bedded, occ. laminated, locally silicified siltstones. Moderately to very strongly broken core. Bedding to c/a 53° at 514.6. Crushed rock and granular gouge 515.4-515.6. Bedding to c/a: 42° at 517.6. At 519.2 an approx. 1 dm pale gray, siliceous and garnetiferous concretion with very weakly chloritic, biotitic (secondary) and pyritiferous margins. Concretion covers 80% of diameter of core; remainder is a healed sedimentary breccia. Core is moderately to very well broken between 513.7-520.3. Bedding to c/a: 50° at 521.8; 58° at 522.7; 58° at 526.0 57° at 531.8; 63° (?) at 541.2; 59° at 543.9; 59° at 546.5 (very thin-bedded to laminated) Rip up clasts & elliptical (0.5 x 2 cm) pale gray quartzite pebble at 545.6. Bedding to c/a: 60° at 548.9 (thin-bedded); 58° at 550.6 (very thin-bedded). 547.1-547.3 (~25% core recovery). Mainly sandy siltstones from 545.6-551.5. Blebs of magnetic Po in pale gray quartzite at 551.8 m.					
553.3-557.8m	<b>SILTSTONE &amp; QUARTZITE</b> Mainly thin-bedded to medium bedded. Predominantly medium gray sandy quartzite, frequently fining upward into medium to medium-dark slightly brownish siltstone. Also very rapid changes in sedimentation with sharp boundaries between sediments of different grain size. Frequent pale gray, garnetiferous. Concretionary beds up to a max. of 3 dm, average size ~5 cm. Bedding to c/a: 64° at 553.4; 56° at 554.9					
557.8-565.3m	<b>SILTSTONE</b> Mainly medium, slightly brownish gray very thin bedded siltstone, locally grading into lighter gray and sandy quartzite. Medium gray and slightly glossy garnetiferous quartzite 560.3-561.1, & 564.7-564.9. Bedding to c/a: 57° at 560.0; 54° at 563.0; 56° at 565.7					
565.3-567.6m	<b>QUARTZITE</b> Mainly medium gray. Medium dark gray and garnetiferous. 566.3-566.5, pale grayish-white garnetiferous concretion at 566.7-566.9.					
567.6-570.0m	<b>FAULT ZONE</b> 567.6-567.9, mainly pasty fault gouge & granular gouge with contact at 567.6 at ~70° to c/a followed by mainly siliceous siltstone rock rubble to 570.0.					
570.0-618.1m	<b>SILTSTONE &amp; QUARTZITE</b> Mainly medium dark gray locally silicified siltstone from 570.0-578.5 m. From 570.3-570.5 pale slightly greenish gray quartzite (?) (possible concretion) heavily blotched with centers containing chlorite and magnetic Po. Heavily garnetiferous at 570.5. Pale grayish-white and garnetiferous, 572.1-572.3. Medium gray, glossy and garnetiferous quartzite 572.6-573.0. The interval between 570.0-578.5 is characterized by gradual transitions from siltstone to quartzite e.g. very thin bedded medium bluish gray or medium brownish gray siltstone grading to more siliceous siltstone with very poorly defined bedding through to quartzites which are frequently pale to medium gray, slightly glossy and weakly-moderately garnetiferous. From 578.5-588.0, mainly quartzites with short intervals of siltstone. Quartzites are mainly semi-glossy medium gray & micro-fractured, frequently with chloritic alteration halos emanating from the fractures. The quartzite may grade into a pale gray to grayish-white garnetiferous quartzite; the latter rock type occ. has sharp boundaries and is possibly concretionary in nature, particularly the sections between 584.6-584.8 and at 587.3 (6 cm-12 cm). From 581.0-581.4 black, silicified apparently massive siltstone very weakly min with fine grained dissem. Py. Sample: 56202 581.0-581.4 m 0.4 m Box 203 Bedding to c/a: 64° at 573.6; 56° at 578.0; 63° at 583.9; 51° at 588.3.	13	12	87	0.3	1

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
570.0-618.1m	<p>cont'd</p> <p>From 589.7-590.1, turbidite sequence in dark gray to black siltstone with soft sediment deformation including rip-up clast and slumping. Darker sections weakly min. with dissem. Py, Po.</p> <p>Sample: 56203 589.7-590.1 m 0.4 m Box 205</p> <p>From 593.3-593.6, chloritic micro-fractured with locally narrow (<math>\leq 5</math> cm) quartz/calcite veining with weak Po, Sphalerite and Galena mineralization primarily from 593.4-593.6</p> <p>Sample: 56204 593.4-593.6 m 0.2 m Box 207</p> <p>596.3-596.5, pronounced turbidite sequence in mainly laminated to very thin interbedded dark grayish black to medium dark gray siltstone to sandy siltstone with rip-up clasts flame structure and slump structures such as overturned (rolled) beds. From 597.6-601.2, mainly medium gray to medium-dark greenish gray, weakly to mod. chloritized semi-glossy to silty quartzites - core moderately to heavily broken 597.6-600.6. Bedding to c/a: <math>51^\circ</math> at 597.1; <math>53^\circ</math> at 601.2. From 601.2-618.1, mainly medium to medium dark siltstone, locally strongly silicified and occ. grading into quartzite; particularly of a concretionary nature (ie. pale grayish-white to medium gray, garnetiferous and spotted with dark black (secondary biotite) to greenish black (chlorite &amp; biotite) blebs. May be some very fine grained magnetite associated with the dark blebs as the occ. piece is very weakly magnetic. Core is very weakly chloritized and moderately broken with numerous pieces between 2-4 dm. Occ. very short section dark gray (more biotitic ?) and very weakly min. with dissem. Fe sulphides. At 601.4 a 0.5 x 3.5 cm cigar-shaped medium bluish-gray well rounded quartzite pebble in a medium greenish-gray massive (?) siltstone unit.</p> <p>Note: Core size change from AQ to NQ at 602.3 m (1976'). Bedding to c/a: <math>50^\circ</math> at 603.4; <math>49^\circ</math> at 607.0; <math>52^\circ</math> at 612.6; <math>49^\circ</math> at 617.9.</p>	21	16	117	0.1	1
		39	317	1079	0.8	1
618.1-626.1m	<p>QUARTZITE</p> <p>Mainly medium gray to slightly greenish gray, slightly to locally very strongly micro-fractured. Greenish gray sections are weakly chloritized. 622.3-623.6, gradational between silty quartzite and dark slightly bluish-gray, silicified siltstone. Py on fracture surfaces 623.7-624.0. 1-3 mm gouge at <math>40^\circ</math> to c/a at 623.8.</p>					
626.1-623.2m	<p>SILTSTONE</p> <p>Medium gray, mainly thin bedded; Py common on fractures. 627.0-627.6 slightly sandy siltstones with soft sediment deformation at 627.05. 628.0-628.3, greenish gray quartzite with an approx. 5 cm pale grayish white, garnetiferous &amp; weakly chloritic band at the bottom. Bedding to c/a: <math>49^\circ</math> at 627.6; <math>50^\circ</math> at 630.8.</p>					
631.2-637.0m	<p>QUARTZITE</p> <p>Mainly pale gray to slightly greenish (chloritized) gray and glossy with heavy micro-fracturing and occ. garnet with minor medium, slightly greenish, gray silty quartzite 633.7-634.1 siltstone.</p>					
637.0-646.5m	<p>SILTSTONE</p> <p>Mainly medium shades of slightly brownish gray. 637.0-641.9, generally poorly defined bedding to massive, with a pale grayish-white strongly garnetiferous siliceous concretion with small (<math>&lt; 3</math> mm) circular to elliptical dark green chlorite rich blotches. At 640.4, a 2-7 cm medium, bluish-gray, concretion spotted with 0.5-1.0 mm very pale slightly pinkish protogarnets, and disseminated small (0.5-1.0 m) blebs, and larger (<math>&lt; 3-4</math> mm) aggregations of secondary biotite. 641.9-644.5, mainly medium brownish gray, thin-bedded to well laminated. Laminations (<math>\geq 0.5</math> mm) are particularly well developed at 641.4-641.6. Bedding to c/a: <math>53^\circ</math> at 637.8 (very thin-bedded to laminated); <math>53^\circ</math> at 642.1 (laminated); <math>54^\circ</math> at 644.0 (thin to very thin bedded); <math>55^\circ</math> at 646.5 (very thin bedded).</p>					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
646.5-683.1m	<p><b>SILTSTONE &amp; QUARTZITE</b></p> <p>A more or less repetitive sequence of quartzites and siltstone having the following characteristics which are repeated every 3-4 meters from top to bottom.</p> <p>Top 1) Medium dark gray to brownish-gray, very thin bedded to laminated siltstone.                      2) Massive, medium dark, slightly brownish, gray, siliceous siltstone.                      3) Pale grayish-white to pale gray garnetiferous, weakly chloritic quartzite (concretionary ?)                      Bottom 4) Medium gray semi-glossy massive quartzite.</p> <p>Bedding to c/a: 52° at 652.7; 52° at 655.6; 50° at 657.9; 45° at 660.6; 58° at 669.5; 55° at 672.7; 56° at 680.6.</p> <p>Trace Po and rare fleck sphalerite associated with grayish white garnetiferous concretionary (?) quartzites at 672.0, 672.6 &amp; 673.4. Well developed flame structures at 671.4, bedding scour at 680.5.</p>					
683.1-691.0m	<p><b>SILTSTONE</b></p> <p>Mainly medium gray, locally slightly brownish gray and sandy. Locally chloritized and silicified, sometimes with garnet as at 683.2-683.4; 688.4-688.5; 686.1-686.4. An approx. 3 cm pebble (clay-ball) at 684.3 in very thin-bedded siltstone. An approx. 2.0 x 2.5 cm spade-shaped medium-dark bluish gray sub-rounded quartzite pebble in dark grayish black biotitic siltstone at 686.9 and a 1 cm elliptical rounded pebble (medium gray quartzite) in medium dark siltstone at 687.1. At 685.5 a 4 cm biotitic siltstone with crenelation and slump structure. At 689.2 a 1 cm quartz vein, well min Po and strongly chloritized country rock. Trace sphalerite at one contact. Bedding to c/a: 52° at 684.6; 47° at 687.0.</p>					
691.0-709.5m	<p><b>SILTSTONE</b></p> <p>Silicified, mainly very dark gray, locally weakly chloritized, with occ. short garnetiferous zones. Bedding to c/a: 52° at 701.4. (laminated over 5 cm); 51° at 703.5; 51° at 706.6; 55° at 709.2.</p>					
709.5-724.8m	<p><b>SILTSTONE (75%) &amp; QUARTZITE</b></p> <p>Medium greenish gray quartzite and siltstone; siltstone is locally very siliceous and slightly maroon color. Entire section is moderate-highly micro-fractured with pervasive weak-moderate chloritization. Very thin (&lt;1 mm) calcite fill on some fractures Very fine grained weakly dissem. Py &amp; Po (?) associated with the slightly maroon colored sections. Minor Py and possible trace sphalerite assoc. with calcite filled narrow (&lt;1 mm) fracture at 715.5. Py on occasional fracture surface.</p> <p>Bedding to c/a: 55° at 716.1. Occ. speck sphalerite observed in maroon colored sections. From 236.1-236.2 (?), three thin (&lt;0.5 cm) bands of bedded sulphides (Py, Po) at 54° to c/a 723.3-724.8, mainly very thin bedded siltstone with bedding to c/a: 59°.</p> <p>Samples: 56451 712.4-713.4 m 1.0 m                      56452 713.4-714.4 m 1.0 m                      56453 714.4-715.4 m 1.0 m Box 232                      56205 715.4-715.6 m 0.2 m                      56206 715.6-716.6 m 1.0 m                      56454 716.6-717.6 m 1.0 m                      56455 717.6-718.6 m 1.0 m                      56456 718.6-719.6 m 1.0 m</p> <p>Calculated Average 715.4-717.6 m 2.2 m</p>	29	14	120	0.4	1
		37	8	91	0.3	4
		26	29	91	0.3	4
		23	43	178	0.6	5
		27	193	224	0.7	2
		35	117	153	0.3	1
		39	51	99	0.4	1
		38	45	100	0.6	14
		30	145	188	0.5	2
724.8-732.3	<p><b>QUARTZITE</b></p> <p>Medium gray to medium brownish (maroon). From 726.5 core is moderately to very strongly broken with short intervals of rock rubble at approx. Occ. shear with thin granular gouge at 726.4; 729.0; 729.4. Weakly chloritized, moderately micro-fractured. Slightly talcose (?) on fractures. Some of the fine fractures have calcite fill (&lt;0.5 mm).</p>					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
732.3-739.7m	<p><b>SILTSTONE &amp; QUARTZITE (~20%)</b></p> <p>Moderately to heavily broken core. Siltstone, where bedding is apparent is mainly thin-medium bedded, locally very thin to laminated. Medium gray, slightly talcose (?) fracture surfaces. At 733.0, 3-4 cm strongly sheared rock parallel to bedding at ~58° to c/a. At 734.6, an approx. 5 cm bed weakly min. with blebs and fine disseminations of Po. Bedding to c/a: 29° at 738.1; 30° at 738.8, 25° at 739.5.</p> <p><u>Note:</u> Possible marker from 738.8-739.0. Examined by Art Hagen who considers it to be the "Fringe" marker. 735.0-736.4, medium greenish gray to maroon semi-glossy, generally strongly micro-fractured quartzite. At ~735.0 a 1.5-2.0 cm healed crushed breccia at ~20° to c/a. The maroon colored quartzite fragments (≤1 cm) are in a calcite/quartzite matrix.</p>					
739.7-750.8m	<p><b>QUARTZITE &amp; SILTSTONE</b></p> <p>Mainly medium gray, locally slightly lemonish gray, semi-glossy to glossy micro-fractured quartzites with minor (10-15%) amount of medium gray, very thin bedded to laminated siltstone, mainly between 739.7 &amp; 741.3. Core is mainly very strongly broken (locally rubble) with occ. piece up to 1 dm. Numerous fracture surfaces thinly coated with clay-like white slippery mineral (talc?). 740.1-740.6, mainly intensely sheared with occ. secondary Pyrite blebs on numerous slickensided surfaces. 740.6-741.3, rock rubble with ubiquitous Pyrite.</p> <p><u>Note:</u> The interval 740.1-741.3 is the area of most intense shearing and fracturing within the moderately to very strongly broken core zone between 732.3 and 751.2. This zone does not have the intensity of shearing and alteration as encountered in intersection of the McNeil Creek (?) Fault in other holes; however it appears to be a significant structural feature. Bedding to c/a: 25° at 741.4; 20° at 747.7. Minor fault gouge at 745.0, preceded by ~5 dm of rock rubble.</p>					
750.8-776.9m	<p><b>SILTSTONE &amp; QUARTZITE</b></p> <p>Siltstone medium gray, laminated to thin bedded to medium bedded to locally obscured. Gradational with short quartzite intersections which tend to be chloritized with development of garnet over short (≤15 cm) intervals. Very weak development of talc on occ. fracture. Numerous fine micro-fractures with very thin (≤1 mm) occ. calcite veinlet and occ. Pyrite on fractures. Disseminated Po in very thin bedded to laminated siltstone 753.1-753.4. At 751.4, approx. 5 cm zone of poorly lithified tectonic (?) breccia at ~28° to c/a. Bedding to c/a: 31° at ~750.9; 50° at 753.2; 43° at 756.9; 37° at 762.6; 60° at 768.0; 61° at 771.7; 59° at 778.8. From 719.5, bedding is generally obscured, core is locally silicified. Throughout entire section there are numerous hair-line fractures, generally erratically distributed. The chloritic alteration tends to be associated with the siliceous garnetiferous zones and is frequently expressed as numerous thin planar halos oriented orthogonally to the bedding. One speck sphalerite observed at 772.2.</p>					
776.9-785.9m	<p><b>QUARTZITE</b></p> <p>Medium gray. Numerous fine hair-line micro-fractures. Dark grayish-black silicified siltstone at 780.5-780.8. Pale grayish-white to greenish gray with fine (≤1 mm) garnet 779.9-780.1. Core either moderate or strongly broken. Well min. clotted Po, minor Py, on fractures at 784.9 in very pale gray quartzite with small (≤4 mm) blebs chlorite.</p>					
785.9-793.6m	<p><b>SILTSTONE &amp; QUARTZITE</b></p> <p>Siltstone are medium to medium dark gray, siliceous with obscured bedding, grading locally into quartzite. Occ. min Py on fractures. Numerous fine hair-line fractures with narrow (≤3 cm), poorly healed crush breccia at 793.0.</p>					
793.0-821.7m	<p><b>QUARTZITE</b></p> <p>With minor siliceous massive siltstone. Mainly medium gray; with locally pale gray glossy, more highly fractured sections. Quartzite locally grades into medium-dark gray, massive, siliceous, siltstones. Core micro-fractured throughout. Occ. short (≤1 dm) moderately garnetiferous sections. Core is generally well broken to rubbly. At ~791.8 Po and Py in a narrow fracture, with discontinuous quartz/calcite matrix, at the contact between medium dark slightly brownish gray silicified siltstone and pale-medium gray,</p>					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
793.0-821.7m	cont'd glossy highly fractured quartzite. At 806.4, approx. 6 cm of granular medium gray gouge at 49° to c/a. From 816.7-817.6, strongly broken core. 817.6-818.2 (~25% recovery) Pasty gouge at 818.2: Fault. 818.2-818.7, (40-50% recovery): Rock rubble. 818.7-818.8: Rock rubbly with pasty gouge at 818.8. 818.8-819.2 & 819.9-820.2, moderate-well lithified tectonic breccia with zone between strongly micro-fractured. 820.4-821.7, mainly rock rubble.					
821.7-868.5m	SILTSTONE WITH MINOR QUARTZITE Siltstone is medium to medium-dark gray, usually silicified, generally with obscured bedding, weakly micro-fractured, particularly in more siliceous sections. Locally weakly chloritized and occ. short (<1 dm) garnetiferous section. Bedding to c/a: 49° at 824.4; 45° at 830.0. Occ. chloritic fracture with minor secondary Py. Bedding to c/a: 45° at 835.7; 50° at 839.3; 48° at 847.2; 48° at 850.2. Trace sphalerite on hair-line fracture at 844.1, 845.4. Bedding to c/a: 52° at 857.0; 45° at 861.7, 60° at 867.9; 48° at 872.8; 45° at 879.0, 57° at 882.5; At 855.8 a 5 x 1 cm dark grayish-black clast with dissem. Po. At 856.1 minor Py on fracture at low angle to c/a. 2 mm gouge at 858.0 at 53° to c/a. Soft sediment deformation at 863.4.					
868.5-885.1m	SILTSTONE Mainly medium gray with a medium dark grayish-maroon section between 873.9 & 876.9, which is silicified and occ. has a weakly developed chloritic foliation orthogonal to the bedding. Generally this section has a higher incidence of Po, either as very thin fracture fill or as very fine disseminations in localized very short sections. One fleck sphalerite at 870.6 in a 1 dm bed weakly min. very fine grained dissem. Po and on hair-line fracture. Very weakly disseminated Po zone with one fleck sphalerite between 871.4 & 871.7.					
	Samples: 56457 868.5-869.5 m 1.0 m	14	8	50	0.2	1
	56458 869.5-870.5 m 1.0 m	14	7	52	0.1	1
	56459 870.5-870.7 m 0.2 m	23	6	39	0.1	4
	Samples: 56460 870.7-871.4 m 0.7 m	24	18	59	0.2	6
	56461 871.4-871.7 m 0.3 m	18	6	73	0.2	1
	56462 871.7-872.8 m 1.1 m	20	6	45	0.2	1
	56463 872.8-873.9 m 1.1 m	19	14	101	0.2	4
	56464 873.9-874.9 m 1.0 m	26	38	118	0.4	1
	56465 874.9-875.9 m 1.0 m	20	162	209	1.1	1
	56466 875.9-876.9 m 1.0 m	24	124	138	0.6	1
	56467 876.9-877.9 m 1.0 m	24	44	132	0.4	13
	56468 877.9-878.9 m 1.0 m	27	11	75	0.2	1
	56469 878.9-879.7 m 0.8 m	36	12	66	0.4	4
	56470 879.7-880.7 m 1.0 m	27	9	59	0.2	1
	56471 887.0-881.7 m 1.0 m	20	26	434	0.4	50
	56472 881.7-882.7 m 1.0 m	25	6	65	0.6	62
	Calculated Average 872.8-877.9 m 5.1 m	23	75	139	0.5	4
	Bedding to c/a: 55° at 884.5 m					
885.1-904.4m	QUARTZITE & MINOR SILICIFIED SILTSTONE Quartzites mainly medium gray, micro-fractured, locally weakly chloritized. Healed crush breccia at 885.1 (~2 cm); 890.3 (2 cm) from 896.9-897.7, mainly healed crush breccia in pale slightly greenish gray quartzite with ~1 cm sheared rock at 896.9 at ~50° to c/a and sheared rock weakly min. Py from ~897.3 to 897.7. Weakly min. sphalerite on fractures from 902.5-902.7 m.					
	Sample: 56473 902.5-902.7 m 0.2 m Box 270	58	14	1836	0.1	1
	Bedding to c/a: 50° 899.2; 41° at 902.0.					



FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
904.4-948.4m	<p><b>SILTSTONE &amp; MINOR QUARTZITE</b></p> <p>Mainly medium-gray siltstone locally very siliceous and gradational into quartzite. The quartzite sections are generally short (usually &lt;0.5 m) and frequently have sporadically distributed small (<math>\leq 3</math> mm) pale pinkish garnet porphyroblasts. Occ. short section of core is slightly greenish color; weakly chloritized. Core is generally moderately well broken. Quartzite zones are usually well micro-fractured. Siltstone bedding is frequently obscure due in part to local silicification, and possible local massive medium bedding. Bedding to c/a: <math>52^\circ</math> at 909.7; <math>48^\circ</math> at 911.7; <math>53^\circ</math> at 917.7.</p> <p>Note: Minor sphalerite min. on hair-line fracture at 913.0. Bedding to c/a <math>48^\circ</math> at 936.0 <math>33^\circ</math> at 939.7. Coarse grained Py in a 1-5 mm quartz/calcite fracture at 929.8 m at <math>22^\circ</math> to c/a. Poorly lithified and partly recrushed, crush-breccia at 942.3 m at <math>37^\circ</math> to c/a <math>1</math> cm thick. Bedding to c/a: <math>35^\circ</math> at 943.5 m.</p>					
948.4-957.6m	<p><b>QUARTZITE</b></p> <p>Mainly pale-medium gray massive silty to sandy very fine grained, locally gradational into medium gray thin to medium bedded siltstones. Moderately fractured; healed hair-line fractures.</p>					
957.6-961.3m	<p><b>SILTSTONE</b></p> <p>Mainly thin bedded light-medium gray to slightly brownish gray. Bedding to c/a: <math>28^\circ</math> at 958.4; <math>49^\circ</math> at 959.7; <math>48^\circ</math> at 960.6.</p> <p>Pale gray medium bedded siltstone from 957.9-958.2. Well min. with disseminations &amp; clots of Po, the latter roughly aligned to provide a crudely parallel foliation (bedding?) at <math>47^\circ</math> to c/a.</p> <p>Note: lower/middle Aldridge contact at approx. 957 m.</p>					
961.3-972.3m	<p><b>SILTSTONE</b></p> <p>Pale gray very thin to thin bedded to locally massive (?). The section is distinctly pyrrhotitic, with the Po usually on fine hair-line fractures to microscopic fractures and occasionally as dissem. The occ. massive (?) section has a crude foliation (bedding?) imparted by alignment of very thin (<math>\leq 0.1</math>-<math>0.2</math> mm) discontinuous Po aggregations. The siltstone becomes more siliceous locally and in particular from 964.5-969.6, it is gradational into quartzite, the interval between 968.6-969.3 being a pale gray glossy micro-fractured and calcite veined pyrritic &amp; pyrrhotitic quartzite. The least siliceous sections are relatively soft compared to the majority of previously logged siltstones. From approx. 970.0-971.0 there is a contact zone (?) well min. with Po, minor Py parallel to the core axis, which is possibly a local slump in the sediment. Occ. small (<math>\leq 0.3</math>) garnets are present in siliceous sections at 962.7 and 967.5-967.9. Bedding to c/a: <math>40^\circ</math> at 963.6. As previously noted bedding appears to be parallel to sub-parallel the c/a at least from 969.9 to 972.5. Bedding to c/a: <math>30^\circ</math> at 972.7, <math>37^\circ</math> at 973.0. Trace sphalerite on sigmoidal, Py-coated, fracture at 971.2.</p>					
972.3-980.0m	<p><b>QUARTZITE WITH MINOR STRONGLY SILICIFIED SILTSTONE</b></p> <p>Medium gray, weakly to strongly cut by irregular, generally thin (<math>\leq 2</math> mm) white calcite veinlets. The central section, from approx. 975.8-977.8, is quartzite with very occ. small (<math>\leq 2</math> mm) pale pink garnet. Very weak sphalerite min. associated with a fine pyritic fracture at <math>45^\circ</math> to c/a at 974.3 m.</p>					
980.0-1013.8	<p><b>SILTSTONE</b></p> <p>Medium to medium-dark gray, generally laminated to very thin bedded. Moderately-slightly silicified. Po appears to be ubiquitous as very fine grained weakly dissem. grains with Py occurring in the more siliceous sections. The dissem. Po locally has concentrations up to <math>\sim 1\%</math> over short (<math>\leq 3</math> dm) sections. Very weak sphalerite min. occurs as fill on occ. hair-line fractures. Very fine calcitic fractures randomly distributed throughout. Bedding to c/a: <math>47^\circ</math> at 980.9; <math>44^\circ</math> at 982.6; <math>48^\circ</math> at 986.4; <math>38^\circ</math> at 987.8; <math>30^\circ</math> at 990.6; <math>37^\circ</math> at 991.4 <math>32^\circ</math> at 994.2; <math>35^\circ</math> at 996.8; <math>33^\circ</math> at 998.6; <math>35^\circ</math> at 1000.2; <math>36^\circ</math> at 1003.6; <math>40^\circ</math> at 1004.9. At 990.4, a 2-4 mm bed heavily min. Py (25-50%). From 990.8-991.1 strongly silicified med. gray siltstone with calcite fracturing over the last half of section and the entire section well min. with Py &amp; minor Po as fine disseminations and increasingly as spider-web</p>					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
980.0-1013.8	cont'd					
	fracture fill & clots towards latter half of section. 2-4 mm bedded Py (5-10%) at 996.2.					
	Note: The previously mentioned very weak sphalerite min. on fractures, is relatively strong and noticeable at 988.4 & 994.9.					
	Strongly reduced dissem. Po content after 1007.0. Last sphalerite observed at 1002.8.					
	After 1013.8 very strongly silicified.					
	Bedding to c/a: 42° at 1007.4; 40° at 1010.6; 40° 1012.7; 40° at 1014.7.					
	Samples: 45879 965.0-966.0 m 1.0 m	11	4	29	0.4	5
	45880 966.0-967.1 m 1.1 m	8	13	28	0.1	20
	45881 967.1-968.5 m 1.4 m	4	6	28	0.1	4
	45882 968.5-969.9 m 1.4 m	11	10	24	0.1	34
	45883 969.9-971.4 m 1.5 m	59	13	186	0.1	3
	45884 971.4-972.9 m 1.5 m	30	9	55	0.2	6
	45885 972.9-974.4 m 1.5 m	23	10	47	0.1	4
	45886 974.4-976.0 m 1.6 m	24	11	50	0.2	4
	45887 976.0-977.2 m 1.2 m	24	13	45	0.1	2
	45888 977.2-978.7 m 1.5 m	30	20	93	0.3	1
	45889 978.7-980.2 m 1.5 m	29	26	69	0.2	2
	56474 980.2-981.2 m 1.0 m	31	51	89	0.4	4
	56475 981.2-982.2 m 1.0 m	33	174	127	0.6	4
	56476 982.2-983.3 m 1.3 m	32	144	155	0.4	1
	56477 983.3-984.3 m 1.0 m	29	150	126	0.4	13
	56478 984.3-985.3 m 1.0 m	22	130	110	0.4	6
	56479 985.3-986.3 m 1.0 m	24	99	209	0.4	2
	56480 986.3-987.3 m 1.0 m	28	67	136	0.4	4
	56481 987.3-988.3 m 1.0 m	31	50	503	0.2	7
	56482 988.3-989.4 m 1.1 m	28	80	502	0.2	6
	56483 989.4-990.4 m 1.0 m	26	64	164	0.4	9
	56484 990.4-991.4 m 1.0 m	49	174	143	0.7	5
	56485 991.4-992.4 m 1.0 m	33	15	143	0.2	3
	56486 992.4-993.4 m 1.0 m	25	50	118	0.2	11
	56487 993.4-994.4 m 1.0 m	30	46	111	0.4	5
	56488 994.4-995.5 m 1.1 m	29	111	605	0.5	8
	56489 995.5-996.5 m 1.0 m	26	54	322	0.4	6
	56490 996.5-997.5 m 1.0 m	31	65	324	0.4	6
	56491 997.5-998.5 m 1.0 m	30	32	246	0.1	7
	56492 998.5-999.5 m 1.0 m	25	49	155	0.4	4
	56493 999.5-1000.5 m 1.0 m	24	25	123	0.3	10
	56494 1000.5-1001.6 m 1.1 m	30	45	209	0.5	5
	56495 1001.6-1002.6 m 1.0 m	21	123	359	0.5	31
	56496 1002.6-1003.6 m 1.0 m	28	125	369	0.5	14
	56497 1003.6-1004.6 m 1.0 m	36	52	350	0.4	11
	45868 1004.6-1006.1 m 1.5 m	35	38	149	0.2	8
	45869 1006.1-1007.7 m 1.6 m	27	19	87	0.2	3
	45870 1007.7-1009.2 m 1.5 m	23	16	68	0.1	3
	45871 1009.2-1010.7 m 1.5 m	26	10	62	0.1	3
	45771 1010.7-1012.2 m 1.5 m	25	8	66	0.3	3
	45873 1012.2-1013.8 m 1.6 m	33	15	65	0.1	3
	Calculated Average 981.2-994.4 m 13.2 m	30	97	197	0.4	5
	Calculated Average 994.4-1006.1 m 11.7 m	29	64	250	0.4	10
	Calculated Average 981.2-1006.1 m 24.9 m (True width: ~16.0 m)	30	82	222	0.4	7
1013.8	SILTSTONE					
-1026.3m	Mainly maroon, grayish brown and medium gray. The maroon sections tend to be well min. with fine grained dissem. Po and are very siliceous with obscured bedding planes. The med. gray siltstones are thin bedded to laminated and are relatively weakly min. with very fine grained Po. Bedding to c/a: 38° at 1017.2; 39° at 1022.4; 45° at 1026.3.					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
1013.8	cont'd					
-1026.3	Samples: 45874 1013.8-1015.3 m 1.5 m	25	18	76	0.1	3
	45875 1015.3-1016.8 m 1.5 m	21	15	69	0.2	3
	45876 1016.8-1018.3 m 1.5 m	28	22	82	0.3	5
	45877 1018.3-1019.9 m 1.6 m	27	16	76	0.3	5
	45878 1019.9-1021.4 m 1.5 m	21	15	65	0.2	5
1026.3	SILTSTONE					
-1039.7m	Pale-medium dull gray with weak-moderate silicification. The moderate silicified sections are harder and semi-glossy. Thin-bedded to laminated, locally medium bedded. Bedding is obscured in the more highly silicified sections which occ. grade into short (<4 dm) intervals of pale gray to slightly greenish gray garnetiferous quartzites or short (<1.5 dm) intervals of very thin bedded pale grayish white "salt & pepper" textured quartzite. The softer pale very dull siltstones usually are well min. with fine grained Po disseminations and as concentrated irregular bands (<2-3 mm) parallel to bedding. Also as short elongated (up to 1 mm x 1 cm) clots. Occ. hair-line fracture with calcite fill. At 1035.4 an approx. 2 cm white calcite/quartz veinlet at 27° to c/a. One speck Sphalerite observed at 1032.9 & 1037.7. Bedding to c/a: 37° at 1028.6; 55° at 1034.1; 45° at 1036; 30° at 1037.9; 40° at 1039.9.					
1039.7	SILTSTONE					
-1081.8m	Pale to medium gray, moderately-strongly silicified with silicification tending to become stronger down section. Silicification tends to locally obscure the bedding particularly in those short sections that are gradational into quartzite. Very fine grained dissem. Po is well developed to very scarce throughout the section with the occ. fracture with secondary Po and minor Py as fracture fill. Occ. very short section is weakly to moderately min. with dissem Py; those sections are usually in the more siliceous (quartzitic) portions of the core. Core is moderately broken, very fine hair-line fractures are common throughout. They are generally calcitic, and many are discontinuous with occ. one having the appearance of a tension fracture, tending to swell in the middle (up to 1-2 mm) and tailing out to no fracture fill. Bedding to c/a: 52° at 1041.8. From 1044.7-1046.0, core appears to be weakly sheared at a low angle to c/a (10-15°) with an approx. 1 cm clear quartz veinlet paralleling the shearing from 1044.7-1045.0. Bedding to c/a: 60° at 1047.0 53° at 1049.2; 62° at 1056.2; 46° at 1057.2; 43° at 1060.0; 45° at 1062.9. One (1) dm rock rubble at 1050.9. At 1049.3 a grayish white elliptical (6-7 cm x 4.5 cm) concretion covers about half the circumference of the core. The perimeter of the concretion is heavily min. with coalesced irregular coarse grained clots of Py with minor Po and there is dissem. Py & Po within the main mass of the concretion. Sample: 56499 1049.25-1049.45 m 0.2 m From 1043.0 onward there is the occ. thin (usually ~1 dm) pale siliceous bed with salt & pepper texture and/or weakly-moderately garnetiferous. From 1062.8-1063.2 a hackly fracture sub-parallel to c/a filled with 1-4 mm Py, Po & trace calcite. Sample: 56500 1062.8-1063.2 m 0.4 m Bedding to c/a: 33° at 1072.0; 52° at 1073.5; 38° at 1075.6; 22° at 1076.9; 32° at 1078.0; ~30% at 1078.9. At 1066.7, a zero (0) to 3-4 mm thick bed of Py with minor Po and biotite in a siliceous matrix at ~20° to c/a. From 1073.8-1080.8, pale-medium dull gray siltstone weakly silicified becoming strongly silicified and well min. with disseminated Py and Po from 1080.2 onward. Po mineralization is ubiquitous as fine-medium grained disseminations, as fine (<1 mm beds) and as irregular discontinuous elongated clots. Py & Po also occurs as fracture fill in thin (< 1 mm) calcitic fractures at low angles to the c/a. Samples: 45851 1073.8-1075.3 m 1.5 m 45852 1075.3-1076.8 m 1.5 m 45853 1076.8-1078.3 m 1.5 m 45854 1078.3-1079.8 m 1.5 m 45855 1079.8-1080.8 m 1.0 m 45890 1080.8-1081.8 m 1.0 m Heavily broken core (rock rubble) from 1080.95-1081.15.	65	14	50	0.2	4
		50	20	152	0.2	4
		27	10	58	0.4	6
		22	6	38	0.1	3
		34	15	39	0.2	7
		28	11	52	0.3	8
		44	23	36	0.1	5
		57	13	38	0.1	6

FOOTAGE		DESCRIPTION	ANALYSIS				
FROM	TO		Cu	Pb	Zn	Ag	Au
1081.8		SHEAR ZONE (McNEIL CREEK FAULT ?)					
-1083.9m		Quartzite & siltstone with healed shearing surfaces at 0-12° to c/a. The siliceous zones (pale gray quartzites) are strongly micro-fractured with calcite fill, whilst the short chloritized siltstone sections have undulose to weakly crenulated shear surfaces. Sheared rock rubble and gouge at 1081.8 (1 dm) followed by 0.6 m of strongly sheared (healed) and fractured siltstone. From approx. 1082.4-1082.9, sheared rock rubble and minor pasty gouge.					
		END OF HOLE AT 1083.9 m (3556')					

COMMENCED: November 12, 1989	DISTRICT: Fort Steele	COLLAR DIP: -90°	TESTS a: None
COMPLETED: November 20, 1989	PROPERTY: McNeil Creek	BEARING:	
LOGGED BY: M.J. Cook	LOCATION:	LENGTH: 291.7 m	
DATE LOGGED: January 30, 1990	CO-ORD.: 3217N 3408E	CORE SIZE: HQ	
TARGET: UTEM Anomaly	ELEV.: 1680	% RECOVERY:	ppm except Au ppb

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
0.0-9.8m	GLACIAL TILL Medium grained siltstone boulders within medium/light brown unconsolidated sand, boulders from 2-3 cm (rounded) up to .5 m in size.					
9.8-35.5m	SILTSTONE/QUARTZITE Alternating beds of fine grained thinly laminated medium gray to brownish siltstones with medium gray mass. quartzites. Occasional concretionary type alteration with associated garnet alteration. Occasional barren quartz veinlet sub parallel to c/a. Biotite "clotting" within and/or near margins of concretionary alteration. Thinly laminated siltstones dipping at approx. 10° - bedding at 80° to c/a. 28.2- Manganese staining becoming very prevalent on fracture planes. 29.8-31.6 - Limonite staining pervasive - dendritic manganese within healed fractures. 31.3-31.4 - Fault at 45° to c/a. 33.2-35.5 - Highly fractured quartzite with quartz veining parallel to c/a - weathered out sulphides with Fe & Manganese staining abundant. SAMPLES: 45019 33.2-34.2 m 1.0 m 45020 34.2-35.5 m 1.3 m	19 23	260 56	77 59	0.4 0.3	1 1
35.5-47.9m	SILTSTONE Thin to medium laminations with alternating light and dark grays. Generally fine grained with occasional medium grained sandy, brownish gray unit. Silicious "mottled" gray zone at 37.8 to 38.9 - Quartzite (?) 42.6 - dark biotite rich bed with quartz veinlet eroded or scoured from siltstones above quartz veinlet eradicated by upper beds.					
47.9-95.1m	QUARTZITES/SILTSTONES - alternating QUARTZITES CONSISTING OF siliciously altered zones with garnet and biotite alteration. Medium grained, medium - light gray. Siltstones generally thinly laminated with graded bedding and wispy rip up clasts common - bedding angles 80° to c/a. 51.6-52.8 - Quartz vein at 15° to c/a 61.0-61.2 - Silicious veinlet with minor sercitic alteration along margins. Numerous areas of biotite altered within quartzites (biotite clotting). 56.8 - Chloritized quartzite with garnet alteration and light blue alteration ? (Kyanite?) 64.2 - Flame structures - sandy coarser grained unit intruding into a more silicious biotite rich quartzite. 70.0-71.0 -Biotite alteration pervasive within light gray quartzite - dendritic appearance. 77.3-77.4 -Fault - medium gray to brownish gouge material, contact approx. 90° to c/a. Core quite broken immediately above (for approx. 1 m). 83.0 - Minor fault. 83.1-83.25 - Thin laminations - thin distinct dark beds within light gray siltstones - Basal areas of siltstones becoming quite convoluted with rip up clasts, crenulations and boudinaged clasts. TURBIDITE-bedding planes remaining at 80° to c/a.					
95.1-103.4m	QUARTZITE Alternating dark and light grays, massive, fine to medium grained with occasional bed of silicified and laminated siltstone. Biotite alteration and numerous healed fractures with "sulphides?" Occasional open silicious fractures with manganese staining present. Minor Po clots - becoming "mottled gray" to greenish. 102.3-102.7 - Fault - broken rubble and light grained, gouge material - approx. 60° to c/a. Sample: 45021 101.9-102.4 m 0.5 m	87	6	23	0.1	3

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
103.4-109.4m	<p><b>GABBRO</b></p> <p>Gradational contact - with fine grained chill margin - becoming medium grained and quite chloritic.</p> <p>105.0-105.8 Quartz vein - chloritized chill margin with elongated Po blebs parallel to quartz vein. Abundant biotite clots with occasional Po blebs. Fe-stained at lower contact. Approx. 15° to c/a.</p> <p>Fault contact at 40° to c/a - brecciated with angular silicious fragments.</p> <p>- PROBABLE DYKE - Fine grained gabbro ending in a fault at 109.0-109.4.</p> <p>Sample: 45048 105.0-105.8 m 0.8 m</p>	307	38	12	0.2	7
109.4-142.4m	<p><b>SANDY SILTSTONE</b></p> <p>Medium to coarse grained - creamy gray in color with abundant Po occurring in clots, laminations and fractures. Turbitite with numerous rip up clasts and soft sediment depositional features usually along basal areas of lighter beds. Occasional concretionary type alteration conformable to bedding. Bedding near perpendicular to c/a - approximately 80-85°. Graded bedding throughout with occasional fine grained light gray mudstone present.</p> <p>124.0-125.0 - Secondary chlorite blebs &lt;.5 cm within light gray biotite rich siltstone.</p> <p>131.5 - Wispy - thin bedded siltstones</p> <p>133.0-136.0 - Occasional thin bedded slightly convoluted siltstone with wispy rip up clasts</p> <p>138.8-142.0 - Alternating light and dark grays, dark grays seemingly finer grained.</p>					
142.4-241.8m	<p><b>SILTSTONE/QUARTZITE</b></p> <p>Alternating light and dark gray with dark grays being more silicious (quartzite) and with minor garnet alteration present - turbidite sequence with numerous rip up clasts, scouring and graded bedding. Light grays coarser grained &amp; biotite rich with occasional hornblende. Fracturing and faulting more evident near Gabbro contact within dark green siltstones.</p> <p>141.6 - Po clots (&lt;1 cm) oriented along bedding planes or within tension gashes. Occasional light green bleaching and amorphous Py along open fractures.</p> <p>146.3 - Biotite enrichment along bedding planes with minor and disseminated Po</p> <p>148.8-155.0 - Angular chlorite pseudomorphs becoming quite common within lighter fine grained bed. (10-15%) Bedding angle approx. 80-85° to c/a.</p> <p>156.5-156.7 - Dark gray elongated clasts within light gray siltstone along bedding plane axis elongation occurring.</p> <p>158.5-159.6 - Minor Po occurring in tension gashes along bedding planes and within healed fractures perpendicular to c/a.</p> <p>161.7-169.3 - Occasional minor Po stringers within healed fractures at 35° to c/a.</p> <p>168.0-168.7 - Light green bleaching within a gray quartzite</p> <p>169.0 - Becoming pervasively quartzites - medium grained, medium gray with occasional Po along bedding planes and within healed fractures.</p> <p>175.0 - Concretion - with chloritized fracture and minor Po</p> <p>178.3 - Po stringers (1 cm) within healed fracture at 40° to c/a</p> <p>SAMPLE: 45049 178.3-178.5 m 0.2 m</p> <p>182.6-182.8 - Concretion - dark fine grained biotite rich core with silicious light gray perimeter - minor garnet alteration within core.</p> <p>187.0-187.9 - Open fracture at 10-15° to c/a - minor calcite and slightly chloritic</p> <p>189.5 - Becoming predominantly siltstones - light-medium gray, medium grained with occasional silicious zones.</p> <p>191.3-191.6 - Fault - broken core has been highly chloritized.</p> <p>SAMPLE: 56357 191.3-191.6 m 0.3 m</p> <p>191.8 - Po conformable to bedding.</p> <p>192.9-193.3 - Galena- within fine fractures associated with Pyr and adjacent to fault very finely disseminated.</p> <p>SAMPLES: 45050 0.4 m</p> <p>56358 0.8 m</p> <p>193.1 - Well bedded - fault at 35° to c/a, slickensides chloritized siltstone with a thin band, vaguely brecciated and conformable to bedding</p> <p>195.0 - Silicious siltstones with light green bleaching throughout, occasional quartz stringers at 40° to c/a - minor garnet alteration.</p>	54	15	73	0.1	4
		54	21	100	0.1	1
		34	789	123	1.5	4
		57	19	77	0.1	1

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
142.4-241.8m	cont'd					
	201.6-203.4 - Light grained bleaching throughout (quartzite)					
	206.1 - Minor Py along healed fractures - sercite parallel to bedding					
	208.8-209.9 - Rip up clasts associated with biotite enrichment conformable to bedding. bedding approx. 80° to c/a.					
	212.7-214.2 - Thinly laminated siltstones with slightly brecciated laminations at 213.6.					
	218.0-218.15 - Silicious unit with chloritic alteration and associated Po					
	SAMPLE: 56359 218.0-218.15 m 0.15 m	80	10	61	0.1	9
	220.0 - Minor Po ass'd with biotite enrichment within more silicious & bleached qtz					
	220.3-220.5 - Fault - at approx. 15° to c/a - minor gouge and whitish bleaching					
	220.5-220.8 - Chloritic stringer at 10° to c/a with minor py and silicious, - light green bleached halo.					
	222.2-222.3 - Thin bands of Po with associated hematite staining - slightly magnetic					
	SAMPLE: 56360 222.2-222.3 m 0.1 m	11	15	52	0.1	2
	223.6-223.7 - Po blebs chloritic within a silicious unit, & associated chloritic alteration					
	SAMPLE: 56361 223.6-223.7 m 0.1 m	526	10	65	0.5	2
	224.9-227.1 - TURBIDITE - well bedded with numerous rip up clasts, wispy to boudinaged, with occasional more massive medium grained bed.					
	229.4-229.7 - Numerous silicious concretions, oblong shaped (<5 cm), with biotite-rich cores.					
	233.7 - Mafic rip up clasts within a fine grained dark green siltstone -cross cutting stringer with minor Po - 90° to bedding.					
	234.4-241.7 - Very broken and fractured core nearing gabbro contact - Faulting at (234.4-234.8), 236.9 and 238.2-238.5, - Py crystals present in open fractures within a fine grained dark green siltstone.					
241.8-291.7m	GABBRO					
	Minor fault at contact with chloritic gouge material approx. 60° to c/a. Silicification and epidote alteration quite prevalent at contact. Fine grained, chloritic gabbro (chill margin) rapidly becoming medium to coarse grained with slightly more leucocratic composition (10% feldspars). Occasional quartz vein or stringer with minor Po and Py.					
	247.5-249.2 - broken core parallel to c/a with chloritic slickensides (Quartz veining with minor Po at 247.4 and 248.0).					
	257.4-258.8 - Fault zone at 65° to c/a - soft chloritic stringer with minor Py running parallel to c/a to 257.9, terminating at milky white and granular gouge material.					
	261.8-262.3 - THOMSONITE (?) forming within open fracture, tabular crystals, soft, vitreous to translucent, forming small globular clusters.					
	SAMPLE: 56362 261.8-262.3 m 0.5 m	313	2	45	0.1	1
	268.8-269.0 - Stringers at 55° to c/a - epidotized and silicious					
	270.7-271.8 - Broken and fractured core - highly mafic with chloritic fractured planes					
	271.9-272.7 - Quartz vein with minor carbonate veining slightly brecciated at 271.9					
	273.4-275.0 - Highly broken and rubbly core - very friable and chloritic					
	275.1-275.2 - Qtz/carbonate vein - 80° to c/a with Arsenopyrite & disseminated Py					
	SAMPLE: 56363 275.1-275.4 m 0.4 m As = 16182 ppm	175	6	67	1.6	565
						oz/t .017
	275.1-275.4 - at 275.3-274.4 - Arseno within silicious matrix					
	282.7-283.8 - Broken core with amorphous Py along fractured planes, minor quartz veinlets. Gabbro becoming medium-fine grained and quite mafic - 80-90% near contact ?					
	SAMPLE: 56364 291.3-291.7 m 0.4 m Minor Cpy and Po in Quartz Veining	217	4	63	0.1	1
	289.0-290.3 - Minor quartz veins approx. 50° to c/a. Occasional minor Po associated					
	290.3-291.7 - Broken and chloritized core with irregularly folded and contorted quartz veins - minor cpy and Po blebs.					
291.7m	END OF HOLE					

FOOTAGE FROM	TO	DESCRIPTION	ANALYSIS		
			Pt	Pd	Rh
		<u>ADDENDUM</u>			
		The following samples were assayed for ppb Platinum group elements.			
		SAMPLES: 56359	1	5	2
		56360	1	8	2
		56361	1	9	2
		56362	1	2	2
		56363	1	3	2
		56364	2	2	2



COMMENCED: November 20, 1989	DISTRICT: Fort Steele	COLLAR DIP: -90°	TESTS @: None
COMPLETED: November 25, 1989	PROPERTY: McNeil Creek	BEARING:	
LOGGED BY: P.M. Daignault	LOCATION:	LENGTH: 218.5 m	
DATE LOGGED: Nov. 1989 & Feb. 1990	CO-ORD.: 3604N, 3216E	CORE SIZE: HQ	
TARGET: UTEM Anomaly	ELEV.: 1706	% RECOVERY:	ppm except Au ppb

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
0.0-2.8m	CASING					
2.8-3.8m	GABBRO Fine grained.					
3.8-24.5m	SILTSTONE 3.8-5.6, thin bedded light-medium brown becoming slightly brownish gray towards 5.6 m. Bedding to c/a: 76°. 5.6, mainly medium-thick bedded sandy siltstone. Rip up clast at 7.2. At 9.0 m, possible sphalerite min. associated with thin 0.5-1.5 cm band with small (<2 mm) very pale pinkish white garnet. Sample: 56207 8.9-9.1 m 0.2 m Box 2 Several small (<0.5x0.1 cm) pebbles at 8.6, 11.7, 12.3, 17.9. Possible weak sphalerite min. on bedding plane at 15.2 with 1 cm below, a large (2x7 cm) well-rounded elliptical pebble. Sample: 56208 15.2-15.3 m 0.1 m Box 4 15.5-15.6, very thin bedded to laminated; bedding to c/a: 73°. 19.3-19.8, very thin bedded to laminated; bedding to c/a: 73°, with possible weak sphalerite min. on bedding plane at 19.4. Sample: 56210 19.4-19.5 m 0.1 m 20.4-20.8, large rip-up clast (?) of quartzite (dirty, mottled pale-medium greenish gray) with possible sphalerite min. Sample: 56209 20.4-20.8 m 0.4 m Box 6 Very thin-medium bedded from 21.1-24.5 with rip-up clasts at 21.9 m. Bedding to c/a: 70° at 21.8 m.	46	4	83	0.6	1
		29	4	43	0.1	1
		45	5	68	0.3	5
		14	10	66	0.7	3
24.5-34.3m	SILTSTONE Locally grading into very siliceous sections. Turbidite sequence with rip-up clasts, pebbles, slump structures, flame structure occ. occurring. Mainly medium bedded (?) (bedding frequently obscured) and locally short sections thin bedded to laminated. 24.5-27.8, mainly massive, siliceous, chloritized with locally boundinage pebbles, rip-up clasts. Bedding to c/a: 72° at 29.7 (laminated); 30.6-30.75, siliceous biotitic garnetiferous rip-up clast with Fe-oxide staining and possible trace sphalerite. Sample: 56211 30.6-30.8 m 0.2 m Box 9	142	39	203	0.8	11
34.3-40.4m	SILTSTONE Medium - medium-dark gray to slightly bluish gray, very thin to thin bedded. Occ. very weakly min. with very fine grained Po in darker, grayish-black sections. Bedding to c/a: 66° at 36.2; 68° at 37.4; 68° at 40.4.					
40.4-49.4m	SILTSTONE & QUARTZITE Mixed bag of siltstone, sandy siltstone, silicified siltstone and greenish-gray quartzite. Occ. minute fleck sphalerite on hair-line fractures. Bedding to c/a: 68° at 41.9; 60° at 43.6 (very thin bedded). Samples: 56212 44.8-45.8 m 1.0 m Box 14 56213 45.8-46.8 m 1.0 m Box 14 & 15 56214 46.8-47.9 m 1.1 m Box 15 56215 47.9-48.9 m 1.0 m Box 15 56216 48.9-49.9 m 1.0 m Box 15 & 16	6	12	28	0.4	1
		4	7	19	0.1	3
		5	8	21	0.4	4
		13	8	27	0.1	4
		18	7	46	0.1	2

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
49.4-58.8m	<p>SILTSTONE</p> <p>Medium gray very thin-medium bedded. Locally highly siliceous and grades into short intervals of medium gray glossy garnetiferous quartzites. Magnetite as small grains or smears on healed fractures occur between 49.5 &amp; 52.3; the fractures at 49.5 and 50.4 are approx. parallel to narrow pale yellowish chalcedony beds and at 50.4 a 1 cm calcite veinlet. Soft sediment deformation at 52.7-52.9. From 54.3-54.9, dark grayish-black siltstone with thin (<math>\leq 3</math> mm) white silica rich bands giving very thin to laminated sequence. From 54.4-54.8, strongly broken core. Very fine grained, weakly disseminated sphalerite observed between 54.3 &amp; 54.4 and 54.8 &amp; 54.9. At 56.0 a 2 cm grayish white quartz veinlet at <math>26^\circ</math> to c/a with trace amounts magnetic Pyrrhotite, cutting a chloritized quartzite, erratically distributed within 4cm of the quartz vein; the largest concentration is at H/W contact. 57.3-57.7, strongly oxidized earthy friable rock rubble with minor gouge like material; presumably a fault location. Bedding to c/a: <math>67^\circ</math> at 44.7; <math>56^\circ</math> at 49.7; <math>59^\circ</math> at 48.6; <math>63^\circ</math> at 51.0; <math>65^\circ</math> at 53.5; <math>65^\circ</math> at 54.9; <math>62^\circ</math> at 56.2 m.</p> <p>Samples: 56217 49.9-50.9 m 1.0 m Box 16  56218 50.9-51.9 m 1.0 m  56219 51.9-52.9 m 1.0 m  56220 52.9-53.9 m 1.0 m  56221 53.9-54.3 m 0.4 m  56222 54.3-54.9 m 0.6 m  56223 54.9-55.9 m 1.0 m Box 18</p>	16 3 22 73 17 20 8	10 15 23 24 26 16 22	51 49 90 84 90 101 83	0.4 0.3 0.3 0.4 0.3 0.3 0.6	6 3 7 2 5 2 6
58.8-69.5m	<p>SILTSTONE</p> <p>Sandy, siliceous, locally massive, locally weakly chloritic. 58.8-61.6, heavily broken to locally rubbly core with "talcose" type mineral smeared numerous fracture surfaces sub-parallel to c/a. A barren white quartz vein from 63.7-64.1 with contact at <math>35^\circ</math> to c/a at 63.7 m. Occ. thin (<math>\leq 1</math> dm) band, very thin bedded/laminated. At 69.5, a 1 dm bed, highly chloritic with occ. small garnet, minor Po, weak sphalerite mineralization and albitized contacts at <math>\sim 60^\circ</math> to c/a.</p> <p>Sample: 56512 69.5-69.7 m 0.2 m</p>	66	940	2812	2.1	1
69.5-77.1m	<p>SILTSTONE</p> <p>Mainly thin to very thin bedded. Bedding to c/a: <math>58^\circ</math> at 70.1; <math>65^\circ</math> at 71.7; <math>65^\circ</math> at 74.6; <math>61^\circ</math> at 76.3.</p>					
77.1-84.7m	<p>SILTSTONE</p> <p>Sandy, thick bedded, slightly chloritic with trace sphalerite in siliceous, chloritic garnetiferous siltstone at 78.2 &amp; trace Cpy, Po &amp; sphalerite in siliceous, chloritic &amp; weakly garnetiferous 1 dm zone at 80.2 m.</p> <p>Sample: 56513 78.1-78.4 m 0.3 m  56514 80.1-80.3 m 0.2 m</p> <p>Note: The Cpy, Po &amp; Sphalerite at 80.2 is along a siliceous fracture (0.1-2 mm thick at <math>\sim 22^\circ</math> to c/a). Locally very siliceous. "Talcose" alteration mineral on sub-parallel (<math>0-10^\circ</math>) to low angle (<math>10-20^\circ</math>) fractures throughout. Bedding to c/a: <math>58^\circ</math> at 81.3 m</p>	23 3	9 10	47 34	0.1 0.1	1 1
84.7-88.4m	<p>Very thin to thin bedded from 86.4-87.5, with minor medium bedding from 88.4-89.6, with minor medium bedding from 88.4-89.6. Bedding to c/a: <math>65^\circ</math> at 80.8 m.</p>					
88.4-93.9m	<p>QUARTZITE</p> <p>Pale - medium glossy gray with numerous chloritic fractures sub-parallel to c/a. Weakly min. with erratically distributed Py. Occ. fleck Po. Minor epidote (?) on occ. fracture. From 88.7-89.6, healed breccia with chlorite calcite and quartz matrix. Breccia zone is up to 2 cm wide.</p>					
93.9-100.3m	<p>SILTSTONE</p> <p>Sandy, medium to very thin bedded, weakly - moderately well chloritized. Fine chlorite &amp; occ. quartz filled fractures from sub-parallel to approx. <math>30^\circ</math> to the c/a. Occ. small concretion with minor small (<math>\leq 1</math> mm) garnet and secondary biotite developed.</p>					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
93.9-100.3m	cont'd Bedding to c/a: 68° at 98.2 m.					
100.3-101.5m	QUARTZITE Pale gray glossy highly fractured to becoming increasingly a refractured healed tectonic breccia with a strongly chloritic matrix.					
101.5-106.7m	FAULT ZONE Mainly barren white quartz with strongly chloritic veining. From 101.5-103.9; mainly rock rubble consisting of white quartz, pale gray glossy Quartzite fragments in a matrix of dark green chlorite. From 103.9-106.7. Mainly white barren quartz containing irregularly shaped xenoliths (?) of highly chloritized gabbro (?) and with strong chloritic fracturing (parallel to sub-parallel to c/a) throughout. The appearance of this Fault zone and the surrounding, altered sediments, suggests that the fault is the upper extension of a blind gabbro dyke.					
106.7-111.9m	SILTSTONE Chloritized, silicified (?), mainly medium bedded, locally sandy grading into quartzite. Minor quartz/calcite fracturing. Epidote on fractures from 110.9-111.9 and also as pervasive blotches through the rock.					
111.9-124.5m	SILTSTONE & QUARTZITE Siltstone medium greenish-gray, weakly chloritized, variably silicified, mainly thin bedded where bedding is not obscured. The Quartzite is usually pale-medium gray to medium slightly greenish gray, mainly semi-glossy to glossy, frequently strongly micro-fractured and with chloritized fractures. Blotch of epidote at 112.2 and approx. 1.5 dm epidote alteration at 112.8. Crushed rock approx. 114.0-114.8 and with Talcose mineral on fractures. Note: 115.4-116.8, pale gray glossy micro-fractured Quartz vein with trace Py min on occasional fracture. Occasional angular fragment of deep green (chloritized) silicified quartzite (?) included, mainly near contacts. Contacts are irregular and impossible to accurately determine angle of quartz veining to c/a. 115.8-116.1, broken rock rubble with minor gouge. Sample: 56515 110.9-111.9 m 1.0 m Box 36 56516 111.9-113.0 m 1.1 m Box 37 56517 113.0-114.0 m 1.0 m Box 37 56518 114.0-114.8 m 0.8 m Box 37 56519 114.8-115.4 m 0.6 m Box 38 56520 115.4-116.8 m 1.4 m Box 38 116.8-121.0; Siltstone, mainly thin bedded. Variably silicified. Weakly to moderately chloritized. Occasional small garnet. Large blotchy patches of albitized rock from 119.2-119.5. Last 5 dm heavily broken with minor gouge and moderate amount of 'talcose' mineral fracture coating. Bedding to c/a: 65° at 118.2. At 117.1 trace Cpy & Sphal. in a slightly chloritic and biotitic 2 x 5 mm elliptical blotch. Also Sphalerite occurring as rare 0.5 mm grain or as 0.5 x 4 mm rods. Sample: 56521 116.8-118.0 m 1.2 m Boxes 38 & 39 56522 118.0-119.5 m 1.5 m Box 39 56523 119.5-121.0 m 1.5 m Box 39 & 40 121.0-122.0, very pale gray Quartzite possibly with some quartz flooding. The central 0.4 m is strongly brecciated and fractured. Fractures and two or three healed shears (~10-15° to c/a) are strongly chloritic. Sample: 56524 121.0-122.0 m 1.0 m Box 40 122.0-124.5 mainly variably silicified siltstone with occasional narrow quartzitic zone. Well min Po, minor Py over ~2-3 cm in a strongly biotitic and chloritic matrix at approx. 121.3. At 121.3 and 121.6 pronounced epidote and minor albite alteration. Bedding to c/a 66° at 124.0. Sample: 56525 122.0-123.0 m 1.0 m 56526 123.0-124.5 m 1.5 m	6	7	25	0.1	5
		27	8	32	0.1	5
		8	7	68	0.1	1
		2	9	61	0.1	2
		2	7	57	0.1	4
		6	18	30	0.1	1
		15	16	75	0.2	3
		43	9	62	0.2	1
		5	12	59	0.2	1
		8	5	23	0.1	1
		14	12	61	0.1	1
		1	10	66	0.1	2

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
124.5-128.4m	<p><b>QUARTZITE</b> Pale gray to medium greenish gray (moderate-strongly chloritized) with occasional patch (<math>\leq 1</math> cm) epidotized. Locally well min Py &amp; Po on fractures parallel to sub parallel to the c/a. Occasional fracture with chloritic halo, followed outward by a narrow (<math>\leq 1</math> cm) albitized zone, "Talcose".</p> <p>Sample: 56527 124.5-126.0 m 1.5 m Box 41 56528 126.0-127.1 m 1.1 m Box 42 56529 127.1-128.4 m 1.3 m Box 42</p>	19	28	67	0.1	2
128.4-154.2m	<p><b>SILTSTONE</b> Thin bedded medium gray, locally slightly greenish gray (weakly chloritized) particularly in the first part of section. Talcose fractures at <math>\sim 10^\circ</math> to c/a. Occasional short (<math>\leq 1</math> cm) section that is mainly whitish (albitic ?) to pale gray to slightly greenish gray, minor Po, and mottled with frequently coalescing blebs of chlorite, with occasional small (<math>\leq 2</math> mm) garnet protogarnets. These are possibly concretionary zones, occasionally have a cross fracture very weakly min Sphalerite. Bedding to c/a: <math>60^\circ</math> at 134.0. Core locally sandy. Elliptical pebbles (<math>\sim 1 \times 2</math> cm) at 133.0 and 134.3.</p> <p>Samples: 56530 128.4-129.8 m 1.4 m Boxes 42 &amp; 43 56531 129.8-131.3 m 1.5 m Box 43 56532 131.3-132.8 m 1.5 m 56533 132.8-134.3 m 1.5 m 56534 134.3-135.8 m 1.5 m Box 45 56535 135.8-137.3 m 1.5 m 56536 137.3-138.8 m 1.5 m 56537 138.8-140.3 m 1.5 m Box 46 56538 140.3-141.8 m 1.5 m 56539 141.8-143.3 m 1.5 m 56540 143.3-144.8 m 1.5 m 56541 144.8-145.4 m 0.6 m</p> <p>Silty talcose broken rock or rubble at 139.3-139.6, 140.8-141.7, 143.6-144.0, 146.3-149.4 with <math>\sim 10</math> cm pasty slightly greenish pale gray gouge at 149.4-149.5 which is possibly parallel to bedding. Fractures presumed to be dipping as follows: <math>70^\circ</math> W at 131.1 m (chloritic fracture); <math>65^\circ</math> W at 136.9 m (joint ?); <math>67^\circ</math> W at 144.8 (fracture along 1-2 mm quartz veinlet). Bedding to c/a: <math>67^\circ</math> at 137.9; <math>61^\circ</math> at 142.3; <math>60^\circ</math> at 144.0; <math>63^\circ</math> 150.0.</p>	1	12	62	0.4	1
		11	15	53	0.1	4
		4	14	57	0.1	4
		35	13	97	0.1	2
		55	10	55	0.1	5
		13	14	105	0.2	4
		2	10	120	0.1	6
		9	21	83	0.1	5
		7	9	95	0.1	6
		56	10	61	0.2	4
		16	11	54	0.1	6
		58	41	132	7.1	1
154.2-171.9m	<p><b>SILTSTONE</b> Medium - medium dark gray. Mainly thin bedded. Tends to be very fine grained sandy siltstone in the upper part of the section. Less alteration than previous section with fewer 'talcose' fractures locally weakly chloritized, very occasional small (<math>\leq 1</math> mm) garnet. Occasional minor scour and cross-bedding. Core is moderately broken. Occasional thin (<math>\leq 2</math> mm) quartz/calcite fracture. Bedding to c/a: <math>59^\circ</math> at 157.0 (laminated); <math>56^\circ</math> at 160.0 (laminated); <math>53^\circ</math> at 163.1 (very thin bedded); <math>52^\circ</math> at 171.0 (medium bedded).</p>					
171.9-175.3m	<p><b>SILTSTONE</b> Mainly thin bedded/laminated pale-medium gray, locally slightly greenish gray (weakly chloritized). Occasional 'talcose' fracture sub-parallel to c/a. Lenticular (0.5 x 2 cm) pale gray quartzite pebble, parallel to bedding at 174.4. Bedding to c/a: <math>55^\circ</math> at 172.7; <math>53^\circ</math> at 175.2.</p>					
175.3-194.8m	<p><b>QUARTZITE AND SILTSTONE</b> Generally weakly chloritized and with chloritic fractures. Variably silicified. Occasional bleb albite. Quartzites pale-medium gray, vaguely bedded to massive. Siltstones mainly medium dark to dark gray and thin bedded. At 180.6-180.7 laminated, strongly chloritized, siltstone, with trace fine grained Sphalerite observed on two bedding planes; an approx. 2-3 cm thick horizon is strongly albitized. Bedding to c/a: <math>54^\circ</math> at 180.4; <math>52^\circ</math> at 184.1; <math>45^\circ</math> at 192.0; <math>45^\circ</math> at 195.1.</p>					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
194.8-198.4m	<p><b>SILTSTONE</b></p> <p>Medium to medium dark greenish gray, chloritized, strongly silicified and micro fractured from 197.2. 1 cm barren slightly bluish white quartz veins in rubble at 195.4, and also at 195.6 at ~47° to c/a. Dirty green to greenish yellow irregular chl-stained calcite veining at ~195.3 and a planar greenish-yellow calcite veinlet (0.1-1.0 cm) at 195.5 at 55° to c/a. Core is strongly broken to rubbly from 195.9-197.6 with 2.5 cm granular gouge at 197.1 at 39° to c/a. Bedding to c/a: 42° at 195.0; 45° at 195.8. Up to 1-2 mm wide discontinuous Po clots with minor Cpy on fractures at 197.9. Minor Quartz veining along fine fractures from 197.9 to 198.4.</p>					
198.4-198.9m	<p><b>QUARTZ VEIN</b></p> <p>Mineralized with Po and minor Cpy. The central core of the vein consists of heavy (10-15%) Po min. with minor Cpy (&lt;1%) in a chloritic quartz gangue. The central core is bounded on either side by approx. 5-10 cm barren white quartz. The H/W of the vein is about 1 cm of quartz veined highly chloritized siltstone (?) and the F/W is approx. 5 cm of chlorite and calcite weakly min. Po and trace Cpy. Fine, hair-line, calcite coated fractures parallel the c/a through the Quartz vein.</p> <p>The Quartz vein appears to be conformable with the enclosing sediments. Bedding to c/a 54° at 198.95; 60° at 199.0.</p> <p>Samples: 56224 197.2-197.9 m 0.7 m</p> <p>56225 197.9-198.4 m 0.5 m</p> <p>56226 198.4-198.9 m 0.5 m</p> <p>56227 198.9-199.1 m 0.2 m</p>	39	38	107	0.6	4
		36	43	82	0.4	5
		1950	17	74	0.9	17
		104	22	51	0.6	4
198.9-201.6m	<p><b>SILTSTONE</b></p> <p>Medium gray to medium dark gray, locally slightly greenish weakly chloritized, silicified Very fine irregular hair-line fractures common occ with extremely thin calcite fill. Also narrow quartz/calcite veinlets and quartz veinlets as irregular "sweats" on fractures or parallel to bedding (?) No mineralization other than secondary Py on occasional fracture surface. Siltstone mainly thin-bedded. Bedding to c/a: 67° at 199.7; 58° at 201.5; 63° at 200.7.</p> <p>Samples: 56228 199.1-199.6 m 0.5 m</p> <p>56229 199.6-200.6 m 1.0 m</p> <p>56230 200.6-201.6 m 1.0 m Box 68</p>	54	23	50	0.9	6
		13	18	93	1.1	7
		51	19	108	0.8	1
201.6-218.5m	<p><b>GABBRO</b></p> <p>201.6-202.7; medium gray to medium dark greenish gray. Fine grained with ~5% quartz. Occasional Quartz &amp; quartz/calcite veining with coarse grained Galena associated with the quartz/calcite veining at 202.1 and 202.3.</p> <p>Samples: 56231 201.6-202.1 m 0.5 m</p> <p>56232 202.1-202.4 m 0.3 m</p> <p>56233 202.4-202.7 m 0.3 m</p> <p>202.7-218.5; medium-coarse grained greenish gray gabbro with occasional narrow (&lt;3 cm) barren white quartz vein.</p>	72	26	134	0.3	3
		79	26	157	0.4	1
		147	113	246	0.1	9
218.5m	<p>END OF HOLE AT 218.5 m (717')</p> <p style="text-align: center;"><u>ADDENDUM</u></p> <p>The following samples were also assayed (ppb) for Platinum Group elements.</p> <p>Samples: 56533</p> <p>56534</p> <p>56535</p> <p>56536</p> <p>56537</p> <p>56538</p> <p>56539</p> <p>56540</p> <p>56541</p>	Pt	Pd	Rh		
		1	7	2		
		1	8	2		
		5	4	2		
		2	4	2		
		1	6	2		
		4	8	2		
		4	5	2		
		3	6	2		
		1	6	2		

COMMENCED: November 26, 1989      DISTRICT: Fort Steele      COLLAR DIP: -45°      TESTS @: None  
 COMPLETED: November 28, 1989      PROPERTY: McNeil Creek      BEARING: 270°  
 LOGGED BY: P.M. Daignault      LOCATION:      LENGTH: 89.0 m  
 DATE LOGGED: Nov. 1989 & Feb. 1990      CO-ORD.: 4859N & 3393E      CORE SIZE: HQ  
 TARGET: HLEM Anomaly      ELEV.: 1479 m      % RECOVERY:      ppm except Au ppb

FOOTAGE FROM TO	DESCRIPTION	ANAL				
		Cu	Pb	Zn	Ag	Au
0.0-18.2m	CASED OVERBURDEN					
18.2-25.0m	SILTSTONE Thin bedded to laminated. Strongly oxidized to weakly oxidized at 25.0 m. Core well broken to locally rubbly. Fault gouge (4-5 cm ?) at ~24.4. Quartzite from 24.4-25.0. Bedding to c/a: 62° to 21.3.					
25.0-30.2m	SILTSTONE Mainly thin bedded to laminated with local short sections of medium gray massive siliceous sandy siltstones. Occasional laminated bed slightly rusty in appearance due to surface oxidation of fine grained secondary biotite. Locally very weakly chloritic. Bedding to c/a: 52° at 27.1; 59° at 30.0.					
30.2-43.7m	QUARTZITE & SILICIFIED SANDY SILTSTONE Generally massive; numerous fine (<2 mm) talcose fractures. Locally very weakly chloritic					
43.7-45.3m	QUARTZITE Pale gray moderately-strongly chloritized, massive. Strongly broken core. Weakly to moderately stained with Fe-oxides on fractures. Contact with gabbro not clear; possibly ~35° to c/a.					
45.3-82.9m	GABBRO 45.3-48.6: mainly very fine grained, medium greenish gray. 48.6-51.7; medium grained, medium greenish gray. 51.7-52.6; massive Po (70-75%) with gray quartz (20-25%), frequently as elliptical "eyes"; minor Py and Cpy, particularly near contacts and some Sphalerite. HW & FW contacts are approximately 28-30° to c/a. 52.6-75.5; medium grained becoming progressively coarser grained; very coarse grained at 62.0-75.5. Occasional barren, white, thin quartz veinlet and occasional fracture mineralized with Po.					
	Samples: 45163 43.3-44.3 m 1.0 m	39	15	93	0.1	3
	45164 44.3-45.3 m 1.0 m	84	9	438	0.1	1
	56234 45.3-46.8 m 1.5 m Box 10	41	15	313	0.1	1
	56235 46.8-48.3 m 1.5 m	29	13	547	0.2	2
	56236 48.3-49.8 m 1.5 m	88	21	883	0.1	2
	56237 49.8-51.3 m 1.5 m	107	27	822	0.1	3
	56238 51.3-51.7 m 0.4 m	218	23	349	0.1	3
	56239 51.7-52.6 m 0.9 m	7487	185	1123	3.2	3779
	56239R 51.7-52.6 m: Au (2096 ppb); Pt (6 ppb); Pd (44 ppb); Rh (2 ppb)					
	56239 Assay: Cu (0.78%); Au (0.082 oz/t)					
	56240 52.6-54.0 m 1.4 m	144	16	675	0.1	11
	56242 54.0-55.5 m 1.5 m Box 13	31	15	415	0.1	19
	56243 55.5-57.0 m 1.5 m	34	13	257	0.1	7
	45165 57.0-58.5 m 1.5 m	21	7	370	0.1	2
	45166 58.5-60.0 m 1.5 m	8	10	202	0.3	2
	45167 60.0-61.5 m 1.5 m	11	7	385	0.2	1
	45168 61.5-63.0 m 1.5 m	5	7	134	0.1	1
	45169 63.0-64.5 m 1.5 m	14	9	111	0.2	2
	45170 64.5-66.0 m 1.5 m	17	10	73	0.1	2
	45171 66.0-67.5 m 1.5 m	55	11	175	0.1	2
	45172 67.5-69.0 m 1.5 m	82	8	166	0.2	2

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
45.3-82.9m	cont'd					
	45173 69.0-70.5 m 1.5 m	56	15	207	0.1	1
	45174 70.5-72.0 m 1.5 m	243	14	1255	0.5	2
	45175 72.0-73.5 m 1.5 m	312	3	199	0.4	1
	45176 73.5-74.5 m 1.0 m	228	16	83	0.2	1
	45177 74.5-75.3 m 0.8 m	161	11	185	0.2	1
	Shear from 75.3-76.0 with quartz filled chloritized contacts heavily Fe-oxide stained; fracture sub-parallel to core; well min. Po, Py with occasional fleck of Cpy observed about 2 cm into HW contact. Po filled fracture at 78.3 m. From 79.2-80.6 a fracture, sub-parallel to c/a with quartz and Po fill and occasional fleck Cpy.					
	75.5-82.2; gabbro is medium grained.					
	82.2-82.9; healed shear with barren white quartz and included fragments of chloritized gabbro. Shearing at 5-10° to c/a.					
	Samples: 56558 75.3-76.0 m 0.7 m	1354	3	1765	1.0	11
	56244 76.0-77.0 m 1.0 m	845	2	866	0.6	6
	56245 77.0-78.0 m 1.0 m	405	5	88	0.5	4
	56246 78.0-78.5 m 0.5 m	656	12	88	0.6	13
	56247 78.5-79.2 m 0.7 m	270	12	70	0.3	1
	56248 79.2-79.9 m 0.7 m	1473	5	158	1.0	9
	56249 79.9-80.6 m 0.7 m	1989	3	412	0.8	11
	56250 80.6-81.6 m 1.0 m	422	12	298	0.7	7
	56551 81.6-82.1 m 0.5 m	78	9	208	0.8	10
	56552 82.1-82.9 m 0.8 m	258	2	207	0.5	230
82.9-83.3m	QUARTZ VEIN					
	Pale, slightly bluish gray quartz rubble with weak Fe-oxide staining. Lower contact at ~5-10° to c/a. Coarse grained Py at upper contact.					
	Sample: 56553 82.9-83.3 m 0.4 m	12	3	299	0.2	16
83.3-89.0m	GABBRO					
	Medium dark grayish green with fine grained, very dark greenish black phase between 84.5-85.0. 85.6-85.9 is silicified coarse green gabbro. Quartz/chlorite veining between 86.5-87.9.					
	Samples: 56554 83.3-84.8 m 1.5 m	41	3	793	0.6	22
	56555 84.8-86.5 m 1.7 m	68	5	763	0.7	3
	56556 86.5-87.9 m 1.4 m	646	8	1501	0.8	5
	56557 87.9-89.0 m 1.1 m	216	3	560	0.7	5
89.0m	END OF HOLE AT 89.0 (292')					

Note: The Pb/Ag ratio (~8:1) between 75.3-89.0 metres is unusually low.

COMMENCED: November 28, 1989	DISTRICT: Fort Steele	COLLAR DIP: -65°	TESTS @:
COMPLETED: December 1, 1989	PROPERTY: McNeil Creek	BEARING: 270°	
LOGGED BY: M.J. Cook	LOCATION:	LENGTH: 153.3 m	
DATE LOGGED: March 1, 1990	CO-ORD.:	CORE SIZE:	
TARGET: Test Geochem & HLEM Anomaly	ELEV.: 1480 m	% RECOVERY:	ppm except Au ppb

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
0.0-5.6m	OVERBURDEN					
5.6-21.8m	SILTSTONE/QUARTZITE Fine to medium grained siltstone pervasive with occasional silicious zones and thin/medium beds of quartzites. Very weathered, fractured and faulted with hematite staining predominant (minor manganese staining on fractures). 5.6-10.0 m Fault zone - very fractured and broken core - friable. 10.0-11.1 m Sandy siltstones with abundant fractures and hematite staining. Occasional friable or faulted section - calcitic (?) 11.1-12.7 m Very broken rubbly core, green-brown gouge material. 12.7-13.2 m Abundant calcite veinlets. 14.2-14.3 m Greenish brown gouge material - fault. 14.3-16.5 m Quartzite - fine grained with minor healed fractures & abundant open fractures 18.0-19.9 m Very broken & rubbly core - very soft with manganese staining on fractures. 18.6-20.7 m Core has greenish tinge (highly chloritized) and very friable with hematite and manganese staining on abundant fractures. 20.9 m Bedded siltstone containing rounded, rip up clasts - bedding at 70° to c/a becoming more massive and less fractured.					
21.8-35.5m	QUARTZITE Massive, medium grained, light to dark grays with abundant light green bleaching. 27.3 m Whitish gouge 30.1-30.5 m Quartz/calcite veinlets with highly bleached section - light green bleaching generally in patches or associated with healed fractures.					
35.5-38.8m	ALTERED QUARTZITES White "sugary" quartzite with chloritized sections; spotty chlorite forming along fractures with occasional massive "patch". Biotization common (disseminated biotite throughout) with calcite veinlets and healed fractures throughout - occasional calcite on open fractures. SAMPLES: 56375 34.5-36.0 m 1.5 m 56376 36.0-37.5 m 1.5 m 56377 37.5-38.9 m 1.4 m	38 70 29	23 25 23	93 119 111	0.1 0.1 0.1	4 3 16
38.8-153.3m	GABBRO Contact is very fine grained and quite chloritic with Fe-staining along healed fractures. 39.6-40.8 m Quartz vein parallel to c/a - slightly hematitic terminating at chloritic fractures with abundant hematite staining and healed fractures. 30° to c/a. SAMPLE: 56379 39.6-40.8 m 1.2 m 41.1-41.8 m Silicified and altered unit - occasional massive Po blebs with associated pyrite and minor cpy. SAMPLE: 56378 41.0-41.8 m 0.8 m 41.8-44.3 m Silicified and altered unit - quartz occurring parallel to c/a with minor cpy, Fe-staining and interstitial chlorite. Biotite alteration adjacent to silicification - interstitial py with chlorite and light colored alteration mineral with perfect cleavage and soft (muscovite ?) SAMPLES: 56380 41.8-42.4 m 0.6 m 56381 42.4-43.3 m 0.9 m 56382 43.3-43.8 m 0.5 m	896 1253 709 1930 1748	20 30 25 22 20	191 284 191 180 199	1.1 1.0 1.1 2.0 1.9	25 44 8 11 11



FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
38.8-153.3m	cont'd Calculated Average: 41.0-43.8 m 2.8 m	1518	22	188	1.7	10
45.5-45.8 m	Silicious finer grained unit approximately 60° to c/a.					
48.1-51.7 m	Fine grained with occasional quartz vein or stringer (50.6) po blebs with minor py within silicified section.					
	SAMPLE: 56383 50.5-50.7 m 0.2 m	148	13	123	0.7	1
51.0-51.3 m	Qtz/calcite veining from 30-50° to c/a. Very chloritic & slightly brecciated.					
	SAMPLES: 56384 51.0-51.3 m 0.3 m	85	26	204	1.1	1
	56385 51.5-52.1 m 0.6 m Abundant quartz veinlets.	16	32	68	0.2	3
54.4-57.2 m	Finer grained altered unit with quartz vein parallel to c/a. Chlorite adjacent to quartz vein. biotite altered section with 10% blebby pyrite - associated chlorite.					
	SAMPLES: 56386 54.8-55.3 m 0.5 m	55	18	87	0.3	2
	56387 55.3-55.9 m 0.6 m	47	24	162	0.3	4
	56388 55.9-56.9 m 1.0 m	444	32	119	0.7	3
62.5-62.8 m	Becoming fine grained, highly mafic and silicious with disseminated py & po.					
64.0-65.0 m	Occasional light grained silicious veinlet trending approximately 30° to c/a with minor po and hematite associated.					
	SAMPLES: 56389 64.0-64.5 m 0.5 m	505	30	182	0.5	4
	56390 64.5-65.0 m 0.5 m	426	17	90	0.6	3
55.4-55.8 m	Quartz vein - abundant po within healed fractures. Vein parallel to c/a.					
	SAMPLE: 56391 55.4-55.8 m 0.4 m	984	13	70	0.7	7
55.8-56.7 m	Silicified biotite rich gabbro with instant po and po blebs occurring within healed fractures.					
	SAMPLE: 56392 55.8-56.7 m 0.9 m	838	17	93	0.7	3
71.1-72.6 m	Quartz vein - abundant po with occasional cpy - usually occasional within healed fractures. Occurring parallel to c/a and associated with biotite-rich fine grained "lamprophyre-like" gabbro.					
	SAMPLES: 56393 71.1-71.6 m 0.5 m	312	4	111	0.4	1
	56394 71.6-72.1 m 0.5 m	1450	3	94	0.7	1
	56395 72.1-72.6 m 0.5 m	1012	2	108	0.6	1
	Calculated Average 71.6-72.6 m 1.0 m	1231	3	101	0.7	1
72.6-73.8 m	Biotite rich (35%) gabbro - fine grained highly mafic, altered. "Lamprophyre-like" (?) Amorphous py along fracture planes.					
	SAMPLE: 45178 72.6-73.8 m 1.2 m	633	18	195	1.2	5
75.8-76.4 m	Quartz vein with associated silicious and chloritically altered zone. Po and minor cpy associated with more silicious section. More mafic areas slightly magnetic.					
	SAMPLE: 56396 75.8-76.4 m 0.6 m	1063	19	106	0.7	3
77.3-78.4 m	Quartz vein sub parallel to c/a with disseminated po throughout and minor cpy at 78.4 m.					
	SAMPLES: 56397 77.3-77.7 m 0.4 m	52	12	163	0.3	1
	56398 77.7-78.4 m 0.7 m	299	8	84	0.2	1
78.4-99.2 m	Gabbro becoming massive, medium grained, very low in silica and slightly chloritic, occasional quartz/calcite veinlet within healed fractures with associated po.					
99.2-100.5 m	Quartz vein with resilicified light green bleached gouge, minor po and cpy throughout.					
	SAMPLES: 56399 99.2-100.0 m 0.8 m	50	6	50	0.1	1
	56400 100.0-100.5 m 0.5 m	53	5	63	0.2	1
101.0 m	Amorphous py along numerous open fractures.					
102.1-102.5 m	Quartz vein with associated po with numerous cross cutting calcite veinlets					
	SAMPLE: 45179 102.1-102.5 m 0.4 m	158	4	52	0.2	2
102.8-103.2 m	Quartz veinlets with minor po at 20° to c/a					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
	cont'd					
	SAMPLE: 45180 102.8-103.2 m 0.4 m Fine grained, chlorite/hornblende rich gabbro with occasional silicious or calcite veinlet to 116.1 m.	37	6	68	0.1	1
	116.1 m -EOH Medium grained gabbro with abundant feldspar.					
	SAMPLES: 45181 119.6-119.75 m 0.15 m Quartz fragments within chlorite matrix.	22	3	50	0.1	1
	45182 119.3-119.9 m 0.6 m Silicious, minor quartz veining.	50	4	65	0.2	1
	114.9-121.2 m Silicious, altered section with quartz veinlet parallel to c/a with associated py accumulations.					
	SAMPLES: 45183 119.9-120.6 m 0.7 m	136	5	55	0.1	1
	45184 120.6-121.2 m 0.6 m	87	2	35	0.1	1
	127.3-127.6 m Stringer fracture at 10° to c/a containing calcite and amorphous py.					
	128.0-129.2 m FAULT ZONE - strongly chloritized and sheared with pale green gouge material weakly magnetic, minor calcite on open fractures and minor py within healed fractures.					
	SAMPLES: 45185 128.0-128.6 m 0.6 m	9	10	39	0.1	2
	45186 128.6-129.2 m 0.6 m	17	10	40	0.1	1
	129.6-130.1 m Quartz vein - with dark to black, fine grained chlorite stringers.					
	SAMPLE: 45187 129.6-130.1 m 0.5 m	8	6	36	0.1	1
	141.2-141.5 m Silicification - mildly fractured with light green bleaching (sericite or epidote alteration ?) Definite contacts approximately 25° to c/a.					
	144.7-145.2 m Altered section - feldspars altered to a creamy yellow color (sericite ?) with numerous creamy colored, silicious veinlets trending approximately 40° to c/a.					
	145.2-153.3 m Medium grained, gabbro with approximately 20% feldspars & 80% mafic minerals					
153.3m	END OF HOLE					

COMMENCED: December 1, 1989	DISTRICT: Fort Steele	COLLAR DIP: -45°	TESTS @: None
COMPLETED: December 3, 1989	PROPERTY: McNeil Creek	BEARING: 270°	
LOGGED BY: MJ Cook	LOCATION:	LENGTH: 120.4 m	
DATE LOGGED: February 23, 1990	CO-ORD.: 4930N, 3465E	CORE SIZE: HQ	
TARGET: Geochem & HLEM Anomaly	ELEV.: 1465	% RECOVERY:	ppm except Au ppb

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
0.0-12.2m	OVERBURDEN					
12.2-12.5m	FAULT Light brown gouge - very friable with slight Fe staining.					
12.5-20.4m	SILTSTONE Highly weathered, fractured and faulted with considerable Fe staining on fractures - very chloritic. Fine grained, dirty brown to medium grays, massive, (no bedding visible). Reddish brown fault gouge at 15.0 & 15.4. 18.7-26.7 m Very broken and fractured core - chloritized with occasional silicified zone and abundant gouge material. Occasional section very friable, medium gray with disseminated biotite.					
20.4-27.0m	QUARTZITE Becoming more competent yet highly fractured with numerous healed fractures - manganese and Fe staining pervasive on open fractures. Occasional calcite infilling on open fractures. Medium gray to slight green tinge (chloritic) fine grained, and massive with occasional siltstone sections. 23.8 m White angular quartz fragments (5 cm) with abundant healed fractures. 24.7-25.1 m Quartz vein (3 cm) - approximately sub-parallel to c/a. Numerous healed fractures, and abundant chlorite developing along contact. 25.3 m Abundant amorphous Py along fracture planes.					
27.0-61.2m	QUARTZITE/SILTSTONE Massive, medium grained, light gray to blue gray with occasional narrow bed of siltstone Siltstones usually thin laminated with wispy rip up clast common. Fracturing throughout. 27.8-32.1 m Very fractured with abundant reddish brown gouge material present. Fault gouge at 40° to c/a at lower contact. 33.1 Fine grained chlorite alteration - hematite staining pervasive. 35.6 Bedding planes at 70° to c/a. 35.7-36.4 m Calcite infilling within healed fractures. 38.3 m Chloritized section weakly fragmented by calcite veinlets 40.2-40.9 m Core very broken and fractured with calcite on fracture planes - fault (?) 41.0-42.2 m Chloritized with calcite along vague bedding planes. 43.1-47.4 m Broken and fractured core with occasional chlorite rich concretion. Calcite healed fractures throughout. 48.6 m Minor gouge - calcite. 51.5-52.1 m Silicification - blue gray quartzite with white bleached healed fractures. 53.9 m Brecciated concretion - angular chloritic fragments with minor garnet alteration. 56.7-57.3 m Silicious with vague smokey gray quartz stringers and weakly chloritized. 57.8-61.2 m Abundant calcite stringers in random patterns but generally at 45° to c/a. 60.4-61.2 m Mildly bleached and altered - chloritized (soft)					
61.2-61.8m	FAULT At contact of Gabbro sill. Very chloritized gouge material with rounded quartz/calcite blebs. Very soft and friable. Contacts at 50° to c/a.					
61.8-64.1m	GABBRO Fine grained chill margins, approximate to each contact. Medium grained slightly chloritized dyke with occasional calcite stringers.					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
64.1-80.1m	<p>QUARTZITE</p> <p>Generally massive with occasional banding. Fine to medium grained, medium grays.</p> <p>66.0-66.6 m Fine, biotite - rich laminations at 55° to c/a.</p> <p>68.8-68.9 m Lamprophyre dyke (2 cm) dissecting bedding @ 25° to c/a - minor pyrite</p> <p>SAMPLES: 56368 68.8-68.9 m 0.1 m</p> <p>56369 69.6-70.0 m 0.4 m</p> <p>69.6-70.0 m Lamprophyre dyke (1.5 cm) with silicious fragments. Numerous calcite veinlets perpendicular to dyke.</p> <p>73.4-73.6 m Quartz vein.</p> <p>74.3-78.6 m Mottled due to biotite clots probably formed during emplacement of sill.</p> <p>75.7-75.9 m Quartz vein - chloritic and biotite rich contacts - minor Py.</p> <p>79.6-80.1 m Fractured and re-silicified contact - chloritic contact approximately 90° to c/a.</p> <p>SAMPLES: 56370 75.7-75.9 m 0.2 m</p> <p>56371 79.6-80.1 m 0.5 m</p>	3	18	281	0.4	1
		15	21	235	0.2	1
80.1-120.4m	<p>GABBRO</p> <p>Medium to coarse grained, 80% mafic minerals, 20% silica or feldspars. Fine grained chill margin at upper contact.</p> <p>87.0-87.9 m Numerous quartz veinlets and stringers, white to dull green in color. Becoming coarse grained with occasional calcite veinlet and chloritic fracture</p> <p>100.4 m Disseminated Po blebs</p> <p>100.6 m Minor Po within silicious veinlet</p> <p>105.4 m Disseminated Po at 106.2</p> <p>108.8-110.3 m FAULT ZONE - Fractured with euhedral Py crystals. Very chloritic - lower contact at 40° to c/a. Minor calcite veining.</p> <p>110.3 m End of hole - Fine grained and chloritic near faulting becoming more leucocratic with fine to medium grained sized quartz/feldspar phenocrysts. Occasional quartz/calcite veinlets.</p> <p>SAMPLES: 56372 111.5-111.6 m 0.1 m</p> <p>56373 100.1-100.2 m 0.1 m</p> <p>56374 86.3-88.2 m 1.9 m</p>	9	14	105	0.1	1
		143	20	68	0.2	1
120.4m	END OF HOLE					

COMMENCED: December 3, 1989	DISTRICT:	COLLAR DIP: -45°	TESTS @: None
COMPLETED: December 5, 1989	PROPERTY: McNeil Creek	BEARING: 11°	
LOGGED BY: M.J. Cook	LOCATION:	LENGTH: 110.6 m	
DATE LOGGED: February 20/90	CO-ORD.: 3684N, 3486E	CORE SIZE: HQ	
TARGET: NLEM Anomaly	ELEV.: 1650 m	% RECOVERY:	ppm except Au ppb

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
0.0-4.6m	CASING					
4.6-20.8m	<p>QUARTZITES</p> <p>Medium grained to sandy texture mottled appearance with light and dark grays abundant limonite staining associated with healed fractures and bedding planes.</p> <p>Manganese staining on open fractures.</p> <p>5.1-5.5 m Altered and broken section - silicified with garnet alteration present. Occasional dendritic manganese along bedding planes.</p> <p>9.8-10.0 m Broken quartz vein - smoky gray to white; barren - bedding planes at 50° to c/a</p> <p>19.8-20.0 m Concretion (?) - very siliceous and broken with minor sulphides and Fe staining along fractures.</p>					
20.8-35.0m	<p>SILTSTONES/QUARTZITES</p> <p>Alternating - Quartzites pervasive. Siltstone-fine to medium laminated, light grays, fine to medium grained with occasional rip up clast. Quartzite - sandy texture, medium gray</p> <p>Weak limonite staining throughout. Faulting and broken core common.</p> <p>24.8-25.0 m Weak fault, calcite infilling and brown gouge material</p> <p>26.4-28.2 m Fault zone - very broken and fractured core. Quartz, calcite and manganese staining present.</p> <p>28.6-28.8 m Quartz vein - minor sulphides.</p> <p>29.5 m Quartz vein - biotite at contact.</p> <p>30.6-35.0 m Sandy quartzites with abundant fractures and limonite staining throughout.</p>					
35.0-35.9m	<p>BLEACHED SILTSTONE</p> <p>(Due to faulting), broken and fractured core with manganese staining on fractures.</p> <p>35.6 m Fe-stained gouge material conformable to bedding at 45° to c/a.</p> <p>35.7-35.9 m hematite stained beds with rip up clasts abundant.</p>					
35.9-56.5m	<p>SILTSTONE</p> <p>Medium to dark gray, fine grained, generally quite siliceous. Massive with occasional vague bedding planes at 35° to c/a. Occasional silicified or altered zone with associated light green bleaching and healed fractures.</p> <p>39.5-41.4 m Fault zone - badly broken core</p> <p>41.4-42.3 m Siliceous, with numerous hematitic healed fractures. Pseudo brecciated and Fe stained at contact to fault zone.</p> <p>SAMPLE: 56366 41.4-42.3 m 0.9 m</p> <p>43.2-45.0 m Siliceous Siltstone (massive) with numerous bleached healed fractures perpendicular and parallel to bedding. Biotite/chlorite rich concretion at 45.0. Broken or fractured core common - healed fracture offsetting bedding by 3 cm at 50.2.</p> <p>55.8 m Bedding at 40° to c/a.</p>	3	11	41	0.1	3
56.5-61.8m	<p>QUARTZITE</p> <p>Gradational contact. Medium gray, medium grained with occasional blotchy appearance. Occasional garnet alteration and siliceous healed fractures sub-parallel to c/a with light green bleaching prevalent.</p>					
61.8-77.0m	<p>SILTSTONE/QUARTZITE</p> <p>Grading from massive fine grained siltstone to finely laminated siltstone with occasional narrow bed of quartzite and/or siliceous siltstone. Light to medium grays, occasional dark green section with associated garnet alteration.</p>					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
61.8-77.0m	cont'd 63.5 m Weak fault at 35° to c/a - minor light brown gouge material. 64.9 m Minor Fe staining along bedding plane 72.5 m Crosscutting veinlet perpendicular to graded bedding - siliceous with minor Py. 74.3-75.4 m Quartz veinlets cross cutting bedding SAMPLE: 56367 74.3-75.4 m 1.1 m	1	8	89	0.2	3
77.0-80.5m	<b>FRACTURE ZONE</b> Contact marked by siliceous band approximately 0-5 cm. Minor Po at 48° to c/a - Bedding at 30° to c/a. 77.0-77.4 m Brecciated - chloritized and silicified with development at irregular clast of porphyroblastic pink garnet. Minor Cpy and patches of Po (2x4 cm) 77.4-78.4 m Silicified and chloritized siltstone, minor Po, Cpy and trace of Py present 79.5-80.5 m <b>MINERALIZED ZONE</b> - coarse grained. Galena and associated Sphalerite with minor Py and Po in a matrix of quartz, chlorite, brecciated siltstone and garnet porphyroblasts. Galena and Sphalerite seemingly vein or stringer type mineralization associated with silicification. Upper contact at 33° to c/a associated with silicification and brecciation. SAMPLES: 56559 76.5-77.0 m 0.5 m 56560 77.0-77.4 m 0.4 m 56561 77.4-78.5 m 1.1 m 56562 78.5-79.6 m 1.1 m 56563 79.6-80.3 m 0.7 m 56564 80.3-80.5 m 0.2 m Sample #56563 (Pb) 13.99% (Zn) 2.11% (Ag) 4.02 oz/ton	72 775 417 59 1582 111	22 12 24 61 18396 44	109 122 57 57 20673 88	0.2 0.6 0.1 0.1 141. 0.2	1 4 1 1 18 1
80.5-85.1m	<b>QUARTZITE</b> Medium gray, medium grained with occasional white quartz vein with associated Po, pseudo brecciated and faulted - core fairly broken. Fault at 83.2-83.8 with chloritic gouge. 84.4-84.7 m Slightly brecciated with minor Fe staining along fractures. 85.2-86.7 m Fault - broken and rubbly core - minor Fe staining on fracture planes.					
85.1-104.3m	<b>SILTSTONE</b> Fairly siliceous, fine grained, light gray with abundant quartz veinlets or stringers generally massive with occasional vague bedding planes at 40° to c/a. 91.2-92.0 m Fault - broken rubble with chloritic gouge. 92.4-94.3 m Silicified section - brecciated with siliceous fragments. 96.7-97.0 m White silicified band with chloritic healed fractures. 98.0-98.5 m As above with slightly open micro fractures at 20° to c/a. Bedding angles at 40° to c/a with occasional rip up clast and crenelation.					
104.3-110.6m	<b>QUARTZITE</b> Massive with thinly laminated section - medium gray and medium grained. Bedded section slightly chloritic with bedding planes at 40° to c/a. Becoming massive with occasional light green bleaching in healed fractures. 109.8-109.9 m Crenelation - oblong shaped, chloritic with minor garnet alteration.					
110.6m	END OF HOLE					

COMMENCED: December 5, 1989  
 COMPLETED: December 7, 1989  
 LOGGED BY: M.J. Cook  
 DATE LOGGED: February 15, 1990  
 TARGET: HLEM Anomaly

DISTRICT: Fort Steele  
 PROPERTY: McNeil Creek  
 LOCATION:  
 CO-ORD.: 3684N, 3486E  
 ELEV.: 1650 m

COLLAR DIP: -60°  
 BEARING: 11°  
 LENGTH: 129.8 m  
 CORE SIZE: HQ  
 % RECOVERY:

TESTS @: None

ppm except Au ppb

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
0.0-1.8m	OVERBURDEN					
1.8-23.6m	<p>QUARTZITE                      Medium grained with disseminated biotite throughout. Light-medium gray's with olive green staining. Massive with occasional banding. Occasional open fractures with light brown gouge material present.</p> <p>6.5-6.7 - ALTERED SECTION - siliceous with hematite staining. High in K-spar with occasional quartz porphyry.</p> <p>SAMPLE: 56365 6.3-7.0 m 0.5 m</p> <p>8.7 - Bedding at 55° to c/a.</p> <p>10.7 - Py blebs with encompassing alteration halo's. (limonite)</p> <p>13.8-14.0 - QUARTZ vein with minor Py at 35° to c/a.</p> <p>17.0-17.6 - SILTSTONE/TURBIDITE - with disrupted beds and rip up clasts.</p>	67	72	44	0.6	1
23.6-30.4m	<p>SILTSTONE/QUARTZITE                      SILTSTONES - Thin bedded with occasional boudinaged clasts, and wispy rip up clasts - Chloritic.                      QUARTZITE - Massive, medium gray with disseminated biotite.</p> <p>23.6 - Bedding plane slips, reddish brown gouge material parallel to bedding. Slightly bleached and siliceous immediately below.</p> <p>29.4-29.8 - FAULT - broken and rubbly core. Conformable to bedding.</p>					
30.4-32.8m	<p>QUARTZITE                      Massive, medium grained and light gray. Occasional fractures at 60° to c/a. Chloritic.</p>					
32.8-67.0m	<p>SILTSTONE                      Thin to medium laminations with occasional massive and siliceous section. Alternating light and dark grays. Siliceous more massive sections have a sandy texture with minor Garnet alteration. Thin laminations occasionally disrupted and rip up clasts common.</p> <p>41.6-42.2 - FAULT ZONE - Silicified-quartz/calcite veining. Light green bleaching. Chloritic.</p> <p>46.6-46.9 - (Quartzite - or silicified siltstone)                      Siliceous - Slightly pitted weathered out sulphides. Fe-staining within healed fractures. Healed fractures slightly open. Occasional Py along fracture planes.</p> <p>49.1-49.3 - CONCRETION - Abundant chlorite with associated Garnet alteration. Surrounded by siliceous halo. Occasional tension gashes with biotite enrichment.</p> <p>Bedding at 50° to c/a.</p> <p>54.0 - Siltstones becoming medium grained and lighter gray and more massive with occasional siliceous unit.</p> <p>57.5-58.0 - CONCRETION - Siliceous halo. (.2 m)</p> <p>62.9 - Minor Py along bedding planes.</p> <p>64.4-65.0 - Silicified siltstone with minor Po - calcite veinlet within Fe staining parallel to c/a - greenish tinge throughout. Bedding at 45° to c/a.</p>					
67.0-96.1m	<p>SILTSTONE/QUARTZITE                      Fine to medium grained sandy siltstones. Fine-medium laminated with rounded rip up clasts and Quartzite tends to be massive with occasional chloritized area and occasional concretions. Occasional crenelation.</p> <p>71.3 - Po bleb within slightly bleached (light green) quartzite with numerous healed fractures.</p>					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
67.0-96.1m	cont'd					
	71.9-72.2 - Quartz veinlets with very minor Py. Perpendicular to bedding planes.					
	74.1-74.7 - Broken core with light gray gouge material present on fractures.					
	77.5-80.8 - Light green bleaching pervasive due to numerous healed fractures. Minor garnet alteration present. Concretion at 79.6 - very chloritic.					
	83.5 - Quartz vein - barren and cross cutting bedding - bedding at 45° to c/a.					
	87.5 - Grading into greenish fine grained quartzite with numerous siliceous healed fractures with chlorite/biotite infilling present. Occasional calcite veinlet.					
	91.4-92.4 - Wispy and chlorite quartz fragments within a silicified chloritic matrix. Mineralized. Abundant Po with disseminated Cpy.					
	92.4-93.8 - Siliceous sandstone - Altered - minor Calcite veinlets, and minor Po abundant along fracture planes. Very fine grained.					
	93.8-96.1 - Quartz Blebs - Within a very altered chloritic and mineralized chill margin - - transition to more gabbroic highly mafic rock type with abundant quartz, Po and minor Cpy.					
	SAMPLES: 56565 90.8-91.4 m 0.6 m	12	8	62	0.2	3
	56566 91.4-92.4 m 1.0 m	1355	31	98	0.8	3
	56567 92.4-93.4 m 1.0 m	12	10	38	0.1	3
	56568 93.4-94.9 m 1.5 m	30	49	46	0.3	3
	56569 94.9-95.8 m 0.9 m	1366	226	71	1.4	4
	56570 95.8-96.1 m 0.3 m	5	8	135	0.3	20
96.1-129.8m	GABBRO					
	Fine grained, dark green, chloritic becoming more leucocratic with up to 20% qtz/feldspar.					
	96.2-98.5 - Medium grained, with slight foliation and/or preferential differentiation at 20° to c/a. Fractures almost parallel to c/a - (Calcite). Definite internal compositional changes here (ie. grain size biotite content).					
	98.5-99.1 - Fine grained "dioritic" unit - highly chloritic - gradational contact.					
	99.1 - Becoming more leucocratic and medium grained with abundant biotite, hornblende and chlorite					
	100.1 - Minor quartz vein (barren) at 60° to c/a.					
	102.4-102.8 - Quartz veining with minor Po and Py at 25° to c/a.					
	105.5-105.7 - Sericite(?) Alteration - light green siliceous crystals with associated Po.					
	106.3-114.0 - Disseminated Po common - generally occurring in association with silicification either in blebs and/or veinlets.					
	114.9-115.4 - Well mineralized, silicified and altered section. 20-25% Po with minor Py and very disseminated Cpy. Healed breccia strongly silicified and chloritized. Bleached fragments. Dark chloritic faces on open fractures with abundant Py.					
	SAMPLES: 56571 114.6-114.9 m 0.3 m	170	10	124	0.3	3
	54572 114.9-115.4 m 0.5 m	1980	57	135	0.6	12
	54573 115.4-115.8 m 0.4 m	31	13	53	0.2	24
	119.4-119.7 - Disseminated Po associated with silica enrichment. Fractures parallel to c/a					
	Ending in coarse grained gabbro with 10-15% quartz porphyries, with highly disseminated Po.					
129.8m	END OF HOLE					



COMMENCED: December 7, 1989	DISTRICT: Fort Steele	COLLAR DIP: -45°	TESTS @: None
COMPLETED: December 9, 1989	PROPERTY: McNeil Creek	BEARING: 11°	
LOGGED BY: P.M. Daignault	LOCATION:	LENGTH: 129.8 m	
DATE LOGGED: Dec. 1989 & Feb. 1990	CO-ORD.: 3770N, 3412E	CORE SIZE: HQ	
TARGET: HLEM Anomaly	ELEV.: 1658 m	% RECOVERY:	ppm except Au ppb

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
0.0-4.0m	CASING					
4.0-18.0m	SILTSTONE Variably oxidized; the strongly oxidized sections tend to be in the thin bedded to laminated siltstones (60%) which are variable in color from bleached pale dirty gray to various shades of yellowish or orangey brown; the more massive sandy & siliceous siltstones (40%) are relatively un-oxidized. The heavily oxidized sections are very strongly broken to locally rock rubble and minor pasty material (drillers mud ?) At 5.8 m a 2-3 mm massive bed with numerous dendritic, black, manganese oxide clots (<3-4 mm). Bedding to c/a: 39° at 6.4 m, 37° at 8.5; 40° at 12.8.					
18.0-64.6m	SILTSTONE WITH MINOR QUARTZITE Mainly medium-thick bedded, variably silicified. Medium to medium dark gray to bluish gray Bedding frequently obscured. Occasional garnet porphyroblast up to 4 mm diameter. Locally weakly sericitic. At 28.0-28.2 oxidized rock rubble with 3-4 cm pasty gouge. Strongly broken to locally rubbly, moderately oxidized core from 28.5-29.5. Very thin bedded/laminated from 32.6-33.2. Bedding to c/a: 46° & 41° at 24.9 (cross-bedded); 47° at 32.9 (very thin) bedded/laminated with rare flame structures & sole marks; 49° at 39.3; (very thin bedded); 46° at 47.4 (very thin bedded/laminated); 40° at 51.6 (very thin bedded/laminated). From approximately 37.8 locally very weakly chloritic, and with occasional fine hair-line healed fracture with chloritic halo up to 1 cm wide, at ~35° to c/a and plane of chloritic fractures rotated ~90° from plane of bedding. From 50.9-52.6, dark gray to black, mainly very thin bedded/laminated with soft sediment deformation in last 4 dm. Po occurs as very fine grained disseminations in some of the beds and in rare fracture. Very rare speck Sphalerite observed. Sample: 56542    50.9-52.6 m    1.7 m    Box 16 Bedding to c/a: 40° at 59.0 (very thin bedded); 32° at 62.8 (very thin bedded/laminated).	28	25	160	0.1	7
64.6-77.4m	QUARTZITE Medium gray, sandy, mainly massive to vaguely bedded, variably silicified, weakly to moderately chloritized with fine (<1-2 mm) garnet common. Magnetite veinlets (1-4 mm thick) bounded by barren white quartz (1-3 mm) occur at 68.4, 70.6, 71.4 at 40°-50° to c/a. Core is weakly sericitic, particularly in the more sandy chloritic and garnetiferous section. From 74.3-74.5 very weak sphalerite and Po min. Sphalerite occurs as 1-2 mm circular recrystallized (?) blebs in one narrow (2-4 mm) horizon at ~74.3 followed almost immediately by very fine grained discontinuous bedded sulphides in a 1-2 mm bed within medium slightly greenish gray thin bedded to laminated siltstone. Bedding to c/a: 32°. From 74.5-77.4 mainly strongly broken core with a driller's footage block marked "Cave" about midway; approximately 80% recovery. Moderate amount of Fe-oxide staining on fractures within this interval and weak staining for about 3 metres before this interval. Samples: 56543    74.3-74.5 m    0.2 m 56544    74.5-77.4 m    2.9 m	65	99	200	0.5	1
77.4-84.1m	SILTSTONE Medium dark gray to slightly bluish gray, variably silicified, apparently massive to vaguely thin bedded. Moderately broken core with occasional short (<2 dm) interval heavily broken. Fractures weakly-moderately coated with Fe-oxide staining. Very weakly chloritic on some fractures and last 0.5 m weakly-moderately chloritized. Bedding to c/a: 24° at 81.5.	20	11	47	0.1	2

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
84.1-90.1m	<p><b>QUARTZITE</b>                      Becoming increasingly silicified and chloritized as the contact with the gabbro is approached. Core is medium gray to medium dark grayish green except for the interval 87.7-88.4 which is a pale gray salt &amp; pepper textured massive quartzite. From 84.5-85.9 locally vaguely mottled with blebs and irregular wisps of vaguely boundaried silica, minor albite, variable chloritization, with an approximately 1 cm length (85.6-85.7) covering part of the core which is pale pinkish orange (micro-garnet porphyroblast) with speckles (&lt;2 mm) of anhedral secondary biotite locally coalescing into blotches. From 88.4-89.2 silicified and strongly chloritized thin bedded/laminated medium dark green siltstone. Bedding to c/a: 18° at 89.1. From 89.2-90.1 strongly silicified and chloritized vaguely mottled quartzite. The mottling is mainly due to very pale gray siliceous patches peppered with secondary biotite in the generally medium green highly altered quartzite. Contact with the fine grained gabbro is vague with apparently minor healed brecciation.</p> <p>Samples: 56545 84.5-85.9 m 1.4 m Box 28                      56546 85.9-87.7 m 1.8 m                      56547 87.7-88.4 m 0.7 m Box 29                      56548 88.4-89.2 m 0.8 m                      56549 89.2-90.1 m 0.9 m</p>	7 3 2 5 36	12 3 4 6 28	48 29 15 36 74	0.1 0.1 0.1 0.1 0.1	4 1 2 1 1
90.1-111.7m	<p><b>GABBRO</b>                      90.1-93.0: Chill margin: massive very fine grained dark green becoming fine grained medium green.                      Sample: 56550 90.1-91.6 m 1.5 m Box 30                      93.0-102.7: Becoming increasingly coarse grained, dark green with minor (25-30%) white feldspar. Generally quite variable in texture. Very coarse grained from 101.3-102.7 with the section 101.9-102.3 being strongly broken &amp; moderately oxidized and locally rubbly, Fe oxide on irregular fracture at ~28° to c/a a 102.3.                      102.7-103.3: Appears to be a healed fault zone with a angular to sub-rounded xenoliths of medium gray siliceous quartzite and dark green chloritized siltstone in a very fine grained chloritized gabbroic matrix.                      103.3-111.7: Gabbro coarse to very coarse grained. Medium to dark green to grayish green massive. Locally up to 5-10% silica with minor Po min. as fine disseminations and along fine healed fractures. Very strong epidote alteration from 109.5-110.2.                      Samples: 45151 102.7-103.3 m 0.6 m                      45152 103.3-104.8 m 1.5 m Box 34                      45153 104.8-106.3 m 1.5 m                      45154 106.3-107.8 m 1.5 m                      45155 107.8-109.5 m 1.7 m                      45156 109.5-110.6 m 1.1 m                      45157 110.6-111.7 m 1.1 m</p>	63	14	55	0.1	4
111.7-119.3m	<p><b>SKARN ALTERED GABBRO</b>                      Original coarse grained gabbro is pervasively silicified, Pyrrhotized and with local development of garnet, epidote and Pyrite mineralization. Core has been bleached and appears as a mottle gray, green and pinkish. Occasional fleck Cpy, in addition to ubiquitous Po is present in the locally garnetiferous and ubiquitously Po mineralized section from 111.7-115.6. From 115.6-119.8 pervasive silicification and Pyritization is characteristic with epidote locally developed, but no garnet. Massive white quartz and Py with trace Po is between 115.6 &amp; 116.0. Po is relatively minor and is more prominent in the latter part of the section 115.6-119.8.                      Samples: 56574 111.7-112.7 m 1.0 m                      56575 112.7-113.7 m 1.0 m                      56576 113.7-114.7 m 1.0 m                      56577 114.7-115.6 m 0.9 m                      56578 115.6-116.1 m 0.5 m                      56579 116.1-117.0 m 0.9 m                      56580 117.0-118.2 m 1.2 m</p>	260 1443 1257 471 3560 1504 459	38 466 419 279 101 15 28	40 188 140 112 132 69 319	0.3 1.8 1.6 0.9 1.5 0.8 0.4	4 7 8 7 63 8 3

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
111.7-119.8m	cont'd					
	56581 118.2-119.3 m 1.1 m	503	237	344	1.0	3
	Calculated Average 112.7-119.3 m 6.6 m	1115	194	200	1.1	10
119.3-126.2m	GABBRO					
	Medium grained to about 120.2 and then very coarse grained, massive and somewhat mottled in appearance due to erratic increased local concentrations of white anhedral feldspar.					
	Samples: 45158 119.3-120.2 m 0.9 m	260	20	67	0.3	4
	45159 120.2-121.7 m 1.5 m	345	16	48	0.1	5
	45160 121.7-123.2 m 1.5 m	325	9	46	0.1	3
	45161 123.2-124.7 m 1.5 m	338	21	45	0.2	2
	45162 124.7-126.2 m 1.5 m	377	9	32	0.2	4
	Calculated Average 119.3-126.2 m 6.9 m	335	15	46	0.2	4
126.2m	END OF HOLE AT 126.2 m (414')					

COMMENCED: December 9, 1990	DISTRICT: Fort Steele	COLLAR DIP: -45°	TESTS @: None
COMPLETED: December 9, 1990	PROPERTY: McNeil Creek	BEARING: 11°	
LOGGED BY: Peter Daignault	LOCATION:	LENGTH: 45.7 m	
DATE LOGGED: December 11, 1990	CO-ORD.: 3790N; 3446E	CORE SIZE: HQ	
TARGET: HLEM Anomaly	ELEV.: 1650 m	% RECOVERY:	ppm except Au ppb

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
0.0-3.7m	CASING					
3.7-27.7m	SILTSTONE Med. to med. dark gray to locally slightly bluish gray. Mainly thin to medium bedded with occ. very short sections, very thin bedded to laminated. Siltstone locally grades into med. bedded sandy siltstone or quartzite. Bedding to c/a 35° at 5.9 m; 39° at 13.0 m; 41° at 18.5 m. At 20.7 m, 3-4 cm granular gouge at 49° to c/a (and parallel to bedding), followed by 4-5 dm of rock rubble and minor gouge. From 15.3 - 16.1 m med. gray to pale lemonish gray quartzitic member with locally weak med. brownish mottling or banding (parallel bedding ?) Sample: 56582 15.3-16.1 m 0.8 m Bedding to c/a is 40° at 27.7 m.	3	54	87	0.7	1
27.7-38.3m	QUARTZITE Med. gray to med. yellowish green (alteration zone ?). Heavily broken core. Occ. fine (<2 mm) quartz veinlet.					
38.3-45.7m	SILTSTONE Med. slightly greenish gray to 41.3 and then med. to med. dark gray. Thin to med. bedded to 44.2 m and then mainly very thin bedded to laminated to 45.7 m. Bedding to c/a is 41° at 41.5 m; 34° at 44.3 m; 31° at 45.3 m					
45.7m	END OF HOLE					

COMMENCED: December 10, 1989	DISTRICT: Fort Steele	COLLAR DIP: -45°	TESTS @: None
COMPLETED: December 11, 1989	PROPERTY: McNeil Creek	BEARING: 81°	
LOGGED BY: Peter Daignault	LOCATION:	LENGTH: 85.3 m	
DATE LOGGED: December 13, 1989	CO-ORD.: 3714N; 3738E	CORE SIZE: HQ	
TARGET: HLEM Anomaly	ELEV.: 1599 m	% RECOVERY:	ppm except Au ppb

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
0.0-10.7m	CASING					
10.7-13.4m	SILTSTONE Medium dark gray, weathered on fracture surfaces. 11.7-12.2 m, rock rubble; in part reduced to sand size fraction. Oxidized					
13.4-23.0m	QUARTZITE Interval begins with laminated siltstone. Difficult to determine contact between siltstone and Quartzite as the interval is highly broken to a rubbly condition and possibly some fault gouge. Weathered to light shades of mainly yellow, minor reddish brown. From 19.6 - 19.9 m appears to be fracturing parallel to c/a. Bedding to c/a is 33° at 13.5 m.					
23.0-27.7m	SILTSTONE Med. gray thin bedded, locally laminated. Mod.-strongly broken core. Fe-oxide on fracture surfaces. Grayish-white quartz vein from 25.9 - 26.1 m at 30° - 45° to c/a. Bedding to c/a is 43° at 24.4 m.					
27.7-32.0m	QUARTZITE Med. gray-greenish gray. Heavily broken core. Fe-oxide staining on fractures.					
32.0-37.8m	SILTSTONE Medium dark gray to medium slightly greenish gray. Bedding generally obscured. Bedding to c/a: 19° at 35.7 m.					
37.8-54.3m	SILTSTONE With weak skarn alteration to ~49.2 m. The section is gen. mod.-strongly silicified with locally v. weak chloritization, v. occ. large (<1.2 cm) porphyroblastic garnet developed. Frequent fractures filled with soft talc-like substance; somewhat pasty when wet. Fracture fill is up to 3 mm thick. Over small sections the alteration has given the rock a slightly granular to locally mottled texture. From 47.4 - 47.6 m. Mottled skarn with clots of porphyroblastic garnet, chlorite, weakly min. Po and Trace Cpy. Samples: 56583 46.6-47.4 m 0.8 m 56584 47.4-47.6 m 0.2 m 56585 47.6-48.2 m 0.6 m Calculated Average 46.6-47.6 m 1.0 m Bedding to c/a is 33° at 49.2 m	21	359	174	0.5	1
		229	13	308	0.3	3
		3	8	119	0.1	4
		63	289	201	0.5	1
54.3-85.3m	GABBRO - (QUARTZ DIORITE) 54.3-54.6 Fine grained. 54.6-70.0 Med. > coarse grained sporadically weakly min. dissem. Po, Py, Trace Cpy. At 59.2 m a 2-3 cm calcite filled fracture (45° - 60° to c/a) well min. Po, Py. The Gabbro has a much higher than normal silica content (up to 10% quartz) and is more properly called a quartz diorite. Samples: 56586 54.3-55.8 m 1.5 m 56587 55.8-57.3 m 1.5 m 56588 57.3-58.8 m 1.5 m 56589 58.8-60.3 m 1.5 m 56590 60.3-61.8 m 1.5 m 56591 61.8-63.3 m 1.5 m 56592 63.3-64.8 m 1.5 m 56593 64.8-66.3 m 1.5 m	3	36	100	0.1	8
		25	18	112	0.1	6
		157	16	101	0.1	4
		297	68	188	0.2	5
		261	31	140	0.1	2
		168	26	133	0.1	3
		238	14	100	0.2	7
		292	20	98	0.1	4

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
54.3-85.3m	cont.d					
	56594 66.3-67.8 m 1.5 m	436	17	85	0.2	3
	56595 67.8-69.3 m 1.5 m	677	14	71	0.1	6
	56596 69.3-70.2 m 0.9 m	199	124	116	0.3	5
	56597 70.2-71.0 m 0.8 m	195	112	23	0.1	6
	From 70.2 - 71.0 white to pale bluish-gray Qtz. vein with occ. narrow wisp of included bleached "Gabbro" and locally weakly to mod. well min. with Po minor Py and Trace Cpy.					
	71.0 - 72.1 Highly silicified (up to 25% Qtz) med. grained pale - med. gray alteration zone with ubiquitous, dissem. Po & Py mineralization - weakly calcitic.					
	Sample: 56598 71.0-72.1 m 1.1 m	448	197	74	0.4	3
	72.1-73.1 Coarse grained "Gabbro" with about 5% Qtz. and pervasively min. with minor to moderate amount (~1%), fine grained dissem. Po, lesser Py and trace Cpy.					
	Sample: 56599 72.1-73.1 m 1.0 m	517	23	113	0.2	6
	73.1 - 74.7 Gabbro c. gr. with occ. thin (<3 mm) irregular, discontinuous white calcite veinlets and frequent associated med. brown staining (Siderite?). The section from 74.2-74.5 is strongly sheared with 1-2 cm pasty & granular gouge @ 74.3 and shearing @ 35° - 40° to c/a. Weak Py & Po min is mainly associated with hair-line fractures. Trace pin-head grains of Sphalerite @ 74.7.					
	Samples: 56600 73.1-74.0 m 0.9 m	417	19	86	0.3	7
	56501 74.0-74.7 m 0.7 m	813	113	92	0.8	1
	74.7 - 85.3 Sporadically and weakly min with dissem Po minor Py and rare fleck Cpy and also as clots of Po generally assoc. with thin and infrequent pale gray Qtz. veinlets. Possible very weak Sphal. min. @ 805. Weakly garnetiferous @ 81.8-82.0. pale gray Qtz. vein 83.1-83.2 very weakly min Po, Cpy and with dissem. Po within about 1 dm of either contact in greater concentration than the rest of the section. Qtz. vein @ ~45° to c/a.					
	Samples: 56502 74.7-76.2 m 1.5 m	398	28	87	0.8	1
	56503 76.2-77.7 m 1.5 m	25	18	93	0.1	8
	56504 77.7-79.2 m 1.5 m	10	16	78	0.1	1
	56505 79.2-80.4 m 1.2 m	44	17	79	0.1	1
	56506 80.4-80.7 m 0.3 m	7	13	80	0.1	1
	56507 80.7-82.2 m 1.5 m	8	10	80	0.1	4
	56508 82.2-83.0 m 0.8 m	64	10	91	0.1	5
	56509 83.0-83.3 m 0.3 m	764	87	60	0.4	3
	56510 83.0-84.3 m 1.0 m	184	42	74	0.2	1
	56511 84.3-85.3 m 1.0 m	115	50	80	0.1	2
	Calculated Average 57.3-76.2 m 18.9 m	353	47	104	0.2	4
85.3m	END OF HOLE @ 85.3 m (280')					

COMMENCED: December 10, 1989	DISTRICT: Fort Steele	COLLAR DIP: -90°	TESTS @: None
COMPLETED: February 4, 1990	PROPERTY: McNeil Creek	BEARING:	
LOGGED BY: P.M. Daignault	LOCATION:	LENGTH: 887.0 m	
DATE LOGGED: Dec.12/89 - Feb.6/90	CO-ORD.: 4122N, 3249E	CORE SIZE: HQ: 0.0-452.6 m; NQ: 442.6-887.0 m	
TARGET: Bedded Sulphides	ELEV.: 1602 m	% RECOVERY:	ppm except Au ppb

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
0.0-23.5m	CASING					
23.5-27.7m	SILTSTONE Light-medium gray to locally brownish (oxidized) gray, mainly thin bedded to laminated. Graded bedding up to fine grained sand size fraction. Bedding to c/a: 62° at 25.2; 62° at 27.6 m.					
27.7-35.7m	SILTSTONE & FELSIC DYKE (?) The first 0.5 m is well bedded (very thin bedded) and then becomes a generally massive appearing unit with occ. relict bedding. The siltstone has a salt & pepper texture imparted by the presence of small (<=1 mm) evenly distributed flecks of secondary biotite or hematite (?) throughout a pale gray matrix. The central part (31.0-32.0 m) of the section is possibly strongly altered fine grained felsic dyke which is highly fragmented to rock rubble and a gouge like material consisting of a high percentage of a dull white soft, sticky mineral (clay from altered feldspars?). There is no distinct boundary between the assumed felsic dyke and the altered siltstones nor is there a discernible texture to confirm the intrusive nature of the dyke. The soft white clay like mineral is also present in the siltstone in fractures and the surrounding rock is usually highly broken with a crushed appearance, the strongly friable nature of these zones presumably due to the rock alteration emanating from the fractures. The siltstone is relatively hard and siliceous in the latter part of the section. Strongly sheared & chloritized, broken friable rock from approx. 29.9-30.0.  Samples: 45196 26.5-28.0 m 1.5 m 45197 28.0-29.6 m 1.6 m 45198 29.6-31.0 m 1.4 m 45199 31.0-32.6 m 1.6 m 45200 32.6-34.1 m 1.5 m 52020 34.1-35.7 m 1.6 m 52021 35.7-37.2 m 1.5 m	98 40 1 1 2 1 7	100 59 34 28 34 20 33	96 136 66 78 65 60 83	0.1 0.1 0.1 0.1 0.1 0.1 0.1	1 4 1 1 1 1 6
35.7-49.4m	SILTSTONE Generally thin bedded; occ. medium bedded or very thin bedded/laminated. One (1) medium bed at 39.0 - 39.3 m appears to be a fining upward sequence with a small (~1 cm diam.) semi-circular white quartz clast at ~39.2 m. Note: approx. 50% of the interval 35.7-49.4 appears to be a very fine sandstone grain size with medium gray color. The very thin bedded/laminated sections characteristically have very fine grained secondary biotite developed parallel to the bedding planes and are very weakly min. with very fine grained dissem. Po. At 43.35 m, approx. 5 cm of crushed rock and granular brownish gray gouge. Throughout the section from 39.5-44.5 (unsilicified mainly sandy siltstone) the occ. bedding plane fracture is weakly-moderately and occ. heavily stained with medium brown Fe-oxide (limonite?). At 39.3 an approx. 0.5-1.0 cm band of stained (very pale yellowish brown) pasty gouge parallel to bedding. Bedding to c/a: 63° at 37.0; 61° at 40.0; 60° at 43.3; 61° at 44.9.					
49.4-69.7m	SILTSTONE Generally more siliceous than the preceding sections with occ. sections appearing to be silicified and weakly chloritized resulting in destroyed bedding planes. Thin to medium bedded with short intervals very thin bedded, where bedding is observable. Beds occ. grade into a very fine grained sandstone fraction. Thin pasty to granular gouge bands parallel to bedding at 54.2 (2-3 cm); 57.7 (4-5 cm); 62.2 (1-2 cm); 63.4 (~3 cm); 64.5 (3-4 cm?). 57.8-60.0; strongly broken to rubbly core with soft dull white (clay mineral from decomposition of feldspar?) mineral on the fracture surfaces.					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
49.4-69.7m	cont'd Additionally a soft medium reddish brown mineral occurs, as 2-3 mm dendritic "freckles" and occ. as broad smear on fracture surfaces, although it is probably pervasive throughout the rock. Identity of this mineral is not known; possibly a manganese and/or iron oxide, or ferruginous carbonate. The above mentioned white and brown alteration products are not restricted to, but are most pronounced within, the interval 57.8-60.0. Bedding to c/a: 55° at 53.8; 55° at 56.7; 59° at 61.2; 59° at 64.7; 64° at 67.1; 60° at 59.9; 61° at 68.4 m.					
69.7-73.2m	FAULT ZONE Rock rubble & fault gouge. 69.7-71.6, mainly granulated rock (majority of fragments <3 cm) with granular gouge zones at approx. 70.5 (20 cm); 71.0 (~20 cm). 71.6-72.1; Tectonic breccia. Highly fractured pale greenish-gray quartzite healed with calcite/quartz fill along mainly hair-line thick irregular fractures. 72.1-73.2; granular to pasty fault gouge with the last decimetre being rock rubble. Lower gouge zone contact at 73.1 appears to be approx. 45° to c/a.					
73.2-84.4m	QUARTZITE & MINOR SILTSTONE The entire section being strongly silicified with localized short (≤1 dm) garnetiferous zones; garnet porphyro blasts usually ≤2 mm in diam. Core is generally very weakly chloritized with very weak sericite development. Generally low angle planar joints and more irregular fractures are very thinly coated with "talcose" mineral and occ. with the previously mentioned medium brown to reddish brown mineral.					
84.4-91.9m	SILTSTONE Medium to medium dark gray, medium bedded where observable; mainly obscured by rotation striae. Very fine hair-line fractures are commonly thinly coated with calcite. Bedding to c/a: 64° at 84.6 m; 62° at 86.7; 61° at 91.1 m.					
91.9-103.5m	QUARTZITE Semi-glossy to dull and silty with local short transitions to siltstone. Very weakly to weakly chloritized with occ. short (≤2 dm) weakly garnetiferous zone. Minor hair-line calcite/coated fractures; at 93.9, ~1 mm white calcite on planar fracture at 45° to c/a with 5 beautifully developed manganese oxide dendrites, medium to dark brown in color and from 0.5-1.5 cm in length. From 94.5-94.9, rock rubble with ~1 cm coarsely granular gouge at 94.9 at 59° to c/a. A narrow (1-5 mm) irregular medium gray quartz veinlet weakly min. Po and occ. trace Cpy is parallel to the core from 98.6-99.3. Sample: 45856 98.6-99.3 m 0.7 m Box 25 & 26	219	58	61	0.3	1
103.5-148.4m	SILTSTONE Medium dark gray becoming light to medium gray further in the section and moderately-strongly siliceous, grading into a silty quartzite between approx. 115.0 m and 117.6. Mainly v.thin calcite filled fractures are common in the quartzitic zones, which are also locally garnetiferous (≤1 mm). Minor Py min. on occ. fracture surface. Bedding to c/a 65° at 105.7; 58° at 106.7; 57° at 111.3; 56° at 119.0; 65° at 123.0; 58° at 125.1; 64° at 127.6; 64° at 132.2; 61° at 133.5. 121.7-121.9; shear zone: 121.70-121.75; strongly sheared with ~3 cm quartzite/calcite veining weakly min. Py followed by 0.15 m healed shear surfaces. From approx. 124.0 m onward the siltstone is noticeably sandy in texture with occ. scoured bed. Secondary biotite is common. At 125.0 about 1-2 mm bedded magnetic Po. At 127.9, an approx. 3 cm pale gray siliceous siltstone bed weakly min. with dissem. fine grained reddish brown sphalerite. Samples: 45857 127.1-127.8 m 0.7 m 45858 127.8-128.0 m 0.2 m 45859 128.0-128.6 m 0.6 m Occ. short intervals are weakly-moderately chloritized and garnetiferous with a siliceous and weakly biotitic groundmass. These sections frequently are very weakly min. with very fine grained disseminated Po., and occur as follows: 125.0-125.1; 125.7-125.75; 126.1-126.3; 127.0-127.05; 127.2-127.25; 127.9-127.95; 128.15-128.3; 128.45-128.5; 129.0-129.3; 129.9-129.95; 131.3-131.45; 132.9-133.0; 134.0-134.2; 140.3-140.5;	14	11	83	0.1	1
		35	41	324	0.1	2
		13	24	42	0.1	4



FOOTAGE FROM TO	DESCRIPTION	ANALYSIS																																																																				
		Cu	Pb	Zn	Ag	Au																																																																
103.5-148.4m	<p>cont'd</p> <p>141.1-141.15; 141.25-141.4. Massive sandy medium gray quartzite between 134.9-141.1. Throughout the entire section are occ. very thin calcite coated fractures and rarely Py on fracture. Very occ. chloritized fracture sub-parallel to the c/a. From 146.0-146.15, the rock is relatively strongly biotitic and strongly chloritized with chloritic alteration emanating from innumerable hair-line fractures.</p> <p>Many of these discontinuous fractures are weakly min. with medium reddish brown fine grained Sphalerite and there is also the occ. small speck (<math>\leq 0.3</math> mm) of dissem. Sphalerite. Note: From ~141.0 onward to 148.7 (depth of hole at beginning of Christmas "break") the siltstone is distinctly less sandy in character and is a more typical medium bedded medium gray to medium dark gray (locally chloritized to greenish gray), with occasional sandy interbeds. Occ. short section is dark gray to gryish black &amp; strongly biotitic. From ~147.0-147.3 a strongly chloritized fracture is oriented at approx. <math>90^\circ</math> to the c/a. The base of the fracture is cut off at a healed planar surface that is in contact with a Sphalerite bearing strongly biotitic siltstone bed. The sphalerite in this bed is concentrated within 2-3 mm of the top contact, although rare flecks of dissem sphalerite are present in the succeeding 0.3 m. The aforementioned chloritized fracture has a tapering core of very pale gray clear quartz, weakly to moderately mineralized with Py, minor Po and very minor sphalerite. This core has a max. thickness of 5-7 mm near the base tapering upward to nil thickness at about 9cm from the base. The base of the quartz filled fracture shows evidence of having been dragged along the contact.</p> <p>Exterior to the quartz core of the fracture and emanating out from the fracture beyond the siliceous interval is a variable (1-10 mm thick) halo of strongly chloritized rock, which in turn is succeeded outward by a more or less continuous (along the axis of the fracture) but highly variable (in thickness) zone of bleaching (?). This white bleached (?) zone (0-7 mm thick) has a rather tenuous transition into the surrounding grayish-black host rock and generally has a flame-like appearance.</p> <p>Note: The bleached (?) zone is a dull opaque, locally very pure white and hard (<math>H &gt; 5/10</math>) and may be albite.</p> <p>Weak Sphal. mineralization emanates out from the fracture into the surrounding siltstone in an again tapering zone (1.5 cm out from silica core at base of fracture, to almost zero at 13 cm from base of fracture). Most of this sphalerite mineralization is to one side of the main fracture, and appears to be mainly controlled by subsidiary parallel to sub-parallel discontinuous chloritic hair-line fractures. The main fracture is locally magnetic. Note: Geological sample taken. The section from 147.3-148.4 has occ. thin (1-3 mm) Py, Po stringers parallel to sub-parallel to the bedding and with a transverse fracture parallel to the c/a joining two stringers at 147.6 and 147.8.</p> <table border="0" style="width: 100%; margin-top: 10px;"> <tr> <td style="width: 15%;">Sample: 45860</td> <td style="width: 25%;">142.3-143.9 m</td> <td style="width: 15%;">1.6 m</td> <td style="width: 10%; text-align: right;">5</td> <td style="width: 10%; text-align: right;">31</td> <td style="width: 10%; text-align: right;">128</td> <td style="width: 10%; text-align: right;">0.1</td> <td style="width: 10%; text-align: right;">4</td> </tr> <tr> <td>45861</td> <td>143.9-145.4 m</td> <td>1.5 m</td> <td style="text-align: right;">14</td> <td style="text-align: right;">19</td> <td style="text-align: right;">119</td> <td style="text-align: right;">0.1</td> <td style="text-align: right;">2</td> </tr> <tr> <td>45862</td> <td>145.4-146.0 m</td> <td>0.6 m</td> <td style="text-align: right;">33</td> <td style="text-align: right;">439</td> <td style="text-align: right;">249</td> <td style="text-align: right;">1.8</td> <td style="text-align: right;">35</td> </tr> <tr> <td>45863</td> <td>146.0-146.3 m</td> <td>0.3 m</td> <td style="text-align: right;">10</td> <td style="text-align: right;">741</td> <td style="text-align: right;">588</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">25</td> </tr> <tr> <td>45864</td> <td>146.3-146.9 m</td> <td>0.6 m</td> <td style="text-align: right;">16</td> <td style="text-align: right;">1114</td> <td style="text-align: right;">412</td> <td style="text-align: right;">1.4</td> <td style="text-align: right;">1</td> </tr> <tr> <td>45865</td> <td>146.9-147.3 m</td> <td>0.4 m</td> <td style="text-align: right;">22</td> <td style="text-align: right;">652</td> <td style="text-align: right;">572</td> <td style="text-align: right;">0.5</td> <td style="text-align: right;">3</td> </tr> <tr> <td>45866</td> <td>147.3-147.8 m</td> <td>0.5 m</td> <td style="text-align: right;">58</td> <td style="text-align: right;">428</td> <td style="text-align: right;">233</td> <td style="text-align: right;">0.7</td> <td style="text-align: right;">2</td> </tr> <tr> <td>45867</td> <td>147.8-148.4 m</td> <td>0.6 m</td> <td style="text-align: right;">43</td> <td style="text-align: right;">19</td> <td style="text-align: right;">99</td> <td style="text-align: right;">0.1</td> <td style="text-align: right;">4</td> </tr> </table> <p>Calculated Average      145.4-147.8 m      2.4 m      <span style="float: right;">29   679   383   1.3   13</span></p> <p>At 148.3 a narrow zone of sheared rock with minor gouge, apparently parallel to bedding.</p>	Sample: 45860	142.3-143.9 m	1.6 m	5	31	128	0.1	4	45861	143.9-145.4 m	1.5 m	14	19	119	0.1	2	45862	145.4-146.0 m	0.6 m	33	439	249	1.8	35	45863	146.0-146.3 m	0.3 m	10	741	588	2.0	25	45864	146.3-146.9 m	0.6 m	16	1114	412	1.4	1	45865	146.9-147.3 m	0.4 m	22	652	572	0.5	3	45866	147.3-147.8 m	0.5 m	58	428	233	0.7	2	45867	147.8-148.4 m	0.6 m	43	19	99	0.1	4					
Sample: 45860	142.3-143.9 m	1.6 m	5	31	128	0.1	4																																																															
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148.4-181.3m	<p>SILTSTONE</p> <p>Medium bedded to thin bedded, locally very thin bedded to laminated; medium gray becoming increasingly darker to medium dark gray to dark greenish gray. Generally an increase in alteration down section as indicated by increasing silicification, chloritization, and more frequent development of small (<math>\leq 1-2</math> mm) pale pinkish garnet porphyroblasts, usually over short (generally <math>\leq 1</math> dm) intervals. The alteration frequently masks the bedding. Fine hair-line calcitic fractures, randomly oriented are locally common. Narrow (<math>\leq 2</math> mm) chloritic alteration halos emanating from microscopic healed fractures are oriented approx. right angles to the bedding; these chloritic fractures are common onward from approx. 160 m. Secondary biotite (flecks <math>\leq 1</math> mm) is occ. associated with the more siliceous &amp;</p>																																																																					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
148.4-181.3m	<p>cont'd</p> <p>garnetiferous zones. Bedding to c/a: 57° at 149.7; 59° at 155.4; 56° at 158.5; 55° at 160.8; 59° at 164.5; 58° at 171.2; 59° at 174.9; 58° at 177.6 m.</p> <p>From 151.5-152.0 a sigmoidal fracture locally with granular to pasty gouge sub-parallel to core in soft strongly altered, chloritized siltstone (?) Thin bedded to laminated, with fine grained (&lt;0.1 mm) secondary biotite flakes, between 148.4-151.0.</p> <p>Samples: 45891 148.4-149.4 m 1.0 m</p> <p>45892 149.4-150.4 m 1.0 m</p> <p>45893 150.4-151.0 m 0.6 m</p> <p>Weak sphalerite mineralization associated with fine calcite and lesser quartz filled fractures in the interval between 159.8 &amp; 161.4; weak Po, Py and rare Cpy are also present. Most of the sphalerite with trace Cpy is between 160.3 &amp; 160.6. Trace Cpy in 2 mm wide quartz veinlet at 161.1.</p> <p>Samples: 45894 158.4-159.8 m 1.4 m</p> <p>45895 159.8-160.3 m 0.5 m</p> <p>45896 160.3-160.6 m 0.3 m</p> <p>45897 160.6-161.4 m 0.8 m</p> <p>45898 161.4-162.9 m 1.5 m</p> <p>Calculated Average 160.3-161.4 m 1.1 m</p> <p>One fleck sphalerite at 168.0 in strongly chloritized, silicified and locally weakly garnetiferous siltstone with numerous thin (≤3 mm) discontinuous quartz/calcite gash fractures. From 169.1-169.2 weak sphalerite mineralization on hair-line fractures in a strongly chloritized unit containing "chalcedony" fragments with indistinct boundaries in a strongly chloritized and silicified matrix.</p> <p>Samples: 45899 167.0-167.8 m 0.8 m</p> <p>45900 167.8-168.1 m 0.3 m</p> <p>45901 168.1-169.0 m 0.9 m</p> <p>45902 169.0-169.2 m 0.2 m</p> <p>45903 169.2-169.8 m 0.6 m</p> <p>45904 169.8-171.3 m 1.5 m</p> <p>Calculated Average 167.8-171.3 m 3.5 m</p>	31	18	101	0.1	3
		13	27	99	0.1	1
		7	34	98	0.1	6
		66	42	110	0.1	4
		9	65	83	0.1	1
		49	53	453	0.1	1
		83	197	183	0.3	1
		26	17	91	0.1	6
		74	158	257	0.2	1
		10	15	84	0.1	5
		20	60	149	0.2	1
		33	19	69	0.2	3
		57	201	495	0.2	3
		46	45	79	0.2	1
		28	192	151	0.5	1
		33	112	137	0.3	2
181.3-221.6m	<p>SILTSTONE</p> <p>Medium-dark (more mafic) than previous sections. Strongly silicified. Medium-weakly chloritized. Generally thin-bedded (where bedding is not obscured by strong silicification) with local short sections of very thin/laminated. Occ. short (usually ≤1 cm) interval with small (≤1 mm) very pale pink garnet porphyroblasts. A few erratically distributed hair-line fractures with smear of calcite and occ. secondary Py. Occ. short section (≤1 m) of well broken core which frequently has white soft "talcose" alteration mineral on the fracture surfaces. Core is generally moderately broken. Frequent to occ. narrow (≤2 mm generally) healed hair-line chloritized fractures, oriented at right angles to the bedding. At 193.2 a quartz veinlet (1-2 cm), min. with Py, trace Po &amp; sphalerite at 57° at c/a.</p> <p>Sample: 45905 193.15-193.25 m 0.1 m</p> <p>Bedding to c/a: 60° at 182.0; 62° at 188.4; 65° at 202.3 m; 66° at 207.1; 66° at 214.2; 68° at 217.7; 51° at 221.2. At 209.0 a 5 cm thick barren white quartz vein at 24° to c/a with one small (~2 mm) clot of Po. Strongly broken to rubbly core from 209.4-212.8, frequently with very thin calcite coating on fracture surfaces. Sandy siltstone from 220.5-221.5.</p>	33	26	108	0.1	1
221.6-253.8m	<p>SILTSTONE</p> <p>Medium-dark gray, variably silicified; generally weakly and occ. moderately silicified. Some sections are dark gray to grayish black, and generally softer. Bedding is generally obscured due to silicification in the harder sections and gouging of the core (too much "down-pressure" on the bit ?) in the softer sections. Occ. to locally frequent hair-line randomly oriented calcitic fractures. Minor Py on some fractures. Occ. narrow (≤2-3cm) zone or fracture with chlorite, minor Py and calcite. At 227.2 core appears to be</p>					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
221.6-253.8m	<p>cont'd</p> <p>bleached over an area approx. 1 1/2 x 6 cm. From approx. 233.8-235.8, numerous fine hair-line calcitic fractures and occ. narrow (<math>\leq 1</math> mm) Py filled fracture. At 234.9, 5-6 cm piece of core moderately chloritized with numerous irregular clots of chlorite and Po with minor Py, rare fleck sphalerite.</p> <p>Samples: 45906 232.3-233.8 m 1.5 m                      45907 233.8-234.8 m 1.0 m                      45908 234.8-235.0 m 0.2 m                      45909 235.0-235.7 m 0.7 m</p> <p><u>Note:</u> The footage block at 233.8 m (767') appears to be incorrectly placed. The preceding notes from 233.8 m, and the samples from 232.3-235.7, are based on measurements from the corrected position for the footage block. Core is strongly broken from 244.6-246.7 m.</p> <p>Note: The degree of alteration in the section 221.6-248.1, is noticeably less than the previous section. Joints sub-parallel to the c/a, occ. with calcite and/or chloritic alteration, are common. Bedding to c/a: <math>55^\circ</math> at 235.5; <math>60^\circ</math> at 241.5. From 248.1-253.8, the core is strongly silicified and weakly chloritized. At 253.8-253.9, fault with granular gouge and broken rock. Fault to c/a angle at 253.9 is approx. <math>45^\circ</math>.</p>	37	147	98	0.4	3
		46	11	74	0.1	1
		44	33	90	0.1	5
		25	39	106	0.1	1
253.8-259.6m	<p>SILTSTONE &amp; MINOR QUARTZITE</p> <p>Siltstone is medium gray to medium slightly greenish gray and strongly silicified. Quartzite is pale to medium greenish gray. Core is generally strongly broken, to rubbly. A concretion from 254.3-254.45. The core of the concretion is a chloritized weakly garnetiferous (garnets <math>\leq 0.5</math> mm) siliceous zone. The next layer outwards is about 1 cm wide consisting primarily of biotite, chlorite and finely disseminate Po. This layer is succeeded by a 1-2 cm band of chloritized cross-fractured chalcedony with occ. small (3-4 mm) fracture-controlled clots of massive Po. The entire concretion is criss-crossed with hair-line Po-filled fractures. The surrounding chloritized &amp; silicified siltstone contains dissem. Po.</p> <p>Sample: 45910 254.3-254.45 m 0.15 m</p> <p>Note: Geological sample also taken for same interval as assay sample.</p> <p>From approx. 256.6-257.2, light grayish-white highly broken quartz vein at very low angle to c/a. Barren of sulphide mineralization except for occ. rare small fleck of Py.</p> <p>Sample: 45911 256.6-257.2 m 0.6 m</p> <p>Bedding to c/a: <math>42^\circ</math> at 247.1; from 257.3-257.6 an apparent open fold with the upper limb at approx. <math>32^\circ</math> to c/a and the lower limb at approx. <math>45^\circ</math> to c/a. One strongly biotitic bed (2-3 cm thick) is well min. (5-10%) with dissem. fine interconnected web-like mosaic) Po with rare fleck sphalerite.</p>	265	31	98	0.3	29
259.6-266.2m	<p>SILTSTONE</p> <p>Medium-medium dark gray, locally weakly silicified. Moderately-strongly broken core. Bedding is generally obscure. Numerous hair-line calcitic fractures. Locally weakly chloritized. At 261.5, 1-2 cm finely granular gouge followed by 5 cm weakly lithified tectonic breccia. Conflicting evidence re. orientation of fault; possibly <math>10^\circ</math> to c/a and/or <math>55-60^\circ</math>; probably the former. At 265.0, 2-3 cm coarsely granular gouge at <math>65-70^\circ</math> to c/a. Large (up to 1 x 2 cm) thin smears of Py on occ. fracture. Bedding to c/a: <math>51^\circ</math> at 264.1; Minor Py as fracture fill on hair-line fractures between 263.8-264.2. At 266.2, 3-4 cm pasty &amp; granular gouge at <math>70^\circ</math> to c/a.</p>	3	10	24	0.1	3
266.2-278.3m	<p>SILTSTONE &amp; MINOR QUARTZITE</p> <p>A variable suite of sandy siltstone, medium gray semi-glossy quartzites and moderately to strongly silicified siltstone in various tones (primarily medium) of gray. Core is generally weakly chloritized with the chloritization being most apparent on some fractures. Numerous very fine calcite fractures. Occ. large (up to 1 x 2 cm) very thin semi-circular blobs of amorphous Py on fractures. One joint surface at 273.0 (<math>70^\circ</math> to c/a) is almost entirely covered with a very thin coating of very fine (microscopic) Py euhedra. The core is moderately to mainly heavily broken with local sections, particularly in the more quartzitic zones, reduced to rubble. Minor (<math>\sim 2-3</math> cm?) of coarsely granular gouge at 269.1 &amp; 271.1 m. At 273.2, 1.5 cm of gray granular gouge at <math>59^\circ</math> to c/a. Bedding to c/a:</p>					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
266.2-278.9m	cont'd 50° at 275.6 m. Bedding planes are very rarely observed due to presence of minor amounts of quartzite, massive sandy siltstone, silicification, and drilling striae.					
278.3-313.9m	<b>SILTSTONE</b> With occ. short section of sandy siltstone. Medium to dark gray. Very little silicification. Locally weakly chloritized. Very fine calcitic fractures are occasional to common and at 285.5-285.9 are in the form of discontinuous wisp like, slightly lenticular tension gashes. The core is generally strongly broken to locally rubbly with occasional narrow gouge zones. The gouge zones appear to be at a high angle (50-70°) to the c/a. fracturing of the core has been facilitated by the presence of fractures sub-parallel to the core axis. Many of these sub-parallel fractures are partially covered by very thin amorphous irregular, large (up to 2 cm) blotches of Py. Relative degree of rock breakage is as follows: 278.3-286.9; generally strongly broken core with rock rubble 280.6-281.1; very highly broken core from 282.5-283.3 with granular gouge (2-4 cm?) at 283.3; sheared and crushed rock at 283.9; gouge and any mylonitized rock 281.4-281.5 (high angle to c/a). 3 cm coarsely granular gouge at 65° to c/a at 284.3. 286.9-288.8, mainly rock rubble with minor gouge at 287.0 (Note: more gouge may have been washed out.) 288.8-291.6; mainly highly broken core. 291.6-295.4; moderately-strongly broken. 295.4-297.2, rock rubble with short (≤4 cm) sections of granular fault gouge. 297.2-303.4 moderately to strongly broken. 303.4-313.9; highly broken core, facilitated by fracture sets at ~70°, 45°, and sub-parallel to c/a. About 1 dm crushed rock at ~304.7. 1-3 mm Py fill on low angle fractures (~30% c/a) at ~305.4 m. Very coarsely granular gouge from 309.9-310.0. Bedding to c/a: 41° at 278.1; 42° at 282.0; 35° at 291.5; 49° at 294.8; 39° at 299.6; cross-bedded at 302.8 with bedding to c/a angles of 36° and 46°; 40° at 303.8. At 291.5 a 1-2 cm pale-medium gray siliceous bed (chalcedony) weakly-moderately mineralized with Po, trace Py at contacts with silicified and moderately chloritized siltstone. An occ. small (≤1 mm) very pale pink garnet is located within the siltstone within 1-2 cm of the siliceous bed. Trace of sphalerite min. is present as fracture fill on hair-line fractures at approx. right-angles to the bed. Four streaks of sphal were observed up to 4 mm x 0.1 mm. At 299.0 an approx. 1 cm thick zone characterized by minor bedded Py, minor Po, at the top of a slumped (?) strongly biotitic grayish black siltstone bed. At 309.0 a 5 cm concretionary (?) bed with 1-2 mm diam. chloritic flecks in a pale gray to white siliceous (?) matrix containing dissem. Po. Bedding to c/a: 57°.					
313.9-323.4m	<b>FAULT ZONE</b> 313.9-319.7, brecciated & sheared. The crush breccia sections have fragments of siltstone up to 2-3 cm, although the fragments are generally much smaller. Locally the crush breccia has a crude sygmoidal foliation imparted by associated shearing. From 313.9-316.0 the crush breccia is obviously originally a relatively unaltered medium gray siltstone. From 313.9-315.2 core recovery ~60%; in the approx. middle (314.2-314.7) of this section is a 3 dm section of core with a contact more or less parallel to c/a, between shattered siltstone and granular gouge. From 316.0-319.7 the section generally consists of mylonitized and locally macro-sheared mylonite with characteristic wisps of calcite and generally randomly oriented clots of Py. A crude shear imparted foliation between 318.3-319.0 is approx. parallel to the c/a for the first 2 dm and then is sub-parallel at ~10-20° in a gentle sygmoidal pattern ( ). At ~317.0, 2-3 cm black (graphitic) pasty gouge at approximately 45-60° to c/a. Note: The parallel sheared section (318.3-318.5) has very fine grained attenuated thin (≤3 mm) Py stringers along the shear planes. The core between 313.9 & 319.7 is relatively intact except for sections of rock rubble and minor granular gouge as follows: 313.9 - ~314.2, rock rubble & granular gouge; 314.5-315.2, (estimate only 2 dm of rock recovered) rock rubble; 316.9-317.9, mainly rock rubble with minor (1-3 cm ?) granular gouge in contact with a 2-3 cm carbonaceous mud layer at 316.9 at ~45° to c/a; 318.2-318.3 broken rock with 1-2 cm finely granular gouge; 319.5-319.8, rock rubble with minor pasty granular gouge at 319.7. 319.7-323.4; healed tectonic breccia. Mainly consists of angular fragments (sand size up to 1x2 cm) in a chloritic matrix, with discontinuous narrow veins, wisps and small					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
313.9-323.4m	cont'd irregular clots of calcite and quartz/calcite. The generally dirty pale gray to grayish white breccia fragments in the chloritic matrix gives a slightly mottled appearance. Individual felsic breccia fragments frequently have numerous very fine hair-line to macroscopic fractures throughout. Locally some of the fragments appear to have been rotated and sub-rounded. Py with very minor Po mineralization, where it occurs, appears to be associated with the calcite & quartz/calcite veining as very fine grained euhedral disseminations and occ. as coarse clots. An occ. short ( $\leq 1$ cm) piece of unbrecciated core within the foregoing interval appears to be similar in structure (moderately well, to crudely foliated), and mineralogically similar to succeeding section of rocks (altered gabbro ?). Note: The general impression of this Fault Zone is of a zone of brittle fracture super-imposed on the contact between siltstone and a pre-existing fault breccia.					
	Samples: 45188 313.9-315.2 m 1.3 m	87	22	30	0.1	5
	45189 315.2-317.0 m 1.8 m	98	7	7	0.1	6
	45190 317.0-317.9 m 0.9 m	21	13	16	0.2	4
	45912 317.9-318.2 m 0.3 m	22	5	23	0.1	5
	45191 318.2-319.7 m 1.5 m	58	6	26	0.8	9
	45192 319.7-321.0 m 1.3 m	52	10	23	0.7	16
	45193 321.0-321.5 m 0.5 m	3	6	22	0.6	3
	45913 321.5-322.0 m 0.5 m	9	5	25	0.1	17
	45194 322.0-323.4 m 1.4 m	90	2	35	0.6	3
	45195 323.4-324.0 m 0.6 m	32	3	34	0.6	1
323.4-503.3m	GABBRO (DYKE ?) From 323.4-327.1, mainly leucocratic becoming meso- to melanocratic in last metre. This first section of the dyke (?) is moderately well to increasingly poorly foliated. The foliation is produced by crude alignment of chlorite grains and chloritized pyroxene (?) laths in a siliceous matrix and by narrow (mainly $\leq 4$ cm) quartz veins. The rock is weakly calcitic and pyritiferous with occ. veinlets and blotches of white albite. Foliation is $\sim 28$ to c/a at 324.5, steepening to $59^\circ$ at 325.7 m. The original rock types of the first part of the section is problematic, considering its broadly gradational transition into more typical melanocratic gabbro, and the high degree of apparent silicification, chloritization, pyritization and local albitization, it is presumably a hydrothermally metasomatized gabbro, or gradational sill/sediment transitional zone. At 325.6 a 4-5 cm quartz/calcite vein, min. with very fine grained Py on fractures, is parallel the foliation. A fracture set parallel to sub-parallel to the core is present.					
	Samples: 45912 317.9-318.2 m 0.3 m	22	5	23	0.1	5
	45913 321.5-322.0 m 0.5 m	9	5	25	0.1	17
	327.0-366.7, medium grained, dark grayish green, more or less equigranular mosaic of mainly euhedral grains of chlorite, amphibole (hornblende?), feldspar, with minor quartz (usually $< 10\%$ ) epidote, rare secondary biotite, and trace dissem Py. Narrow ( $\leq 4$ mm) quartz/calcite veining at mainly $50-70^\circ$ to c/a decreases in frequency down section and is relatively scarce after 334.0. Irregular epidote veining is strong from approx. 329.8-336.5 and then is considerably less frequent after this interval. The epidote fractures appear to cut the quartz/calcite fractures and the epidote fractures appear to be cut by a later sigmoidal set of hair-line fractures thinly coated by haematite. Occ. Py min. (as at 332.9) appears to be associated with the epidote-filled fractures.					
	Sample: 45914 332.8-332.95 m 0.15 m	28	16	18	0.1	4
	Core is strongly magnetic in the section 329.8-336.5 where the magnetism is closely associated with the epidote veining and weak-moderate epidotization of the core. Magnetite & haematite in occ. siliceous veinlet; e.g. in narrow (1-3 mm) siliceous zone parallel c/a at 360.4. Strongly broken core and minor rock rubble from 327.4-329.0					
	Sample: 45915 360.3-360.6 m 0.3 m	292	12	47	0.1	1
	Note: More variability in grain size than in typical sill with occ. abrupt change from medium grained/fine grained. The section from approx. 353.5-362.2 is more mafic & finer grained with a contact between very fine grained dark green gabbro and medium grained greenish gray gabbro parallel to sub-parallel to core at 362.0-362.3. Rock rubble from 358.7-359.3 m. 366.7-385.0, as before with occ. changes to a fine grained phase within					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
323.4-503.3m	<p>cont'd</p> <p>a primarily dark medium grained greenish gray equigranular unit. Varying degrees of epidote veining and lesser haemetite coated fractures, particularly between 369.7 &amp; 375.8. A heavily haemetite coated sygmoidal fracture at 35-10° to c/a is weakly magnetic at 371.7. This aforementioned section also has occ. discontinuous lenticular calcite blebs occ. rimmed with haemetite. From 380.6-380.9 a healed tectonic breccia zone with calcite and quartz with minor chlorite &amp; biotite matrix enclosing bleached &amp; fractured fragments. Upper contact at 22° to c/a.</p> <p>385.3-386.4, very strongly altered and mottled in appearance. Chloritized gabbro with strong silicification and quartz veining, epidote alteration, minor albite.</p> <p>386.4-389.3, grayish green weakly-moderately well foliated, with locally strong epidote and haemetite veining. Foliation generally varies between 0-35° to c/a.</p> <p>389.3-426.0, mainly medium gray equigranular, medium grained, massive. Considerably less variability in texture than in previous sections. Very occ. narrow epidote veining with associated Py mineralization. No haemetite coated fractures. Occ. narrow (&lt;5 mm) quartz veinlet. Relatively wide (&lt;1 dm) white quartz veins and/or silicified zones associated with healed tectonic breccia at 400.5 (0.1 m); 401.6 (0.1 m); 408.8 (0.08 m). No epidote veining from a minimum of 405.0-426.0 m.</p> <p>426.0-427.9, possible healed shear zone. From approx. 426.1-427.2 chloritized shearing parallels the c/a. Throughout the entire section there are numerous irregular discontinuous calcite-filled fractures &amp; calcite blebs, some in an elongated sygmoidal shape (tension-gashes?). Locally minor epidote alteration. The section from 427.2-427.9 appears brecciated with some angular to sub-rounded fragments exhibiting strong epidote alteration. Fine discontinuous wisps of white calcite are also common and fine grained Py mineralization is ubiquitous. Mafics are strongly chloritized.</p> <p>Sample: 45916 427.2-427.9 m 0.7 m</p> <p>Geological sample taken 426.1-426.3.</p> <p>427.9- , massive, equigranular, medium-grained, greenish gray to medium dark gray, with frequent epidote and epidote/quartz veining parallel to sub-parallel to c/a. a second, less well developed fracture set is oriented at 75° to the first set. Either set produces small (1-2 cm observable) offsets of the other. Epidote veining is negligible between 439.6-447.1. Core is moderately broken with occ. short section (&lt;2 dm) strongly broken, no incidence of gouge up to 452.6 m (1485').</p> <p>Note: Hole "sanded-in" at 454.2 m (1490'). Changed to NQ with wedge placed at 438.9 m (1440'). The HQ core up to 1490' does not appear to be badly broken, although the presence of parallel to sub-parallel epidote-filled fractures may have caused a wedging effect that bound the rod. Such fractures are present immediately prior to 1490' (454.2 m) with strongly broken rock from 453.9-454.1. Wedge placed at 438.9 m with apparently the first core run, to be recovered, starting at 1447' (441.0 m).</p> <p>From 441.0 - same description as previously noted for HQ interval starting at 427.9. Grain size variable between 453.0-472 after which frequency of epidote fractures (mainly parallel to sub-parallel to the core) increases. Core generally is a medium gray. Core is weakly magnetic (associated with epidote and calcite/quartz veining) at 499.0 m. Py &amp; Epidote filled fracture sub-parallel to c/a at 491.3 m and from 501.2-502.0.</p> <p>502.0-503.3 m</p> <p>Fine grained chill margin with occasional thin (&lt;3 mm) epidote vein at 25-33° to c/a with weak Py mineralization. The contact of the gabbro with the sediments at 503.3 is conformable at approx. 55° to c/a.</p>	544	14	59	0.2	3
503.3-511.3m	<p>QUARTZITIC</p> <p>Mainly pale gray to pale creamy gray, glossy to semi-glossy. The pale creamy gray is particularly pronounced in the interval from 503.3-506.1 and may be a bleaching effect caused by the gabbro intrusive. The core is moderately to strongly epidotized with the epidote developed along and emanating outward from numerous fine fractures. Bedding to c/a: 62° at 506.8 m. Core is moderately to locally strongly broken</p> <p>Occasional small (&lt;2 mm) very pale pink garnet porphyroblast randomly distributed throughout the section.</p>					

DRILL HOLE RECORD: McNeil Creek

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FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
511.3-517.6m	<b>SILTSTONE</b> Medium-pale gray, moderate-well silicified, thin bedded to very thin bedded/laminated; (locally medium bedded with soft sediment deformation. The contact at 517.6 is gradational and is coincident with a zone of rock rubble and minor fault gouge. At 511.3, two narrow (<0.7 cm) granular gouge zones, approx. 3 cm apart, and parallel to bedding at 67° to c/a. Bedding to c/a: 75° at 512.7; 71° at 515.3. Core generally heavily broken, to rubbly, from 516.1 to 517.6.					
517.6-524.9m	<b>QUARTZITE</b> Mixed bag including dull medium gray sandy quartzite, mottled medium dark/pale greenish gray quartzite and locally thin bedded banded quartzite. Core well broken. Bedding to c/a: 65° at 524.6. Numerous fine calcite fractures - Fracture(s) with thin coating of gouge sub-parallel to c/a from 522.4-523.9 with healed breccia (523.9-524.2).					
524.9-556.3m	<b>SILTSTONE with interbedded QUARTZITE</b> Siltstones are very thin to thin bedded, locally laminated or medium bedded with very fine grained secondary biotite. The "quartzites" are generally dull, medium gray to slightly greenish gray, generally massive to rudely medium bedded with occasional fine (<2 mm) very pale pink garnet porphyroblast. The quartzites are locally pale gray and glossy with numerous fine healed fractures. Fine calcitic veining throughout. Locally the siltstones and quartzites have a "peppery" texture due to very fine biotite flecks. Bedding to c/a: 63° at 530.1; 65° at 533.4; 64° at 537.9, 67° at 543.1; 69° at 548.0; 66° at 549.8; 67° at 552.8.					
556.3-571.5m	<b>SILTSTONE</b> Medium gray to medium dark brownish gray; darker sections more biotitic. Mainly thin bedded to very thin/laminated. Locally weakly chloritized and with rare garnet. The section 566.6-568.5 is medium bedded, sandy, weakly garnetiferous, maroon to greenish gray and locally mottled with chloride flecks. Locally a few irregular very fine calcitic fractures. Core is generally moderately broken with occasional heavily broken/rubbly zone; usually <1 dm. From approx. 562.3-562.4 is rock rubble and granular gouge, preceded by approx. 2 dm rock rubble. Bedding to c/a: 64° at 557.6; 65° at 559.6; 72° at 561.8; 68° at 565.5; 66° at 570.2. From 555.4-555.8 a fine (1-2 mm) fracture, parallel to sub-parallel the core, is weakly min dark brown, very fine grained Sphalerite. The centre of the fracture is locally infilled with up to 1 mm of silica with the Sphalerite mineralization being on the outside edge. Sample: 45917 555.4-555.8 m 0.4 m From 560.2-560.5 heavy Po min over up to 1-2 cm sub-parallel to c/a. Po min. appears to be controlled by a chloritic fracture with locally some associated albite. The upper contact at 560.2 appears to be slightly "dragged" where it is cut off by a very narrow (2-4 mm) bedding plane shear at 55° to c/a. Trace Cpy on main parallel (to c/a) fracture. Sample: 45918 560.2-560.5 m 0.3 m	29	51	73	0.1	1
571.5-596.7m	<b>QUARTZITE with minor interbedded SILTSTONE</b> 571-580.6; dull to semi-glossy, generally medium-thick bedded, medium-slightly greenish gray, weakly to moderately chloritized quartzites, with local short (<1.5 dm) sections mottled with chlorite or chlorite/biotite speckles or aggregates and small (usually <1 mm) garnet porphyroblasts. Locally appears to be weakly sericitized. Locally exhibits soft sediment deformation (slumping?). Very occasional medium-dark gray short section (<2 dm) of sandy siltstone. Bedding to c/a: 67° at 574.1; 67° at 579.7. 580.6-582.4; Siltstone - Medium to medium dark gray. Mainly thin bedded to very thin bedded/laminated. Occasional small (<0.5 mm) garnet randomly distributed throughout. The siltstone has a slightly sandy appearance due to the development of very fine grained biotite. From 582.3-582.4, the siltstone looks like typical Lower Aldridge sedimentation; the first half is finely laminated with the dark gray base of the individual laminae grading upward into a soft dull pale gray mudstone. The second half consists of 74.5 cm of soft massive dull pale gray mudstone with rare small (~2 mm) clots of Po. Bedding to c/a:	564	1264	101	3.2	2

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
571.5-596.7m	<p>con't 70° at 582.3 m.</p> <p>582.4 - Pale-medium gray frequently massive dull grainy, sandy, quartzites, with darker gray phases where the quartzite locally grades into thin to very thin bedded siltstones. Occasional very fine garnet developed in both the Quartzites and Siltstones. Locally weakly-moderately chloritized. Occasional to numerous fine irregular calcite veining, particularly from 590.3-590.8; at 590.4 a parallel to sub-parallel (to c/a) fracture is min with up to 1 mm Po. The rock tends to be strongly broken in the more strongly calcite veined sections. From 586.9-587.3 the massive pale gray Quartzite is weakly min with very fine grained disseminated Po with occasional rare fleck Sphalerite; the minute flecks of Po give the rock a weakly speckled appearance. Bedding to c/a: 68° at 592.4; 65° at 594.6.</p>					
596.7-622.9m	<p>SILTSTONE with minor QUARTZITE</p> <p>Pale gray to medium-dark, generally medium gray Siltstone. The siltstones are frequently sandy locally grading into fine grained massive medium-thick bedded Quartzites; in particular the section between 608.1-617.2. From 617.2-617.6 a turbidite sequence with scour, rip-up clasts, soft sediment deformation (slumping?). Much of the siltstone has a peppery appearance due to presence of fine grained biotite, which appears to increase in frequency towards the contact with the melanocratic dyke at 622.9. Throughout the interval there is the occasional short (<math>\leq 5</math> cm) section of soft pale gray mudstone reminiscent of lower Aldridge sedimentation. Sole mark at 616.1. A thin siliceous and Pyrrhotitic discontinuous fracture (<math>\leq 1</math> mm thick) parallel to the c/a from 613.2-613.7. One large bleb (1x1 cm) and one crescent shaped (1-2 mm x 2-3 cm) occurrence of Po on discontinuous fractures at 615.5.</p> <p>At 617.7 a few small (~1 mm) individual and coalesced blotches of garnet confined to approx 1-2 cm conformable (?) with bedding. Some associated Py and trace Sphalerite. Rock is locally weakly chloritized with occasional clot of coarse grained Biotite. At 619.3 an approx. 1 cm pale gray quartz vein, weakly min Po and trace Sphalerite, at 75° to c/a. At 621.3 2 cm of pasty and granular, slightly greenish pale gray gouge more or less parallel to bedding. B.C.A.: 67° at 606.0; 69° at 612.6; 64° at 618.0; 65° at 622.3.</p>					
622.9-623.4m	<p>BIOTITE ROCK (Lamprophyre Dyke ??)</p> <p>50% fine grained biotite with dissem. blebs (<math>\leq 2</math> mm) of Po tending to be concentrated near the margins of the intrusion? Contacts and a very vague foliation are at a low angle to the c/a. The upper contact is sigmoidal with a maximum angle of 15° to the c/a, whilst the lower contact is at approx. 20° to c/a.</p> <p>Note: The contacts are extremely vague. Rather there is a transitional zone at either contact in which the lamprophyric intrusive material has diffused into the surrounding sediments producing a very strong to gradually diminishing outward zone of biotite alteration. The biotitic alteration appears to be preferentially stronger in the presumably originally more argillaceous siltstone units, as opposed to the relatively slight alteration of the highly siliceous units. Similarly, within the dyke (?) there appears to be relict bedding produced by the preferential assimilation of argillaceous, siliceous beds, which produces a cross fabric to that which is sub-parallel to the c/a. Possibly these enigmatic contacts can be explained by the lamprophyre being intruded into wet, unconsolidated/poorly consolidated sediments.</p>					
623.4-626.3m	<p>SILTSTONE</p> <p>Mainly thin bedded to very thin bedded laminated with bedding occasionally obscure due to local chloritization or lack of color contrast between the beds. From 623.4-624.6 very strong, to becoming weak biotite alteration. Becoming massive and sandy appearing for last 2 dm. This section has a higher than normal Po content, occurring mainly as fine fracture fill, but also locally as very fine disseminations and in the section 625.1-625.4 which appears like typical Lower Aldridge style sedimentation and in which Po appears parallel to bedding planes (<math>\leq 0.2</math> mm). Very weak Sphalerite min, occurs sporadically primarily as fracture fill and occasional isolated grain. There is frequently associated minor Po and chlorite and silica, particularly at 625.0 and 626.5. Bedding to c/a: 65° at 625.3.</p>					



FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
623.4-626.3m	con't					
	Samples: 45919 623.6-624.6 m 1.0 m	23	10	145	0.1	1
	45920 624.6-625.0 m 0.4 m	6	40	116	0.1	1
	45921 625.0-625.4 m 0.4 m	24	72	130	0.1	2
	45922 625.4-626.4 m 1.0 m	37	292	387	1.0	1
	45923 626.4-626.5 m 0.1 m	71	2021	1394	5.4	3
	45924 626.5-627.2 m 0.7 m	39	231	300	0.6	2
	Calculated Average 625.4-627.2 m 1.8 m	40	364	409	1.1	2
626.3-636.6m	SILTSTONE & SANDY SILTSTONE Generally medium to thick bedded, vaguely bedded with some cross-bedding in lower section Locally weakly chloritized. Occasional narrow discontinuous Po-filled fractures. Bedding to c/a: 68° at 632.6 m.					
636.6-641.4m	QUARTZITE Silty to fine grained sandy, generally pale gray, massive. Occasional small (<1 mm) pale pinkish garnet and occasional narrow (~1 mm) to hairline fracture (~0.1 mm) with Po min.					
641.4-646.7m	SILTSTONE Medium gray; mainly thin to very thin bedded. Occasionally convoluted bedding, cross-bedding and occasional rip-up clasts. Locally silicified and moderately chloritized. Bedding to c/a: 61° at 644.1.					
646.7-681.2m	SILTSTONE & QUARTZITE Repetitive series of dull sandy massive fine grained Quartzites, sandy Siltstone; locally thin bedded to very thin bedded/laminated and occasional short section cross bedded. Rare small rip-up clast (usually small lenticular silicious sub-rounded fragments. Locally weakly-moderately chloritized and silicified. Occasional to frequent hair-line fractures. Core is generally moderately broken to locally short (max. 5 cm) sections heavily broken. Occasional fine fracture with Po mineralization. At 671.8 a 3 cm wide Quartz vein (very pale grayish white and weakly min. Po, minor Py and rare trace Cpy) at 16° to c/a. At 672.7 a 0.5-1.0 cm, clear to semi-opaque quartz veinlet weakly min. Po minor Py and very rare trace Cpy, at ~12° to c/a. Bedding to c/a: 70° at 659.0 (very finely laminated); 65° at 665.1 (laminated); 68° at 677.6.					
681.2-692.2m	SILTSTONE AND SANDY SILTSTONES Medium gray. Variable package including apparently massive medium bedded sandy siltstone; minor medium brownish gray very thin bedded or exhibiting minor convolutions and rip-up clasts; silicified and chloritized siltstone with no apparent bedding. One elliptical pale gray quartzite well rounded pebble (1-2 cm) at 688.1. From 690.6-692.2 core is very heavily broken but no gouge present. Bedding to c/a: 68° at 686.6; 68° at 689.6. Occasional minor Po min. on fine fracture.					
692.2-694.8m	QUARTZITE Pale to medium gray semi-glossy to mainly dull slightly sandy in appearance. The core is very heavily broken, becoming basically rock rubble for last metre. No gouge present.					
694.8-695.9m	SHEAR ZONE Rock rubble and evidence of strong shearing particularly from 695.1-695.3 where slightly crenulated shear planes are at ~13-15° to c/a. From 695.0-695.1 is highly micro-fractured and may be tectonic breccia.					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
695.9-707.0m	<p>QUARTZITE WITH MINOR SILTSTONE</p> <p>Medium gray, slightly sandy to pale gray micro-fractured glossy Quartzites with occasional minor (2-3 dm) bands of medium or dark siltstone. Locally weakly chloritized. The core is very heavily broken to mainly rock rubble from 695.9-697.1 and then heavily broken to approx. 697.7. Minor granular gouge observed only at approx. 696.9. From 697.7-707.0 the core is moderately to heavily broken with occasional rubbly section. At approx. 706.3 an approx. 0.5 cm Quartz vein, at <math>\sim 10^\circ</math> to c/a, weakly min Po.</p>					
707.0-714.5m	<p>SILTSTONE</p> <p>Medium dark gray with occasional short siliceous garnetiferous and chloritic horizon. Bedding is generally thin to locally very thin/laminated. Cross-bedded at 711.2. Very weakly min with disseminated coarse grained (<math>\leq 2</math> mm) blebs of medium brown Sphalerite from 710.0-710.3. The mineralization occur in a siliceous chloritized and garnetiferous bed; about 60% of the interval is very pale gray to whitish, with strongly chloritized margins and numerous small (<math>\leq 2</math> mm) pale pinkish garnet porphyroblasts, typical of previously observed concretions, except for the presence of a 4 mm very pale cream colored dense chert (?) bed at <math>66^\circ</math> to c/a.</p> <p>Sample: 45925 710.0-710.3 m 0.3 m</p> <p>Bedding to c/a: <math>61^\circ</math> at 708.7; <math>63^\circ</math> at 713.4.</p>	35	20	251	0.1	1
714.5-727.3m	<p>QUARTZITE WITH MINOR SILTSTONE</p> <p>Medium semi glossy to dull slightly sandy Quartzites which are moderately to strongly chloritized and medium greenish gray to vaguely mottled dark maroon and medium green. The Quartzites are in transitional contact with medium to dark gray silicified siltstones. Bedding is generally completely obliterated to locally obscure. Bedding to c/a: <math>62^\circ</math> at 721.0; <math>58^\circ</math> at 724.0. Very fine healed micro-fracturing locally within the more siliceous sections and occasional very fine calcitic fracture.</p> <p>An approx 1 cm white to pale grayish white Quartz vein, weakly min Po, Py and trace Cpy cuts the core at <math>\sim 10^\circ</math>-<math>15^\circ</math> to c/a at approx. 719.1. Joints at approx. <math>15^\circ</math> to c/a contribute to moderately to strongly broken core with occasional short section very strongly broken. Very fine grained euhedral Py thinly (<math>&lt; 0.1</math> mm) coating a joint surface at approx. <math>20^\circ</math> to c/a at <math>\sim 717.8</math>.</p>					
727.3-740.4m	<p>SILTSTONE</p> <p>Dark to very dark gray, weakly to strongly silicified, locally grading into chloritic, weakly garnetiferous quartzitic rock. Bedding is generally obscured to faint. Core is moderately to locally very strongly broken. Where bedding is observable, it is generally thin bedded to very thin bedded/laminated. Bedding to c/a: <math>61^\circ</math> at 729.8 (laminated); <math>53^\circ</math> at 733.6 (thin bedded &amp; laminated); <math>60^\circ</math> at 737.4 (very thin-thin bedded).</p>					
740.4-761.6m	<p>QUARTZITE &amp; SILTSTONE</p> <p>Mixed lithology of medium gray to medium greenish gray siliceous appearing quartzite, silty quartzite, dark grayish-black silicified siltstone, thin bedded soft mudstones (2-3 dm). Locally weakly-moderately chloritized. Core is moderately to mainly strongly broken with numerous fractures parallel to sub-parallel the c/a. Occ. hair-line calcite fracture. Bedding to c/a: <math>50^\circ</math> and <math>66^\circ</math> (cross-bedded ?) at 745.3; <math>55^\circ</math> at 749.9; <math>63^\circ</math> at 753.9. From 754.7-755.4 gabbroic intrusion (?); mottled green highly chloritic, strongly calcitic with numerous discontinuous wisps of white calcite shot through the rock, locally magnetic, with magnetic Po and possibly magnetite. From 754.8-754.95 medium greenish gray quartzite inclusion (?). Irregular contacts, with the contact at 755.4 at approx. <math>48^\circ</math> to c/a. Strongly broken to rubbly core from 755.6-756.3.</p> <p>From 757.9-758.2 gabbroic material as above with chloritized fragments of Quartzite included followed by an interval (758.2-758.9) of sheared, brecciated quartzitic with chlorite, minor magnetite, and calcite matrix. Minor gouge at approx. 758.5.</p>					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
761.6-768.4m	<p><b>SILTSTONE &amp; QUARTZITE</b></p> <p>A mixed suite of medium to very thin bedded/laminated silicified siltstone, sandy siltstone and Quartzite. This section has a noticeable amount of Po which occurs locally as either fine grained disseminations, fracture fill are very occasionally as fine (<math>\leq 1</math> mm) clots. Core has generally been well silicified, which has contributed to obscuring the bedding planes.</p> <p>Note: Parts of this section are similar to Lower Aldridge mineralization. Po min on fracture at <math>\sim 10</math>-<math>15^\circ</math> to c/a in glossy Quartzite at approx. 766.9. Bedding to c/a: <math>45^\circ</math> at 759.0; <math>49^\circ</math> at 762.5; <math>58^\circ</math> at 767.8.</p>					
768.4-780.9m	<p><b>QUARTZITE</b></p> <p>Mainly semi-glossy, silicified (?) medium gray silty Quartzite, medium to thick bedded, with occasional short interval of mainly thin bedded to very thin bedded/laminated medium gray siltstone. Occasional thin (<math>\leq 1</math> mm) Po filled discontinuous fracture in both the Quartzite and siltstone. At 770.8, an approx. 1 dm strongly silicified and chloritized bed very well min. with Po as fracture fill, small (<math>\leq 2</math> mm) clots and disseminations (?) The disseminations are in the form of small (<math>\leq 0.5</math> mm) hackly bordered grains that frequently coalesce into one another, a texture possibly due to metamorphic overprinting on an originally finely disseminated Po bed. Bedding to c/a: <math>54^\circ</math> at 777.5.</p>					
780.9-798.4m	<p><b>SILTSTONE AND MINOR INTERBEDDED QUARTZITE</b></p> <p>Mainly medium-dark grayish black silicified siltstone with local short, quartzitic zones. Very rare small garnet. Locally weakly chloritized. Occasional narrow (<math>\leq 1</math> mm) quartz or quartz/calcite veinlet. Core is moderately to heavily broken from approx. 788.2 - 798.4 with occasional short moderately broken section. Occasional minor Py on fractures. Occ. small pebble. Bedding to c/a: <math>60^\circ</math> at 782.9; <math>50^\circ</math> at 787.4; <math>60^\circ</math> at 794.7; <math>54^\circ</math> at 797.2.</p>					
798.4-811.1m	<p><b>QUARTZITE</b></p> <p>Mainly pale to medium gray semi-glossy to glossy. Occasional weak disseminated Py. Very occasional narrow (<math>\leq 0.5</math> dm) weakly garnetiferous zone. Numerous micro fracture core moderately to locally heavily broken. At 806.3, approx. 1 dm medium gray very thin bedded/laminated siltstone at <math>65^\circ</math> to c/a. From 805.9-807.2; Quartzite appears somewhat bleached with shearing or gouge zones as follows: Minor shearing at <math>\sim 70</math>-<math>80^\circ</math> to c/a at 806.15, 806.35, 806.45; sheared and crushed at 806.8-806.9 with contacts at <math>75</math>-<math>80^\circ</math> to c/a; crushed rock and granular gouge at 807.0-807.2 at <math>\sim 85^\circ</math> to c/a at lower contact.</p>					
780.9-798.4m	<p><b>SILTSTONE AND MINOR INTERBEDDED QUARTZITE</b></p> <p>Mainly medium-dark grayish black silicified siltstone with local short, quartzitic zones. Very rare small garnet. Locally weakly chloritized. Occasional narrow (<math>\leq 1</math> mm) quartz or quartz/calcite veinlet. Core is moderately to heavily broken from approx. 788.2 - 798.4 with occasional short moderately broken section. Occasional minor Py on fractures. Occ. small pebble. Bedding to c/a: <math>60^\circ</math> at 782.9; <math>50^\circ</math> at 787.4; <math>60^\circ</math> at 794.7; <math>54^\circ</math> at 797.2.</p>					
798.4-811.1m	<p><b>QUARTZITE</b></p> <p>Mainly pale to medium gray semi-glossy to glossy. Occasional weak disseminated Py. Very occasional narrow (<math>\leq 0.5</math> dm) weakly garnetiferous zone. Numerous micro fractures core moderately to locally heavily broken. At 806.3, approx. 1 dm medium gray very thin bedded/laminated siltstone at <math>65^\circ</math> to c/a. From 805.9-807.2; Quartzite appears somewhat bleached with shearing or gouge zones as follows: Minor shearing at <math>\sim 70</math>-<math>80^\circ</math> to c/a at 806.15, 806.35, 806.45; sheared and crushed at 806.8-806.9 with contacts at <math>75</math>-<math>80^\circ</math> to c/a; crushed rock and granular gouge at 807.0-807.2 at <math>\sim 85^\circ</math> to c/a at lower contact.</p>					
811.1-827.6m	<p><b>SILTSTONE &amp; QUARTZITE</b></p> <p>Medium dark silicified siltstone with vague to obliterated (?) bedding, locally well bedded very thin to laminated siltstone and transitional zones from almost massive sandy siltstones into short medium gray to greenish gray weakly garnetiferous quartzitic units. Moderately broken core to locally very strongly broken. The section 813.3-813.7 is slightly brownish medium to medium dark gray and cross-bedded with one elongated siliceous pebble (or rip-up clast) (<math>\sim 2</math>-<math>3</math> mm x 4 cm) parallel with bedding. Core is very weakly</p>					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
811.1-827.6m	cont'd chloritized with occasional very fine hair-line healed fracture. Bedding to c/a: 50° at 813.3; 50° at 819.6; 52° at 826.5.					
827.6-833.8m	QUARTZITE Mainly medium gray slightly sandy to medium greenish gray and semi-glossy. Strongly broken core from 827.7-830.4. About 5 cm laminated medium gray siltstone at 830.5 at 65° to c/a.					
833.8-866.1m	SILTSTONE WITH MINOR (20%-30%) INTERBEDDED QUARTZITE Mixed suite of thin to medium bedded medium to medium dark gray locally silicified siltstones, occasional short section of pale medium gray to mainly thin bedded pale gray pyrrhotitic mudstone, and silicified and weakly-moderately chloritized dark greenish gray siltstone grading into either medium greenish gray and grayish brown quartzitic rock, or very short (<1 dm) intervals of very pale grayish white garnetiferous concretionary (?) type quartzite. Core is generally moderately to well broken to locally very strongly broken over short (usually <4 dm) sections. Note: The section 834.7-844.0 is particularly well broken with the section 839.0-839.7 mainly rock rubble with very minor amount of fault gouge at 839.2. The very rare siliceous pebble is present. Note: Pyrrhotite content is somewhat higher than normal for Middle Aldridge although the lithology and sedimentation feature are basically Middle Aldridge. The Po mainly occurs as short discontinuous fracture fill and occasionally as very fine grained and weakly disseminated. From 862.8-863.3 a quartzitic horizon that has been 'flooded' with white to grayish white quartz leaving remnant bedding at approx. 863.2 in the form of a narrow (93-4 mm) "chalcedony" bed at 75% to c/a. The upper contact appears to be locally sub-parallel to the c/a and the HW rock looks vaguely like healed breccia. Weakly to moderately mineralized Po with minor Py. Sample: 45926 862.7-863.3 m 0.6 m Bedding to c/a: 49° at 834.3; 57° at 845.6; 60° 850.3; 58° at 855.6; 58° at 866.1.	8	5	28	0.1	11
866.1-887.0m	QUARTZITE WITH MINOR (<25%) SILTSTONE Primarily medium bedded medium gray sandy Quartzite with minor short (<2 dm) concretionary like (whitish to very pale gray with numerous small (<2 mm) garnet) quartzitic beds and usually short (<0.5 m) sections of medium bedded to very thin bedded/laminated medium dark gray siltstones. Core locally weakly chloritized. Bedding to c/a: 63° at 873.0; 58° at 879.0. Occasional pebble present, usually within the sandy quartzite: e.g. 2 x 2.5 cm cross fractured pebble at 874.8 with displacement on the fracture; 1 x 4 cm lenticular sub-rounded pebble at 879.0. Very pale grayish-white to medium grayish green quartzite between 884.9-885.8 with locally large (<2 mm) to blebs of dissem. Po.					
887.0m	END OF HOLE: 887.0 m (2910')					
	<u>ADDENDUM</u>					
	The major gabbro intrusion was sampled throughout its entire length for Gold and Platinum group elements. Results are as follows:					
	Samples: 45927 324.0-325.5 m 1.5 m	8	3	2	2	2
	45928 325.5-327.1 m 1.6 m	8	1	2	2	2
	45929 327.1-328.6 m 1.5 m	3	1	2	2	2
	45930 328.6-330.1 m 1.5 m	2	4	4	2	2
	45931 330.1-331.6 m 1.5 m	15	6	6	2	2
	45932 331.6-332.8 m 1.2 m	4	1	2	2	2
	45914 332.8-332.95m 0.15 m					
	45933 332.95-334.5m 1.55 m	1	4	2	2	2
	45934 334.5-336.0 m 1.5 m	2	4	3	2	2
	45935 336.0-337.5 m 1.5 m	5	1	4	2	2
	45936 337.5-339.0 m 1.5 m	6	4	2	2	2
	45937 339.0-340.5 m 1.5 m	2	4	5	2	2
	45938 340.5-342.0 m 1.5 m	1	1	2	2	2

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS			
		Au	Pt	Pd	Rh
	45939 342.0-343.5 m 1.5 m	7	7	2	2
	45940 343.5-345.0 m 1.5 m	4	1	4	2
	45941 345.0-346.5 m 1.5 m	8	1	7	2
	45942 346.5-348.0 m 1.5 m	5	1	5	2
	45943 348.0-349.5 m 1.5 m	11	1	2	2
	45944 349.5-351.0 m 1.5 m	5	2	2	2
	45945 351.0-352.5 m 1.5 m	6	3	5	2
	45946 352.5-354.0 m 1.5 m	6	2	5	2
	45947 354.0-355.5 m 1.5 m	6	1	2	2
	45948 355.5-357.0 m 1.5 m	4	1	4	2
	45949 357.0-358.5 m 1.5 m	7	1	2	2
	45950 358.5-360.3 m 1.8 m	4	2	2	2
	45915 360.3-360.6 m 0.3 m				
	56155 360.6-362.0 m 1.4 m	1	1	2	2
	56156 362.0-363.5 m 1.5 m	2	3	4	2
	56157 363.5-365.0 m 1.5 m	1	1	2	2
	56158 365.0-366.5 m 1.5 m	1	1	2	2
	56159 366.5-368.0 m 1.5 m	2	2	3	2
	56160 368.0-369.5 m 1.5 m	9	4	2	2
	56161 369.5-371.0 m 1.5 m	5	4	2	2
	56162 371.0-372.5 m 1.5 m	3	4	3	5
	56163 372.5-374.0 m 1.5 m	8	5	6	2
	56164 374.0-375.5 m 1.5 m	19	8	4	2
	56165 375.5-377.0 m 1.5 m	7	8	2	3
	56166 377.0-378.5 m 1.5 m	12	12	4	4
	56167 378.5-380.0 m 1.5 m	20	24	2	6
	56168 380.0-381.5 m 1.5 m	17	26	7	4
	56169 381.5-383.0 m 1.5 m	18	29	6	4
	56170 383.0-384.5 m 1.5 m	10	58	13	3
	56170R	6	59	5	2
	56171 384.5-386.0 m 1.5 m	20	51	32	4
	56171R	17	51	25	2
	56172 386.0-387.5 m 1.5 m	4	125	100	7
	56172R	2	140	103	5
	56173 387.5-389.0 m 1.5 m	42	98	107	10
	56173R	42	112	107	8
	56174 389.0-390.5 m 1.5 m	9	42	49	15
	56174R	8	39	45	10
	56175 390.5-392.0 m 1.5 m	6	24	42	14
	56176 392.0-393.5 m 1.5 m	14	25	38	6
	56177 393.5-395.0 m 1.5 m	4	21	42	4
	56178 395.0-396.5 m 1.5 m	5	18	37	2
	56179 396.5-398.0 m 1.5 m	19	16	41	3
	56180 398.0-399.5 m 1.5 m	9	19	43	6
	56181 399.5-401.0 m 1.5 m	3	12	41	4
	56182 401.0-402.5 m 1.5 m	6	12	68	5
	56183 402.5-404.0 m 1.5 m	7	19	41	5
	56184 404.0-405.5 m 1.5 m	8	14	38	3
	56185 405.5-407.0 m 1.5 m	6	14	42	5
	56186 407.0-408.5 m 1.5 m	6	12	30	5
	56187 408.5-410.0 m 1.5 m	6	12	28	3
	56188 410.0-411.5 m 1.5 m	6	10	26	2
	56189 411.5-413.0 m 1.5 m	3	10	25	3
	56190 413.0-414.5 m 1.5 m	9	10	28	3
	56191 414.5-416.0 m 1.5 m	11	11	18	2
	56192* 416.0-417.5 m 1.5 m	8	4	19	2
	56192R	4	14	19	2
	56193* 417.5-419.0 m 1.5 m	145	9	17	2
	56193R	10	11	15	2

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS			
		Au	Pt	Pd	Rh
	56194* 419.0-420.5 m 1.5 m	2	11	15	2
	56194R	3	13	16	2
	56195* 420.5-422.0 m 1.5 m	8	11	18	2
	56195R	6	9	16	2
	56196 422.0-423.5 m 1.5 m	2	6	20	2
	56197 425.5-425.0 m 1.5 m	6	13	22	2
	56198 425.0-426.5 m 1.5 m	3	6	13	2
	56199 426.5-427.2 m 0.7 m	1	13	20	2
	45916 427.2-427.9 m 0.7 m				
	56200* 427.9-429.5 m 1.6 m	1	1	14	3
	56200R	2	9	14	2
	56309* 429.5-431.0 m 1.5 m	653	3	13	2
	56309R 0.001 oz/t Au	3	5	14	2
	56310* 431.0-432.5 m 1.5 m	6096	8	15	2
	56310R 0.001 oz/t Au	2	9	15	2
	56311* 432.5-434.0 m 1.5 m	116	11	18	2
	56311R	2	8	15	2
	56312* 434.0-435.5 m 1.5 m	108	1	19	2
	56312R	3	4	18	2
	56313* 435.5-437.0 m 1.5 m	13	6	23	8
	56313R	10	4	19	4
	56314 437.0-438.5 m 1.5 m	2	8	18	2
	56315 438.5-440.0 m 1.5 m	4	5	14	2
	56316 440.0-441.5 m 1.5 m	3	7	14	2
	56317 441.5-443.0 m 1.5 m	4	10	15	2
	56318 443.0-444.5 m 1.5 m	5	8	12	2
	56319 444.5-446.0 m 1.5 m	2	8	13	2
	56320 446.0-447.5 m 1.5 m	3	6	12	2
	56321 447.5-449.0 m 1.5 m	3	11	12	2
	56322 449.0-450.5 m 1.5 m	4	10	14	2
	56323 450.5-452.0 m 1.5 m	5	7	18	2
	56324 452.0-453.5 m 1.5 m	2	8	11	2
*Results for these samples are unreliable due to breakdown in procedure of ACME ANALYTICAL LABORATORIES.					
Note: The following samples are of NQ core.					
	56325 441.5-443.0 m 1.5 m	10	8	13	2
	56326 443.0-444.7 m 1.7 m	1	8	15	2
	56327 444.7-445.7 m 1.0 m	5	8	13	2
	56328 445.7-447.2 m 1.5 m	4	9	13	2
	56329 447.2-448.5 m 1.3 m	5	8	15	3
	56330 448.5-450.0 m 1.5 m	3	9	16	2
	56331 450.0-451.5 m 1.5 m	3	6	12	2
	56332 451.5-453.0 m 1.5 m	1	5	16	2
	56333 453.0-454.5 m 1.5 m	7	11	10	2
	56334 454.5-456.0 m 1.5 m	3	7	14	2
	56335 456.0-457.5 m 1.5 m	5	6	15	2
	56336 457.5-459.0 m 1.5 m	1	10	15	2
	56337 459.0-460.5 m 1.5 m	5	13	16	2
	56338 460.5-462.0 m 1.5 m	6	13	17	2
	56339 462.0-463.5 m 1.5 m	6	9	16	3
	56340 463.5-465.0 m 1.5 m	3	11	12	2
	56341 465.0-466.5 m 1.5 m	4	10	13	2
	56342 466.5-467.0 m 0.5 m	3	9	18	2
	56343 467.0-468.5 m 1.5 m	1	8	13	2
	56344 468.5-470.0 m 1.5 m	4	11	14	2
	56345 470.0-471.5 m 1.5 m	4	9	12	2
	56346 471.5-473.0 m 1.5 m	2	7	13	2
	56347 473.0-474.5 m 1.5 m	1	8	12	2

FOOTAGE		DESCRIPTION		ANALYSIS				
FROM	TO			Au	Pt	Pd	Rh	
		56348	474.5-476.0 m	1.5 m	2	6	9	2
		56349	476.0-477.5 m	1.5 m	2	5	13	2
		56350	477.5-479.0 m	1.5 m	3	13	15	2
		52002	479.0-480.5 m	1.5 m	4	8	12	2
		52003	480.5-482.0 m	1.5 m	33	9	17	2
		52004	482.0-483.5 m	1.5 m	10	13	18	2
		52005	483.5-485.0 m	1.5 m	20	9	14	2
		52006	485.0-486.5 m	1.5 m	4	11	17	2
		52007	486.5-488.0 m	1.5 m	1	3	13	4
		52008	488.0-489.5 m	1.5 m	1	3	12	3
		52009	489.5-491.0 m	1.5 m	5	4	14	2
		52010	491.0-492.5 m	1.5 m	4	7	16	2
		52011	492.5-494.0 m	1.5 m	3	8	15	3
		52012	494.0-495.5 m	1.5 m	5	11	18	2
		52013	495.5-497.0 m	1.5 m	1	7	21	2
		52014	497.0-498.5 m	1.5 m	1	7	16	2
		52015	498.5-500.0 m	1.5 m	1	4	22	2
		52016	500.0-501.5 m	1.5 m	1	8	19	2
		52017	501.5-503.0 m	1.5 m	1	3	14	2
		52018	503.0-504.5 m	1.5 m	1	1	8	3
		52019	504.5-506.1 m	1.6 m	1	1	4	2
		Calculated Average	383.0-389.0 m	6.0 m	19	83	63	6

COMMENCED: January 12, 1990  
 COMPLETED: January 26, 1990  
 LOGGED BY: M.J. Cook  
 DATE LOGGED: January 15, 1990

DISTRICT:  
 PROPERTY: McNeil Creek  
 LOCATION:  
 CO-ORD.: 5012N; 3892E  
 ELEV.: 1477 m

COLLAR DIP: -90°  
 BEARING:  
 LENGTH: 572.1 m  
 CORE SIZE: HQ  
 % RECOVERY:

TESTS @:

ppm except Au ppb

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
0.0-75.6m	CASING					
75.6-98.7m	SILTSTONE Dark gray, fine grained with numerous healed fractures. Amorphous pyrite within open fractures (1-3%). Minor Calcite along joints and fractures. 78.15-78.35; altered and silicious unit. Po blebs disseminated throughout with minor Cpy. Garnet alteration throughout. 78.4-78.7; depositional feature, fine grained beds surrounded by more sandy beds. Fine grained bed abruptly ending and/or have been eradicated by sandy unit above - Load Casting (?) 80.2-80.3; silicious altered unit, as above but with mafic blotches throughout. 83.3-83.4; healed fracture zone with chlorite alteration radiating from fractures. Garnet alteration surrounding light green bleaching. 84.0-84.2; rip-up clasts - coarser grained clasts pinched off 89.6-90.0; silicious altered unit - medium grained with garnet alteration and silicification throughout. Dissem. Po throughout with minor Arsenopyrite (?) (Gray metallic mineral). Calcite infilling within fractures at bottom of unit Py along fractures. SAMPLE: 45001 89.6-90.0 m 0.4 m 90.0-90.9; healed fracture zone - with garnet alteration & silicification, light green bleaching.					
91.7-92.3m	MARKER (Moyie ?) Numerous laminations within dark green siltstone. Light colored laminations quite vague due to slight displacement by cross-cutting fractures - those fractures slightly mineralized (Py). Marker zone more definite at top; chloritized and slightly brecciated at bottom.					
94.8-98.3m	FAULT ZONE 30° to c/a. Strongly broken and rubbly. Occasional solid, more silicious blocks (<.2 m). Minor gouge associated with more fine grained and broken zones.					
98.3-106.1m	QUARTZITE Gradational, from dark fine grained becoming fine to medium grained gray quartzite, numerous healed fractures. Alternating light and dark grays. 101.8 - light gray rip-up clasts, pinched off. 103.2 - graded beds of alternating light and dark grained quartzites. 104.3 - graded beds as above. 104.8 - Quartz vein - biotite ("sharks teeth") and Po along both contacts. Conformable to bedding. .05 m wide.					
106.1-165.2m	SILTSTONE Dark gray, fine grained with numerous open & healed fractures. Open fractures or joints with amorphous Py, very finely disseminated Po abundant. Moderate laminations to massive with occ. finely laminated sections. 106.9-107.05; concretion - silica and biotite rich. 107.2; fault gouge at 45° to c/a. 109.1-109.5; Numerous fractures - vuggy with Po along fracture planes	25	228	100	0.7	6



FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
106.1-165.2m	cont'd 109.8-109.9; Rip-up clasts contacting a more sandy unit with Py and Po accumulations within healed fractures. 111.0; minor Py associated with silicification within healed fractures. 112.3; chloritized bed offset by minor fractures - 1 cm wide. 113.3; minor Quartz vein perpendicular to bedding planes with minor Po associated 113.7-113.8; Breccia - angular fragments within a silicious matrix, conformable to bedding. 113.9-114.2; Po lams - finely disseminated throughout, conformable to bedding planes. 116.1-116.3; very fine and definite dark laminations within a series of lighter and thicker mudstones. 116.3-116.5; Po lams - finely disseminated - conformable to bedding. 120.0-120.4; Fault - broken and silicious with minor Py and Garnet alteration; 30° to c/a. 121.5; broken and fractured core, probable weak fault, minor gouge SAMPLE: 45002 121.1-121.5 m 0.4 m 122.1; light green bleaching along healed fracture planes. 122.55-122.6; Quartz Vein, parallel to bedding 0.1 m wide. Minor Py and Po. Garnet alteration near contact. 123.1-123.4; Alteration zone - Garnets, light green bleaching associated within healed fractures. 123.4-123.5; Quartz vein - with disseminated biotite crystals. 124.5-124.7; rip up fragments or possible slump feature with disseminated Po throughout and minor Py along healed fractures. 125.5- ; Crevelation associated with Po lams along bedding planes 125.9-127.2; alternating light and dark grays with finely disseminated Po throughout (conformable to bedding). 127.8-128.1; Alteration Zone - Garnet alteration within dirty and silicious siltstone. 128.1-128.2; light green bleaching - quite silicious. 130.1-130.3; Graded Bedding - reverse bedding - (course to fine grained), bedding @ 43° c/a 131.9-132.4; Fault - 70° to c/a - gouge and badly broken. Silicious healed fractures immediately above (131.7-131.9). 133.3- ; Concretion, highly silicious with hornblende crystals, minor Py. 133.6-134.4; Fault - gouge and very broken core - @ 65° to c/a. 138.0-138.2; graded siltstone/mudstone beds, @ 60° to c/a. 138.4-138.9; altered unit - very silicious, slightly coarser grained, with garnet alteration to light green bleaching. 141.8 ; Concretion - garnet alteration present. 149.7 ; Concretion - light green bleaching within healed fracture (associated ??) 149.0 ; Quartz Vein - minor cross-cutting bedding, minor Py with associated Arsenopyrite. 150.8 ; Quartz Bleb - barren, surrounded by light green bleaching. 152.6-152.9; Silicified Siltstone - remnant bedding visible at 40° to c/a - minor Py disseminated throughout. 155.1-155.4; Concretions - garnet alteration, silicious with hornblende crystals. 157.4-157.8; Alteration Zone - very similar to previous concretions yet bedding planes visible within at 36° to c/a. Very disseminated Py with 5-10% (biotite ??), minor Garnet alteration present. 159.1-159.4; Alteration Zone - as above but with slightly more pronounced garnet alteration minor Po at lower contact. Biotite visible. 163.5 ; Rip-up clasts - elongated and stretched - conformable to bedding. Bedding at 60° to c/a.	3	9	35	0.1	3
165.2-166.6m	QUARTZITE Medium grained, medium gray to dirty appearance, quite silicious with remnant bedding, medium laminations to massive, with garnet alteration present. Healed and bleached fractures at 30° to c/a.					
166.6-171.3m	SILTSTONE Fine grained, dark gray, thin to medium laminated with bedding at 60° to c/a. Minor Py along bedding plane fractures.					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
171.3-174.6m	<p>QUARTZITE</p> <p>Fine to medium grained, altered, light and dark grays, medium laminations to massive. 172.6-172.7; Quartz vein, biotite present. Parallel to bedding. 174.3; minor quartz vein, barren.</p>					
174.6-183.2m	<p>SILTSTONE</p> <p>Fine to medium grained, dark gray with silicious zones. Medium laminations to massive. Minor amorphous Py along bedding plane fractures. Bedding approx. 50-55° to c/a.</p>					
183.2-185.9m	<p>QUARTZITE</p> <p>Medium to dark gray, fine and medium grained, faintly medium laminated to massive. 184.4-184.6; Quartz vein, mainly barren with minor chlorite alteration at contacts. 184.7-185.1; Healed fractures with calcite infilling (soft)</p>					
185.9-196.1m	<p>SILTSTONE</p> <p>Fine to medium grained, medium to dark grays, fine to medium laminations. Alternating grays and laminations (fine to medium)</p> <p>187.2-187.4 - finely laminated zoning - slight grading.</p> <p>189.3-190.4 - MARKER - <u>Monroe</u> - numerous finely laminated distinctive beds (lighter colored) within dark gray siltstone.</p> <p>190.4-190.6; brecciated zone with very fine Py stringers and disseminated Py throughout, slightly chloritic altered angular fragments (lighter in color).</p> <p>191.7-192.1; Chloritized unit - finer grained with calcite within fractures. Light gray. Ending in FAULT gouge - at 50° to c/a. Conformable to bedding.</p>					
196.1-202.8m	<p>QUARTZITE</p> <p>Medium grained, fine to medium laminations, altered light and dark grays, faulted and broken core.</p> <p>197.6; Fault - gouge and broken core - healed fractures throughout to 198.5</p> <p>193.3-199.9; Fault zone - broken core - slickensides at 70° to c/a.</p> <p>198.8; Minor Quartz vein parallel to bedding.</p> <p>199.2-200.2; Fault zone - broken core, slickensides and associated Chlorite alteration. Quartzites becoming pale green to light gray with abundant healed fractures.</p>					
202.8-219.9m	<p>SILTSTONE</p> <p>Fine to medium grained, light to dark grays, thin to medium laminated occasional silicious concretion with associated Garnet alteration.</p> <p>204.9; Slump feature with rounded rip up clasts along bedding plane.</p> <p>206.95; Quartz vein (1 cm) dissecting concretion, abundant biotite present within concretion.</p> <p>210.0-210.2; concretion, biotite concentrated along margins with minor Py.</p> <p>211.8; Quartz vein, conformable to bedding - Po clots throughout with minor Py</p> <p>SAMPLE: 45003 m 0.1 m</p> <p>215.3-218.2; becoming thinly laminated with graded bedding.</p>	3	11	11	0.1	5
219.9-223.5m	<p>QUARTZITE</p> <p>Fine to medium grained, medium - dark grays, numerous healed fractures, with abundant light green bleaching.</p>					
223.5-241.9m	<p>SILTSTONE</p> <p>Dark to medium grays, fine to medium grained, thin to medium laminations. Lighter grays having a more "sugary" texture. Minor healed fractures and numerous bedding plane slips or fractures. Bedding planes approx. 40° to c/a.</p> <p>227.0; Fault gouge - parallel to bedding planes.</p> <p>227.9-229.0; broken core with minimal gouge material.</p> <p>230.4; Quartz vein, minor Po with an abundance of Biotite at contact.</p> <p>230.4-232.5; silicious siltstone/quartzites (?)</p> <p>237.3-239.0; Rip-up clasts, at top of beds, stretched and wispy shaped.</p>					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
241.9-253.4m	<p><b>QUARTZITE</b> Dark to medium gray, medium grained with occ. beds of chloritic quartzite (altered). Bedding at 40° to c/a. Minor (amorphous) Pyr along bedding plane fractures. Quartz and calcite veinlets prevalent throughout. 245.8; Quartz vein, 2 cm - minor Po clots with biotite present. 247.6-248.0; Brecciated zone, quartz veinlets with minor calcite 248.4; Graded bedding, slightly altered beds within darker beds. 249.5; Concretion - biotite blebs and associated Pyr.</p>					
253.4-260.5m	<p><b>SILTSTONE</b> Medium to dark grays, fine to medium grained, thinly laminated with occ. medium size laminations. Reddish brown "patches" of alteration, occ. altered bed. 255.8-256.1; Quartz veinlets at random angles to bedding. 257.2; Pyr - 1 mm along silicious bedding plane at 40° to c/a. 257.8; Pyr - 4 mm occurring along silicious bedding plane. 259.5-260.1; Occ. more silicious zones grading into quartzites. Thinly laminated with dark siltstone laminations offset by healed fractures.</p>					
260.5-272.6m	<p><b>QUARTZITE</b> Light to medium grays, medium grained, thin to medium laminated, with occ. chloritic altered section (softer), minor Garnet alteration. 260.8; silicious zone - with garnet alteration and biotite. 265.2-267.3; Depositional features common such as rip up clasts, slumping etc. (Turbidite?) 268.6-268.9; Quartz vein, minor Po - biotite and garnet alteration at margins. 269.4-270.0; Altered zone - chloritic alteration with abundant healed fractures (soft).</p>					
272.6-275.0m	<p><b>SILTSTONE</b> Fine to medium grained, medium grays, altered sections near fault zone. Abundant healed fractures. 272.6-274.9; Fault zone, brecciated at contact with healed fractures. Chloritic fragments and slickensides. Broken core with minor Py along fractures.</p>					
275.0-297.7m	<p><b>QUARTZITE/SILTSTONE</b> Alternating beds, siltstone finer grained, generally thinner laminations. Medium to dark grays, with occ. silicified zones. 276.1-276.4; thinly laminated siltstone with basal laminations brecciated and slightly displaced (5 mm) by healed fractures. 277.9; Silicified bed with slightly mineralization (Py) with associated Garnet alteration and biotization - 0.05 m. 283.6-283.8; Breccia, vague brecciation seams healed ? 284.2-285.8; Thinly laminated siltstone with numerous rip up clasts thinning and swelling with minor crenulations, minor Py on fractures. 288.35; Po bleb within medium grained siltstone - remobilized along healed fractures ? 288.8-289.0; Silicious unit (concretion?) - Garnet alteration with associated biotite. 289.4-289.9; Silicious unit - as above but with light green bleaching surrounding healed fractures. 290.4-293.4; Bleached unit - slightly silicified with an abundance of healed fractures. Fault at 291.4 m. Quartz vein at fault - fault gouge with calcite. Bleaching may be alteration associated with fault and/or silicification. 297.7; Bedding at 45° to c/a.</p>					
297.7-317.7m	<p><b>QUARTZITE</b> Medium grays, medium grained, medium laminations - occ. fine, very vague laminations with thickening beds and rip up clasts, light green bleaching within and surrounding healed fractures. 306.8; Possible rip up clasts - rounded almost boudinaged clasts with same compositional make up as lower unit - scoured and rolled during later deposition (?)</p>					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
297.7-317.7m	<p>cont'd</p> <p>310.5-312.5; alteration, bleached (light gray) and silicified with garnet alteration, minor biotite present. Quartz veinlets throughout usually perpendicular to bedding angles.</p> <p>314.4-315.8; Fracturing - very chloritic to gouge material within fractures - fractures at 30° to c/a.</p> <p>315.8-316.9; Fault - very friable and fractured core, (soft) chloritic. Fractures almost parallel to c/a, minor Pyr on fracture planes. Bedding 40° to c/a.</p>					
317.7-325.7m	<p>SILTSTONE</p> <p>Weak fault at contact parallel to bedding angles and adjacent to minor quartz vein. Minor Pyr on fractures. Fine to medium grained, medium to dark grays, with very silicious fine grained darker sections.</p> <p>319.1; Rounded Po clasts present, seemingly "stretched" along bedding plane axis. Core becoming quite broken at 321.9 - 324.5 with abundant Py along fractures, with the majority of fractures parallel to bedding planes (at 35° to c/a).</p>					
325.7-347.7m	<p>QUARTZITE</p> <p>Medium to dark grays, medium grained, quite homogeneous and unremarkable.</p> <p>325.0-325.3; slump feature - large rounded to boundinaged clasts (.1 m) within an altered chloritic and highly convoluted matrix.</p> <p>331.9; Concretion, oblong shaped with biotite and minor healed fractures with chloritic infilling Pyr 334, fault-chloritic slickenside approx. 10° off c/a. Bedding planes at 35°.</p> <p>339.0; Broken core and fault gouge parallel to bedding.</p> <p>343.8; Sericite "flakes" along to bedding plane .5 cm wide.</p> <p>335.1; Fractured core parallel to bedding planes - 35° to c/a, Calcite on fractures.</p> <p>335.1-336.3; Slightly chloritic quartzites near fracturing. Fracturing at 35° to c/a. Chloritic slickensides with soft pseudo-healed fractures.</p> <p>347.0-347.7; Silicified and altered, garnet alteration near barren quartz biotite pervasive throughout. Quartzites - becoming very dark and fine grained with occ. soft rounded pebbles in coarser matrix.</p> <p>353.4-355.4; Thinly laminated with grained bedding, light to dark grays.</p> <p>356.7; light gray, medium grained with occ. light green bleached healed fractures. Minor Py along open fractures.</p> <p>358.4; Broken core at bedding planes - soft chloritic fractures parallel to c/a with 5% Py</p>					
364.7-375.6m	<p>SILTSTONE</p> <p>Medium to dark grays, medium to thin laminations with occ rip up clasts and pinched beds. Fine to medium grained. Bedding at 40° to c/a. Minor Py on open fractures.</p> <p>369.4; silicious siltstone with slight garnet alteration. Medium gray, medium grained, with minor garnet alteration present at 372.4. Occ. bleached healed fractures and thinly laminated with alternating grays. Bedding at 35-40° to c/a.</p>					
375.6-399.5m	<p>QUARTZITE</p> <p>Medium grays, medium grained, massive, bedding almost discernible. Healed fractures with calcite infilling. Locally chloritized sections.</p> <p>Fault zone; 381.9-388.9; strongly broken and fractured core approx. parallel to bedding planes with gouge material present, brecciated at 386.1, soft chloritic gouge with sub-angular fragments.</p> <p>387.9; abundant healed fractures approx. parallel to sub parallel to bedding planes bedding planes discernible by color only.</p> <p>390.3; Minor Po. Core very broken to 391.4 with chloritic alteration associated.</p> <p>Whitish gray gouge material on fractures parallel to bedding planes. 40-45° to c/a.</p> <p>390.8; Po rip up clasts within light gray chloritic bed, conformable to bedding.</p> <p>393.8-394.0; Rip up clasts within light gray siltstone or chlorite altered quartzite.</p>					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au & Pb
375.6-399.5m	cont'd 396.1-396.9; Fault, whitish gray gouge with chlorite on fractures. Approx. parallel to bedding (at 40° to c/a) Light green bleaching with garnet alteration and biotite enrichment in this area, minor healed fractures with calcite infilling. Bedding planes at 40° to c/a - Garnet alteration at 398.8-399.2.					
399.5-406.6m	SILTSTONES/QUARTZITES Alternating, siltstones generally finer grained with thinner laminations. Garnet alteration occurring in quartzites associated with light green bleaching and healed fractures. 399.7-400.3; finely laminated siltstone with disseminated sulps along bedding planes and secondary Po bleb associated with silicification. Bedding at 40° to c/a. 402.0-402.2; Quartz veins, Po blebs with very minor Arsenopyr (?) 402.7; Intraformational conglomerate (?) rounded more mafic elongated or stretched "pebbles". Possible breccia or weak metamorphic effect (?).					
406.6-415.1m	SILTSTONE Very dark, fine grained, medium laminated becoming massive. Occ. lighter chloritic alteration, becoming light green with numerous healed fractures. 411.8-412.0; Chloritically altered unit - with Sph blebs containing in soft pseudo/healed fractures - sub rounded quartz fragments (breccia) at the bottom of this unit. Reworked Py along fractures. SAMPLE: 45004 411.8-412.0 m 0.2 m 45005 412.0-412.9 m 0.9 m	102 78	185 19	503 51	0.5 0.5	2 2
415.1-424.0m	QUARTZITE Medium grained, medium gray mass, with occ. garnet alteration and light green bleaching within healed fractures, becoming very chloritic, highly fractured (healed) Light green in color. 419.2-419.4; Concretion, garnet alteration 422.3; Quartz vein, barren					
424.0-429.5m	ALTERED QUARTZITE Highly bleached, fractured, and chloritic - bleaching, generally light green and silicious. Fractures, healed fractures every 1 cm, open fractures soft and chloritic with white gouge material in stronger fractures. 426.0; chloritic slip at 35° to c/a. Generally light gray with mottled gray patches, fine grained. 426.3; Minor Po stringers within healed fractures with light colored (garnet?) alteration SAMPLE: 45006 426.3-427.3 m 1.0 m 433.5; Quartz vein, .05 cm - minor Po with biotite along margins. 428.4; Fault - 428.9, chloritic slip at 35° to c/a with broken rubble to 428.9. 433.6; Fault - 434.8, broken rubble, very chloritic. SAMPLE: 45007 433.4-433.6 m 0.2 m 45008 437.5-438.3 m 0.8 m 435.0; Mud seam, parallel to remnant bedding, light gray, fine grained at 30° to c/a. heavily chloritized. 435.3-436.6; Chloritization, very strongly altered, green quartzites pseudo brecciated with dark chlorite matrix. Very strongly sheared, almost parallel to c/a. 436.6-439.5; chloritization weakening but shearing becoming more evident at 15° to c/a Foliated with minor sulps occurring parallel to foliation.	46 5 17	25 10 8	111 34 87	0.1 0.1 0.1	3 2 3
439.5-440.1m	QUARTZITE Dark gray, medium grained, medium laminated with biotite rich laminations <1 cm. 439.5; Minor garnet alteration.					
440.1-443.7m	SILTSTONE Fine to medium grained, dark gray with slight greenish tinge. Biotite-rich lams with irregular crenulations. Core broken with numerous chloritic slips parallel to bedding. Bedding at 30° to c/a.					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
443.7-451.6m	<p>QUARTZITE</p> <p>Medium grained, medium gray, thin to medium laminated. Healed fractures abundant with occ. chloritic gouge material on bedding plane slips at 35° to c/a.</p>					
451.6-457.7m	<p>SILTSTONES</p> <p>Thinly laminated; fine to medium grained, darker beds biotite rich with very diss. sulps throughout bedding planes at 38° to c/a. Core quite broken on bedding planes.</p> <p>455.6; Garnet alteration with minor Po, silicious</p> <p>457.4; Po within dark biotite rich lamination</p> <p>Sample: 45009 453.1-454.2 m 1.1 m Banded siltstone, biotite rich lams with disseminated sulphides</p>	34	14	102	0.1	1
457.7-465.1m	<p>QUARTZITE</p> <p>Medium grays, light green bleaching common, medium laminations with occ. finely laminated section.</p> <p>Fault zone - 494.4-460.5; strongly chloritized fractures at 15° to c/a.</p> <p>459.8-460.3; Strongly altered sheared and bleached white with disseminated biotite throughout.</p> <p>460.3-461.6; Light green bleaching pervasive with abundant healed fractures</p>					
465.1-499.6m	<p>QUARTZITES/SILTSTONES</p> <p>Alternating. Quartzites more massive with light green bleaching and healed fractures. Siltstones, thinner laminations with graded bedding apparent Turbidite. Becoming quite scoured on basal areas of siltstone beds, rip-up clasts with interstitial chloritic "rods"</p> <p>472.9; Po blebs within medium grained slightly altered unit, sericite on upper contact with garnet alteration throughout.</p> <p>474.8-476.5; Altered Unit; silicious alteration conformable to bedding with biotite enrichment at contacts, calcite along outer margins; remobilized Po and garnet alteration within this unit. Becoming very light gray with abundant biotite disseminated throughout with occasional siliceous rip up clasts.</p> <p>Sample: 45010 474.85-474.95 m 0.1 m</p> <p>479.2; Concretion, minor garnet alteration within. Light green bleaching within medium grained quartzite becoming pervasive. 499.6; Chloritic slip along bedding plane at 40° to c/a.</p>	454	32	159	0.5	2
499.6-506.1m	<p>QUARTZITES</p> <p>Very "mottled" in appearance with alternating silicious zones, Alteration zoning - garnet alteration, light green bleaching, with concretionary silicious type alteration, disseminated sulps; (Po and Pyr) within.</p> <p>Py accumulations along healed fractures with enveloping chlorite occurring within silicious alternation zones becoming dark gray medium grained and chloritic.</p> <p>Samples: 45011 502.0-502.1 m 0.1 m</p> <p>45012 505.5-505.6 m 0.1 m</p> <p>45013 503.1-503.4 m 0.3 m Silicious alternation with dissem. Pyr throughout.</p> <p>45014 505.1-505.2 m 0.1 m Concretionary alteration, silicious with abundant biotite &amp; associated Po</p>	170	16	58	0.2	1
		43	14	71	0.1	1
		96	18	38	0.1	1
		11	18	83	0.1	1
506.1-507.9m	<p>SILTSTONE</p> <p>Dark gray, fine grained, chloritization associated with faulting.</p> <p>Fault - 506.7-507.9; broken core with chloritic fractures and whitish gouge material on fractures. Bedding indiscernible.</p>					
507.9-534.5m	<p>QUARTZITES/SILTSTONE</p> <p>Quartzites are fine grained, medium gray to green with abundant healed fractures - (likely silicified siltstones). Siltstone very dark, fine grained and massive - chloritic.</p> <p>Alternating beds with gradational contacts.</p> <p>511.7; Sph with garnet rim (&lt;1 cm) associated with shearing and healed fracturing within a light green (bleached) quartzite - shear very chloritic (.05 m)</p>					

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS				
		Cu	Pb	Zn	Ag	Au
507.9-534.5m	cont'd Sample: 45015 511.5-511.7 m 0.2 m 512.3; Minor Fault - sub-parallel to c/a, chloritic gouge on fractures. 513.0-515.5; Core very broken and fractured, Quartzites being pervasive with occasional bed of fine grained siltstone. 518.5; Minor Pyr and Po along open fractures. Grading from medium gray quartzites to dark fragmented siltstones - massive. Quartzites with healed fractures and light green bleaching associated. 520.6; Bedding planes (vague) becoming apparent at 40° to c/a within siltstones - numerous bedding plane weakness with minor calcite and Po along these with occasional chloritic gouge or slip. 526.1-526.6; Very broken core; 526.7 - brecciated at 25° to c/a. 529.1-529.8; Sheared to pseudo-brecciated - silicious ending in Fault gouge. Remnant silicious laminations at 40° been dragged almost parallel to c/a. 531.0 m; Po concentrated along bedding with Po clots directly (below) adjacent. 532.0-533.5; Altered - silicified with garnet alteration. Occasional Po-rich bed - Po accumulated along healed fractures with 5 cm displacement - light green bleaching with more massive areas having highly disseminated sulps and slight reddish tinge. 528.4-534.5; Massive siltstone - dark gray with greenish tinge, fine grained. Minor quartz vein with Po blebs <5%.	3	42	46	0.1	1
	SAMPLES: 45016 530.8-531.8 m 1.0 m	65	28	60	0.1	1
	45017 531.8-532.2 m 0.4 m	104	57	98	0.1	1
	45018 532.2-533.7 m 1.5 m	49	11	46	0.1	1
534.5-572.1m	GABBRO Gradational contact from fine grained chloritic siltstones to fine grain highly mafic chill zone (.5 m) to dark green medium grained gabbro. Becoming coarse grained rapidly with approx. 5-10% quartz grains and 80% mafic minerals. (ie/ chlorite, pyroxene, amphiboles) Occasional epidote associated with fractures and within stringers. Sulps disseminated throughout - Py accumulates along fractures associated with weak quartz veinlets. Po and Py in minor clots throughout with very occasional speck of chalcopyrite. 543.0-543.7; Strongly broken core, Strong Py accumulations along silicified fractured zones at 30° to c/a. 545.0-545.8; Strongly broken core parallel to c/a. 548.0-543.7; Epidote stringers at 20° to c/a, minor Po within slightly silicious stringers. 557.3-559.0; Mineralized stringers parallel to c/a, contains minor Po, epidote and chlorite becoming faulted along stringers from 557.7-558.5, chloritized slikenesides. 561.5-562.1; Silicious gabbro with minor Po within healed fractures and epidote alteration throughout. 564.1-566.5; Quartz Vein; parallel to c/a containing 10% Po, <5% Py and minor Chalcopyrite (at 564.8). Quartz vein has brecciated zones 2 cm wide with silicious angular fragments within a dark fine grained chloritic matrix. Chloritic slikenesides occurring at 40° to core within quartz vein. Abruptly terminated by stringers chloritic fractures at 50° to c/a 571.9; Calcite veinlet at 35° to c/a. Ending in medium grained, dark green gabbro with approx. 80% mafic minerals - occasional broken core with fractures occurring at approx. 50° to c/a.					
	Samples: 45022 534.5-536.0 m 1.5 m	10	8	5	2	
	45023 536.0-537.5 m 1.5 m	7	1	2	2	
	45024 537.5-539.0 m 1.5 m	8	1	2	2	
	45025 539.0-540.5 m 1.5 m	8	1	2	3	
	45026 540.5-542.0 m 1.5 m	4	1	5	2	
	45027 542.0-543.5 m 1.5 m	6	1	2	2	
	45028 543.5-545.0 m 1.5 m	13	4	2	2	
	45029 545.0-546.5 m 1.5 m	11	5	2	2	
	45030 546.5-548.0 m 1.5 m	8	4	4	2	
	45031 548.0-549.5 m 1.5 m	7	4	2	2	
	45032 549.5-551.0 m 1.5 m	8	3	6	4	

FOOTAGE FROM TO	DESCRIPTION	ANALYSIS			
		Au	Pt	Pd	Rh
534.5-572.1m	cont'd				
	Samples: 45033 551.0-552.5 m 1.5 m	2	1	4	4
	45034 552.5-554.0 m 1.5 m	3	3	2	2
	45035 554.0-555.5 m 1.5 m	1	1	2	2
	45036 555.5-557.0 m 1.5 m	1	3	4	2
	45037 557.0-558.5 m 1.5 m	6	1	6	2
	45038 558.5-560.0 m 1.5 m	10	1	6	2
	45039 560.0-561.5 m 1.5 m	7	3	16	2
	45040 561.5-563.0 m 1.5 m	2	1	2	2
	45041 563.0-564.5 m 1.5 m	1	2	2	2
	45042 564.5-566.0 m 1.5 m	1	3	2	2
	45043 566.0-567.5 m 1.5 m	17	2	6	2
	45044 567.5-569.0 m 1.5 m	1	1	4	2
	45045 569.0-570.5 m 1.5 m	2	4	2	2
	45046 570.5-572.0 m 1.5 m	3	3	2	2
	45047 572.0-572.1 m 1.5 m	12	2	4	2
572.1m	END OF HOLE				



**APPENDIX IV**  
**GEOCHEMICAL ANALYSES OF DRILL CORE**

**GEOCHEMICAL ANALYSIS CERTIFICATE**

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 MCL-NH<sub>4</sub>NO<sub>3</sub>-H<sub>2</sub>O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR NH FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: Core ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: NOV 27 1989 DATE REPORT MAILED: Nov 29/89 SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Bapty Research Limited File # 89-4892

SAMPLE#	Mo PPH	Cu PPH	Pb PPH	Zn PPH	Ag PPH	Ni PPH	Co PPH	Mn PPH	Fe %	As PPH	U PPH	Au PPH	Th PPH	Sr PPH	Cd PPH	Sb PPH	Bi PPH	V PPH	Ca X	P X	La PPH	Cr PPH	Mg X	Ba PPH	Ti X	B PPH	Al X	Na X	K X	W PPH	Au* PPH
C 39390	3	31	14	59	1	22	10	200	1.37	351	5	ND	12	4	1	2	2	2	.51	.011	16	9	.21	15	.01	3	.54	.01	.16	1	2
C 39391	2	112	31	5161	1	81	189	455	2.11	505	5	ND	11	9	19	2	4	2	1.75	.014	11	5	.19	18	.01	6	.59	.01	.20	1	24
C 39392	3	31	22	73	1	12	4	271	1.20	4	5	ND	7	4	1	2	3	3	.42	.007	10	12	.20	9	.03	4	.54	.01	.10	1	2
C 39393	3	62	31	34	2	13	5	228	1.06	3	5	ND	6	4	1	2	3	4	.33	.008	10	12	.16	8	.04	5	.50	.01	.08	1	5
C 39394	3	5	11	47	1	9	3	285	1.08	5	5	ND	12	4	1	2	2	4	.37	.009	14	14	.18	8	.05	2	.59	.01	.15	2	1
C 39395	2	17	7	47	1	17	6	295	1.38	19	5	ND	13	5	1	2	2	5	.66	.013	19	8	.19	17	.01	4	.68	.01	.22	1	1
B 56151	1	9337	293	434	2	252	108	467	6.93	208	5	ND	18	5	14	2	7	37	.51	.138	32	24	1.41	83	.13	5	2.95	.05	.89	1	97
B 56152	4	80	1985	18	1	16	9	193	1.75	2	5	ND	9	4	1	2	10	7	.30	.009	9	13	.58	21	.01	8	.89	.05	.18	1	1
B 56153	2	13	20	28	1	17	19	14	1.85	53	5	ND	8	6	1	2	2	2	.07	.024	19	5	.02	11	.01	4	.30	.05	.05	1	125
B 56301	1	2	2	5	1	6	2	337	.55	5	9	ND	9	16	1	2	3	4	4.51	.008	7	7	.08	7	.05	5	.31	.02	.09	1	1
B 56351	1	1	3	7	1	9	30	165	.98	4	5	ND	17	11	1	2	2	12	1.71	.014	22	22	.33	5	.01	3	.55	.06	.08	1	1
B 56352	1	3	2	56	1	37	48	520	6.32	2	5	ND	3	11	1	2	2	130	.83	.023	13	98	4.96	2	.03	5	4.53	.02	.05	1	1
B 56353	1	2	4	13	1	17	20	298	3.67	4	5	ND	3	25	1	2	2	65	2.65	.028	17	103	.93	1	.06	2	.99	.07	.01	1	2
B 56354	1	1	2	67	1	28	32	526	5.80	2	5	ND	3	11	1	2	2	109	.64	.018	2	80	5.29	5	.01	7	4.67	.01	.07	1	5
B 56355	1	5	4	42	1	17	18	336	3.03	10	5	ND	5	14	1	2	2	43	.78	.014	6	28	2.14	15	.02	9	2.08	.03	.07	1	17
B 56356	1	1	2	16	1	16	20	93	2.47	4	5	ND	11	1	1	2	2	20	.05	.016	4	20	2.20	9	.01	3	2.10	.01	.15	1	1
STD C/AU-R	18	57	40	132	61	68	31	1026	3.90	60	19	7	38	48	10	15	22	57	.48	.026	38	55	.86	173	.06	37	1.94	.06	.13	13	475

PROJECT McNEIL

- 39390-39395: M-89-7
- 56151-56152: M-89-5
- 56153 : MAS-89-1
- 56301 : M-89-3
- 56351-56356: M-89-4

ACME ANALYTICAL LABORATORIES LTD. DATE RECEIVED: JAN 25 1990  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE (604) 253-3158 FAX (604) 253-1716 DATE REPORT MAILED: Feb. 1/90...

### ASSAY CERTIFICATE

- SAMPLE TYPE: CORE PULP

SIGNED BY: *[Signature]* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Bapty Research Limited FILE # 89-4892R

SAMPLE#	CU
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B 56151	.97
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PROJECT McNEIL: Hole #5

*McNeil Hole # 5*

**GEOCHEMICAL ANALYSIS CERTIFICATE**

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Core AU\*\* ANALYSIS BY FA/ICP FROM 10 GM SAMPLE.

DATE RECEIVED: NOV 30 1989 DATE REPORT MAILED: *Dec/09* SIGNED BY: *C. Long* D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

Bapty Research Limited File # 89-4915 Page 1

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au** PPB
M-89-7 C 53325	1	7	10	102	.4	72	25	419	7.45	11	5	ND	2	1	1	2	8	116	.19	.006	4	214	2.75	297	.35	63	4.09	.01	2.52	2	23
C 53326	1	915	398	301	2.5	113	25	427	5.41	5	5	ND	1	4	3	2	6	26	.18	.031	47	23	.83	57	.15	2	2.26	.04	1.21	1	7
C 53340	1	948	33	180	.5	28	49	546	9.30	91	5	ND	6	8	2	2	3	26	.16	.045	35	26	1.02	125	.16	11	2.74	.04	1.38	1	3
C 53341	2	101	54	1470	.7	21	19	450	4.15	36	5	ND	9	9	21	2	14	24	.16	.020	25	22	.64	79	.11	2	1.66	.05	.71	2	3
C 53349	2	54	32	1378	.8	27	18	454	4.49	4	5	ND	7	12	2	2	5	33	.56	.041	29	32	.81	56	.10	8	1.83	.06	.43	1	1
M-89-8 B 56202	2	13	12	87	.3	15	8	231	2.46	3	5	ND	7	4	1	2	2	13	.09	.026	28	15	.44	95	.13	3	1.15	.02	.73	1	1
B 56203	1	21	16	117	.1	22	11	280	3.08	2	5	ND	12	5	1	2	2	18	.12	.033	31	18	.58	101	.12	2	1.48	.02	.84	1	1
B 56204	9	39	317	1079	.8	16	11	643	3.64	3	5	ND	7	30	4	2	4	28	2.13	.035	13	29	.68	36	.05	3	1.50	.06	.17	1	1
B 56205	2	23	43	178	.6	17	9	637	3.27	2	5	ND	7	33	1	2	3	29	.95	.043	21	28	1.16	165	.12	2	2.12	.06	.75	1	5
B 56206	2	27	193	224	.7	18	8	557	3.07	2	5	ND	7	15	3	2	2	31	.48	.035	20	30	1.08	98	.14	7	1.73	.03	.85	1	2
M-89-10 B 56207	1	46	4	83	.6	18	9	323	2.62	7	5	ND	12	6	1	4	2	20	.16	.014	18	21	.51	77	.12	2	1.48	.03	.69	1	1
B 56208	1	29	4	43	.1	14	11	154	2.44	2	5	ND	13	3	1	4	4	12	.08	.025	36	13	.36	85	.11	2	1.23	.01	.68	1	1
B 56209	2	14	10	66	.7	18	7	369	2.36	5	5	ND	11	3	1	4	2	20	.24	.025	28	23	.43	36	.12	14	1.10	.04	.16	1	3
B 56210	1	45	5	68	.3	21	12	242	3.38	2	5	ND	15	3	1	2	2	16	.14	.046	20	17	.49	101	.15	2	1.59	.01	.88	1	5
B 56211	3	142	39	203	.8	31	24	889	4.99	16	5	ND	3	5	1	3	8	27	.25	.048	31	23	1.14	54	.12	2	2.37	.03	.85	1	11
B 56212	1	6	12	28	.4	15	5	284	2.09	4	5	ND	7	12	1	3	2	19	.45	.024	30	19	.41	57	.06	15	.75	.04	.40	1	1
B 56213	1	4	7	19	.1	17	5	156	2.04	2	5	ND	8	2	1	2	4	18	.11	.025	37	19	.47	28	.05	2	.90	.04	.21	1	3
B 56214	1	5	8	21	.4	17	9	169	2.47	4	5	ND	8	2	1	2	2	21	.08	.014	25	24	.58	31	.07	10	.96	.04	.28	1	4
B 56215	1	13	8	27	.1	18	8	168	2.48	6	5	ND	11	5	1	2	2	22	.12	.030	27	22	.45	84	.10	2	.99	.03	.60	1	4
B 56216	1	18	7	46	.1	17	7	215	2.50	2	5	ND	7	3	1	2	2	18	.10	.019	32	19	.51	80	.10	2	1.11	.03	.64	1	2
B 56217	1	16	10	51	.4	19	9	273	2.54	5	5	ND	10	3	1	2	2	19	.19	.031	26	20	.50	84	.11	2	1.14	.02	.65	1	6
B 56218	2	3	15	49	.3	13	4	263	1.71	4	5	ND	10	4	1	3	3	18	.20	.020	22	23	.35	54	.10	2	.80	.03	.44	1	3
B 56219	1	22	23	90	.3	18	8	386	2.69	3	5	ND	10	5	1	2	2	15	.29	.020	25	19	.54	66	.11	4	1.41	.04	.66	1	7
B 56220	2	73	24	84	.4	26	13	350	3.39	3	5	ND	12	2	1	4	2	17	.14	.032	33	18	.59	91	.11	3	1.51	.01	.67	1	2
B 56221	1	17	26	90	.3	18	9	331	2.97	5	5	ND	12	2	1	2	2	16	.15	.029	23	17	.55	104	.14	5	1.50	.02	.87	1	5
B 56222	1	20	16	101	.3	21	9	364	3.02	3	5	ND	13	2	1	2	4	15	.15	.027	32	17	.59	98	.14	2	1.45	.01	.82	1	2
B 56223	2	8	22	83	.6	11	5	371	2.06	6	5	ND	12	7	1	3	2	17	.35	.016	25	23	.44	57	.10	2	1.18	.05	.43	1	6
B 56224	2	39	38	107	.6	16	9	476	4.16	3	6	ND	11	8	1	2	2	40	.62	.037	9	34	1.02	97	.15	2	2.10	.03	.49	1	4
B 56225	2	36	43	82	.4	12	8	420	3.36	4	5	ND	12	10	1	2	4	37	.59	.025	9	34	.78	58	.15	2	1.77	.05	.35	1	5
B 56226	2	1950	17	74	.9	38	87	354	9.07	2	5	ND	1	7	1	2	2	15	1.31	.014	2	6	.28	7	.01	2	.78	.01	.04	1	17
B 56227	2	104	22	51	.6	17	7	379	2.44	4	5	ND	14	13	1	2	2	36	.94	.024	25	34	.45	35	.12	3	1.38	.06	.17	1	4
B 56228	2	54	23	50	.9	21	9	363	2.98	7	5	ND	12	6	1	3	2	29	.68	.033	36	33	.64	34	.14	2	1.50	.06	.18	1	6
B 56229	1	13	18	93	1.1	20	10	407	3.82	5	5	ND	14	6	1	3	2	41	.54	.034	41	40	.98	107	.19	2	2.09	.05	.52	1	7
B 56230	2	51	19	108	.8	21	13	397	3.86	7	5	ND	10	8	1	2	2	50	.52	.037	27	42	1.16	170	.19	2	2.20	.06	.83	1	1
B 56231	1	72	26	134	.3	45	34	883	6.73	47	5	ND	1	19	1	2	7	170	2.77	.035	2	46	2.18	48	.13	6	3.55	.04	.37	1	3
B 56232	1	79	26	157	.4	48	39	1107	8.24	55	8	ND	3	28	1	2	2	211	3.50	.035	2	55	2.65	8	.10	2	4.27	.02	.05	1	1
STD C/AU-R	18	59	42	133	6.9	67	31	1011	4.11	42	21	8	38	49	18	16	19	60	.49	.093	39	58	.89	177	.06	32	2.02	.06	.13	13	510

PROJECT McNEIL

NOTE: SAMPLE 53325 IS OF BIOTITE LAMPROPHYRE

## GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO<sub>3</sub>-H<sub>2</sub>O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: ROCK AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: OCT 4 1989

DATE REPORT MAILED: *Oct 10/89*SIGNED BY: *C. Long* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Bapty Research Limited

File # 89-4067

SAMPLE#	Mo PPH	Cu PPH	Pb PPH	Zn PPH	Ag PPH	Ni PPH	Co PPH	Mn PPH	Fe %	As PPH	U PPH	Au PPH	Th PPH	Sr PPH	Cd PPH	Sb PPH	Bi PPH	V PPH	Ca %	P %	La PPH	Cr PPH	Mg %	Ba PPH	Ti %	B PPH	Al %	Na %	K %	W PPH	AU* PPB
B 56009	1	6	4	16	.1	9	3	269	.76	2	7	ND	1	406	1	2	3	2	32.73	.026	5	2	.45	102	.01	10	.12	.02	.04	1	7
B 56010	1	6	2	6	.1	8	2	131	.54	8	5	ND	1	47	1	2	2	9	26.58	.023	5	10	1.66	8	.01	9	.58	.01	.05	1	6
B 56011	1	26	6	4	.1	15	5	29	2.22	7	5	ND	3	10	1	2	2	1	.49	.007	2	1	.02	15	.01	6	.09	.01	.07	1	3
B 56012	1	1217	7	32	.2	103	93	14	41.26	2	5	ND	4	3	1	2	2	3	.23	.022	2	1	.04	5	.01	2	.08	.01	.02	1	3
B 56013	1	154	13	108	.1	22	40	1030	7.92	9	5	ND	2	56	1	2	2	174	.88	.134	11	10	1.56	12	.13	3	2.87	.02	.09	1	13
B 56014	1	14	27	83	.1	13	9	431	3.06	8	5	ND	11	14	1	2	2	24	.24	.024	19	24	.74	72	.10	5	1.75	.01	.70	1	11
B 56015	3	131	28	92	.2	65	42	156	3.55	5	5	ND	16	8	1	2	2	13	.14	.045	23	13	.38	36	.04	3	1.08	.01	.20	1	4
B 56016	3	58	9	7	.5	10	1	139	.51	10	5	ND	1	14	1	9	2	2	4.37	.009	2	9	2.60	3	.01	12	.05	.01	.02	1	17
B 56101	1	110	17982/28378	220.5	1.4	2	28	40	.86	2	5	ND	1	4	202	555	46	1	.03	.002	2	6	.02	8	.01	5	.04	.01	.02	1	63
B 56102	4	10	1200	30	1.4	17	2	310	.45	4	5	ND	1	4	1	2	2	1	.03	.001	2	13	.03	3	.01	9	.03	.01	.01	1	6
B 56103	1	121	4347	187	4.1	4	33	559	6.89	4	5	ND	3	8	1	2	2	94	.53	.177	8	1	1.34	49	.24	11	2.76	.02	1.15	1	5
B 56104	1	16	1295	259	4.4	6	1	554	.42	6	16	ND	17	13	2	5	2	1	.29	.015	6	5	.01	41	.01	6	.23	.02	.12	1	2
B 56105	2	363	9372	31	121.9	19	19	2820	5.47	2	5	ND	2	2	1	15	377	1	.02	.003	2	8	.05	60	.01	6	.12	.01	.03	1	25
STD C/AU-R	18	57	38	130	6.8	68	31	1018	3.85	42	21	8	38	48	19	15	19	61	.45	.098	39	56	.87	173	.06	35	1.87	.06	.13	13	520

✓ ASSAY IN PROGRESS

PROJECT McNEIL

SAMPLE #56101 ONLY: HIGHGRADE FLOAT FOUND NEAR DIAMOND DRILL SITE M-89-2

ACME ANALYTICAL LABORATORIES LTD.  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE (604) 253-3158 FAX (604) 253-1716

DATE RECEIVED: OCT 10 1989  
DATE REPORT MAILED: *Oct 16/89*

### ASSAY CERTIFICATE

- SAMPLE TYPE: Core

SIGNED BY *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Bapty Research Limited PROJECT MCNEIL CREEK FILE # 89-4158

SAMPLE#	Cu %	Pb %	Zn %	Ag OZ/T	Au OZ/T	Fe %
C 53320	.02	.03	1.74	.03	.001	11.34

M-89-3 (182.2-182.6 m) Bedded Sulphides

ACME ANALYTICAL LABORATORIES LTD.  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE (604) 253-3158 FAX (604) 253-1716

DATE RECEIVED: OCT 12 1989  
DATE REPORT MAILED: *Oct 16/89*

### ASSAY CERTIFICATE

- SAMPLE TYPE: ROCK PULP

SIGNED BY *C. Long* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Bapty Research Limited FILE # 89-4067R

SAMPLE#	Cu %	Pb %	Zn %	Ag OZ/T
B 56012	.12	-	-	-
B 56101	-	72.69	3.26	20.93
B 56102	-	.13	-	-
B 56103	-	.49	-	-
B 56104	-	.14	-	-
B 56105	-	.98	-	4.08

#### PROJECT McNEIL

SAMPLE NO. 56101 ONLY: SAMPLE OF HIGH GRADE  
FLOAT, FOUND NEAR DIAMOND DRILL SITE M-89-2

**GEOCHEMICAL ANALYSIS CERTIFICATE**

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Core AU\*\* ANALYSIS BY FA/ICP FROM 10 GM SAMPLE.

DATE RECEIVED: OCT 25 1989 DATE REPORT MAILED: *Nov 2/89* SIGNED BY: *C. Leung* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Bapty Research Limited File # 89-4470

M-89-6

M-89-7

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au**
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	%	%	%	%	PPM	PPM
C 39356	1	232	21	146	.2	19	23	531	6.95	8	5	ND	14	9	1	2	2	43	.97	.249	31	36	1.23	68	.20	2	2.99	.02	1.65	1	1
C 39357	1	55	17	63	.1	42	65	254	4.15	4	5	ND	22	4	1	2	2	11	.20	.018	50	11	.60	35	.08	2	1.32	.01	.66	1	5
C 39358	1	253	32	175	.5	29	33	480	7.61	6	5	ND	10	7	1	2	4	28	.41	.036	34	24	1.00	62	.12	2	2.37	.02	1.00	1	16
C 39359	1	263	21	103	.3	40	73	310	10.17	109	5	ND	8	7	1	2	2	30	.50	.136	10	25	1.12	39	.09	2	2.68	.01	.88	1	11
C 39360	1	27	3	40	.1	18	10	409	3.04	6	5	ND	14	25	1	2	2	8	1.25	.022	8	20	.48	37	.02	3	1.22	.01	.18	1	4
C 39361	2	34	25	49	.1	16	6	309	2.28	2	5	ND	9	8	1	2	2	14	.38	.011	19	21	.37	35	.05	2	.86	.02	.19	1	1
C 39362	1	42	22	69	.2	30	91	331	4.02	331	5	ND	11	5	1	2	2	21	.17	.024	20	20	.67	94	.11	2	1.57	.02	.78	1	13
C 39363	1	609	31	92	.3	137	65	600	9.63	9	5	ND	8	6	1	2	2	21	.30	.007	34	20	.87	41	.07	4	2.01	.01	.44	1	17
C 39364	1	76	47	982	.2	16	17	534	5.75	2	5	ND	11	8	10	2	2	33	.27	.027	25	46	1.03	68	.17	6	2.01	.02	1.03	1	2
C 39365	1	23	8	98	.1	23	11	366	3.48	2	5	ND	20	3	1	2	2	18	.10	.022	43	17	.85	138	.15	12	1.67	.01	1.05	2	7
C 39366	2	37	17	36	.1	16	6	336	2.41	2	5	ND	8	9	1	2	2	15	.51	.009	12	21	.42	16	.03	4	.78	.02	.06	1	6
C 39367	1	53	3	13	.1	22	9	137	1.10	2	5	ND	1	7	1	2	2	31	.53	.023	2	28	.45	5	.09	2	.69	.03	.02	1	6
C 39368	1	44	13	11	.1	20	16	92	1.49	2	5	ND	1	16	1	2	2	23	.72	.020	2	30	.31	5	.08	2	.62	.02	.01	1	6
C 39369	1	7	2	7	.1	10	5	455	1.00	10	5	ND	5	4	1	2	2	6	1.26	.021	5	7	.21	7	.01	4	.35	.03	.03	1	6
C 39370	1	4	13	42	.1	18	7	443	2.64	4	5	ND	12	6	1	2	2	15	.61	.061	22	21	.92	28	.01	2	1.23	.02	.11	1	2
C 39371	1	5	13	50	.1	20	8	301	3.05	4	5	ND	19	3	1	2	2	19	.44	.047	20	15	.92	43	.01	5	1.43	.01	.15	1	8
C 39372	2	12	15	209	.1	80	24	821	11.83	11	5	ND	16	4	1	2	2	54	.24	.018	7	31	4.72	28	.03	2	6.20	.01	.26	1	5
C 39373	1	270	76	247	.2	42	27	424	5.69	4	5	ND	8	4	1	2	2	26	.44	.027	16	23	1.12	55	.11	5	1.76	.03	.58	1	1
C 39374	1	113	331	191	.9	24	16	430	3.26	2	5	ND	20	3	1	2	2	12	.32	.049	33	12	.48	50	.11	6	1.40	.01	.67	1	2
C 39375	4	82	432	480	.8	19	17	744	4.84	2	5	ND	12	8	3	2	2	26	.43	.040	20	25	1.05	58	.16	6	2.58	.04	1.05	1	4
C 39376	1	26	15	147	.1	15	8	412	2.49	3	5	ND	17	5	1	2	2	11	.41	.017	24	26	.47	41	.10	2	1.37	.02	.57	1	11
C 39377	2	13	24	190	.1	12	6	334	2.30	2	5	ND	15	5	1	2	2	6	.57	.012	13	12	.36	13	.02	2	.98	.01	.20	1	2
C 39378	2	195	82	358	1.0	48	46	734	9.69	10	5	ND	16	5	1	2	16	42	.22	.023	34	33	1.68	18	.07	2	3.24	.02	.16	1	12
C 39379	1	79	89	347	.2	25	10	480	3.21	5	5	ND	9	10	1	2	2	14	.36	.013	16	18	.65	29	.07	2	1.16	.02	.22	1	5
C 39380	1	220	16	155	.1	56	37	443	7.35	52	5	ND	16	4	1	2	2	20	.19	.042	40	26	.95	57	.10	4	2.23	.01	.72	1	18
C 39381	1	37	11	86	.1	29	15	217	3.27	3	5	ND	20	4	1	2	2	12	.09	.023	44	12	.47	53	.07	4	1.28	.01	.59	1	42
STD C/AU-R	17	58	36	132	7.1	67	30	1010	3.92	40	17	7	37	48	17	15	20	57	.47	.085	38	54	.85	171	.06	34	1.91	.06	.14	12	495

PROJECT McNEIL



**GEOCHEMICAL ANALYSIS CERTIFICATE**

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Core AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: NOV 2 1989 DATE REPORT MAILED: *Nov 3/89* SIGNED BY: *C. Long* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

**Bapty Research Limited File # 89-4599**

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPB
M-89-8 C 39382	1	39	6	55	.2	123	46	499	4.73	14	5	ND	1	14	1	2	4	52	1.32	.018	2	26	1.57	8	.07	7	2.37	.04	.03	1	3
C 39383	1	9	10	88	.1	48	21	635	6.23	10	5	ND	1	10	1	2	3	61	.67	.022	2	44	2.19	34	.09	2	3.11	.03	.07	1	11
C 39384	2	3	2	4	.1	9	3	55	.41	2	5	ND	1	1	1	2	2	4	.21	.001	2	8	.09	1	.01	3	.11	.01	.01	1	1
C 39385	1	6	7	86	.1	61	27	660	6.30	7	5	ND	1	5	1	2	3	83	.41	.026	2	47	2.56	16	.10	2	3.33	.03	.14	1	3
C 39386	1	8	10	148	.2	85	56	698	10.09	56	5	ND	1	4	2	2	2	213	.72	.027	2	197	4.15	309	.25	6	6.20	.02	3.06	1	1
M-89-7 C 39387	1	11	20	97	.1	16	7	352	2.01	2	5	ND	15	6	1	2	4	13	.29	.021	17	14	.38	35	.08	7	1.23	.02	.52	1	1
C 39388	1	54	50	254	.1	16	9	508	2.84	2	5	ND	11	5	1	2	3	14	.28	.022	14	17	.60	27	.07	2	1.51	.02	.46	1	2
C 39389	1	96	190	260	.3	20	16	522	3.54	2	5	ND	13	6	2	2	3	15	.28	.029	16	15	.69	35	.08	2	1.61	.02	.56	1	1
STD C/AU-R	18	61	43	133	6.5	66	31	1030	4.00	42	19	7	36	47	18	14	22	57	.47	.093	37	54	.88	174	.06	34	1.93	.06	.14	12	520

**PROJECT McNEIL**

**NOTE: SAMPLE NO: 39386 IS OF A QUARTZ/CALCITE/CHLORITE VEINLET IN A BIOTITE LAMPROPHYRE**

SAMPLE#	No	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Tl	B	Al	Na	K	W	Au**	
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPB	
M-89-10	B 56233	1	147	113	246	.1	40	31	875	6.35	34	5	ND	1	15	2	6	177	2.37	.034	2	40	2.11	11	.12	2	3.13	.03	.06	1	9	
	B 56234	1	41	15	313	.1	22	21	452	2.73	22	5	ND	1	7	2	2	67	1.14	.038	2	20	.86	1	.13	7	1.44	.07	.06	1	1	
	B 56235	1	29	13	547	.2	23	19	506	3.04	29	5	ND	1	7	4	2	79	1.30	.039	2	21	.95	5	.13	4	1.48	.06	.06	1	2	
	B 56236	1	88	21	883	.1	29	22	758	4.51	14	5	ND	1	7	4	2	107	1.27	.038	3	30	1.40	9	.16	2	2.15	.06	.05	1	2	
	B 56237	1	107	27	822	.1	28	18	638	4.62	16	5	ND	1	4	2	4	110	.86	.042	4	25	1.27	5	.15	4	1.96	.07	.04	1	3	
M-89-11	B 56238	1	218	23	349	.1	14	15	643	5.66	13	5	ND	1	3	1	2	103	.97	.038	3	25	1.29	11	.13	4	2.23	.07	.09	1	22	
	B 56239	1	7487	185	1123	3.2	144	464	140	33.18	475	5	2	3	1	2	2	71	10	.11	.001	2	1	.14	3	.01	2	.34	.01	.03	1	3779
	B 56240	1	144	16	675	.1	22	24	537	7.38	62	5	ND	2	5	2	2	107	.90	.038	3	25	1.07	5	.15	2	2.10	.05	.05	1	11	
	B 56242	1	31	15	415	.1	25	25	467	3.59	69	5	ND	1	6	1	2	73	.97	.036	2	20	.91	2	.11	2	1.51	.06	.05	1	19	
	B 56243	1	34	13	257	.1	21	27	405	2.68	57	5	ND	1	9	1	2	69	1.28	.041	2	14	.79	6	.11	2	1.29	.08	.06	1	7	
M-89-8	B 56451	1	29	14	120	.4	18	12	481	3.67	3	5	ND	9	11	1	2	24	.44	.042	29	28	.91	72	.12	2	1.64	.03	.41	1	1	
	B 56452	1	37	8	91	.3	17	14	382	3.61	2	5	ND	11	9	1	2	15	.24	.027	40	12	.81	68	.13	9	1.58	.01	.66	1	4	
	B 56453	1	26	29	91	.3	15	10	645	3.18	2	5	ND	6	24	1	2	28	1.34	.033	24	36	.97	43	.10	4	1.56	.04	.28	1	4	
	B 56454	2	35	117	153	.3	18	10	434	2.90	2	5	ND	9	15	1	2	16	.46	.025	27	16	.75	59	.10	3	1.25	.02	.50	1	1	
	B 56455	1	39	51	99	.4	22	13	438	3.43	4	5	ND	10	10	1	2	20	.33	.035	31	27	.88	91	.13	7	1.50	.02	.75	1	1	
	B 56456	4	38	45	100	.6	20	11	519	3.39	4	5	ND	8	10	1	3	25	.37	.039	26	22	.96	108	.15	4	1.54	.03	.76	1	14	
	B 56457	1	14	8	50	.2	12	7	292	1.97	2	5	ND	11	6	1	2	9	.26	.016	27	29	.36	36	.07	2	.93	.03	.17	2	1	
	B 56458	1	14	7	52	.1	15	7	304	2.14	2	5	ND	13	7	1	2	9	.28	.024	33	11	.41	49	.07	3	1.02	.03	.23	1	1	
	B 56459	1	23	6	39	.1	16	9	287	2.26	5	5	ND	13	6	1	2	7	.18	.017	32	22	.45	37	.07	6	.98	.03	.17	1	4	
	B 56460	1	24	18	59	.2	17	9	342	2.50	3	5	ND	13	7	1	2	10	.31	.031	31	12	.54	35	.07	4	1.06	.04	.16	1	6	
	B 56461	1	18	6	75	.2	17	8	303	2.29	3	5	ND	15	6	1	2	6	.18	.020	38	20	.48	44	.06	2	1.04	.01	.21	1	1	
	B 56462	1	20	6	43	.2	17	8	297	2.29	2	5	ND	14	6	1	2	6	.21	.021	35	8	.50	47	.06	2	.99	.02	.18	1	1	
	B 56463	1	19	14	101	.2	15	8	436	2.57	4	5	ND	13	10	1	2	16	.47	.024	32	31	.75	64	.10	7	1.27	.03	.39	2	4	
	B 56464	2	26	38	118	.4	19	9	472	2.55	4	5	ND	8	15	1	2	20	.84	.028	26	20	.81	45	.11	4	1.29	.03	.53	1	1	
	B 56465	4	20	162	209	1.1	13	7	735	3.09	5	5	ND	9	12	1	3	29	1.18	.038	24	35	1.39	36	.10	7	1.86	.03	.62	2	1	
	B 56466	6	24	124	138	.6	19	9	537	2.87	6	5	ND	7	11	1	2	24	.65	.038	21	23	1.07	38	.11	10	1.58	.04	.74	1	1	
	B 56467	2	24	44	132	.4	17	8	554	2.89	4	5	ND	8	12	1	2	22	.68	.036	22	34	1.08	45	.10	3	1.55	.03	.65	1	13	
	B 56468	7	27	11	75	.2	18	10	444	3.02	4	5	ND	9	8	1	2	16	.38	.037	34	17	.86	56	.09	2	1.37	.03	.38	1	1	
	B 56469	1	36	12	66	.4	22	11	329	2.92	2	5	ND	11	7	1	2	10	.29	.021	35	26	.56	54	.08	3	1.11	.03	.24	2	4	
	B 56470	1	27	9	59	.2	20	10	285	2.84	2	5	ND	10	7	1	2	8	.30	.023	36	11	.51	41	.06	3	1.10	.02	.20	1	1	
	B 56471	1	20	26	434	.4	12	7	414	2.49	4	5	ND	9	15	1	2	16	1.31	.018	26	37	.49	31	.08	3	1.11	.04	.13	2	50	
	B 56472	1	25	6	65	.6	25	14	398	3.69	7	5	ND	13	6	1	2	15	.26	.033	37	17	.80	49	.10	2	1.75	.04	.22	1	62	
	STD C/AU-R	18	57	37	132	6.6	67	31	1024	3.94	41	23	8	36	47	18	15	21	58	.46	.093	38	55	.87	176	.06	35	1.93	.06	.14	13	485

PROJECT McNEIL

ACME ANALYTICAL LABORATORIES LTD.

DATE RECEIVED: JAN 25 1990

852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6

PHONE (604) 253-3158 FAX (604) 253-1716

DATE REPORT MAILED: Feb. 1 / 90...

### ASSAY CERTIFICATE

- SAMPLE TYPE: CORE PULP AU\*\* BY FIRE ASSAY FROM 1/2 A.T.

SIGNED BY..... *[Signature]* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Bapty Research Limited FILE # 89-4915R

SAMPLE#	CU	AU**
	%	oz/t
B 56239	.78	.082

PROJECT McNEIL

Hole #11

*McNeil Hole # 11*

ACME ANALYTICAL LABORATORIES  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE 253-3158

DATE RECEIVED: FEB 5 1990

DATA LINE 251-1011 DATE REPORT MAILED:

*Feb. 12/90...*

## GEOCHEM PRECIOUS METALS ANALYSIS

10 GRAM SAMPLE FIRE ASSAY AND ANALYSIS BY ICP/GRAPHITE FURNACE.  
- SAMPLE TYPE: CORE PULP

SIGNED BY..... *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

**Bapty Research Ltd** FILE # 89-4915R2

SAMPLE#	Au PPB	Pt PPB	Pd PPB	Rh PPB
B 56239	2096	6	44	2

PROJECT McNEIL

DDH. M-89-11 51.7-52.6 m (0.9 m) Re: Assay

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Core AU\*\* ANALYSIS BY FA/ICP FROM 10 GM SAMPLE.

DATE RECEIVED: DEC 7 1989 DATE REPORT MAILED: *Dec 13/89* SIGNED BY: *C. Leong* D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

Bapty Research Limited File # 89-5010 Page 1

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	AU** PPM
C 53348	4	43	80	102	.4	17	9	626	3.56	5	5	ND	11	15	1	2	2	29	1.62	.046	30	28	.87	32	.11	5	1.52	.03	.50	1	2
B 56244	1	845	2	866	.6	19	66	482	7.31	53	5	ND	2	7	13	2	2	120	1.21	.061	3	1	.82	2	.19	3	2.00	.06	.06	1	6
B 56245	1	405	5	88	.5	9	34	607	6.12	26	5	ND	1	8	1	2	2	120	1.30	.060	3	2	.90	1	.20	3	2.28	.06	.06	1	4
B 56246	1	656	12	88	.6	9	34	513	5.04	25	5	ND	4	12	1	2	2	81	1.51	.081	5	3	.60	2	.17	2	1.89	.08	.08	1	13
B 56247	1	270	12	70	.3	5	18	482	4.36	12	5	ND	2	7	1	2	2	117	1.48	.054	4	1	.69	4	.22	2	1.88	.08	.07	2	1
B 56248	1	1473	5	158	1.0	21	80	448	6.28	67	5	ND	2	9	1	2	2	103	1.20	.064	4	2	.77	3	.22	8	1.94	.06	.05	1	9
B 56249	1	1989	3	412	.8	30	145	455	7.35	149	5	ND	1	7	2	2	2	88	1.12	.065	3	2	.81	6	.17	9	1.89	.06	.07	1	11
B 56250	1	422	12	298	.7	7	30	370	3.77	28	5	ND	3	8	1	2	2	94	1.21	.077	6	3	.67	16	.20	2	1.50	.07	.16	1	7
B 56474	4	31	51	89	.4	19	9	342	2.95	8	5	ND	12	14	1	2	4	12	.58	.036	27	14	.92	44	.08	2	1.30	.02	.61	1	4
B 56475	3	33	174	127	.6	18	9	360	3.09	4	5	ND	12	12	1	2	2	13	.42	.033	24	15	.92	43	.09	2	1.30	.02	.62	1	4
B 56476	2	32	144	155	.4	18	9	440	3.36	4	5	ND	10	11	1	2	2	21	.51	.036	20	20	1.05	41	.10	2	1.38	.03	.63	1	1
B 56477	4	29	150	124	.4	22	9	501	3.22	2	5	ND	10	12	1	2	2	24	.59	.039	23	25	1.24	40	.11	12	1.55	.03	.68	1	13
B 56478	3	22	130	110	.4	19	8	471	3.04	3	5	ND	10	11	1	2	2	18	.56	.043	25	19	1.23	55	.11	9	1.60	.03	.69	1	6
B 56479	3	24	99	209	.4	21	9	487	3.07	4	5	ND	11	12	1	2	6	25	.61	.041	21	27	1.18	36	.10	3	1.45	.04	.44	1	2
B 56480	2	28	67	136	.4	22	10	427	3.15	3	5	ND	12	9	1	2	2	21	.44	.038	23	21	1.06	40	.10	2	1.31	.02	.54	1	4
B 56481	3	31	50	503	.2	20	10	358	2.99	4	5	ND	11	10	1	2	4	13	.44	.034	26	15	.93	43	.08	2	1.23	.02	.36	1	7
B 56482	3	28	80	502	.2	25	11	476	3.17	2	5	ND	10	13	1	2	3	24	.76	.036	24	25	1.11	35	.09	2	1.36	.03	.47	1	6
B 56483	2	26	64	164	.4	22	9	534	3.12	5	5	ND	11	14	1	2	2	26	.70	.041	24	23	1.26	49	.12	2	1.64	.03	.66	2	9
B 56484	4	49	174	143	.7	29	18	368	4.17	9	5	ND	11	11	1	2	4	23	.49	.032	24	20	.89	34	.06	3	1.12	.03	.25	1	5
B 56485	7	33	15	143	.2	21	10	225	2.83	10	5	ND	12	9	1	2	2	7	.36	.040	25	11	.52	46	.04	2	.88	.01	.26	1	3
B 56486	2	25	50	118	.2	20	8	484	2.98	2	5	ND	10	22	1	2	2	21	1.81	.036	25	21	1.04	43	.06	3	1.27	.02	.32	1	11
B 56487	3	30	46	111	.4	23	11	365	3.34	6	5	ND	12	13	1	2	2	14	.63	.034	27	16	.98	38	.07	5	1.23	.02	.44	1	5
B 56488	3	29	111	605	.5	23	10	440	3.22	8	5	ND	12	9	2	3	5	22	.43	.035	23	23	1.09	34	.09	2	1.31	.03	.43	1	8
B 56489	4	26	54	322	.4	23	10	448	3.18	4	5	ND	11	10	1	2	2	19	.45	.037	22	21	1.13	41	.10	3	1.38	.02	.63	1	6
B 56490	4	31	65	324	.4	23	9	365	3.02	4	5	ND	12	9	2	2	2	15	.42	.037	24	18	.91	53	.09	4	1.23	.03	.45	1	6
B 56491	3	30	32	246	.1	18	9	310	2.92	4	5	ND	12	12	1	2	2	10	.56	.037	30	12	.76	49	.04	6	1.08	.01	.34	1	7
B 56492	2	25	49	155	.4	17	8	375	2.95	4	5	ND	12	12	1	2	2	12	.48	.041	27	15	.92	52	.08	2	1.30	.03	.50	1	4
B 56493	2	24	25	123	.3	18	8	315	2.75	3	5	ND	11	10	1	2	2	8	.46	.039	28	11	.78	52	.08	2	1.14	.02	.40	1	10
B 56494	2	30	45	209	.5	19	9	410	3.23	29	5	ND	11	10	1	2	2	12	.42	.039	24	14	.97	42	.09	2	1.31	.03	.38	1	5
B 56495	2	21	123	359	.5	19	9	510	3.28	25	5	ND	12	14	1	2	2	19	.65	.034	26	20	1.19	43	.10	3	1.59	.03	.58	1	31
B 56496	4	28	125	369	.5	19	10	398	3.52	6	5	ND	14	10	1	2	2	12	.49	.033	31	14	1.03	45	.07	5	1.48	.02	.30	1	14
B 56497	4	36	52	350	.4	24	11	252	3.43	3	5	ND	14	8	1	2	2	7	.27	.039	34	9	.64	54	.05	2	1.14	.01	.31	1	11
B 56551	1	78	9	208	.8	8	18	477	6.27	14	9	ND	4	5	2	3	2	167	.99	.067	5	2	1.45	155	.30	2	3.05	.06	1.17	2	10
B 56552	1	258	2	207	.5	10	23	259	3.58	6	5	ND	1	4	2	2	2	92	.60	.029	4	4	.72	48	.17	2	1.38	.04	.35	1	250
B 56553	2	12	3	299	.1	7	2	78	.98	3	5	ND	1	3	1	2	2	19	.16	.002	2	6	.15	2	.03	5	.35	.01	.02	1	16
B 56554	1	41	3	793	.6	11	18	503	6.34	5	5	ND	2	5	2	2	2	252	1.15	.041	4	1	1.47	119	.25	2	2.89	.06	.96	1	22
STD C/AU-R	18	58	37	132	6.9	68	30	921	4.04	41	20	7	38	48	18	15	22	58	.47	.093	38	56	.88	175	.06	36	2.00	.06	.13	13	480

M-89-11

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Hg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au** PPB
B 56555	1	68	5	763	.7	20	32	587	7.23	21	5	ND	3	4	4	2	2	208	.84	.036	3	2	1.68	208	.31	3	3.38	.05	1.56	1	3
B 56556	1	646	8	1501	.8	26	44	555	8.46	11	5	ND	1	6	23	2	2	223	.45	.023	2	3	1.79	129	.26	2	3.52	.03	1.57	1	5
B 56557	1	216	3	560	.7	22	37	700	10.59	26	5	ND	2	3	7	2	2	354	.46	.061	2	2	2.20	180	.36	2	4.66	.02	1.65	1	5
B 56558	2	1354	3	1765	1.0	30	95	362	9.13	35	6	ND	2	6	20	2	2	91	.74	.027	3	3	.80	4	.15	6	1.69	.04	.08	1	11

PROJECT McNEIL

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: Core AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: DEC 14 1989 DATE REPORT MAILED: Dec 15/89 SIGNED BY: C. Leong, D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Bapty Research Limited File # 89-5066

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PFB
C 39396	2	245	19	61	.1	29	20	327	3.72	7	5	ND	7	1	1	2	2	16	.36	.036	18	17	.94	22	.05	2	1.47	.01	.12	1	7
C 39397	1	40	17	97	.1	19	9	373	3.13	12	5	ND	10	2	1	2	2	12	.34	.037	20	15	1.00	48	.11	2	1.50	.01	.32	1	5
C 39398	1	49	19	105	.2	21	13	397	3.60	24	5	ND	12	2	1	2	2	16	.35	.045	23	18	.77	55	.11	3	1.60	.01	.49	1	5
C 39399	1	76	24	115	.3	23	13	381	3.61	7	5	ND	10	1	1	3	4	17	.25	.038	21	17	.87	78	.13	6	1.65	.01	.63	2	1
C 39400	3	68	48	112	.4	21	12	285	2.74	5	5	ND	10	2	1	3	2	14	.24	.034	20	17	.74	67	.11	4	1.22	.01	.41	1	1
C 53321	2	14	100	112	.1	18	8	375	2.93	6	5	ND	9	6	1	2	3	19	.37	.045	15	21	1.01	80	.13	4	1.52	.02	.42	1	1
C 53322	1	71	30	122	.3	22	12	279	2.62	8	5	ND	13	1	1	2	2	9	.23	.024	21	12	.75	52	.08	2	1.17	.01	.25	1	1
C 53323	1	175	135	250	.4	21	16	377	3.59	9	5	ND	7	2	1	2	3	21	.47	.036	10	26	.76	38	.07	3	1.40	.02	.23	1	1
C 53324	1	139	30	144	.2	24	14	416	4.49	11	5	ND	6	2	1	2	3	27	.30	.023	22	24	.98	85	.15	3	2.04	.03	.72	1	1
C 53327	1	22	12	43	.2	12	6	221	2.61	4	5	ND	9	2	1	2	4	13	.13	.012	17	16	.41	60	.09	3	.99	.01	.37	1	5
C 53328	1	31	11	63	.1	22	12	223	3.42	7	5	ND	16	4	1	2	2	15	.08	.023	37	14	.57	95	.11	2	1.43	.01	.60	1	3
C 53329	1	37	6	70	.1	24	13	241	3.69	2	5	ND	16	4	1	2	2	17	.10	.024	37	15	.62	101	.12	5	1.57	.01	.67	1	1
C 53330	1	18	11	56	.1	19	8	225	2.70	10	5	ND	12	3	1	2	6	13	.12	.018	25	15	.47	68	.09	4	1.15	.01	.47	1	2
C 53331	2	27	12	1223	.4	18	11	543	3.78	8	5	ND	7	11	8	2	2	21	.88	.050	17	24	.84	96	.11	2	1.56	.01	.50	6	2
C 53332	1	35	7	115	.1	22	12	303	3.62	2	5	ND	14	4	1	2	2	14	.12	.027	35	13	.75	108	.11	7	1.46	.01	.70	1	1
C 53333	1	27	9	92	.3	22	11	292	3.30	3	5	ND	14	4	1	3	3	14	.12	.020	29	12	.72	109	.10	2	1.46	.01	.65	2	2
C 53334	1	16	74	46	.6	17	6	338	2.40	2	5	ND	8	5	1	2	2	14	.31	.018	21	15	.62	58	.08	2	1.07	.02	.33	1	4
C 53335	1	45	75	776	.3	17	10	591	4.09	7	5	ND	8	9	4	2	2	27	.52	.038	19	25	1.12	105	.11	2	1.70	.03	.68	1	2
C 53336	2	36	147	318	.7	17	8	543	3.69	4	5	ND	9	7	2	2	2	23	.49	.041	21	24	1.05	33	.08	2	1.48	.02	.31	2	3
C 53337	2	45	273	343	1.0	21	9	569	4.02	6	5	ND	9	6	2	4	3	28	.35	.043	20	26	1.15	69	.11	2	1.67	.02	.57	1	1
C 53338	4	49	66	65	.4	16	10	402	3.51	6	5	ND	8	5	1	2	2	17	.41	.058	19	16	.78	67	.08	8	1.28	.01	.43	1	2
C 53339	2	7	10	26	.1	14	4	240	1.91	6	5	ND	8	4	1	2	2	9	.40	.010	13	14	.36	51	.05	4	.74	.01	.19	2	1
C 53342	1	18	24	22	.1	12	5	273	1.62	2	5	ND	4	17	1	2	2	16	1.25	.037	14	17	.34	30	.04	2	.58	.02	.24	1	1
C 53343	8	40	32	51	.1	19	15	202	4.26	6	5	ND	8	10	1	2	2	35	.51	.043	19	29	.86	56	.10	5	1.33	.04	.44	1	5
C 53344	1	1	6	22	.1	25	16	89	2.14	3	5	ND	7	1	1	2	2	17	.04	.011	2	11	3.83	4	.01	6	2.45	.01	.05	1	1
C 53345	1	2	8	19	.1	19	16	77	1.87	3	5	ND	7	1	1	2	2	11	.05	.015	4	10	3.26	5	.01	3	2.10	.01	.06	1	5
C 53346	1	1	2	16	.1	21	18	64	1.91	7	5	ND	8	2	1	2	2	13	.05	.018	6	10	3.02	9	.01	3	1.95	.01	.09	1	3
B 56201	2	1	12	13	.1	13	1	63	.82	2	5	ND	5	2	1	2	2	11	.10	.015	5	9	1.54	5	.01	2	.98	.01	.06	1	3
B 56498	1	79	35	670	.1	17	15	403	4.04	24	5	ND	10	5	9	2	9	21	.15	.031	24	17	.72	85	.11	2	1.61	.01	.65	2	2
B 56559	2	72	22	109	.2	14	6	489	3.02	7	5	ND	11	13	1	3	2	22	.74	.021	14	23	.47	61	.11	2	1.63	.04	.31	2	1
B 56560	3	775	12	122	.6	24	25	907	4.91	16	5	ND	6	6	1	3	2	10	2.31	.015	7	12	.45	29	.07	3	1.09	.01	.18	1	4
B 56561	1	417	24	57	.1	18	15	563	2.87	4	5	ND	4	7	1	2	2	11	1.41	.025	7	13	.20	17	.06	2	.69	.01	.10	1	1
B 56562	1	59	61	57	.1	16	4	532	2.43	7	5	ND	7	5	1	2	2	18	.73	.037	13	17	.39	22	.08	2	1.03	.01	.16	1	1
B 56564	1	111	44	88	.2	15	6	482	2.02	13	5	ND	7	8	1	2	2	15	1.50	.038	6	17	.35	22	.06	3	.89	.02	.10	1	1
STD C/AU-R	18	61	43	132	7.3	67	31	961	4.13	45	17	7	36	45	19	15	22	57	.51	.094	35	56	.92	173	.06	36	1.91	.06	.13	13	470

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Core AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: DEC 18 1989 DATE REPORT MAILED: Dec 20/89 SIGNED BY: C. Leong, D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Bapty Research Limited File # 89-5087

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
M-89-8 C 53347	6	60	55	70	2	24	12	569	3.80	2	5	ND	11	25	1	2	2	33	.78	.047	33	31	.88	95	.15	5	1.84	.08	.66	2	1
C 53350	1	283	31	756	.1	18	20	395	2.79	6	5	ND	10	15	11	2	5	15	1.29	.132	23	19	.30	47	.08	8	.84	.06	.22	1	5
B 56473	2	58	14	1836	.1	24	11	246	2.48	9	5	ND	8	6	3	2	2	15	.31	.026	18	17	.63	18	.09	9	1.20	.06	.09	1	1
B 56501	2	813	113	92	.8	10	42	766	6.93	2	5	ND	4	35	1	2	4	3	2.44	.079	7	3	.30	18	.13	2	1.26	.02	.07	1	1
B 56502	2	398	28	87	.3	4	18	508	5.17	2	5	ND	7	9	1	2	2	1	1.17	.101	10	4	.16	84	.15	2	1.32	.09	.29	1	2
B 56503	1	25	18	93	.1	4	10	525	4.78	2	5	ND	9	7	1	2	2	1	1.12	.097	13	3	.15	165	.15	2	1.59	.09	.52	1	8
B 56504	1	10	16	78	.1	2	9	653	4.90	2	5	ND	8	9	1	2	2	1	1.01	.094	12	3	.17	68	.10	2	1.48	.09	.28	1	1
B 56505	1	44	17	79	.1	3	8	564	4.49	2	5	ND	8	10	1	2	2	1	1.19	.097	11	4	.14	107	.13	10	1.42	.10	.36	1	1
B 56506	2	7	13	80	.1	3	8	562	4.51	2	5	ND	9	10	1	2	2	1	1.21	.087	12	3	.12	116	.12	3	1.50	.11	.39	1	1
B 56507	2	8	10	80	.1	5	8	560	4.62	3	5	ND	8	11	1	2	2	1	1.21	.085	13	3	.12	132	.15	8	1.57	.11	.46	1	4
B 56508	1	64	10	91	.1	3	10	562	4.97	2	5	ND	10	8	1	2	2	1	1.08	.096	13	3	.16	204	.17	2	1.66	.10	.60	1	5
B 56509	1	764	87	60	.4	7	14	429	4.04	2	5	ND	6	12	1	2	2	1	1.61	.087	8	3	.11	13	.13	9	.86	.07	.08	1	3
B 56510	2	184	42	74	.2	3	13	548	4.96	2	5	ND	7	9	1	2	2	1	1.23	.108	12	3	.15	145	.16	3	1.49	.10	.42	1	1
B 56511	1	115	20	80	.1	3	12	515	4.88	3	5	ND	7	8	1	2	2	1	1.32	.118	13	3	.15	162	.15	2	1.49	.10	.48	1	2
B 56563	1	1582	18396	20673	141.0	21	28	726	3.36	45	5	ND	1	6	263	64	304	3	1.34	.004	4	6	.13	1	.02	2	.43	.01	.01	1	18
B 56582	1	3	54	87	.1	11	4	411	1.62	5	5	ND	14	12	1	2	3	9	.68	.014	26	14	.29	21	.10	2	1.31	.02	.32	1	1
B 56583	2	21	359	174	.5	16	7	697	2.55	5	5	ND	12	14	1	2	2	19	2.58	.037	15	22	.51	50	.14	2	2.22	.09	.66	1	1
B 56585	2	3	8	119	.1	13	7	432	2.46	2	5	ND	13	5	1	2	7	13	.37	.020	18	16	.46	58	.14	2	1.63	.06	.80	1	4
B 56586	1	3	36	100	.1	10	10	476	4.34	2	5	ND	11	9	1	2	4	18	1.04	.087	18	16	.30	151	.16	10	1.74	.08	.63	2	8
B 56587	1	25	18	112	.1	5	12	533	5.10	2	5	ND	7	8	1	2	2	5	1.35	.132	13	4	.24	114	.14	10	1.84	.10	.47	1	6
B 56589	1	297	68	188	.2	4	20	770	7.00	2	5	ND	8	13	1	2	2	5	1.39	.129	11	3	.34	71	.13	8	2.04	.06	.22	1	5
B 56590	1	261	31	140	.1	4	15	834	6.79	2	5	ND	5	14	1	2	2	4	1.52	.125	9	3	.31	61	.12	3	1.95	.07	.22	1	2
B 56591	2	168	26	133	.1	7	16	742	6.25	5	5	ND	6	11	1	2	7	4	1.71	.131	11	3	.34	115	.16	2	1.88	.09	.36	1	3
B 56592	1	238	14	100	.2	5	12	616	5.86	4	5	ND	7	10	1	2	3	4	1.33	.136	11	4	.28	176	.19	5	1.86	.10	.49	1	7
B 56593	1	292	20	98	.1	4	14	586	5.73	3	5	ND	7	9	1	2	2	3	1.28	.131	10	4	.25	141	.16	2	1.74	.09	.41	1	4
B 56594	1	436	17	85	.2	3	16	619	5.84	6	5	ND	7	10	1	2	5	2	1.19	.131	10	3	.26	84	.15	2	1.60	.09	.27	1	3
B 56595	2	677	14	71	.1	4	19	533	5.10	2	5	ND	6	11	1	2	2	1	1.29	.101	11	4	.17	12	.13	6	1.26	.09	.09	1	6
B 56596	3	199	124	116	.3	6	9	548	4.05	2	5	ND	5	9	1	3	5	3	1.29	.104	11	4	.33	51	.15	8	1.32	.08	.22	1	5
B 56597	2	195	112	23	.1	27	29	153	2.51	14	5	ND	1	4	1	2	2	3	.49	.010	2	8	.10	11	.02	4	.34	.01	.07	1	6
B 56598	2	448	197	74	.4	7	14	384	2.88	3	5	ND	2	20	1	2	7	1	2.40	.128	7	5	.16	9	.16	2	.67	.02	.02	1	3
B 56599	1	517	23	113	.2	3	19	668	5.24	2	5	ND	7	10	1	2	2	2	1.59	.136	10	4	.24	16	.15	2	1.46	.10	.11	1	6
B 56600	1	417	19	86	.3	3	17	638	4.65	2	5	ND	5	14	1	2	3	3	2.12	.139	8	3	.26	11	.15	2	1.30	.09	.10	1	7
STD C/AU-R	18	58	39	132	7.1	67	30	947	3.86	38	20	6	36	47	18	15	18	57	.47	.089	37	55	.85	176	.07	33	1.87	.06	.14	12	495

56563: M-89-14  
 56582: M-89-17

✓ ASSAY RECOMMENDED (9m progress)



ACME ANALYTICAL LABORATORIES LTD.  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE (604) 253-3158 FAX (604) 253-1716

DATE RECEIVED: DEC 21 1989

DATE REPORT MAILED: *Jan. 5/90.*

### ASSAY CERTIFICATE

- SAMPLE TYPE: CORE PULP

SIGNED BY *C. Long* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

**Bapty Research Limited** FILE # 89-5087R

SAMPLE#	PB %	ZN %	AG oz/t
B 56563	13.99	2.12	4.02

PROJECT McNEIL

M-89-14

*McNeil*

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: Core AU\*\* ANALYSIS BY FA/ICP FROM 10 GM SAMPLE.

DATE RECEIVED: JAN 2 1990 DATE REPORT MAILED: *June 10/90* SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Bapty Research Limited File # 90-0037

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	AU** PPM
A 45868	3	35	38	149	.2	19	10	316	3.31	2	5	ND	12	9	1	2	2	10	.33	.036	30	11	.75	50	.08	2	1.20	.01	.35	1	8
A 45869	3	27	19	87	.2	16	10	310	2.88	22	5	ND	11	10	1	2	2	9	.52	.032	27	10	.61	48	.07	2	1.08	.01	.38	1	3
A 45870	2	23	16	68	.1	15	8	341	2.78	2	5	ND	10	10	1	2	2	12	.50	.029	29	14	.62	44	.06	2	1.08	.02	.30	1	3
A 45871	1	26	10	62	.1	20	11	321	3.12	2	5	ND	12	7	1	2	2	12	.28	.020	30	13	.59	54	.09	2	1.16	.01	.36	1	3
A 45872	1	25	8	66	.3	16	10	313	2.79	5	5	ND	11	8	1	2	2	11	.37	.029	28	12	.57	47	.07	2	1.10	.02	.28	1	3
A 45873	3	33	15	65	.1	17	11	357	3.00	7	5	ND	11	9	1	2	2	15	.35	.031	29	16	.69	52	.07	3	1.17	.02	.31	1	3
A 45874	4	25	18	76	.1	16	9	402	2.95	2	5	ND	9	15	1	2	2	19	.60	.033	29	20	.85	60	.10	2	1.37	.02	.57	1	3
A 45875	2	21	15	69	.2	17	8	400	2.83	2	5	ND	11	16	1	2	2	17	.69	.030	33	18	.82	52	.09	3	1.34	.02	.50	1	3
A 45876	2	28	22	82	.3	19	10	379	3.07	2	5	ND	10	14	1	2	3	16	.51	.031	28	17	.83	54	.10	2	1.41	.02	.46	1	5
A 45877	2	27	16	76	.3	16	9	384	2.87	5	5	ND	11	15	1	2	3	19	.57	.031	27	20	.79	54	.11	2	1.30	.02	.53	1	5
A 45878	1	21	15	65	.2	13	7	402	2.46	3	5	ND	10	13	1	2	2	20	.80	.038	28	22	.75	39	.10	2	1.13	.02	.46	1	5
B 56565	14	12	8	62	.2	19	7	375	3.28	3	5	ND	11	4	1	2	2	33	.38	.042	23	26	.49	52	.16	5	1.56	.03	.47	1	3
B 56566	2	1355	31	98	.8	35	46	368	5.39	13	5	ND	6	14	1	2	2	18	.81	.032	9	15	.41	21	.08	2	1.30	.02	.17	1	3
B 56567	1	12	10	38	.1	17	8	442	3.97	2	5	ND	16	3	1	2	2	30	.26	.033	26	25	.57	32	.14	2	1.69	.02	.33	2	3
B 56568	1	30	49	46	.3	18	9	573	3.87	3	5	ND	15	5	1	2	4	38	1.17	.039	27	30	.56	14	.12	2	1.52	.03	.14	2	3
B 56569	1	1366	226	71	1.4	20	26	324	2.61	28	5	ND	2	22	1	2	3	26	1.50	.021	3	10	.24	5	.08	2	.89	.01	.03	1	4
B 56570	1	5	8	135	.3	28	24	1114	6.25	31	5	ND	1	4	1	2	3	102	1.29	.036	3	27	1.18	34	.17	2	2.77	.06	.19	1	20
B 56571	1	179	10	124	.3	3	23	1363	8.71	6	5	ND	6	13	1	2	2	67	.61	.095	5	1	1.15	17	.15	2	3.21	.02	.08	2	3
B 56572	1	1980	57	135	.6	8	40	348	4.53	15	5	ND	2	42	1	4	2	18	1.37	.019	2	2	.30	8	.05	6	1.07	.01	.03	1	12
B 56573	1	31	13	53	.2	1	4	485	2.21	2	5	ND	1	18	1	2	2	35	2.19	.096	5	2	.30	3	.23	2	.99	.04	.03	1	24
B 56574	1	260	38	40	.3	8	13	702	1.96	10	5	ND	3	20	1	2	2	20	1.57	.075	9	3	.15	3	.12	2	.74	.02	.02	1	4
B 56575	1	1443	466	188	1.8	9	34	397	3.77	2	5	ND	2	23	1	2	6	28	2.59	.061	3	2	.05	3	.21	2	.46	.01	.01	1	7
B 56576	1	1257	419	140	1.6	11	46	346	4.88	2	5	ND	1	18	1	2	2	31	3.03	.050	2	2	.07	4	.25	2	.38	.01	.01	1	8
B 56577	1	471	279	112	.9	9	23	823	4.14	2	5	ND	1	17	1	2	2	70	2.94	.063	3	1	.32	26	.22	4	.92	.04	.07	1	7
B 56578	1	3560	101	132	1.5	37	239	297	17.08	301	5	ND	1	7	1	3	4	31	.64	.012	2	5	.15	22	.05	2	.42	.02	.15	1	63
B 56579	1	1504	15	69	.8	11	71	704	5.76	51	5	ND	3	25	1	3	2	35	2.92	.065	3	2	.25	54	.21	2	.61	.02	.15	1	8
B 56580	1	459	28	319	.4	7	24	790	4.74	7	5	ND	4	23	1	2	2	73	3.04	.077	6	3	.44	39	.20	3	1.24	.05	.28	1	3
B 56581	1	503	237	344	1.0	4	18	905	5.07	4	5	ND	5	19	1	2	2	81	2.94	.061	8	2	.59	69	.22	2	1.49	.05	.50	1	3
B 56584	1	229	13	308	.3	29	19	1102	6.02	2	5	ND	5	10	1	2	2	36	3.52	.018	8	22	1.25	52	.16	2	3.21	.02	1.14	1	76
B 56588	1	157	16	101	.1	2	14	560	5.42	2	5	ND	5	7	1	3	2	4	1.24	.127	10	2	.25	87	.14	2	1.76	.07	.34	1	4
STD C/AU-R	18	58	37	132	6.6	67	31	915	4.01	38	16	7	37	48	18	16	21	58	.46	.091	38	56	.84	173	.07	38	1.98	.06	.14	12	490

PROJECT McNEIL

## GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MM FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Core AU\*\* ANALYSIS BY FA/ICP FROM 10 GM SAMPLE.

DATE RECEIVED: JAN 5 1990 DATE REPORT MAILED: *Jan 11/90* SIGNED BY: *C. Long* D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

Bapty Research Limited File # 90-0076

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	AU**
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPB
M-89-8 A 45851	1	27	10	58	.4	16	8	385	2.81	2	5	ND	9	11	1	2	2	12	.78	.048	22	16	.74	42	.07	7	1.07	.02	.20	2	6
A 45852	1	22	6	38	.1	14	7	311	2.35	4	5	ND	9	10	1	2	2	10	.84	.037	23	16	.67	32	.06	3	.97	.02	.14	1	3
A 45853	3	34	15	39	.2	21	10	309	3.09	5	5	ND	10	9	1	2	2	11	.59	.034	25	15	.78	30	.06	2	1.05	.02	.13	1	7
A 45854	3	28	11	52	.3	22	11	375	3.44	3	5	ND	13	10	1	2	3	11	.59	.037	33	15	.88	35	.06	3	1.32	.01	.16	1	8
A 45855	2	44	23	36	.1	22	11	352	3.49	7	5	ND	9	20	1	2	3	19	.69	.032	15	22	1.58	14	.04	3	1.68	.02	.12	1	5
A 45879	2	11	4	29	.4	12	4	294	1.42	6	5	ND	9	14	1	3	2	8	1.27	.012	18	15	.27	18	.05	4	.60	.01	.11	1	5
A 45880	2	8	13	28	.1	17	6	279	2.05	3	5	ND	13	7	1	2	2	9	.44	.018	25	16	.40	27	.05	5	.87	.01	.16	2	20
A 45881	2	4	6	28	.1	15	4	280	1.72	3	5	ND	13	8	1	2	2	9	.68	.017	24	17	.36	26	.05	6	.78	.01	.17	1	4
A 45882	2	11	10	24	.1	16	6	276	2.23	3	5	ND	11	9	1	2	2	12	.82	.020	23	18	.49	16	.04	2	.86	.02	.11	1	34
A 45883	1	59	13	186	.1	33	19	379	4.01	9	5	ND	16	7	1	2	2	13	.17	.027	32	18	.77	32	.06	7	1.42	.01	.20	1	3
A 45884	1	30	9	55	.2	23	12	353	3.36	2	5	ND	18	8	1	2	5	12	.40	.027	37	15	.69	36	.06	2	1.34	.01	.23	1	6
A 45885	1	23	10	47	.1	21	10	324	2.81	3	5	ND	13	8	1	2	2	13	.49	.022	27	17	.62	28	.05	3	1.08	.01	.18	1	4
A 45886	1	24	11	50	.2	24	11	348	3.34	6	5	ND	16	7	1	2	2	12	.38	.034	31	16	.74	28	.05	5	1.27	.01	.18	1	4
A 45887	2	24	13	45	.1	14	6	356	2.05	2	5	ND	9	11	1	2	2	13	1.07	.019	21	18	.46	19	.05	4	.75	.02	.12	1	2
A 45888	2	30	20	93	.3	18	8	390	2.42	5	5	ND	10	14	1	2	2	18	1.39	.026	21	23	.73	23	.06	2	.95	.02	.25	1	1
A 45889	8	29	26	69	.2	18	8	403	2.82	2	5	ND	11	18	1	2	2	17	1.31	.042	24	20	.95	26	.05	4	1.21	.02	.33	1	2
A 45890	1	57	13	38	.1	33	18	273	4.54	2	5	ND	10	8	1	2	2	14	.51	.038	9	19	1.14	16	.05	4	1.25	.01	.11	1	6
B 56499	2	65	14	50	.2	41	21	399	4.68	8	5	ND	8	19	1	2	3	19	1.32	.075	21	20	.77	36	.08	7	1.12	.03	.37	1	4
B 56500	2	50	20	152	.2	33	17	346	3.72	2	5	ND	11	10	1	2	2	14	.43	.029	23	19	.67	38	.09	2	.98	.02	.34	1	4
STD C/AU-R	18	57	39	133	6.6	67	30	1035	4.08	40	18	7	37	48	18	15	23	57	.50	.095	38	57	.89	174	.07	38	1.97	.06	.14	12	480

PROJECT McNEIL

**GEOCHEMICAL ANALYSIS CERTIFICATE**

REC'D JAN. 25/90

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: Core AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JAN 22 1990 DATE REPORT MAILED: *Jan 24/90* SIGNED BY: *C. Long* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

**Bapty Research Limited PROJECT GOLD CREEK File # 90-0189 Page 1**

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Hg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
A 45001	2	25	228	100	7	10	6	433	1.24	2	5	ND	4	49	1	2	3	6	.72	.030	10	11	.43	29	.05	2	.78	.02	.14	1	6
A 45002	2	3	9	35	1	15	6	276	2.08	2	5	ND	11	9	1	2	2	20	.43	.024	28	20	.46	29	.08	2	.97	.02	.15	2	3
A 45003	2	61	10	112	3	65	10	512	3.12	12	5	ND	1	6	1	3	2	17	.15	.007	3	8	.77	43	.10	3	1.28	.01	.88	1	5
A 45201	1	3	11	11	1	17	15	502	1.89	7	5	ND	6	33	1	5	2	7	4.14	.039	9	9	2.96	107	.02	8	.94	.01	.48	1	1
A 45202	1	35	2	16	1	18	10	487	2.26	8	5	ND	4	32	1	3	2	7	3.39	.036	7	10	2.86	174	.03	8	1.15	.01	.47	1	3
A 45203	1	1	3	15	1	16	4	437	2.05	2	5	ND	5	30	1	5	2	8	3.16	.055	16	8	2.57	95	.03	7	1.21	.01	.51	1	3
A 45204	1	4	2	15	1	20	12	674	2.72	15	5	ND	6	5	1	3	2	13	.27	.068	24	14	1.06	162	.03	6	1.09	.01	.43	1	1
A 45205	1	1	6	10	2	13	10	847	2.15	9	5	ND	6	35	1	4	4	7	4.39	.048	9	8	2.30	507	.02	9	.68	.01	.34	1	1
A 45206	1	4	2	17	1	14	4	359	2.37	2	5	ND	1	25	1	2	2	13	2.02	.051	13	12	1.92	520	.04	5	1.36	.01	.44	1	2
A 45207	1	5	2	22	1	18	4	149	2.86	2	5	ND	4	9	1	2	2	11	.48	.046	14	21	1.99	67	.04	5	1.79	.01	.42	1	1
A 45208	1	8	6	9	1	12	14	783	2.14	7	5	ND	5	39	1	3	2	5	5.98	.043	12	6	2.94	146	.01	6	.66	.01	.31	1	3
A 45209	1	40	8	8	3	10	8	989	2.29	6	9	ND	4	57	1	4	2	5	9.85	.032	8	4	4.14	81	.01	4	.44	.01	.24	1	1
A 45210	1	154	9	9	3	12	15	974	2.52	13	11	ND	5	58	1	6	2	5	7.90	.034	7	4	3.91	117	.01	4	.54	.01	.25	1	3
A 45211	1	5	10	22	2	21	17	481	3.49	22	5	ND	3	29	1	5	2	17	2.77	.060	8	12	3.02	89	.05	4	1.87	.01	.64	1	2
A 45212	1	4	6	14	3	14	8	419	2.58	8	5	ND	5	38	1	4	2	10	2.74	.045	11	9	2.16	58	.03	3	1.18	.01	.45	1	2
A 45213	1	10	10	13	2	14	13	730	2.68	10	5	ND	6	40	1	4	2	8	3.92	.048	15	8	2.52	268	.02	4	.99	.01	.31	1	2
A 45214	1	2	3	17	2	18	11	473	3.12	8	5	ND	4	33	1	6	2	13	2.69	.044	11	12	2.50	95	.05	3	1.57	.01	.60	1	1
A 45215	1	14	6	14	1	27	39	231	2.68	6	5	ND	1	12	1	2	2	14	.74	.054	15	9	1.44	127	.05	4	1.31	.01	.47	1	2
A 45216	1	12	2	35	1	20	20	521	6.56	2	5	ND	1	38	1	2	2	39	2.30	.154	9	7	3.60	231	.12	2	3.25	.01	.86	1	5
A 45217	1	4	6	20	1	11	11	829	5.01	3	5	ND	1	170	1	2	2	25	6.42	.091	8	6	2.92	1068	.05	2	1.78	.01	.44	1	4
A 45218	1	4	5	33	1	17	19	650	8.28	2	5	ND	1	42	1	2	4	39	2.63	.133	16	7	3.24	106	.06	2	3.02	.01	.48	1	2
A 45219	1	23	5	39	1	20	30	611	9.40	6	5	ND	2	35	1	3	2	50	1.85	.150	14	8	3.72	74	.06	2	3.63	.01	.45	1	3
A 45220	1	20	4	43	1	21	37	709	9.32	6	5	ND	1	27	1	3	2	59	1.72	.143	14	10	3.84	197	.03	2	4.12	.01	.22	1	4
A 45221	1	43	9	41	2	21	30	758	9.34	11	7	ND	2	67	1	6	2	65	2.58	.137	15	12	3.64	39	.02	2	3.81	.02	.19	1	3
A 45222	1	162	3	44	1	28	59	932	10.01	4	5	ND	1	35	1	2	2	67	2.38	.124	18	12	3.68	249	.02	2	4.21	.01	.13	1	4
A 45223	1	19	6	41	1	25	37	783	9.62	8	5	ND	1	51	1	3	2	60	2.03	.139	14	12	3.59	226	.02	2	3.93	.01	.17	2	3
A 45224	1	298	36	44	4	72	171	2127	11.21	41	5	ND	1	26	2	4	2	63	3.10	.104	7	10	3.44	279	.02	2	3.97	.01	.10	1	1
A 45225	1	46	11	49	1	23	38	875	10.14	15	7	ND	2	43	2	4	2	71	2.20	.141	21	13	4.04	72	.02	2	4.78	.02	.21	4	1
A 45226	2	21	4	26	1	23	35	720	6.62	3	5	ND	1	10	1	2	2	41	.48	.082	12	13	2.19	62	.01	2	2.38	.01	.11	1	2
A 45227	1	35	3	36	1	24	34	801	9.75	2	5	ND	1	62	1	2	2	47	2.71	.133	14	10	2.92	57	.01	2	3.32	.01	.14	1	4
A 45228	1	35	4	39	1	26	36	769	7.69	5	5	ND	1	45	1	2	2	40	2.17	.163	13	8	3.82	57	.03	2	3.87	.01	.31	2	1
A 45229	1	31	11	39	1	74	83	417	7.36	2	5	ND	1	27	1	2	2	31	1.02	.221	6	7	3.66	60	.05	2	3.99	.01	.45	1	4
A 45230	1	20	7	8	2	13	17	1257	2.65	7	5	ND	4	60	1	3	2	6	7.72	.034	10	6	3.89	27	.01	3	.57	.01	.16	1	5
A 45231	1	6	7	8	1	8	6	1186	2.41	8	5	ND	4	66	1	2	2	6	8.17	.039	8	5	4.12	20	.01	3	.50	.01	.15	1	2
A 45232	1	147	8	8	2	14	11	833	2.07	8	6	ND	7	43	1	5	2	7	5.14	.039	8	8	2.99	27	.01	5	.64	.01	.25	1	1
A 45233	1	60	8	6	1	15	12	624	1.89	7	5	ND	8	30	1	4	2	6	3.62	.042	8	12	2.25	30	.01	5	.68	.01	.28	1	1
STD C/AU-R	18	60	42	132	7.1	68	30	958	3.78	39	22	6	37	48	18	18	18	60	.43	.093	37	56	.86	175	.07	39	1.78	.06	.13	13	470

GOLD CREEK G90-01

PROJECT/MCNEIL

ONLY SAMPLES 45001-45003 incl. (M-90-1)

LAB	No	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Ca	J	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	M	Au*
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	PPM	PPM	
45345	1	23	2	6	11	10	423	1.86	2	5	ND	4	18	2	2	6	1.56	.049	20	9	1.21	25	.01	5	1.02	.01	.29	1	1	
45346	1	42	7	9	14	12	717	2.67	6	5	ND	3	18	2	2	10	2.18	.092	27	10	1.74	54	.01	7	1.41	.01	.28	1	3	
45347	1	10	3	8	13	16	1085	2.33	10	5	ND	4	24	2	2	9	3.22	.062	31	9	1.13	45	.01	2	1.10	.01	.37	1	1	
45348	1	9	2	8	11	13	896	3.08	4	5	ND	2	33	2	2	9	3.07	.047	18	11	1.94	30	.01	4	1.17	.01	.32	1	4	
45349	1	8	2	7	8	15	738	2.81	2	5	ND	1	20	2	2	12	2.26	.057	17	11	1.63	22	.01	3	1.14	.01	.29	1	1	
45350	1	191	5	7	7	7	1495	3.10	2	5	ND	4	53	2	5	9	5.31	.051	19	12	2.37	19	.01	3	.93	.01	.24	1	6	
45351	1	180	2	5	8	9	519	2.47	2	5	ND	1	16	2	4	9	1.70	.067	35	8	1.32	26	.01	5	.98	.01	.31	1	2	
45352	1	23	2	9	11	10	783	2.82	2	5	ND	2	27	2	2	8	2.29	.061	17	12	1.94	67	.01	2	1.34	.01	.20	1	2	
45353	8	58	2	5	12	21	1074	2.22	3	5	ND	2	23	2	2	8	3.26	.063	17	9	1.91	25	.01	3	.86	.01	.28	1	1	
45354	1	77	2	7	15	27	880	2.69	9	5	ND	1	21	2	2	9	2.63	.101	20	7	1.81	25	.01	6	1.08	.01	.30	1	1	
45355	2	284	3	6	13	35	858	2.68	11	5	ND	1	21	2	4	10	2.52	.090	14	7	1.74	22	.02	5	1.03	.01	.31	1	3	
45356	1	292	4	17	18	36	597	4.80	5	5	ND	1	14	2	3	39	1.27	.062	13	22	2.78	22	.02	2	2.49	.01	.27	1	3	
45357	12	79	11	11	18	95	241	3.84	8	5	ND	2	8	2	2	27	.45	.064	17	6	1.64	23	.02	3	1.67	.01	.31	1	4	
45358	7	61	2	7	14	14	166	3.03	2	5	ND	1	16	2	4	23	.89	.244	35	8	1.13	40	.02	2	1.34	.01	.33	2	1	
45359	1	58	2	6	13	9	206	5.51	3	7	ND	1	28	3	6	35	1.19	.304	28	10	.95	87	.09	2	1.10	.01	.43	1	1	
45360	1	544	3	3	8	6	368	7.96	5	5	ND	1	43	2	2	41	1.93	.373	14	10	.73	48	.09	5	.85	.01	.39	1	3	
45361	1	6493	2	15	7	15	1604	4.77	5	5	ND	1	110	2	4	21	5.17	.205	3	5	2.44	80	.03	2	.79	.01	.27	1	2	
45362	1	2027	3	13	17	38	208	6.79	3	5	ND	1	24	2	4	40	1.02	.275	13	11	1.63	41	.10	6	1.71	.01	.42	1	1	
45363	1	135	5	6	10	12	245	6.14	3	5	ND	1	31	2	6	38	1.24	.270	27	9	1.02	36	.10	9	1.14	.01	.41	1	1	
45364	2	4344	6	27	29	37	562	5.66	6	5	ND	1	32	4	2	23	1.28	.025	2	5	3.09	53	.01	2	2.94	.01	.05	1	3	
45365	1	8	2	6	12	11	708	5.32	4	5	ND	1	40	2	2	30	2.53	.266	26	11	1.53	36	.07	3	1.08	.01	.37	1	2	
45366	2	14	2	7	10	13	663	6.62	5	5	ND	1	37	2	2	34	2.47	.259	25	11	1.68	27	.10	3	1.17	.01	.45	1	2	
45367	1	3	2	6	11	12	836	5.55	4	5	ND	1	40	2	5	29	2.87	.269	35	10	1.71	25	.06	3	1.09	.01	.45	1	1	
45368	1	5	2	5	6	11	3547	4.77	4	8	ND	1	227	2	2	11	11.28	.077	7	4	4.32	7	.02	2	.52	.01	.16	1	4	
45369	1	4	4	6	12	13	806	6.27	3	5	ND	1	34	4	5	33	2.50	.256	26	10	1.67	36	.09	2	1.16	.01	.48	1	1	
45370	1	2	2	5	10	14	600	8.09	4	5	ND	1	32	2	6	34	1.94	.288	11	11	1.27	88	.10	2	1.07	.01	.45	1	2	
45371	1	4	3	7	14	17	283	8.02	2	5	ND	1	23	2	2	36	1.19	.223	15	10	1.32	88	.12	4	1.25	.01	.55	1	1	
45372	1	6	3	9	15	18	165	7.68	5	5	ND	1	20	2	5	36	.77	.208	15	10	1.42	35	.12	13	1.51	.01	.43	1	2	
45373	1	3	3	7	14	15	122	8.25	4	5	ND	1	25	2	2	39	.87	.271	16	10	1.14	36	.13	5	1.30	.01	.52	1	1	
45374	1	7	4	8	13	15	386	7.35	4	5	ND	1	22	3	4	36	1.36	.196	11	10	1.45	39	.12	2	1.27	.01	.42	1	1	
45375	1	17	4	8	13	16	654	6.86	5	5	ND	1	31	2	2	37	2.09	.247	18	10	1.83	35	.10	2	1.41	.01	.42	1	2	
45376	1	3	6	10	14	19	812	6.85	5	5	ND	1	31	2	7	39	2.17	.217	16	7	2.10	29	.11	2	1.62	.01	.56	1	5	
45856	1	219	58	61	71	20	254	2.34	5	5	ND	11	7	2	2	10	.75	.020	23	12	.29	19	.07	2	1.01	.01	.22	1	1	
45857	1	14	11	83	17	8	407	2.76	2	5	ND	10	5	2	2	11	.40	.032	30	12	.54	34	.09	2	1.50	.01	.41	1	1	
45858	1	35	41	324	13	7	400	2.69	2	5	ND	12	5	2	2	10	.75	.022	26	11	.50	27	.09	5	1.41	.01	.35	1	2	
45859	1	13	24	42	11	5	218	1.17	5	5	ND	12	32	3	2	8	.92	.020	16	11	.24	29	.07	4	1.57	.04	.22	2	4	
ID C/AU-R	18	59	41	133	66	30	937	4.03	41	20	7	36	47	19	16	22	58	.50	.097	37	55	.91	173	.07	38	1.92	.06	.13	13	505

PROJECT McNEIL

M-89-19: ONLY SAMPLES 45856-45859 incl.

G90-01  
GOLD CREEK  
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↓  
McNEIL

M-89-19

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Hg	Ba	Ti	B	Al	ML	K	W	Au*
	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	%	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	X	X	PPH	PPH	X	PPH	%	PPH	%	%	PPH	PPH	PPH
A 45860	2	5	31	128	.1	15	8	421	2.87	5	7	ND	13	11	1	3	2	15	.61	.033	29	16	.61	50	12	2	1.70	.02	.64	2	4
A 45861	1	14	19	119	.1	20	9	456	3.31	2	5	ND	10	7	1	2	2	14	.49	.034	31	15	.72	44	12	5	1.68	.01	.60	1	2
A 45862	2	33	439	249	1.8	25	16	482	4.10	2	11	ND	12	4	2	4	9	19	.28	.042	26	19	.98	72	13	5	1.99	.02	.97	1	35
A 45863	3	10	741	588	2.0	13	8	682	4.36	3	5	ND	9	4	5	3	5	24	.25	.036	21	24	1.36	57	13	4	2.42	.02	.89	1	25
A 45864	3	16	1114	412	1.4	19	8	633	3.48	5	8	ND	11	11	3	4	2	32	.65	.044	26	29	1.23	119	15	5	2.65	.07	1.04	1	1
A 45865	14	22	652	572	.5	17	11	658	4.78	2	5	ND	7	13	4	2	2	37	.76	.042	21	30	1.73	159	17	4	3.80	.09	1.43	1	3
A 45866	2	58	428	233	.7	30	20	589	5.43	4	6	ND	12	3	1	3	2	29	.29	.037	26	23	1.34	112	16	2	2.62	.02	1.32	1	2
A 45867	1	43	19	99	.1	22	9	277	2.65	2	5	ND	18	3	1	2	3	10	.55	.023	23	11	.50	66	.07	2	1.22	.01	.59	1	4
A 45891	1	31	18	101	.1	20	9	336	3.17	2	5	ND	19	3	1	2	2	14	.30	.026	37	14	.58	58	.10	4	1.52	.01	.63	1	3
A 45892	2	13	27	99	.1	19	9	341	2.99	2	6	ND	17	44	1	3	2	15	.26	.024	36	16	.56	74	.12	6	1.64	.01	.76	1	1
A 45893	1	7	34	98	.1	22	8	338	2.78	3	5	ND	16	62	1	2	2	14	.48	.024	37	15	.52	60	.12	4	1.81	.01	.60	1	6
A 45894	2	66	42	110	.1	15	9	288	2.19	2	5	ND	9	6	1	2	2	8	.53	.011	19	13	.33	23	.07	2	1.05	.02	.21	1	4
A 45895	1	9	65	83	.1	15	6	409	2.63	2	5	ND	15	6	1	2	3	12	.59	.029	26	15	.52	19	.07	7	1.21	.01	.20	1	1
A 45896	1	49	53	453	.1	17	11	748	5.16	2	5	ND	12	8	2	2	2	21	1.16	.037	25	20	1.10	42	.10	6	2.47	.02	.48	1	1
A 45897	2	83	197	183	.3	25	13	515	3.78	2	5	ND	12	7	1	2	2	16	.75	.032	32	17	.72	42	.10	2	1.81	.02	.46	1	1
A 45898	1	26	17	91	.1	15	8	337	2.27	3	5	ND	10	10	1	2	2	11	.71	.014	21	13	.41	43	.09	7	1.53	.03	.44	1	6
A 45899	2	10	15	84	.1	12	5	335	1.78	2	5	ND	9	20	1	2	3	10	.91	.012	22	14	.33	32	.08	2	1.03	.02	.29	1	5
A 45900	2	20	60	149	.2	16	7	423	2.46	2	5	ND	7	5	1	2	2	10	.74	.010	18	14	.44	19	.06	3	1.09	.02	.17	1	1
A 45901	2	33	19	69	.2	17	7	329	2.42	2	9	ND	16	5	1	2	6	12	.32	.020	35	13	.47	45	.09	3	1.18	.01	.47	1	3
A 45902	7	57	201	495	.2	19	13	692	4.82	2	5	ND	9	4	3	2	2	32	.49	.041	27	30	1.04	12	.10	6	1.88	.03	.13	1	3
A 45903	2	46	45	79	.2	18	13	289	2.50	6	9	ND	17	12	1	3	3	10	.19	.024	40	11	.42	43	.08	8	1.05	.01	.40	1	1
A 45904	4	28	192	151	.5	16	8	433	3.00	2	5	ND	11	6	1	2	5	19	.33	.022	25	19	.55	51	.12	4	1.42	.03	.54	1	1
A 45905	2	33	26	108	.1	27	12	330	2.64	2	5	ND	17	4	1	2	2	5	.42	.034	27	8	.19	49	.01	11	.88	.01	.27	1	1
A 45906	3	37	147	98	.4	20	12	401	3.46	23	5	ND	10	7	1	2	6	16	.77	.029	19	16	.72	56	.06	5	1.36	.02	.47	1	3
A 45907	2	46	11	74	.1	28	13	289	3.42	3	5	ND	13	4	1	2	5	10	.60	.024	26	12	.60	44	.06	6	1.17	.01	.37	1	1
A 45908	2	44	33	90	.1	28	15	510	4.78	2	5	ND	15	5	1	3	2	20	.28	.030	40	19	1.15	57	.10	5	2.01	.02	.62	1	5
A 45909	8	25	39	106	.1	21	9	495	3.56	2	5	ND	11	7	1	2	4	24	.52	.037	31	23	1.10	76	.12	6	1.93	.02	.77	1	1
A 45910	2	265	31	98	.3	93	73	529	7.44	53	8	ND	4	4	1	3	7	24	.37	.011	12	17	.76	23	.07	2	1.92	.01	.21	1	29
A 45911	3	3	10	24	.1	12	2	123	1.08	2	5	ND	5	4	1	2	2	5	.23	.006	12	12	.15	20	.04	5	.40	.01	.15	2	3
A 45912	1	22	5	23	.1	48	33	1302	7.71	37	5	ND	2	53	2	21	2	19	5.74	.030	3	3	1.06	7	.01	4	1.99	.01	.10	2	5
A 45913	1	9	5	25	.1	46	51	1100	7.90	25	5	ND	2	62	1	13	7	18	5.35	.025	2	2	1.56	8	.01	2	2.19	.01	.07	1	17
A 45914	1	28	6	18	.1	20	42	210	4.87	2	5	ND	1	44	1	2	2	69	1.71	.025	2	3	.82	5	.11	9	.82	.03	.02	1	4
A 45915	1	292	12	47	.1	44	36	924	6.29	24	5	ND	1	114	1	2	2	132	8.21	.016	2	5	1.84	10	.02	3	2.28	.02	.12	1	1
A 45916	1	544	14	59	.2	45	62	480	3.66	24	5	ND	1	25	1	2	6	67	3.61	.021	2	41	1.47	3	.10	3	1.72	.02	.02	1	3
STD C/AU-R	18	57	42	133	6.3	69	31	946	4.14	42	22	8	37	47	18	16	22	58	.51	.096	38	56	.90	176	.07	40	1.98	.06	.13	13	470

McNEIL

**GEOCHEMICAL ANALYSIS CERTIFICATE**

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Core AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JAN 31 1990 DATE REPORT MAILED: *Feb 5/90* SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Bapty Research Limited File # 90-0271 Page 1

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
A 45004	13	102	185	503	.5	23	12	357	2.77	3	5	ND	13	3	2	2	3	14	.34	.030	28	17	.45	106	.07	3	1.41	.01	.46	1	2
A 45005	7	78	19	51	.1	27	11	393	2.82	5	5	ND	12	2	1	2	4	14	.35	.045	26	18	.58	100	.09	4	1.46	.01	.53	1	2
A 45006	1	46	25	111	.1	24	12	481	3.45	4	5	ND	10	11	1	2	2	20	.20	.019	26	24	.65	80	.12	2	1.72	.03	.60	1	3
A 45007	2	5	10	34	.1	12	5	318	1.58	6	5	ND	7	4	1	2	2	12	.35	.011	12	20	.28	13	.07	3	.70	.02	.06	1	2
A 45008	2	17	8	87	.1	18	9	359	3.10	5	5	ND	14	3	1	2	2	16	.29	.030	26	19	.57	47	.10	2	1.45	.01	.29	1	3
A 45009	1	34	14	102	.1	19	11	311	3.53	5	5	ND	16	2	1	3	3	21	.09	.028	31	21	.68	106	.13	5	1.90	.01	.97	1	1
A 45010	1	454	32	159	.5	38	44	571	7.41	2	5	ND	10	3	1	6	2	44	.30	.072	17	41	1.18	46	.12	2	2.85	.05	.99	1	2
A 45011	3	170	16	58	.2	17	9	201	1.88	5	5	ND	5	8	1	2	2	13	.70	.015	8	20	.34	14	.07	6	1.40	.05	.22	1	1
A 45012	1	43	14	71	.1	12	4	363	1.93	8	5	ND	9	14	1	3	2	18	1.04	.012	12	29	.41	43	.12	2	2.48	.15	.57	1	1
A 45013	3	96	18	38	.1	11	3	86	.83	5	5	ND	5	13	1	2	3	5	1.19	.006	6	13	.11	2	.07	4	1.41	.03	.07	1	1
A 45014	1	11	18	83	.1	15	5	347	1.96	13	5	ND	3	16	1	4	5	31	1.42	.055	12	21	.43	42	.12	2	2.98	.15	.62	1	1
A 45015	1	3	42	46	.1	19	7	298	2.16	9	6	ND	12	2	1	2	4	15	.28	.019	32	20	.44	56	.09	7	1.30	.02	.41	1	1
A 45016	5	65	28	60	.1	22	10	349	3.28	9	5	ND	11	4	1	2	2	27	.22	.038	22	30	.94	177	.16	8	1.68	.04	.79	1	1
A 45017	2	104	57	98	.1	20	14	409	3.90	6	5	ND	9	13	1	4	2	40	.42	.049	15	38	1.09	238	.16	8	2.08	.08	.85	1	1
A 45018	2	49	11	46	.1	20	9	281	2.87	4	5	ND	12	9	1	2	2	31	.17	.030	26	32	.89	124	.16	5	1.56	.04	.66	2	1
A 45917	2	29	51	73	.1	14	6	260	1.47	8	5	ND	7	7	1	2	2	10	.77	.020	13	17	.29	19	.07	4	1.35	.02	.24	1	1
A 45918	1	564	1244	101	3.2	106	105	385	14.11	5	5	ND	6	9	1	5	6	19	.45	.029	10	34	.82	24	.09	6	2.04	.05	.47	1	2
A 45919	1	23	10	145	.1	12	7	366	3.99	2	7	ND	19	2	1	2	2	18	.12	.031	31	19	.68	78	.12	2	1.89	.01	.94	1	1
A 45920	1	6	40	116	.1	9	4	351	2.72	5	6	ND	18	3	1	2	4	15	.16	.035	34	17	.61	59	.09	3	1.55	.01	.67	1	1
A 45921	1	24	72	130	.1	18	9	373	3.34	5	8	ND	16	2	1	2	3	15	.12	.029	43	18	.68	66	.09	2	1.60	.01	.73	1	2
A 45922	2	37	292	387	1.0	20	10	556	4.26	4	5	ND	9	4	3	2	2	27	.23	.042	22	28	.98	70	.11	2	1.79	.03	.69	1	1
A 45923	2	71	2021	1394	5.4	25	13	465	4.84	6	5	ND	8	6	12	3	17	27	.32	.038	16	30	.97	62	.11	3	1.73	.04	.71	1	3
A 45924	3	39	231	300	.6	20	10	337	3.18	6	5	ND	11	3	3	2	2	13	.23	.039	28	17	.71	57	.08	2	1.34	.01	.55	1	2
B 49085	1	1	17	10	.3	4	3	1000	1.76	4	5	ND	1	37	1	2	2	5	16.07	.024	2	3	7.84	16	.01	3	.07	.01	.03	1	2
B 49086	1	1	3	6	.3	5	4	896	1.78	3	5	ND	3	36	1	2	2	6	14.92	.027	2	3	7.16	7	.01	5	.07	.01	.03	1	1
B 49087	1	2	3	5	.2	6	4	794	1.57	5	5	ND	4	27	1	2	2	6	12.49	.036	3	4	5.31	7	.01	2	.25	.01	.03	1	1
B 49088	1	3	9	1	.2	7	5	1057	1.75	2	5	ND	2	19	1	2	2	9	15.32	.024	7	4	7.47	2	.01	2	.18	.01	.01	1	2
B 49089	1	1	2	2	.1	6	5	854	1.47	5	5	ND	2	35	1	2	2	7	16.73	.026	2	4	8.13	5	.01	8	.03	.01	.01	1	1
B 49090	1	1	2	5	.2	4	3	754	1.20	2	5	ND	1	42	1	2	2	7	17.03	.019	2	3	8.35	10	.01	5	.02	.01	.01	1	3
B 49091	1	1	8	3	.2	3	2	796	1.28	4	5	ND	1	50	1	2	2	7	17.35	.015	2	2	8.61	14	.01	4	.02	.01	.01	1	1
B 49092	1	2	3	6	.2	5	6	836	1.73	4	5	ND	3	30	1	2	2	6	16.05	.024	3	2	7.71	4	.01	7	.07	.01	.02	1	1
B 49093	1	1	9	4	.2	3	2	1202	1.70	5	5	ND	1	27	1	2	2	4	16.24	.016	6	1	6.97	4	.01	3	.11	.01	.03	1	1
B 49094	1	3	5	7	.2	6	4	1188	2.03	37	5	ND	2	22	1	2	2	4	19.07	.024	9	4	4.62	8	.01	3	.29	.01	.05	1	1
B 49095	1	1	3	2	.3	5	5	1235	1.73	2	5	ND	3	24	1	2	2	6	16.36	.026	6	6	7.43	2	.01	8	.04	.02	.01	2	4
B 49096	1	1	10	1	.2	6	5	700	1.62	5	5	ND	2	38	1	2	2	6	17.05	.020	2	5	8.07	5	.01	9	.06	.01	.01	1	2
B 49097	1	2	3	1	.1	11	7	485	1.25	2	5	ND	6	27	1	2	2	6	10.94	.040	3	5	5.00	11	.01	9	.09	.02	.03	1	3
STD C/AU-R	17	59	44	127	7.1	66	30	947	4.06	42	21	7	36	47	18	16	22	57	.45	.091	36	55	.82	173	.06	37	1.91	.06	.14	13	530

PROJECT McNEIL

ONLY SAMPLES 45004-45018 incl.; 45917-45924 incl.

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	%	%	%	PPM	PPB	
B 49098	1	3	2	3	.1	12	7	531	1.21	2	8	ND	7	30	1	2	2	5	10.70	.033	3	5	5.47	10	.01	6	.10	.01	.05	1	2
B 49099	1	3	4	3	.1	6	4	778	1.30	2	6	ND	3	36	1	2	2	9	14.49	.023	3	6	7.56	4	.01	6	.07	.01	.01	1	2
B 49100	1	4	2	2	.2	6	4	1388	1.71	2	10	ND	5	25	1	3	2	8	14.27	.023	10	6	6.94	2	.01	3	.05	.01	.03	1	1
B 49101	1	4	2	3	.1	5	3	880	1.21	2	6	ND	4	38	1	3	2	6	15.38	.024	5	5	7.96	12	.01	6	.05	.01	.01	1	2
B 49102	1	6	4	3	.1	4	3	1249	1.29	2	6	ND	3	34	1	3	2	7	16.10	.019	9	5	7.78	3	.01	6	.04	.01	.02	1	2
B 49103	1	6	5	3	.1	5	4	1272	1.39	2	6	ND	3	31	1	2	2	13	15.90	.022	12	8	7.68	3	.01	5	.08	.01	.01	1	1
B 49104	1	2	2	3	.1	4	2	778	1.26	2	8	ND	3	55	1	3	3	8	16.77	.020	9	6	8.01	19	.01	5	.04	.01	.01	1	2
B 49105	1	7	3	2	.1	4	2	505	.76	2	8	ND	3	56	1	2	2	4	20.37	.017	10	3	4.70	6	.01	5	.04	.01	.02	1	1
B 49106	1	7	4	2	.1	3	1	617	.90	2	6	ND	2	48	1	3	2	4	17.30	.016	7	3	8.33	8	.01	7	.03	.01	.03	1	1
B 49107	1	10	6	2	.1	5	3	270	.61	5	9	ND	4	80	1	5	2	2	25.88	.014	9	1	2.00	6	.01	4	.07	.01	.02	1	1
B 49108	1	17	8	3	.1	6	4	317	.83	5	7	ND	5	82	1	4	2	3	22.62	.021	8	1	2.76	7	.01	4	.06	.01	.04	1	1
B 49109	1	17	7	2	.1	5	6	307	.73	7	11	ND	3	115	1	3	2	3	27.83	.027	13	1	1.48	10	.01	5	.05	.01	.04	1	1
B 49110	1	1	2	2	.1	5	3	604	1.17	2	5	ND	3	62	1	3	2	6	17.86	.022	4	5	8.16	30	.01	13	.05	.01	.03	1	2
B 49111	1	4	3	2	.1	5	3	631	2.28	2	6	ND	2	52	1	2	2	7	17.23	.017	6	4	7.68	17	.01	5	.03	.01	.01	1	1
B 49112	1	6	2	1	.1	3	1	385	.61	2	5	ND	3	66	1	2	2	4	21.62	.014	6	2	4.50	6	.01	8	.04	.01	.03	1	2
B 49113	1	11	7	2	.1	4	2	241	.49	2	5	ND	2	77	1	4	2	2	26.83	.013	6	1	2.45	5	.01	3	.04	.01	.02	1	1
B 49114	1	7	3	1	.1	2	2	333	.61	2	6	ND	2	76	1	2	2	2	23.78	.012	5	1	4.58	11	.01	5	.06	.01	.05	1	1
B 49115	1	15	6	3	.1	8	3	226	.69	7	6	ND	4	83	1	3	2	2	24.52	.022	9	3	1.15	6	.01	8	.07	.01	.04	1	1
B 49116	1	14	9	2	.1	7	4	240	.78	4	9	ND	4	77	1	3	2	3	22.64	.032	9	1	1.55	7	.01	4	.11	.01	.05	1	1
B 49117	1	4	7	3	.1	3	1	477	.77	4	5	ND	2	58	1	3	2	3	19.64	.019	5	2	6.89	12	.01	8	.07	.01	.03	1	1
B 49118	1	10	5	1	.1	4	2	315	.63	7	8	ND	2	71	1	4	2	3	23.56	.022	7	2	3.72	7	.01	6	.06	.01	.03	1	1
B 49119	1	10	4	2	.1	5	2	239	.57	6	7	ND	4	85	1	3	2	2	26.62	.014	8	2	1.87	8	.01	5	.08	.01	.05	1	1
B 49120	1	6	4	2	.1	4	2	231	.57	4	9	ND	3	73	1	3	2	2	26.16	.014	6	1	2.76	9	.01	8	.05	.01	.03	1	2
B 49121	1	9	4	2	.1	5	2	223	.74	2	6	ND	3	68	1	2	2	3	22.39	.017	6	2	2.91	11	.01	7	.10	.01	.08	1	1
B 49122	1	8	2	3	.1	5	3	324	1.01	2	5	ND	2	52	1	2	2	4	19.47	.018	4	2	5.78	10	.01	6	.15	.01	.05	1	2
B 49123	1	13	5	2	.1	8	4	143	.74	2	9	ND	5	84	1	2	2	3	25.53	.023	10	2	.57	14	.01	6	.19	.01	.13	1	1
B 49124	1	13	5	2	.1	6	3	171	.66	2	7	ND	4	82	1	3	2	3	25.18	.023	10	2	1.40	13	.01	8	.17	.01	.13	1	2
B 49125	1	11	6	2	.1	8	3	241	.75	6	7	ND	4	63	1	3	2	3	21.45	.028	7	2	3.19	13	.01	10	.12	.01	.08	1	2
B 49126	1	12	2	2	.1	5	3	291	.82	2	6	ND	3	73	1	2	2	2	21.33	.031	7	1	4.42	26	.01	11	.08	.01	.05	1	1
B 49127	1	10	6	3	.1	5	3	222	.63	3	6	ND	3	72	1	3	2	2	24.77	.022	7	2	2.77	16	.01	4	.18	.01	.07	1	1
B 49128	1	9	6	2	.1	7	4	275	.79	4	5	ND	3	44	1	2	2	3	18.17	.023	4	2	4.32	16	.01	10	.23	.01	.12	1	1
B 56154	2	7	3	7	.1	9	5	143	.92	2	5	ND	6	5	1	2	2	6	1.08	.007	4	14	.22	8	.01	2	.22	.04	.04	2	2
B 56302	2	217	32	54	.1	96	59	187	7.67	2	5	ND	7	12	1	2	2	12	.75	.039	15	14	.40	26	.07	2	.87	.02	.27	1	4
B 56303	1	9	5	22	.1	25	23	292	2.71	7	5	ND	19	9	1	2	2	10	1.34	.046	10	9	.45	38	.07	2	.93	.01	.26	1	2
B 56304	6	4	6	39	.1	24	22	368	4.59	10	5	ND	5	5	1	2	2	64	.36	.017	7	53	4.04	8	.07	2	3.37	.01	.08	1	3
B 56305	1	1	8	71	.2	34	30	590	6.90	2	5	ND	3	4	1	2	2	153	.12	.022	2	109	7.59	3	.06	2	6.08	.01	.04	1	4
STD C/AU-R	17	57	42	131	6.6	67	30	939	3.88	44	18	7	36	47	18	16	20	59	.44	.097	38	56	.88	174	.07	39	1.85	.06	.13	12	520

M-89-3  
MAS89-1

PROJECT McNEIL

MAS-89-1: SAMPLE No. 56154

M-89-3: SAMPLE No. 56302-56305 incl.



SAMPLE#	No PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
B 56306	1	5	14	127	.1	43	25	1040	7.20	4	5	ND	2	23	1	3	2	154	1.08	.023	3	139	6.37	5	.10	5	5.47	.01	.07	1	3
B 56307	1	4	12	62	.1	41	28	421	8.46	2	5	ND	6	7	1	2	3	239	.22	.047	4	18	5.18	3	.01	6	5.12	.01	.01	1	1
B 56308	1	4	4	7	.1	11	64	87	2.43	14	5	ND	13	10	1	2	2	24	.36	.019	13	22	.34	2	.01	2	.44	.04	.01	1	5
B 56413	2	2	26	248	.1	10	5	353	1.88	3	5	ND	10	8	2	2	2	21	.51	.015	21	16	.51	55	.11	3	1.47	.07	.42	1	2
B 56414	2	36	14	174	.1	16	7	482	2.75	2	5	ND	8	16	1	3	2	16	.54	.013	13	19	.57	30	.13	3	1.55	.03	.40	1	1
B 56512	1	66	940	2812	2.1	19	19	662	3.34	2	5	ND	11	10	24	2	2	19	1.04	.022	13	21	.77	34	.13	2	1.98	.10	.59	1	1
B 56513	1	23	9	47	.1	47	32	265	9.74	2	5	ND	1	14	1	2	2	45	.34	.170	15	10	4.41	164	.13	8	4.98	.01	.99	1	1
B 56514	1	3	10	34	.1	25	5	531	7.90	7	5	ND	3	8	1	2	2	6	2.06	.131	18	2	.91	152	.10	9	1.00	.01	.28	1	1
STD C/AU-R	18	56	37	133	6.7	68	31	994	3.84	44	18	7	38	49	18	15	20	61	.44	.094	39	54	.89	177	.07	38	1.83	.06	.14	12	505

PROJECT McNEIL

M-89-3: SAMPLE No.: 56306-56308 incl.

M-89-10: SAMPLE No.: 56212-56214 incl.

**GEOCHEMICAL ANALYSIS CERTIFICATE**

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: Core AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: FEB 5 1990 DATE REPORT MAILED: Feb 7/90 SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Bapty Research Limited PROJECT GOLD CREEK File # 00-0292 Page 1

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
A 45019	1	19	260	77	.4	16	7	407	2.24	2	5	ND	17	10	1	2	2	22	.25	.018	36	25	.52	71	.13	5	1.12	.04	.39	1	1
A 45020	2	23	56	59	.3	15	6	441	1.94	8	6	ND	14	14	1	3	2	19	.41	.016	28	21	.47	121	.12	3	1.19	.06	.42	1	1
A 45021	3	87	6	23	.1	23	12	343	2.61	2	5	ND	13	6	1	2	2	10	.52	.035	15	11	.49	43	.08	2	1.08	.02	.23	2	3
A 45925	3	35	20	251	.1	18	7	521	2.23	5	9	ND	8	23	1	2	2	12	1.23	.013	17	18	.38	26	.07	2	1.11	.04	.13	2	1
B 49234	2	3	6	3	.1	5	8	2024	1.55	5	5	ND	4	87	1	2	2	6	6.67	.034	8	4	3.07	52	.01	6	.20	.01	.17	1	1
B 49235	1	6	3	2	.1	9	8	1274	1.28	5	5	ND	4	53	1	2	2	9	4.29	.045	9	5	2.04	60	.01	7	.28	.01	.21	1	1
B 49236	2	7	5	2	.1	7	12	937	1.26	6	5	ND	5	24	1	2	2	8	2.31	.050	20	6	1.00	106	.01	4	.35	.01	.24	1	1
B 49237	1	10	3	6	.1	7	4	621	2.33	2	5	ND	4	12	1	2	2	12	1.34	.053	25	8	.58	109	.02	6	.47	.01	.30	1	1
B 49238	1	4	2	5	.1	6	4	1782	2.80	2	5	ND	5	58	1	2	2	10	5.08	.042	21	6	2.24	85	.01	4	.32	.01	.24	1	2
B 49239	1	6	2	4	.1	5	2	932	3.11	2	5	ND	7	38	1	2	2	13	2.79	.044	23	9	1.19	61	.03	5	.39	.01	.28	1	1
B 49240	1	12	2	7	.1	6	5	2841	3.66	2	5	ND	3	304	1	2	2	3	12.38	.014	6	3	1.07	247	.01	2	.11	.01	.08	1	1
B 49241	1	44	2	4	.1	4	3	1001	2.16	3	5	ND	7	40	1	2	2	11	2.99	.060	26	7	1.12	54	.02	6	.30	.01	.21	1	1
B 49242	1	5	2	4	.1	5	4	976	3.58	5	6	ND	5	26	1	2	2	18	1.58	.064	27	8	.69	53	.04	12	.41	.01	.30	1	1
B 49243	1	5	10	3	.1	3	4	830	6.09	2	5	ND	4	34	1	2	2	53	1.97	.130	22	16	.74	60	.10	4	.39	.01	.28	1	1
B 49244	1	25	9	3	.1	5	5	834	5.90	5	5	ND	3	38	1	2	2	65	2.22	.111	19	15	.68	73	.09	5	.33	.01	.24	1	1
B 49245	1	21	5	3	.1	5	7	958	9.00	2	5	ND	3	25	1	2	2	124	1.25	.108	17	30	.26	78	.15	10	.32	.01	.23	1	1
B 49246	1	29	7	4	.1	4	5	994	5.01	2	5	ND	4	38	1	2	4	56	2.61	.091	22	11	.90	72	.07	2	.64	.01	.45	1	1
B 49247	2	21	10	5	.1	10	10	1402	13.12	6	5	ND	5	29	1	2	2	200	1.65	.106	22	51	.49	137	.22	4	.58	.01	.43	1	1
B 49248	1	4	2	3	.1	1	4	761	4.96	2	5	ND	4	26	1	2	2	52	1.64	.113	21	13	.66	72	.07	2	.39	.01	.30	1	1
B 49249	1	8	8	3	.1	4	6	631	8.08	7	5	ND	3	17	1	2	2	92	.88	.142	27	22	.55	39	.12	8	.43	.01	.32	1	2
B 49250	1	162	5	7	.1	6	8	2006	6.10	7	5	ND	3	142	1	2	2	37	5.12	.067	8	10	2.64	64	.05	2	.19	.01	.16	1	1
B 49251	1	40	6	4	.1	3	5	1330	5.92	2	5	ND	2	76	1	2	3	52	3.33	.125	16	14	1.68	25	.08	10	.38	.01	.30	1	1
B 49252	1	31	2	2	.1	3	4	590	5.51	5	5	ND	2	23	1	2	2	62	1.62	.124	21	15	1.01	27	.08	3	.42	.01	.31	1	1
B 49253	8	5	7	2	.1	3	4	507	6.57	4	5	ND	2	14	1	2	3	87	1.00	.114	26	30	.82	27	.10	2	.40	.01	.30	1	1
B 49254	35	9	3	2	.1	3	4	526	6.01	2	5	ND	6	10	1	2	2	21	.90	.035	37	3	.84	35	.08	5	.39	.01	.31	1	1
B 49255	10	7	9	3	.1	4	5	743	6.60	3	5	ND	4	12	1	2	2	6	1.18	.021	56	1	.96	46	.08	4	.37	.01	.30	1	1
B 49256	7	7	7	4	.1	1	6	712	7.46	6	5	ND	5	9	1	2	2	1	.65	.036	28	1	.47	36	.10	4	.49	.01	.37	1	1
B 49257	11	6	2	4	.2	3	5	878	5.39	2	6	ND	4	15	1	2	2	1	.65	.035	65	1	.82	27	.05	3	.40	.01	.30	1	1
B 49258	5	3	6	2	.1	1	4	449	6.47	2	5	ND	4	6	1	2	2	1	.35	.044	21	1	.70	26	.09	4	.42	.01	.32	1	1
B 49259	1	2	5	3	.2	1	4	334	6.60	2	5	ND	4	9	1	2	2	1	.52	.050	34	1	.42	34	.09	2	.44	.01	.34	2	2
B 49260	1	4	7	3	.1	1	5	514	7.66	6	5	ND	5	15	1	2	3	1	.83	.065	29	1	.73	29	.11	7	.43	.01	.33	1	2
B 49261	1	4	9	8	.2	7	8	854	6.58	3	5	ND	5	14	1	2	2	2	.76	.052	82	1	1.49	28	.06	2	.48	.01	.35	1	1
B 49262	1	2	7	2	.1	1	6	797	6.85	2	5	ND	6	6	1	2	2	3	.28	.020	40	1	.93	25	.08	6	.41	.01	.32	1	1
B 49263	1	4	2	4	.1	4	7	1523	4.96	2	5	ND	2	12	1	2	2	1	.56	.025	48	1	1.70	25	.03	3	.38	.01	.30	1	1
B 49264	8	4	8	3	.1	4	4	761	5.27	3	5	ND	3	25	1	2	2	2	1.44	.071	52	1	.93	22	.07	2	.38	.01	.28	1	2
B 49265	2	3	10	1	.1	1	5	187	9.77	2	5	ND	6	3	1	2	2	3	.16	.028	27	1	.21	24	.16	2	.34	.01	.26	1	1
STD C/AU-R	19	61	37	132	6.9	67	30	1019	3.96	42	20	7	38	49	19	15	21	60	.45	.098	39	52	.91	176	.07	39	2.03	.06	.13	12	505

PROJECT McNEIL

SAMPLE#	Au PPB	Pt PPB	Pd PPB	Rh PPB
B 56533	2	1	7	2
B 56534	5	1	8	2
B 56535	4	5	4	2
B 56536	6	2	4	2
B 56537	5	1	6	2
B 56538	6	4	8	2
B 56539	4	4	5	2
B 56540	6	3	6	2

M-89-10

ACME ANALYTICAL LABORATORIES  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: FEB 19 1990

DATE REPORT MAILED: Feb. 26, 1990

### GEOCHEM PRECIOUS METALS ANALYSIS

Bapty Research Limited PROJECT MCNEIL FILE # 90-0423  
901 Ind. Rd.#2, Cranbrook, BC V1C 4C9

SAMPLE#	Au ppb	Pt ppb	Pd ppb	Rh ppb
M-89-19 - B 56196	2	6	20	2
- B 56197	6	13	22	2
- B 56198	3	6	13	2
M-89-9 - B 56199	1	13	20	2
- B 56359	9	1	5	2
- B 56360	1	1	8	2
- B 56361	7	1	9	2
M-89-10 - B 56541	1	1	6	2

10 GRAM SAMPLE FIRE ASSAY AND ANALYSIS BY ICP/GRAPHITE FURNACE.  
- SAMPLE TYPE: Core

SIGNED BY... *D. Toye* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

NOTE: SAMPLES 56196-99 incl. FROM GABBRO DYKE (?)

**GEOCHEM PRECIOUS METALS ANALYSIS**

**Bapty Research Limited PROJECT MCNEIL File # 90-0425 Page 1**  
 901 Ind. Rd. #2, Cranbrook, BC V1C 4C9

SAMPLE#	Au ppb	Pt ppb	Pd ppb	Rh ppb
B 56192	8	4	19	2
B 56193	145	9	17	2
B 56194	2	11	15	2
B 56195	8	11	18	2
B 56200	1	1	14	3
B 56309	653	3	13	2
B 56310	6096	8	15	2
B 56311	116	11	18	2
B 56312	108	1	19	2
B 56313	13	6	23	8

10 GRAM SAMPLE FIRE ASSAY AND ANALYSIS BY ICP/GRAPHITE FURNACE.  
 - SAMPLE TYPE: Core

DATE RECEIVED: FEB 19 1990 DATE REPORT MAILED: *Feb 26, 1990* SIGNED BY: *[Signature]* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

DDH. M-89-19

Above assays for Gold are SPURIOUS. Samples being re-run according to conversation with C. Leong March 12, 1990.

ACME ANALYTICAL LABORATORIES  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: FEB 19 1990

DATE REPORT MAILED: *Mar. 13, 1990*

### GEOCHEM PRECIOUS METALS ANALYSIS

Bapty Research Limited PROJECT MCNEIL FILE # 90-0425 Page 1  
901 Ind. Rd. #2, Cranbrook, BC V1C 4C9

SAMPLE#	Au ppb	Pt ppb	Pd ppb	Rh ppb
B 56192 <del>R</del>	4	14	19	2
B 56193 <del>R</del>	10	11	15	2
B 56194 <del>R</del>	3	13	16	2
B 56195 <del>R</del>	6	9	16	2
B 56200 <del>R</del>	2	9	14	2
B 56309 <del>R</del>	3	5	14	2
B 56310 <del>R</del>	2	9	15	2
B 56311 <del>R</del>	2	8	15	2
B 56312 <del>R</del>	3	4	18	2
B 56313 <del>R</del>	10	4	19	4

10 GRAM SAMPLE FIRE ASSAY AND ANALYSIS BY ICP/GRAPHITE FURNACE.  
- SAMPLE TYPE: Core

SIGNED BY... *A. Toye* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

M-89-19

ALL SAMPLES ARE FROM GABBRO DYKE (?)

ACME ANALYTICAL LABORATORIES LTD.  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE(604)253-3158 FAX(604)253-1716

DATE RECEIVED: MAR 1 1990

DATE REPORT MAILED: *Nov 13, 1990*

### ASSAY CERTIFICATE

Bapty Research Ltd. PROJECT McNEIL FILE # 90-0425R  
901 Ind. Rd. #2, Cranbrook, BC V1C 4C9

SAMPLE#	AU** oz/t
B 56309	.001
B 56310	.001

- SAMPLE TYPE: Core pulp AU\*\* BY FIRE ASSAY FROM 1/2 A.T.

SIGNED BY *A. G. Toye* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

M-89-19

**GEOCHEMICAL ANALYSIS CERTIFICATE**

**Bapty Research Limited PROJECT MCNEIL File # 90-0425 Page 2**  
 901 Ind. Rd. #2, Cranbrook, BC V1C 4C9

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Hg %	Ba ppm	Tl %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
B 56365	1	67	72	44	.6	13	5	1447	2.12	5	5	ND	8	24	1	2	2	23	.67	.017	13	19	.32	33	.10	4	2.29	.08	.32	1	1

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR HG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Core AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: FEB 19 1990 DATE REPORT MAILED: *Feb 26, 1990* SIGNED BY: *[Signature]* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

DDH. M-89-15



## GEOCHEMICAL ANALYSIS CERTIFICATE

Bapty Research Limited PROJECT McNEIL File # 90-0452

606 Trail St., Kimberley BC V1A 2M2

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	U	Au*
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	PPB
A 45153	1	116	7	80	.4	7	19	491	5.58	.5	5	ND	2	5	.1	4	2	90	1.33	.075	4	9	.69	24	.15	2	1.69	.09	.10	.1	3
A 45154	1	176	2	83	.4	14	23	535	5.74	.13	5	ND	1	5	.1	4	2	134	1.24	.058	3	11	.79	20	.19	2	1.71	.07	.08	.1	3
A 45155	1	66	13	82	.2	15	23	518	4.38	.27	5	ND	1	11	.1	5	2	130	1.65	.052	3	8	.62	10	.21	2	1.33	.08	.08	.1	2
A 45156	1	139	11	75	.1	15	17	454	3.95	.12	5	ND	4	11	.1	2	2	119	1.14	.038	3	7	.57	11	.20	2	1.21	.07	.06	.1	4
A 45157	1	132	8	107	.2	21	23	674	6.40	.10	5	ND	1	6	.1	4	2	168	1.22	.044	2	10	.95	7	.24	2	1.92	.07	.07	.1	2
A 45158	1	260	20	67	.3	15	27	457	5.40	.10	5	ND	1	6	.1	6	2	191	1.75	.040	3	11	.95	22	.20	2	1.61	.06	.44	.1	4
A 45159	1	345	16	48	.1	24	26	368	4.30	.18	5	ND	1	6	.1	5	2	187	1.77	.036	3	8	.69	12	.18	2	1.23	.08	.13	.1	5
A 45160	1	325	9	46	.1	22	20	292	3.42	.11	5	ND	1	6	.1	2	2	147	1.20	.048	2	5	.60	7	.13	3	1.07	.07	.06	.1	3
A 45161	1	338	21	45	.2	25	20	311	3.41	.12	5	ND	1	13	.1	3	2	163	1.24	.036	2	6	.68	8	.16	2	1.19	.07	.06	.1	2
A 45162	1	377	9	32	.2	21	19	287	2.80	.14	5	ND	1	7	.1	3	2	98	1.99	.036	3	8	.63	9	.13	2	.95	.05	.07	.1	4
STD C/AU-R	17	58	43	129	7.2	67	29	932	4.07	.42	20	8	35	48	.18	16	23	56	.45	.095	36	56	.88	173	.06	38	1.90	.06	.14	.11	-

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Core AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: FEB 21 1990

DATE REPORT MAILED: Feb 23/90.

SIGNED BY: *C. Long* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL LABORATORIES  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE 253-3158

DATE RECEIVED: FEB 5 1990

DATA LINE 251-1011 DATE REPORT MAILED: *Feb 9/90*

## GEOCHEM PRECIOUS METALS ANALYSIS

10 GRAM SAMPLE FIRE ASSAY AND ANALYSIS BY ICP/GRAPHITE FURNACE.  
- SAMPLE TYPE: *Core*

SIGNED BY: *[Signature]* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Bapty Research Limited PROJECT McNEIL FILE # 90-0293

SAMPLE#	Au PPB	Pt PPB	Pd PPB	Rh PPB
A 45022	10	8	5	2
A 45023	7	1	2	2
A 45024	8	1	2	2
A 45025	8	1	2	3
A 45026	4	1	5	2
A 45027	6	1	2	2
A 45028	13	4	2	2
A 45029	11	5	2	2
A 45030	8	4	4	2
A 45031	7	4	2	2
A 45032	8	3	6	4
A 45033	2	1	4	4
A 45034	3	3	2	2
A 45035	1	1	2	2
A 45036	1	3	4	2

M-90-1

NOTE: ALL SAMPLES ARE OF GABBRO SILL

ACME ANALYTICAL LABORATORIES  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE 253-3158

DATE RECEIVED: FEB 6 1990

DATA LINE 251-1011 DATE REPORT MAILED:

Feb. 12/90...

## GEOCHEM PRECIOUS METALS ANALYSIS

10 GRAM SAMPLE FIRE ASSAY AND ANALYSIS BY ICP/GRAPHITE FURNACE.  
- SAMPLE TYPE: Ore

SIGNED BY... D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Bapty Research Limited PROJECT McNEIL FILE # 90-0314

SAMPLE#	Au PPB	Pt PPB	Pd PPB	Rh PPB
A 45037	6	1	6	2
A 45038	10	1	6	2
A 45039	7	3	16	2
A 45040	2	1	2	2
A 45041	1	2	2	2
A 45042	1	3	2	2
A 45043	17	2	6	2
A 45044	1	1	4	2
A 45045	2	4	2	2
A 45046	3	3	2	2
A 45047	12	2	4	2

M-90-1

NOTE: ALL SAMPLES ARE OF GABBRO SILL

ACME ANALYTICAL LABORATORIES  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE 253-3158

DATE RECEIVED: FEB 7 1990

DATA LINE 251-1011 DATE REPORT MAILED: Feb 14/90

### GEOCHEM PRECIOUS METALS ANALYSIS

10 GRAM SAMPLE FIRE ASSAY AND ANALYSIS BY ICP/GRAPHITE FURNACE.  
- SAMPLE TYPE: Ore

SIGNED BY... D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Bapty Research Limited PROJECT MCNEIL FILE # 90-0325

SAMPLE#	Au PPB	Pt PPB	Pd PPB	Rh PPB
A 45927	8	3	2	2
A 45928	8	1	2	2
A 45929	3	1	2	2
A 45930	2	4	4	2
A 45931	15	6	6	2
A 45932	4	1	2	2
A 45933	1	4	2	2
A 45934	2	4	3	2
A 45935	5	1	4	2
A 45936	6	4	2	2
A 45937	2	4	5	2
A 45938	1	1	2	2
A 45939	7	7	2	2
A 45940	4	1	4	2
A 45941	8	1	7	2
A 45942	5	1	5	2
A 45943	11	1	2	2
A 45944	5	2	2	2
A 45945	6	3	5	2
A 45946	6	2	5	2
A 45947	6	1	2	2
A 45948	4	1	4	2

DDH. M-89-19

NOTE: ALL SAMPLES ARE OF GABBRO DYKE (?)

**GEOCHEMICAL ANALYSIS CERTIFICATE**

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Core AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: FEB 8 1990 DATE REPORT MAILED: Feb 14/90 SIGNED BY: C. Leong, D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Bapty Research Limited PROJECT McNEIL File # 90-0336 Page 1

M-89-10

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
A 45926	1	8	5	28	.1	9	6	201	1.24	2	5	ND	12	25	1	2	2	20	.88	.059	19	23	.25	16	.05	2	.58	.22	.07	1	11
B 56515	1	6	7	25	.1	8	3	281	1.17	2	5	ND	10	13	1	2	2	11	.64	.014	20	13	.29	16	.07	2	.66	.06	.15	1	5
B 56516	1	27	8	32	.1	10	4	337	1.47	2	5	ND	10	8	1	2	2	11	.41	.019	18	13	.40	19	.08	2	.89	.06	.21	1	5
B 56517	1	8	7	68	.1	14	8	518	2.62	2	5	ND	14	8	1	2	2	14	.55	.020	29	15	.66	29	.10	2	1.45	.05	.29	1	1
B 56518	1	2	9	61	.1	15	6	393	2.16	2	5	ND	14	9	1	2	2	20	.59	.028	25	18	.67	31	.11	2	1.25	.06	.28	1	2
B 56519	1	2	7	57	.1	18	6	389	2.34	2	5	ND	13	8	1	2	2	24	.66	.020	19	21	.68	45	.12	3	1.31	.11	.51	1	4
B 56520	1	6	18	30	.1	12	6	332	1.51	2	5	ND	9	9	1	2	2	22	1.33	.023	12	21	.42	13	.11	2	.82	.15	.15	1	1
B 56521	9	15	16	75	.2	14	7	437	2.21	3	5	ND	9	16	1	2	2	20	.67	.034	16	17	.60	21	.11	2	1.19	.10	.23	1	3
B 56522	2	43	9	62	.2	14	7	394	2.10	2	5	ND	10	7	1	2	2	17	.47	.025	15	15	.48	18	.09	2	1.01	.07	.22	1	1
B 56523	2	5	12	59	.1	14	6	432	2.26	2	5	ND	12	6	1	2	2	20	.40	.025	23	18	.62	22	.11	2	1.28	.07	.25	1	1
B 56524	1	8	5	23	.1	8	2	645	1.48	3	5	ND	1	21	1	2	2	28	2.36	.003	4	27	.42	10	.07	2	.58	.13	.12	1	1
B 56525	1	14	12	61	.1	20	13	507	2.89	2	5	ND	8	8	1	2	2	26	.57	.063	19	16	.96	20	.11	2	1.44	.07	.18	1	1
B 56526	1	1	10	66	.1	19	7	483	2.81	4	5	ND	12	7	1	2	2	22	.45	.045	22	18	.90	23	.11	2	1.53	.06	.25	1	2
B 56527	1	19	28	67	.1	12	16	311	1.64	3	5	ND	6	16	1	2	2	19	1.80	.013	9	18	.35	8	.09	2	.64	.13	.06	1	2
B 56528	1	8	4	44	.1	16	5	391	2.07	7	5	ND	11	7	1	2	2	18	.53	.031	22	18	.65	20	.09	3	1.10	.06	.17	1	1
B 56529	1	5	12	41	.1	13	7	357	2.18	2	5	ND	12	12	1	2	2	22	.70	.038	21	18	.43	26	.09	2	1.00	.09	.29	1	1
B 56530	1	1	12	62	.4	19	10	508	2.95	4	7	ND	18	4	1	3	2	19	.40	.035	34	17	.65	37	.13	2	1.54	.03	.43	1	1
STD C/AU-R	18	57	41	133	6.7	67	31	958	3.80	42	23	7	37	48	19	14	21	58	.45	.095	38	56	.87	174	.07	39	1.82	.06	.13	13	495

PROJECT McNEIL

ACME ANALYTICAL LABORATORIES  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE 253-3158

DATE RECEIVED: FEB 8 1990

DATA LINE 251-1011 DATE REPORT MAILED:

*Feb. 14/90.*

### GEOCHEM PRECIOUS METALS ANALYSIS

10 GRAM SAMPLE FIRE ASSAY AND ANALYSIS BY ICP/GRAPHITE FURNACE.

- SAMPLE TYPE: *Cste*

SIGNED BY... *C. Long* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Bapty Research Limited PROJECT McNEIL FILE # 90-0336 Page 2

SAMPLE#	Au PPB	Pt PPB	Pd PPB	Rh PPB
A 45949	7	1	2	2
A 45950	4	2	2	2
A 56155	1	1	2	2
A 56156	2	3	4	2
A 56157	1	1	2	2
A 56158	1	1	2	2
A 56159	2	2	3	2

M-89-19

**GEOCHEMICAL ANALYSIS CERTIFICATE**

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR HM FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: Core AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: FEB 9 1990 DATE REPORT MAILED: Feb 14/90 SIGNED BY: *C. Long* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Bapty Research Limited PROJECT McNEIL File # 90-0345

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	%	%	%	PPM	PPM	
M-89-9 A 45048	1	307	38	112	2	58	23	311	2.76	3	5	ND	1	5	1	2	2	33	.95	.010	2	13	.68	23	.08	2	.88	.01	.23	1	7
A 45049	1	54	15	73	1	25	11	266	2.71	2	5	ND	14	3	1	2	2	21	.14	.021	20	18	.70	63	.11	2	1.29	.03	.77	1	4
A 45050	2	34	789	123	1.5	20	10	421	2.71	2	5	ND	11	6	1	2	8	22	.35	.041	17	20	1.09	116	.16	2	1.79	.03	1.10	1	4
B 56357	1	54	21	100	1	18	10	397	2.92	5	5	ND	14	6	1	2	2	15	.88	.041	27	15	.97	34	.03	2	1.69	.03	.26	1	1
B 56358	1	57	19	77	1	19	9	320	2.39	2	5	ND	14	4	1	2	4	17	.22	.027	21	17	.71	48	.12	2	1.22	.02	.56	1	1
89-10 B 56531	1	11	15	53	1	19	7	443	2.42	2	5	ND	13	10	1	2	2	19	.83	.025	29	17	.55	23	.10	2	1.16	.02	.26	1	4
B 56532	1	4	14	57	1	13	5	324	1.77	3	5	ND	10	7	1	2	2	11	.42	.030	21	12	.40	36	.10	2	1.05	.01	.36	1	4
STD C/AU-R	18	60	42	132	6.8	68	31	959	3.82	44	21	8	38	48	19	16	21	59	.45	.098	39	56	.90	172	.07	37	1.82	.06	.13	12	510

PROJECT McNEIL

**GEOCHEM PRECIOUS METALS ANALYSIS**

Bapty Research Limited PROJECT McNeil FILE # 90-0401 Page 1  
 606 Trail St., Kimberley BC

SAMPLE#	Au PPB	Pt PPB	Pd PPB	Rh PPB
B 56160	9	4	2	2
B 56161	5	4	2	2
B 56162	3	4	3	5
B 56163	8	5	6	2
B 56164	19	8	4	2
B 56165	7	8	2	3
B 56166	12	12	4	4
B 56167	20	24	2	6
B 56168	17	26	7	4
B 56169	18	29	6	4
B 56170	10	58	13	3
B 56171	20	51	32	4
B 56172	4	125	100	7
B 56173	42	98	107	10
B 56174	9	42	49	15
B 56175	6	24	42	14
B 56176	14	25	38	6
B 56177	4	21	42	4
B 56178	5	18	37	2
B 56179	19	16	41	3
B 56180	9	19	43	6
B 56181	3	12	41	4
B 56182	6	12	68	5
B 56183	7	19	41	5
B 56184	8	14	38	3
B 56185	6	14	42	5
B 56186	6	12	30	5
B 56187	6	12	28	3
B 56188	6	10	16	2
B 56189	3	10	25	3
B 56190	9	10	28	3
B 56191	11	11	18	2
B 56362	5	1	2	2
B 56363	565	1	3	2
B 56364	6	2	2	2

M-89-19

89-9

10 GRAM SAMPLE FIRE ASSAY AND ANALYSIS BY ICP/GRAPHITE FURNACE.  
 - SAMPLE TYPE: Core

SIGNED BY.. *D. Toye* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



ACME ANALYTICAL LABORATORIES  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: MAR 12 1990

DATE REPORT MAILED: *Mar. 13, 1990*

### GEOCHEM PRECIOUS METALS ANALYSIS

Bapty Research Limited PROJECT McNeil FILE # 90-0401R2  
901 Industrial Road #2, Cranbrook BC

SAMPLE#	Au ppb	Pt ppb	Pd ppb	Rh ppb
B 56170 <sup>R</sup>	6	59	5	2
B 56171 <sup>R</sup>	17	51	25	2
B 56172 <sup>R</sup>	2	140	103	5
B 56173 <sup>R</sup>	42	112	107	8
B 56174 <sup>R</sup>	8	39	45	10

10 GRAM SAMPLE FIRE ASSAY AND ANALYSIS BY ICP/GRAPHITE FURNACE.  
- SAMPLE TYPE: Core Pulp

SIGNED BY. *D. Toye* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

M-89-19

NOTE: ALL SAMPLES ARE OF GABBRO DYKE (?)

**GEOCHEMICAL ANALYSIS CERTIFICATE**

**Bapty Research Limited PROJECT McNeil File # 90-0401R**  
 901 Industrial Road #2, Cranbrook BC

89-9  
M-89-10

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	M ppm
B 56362	1	313	2	45	.1	22	20	319	3.58	3	5	ND	1	22	1	2	5	179	1.69	.043	3	3	.68	21	.19	2	1.63	.13	.12	1
B 56363	1	175	6	67	1.6	8	34	1209	7.89	16182	5	ND	3	130	1	42	2	104	8.72	.057	5	1	.92	6	.01	5	1.54	.01	.16	1
B 56364	1	217	4	63	.1	8	30	480	4.70	54	5	ND	1	38	1	2	2	177	1.73	.053	3	2	.75	17	.18	5	1.62	.13	.11	1
B 56533	1	35	13	97	.1	23	12	579	3.68	7	5	ND	18	7	1	2	4	21	.32	.045	27	18	.70	64	.19	3	1.92	.01	1.03	1
B 56534	2	55	10	55	.1	15	7	326	1.74	18	5	ND	9	9	1	2	2	11	1.08	.019	18	18	.31	22	.09	4	.99	.02	.25	1
B 56535	1	13	14	105	.2	16	8	482	2.50	2	5	ND	12	30	1	4	2	17	.56	.023	21	17	.62	36	.14	2	1.62	.01	.53	1
B 56536	1	2	10	120	.1	20	9	589	2.77	2	5	ND	20	12	1	3	2	18	.39	.048	34	17	.63	63	.16	6	1.72	.01	.90	1
B 56537	1	9	21	83	.1	14	7	400	1.98	2	5	ND	11	39	1	2	2	16	.78	.019	23	16	.53	32	.12	5	1.33	.02	.46	1
B 56538	1	7	9	95	.1	16	7	433	2.30	2	5	ND	14	24	1	2	3	15	.61	.023	26	15	.47	37	.14	2	1.46	.02	.57	1
B 56539	2	56	10	61	.2	13	7	326	1.79	2	5	ND	12	13	1	4	2	14	.72	.018	20	15	.34	25	.10	2	1.22	.03	.31	1
B 56540	2	16	11	54	.1	12	4	346	1.50	4	5	ND	14	29	1	3	2	13	.85	.019	25	17	.32	24	.10	4	1.11	.02	.25	1

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Core pulp

DATE RECEIVED: FEB 24 1990 DATE REPORT MAILED: Feb 28/90 SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

/ ASSAY RECOMMENDED

ACME ANALYTICAL LABORATORIES LTD.  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE (604) 253-3158 FAX (604) 253-1716

DATE RECEIVED: MAR 15 1990

DATE REPORT MAILED:

*March 20/90*

## ASSAY CERTIFICATE

Bapty Research Limited PROJECT McNEIL FILE # 90-0401R3  
901 Industrial Road #2, Cranbrook BC

SAMPLE#	AU** oz/t
B 56363	.017

- SAMPLE TYPE: Core Pulp AU\*\* BY FIRE ASSAY FROM 1/2 A.T.

SIGNED BY *C. Leung* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

M-89-9

QUARTZ/CARBONATE VEIN WITH ARSENOPIRYTE AND  
DISSEMINATED PYRITE

**GEOCHEMICAL ANALYSIS CERTIFICATE**

**Bapty Research Limited PROJECT MCNEIL File # 90-0423R**  
 901 Industrial Road #2, Cranbrook BC

M-89-10-1 M-89-9

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	
B 56359	1	80	10	61	1	19	8	374	2.35	2	5	ND	9	31	1	3	7	19	1.68	0.50	16	17	.59	34	11	2	3.04	.08	.46	1
B 56360	1	11	15	52	1	18	14	392	1.68	17	5	ND	13	37	1	2	7	27	1.84	0.22	23	25	.57	23	13	2	3.27	.07	.48	1
B 56361	3	526	10	65	5	46	17	449	4.48	4	5	ND	5	23	1	2	9	20	1.89	0.23	12	16	.67	17	09	2	2.97	.06	.44	1
B 56541	1	6	15	86	1	18	6	397	2.00	2	5	ND	11	42	1	2	11	15	.99	0.19	17	23	.50	33	13	2	1.39	.02	.43	1
STD C	18	58	41	132	7.1	67	30	949	3.78	19	22	7	36	48	19	14	23	58	.46	0.93	38	55	.86	175	07	39	1.81	.06	.13	11

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Pulp

DATE RECEIVED: FEB 24 1990 DATE REPORT MAILED: Feb 28/90 SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

**GEOCHEMICAL ANALYSIS CERTIFICATE**

**Bapty Research Limited PROJECT MCNEIL File # 90-0475**  
 606 Trail St., Kimberley BC V1A 2M2

M-89-16

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
A 45151	2	34	14	60	.1	21	14	461	4.69	4	5	ND	9	11	1	3	2	71	.71	.024	23	39	.83	28	.18	2	1.75	.05	.10	1	7
A 45152	1	76	6	57	.1	6	17	414	5.10	3	5	ND	6	8	1	3	2	38	1.22	.115	11	13	.53	64	.15	3	1.72	.09	.34	1	6
B 56542	1	28	25	160	.1	22	9	480	2.92	12	5	ND	15	15	1	4	2	15	.54	.025	22	17	.48	67	.14	4	2.07	.06	.84	1	7
B 56543	1	65	99	200	.5	27	10	324	2.27	3	5	ND	16	4	1	2	6	20	.37	.023	24	22	.39	26	.09	2	.99	.03	.18	1	1
B 56544	1	20	11	47	.1	24	8	387	3.11	3	5	ND	15	5	1	2	2	24	.42	.046	34	25	.69	39	.12	2	1.39	.02	.23	1	2
B 56545	1	7	12	48	.1	11	5	323	1.57	2	5	ND	9	9	1	2	2	19	.69	.015	19	20	.31	98	.10	2	.82	.03	.29	2	4
B 56546	2	3	3	29	.1	20	7	261	2.63	2	5	ND	14	3	1	2	2	22	.19	.026	28	23	.55	50	.13	2	1.19	.02	.25	1	1
B 56547	1	2	4	15	.1	11	4	146	1.29	2	5	ND	10	3	1	2	3	21	.17	.015	18	22	.26	10	.11	2	.56	.04	.03	1	2
B 56548	1	5	6	36	.1	25	9	355	3.89	3	5	ND	17	4	1	2	4	49	.26	.042	33	41	.81	30	.16	3	1.54	.04	.14	3	1
B 56549	1	36	28	74	.1	20	12	356	3.54	3	5	ND	12	5	1	2	3	48	.47	.031	18	36	.78	8	.16	2	1.34	.04	.04	1	1
B 56550	1	63	14	55	.1	27	15	433	3.58	8	5	ND	1	6	1	3	2	81	1.21	.044	2	28	1.01	7	.21	2	1.53	.07	.08	1	4
STD C/AU-R	17	57	40	129	6.5	66	30	939	3.92	44	18	6	37	47	18	15	18	57	.46	.099	37	56	.81	174	.07	40	1.85	.06	.14	13	510

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Core AU\*\* ANALYSIS BY FA/ICP FROM 10 GM SAMPLE.

DATE RECEIVED: FEB 22 1990 DATE REPORT MAILED: Feb 28/90 SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

**GEOCHEMICAL ANALYSIS CERTIFICATE**

**Bapty Research Limited PROJECT McNEIL File # 90-0495**  
 901 Industrial Road #2, Cranbrook BC V1C 4C9

89-14 M-89-11

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Hg %	Ba ppm	Tl %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
A 45163	2	39	15	93	.1	10	5	242	1.33	3	5	ND	14	13	1	2	3	15	.41	.014	16	26	.33	27	.12	2	1.00	.05	.21	1	3
A 45164	1	84	9	438	.1	22	10	414	2.87	6	5	ND	10	16	4	2	4	39	.73	.027	14	33	.85	6	.16	2	1.65	.02	.04	1	1
A 45165	1	21	7	370	.1	24	22	393	2.95	49	5	ND	1	10	2	2	2	76	1.39	.040	2	18	.94	11	.17	2	1.48	.09	.11	1	2
A 45166	1	8	10	202	.3	27	25	402	2.86	59	5	ND	2	14	2	2	2	72	1.59	.043	2	18	.95	6	.15	2	1.40	.09	.08	1	2
A 45167	1	11	7	385	.2	27	16	419	3.24	34	5	ND	1	9	3	2	5	75	1.33	.044	3	16	1.02	8	.16	2	1.55	.09	.09	1	1
A 45168	1	5	7	134	.1	24	19	380	2.80	55	5	ND	1	20	1	2	3	66	1.44	.045	2	14	.87	9	.15	4	1.39	.09	.09	1	1
A 45169	1	14	9	111	.2	18	17	345	2.55	66	5	ND	2	28	1	2	6	62	1.37	.076	4	9	.73	10	.14	3	1.23	.09	.09	1	2
A 45170	1	17	10	73	.1	17	22	362	2.52	118	5	ND	2	37	1	2	2	75	1.43	.051	3	4	.69	6	.14	2	1.19	.10	.08	1	2
A 45171	1	55	11	175	.1	25	35	389	2.87	252	5	ND	1	9	1	2	5	79	1.45	.047	3	4	.69	7	.13	2	1.23	.09	.07	1	2
A 45172	1	82	8	166	.2	22	24	419	3.11	151	5	ND	1	9	1	2	3	83	1.56	.054	3	3	.71	6	.14	2	1.34	.09	.08	1	2
A 45173	1	56	15	207	.1	21	34	484	3.82	137	5	ND	5	10	1	2	2	111	1.33	.077	7	7	.79	5	.16	2	1.62	.08	.07	1	1
B 56366	2	3	11	41	.1	16	5	262	1.86	4	5	ND	14	4	1	2	2	14	.14	.014	26	24	.45	11	.09	2	.79	.03	.10	2	3
B 56367	1	1	8	89	.2	19	9	619	3.26	2	10	ND	15	8	1	2	2	22	.41	.036	21	22	.58	52	.17	5	1.80	.04	.71	1	3
STD C/AU-R	18	56	38	132	7.2	67	30	942	3.92	41	18	7	37	48	19	16	19	57	.44	.096	38	55	.91	172	.07	38	1.87	.06	.13	11	515

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR HG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: CORE AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: FEB 28 1990 DATE REPORT MAILED: *March 1/90* SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL LABORATORIES  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: FEB 28 1990

DATE REPORT MAILED: *March 2/90*

### GEOCHEM PRECIOUS METALS ANALYSIS

Bapty Research Limited PROJECT GOLD CREEK FILE # 90-0189R  
901 Industrial Road #2, Cranbrook BC

SAMPLE#	Au ppb	Pt ppb	Pd ppb	Rh ppb
A 45912	9	3	7	2
A 45913	6	1	2	2

10 GRAM SAMPLE FIRE ASSAY AND ANALYSIS BY ICP/GRAPHITE FURNACE.  
- SAMPLE TYPE: CORE PULP

SIGNED BY *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

NOTE: These samples are from Project McNeil  
(M-89-19); not Project Gold Creek

**GEOCHEMICAL ANALYSIS CERTIFICATE**

**Bapty Research Limited PROJECT McNEIL File # 90-0542**  
 901 Industrial Road #2, Cranbrook BC V1C 4C9

M-89-11  
M-89-13

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	U ppm	Au* ppb
A 45174	1	243	14	1255	.5	20	18	541	4.98	71	5	ND	1	10	6	2	2	158	1.68	.053	4	8	.86	5	.19	3	1.89	.09	.10	1	2
A 45175	1	312	3	199	.4	30	22	597	5.43	49	5	ND	1	8	2	2	2	193	1.83	.049	3	10	.88	3	.21	2	1.97	.10	.09	1	1
A 45176	1	228	16	83	.2	18	22	459	4.35	20	5	ND	2	23	1	2	2	141	1.52	.073	6	10	.67	4	.22	2	1.48	.09	.09	1	1
A 45177	1	161	11	185	.2	10	22	461	3.82	62	5	ND	2	20	1	2	2	108	1.42	.092	5	9	.71	5	.20	2	1.48	.09	.07	1	1
B 56368	1	3	18	281	.4	26	14	1147	7.94	2	5	ND	11	12	1	3	2	32	.29	.029	15	37	1.80	97	.19	14	4.35	.04	2.07	1	1
B 56369	1	15	21	235	.2	15	8	771	4.90	4	5	ND	9	5	2	2	2	16	.31	.013	10	21	1.12	49	.14	15	2.55	.02	.80	1	1
B 56370	1	9	14	105	.1	15	6	605	3.62	4	5	ND	7	5	1	2	2	18	.22	.014	9	25	.65	59	.15	8	1.93	.02	.91	1	1
B 56371	1	143	20	68	.2	13	9	432	2.94	5	5	ND	11	11	1	2	2	31	.97	.016	17	28	.76	39	.14	3	1.65	.04	.35	2	1
STD C/AU-R	17	57	38	128	7.0	69	31	974	4.04	64	23	8	37	47	19	15	19	58	.45	.094	37	55	.84	175	.07	40	1.92	.06	.14	11	530

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Core AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: MAR 1 1990 DATE REPORT MAILED: *March 7/90* SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



### GEOCHEM PRECIOUS METALS ANALYSIS

Bapty Research Limited PROJECT McNEIL FILE # 90-0554 Page 1  
901 Industrial Road #2, Cranbrook BC V1C 4C9

SAMPLE#	Au ppb	Pt ppb	Pd ppb	Rh ppb
B 56314	2	8	18	2
B 56315	4	5	14	2
B 56316	3	7	14	2
B 56317	4	10	15	2
B 56318	5	8	12	2
B 56319	2	8	13	2
B 56320	3	6	12	2
B 56321	3	11	12	2
B 56322	4	10	14	2
B 56323	5	7	18	2
B 56324	3	8	11	2

10 GRAM SAMPLE FIRE ASSAY AND ANALYSIS BY ICP/GRAPHITE FURNACE.  
- SAMPLE TYPE: Core

SIGNED BY *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

M-89-19

NOTE: ALL SAMPLES ARE OF GABBRO DYKE (?)

**GEOCHEMICAL ANALYSIS CERTIFICATE**

**Bapty Research Limited PROJECT McNEIL File # 90-0554 Page 2**  
 901 Industrial Road #2, Cranbrook BC V1C 4C9

K-89-13

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
B 56372	1	199	8	44	.1	7	18	395	3.13	11	5	ND	5	5	1	2	2	119	1.55	.043	6	7	.58	5	.15	2	1.23	.10	.08	1	1
B 56373	1	241	8	46	.1	34	28	365	3.42	40	5	ND	1	12	1	2	2	180	1.78	.040	2	8	.67	2	.27	4	1.29	.08	.05	2	1
B 56374	1	7	7	73	.1	30	23	581	4.37	38	5	ND	1	8	1	2	2	89	2.10	.036	2	33	1.32	2	.13	3	1.85	.04	.04	1	1

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Core AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: MAR 5 1990 DATE REPORT MAILED: *March 8/90* SIGNED BY: *C. Long* D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

**GEOCHEMICAL ANALYSIS CERTIFICATE**

**Bapty Research Limited PROJECT McNEIL File # 90-0595**  
 901 Industrial Road #2, Cranbrook BC V1C 4C9

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
A 45178	1	633	18	195	1.2	20	75	890	15.26	52	5	ND	1	4	1	5	2	283	.52	.067	2	19	2.37	353	.49	10	5.83	.03	2.69	1	5
B 56375	1	38	23	93	.1	11	12	382	2.27	17	5	ND	9	10	1	2	2	15	.66	.022	15	17	.35	6	.10	2	1.14	.03	.04	2	4
B 56376	1	70	25	119	.1	13	8	469	3.67	6	5	ND	10	8	1	2	2	25	.40	.018	12	31	.61	50	.12	7	1.58	.03	.21	1	3
B 56377	1	29	23	111	.1	15	6	403	2.97	9	5	ND	12	9	1	2	2	34	.34	.018	18	34	.58	33	.13	2	1.44	.03	.16	2	16
B 56378	2	1253	30	284	1.0	23	52	281	4.49	36	5	ND	1	10	3	2	8	58	.82	.018	2	18	.41	19	.06	12	1.17	.05	.14	1	44
B 56379	1	896	20	191	1.1	49	79	728	13.56	64	5	ND	1	2	1	5	2	138	.48	.039	2	56	1.87	152	.37	2	4.70	.03	1.86	1	25
B 56380	1	709	25	108	.8	46	74	658	10.94	160	5	ND	1	2	1	2	2	148	.64	.047	2	51	1.58	185	.30	3	3.82	.04	1.37	1	8
B 56381	1	1930	22	180	2.0	60	120	778	12.96	307	5	ND	1	2	2	4	4	151	.56	.041	2	52	1.80	159	.29	4	4.22	.03	1.19	1	11
B 56382	1	1748	20	199	1.9	56	78	878	13.01	309	5	ND	1	3	2	7	2	152	.66	.044	2	52	2.00	216	.33	12	4.90	.04	1.52	1	11
B 56383	1	148	13	123	.7	59	39	1099	11.18	46	5	ND	1	4	1	5	3	133	2.05	.043	4	31	1.79	5	.18	2	3.39	.05	.09	1	1
B 56384	1	85	26	204	1.1	53	49	1543	16.07	66	5	ND	1	7	1	9	2	240	3.97	.040	2	41	3.34	1	.12	5	6.13	.01	.02	1	1
B 56385	1	16	32	68	.2	23	17	608	4.44	23	5	ND	1	6	1	2	2	81	2.80	.042	3	18	1.03	3	.13	6	1.62	.05	.03	1	3
B 56386	1	55	18	87	.3	28	25	698	5.85	34	5	ND	1	4	1	2	2	90	1.75	.034	2	15	1.00	2	.16	3	1.93	.05	.06	1	2
B 56387	2	47	24	162	.3	35	44	656	6.33	80	5	ND	1	4	2	2	2	105	1.26	.043	2	21	1.10	16	.16	2	2.11	.05	.14	1	4
B 56388	1	444	32	119	.7	35	47	777	8.83	92	5	ND	1	3	1	2	2	136	1.27	.049	2	21	1.35	25	.18	2	2.86	.06	.24	1	3
B 56389	3	505	30	182	.5	11	46	534	5.23	96	5	ND	1	7	1	2	3	135	1.63	.071	3	11	.64	10	.22	2	1.51	.08	.10	1	4
B 56390	2	426	17	90	.6	11	61	586	5.94	157	5	ND	1	7	1	2	2	129	1.37	.084	3	13	.76	7	.18	2	1.76	.07	.09	1	3
B 56391	1	984	13	70	.7	20	83	456	7.67	97	5	ND	1	6	1	3	2	103	1.04	.046	2	14	.58	17	.19	8	1.47	.07	.14	1	7
B 56392	1	838	17	93	.7	11	61	557	8.82	63	5	ND	2	4	2	3	2	126	.84	.098	4	17	1.19	129	.20	2	2.68	.04	.90	1	3
B 56396	1	1063	19	106	.7	20	57	548	7.80	26	5	ND	1	14	1	2	3	277	.80	.025	2	16	1.04	110	.20	10	2.55	.05	.72	1	3
STD C/AU-R	18	58	42	131	7.9	68	31	1020	4.10	45	20	8	36	46	20	16	22	59	.48	.094	36	57	.81	174	.07	31	1.90	.06	.13	12	490

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Core AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: MAR 7 1990 DATE REPORT MAILED: *Mar 13, 1990* SIGNED BY: *D. Toye* .D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

NOTE: ALL SAMPLES ARE FROM M-89-12

ACME ANALYTICAL LABORATORIES LTD.

852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6

PHONE (604) 253-3158 FAX (604) 253-1716

WHOLE ROCK ICP ANALYSIS

Bapty Research Limited (BC) File # 90-0581  
606 Trail St., Kimberley BC V1A 2M2

SAMPLE#	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	Ba	La	Zr	Y	Nb	LOI	SUM
	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	%	%
M89-6	67.56	16.72	3.45	1.35	1.14	2.26	4.14	.67	.12	.08	.008	1696	23	236	35	67	1.9	99.73

A .2000 GRAM SAMPLE IS FUSED WITH 1.2 GRAM OF LiBO2 AND IS DISSOLVED IN 100 MLs 5% HNO3.  
- SAMPLE TYPE: Core

DATE RECEIVED: MAR 7 1990

DATE REPORT MAILED:

*May 14, 1990*

SIGNED BY:

*D. Toye*

D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

SAMPLE 2: 3 centimetre chalcedonic bed at 116.0 metres in drill hole M-89-6

**GEOCHEMICAL ANALYSIS CERTIFICATE**

**Bapty Research Limited PROJECT McNEIL File # 90-0611**  
 901 Industrial Road #2, Cranbrook BC V1C 4C9

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
A 45179	1	158	4	52	2	35	31	488	4.21	51	5	ND	1	7	1	4	2	203	3.19	.022	2	11	.78	2	.22	2	1.40	.09	.06	2	2
A 45180	1	37	6	68	1	31	21	559	4.96	30	5	ND	1	5	1	7	2	252	1.81	.025	2	10	.94	5	.24	2	1.73	.12	.09	1	1
A 45181	1	22	3	50	1	34	18	383	3.81	12	5	ND	1	8	1	6	2	113	.97	.014	2	11	1.14	15	.13	7	1.65	.08	.22	1	1
A 45182	1	50	4	65	2	40	26	486	7.08	15	5	ND	1	5	1	5	2	94	.94	.026	3	11	1.81	87	.25	2	2.80	.07	.89	1	1
A 45183	1	136	5	55	1	34	37	373	4.14	9	5	ND	1	5	1	6	2	75	1.33	.025	3	12	.99	17	.19	5	1.36	.10	.20	1	1
A 45184	1	87	2	35	1	39	30	310	3.17	14	5	ND	1	7	1	6	2	71	1.59	.029	4	11	.79	3	.18	2	1.17	.12	.06	1	1
A 45185	1	9	10	39	1	29	14	369	3.61	8	5	ND	1	14	1	6	2	82	1.85	.029	2	10	1.02	4	.20	2	1.79	.06	.06	1	2
A 45186	1	17	10	40	1	35	15	300	3.41	13	5	ND	1	38	1	6	2	74	2.59	.021	2	9	.83	3	.23	2	1.72	.06	.03	1	1
A 45187	2	8	6	36	1	21	11	332	2.34	14	5	ND	1	8	1	4	2	54	1.36	.020	2	13	.65	5	.12	2	1.16	.10	.06	1	1
B 56393	1	312	4	111	4	18	42	655	9.03	11	5	ND	2	4	1	7	2	214	.70	.059	2	18	1.68	192	.37	2	3.25	.05	1.82	1	1
B 56394	1	1450	3	94	7	24	63	464	8.21	9	5	ND	3	5	1	8	7	178	.39	.025	2	19	1.13	76	.27	3	2.14	.03	1.23	1	1
B 56395	1	1012	2	108	6	37	95	486	10.37	40	5	ND	1	5	1	7	2	180	.34	.027	2	23	1.24	64	.31	2	2.43	.04	1.45	1	1
B 56397	1	52	12	163	3	17	30	708	8.38	18	5	ND	1	5	1	7	2	244	1.20	.043	2	15	1.58	162	.37	6	3.07	.06	1.21	1	1
B 56398	2	299	8	84	2	24	15	543	4.92	16	5	ND	1	4	1	5	2	157	1.92	.027	2	15	.86	8	.25	2	1.61	.07	.08	1	1
B 56399	1	50	6	50	1	31	24	426	3.56	79	5	ND	1	11	1	3	2	180	1.75	.018	2	14	.65	4	.21	6	1.28	.11	.07	1	1
B 56400	1	53	5	63	2	38	44	633	5.47	222	5	ND	1	5	1	7	2	271	2.54	.024	2	15	.98	4	.24	7	1.83	.15	.10	1	1
STD C/AU-R	18	57	43	132	7.0	66	31	952	4.02	41	22	8	36	47	19	17	22	58	.45	.092	37	55	.81	175	.07	38	1.77	.06	.14	12	505

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Core AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: MAR 8 1990 DATE REPORT MAILED: *Mar 14, 1990* SIGNED BY: *D. Toye* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL LABORATORIES  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: MAR 13 1990

DATE REPORT MAILED: *Mar 15, 1990*

### GEOCHEM PRECIOUS METALS ANALYSIS

Bapty Research Limited PROJECT McNEIL FILE # 90-0646  
901 Industrial Road #2, Cranbrook BC V1C 4C9

SAMPLE#	Au ppb	Pt ppb	Pd ppb	Rh ppb
B 52002	4	8	12	2
B 52003	33	9	17	2
B 52004	10	13	18	2
B 52005	20	9	14	2
B 52006	4	11	17	2
B 56325	10	8	13	2
B 56326	1	8	15	2
B 56327	5	8	13	2
B 56328	4	9	13	2
B 56329	5	8	15	3
B 56330	3	9	16	2
B 56331	3	6	12	2
B 56332	1	5	16	2
B 56333	7	11	10	2
B 56334	3	7	14	2
B 56335	5	6	15	2
B 56336	1	10	15	2
B 56337	5	13	16	2
B 56338	6	13	17	2
B 56339	6	9	16	3
B 56340	3	11	12	2
B 56341	4	10	13	2
B 56342	3	9	18	2
B 56343	1	8	13	2
B 56344	4	11	14	2
B 56345	4	9	12	2
B 56346	2	7	13	2
B 56347	1	8	12	2
B 56348	2	6	9	2
B 56349	2	5	13	2
B 56350	3	13	15	2

M-89-19

10 GRAM SAMPLE FIRE ASSAY AND ANALYSIS BY ICP/GRAPHITE FURNACE.  
- SAMPLE TYPE: Core

SIGNED BY. *D. Toye* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

NOTE: ALL SAMPLES ARE OF GABBRO DYKE (?)

ACME ANALYTICAL LABORATORIES  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: MAR 13 1990

DATE REPORT MAILED: *March 19/90*

### GEOCHEM PRECIOUS METALS ANALYSIS

Bapty Research Limited PROJECT McNEIL FILE # 90-0644  
901 Industrial Road #2, Cranbrook BC V1C 4C9

SAMPLE#	Au	Pt	Pd	Rh
	ppb	ppb	ppb	ppb
B 52007	1	3	13	4
B 52008	1	3	12	3
B 52009	5	4	14	2
B 52010	4	7	16	2
B 52011	3	8	15	3
B 52012	5	11	18	2
B 52013	1	7	21	2
B 52014	1	7	16	2
B 52015	1	4	22	2
B 52016	1	8	19	2
B 52017	1	3	14	2
B 52018	1	1	8	3
B 52019	1	1	4	2

M-89-19

10 GRAM SAMPLE FIRE ASSAY AND ANALYSIS BY ICP/GRAPHITE FURNACE.  
- SAMPLE TYPE: Core

SIGNED BY *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

NOTE: ALL SAMPLES OF GABBRO DYKE (?)

**GEOCHEMICAL ANALYSIS CERTIFICATE**

**Bapty Research Limited PROJECT McNEIL File # 90-0671 Page 1**  
 901 Industrial Road #2, Cranbrook BC V1C 4C9

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
A 45188	4	87	22	30	.1	16	11	227	2.80	6	5	ND	11	9	1	2	3	5	.57	.022	13	10	.62	47	.01	2	1.27	.01	.26	1	5
A 45189	2	98	7	7	.1	21	12	430	1.81	16	7	ND	10	15	1	7	2	4	1.89	.026	12	8	.34	38	.01	2	.88	.01	.25	1	6
A 45190	2	21	13	16	.2	21	19	521	5.95	26	5	ND	5	21	1	9	2	6	1.83	.035	6	9	.97	20	.01	3	1.68	.01	.16	1	4
A 45191	1	58	6	26	.8	30	33	1591	8.25	32	5	ND	1	63	1	15	2	14	7.51	.029	2	14	1.96	10	.01	3	2.14	.01	.11	1	9
A 45192	1	52	10	23	.7	37	21	940	7.31	35	5	ND	1	51	1	28	2	22	4.73	.030	2	11	1.84	13	.01	2	2.01	.02	.12	1	16
A 45193	1	3	6	22	.6	42	16	1060	8.46	21	5	ND	1	58	1	25	2	23	5.45	.025	2	14	2.02	12	.01	3	2.25	.01	.12	1	3
A 45194	1	90	2	35	.6	43	15	1109	9.06	12	5	ND	1	55	1	29	2	33	6.09	.028	2	13	1.57	9	.01	5	2.26	.02	.09	1	3
A 45195	1	32	3	34	.6	48	13	1121	8.48	20	5	ND	1	58	1	40	2	21	6.97	.027	2	14	1.37	11	.01	3	2.05	.01	.13	1	1
A 45196	2	98	100	94	.1	14	8	351	2.90	2	6	ND	10	15	1	4	2	33	.28	.050	30	30	.99	44	.12	2	1.66	.03	.60	1	1
A 45197	1	40	59	136	.1	16	7	304	1.70	4	5	ND	13	4	1	2	2	17	.22	.030	21	19	.69	23	.08	2	1.31	.02	.42	1	4
A 45198	1	1	34	66	.1	14	4	371	1.37	2	5	ND	12	5	1	2	2	19	.25	.024	20	22	.56	19	.09	2	1.25	.04	.31	1	1
A 45199	1	1	28	78	.1	16	4	416	1.45	2	5	ND	10	10	1	2	2	17	.35	.023	15	21	.67	15	.08	2	1.43	.04	.26	1	1
A 45200	1	2	34	65	.1	12	4	316	1.13	3	5	ND	12	13	1	2	2	13	.32	.016	19	18	.45	18	.08	2	1.16	.02	.25	2	1
B 52020	2	1	20	60	.1	14	3	334	1.19	2	5	ND	11	16	1	2	2	17	.43	.023	16	21	.54	16	.09	2	1.38	.05	.22	2	1
B 52021	2	7	33	83	.1	20	6	366	1.72	4	5	ND	14	5	1	2	2	18	.29	.031	27	24	.63	26	.10	2	1.21	.03	.42	1	6
STD C/AU-R	18	57	38	130	6.8	68	30	923	4.01	37	20	7	36	47	18	14	21	56	.45	.098	36	57	.88	173	.06	33	1.78	.06	.14	11	490

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 AU\*\* PT\*\* PD\*\* RH\*\* BY FIRE ASSAY & ANALYSIS BY ICP/GRAPHITE FURNACE.  
 - SAMPLE TYPE: Core AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: MAR 15 1990 DATE REPORT MAILED: *March 20/90* SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

NOTE: SAMPLES 45188-45194: FAULT ZONE  
 SAMPLE 45195 : GABBRO DYKE  
 SAMPLES 45196-45200;  
 52020-52021: FELSIC DYKE

M-89-19



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Hg	Ba	Ti	B	Al	Na	K	U	Au**	Pt**	Pd**	Rh**
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppb	ppb	ppb	ppb
B 52022	2	7	8	27	.1	24	29	128	3.81	2	5	ND	8	2	1	3	2	40	.20	.023	3	29	3.47	7	.01	3	2.85	.01	.14	3	5	3	5	2
B 52023	1	4	5	44	.3	39	25	222	6.54	2	5	ND	1	1	1	2	2	152	.13	.058	2	12	6.43	3	.02	2	5.35	.01	.06	1	1	3	2	2
B 52024	1	3	11	39	.2	35	26	218	6.87	4	5	ND	1	1	1	2	5	173	.16	.067	2	13	6.30	2	.01	2	5.35	.01	.04	1	5	6	4	4
B 52025	1	2	6	36	.1	51	24	202	6.10	7	5	ND	1	1	1	2	2	182	.12	.044	2	15	6.33	2	.01	2	5.36	.01	.05	1	2	1	2	2
B 52026	1	1	7	35	.1	51	11	168	4.89	5	5	ND	1	1	1	2	2	180	.16	.049	2	15	6.25	3	.01	2	5.38	.01	.06	1	1	4	2	2
B 52027	1	6	13	50	.3	53	41	293	8.99	5	5	ND	1	1	1	2	2	183	.12	.055	2	21	5.92	5	.01	2	5.70	.01	.08	1	2	4	5	2
B 52028	1	1	19	43	.2	37	27	248	7.20	2	5	ND	8	1	1	2	3	85	.09	.047	3	32	4.82	7	.01	2	5.00	.01	.16	1	5	6	6	3
B 52029	1	11	5	45	.1	26	16	313	5.48	3	5	ND	5	4	1	4	2	136	.32	.032	5	17	3.06	14	.02	7	3.19	.01	.13	1	1	7	6	3
B 52030	1	12	2	73	.6	39	32	753	10.45	2	5	ND	1	23	1	6	2	258	3.71	.041	2	25	3.33	3	.08	2	3.98	.04	.02	1	4	7	3	2
B 52031	1	6	9	95	.6	39	35	963	10.49	2	5	ND	1	22	1	6	3	272	2.43	.050	2	24	2.94	2	.09	2	3.14	.06	.02	1	1	2	5	2
B 52032	1	19	12	98	.7	42	36	863	11.39	2	5	ND	1	20	1	3	2	284	2.78	.044	2	22	3.98	2	.11	2	4.28	.03	.01	2	1	6	4	2
B 52033	1	3	15	81	.2	43	38	641	8.86	2	5	ND	1	13	1	2	2	218	1.62	.041	2	20	4.33	2	.09	2	4.35	.02	.02	1	1	4	3	2
B 52034	1	13	6	80	.2	37	29	711	7.71	2	5	ND	1	19	1	5	2	190	2.59	.038	2	23	2.79	4	.11	2	2.75	.07	.03	1	1	5	2	2
B 52035	1	2	10	70	.1	33	28	616	6.42	4	5	ND	1	27	1	4	2	149	1.79	.042	2	19	1.73	5	.11	2	1.96	.09	.03	1	1	1	2	2
B 52036	1	4	9	85	.2	37	30	720	8.00	2	5	ND	1	22	1	5	2	182	1.78	.042	2	23	2.33	4	.12	2	2.59	.07	.02	1	3	2	4	2
B 52037	1	15	13	93	.6	50	33	711	11.14	2	5	ND	1	12	1	3	2	279	2.11	.044	2	28	4.13	4	.11	2	4.88	.04	.03	2	2	3	2	2
B 52038	1	4	12	61	.5	34	22	873	7.37	2	5	ND	1	38	1	7	2	194	8.22	.033	2	19	3.37	2	.08	2	3.15	.03	.01	1	1	2	3	2
B 52039	1	2	12	66	.6	52	47	608	9.76	2	5	ND	1	9	1	2	2	230	1.89	.039	2	26	5.03	3	.09	2	4.63	.03	.04	1	4	6	2	2
B 52040	1	3	10	41	.2	35	17	269	6.55	2	5	ND	1	3	1	2	2	144	.13	.042	2	14	4.75	5	.01	2	4.38	.01	.07	1	1	3	2	2
B 52041	1	1	11	37	.2	41	14	292	7.44	2	5	ND	1	2	1	2	2	190	.11	.052	2	14	5.59	3	.01	2	5.37	.01	.04	1	3	5	3	2
B 52042	1	12	9	38	.1	29	10	269	6.28	2	5	ND	1	3	1	2	2	192	.17	.049	8	10	4.74	1	.01	2	4.32	.01	.01	1	1	4	2	2
B 52043	1	3	13	37	.2	29	13	279	7.34	2	5	ND	1	3	1	2	2	242	.22	.055	2	9	5.17	1	.02	2	4.82	.01	.01	1	1	1	2	2
B 52044	1	2	8	41	.2	28	13	296	7.48	2	5	ND	1	2	1	2	2	226	.13	.056	2	7	5.48	1	.01	2	5.01	.01	.01	1	1	1	2	2
B 52045	1	8	4	45	.3	29	22	338	9.43	6	5	ND	1	2	1	2	2	232	.15	.061	2	11	5.73	1	.02	2	5.48	.01	.01	1	3	1	2	2
B 52046	1	6	15	49	.3	24	23	345	9.54	2	5	ND	1	2	1	2	2	284	.14	.059	2	10	6.08	1	.02	2	5.96	.01	.01	1	3	2	2	2
B 52047	1	10	16	42	.4	21	27	320	9.75	7	5	ND	1	2	1	2	2	236	.15	.066	2	12	5.32	1	.02	2	5.64	.01	.01	2	1	1	2	2
B 52048	1	1	11	58	.1	49	31	430	4.08	65	5	ND	1	13	1	7	2	69	1.79	.032	2	84	1.58	12	.11	31	1.93	.07	.07	1	1	9	17	2
B 52049	1	1	17	201	.8	106	61	848	13.92	73	5	ND	1	3	2	2	2	209	.70	.038	2	185	4.99	149	.18	18	7.05	.01	1.60	1	4	11	16	3
B 52050	1	2	14	166	.9	103	45	704	14.82	22	5	ND	1	2	2	2	2	219	.30	.045	2	246	4.66	406	.36	18	7.30	.01	4.31	1	4	16	16	2
B 52051	1	1	14	184	1.1	119	65	881	16.40	77	5	ND	1	3	2	2	2	256	.36	.046	10	294	5.60	263	.23	8	8.29	.01	2.50	1	4	16	19	2
B 52052	1	1	15	155	.9	110	53	772	15.28	53	5	ND	1	3	2	2	2	225	.28	.025	18	257	5.12	282	.30	12	7.55	.01	2.92	1	3	22	27	2
B 52053	1	1	9	109	.3	72	32	491	8.82	22	5	ND	1	3	2	6	2	108	.64	.043	4	143	3.14	209	.27	73	4.28	.02	2.13	1	1	22	34	2
B 52054	1	1	9	88	.2	72	35	439	7.33	41	5	ND	1	3	1	7	2	84	.72	.026	9	170	2.69	158	.28	133	3.45	.02	1.39	1	8	25	179	2
B 52055	1	1	11	138	.6	83	35	593	10.72	17	5	ND	1	5	2	5	2	109	.63	.009	3	170	3.57	268	.34	37	5.44	.04	2.71	1	9	24	25	2
B 52056	1	7	16	140	.5	84	41	577	10.40	16	5	ND	1	10	2	4	2	139	.81	.004	2	194	3.58	279	.36	23	5.51	.06	2.69	1	4	12	27	2
B 52057	1	2	13	142	.5	83	38	569	10.72	11	5	ND	1	8	2	5	2	184	.54	.030	2	193	3.62	329	.37	13	5.75	.05	2.99	1	1	14	19	2
STD C/FA-5X	17	57	37	129	6.8	69	30	916	3.90	38	21	8	36	45	18	16	20	56	.46	.099	35	56	.85	173	.06	34	1.79	.06	.14	11	102	98	97	23

NOTE: SAMPLES 52022-52047: GABBRO DYKE  
 SAMPLES 52049-52068: LAMPORPHYRE SILL

M-89-8

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	U ppm	Au** ppb	Pt** ppb	Pd** ppb	Rh** ppb
B 52058	1	2	12	123	.4	73	34	456	9.07	16	5	ND	1	7	2	6	2	102	.36	.014	2	170	3.40	288	.36	61	4.89	.04	2.66	1	6	26	48	2
B 52059	1	1	4	138	.5	72	35	502	10.43	4	5	ND	1	4	1	3	2	136	.29	.043	2	190	3.86	320	.36	45	5.71	.02	3.17	1	15	24	34	2
B 52060	1	1	12	146	.8	78	37	596	12.15	2	5	ND	1	3	1	2	2	175	.23	.049	2	210	4.33	421	.36	19	6.88	.01	3.41	1	8	25	32	2
B 52061	1	1	19	157	.8	83	39	653	13.69	2	5	ND	1	2	1	2	2	201	.19	.042	2	201	4.70	478	.36	15	7.59	.02	3.85	1	1	16	30	2
B 52062	1	1	27	146	.8	79	42	607	12.55	10	5	ND	1	3	2	5	2	185	.36	.046	2	180	4.32	392	.36	41	6.78	.01	3.73	1	2	19	24	2
B 52063	1	1	16	158	.7	83	48	589	12.26	16	5	ND	1	17	1	2	2	224	.48	.047	2	166	4.22	391	.40	10	6.63	.05	3.80	1	4	14	32	2
B 52064	1	1	16	61	.1	33	16	385	4.38	5	5	ND	1	11	1	5	3	99	1.06	.042	2	62	1.49	22	.11	4	1.97	.07	.17	1	1	12	17	2
B 52065	1	1	10	98	.4	59	27	536	8.04	9	5	ND	1	8	1	4	2	158	.89	.084	7	123	2.71	71	.22	6	3.79	.05	.68	1	1	33	25	2
B 52066	2	1	2	8	.1	9	2	140	.96	2	5	ND	16	7	1	2	2	18	1.27	.021	7	10	.39	2	.04	215	.57	.02	.02	3	1	2	2	3
B 52067	2	2	6	1	.1	3	1	71	.29	2	5	ND	33	8	1	2	2	4	.70	.039	33	8	.08	29	.07	15	.59	.05	.27	3	1	1	2	2
B 52068	2	1	2	5	.1	6	2	98	.64	2	5	ND	31	8	1	2	2	11	.81	.036	45	11	.23	12	.06	299	.63	.06	.10	2	1	1	6	2
B 52069	2	2	3	17	.1	13	4	171	1.42	4	5	ND	20	10	1	2	2	30	.86	.041	28	32	.51	36	.12	14	1.06	.09	.17	3	1	1	2	2
STD C/FA-5X	18	57	38	130	6.8	68	30	923	4.01	37	20	7	36	47	18	14	21	56	.45	.098	36	57	.88	173	.06	33	1.78	.06	.14	11	96	102	103	19

**GEOCHEMICAL ANALYSIS CERTIFICATE**

**Bapty Research Limited** File # 90-0736  
 901 Industrial Road #2, Cranbrook BC V1C 4C9

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au**	Pt**	Pd**	Rh**
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppb	ppb	ppb	ppb
B 52102	1	67	4	26	.1	26	9	250	1.76	7	5	ND	1	22	1	3	2	46	1.09	.028	2	27	.77	8	.21	2	1.02	.03	.06	1	8	6	16	2
B 52103	1	89	3	39	.5	30	9	360	2.42	3	5	ND	1	17	1	2	2	57	1.02	.028	2	36	1.16	10	.23	6	1.48	.05	.11	1	8	15	16	2

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Core AU\*\* PT\*\* PD\*\* RH\*\* BY FIRE ASSAY & ANALYSIS BY ICP/GRAPHITE FURNACE.

DATE RECEIVED: MAR 22 1990 DATE REPORT MAILED: *March 28/90* SIGNED BY: *C. Leong* .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

REPORT McNEIL  
 M-89-19

Quarter (1/4) samples of core to check anomalously high gold values, previously reported by ACME as being spurious results.

# McNEIL Soil SAMPLES

Sample	PPM Pb		PPM Zn							
3100E	62	<0.4	121							1A
3125E	37	"	90							2
3150E	24	"	80							3
<del>3175E</del> 3175E	19	"	50							4
3200E	22	"	22							5
3225E	37	"	100							6
3250E	24	"	100							7
3275E	22	"	66							8
3300E	63	"	96							9
3325E	75	"	87							10
3350E	45	"	58							11
3375E	63	"	73							12
3400E	66	0.4	80							13
3425E	61	<0.4	65							14
3450E	30	"	49							15
3475E	66	"	69							16
3500E	58	"	76							17
3525E	58	"	55							18
3550E		"								19
3575E		"								20
3600E		"	67							21
3625E	98	"	89							22
3650E	35	"	52							23
3675E		"								24
3700E		"								25
3725E	77	"	74							26
3750E	77	"	89							27
3775E	27	"	81							28
3800E	28	"	72							29
3825E	37	"	99							30
3850E	72	0.4	32							31
3875E		<0.4								32
3900E	45	"	38							33
3925E	51	"	72							34
3950E	41	"	68							35
3975E	32	"	77							36
4000E	24	"	52							37
4025E	24	"	47							38





McNeil S

E 3700N Sample	PPM Pb.	PPM Ag	PPM Zn
3100E			
3125E		1.8	
3150E	87.4	0.6	
3175E	82.1	0.6	
3200E	47.3	0.5	
3225E	41.6	0.5	99
3250E	25.3	<0.4	
3275E	42.3	0.7	
3300E	39.9	0.5	
3325E	18.3	<0.4	
3350E	21.7	<0.4	96
3375E	21.4	0.4	70
3400E	48.9	<0.4	105
3425E	19.3	0.4	73
3450E	26.2	<0.4	68
3475E	20.3	0.4	101
3500E	59.2	0.4	85
3525E		0.5	94
3550E		0.7	
3575E		0.9	
3600E		0.7	
3625E	57.4	0.7	
3650E		<0.4	
3675E	22.6	1.13	101
3700E	82.4	0.5	94
3725E	54.8	0.6	92
3750E	23.4	1.0	80
3775E		1.2	
3800E		0.9	
3825E	21.8	<0.4	
3850E		0.5	91
3875E		0.8	96
3900E		0.8	82
3925E	64.9	<0.4	103
3950E	64.4	<0.4	31
3975E	41.2	0.5	57
4000E	15.7	<0.4	35
4025E	18.0	<0.4	49
4050E	15.0	<0.4	22

McNeil Soil Sample

E 3800N Sample	PPM Pb	PPM Ag	PPM Zn
3100E	25.3	<0.4	91
3125E			
3150E			
3175E	51.4		
3200E	19.3	0.4	
3225E	25.1	<0.4	
3250E	18.8	11	99
3275E	14.0	11	74
3300E	17.6	11	104
3325E	16.5	0.4	
3350E	20.5	<0.4	
3375E	82.5	11	
3400E	20.2	0.5	87
3425E	22.7	<0.4	
3450E		11	87
3475E	89.5	11	81
3500E	56.5	11	65
3525E	49.6	11	91
3550E	80.69	0.4	94
3575E	34.7	0.5	88
3600E	32.5	<0.4	67
3625E	96.8	0.6	91
3650E	91.2	0.6	82
3675E	74.3	<0.4	86
3700E	42.7	<0.4	96
3725E	48.2	<0.4	
3750E	80.3	0.8	
3775E		1.0	
3800E		0.8	64
3825E		0.7	70
3850E	20.0	0.7	72
3875E	45.7	0.7	61
3900E	60.2	0.9	57
3925E	54.2	0.9	65
3950E		0.9	63
3975E	86.3	0.5	63
4000E	20.9	<0.4	31
4025E	15.8	<0.4	79
4050E	12.7	1	62





McNEILL Soil

L Sample	PPM Pb	PPM Ag	PPM Zn
3100E	19.7	0.8	70
3125E	33.8	2.3	
3150E	13.8	0.5	96
3175E	17.9	1.3	107
3200E	16.5	0.5	
3225E	14.4	0.5	91
3250E	13.3	0.5	80
3275E	15.0	<0.4	91
3300E	10.9	<0.4	92
3325E	22.3	0.4	
3350E	31.9	<0.4	
3375E	18.6	0.7	
3400E	19.3	0.4	
3425E	12.1	<0.4	65
3450E	43.6	11	
3475E	16.1	11	57
3500E	18.5	0.8	68
3525E	46.9	1.0	76
3550E	40.8	1.2	84
3575E	48.7	1.3	108
3600E	78.4	0.6	83
3625E	58.1	0.4	76
3650E	42.2	<0.4	72
3675E	23.6	11	64
3700E	55.4	<0.4	50
3725E	95.2	0.6	88
3750E	88.5	0.5	67
3775E	49.5	<0.4	67
3800E	90.3	0.7	83
3825E	75.0	0.6	68
3850E	61.4	<0.4	55
3875E	51.5	0.5	72
3900E		0.4	88
3925E	21.4	<0.04	51
3950E	12.7	11	57
3975E	14.7	11	58
4000E	33.0	11	66

McNEILL Soil

L Sample	PPM Pb	PPM Ag	PPM Zn
L3100E	18.1	0.5	62
3100E	9.6	<0.4	
3125E	10.2	<11	
3150E	12.8	11	92
3175E	8.2	11	
3200E	13.7	11	
3225E	10.1	11	91
3250E	10.6	11	
3275E	9.1	11	82
3300E	7.8	11	55
3325E	8.3	11	82
3350E	12.2	0.6	
3375E	33.0	0.4	
3400E	24.9	<0.4	
3425E	26.4	0.6	
3450E	63.7	<0.4	
3475E	14.7	0.7	70
3500E	22.7	0.5	91
3525E		0.5	
3550E	66.0	0.6	
3575E	28.6	<0.4	
3600E		0.8	
3625E	99.0	0.5	
3650E	33.2	<0.4	80
3675E	28.3	0.4	87
3700E	25.7	<0.4	80
3725E	20.0	<0.4	69
3750E	29.9	11	91
3775E	28.0	11	80
3800E	29.3	11	68
3825E	64.0	0.4	99
3850E	63.5	<0.4	93
3875E	87.4	0.7	
3900E		0.9	
3925E	69.4	0.6	
3950E	16.0	<0.4	70
3975E	19.9	<0.04	79
4000E	17.4	<0.04	56







McNeil Soil

L4200N Sample	PPM Pb	PPM Ag	PPM Zn
3100E	18.6	<0.4	42
3125E	28.5	"	60
3150E	19.4	"	56
3175E	17.2	"	82
3200E	8.8	"	72
3225E	11.1	"	71
3250E	11.3	"	65
3275E	7.1	"	53
3300E	7.0	"	54
3325E	10.4	"	80
3350E	11.4	"	77
3375E	11.0	"	56
3400E	10.8	"	84
3425E	11.6	"	68
3450E	10.7	"	90
3475E	7.4	<0.4	102
3500E	7.9	"	55
3525E	13.5	"	64
3550E	12.8	"	107
3575E	10.9	0.4	88
3600E	11.4	0.4	76
3625E	14.6	<0.4	82
3650E	16.8	"	99
3675E	21.0	"	113
3700E	15.1	"	77
3725E	25.0	"	80
3750E	22.7	"	90
3800E	20.8	"	86
3775E	30.7	"	89
3825E	26.4	"	99
3850E	25.4	"	95
3875E	13.8	"	59
3900E	22.4	"	
3925E	16.1	"	82
3950E	40.1	0.4	
3975E	34.4	0.4	
4000E	30.0	<0.4	
4025E	24.9	"	99

McNeil Soil SAMPLES

L4300N Sample	PPM Pb	PPM Ag	PPM Zn
2425E	16.7	<0.4	53
2450E	13.0	"	53
2475E	19.7	"	58
2500E	28.1	"	75
2525E	31.5	0.4	73
2550E1	30.3	<0.4	77
2550E2	30.2	"	92
2575E	24.2	"	86
2600E	22.7	"	94
2625E	24.1	"	91
2650E	40.5	0.4	77
2675E	43.4	0.5	
2700E	47.5	0.4	85
2725E	31.6	<0.4	61
2750E	40.7	0.4	86
2775E	39.3	<0.4	85
2800E1	50.2	0.4	91
2800E2	47.4	0.40	107
2825E	53.0	0.4	92
2850E	33.8	<0.4	89
2875E	43.4	"	85
2900E	30.5	"	65
2925E	59.4	"	84
2950E	55.4	<0.4	85
2975E	25.0	<0.4	64
3000E	44.7	<0.4	73
3025E	41.7	<0.4	68
3050E1		<0.4	
3050E2		<0.4	
3075E	15.5	<0.4	68
3100E	16.0	<0.4	60
3125E	15.4	0.4	61
3150E	26.5	0.4	72
3175E	14.1	"	45
3200E	20.4	"	75
3225E	18.0	"	70
3250E	16.5	"	72
3275E	15.3	"	68



MENEZIL SOIL SAMPLES

L 4300N Sample	PPM Pb.	PPM Ag	PPM Zn
3300E1	19.4	<0.4	69
3300E2	5.6	"	59
3325E	11.1	0.4	63
3350E	9.2	<0.4	38
3375E	9.2	"	58
3400E	7.3	"	50
3425E	8.9	"	63
3450E	6.5	"	61
3475E	8.8	"	67
3500E	10.7	0.4	58
3525E	10.9	<0.4	66
3550E1	11.1	"	56
3550E2	10.6	"	56
3575E	10.5	0.4	60
3600E	12.1	<0.4	59
3625E	9.1	"	63
3650E	9.7	0.4	60
3675E	7.5	<0.4	52
3700E	7.6	0.4	48
3725E	14.2	<0.4	74
3750E	11.5	"	91
3775E	12.7	0.4	85
3800E1	15.4	<0.4	93
3800E2	14.3	"	93
3825E	13.3	"	85
3850E	16.1	0.5	75
3875E	18.8	0.6	49
3900E	27.8	0.4	92
3925E	26.0	0.5	54
3950E		0.5	
3975E	23.3	<0.4	63
4000E	24.0	"	73
4025E	19.8	"	66
4050E1	15.2	"	75
4050E2	12.8	"	79

L 4100N Sample	PPM Pb	PPM Ag	PPM Zn	PPM Zn
L3100E	19.9	<0.4	42	78
3125E	16.7	"	58	59
3150E	25.4	0.4	54	54
3175E	11.9	0.6	83	112
3200E	9.9	<0.4	73	51
3225E	8.7	"	66	87
3250E	12.2	"	65	64
3275E	9.0	"	53	78
3300E	10.9	"	53	80
3325E	8.4	"	78	71
3350E	7.9	"	76	64
3375E	12.7	"	54	74
3400E	12.1	"	83	75
3425E	13.5	"	67	72
3450E	11.6	"	90	71
3475E	9.3	0.4		
3500E	12.9	0.5	54	70
3525E	11.4	<0.4	64	77
3550E	19.5	"	104	91
3575E	11.9	"	86	66
3600E	28.0	"	72	94
3625E	21.9	"	81	103
3650E	13.4	"	97	48
3675E	24.1	"	113	78
3700E	41.9	0.3	75	87
3725E	21.1	<0.4	78	61
3750E	69.2	"	88	83
3775E	48.3	0.9	83	102
3800E	41.2	<0.4	85	71
3825E	36.3	0.6	96	90
3850E	33.1	0.5	91	77
3875E	26.4	<0.4	58	59
3900E	28.0	"		
3925E	95.2	0.8	81	84
3950E	34.2	<0.4		
3975E	36.2	0.4		73
4000E	37.9	0.6		
4025E	17.4	0.6		













L4600 Sample	ppm Pb	ppm Zn
2725 E	32	63
2750	38	70
2775	60	84
2800	61	69
2800	60	68
2825	70	70
2850	71	
2875		
2900		
2925	85	63
2950	24	86
2975	46	82
3000	65	
3025	25	
3050	16	88
3050	20	81
3075	31	
3100	31	
3125	66	
3150	46	
3175	28	
3200	27	
3225	17	86
3250	25	82
3275	26	
3300	28	
3300	27	
3325	21	86
3350	35	
3375	28	
3400	31	56
3425	17	47
3450	19	33
3475	26	59
3500	20	47
3525	18	61
3550	17	50
3575	19	51

L4600 Sample	ppm Pb	ppm Zn
3575	11	41
3600	11	36
3625	17	82
3650	12	67
3675	11	44
3700	13	53
3725	11	59
3750	15	64
3775	14	50
3800	14	54
3800	14	63
3825	15	44
3850	14	75
3875	9	53
3900	8	52
3925	13	43
3950	12	71
3975	27	61
4000	31	91
4025	65	76
4050	19	75
4050	18	72
4075	13	57
4100	16	59
4125	18	63
4150	15	

L4700 N Sample	Pb PPM	Zn PPM
800 E -1	30	12
2800 -2	16	60
2825	43	45
2850	19	71
2875	46	59
2900	32	83
2925	32	81
2950	33	95
2975	22	
3000	19	
3025	19	
3050 -1	21	
3050 -2	24	
3075	15	
3100	10	
3125	8	66
3150	15	75
3175	25	50
3200	20	94
3225	16	81
3250	11	45
3275	17	59
3300	11	57
3325	24	67
3350 -1	19	
3350 -2	30	92
3375	15	97
3400	10	64
3425	17	55
3450	9	75
3475	9	33
3500	10	42
3525	18	74
550	7	69
3575	14	43
3600 -1	17	68
3600 -2	17	92

L4700 N Sample	Pb PPM	Zn PPM	PPM						
3650 E	17	70							
3675	14	73							
3700	15	52							
3725	15	87							
3750	9	38							
3775	14	55							
3800	12	50							
3825	14	65							
3850 -1	20	66							
3850 -2	20	67							
3875	14	92							
3900	17	61							
3925	19	67							
3950	8	26							
3975	12	36							
4000	28	94							
4025	13	65							
4050	21								
4075	20	81							
4100 -1	17	75							
4100 -2	16	70							

L5000N Sample	PPM Pb	PPM Ag	PPM Zn	L5000N Sample	PPM Pb	PPM Ag	PPM Zn
182E	24	<0.4	96	4025 F	37	0.6	114
3200	19	"	99	4050	38	0.4	95
3225	41	"	184				
3250 -1	21	"	232				
3250 -2	20	"	217				
3275	13	"	185				
3300	11	0.4	199				
3325	40	0.6	404				
3350	32	<0.4	276				
3375	32	<0.4	186				
3400	27	"	150				
3425	20	"	105				
3450	23	0.7	129				
3475	21	0.7	111				
3500 -1	28	0.4	706				
3500 -2	28	<0.4	104				
3525	30	<0.4	109				
3550	53	<0.4	722				
3575	37	<0.4	88				
3600	26	<0.4	73				
3625	20	<0.4	55				
3650	38	"	67				
3675	11	"	51				
3700	15	"	77				
3725	30	"	63				
3750 -1	11	0.6	88				
3750 -2	17	0.4	95				
3775	30	<0.4	78				
3800	22	"	61				
3825	28	"	60				
3850	21	"	60				
3875	17	"	84				
3900	26	"	86				
3925	12	"	56				
3950	21	"	61				
3975	48	"	89				
4000 -1	41	"	98				
4025	20	"	61				





L 5200 N Sample	PPM Pb	PPM Ag	PPM Zn	L 5200 N Sample	PPM Pb	PPM Ag	PPM Zn
3005 -1	TF	0.5	43	3850 E	12	0.4	38
3005 -2	12	0.4	42	3875	17	"	56
3025	16	0.7	77	3900	16	"	40
3050	15	0.7	72	3925	19	"	89
3075	14	0.4	29	3950	11	0.9	53
3100	26	0.4	69	3975	15	0.4	69
3125	37	"	70	4000 -1	27	"	68
3150	13	0.4	38	4000 -2	15	"	64
3175	14	0.4	41	4025	2.6	0.6	85
3200	11	0.4	44	4050	17	0.7	71
3225	7	"	31	4075	16	0.6	52
3250 -1	12	0.5	48	4100	20	0.6	88
3250 -2	11	0.4	40				
3275	17	0.4	66				
3300	20	0.4	76				
3325	14	0.4	64				
3350	37	"	66				
3375	24	"	45				
3400	29	"	50				
3425	27	0.5	48				
3450	20	0.5	47				
3475	22	0.4	44				
3500 -1	28	0.4	61				
3500 -2	18	0.5	67				
3525	12	0.4	48				
3550	13	0.5	52				
3575	20	0.7	85				
3600	18	0.4	70				
3625	14	0.6	99				
3650	18	0.4	76				
3675	17	0.4	44				
3700	13	"	55				
3725	19	"	64				
3750 -1	19	"	54				
3750 -2	14	"	55				
3775	13	"	56				
3800	12	"	44				
3825	20	"	71				