

Scale

Colour Plot & Dips

Drill Hole Record

Ant 52.34 — 87.01
Bress 9-15.

Kitsault
802306



R. F. KIRKHAM
R. V. KIRKHAM

Property *Kit Option*

District *Western Canada*

Hole No. *K87-1*

Commenced *Sept 11 1987*

Location *Lake Shering*

Tests at *123.83 EOH.*

Hor. Comp. *61.4 m*

Completed *Sept 16 1987*

Core Size *NQ*

Corr. Dip *-61'S*

Vert. Comp. *107.2 m*

Co-ordinates *1+55 E 708 N*

True Brg. *215° N*

Logged by *JDB / BFC*

Objective *Test water for mineralization under east end of Shering Lake*

% Recov.

Date *20-09-87*

Claim *Section 3*

T Brg. *215° N*

Collar Dip *-60'S*

Elev. *823 m a.s.l.*

Length *123.83 m*

Hole No. *K87-1* Sheet 1

Footage		Description	Sample No.	Length	Analysis																
From	To																				
		Drill hole summary: Best hole of 5 done in 1987 programme. Hole collared near top of target sequence, intersecting a core length total of 84.01 m of pyritic and ophelitic bearing tuffs, laminar, bedded basalt / and with the Shering Creek sulphide but identified as a 0.96 m thick interval at 51.40 m. Overall thickness of favourable stratigraphy greater than anticipated, though the target sulphide interval was thinner and less sulphide-rich than at the creek exposure. Basal diamatite totaling 14.89 m core length was intersected at 84.01 m, and footwall andite tuff at 98.90 m. Core angle measurements indicate core lengths are within 10% of true thicknesses.																			

Drill Hole Record



Property	District	Hole No. K87-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim

T Brg.

Collar Dip

Elev.

Length

Hole No. K87-1 Sheet 2

Footage		Description	Sample No.	Length	Analysis					
From	To									
	0 - 3.23	overburden, oxidation of rock to 6.9 m.								
2k, l	3.23 - 6.17	Densite crystal tuffoid tuff: - Brecciated grey, massive, 10% white feldspar phenocrysts. Lower contact marked by gouge - breccia zones with wiggly calcite infillings at 3.52-3.67; 3.94-4.15; 5.62-6.2 (sandy, blocky, gtz vesicles and shalveolites at 5.64 m at 35° c.a.								
	6.17 - 6.30	Gouge, rock floor, mica pyrite (25° c.a.)								
5	6.30 - 7.07	Medusa laminae black limestone - abundant stockwork calcite vesicles from 0.5 to 5 mm thick. - one breccia zone and vesicle at 10° c.a., probably a ^{micro} fault. - lower contact marked by a 5 cm. wide calcite vein, a possible slip surface.								
4j	7.07 - 13.24	Lapilli Marker - Medusa to light grey calcite/densite lapilli in a black matrix - matrix supported near bottom, more clast supported at top. Grain size decrease to bottom. - average clast sizes are 10 cm. and 25 cm. - bimodal. Rare clasts to 6 cm. - some fine grained black chips, one large siliceous clast. - clasts show reaction rims, cusped surfaces, fine-grained "ghosts", all suggesting hydrothermal textures. - coarsening in middle is debris flow like. - approximately 1% calcite vesicles - lower contact marked by sharp mudstone parting (75° c.a.)								

Drill Hole Record



Property *Kat Option* District _____ Hole No. *K 87-1*

Commenced _____ Location _____ Tests at _____ Hor. Comp. _____

Completed _____ Core Size _____ Corr. Dip _____ Vert. Comp. _____

Co-ordinates _____ True Brg. _____ Logged by _____

Objective _____ % Recov. _____ Date _____

Claim

T Brg.

Collar Dip

Elev.

Length

Hole No. *K 87-1* Sheet *3*

5t.

Footage		Description	Sample No.	Length	Analysis		
From	To				Zn	Pb	Ag
13.24	24.33	<i>Brown to grey, finely laminated straction limestone</i>	27597	0.30			
		<i>- unit characterized by 2mm laminations of limestone with minor pyrite, shal and sulphate laminae.</i>					
		<i>- carbonates flake out, suggesting high Sr content.</i>					
		<i>- slightly crystalline aspect, laminae wavy, few local structures, ^{with} tops up beds.</i>					
		<i>- minor fluff</i>					
		<i>- approximately 5% calcite veinlets in upper 3m.</i>					
		<i>- subdivisions:</i>					
	13.24 - 13.53 m	<i>- non-calcareous mudstone</i>	27597	0.30	78	9	<0.4
	13.53 - 22.66	<i>- main laminar unit</i>	27598	1.0	42	12	
	22.66 - 23.64	<i>- brecciated zone with disrupted laminae, calcite veining, minor sparry calcite, fracture fabrics at 20° to 25° c.a. and minor fracture filling pyrite.</i>	27599	1.0	15	10	
			27600	1.0	24	14	
	23.64 - 24.33	<i>- main laminar unit</i>	27				
		<i>- bedding attitudes</i>					
		13.92 m @ 67° c.a.					
		21.35 m @ 74° c.a.					
		18.31 m @ 72° c.a.					
		24.00 m @ 78° c.a.					
		19.23 m @ 67° c.a.					

Drill Hole Record



Property	District	Hole No. K87-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co ordinates		True Brg	Logged by
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Objective		% Recov.	Date

Claim
T Brg.
Collar Est Dip
Elev.
Length

Hole No. K87-1 Sheet 4

Footage From To	Description	Sample No.	Length	Analysis		
				Zn	Pb	Ag
10a. 24.33 27.31	<p style="text-align: center;"><i>sulphite cont</i></p> <p>Grey-white, medium to fine laminar ^{basitic} limestone</p> <ul style="list-style-type: none"> - unit marks first appearance of sulphite laminae, light brown sphalerite, magnetite and greenactite in carbonate veinlets - mainly a greyish-white, medium laminar limestone with sulphite laminae. Bedding locally disrupted and ^{fine} ^{bedding} ^{occurs} along sub-parallel surfaces. Heavy pyrite in tuffaceous areas. Tuffaceous caplet particularly evident in top 19cm. - overall expression is of considerable, irregular internal deformation (soft sediment) - sharp lower contact, thin cobble sand - from greenactite - magnetite - carbonate veinlets (mineral - best called "swarts") at 25.25, 25.42, 25.77 (plus minor black sulphide) and 26.02 (minor black sulphide). - bedding at 25.00m @ 74° c.a. and 27.2m @ 72° c.a. <p>Samples: # 24.33 - 25.49</p> <p># 27501 25.49 - 26.39</p> <p># 27502 26.39 - 27.31</p>		1.16			
27.31 28.45	<p>Medium grey limestone</p> <ul style="list-style-type: none"> - medium grey, no apparent bedding, tuffaceous base, slight recrystallized caplet - lower contact marked by first appearance of disrupted fabric - magnetite - greenactite - black sulphide - carbonate veinlet at 28.16m <p>Sample # 27503 27.31 - 28.45</p>		1.14	3830	345	0.8

Drill Hole Record



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Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Footage From To	Description	Sample No.	Length	Analysis		
				Zn	Pb	Ag
28.45 30.12	<p>Disrupted laminar sulphate-tuffaceous structure</p> <ul style="list-style-type: none"> - browns, white and grey. - enigmatic calcareous tuffaceous unit with a disrupted aspect. Interbedded tuff, calcareous tuff, limestone, minor sulphate and mudstone. Contacts indistinct. Probably a very coarse debris flow. - minor realgar on joints, local patchy pyrite, rare sphalerite. <p>Sample # 27504 28.45 - 30.12</p> <p>sharp lower contact</p>	27504	1.67	853	102	1.1
30.12 31.48	<p>Interbedded sulphate-pyrite-limestone-chert tuff Tackstone Marker</p> <ul style="list-style-type: none"> - characterized by white fragments up to 1.5 cm in a light grey background. (2-1) - unit is a heterolithic, tuff to lapilli-sized fragmental with pronounced flattening; minimal matrix and a high carbonate component. Fragments include white tuff, black limestone, grey tuff, minor pyrite. Fine at very top 30 cm. - bentonite-pyrite chert(?) at 30.57 to 30.83 (seen as fragments in rest of interval and as beds in this and holes 2, 3 and in #2 at Discovery mine.) - very thin, minor carbonate - greenochite vermicular - overall impression is of a heterolithic lapillistone with a high flattened pressure contact - sharp lower contact. <p>Sample # 27505 30.12 - 31.48</p>	27505	1.36	470	35	0.6

Claim

T Brg.

Collar Dip

Elev.

Length

Hole No. K87-1 Sheet 5

Drill Hole Record



Property	District	Hole No. K87-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Footage From To	Description	Sample No.	Length	Analysis			Claim	T Brg.	Collar Dip	Elev.	Length	Hole No. K87-1 Sheet 6
				Zn	Pb	Ag						
31.48 35.38	<p><i>Laminated</i> <i>interbedded sulphate - pyrite - limestone - chert - tuff</i></p> <ul style="list-style-type: none"> light to dark grey unit of banded to finely laminated sulphate, pyrite and tuff, with minor limestone and chert. Pyrite laminae up to 1.5 cm, usually 0.3 cm, with minor pink sphalerite. Has distinct white to apple green bands (?) layers last half of interval unit is disrupted with medium laminae, lapilli-sized sulphate/limestone fragments bedding 31.5 at 63° c.c. 33.0 m 70° c.c. last major appearance of caliche at top of this interval in core parallel 4 cm wide veins samples 4 27506 31.48 - 32.48 27506 1.0 2770 187 0.7 27507 32.48 - 33.48 27507 1.0 4420 318 0.9 27508 33.48 - 34.48 27508 1.0 5000 147 0.8 27509 34.48 - 35.38 27509 0.9 13800 500 0.6 											
35.38 39.63	<p><i>Mudstone.</i></p> <ul style="list-style-type: none"> grey to black, very finely laminated mudstone, non calcareous, non basic, highly pyritic Subdivisions: 35.38 - 35.94 - black medium laminae, minor tuff, pyrite lams, minor sphalerite, chert nodules 35.94 - 38.30 - greenish grey, very finely laminated pyrite mudstone with isolated and white lapilli 38.30 - 39.63 - black medium laminae mudstone with 5-10% pyrite as laminations and irregular veins in small offsets. lower contact gradational over 10 cm comprising increasing number of celestite laminations bedding 											

Drill Hole Record



Property	District	Hole No. K87-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Footage From To	Description	Sample No.	Length	Analysis			Claim	T Brg.	Collar Dip	Elev.	Length	Hole No. K87-1	Sheet 7
				Zn	Pb	Ag							
	Samples # 27510 35.38 - 35.94	27510	0.56	3070	168	0.9							
	27511 35.94 - 38.30	27511	2.36	271	29	0.5							
	27512 38.30 - 39.63	27512	1.33	1620	117	0.6							
39.67 - 49.52	<p>Grey banded limestone laminate</p> <p>- wavy laminae, 3-5 mm, locally folded and fragmented, white to light grey, white when dry, (which it never is here)</p> <p>- approximately 60% sulphate, 35% limestone, 5% pyrite, trace sphalerite.</p> <p>- lower contact sharp.</p> <p>- samples # 27513 39.63 - 41.63</p> <p># 27514 41.63 - 43.63</p> <p># 27515 43.63 - 45.63</p> <p># 27516 45.63 - 47.63</p> <p># 27517 47.63 - 49.52</p> <p>- Bedding: 41.5 m - 77° c.u. 45.2 m - 78° c.u. 48.7 m - 77° c.u.</p>												
49.52 - 51.40	<p>Dark grey chert - limestone</p> <p>- coarse to finely laminated dark chert, tuffaceous limestone and pyrite with increasing pink sphalerite down hole. Sulphide content to 15% over 10 cm intervals. Limestone relatively recrystallized with mottled - appearing sparry calcite. Possibly some basalt laminae, but thin and minor.</p> <p>- ← hardest pyrite from 51.17 to 51.40.</p> <p>- lower contact rather sharp with local chert.</p> <p>- bedding at 50 m - 84° c.u.</p> <p>- sample # 27518 49.52 - 50.46</p> <p># 27519 50.46 - 51.40</p>												
		27518	0.94	12,600	677	1.0							
		27519	0.44	13100	611	1.1							

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Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim

T Brg.

Collar Dip

Elev.

Length

Hole No. 87-1 Sheet 8

Footage From To	Description	Sample No.	Length	Analysis		
				Zn	Pb	Ag
106 51.40 52.34	<p><i>Mineralized Horizon - Sulphidic Tuff.</i></p> <p>- semi-massive to disseminated sphalerite and pyrite-bearing rhyolite tuff. Unit contains tuff to lapilli-sized, variably flattened and waxy, dark grey to white rhyolite fragments, pyrite clasts and disseminated slate, clasts and splashes of pinkish ^{tuff with sphalerite} sphalerite. No carbonates, some fine sericite, massive fine-grained pyrite in top 15 cm. Sphalerite is mostly orange in top 20 cm, pale yellow elsewhere. ^{underlain with fine matrix of sericite} Disseminated arsenopyrite needles and lenses to 2.5 mm. Matrix appears to have been pyrite-sphalerite-chlorite/sericite. Unit coarsens to lapillites and dark fragments (subhedral) from 51.68 - 51.82 and 52.04 - 52.28. Lower contact is rather sharp, pyrite-mudstone with bedding at 78°. Almost looks like 1 to 3 mm "chats" of sphalerite grains at base.</p> <p>- Samples 27520 51.40 - 51.87 27521 51.87 - 52.34</p>	27520	0.47	E14300	1280	0.5
		27521	0.47	E14900	929	0.7
52.34 - 62.26	<p><i>Tuff Cycles.</i></p> <p>- nine intervals of black to dark and light green dacitic tuff which are characteristically fine grained at the top, coarsely increasing downward. The upper 4 have finely laminated black pyrite mudstone. Lower ones more massive mudstone. Upper base finely disseminated ^{minor} sphalerite, rhyolite grains similar to mineralized horizon, all becoming rare by the six. Fragments are generally tuff to sub-lapilli size, some appear rhyolite to dacite, but upper 15 cm of #2 and #4 have heavy pyrite laminae. Lower portions of #3, #4, and #5 are remarkably similar to mineralized horizon in appearance, but fine-grained and with low pyrite + sphalerite content.</p>					

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Property	District	Hole No.	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim	T Brg.	Collar Dip	Elev.	Length	Hole No. 57-7 Sheet 9
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Footage From	To	Description	Sample No.	Length	Analysis
		<i>Cyph. intervals are:</i>			
		#1 52.34 - 52.82	#5 56.86 - 57.83		
		#2 52.82 - 53.47	#6 57.83 - 58.97		
		#3 53.47 - 55.40	#7 58.97 - 59.85		
		#4 55.40 - 56.86	#8 59.85 - 61.10		
			#9 61.10 - 62.26		
		<i>Bedding: 53m @ 80° c.u.</i>	<i>58.97 - 85° c.u.</i>		
		<i>56.86m @ 76° c.u.</i>			

Drill Hole Record



Property	<i>Kit Option</i>	District	Hole No. <i>K87-1</i>
Commenced		Location	Tests at
Completed		Core Size <i>NO</i>	Hor. Comp.
Co-ordinates			Vert. Comp.
Objective			Logged by <i>JOB/BFC</i>
			Date

Claim
T Brg.
Collar Dip
Elev.
Length
Hole No. *37* Sheet *10*

Footage		Description	Sample No.	Length	Analysis				
From	To								
<i>*</i> 62.26	65.26	<p><i>Cataclastic breccia</i></p> <p><i>Emigmatic rock. Very dark with clasts, fining to one side of core, leading downwards to vein. Suggestion of banding, which is parallel to stromatolite veinlet and minor gorge lower in the interval, suggesting hole is remaining oblique to a minor fault. Pyrite clasts, vein quartz and calcite, and calcite lapilli, very fine grained sphalerite, galena, and pyrite.</i></p> <p><i>Stromatolite veinlet from 64.62 - 65.13 at 15 c.c. 4 cm wide.</i></p> <p><i>Lapilli tuff with black pyrites(?) and red white rhyolite lapilli from 60.0 - 60.42</i></p>							
65.26	72.14	<p><i>Bi-otite Anhydrite Lapilli Tuff.</i></p> <p><i>Marker? Anhydrite lapilli tuff fining in upper 30 cm to vaguely bedded waterlain stuff. Coarsens in interval 66.6 to 67.6. Particulate black near top and bottom. Has honey-combed bubble(?) fluffs up to 1.5 cm across throughout, which appear secondary (subhedral, randomly orientated) and patchy calcite (fizz, none visible). Similar to upper lapilli marker (7.07 - 13.24), but note presence of mica and reverse darkening</i></p>							

Drill Hole Record



Property *Katopton* District _____ Hole No. *K87-1*

Commenced _____ Location _____ Tests at _____ Hor. Comp. _____

Completed _____ Core Size _____ Corr. Dip _____ Vert. Comp. _____

Co-ordinates _____ True Brg. _____ Logged by _____

Objective _____ % Recov. _____ Date _____

Claim

T Brg.

Collar Dip

Elev.

Length

Hole No. *87-1* Sheet *11*

Footage		Description	Sample No.	Length	Analysis				
From	To								
<i>*</i> 72.14	- 78.39	<i>Grey to black Pyritic limestone</i> <i>Medium laminar and disrupted black pyritic limestone (st. int. con), minor sulphate and pyrite, some siliceous mudstone. Rare sphalerite crystals associated with pyrite seams and thin calcite veins. Brecciating, wavy to disrupted in tuffaceous zones.</i> <i>72.75 to 73.09: Short interval similar to Pockstone Marker, but more matrix, minor sulphate clasts minor than usual pyrite and sphalerite.</i> <i>Lower contact indistinct, based on least laminated interval appearance.</i>							
<i>*</i> 78.39	- 84.01	<i>Black tuffaceous limestone</i> <i>Complex dark black limestone characterized by ghost-y tuff, high matrix calcite component, local recrystallized sparry white calcite and irregular stringers of pyrite, sphalerite and minor galena.</i> <i>Subdivisions:</i> <i>78.39 - 80.28: black calcareous tuff, massive not laminar, minor disseminated sphalerite.</i> <i>80.28 - 81.23: grey sparry limestone cemented by calcite veinlet network, sphalerite and pyrite (3-4%).</i> <i>81.23 - 81.80: massive black tuffaceous limestone, calcite veinlets.</i> <i>81.80 - 82.75: sparry limestone, heavily cross-hatched with calcite veinlets which as barren and cross-cut pyrite, sphalerite lams and beds. Could grade to 2% Zn. Some galena, lot of pyrite and graphite breccias.</i> <i>82.75 - 83.36: coarsely crystalline calcite vein, disseminated patchy sphalerite and pyrite 40% on lower contact, upper portion faintly laminar 65% c.u. Could grade 4-6%.</i>							

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Commenced	Location	Tests at	Hor. Comp.
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Co-ordinates		True Brg.	Logged by
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Footage From To	Description	Sample No.	Length	Analysis					
				Claim	T Brg.	Collar Dip	Elev.	Length	Hole No. K87-1
	<p style="text-align: center;"><i>M. Hill</i></p> <p>83.36 - 84.01 Black tuffaceous limestone with grey limestone fragments in black matrix; spiny white patches.</p> <p>Lower contact indistinct; based upon lowest grey limestone fragment.</p>								
84.01 - 98.90	<p><i>4.9</i></p> <p>Diamictite</p> <p>Massive, virtually non-bedded succession of massive black limestone ^{concretionary} massive ^{with} downward to ^{through} tuffaceous and lapilli components to a coarse breccia or boulder base. Matrix is calcareous (Sr-rich), many fragments are carbonate cemented. Fragments include silytite/dolomite tuff (70%), laminated limestone (10%), pyrite (5%) and sulphate (5%).</p> <p><u>Subdivisions</u></p> <p>84.01 - 85.39: massive fine grained black limestone, lower contact boulder 70% large tuff, small lapilli component</p> <p>85.39 - 89.70: massive smaller to medium size fragments - mostly silytite, limestone and sulphate</p> <p>89.70 - 98.90 - breccia with fragments from 1.5 to 7.0 cm, some laminated materials which may be soil lenses or more likely large fragments (usually 85% c.a.). Many fragments of subrounded silytite (already pyritized, some appearing to have been pyritized).</p>								

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Claim

T Brg.

Collar Dip

Elev.

Length

Hole No. K87-1 Sheet 13

Footage From	To	Description	Sample No.	Length	Analysis
		Also very irregular massive pyrite fragments, elongate limonite and sulphide chips and fragments Lower part contact based upon lowest large fragment and coinciding with a change to non - calcareous rocks			
98.90-12383		Amphibole Footwall. Difficult to pick out breccia contacts 98.90 to 107 - similar to diagenetic ^{dark} and white leucite, but no calcareous matrix. After 107 medium green leucite to breccia, some disseminated white ^{low} calcite. Lowest 7m has large blocks with fine irregular (quartzite) patches and fragments. Calcite streaked breccia: 20% ct from 102.52 to 104.08 - waxy, skeletal 40% ct from 105.36 to 113.06 12% brown sphalerite, minor galena in breccia from 111.01 to 111.73			
123.83		End of hole.			