60000728

Mining District File Summary Sheet

DISTRICT	Rosebud
DIST_NO	4010
COUNTY If different from written on document	Pershing
TITLE If not obvious	Rosebud Drill Hole File - Hole No. 95-252
AUTHOR	C. Muerhoff; S. King
DATE OF DOC(S)	1995
MULTI_DIST Y / N? Additional Dist_Nos:	
QUAD_NAME	Sulphur 7.5'
P_M_C_NAME (mine, claim & company names)	Rosebud Mine; Hecla Mining Co; Rosebud Project; Far East Target
COMMODITY If not obvious	gold; silver
NOTES	drill logs; geology; assay; total depth 922'; handwritten notes; receipts; directional survey NOTE: Scan notes on folder 44 p. 1 oversized sheet;

Keep docs at about 250 pages if no oversized maps attached (for every 1 oversized page (>11x17) with text reduce the amount of pages by ~25)

SS: DD 4/30/08
Initials Date

DB:
Initials Date

SCANNED:
Initials Date

Revised: 1/22/08

95-352

6000 0728

Hornblende

1st Organic Left-L. Empty as of plots

2nd Hypersene Hematite Actinolite

3rd Stauroliteb

4th Prehnite Actinolite (Green Color to Dark + Pyrite + Calcite)

5th Arsenic Actinolite (Chlorinite is Back - Quartz present ⇒ Actinolite to white Clay)

6th Silicification (No Calcite, Green Clay + white Clay + Arsenopyrite, Actinolite to Black Color Clay ± Bee minerals)

In THE WORKS OF MARK TWAIN "Stormy Weather"

6000 0728

Hecla MINING COMPANY

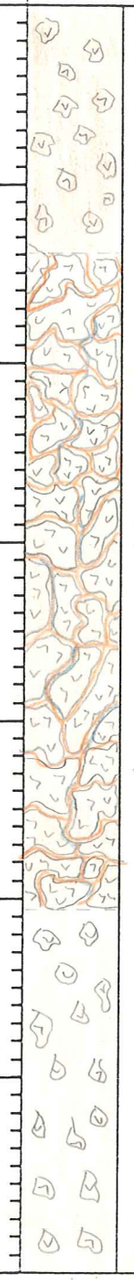
ROSEBUD PROJECT
DIAMOND DRILL LOG

HOLE NUMBER	95-352	LOCATION	FAR EAST TARGET	REMARKS	
PAGE 1 OF 14		NORTHING			
DATE	9/5/95	EASTING			
LOGGED BY	KDA	ELEVATION			
SCALE	1" = 10'	AZIMUTH	218 (S38°E)		
TOTAL DEPTH	922	INCLINATION	-60		

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG (STRUC, ALT)	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ag2
		0-16' - ROCKBIT THROUGH COLLUVIUM.	10										
		16'-47.1' - MODERATELY SOFT, DARK BROWNISH RED MATRIX w/ DK GRAY TO CREAM COLOR CLASTS, MODERATELY POORLY to WELL SORTED, MATRIX-SUPPORTED, HETEROLITHIC VOLCANIC BRECCIA. CLASTS RANGE IN SIZE FROM DOMINANTLY LAPILLI to COARSE ASH w/ RARE BLOCKS. CLAST COMPOSITION RANGES FROM APHANITIC to PORPHYRITIC LATITIC TO ANDESITIC FLOWS OR ASH-FLOW TUFFS. MINOR CLASTS ARE FROM DENSLY WELDED PROBABLY LATITIC ASH-FLOW TUFFS. MATRIX IS COMPOSED OF DARK BROWNISH RED ASH & HEMATITE. PROBABLY CHOCOLATE TUFF?	20 30 40	WK CA	23.1-25.3' - RUBBLE ZONE 16-47.1' FEOx + MnO2 ± CaCO3 FILLED FRACTURES ⇒ 0.19 FR/FT @ 50-60° CA. 0.48 FR/FT @ 30-40° CA 0.16 FR/FT @ 0-20° CA.	16-47.1' - DISSEMINATED & FRACTURE COATED $CaCO_3$. BLACK COATINGS ON FRACTURES LOOKS GRAPHITIC ⇒ SOME IS MnO_2 DISPLAYED AS DENDRITES. ENTIRE INTERVAL CONTAINS HEMATITE. FeO_x.	16< 20 23.1 25.3 30 32 37 42 47.1	20 23.1 25.3 30 32 37 42 47.1 52					
		47.1-140' - MODERATELY HARD to MODERATELY SOFT, LT. BROWN to DARK BROWN, POORLY SORTED, MATRIX TO CLAST SUPPORTED, MONOLITHIC VOLCANIC BRECCIA.	50										

(CONTINUED)

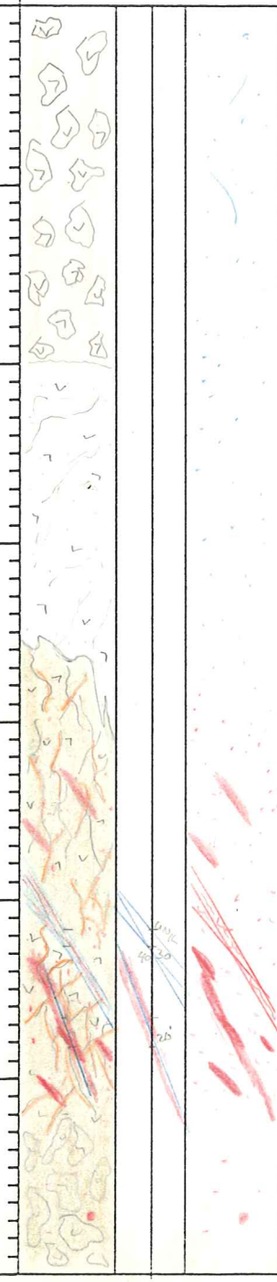
HOLE NUMBER 95-352 PAGE 2 OF 14

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		47.1-140' (CONTINUED) - CLASTS RANGE IN SIZE FROM ≈60% LAPILLI to ≈40% BLOCKS. CLASTS ARE SUB-ANGULAR TO SUB-ROUNDED AND ARE COMPOSED OF LATITIC to ANDESITIC FLOW? OR ASH-FLOW TUFF. CLASTS CONTAIN 1-2% PHENOCRYSTS OF CLAY/CALCITE AFTER PLAGIOCLASE OR SANADINE, AND ≈5% BLACK-SOFT PHENOCRYSTS OF HEMATITE? PROBABLY REPLACING HORNEBLENDE OR/AND BIOTITE. THE MATRIX IS COMPOSED OF DK BROWN to RED HEMATITE, AND OR ASH. PORTIONS OF THIS UNIT APPEARS TO BE A "CRACKLE" BRECCIA W/ HEMATITE STOCKWORKS. SOME OF THE CLASTS SHOW FLOW BANDING OR LAMINATIONS. 64-100.7' - "CRACKLE" BRECCIA W/HEMATITE STOCKWORKS 47.1-64' - MATRIX SUPPORTED VOLCANIC BRECCIA DESCRIBED @ 47.1-140'. 100.7-140' MATRIX SUPPORTED VOLCANIC BRECCIA DESCRIBED at 47.1-140'.	60 70 80 90 100 110 120		47.1-62' - FeOx + CaCO3 FILLED FRACTURES ⇒ .13 FR/FT @ 60° to CA .13 FR/FT @ 30° to CA FLOW LAMINATIONS @ 55° CA. 62-100.7' FeOx + CaCO3 FILLED FRACTURES ⇒ .13 FR/FT @ 50-60° CA .03 FR/FT @ 30-40° CA .05 FR/FT @ 20° CA 100.7-140' - FeOx + CaCO3 FILLED FRACTURES ⇒ .05 FR/FT @ 40° CA.	47.1-62' - DISSEMINATED + STOCKWORK CaCO3. up to 1% of Rock 47.1-140' - THIS UNIT CONTAINS GRAPHITIC/CARBONACEOUS "BLEBS" VERY SIMILAR TO THE PYRITE BLEBS OBSERVED IN 95-353. THESE ARE LAPILLI SIZED. 64-100.7 - CALCITE STOCKWORK W/THE HEMATITE STOCKWORK IN THE CRACKLE BRECCIA. 100.7-140' - DISSEMINATED & MINOR STOCKWORKS of CaCO3.

ANALYTICAL DATA

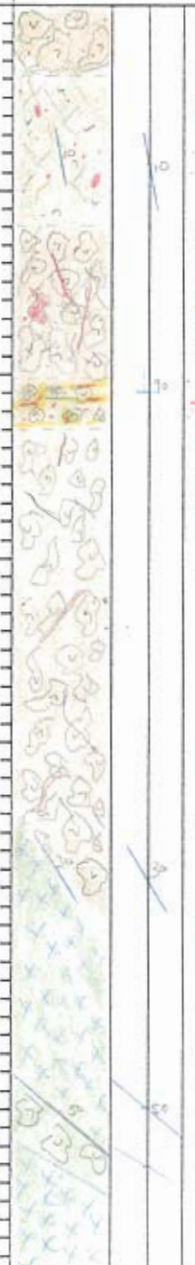
FROM	TO	W	Au	Ag	Au2	Ag2
52	57					
57	62					
62	64					
64	67					
67	72					
72	77					
77	82					
82	87					
87	92					
92	97					
97	102					
102	107					
107	112					
112	117					

HOLE NUMBER 95-352 PAGE 3 OF 14

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		140-156.9' - MODERATE SOFT to MODERATE HARD, SLIGHTLY PORPHYRITIC, DARK BROWNISH GRAY, LATITIC TO ANDESITIC FLOW OR ASH-FLOW TUFF. CONTAINS 1% PHENOCRYSTS of CLAY/CaCO3 AFTER PLAGIOCLASE. GROUND MASS IS APHANITIC AND SHOWS MODERATE FLOW-LAMINATIONS. THIS ROCK also CONTAINS 1-2% GRAPHITIC OR CARBONACEOUS INCLUSIONS OR FRAGMENTS (BLEBS) SIMILAR TO THE PYRITE BLEBS OBSERVED IN 95-353. 156.9-171.8' - PROBABLY SAME UNIT DESCRIBED @ 140-156.9', ONLY PROPYLITIZED AND ARGILLIZED TO A GREENISH-YELLOW, SOFT to MODERATELY SOFT, BRECCIA. HEALED w/ FeOx. 172.6-182' - PROPYLITIZED & ARGILLIZED GREENISH-YELLOW, SOFT TO MODERATELY SOFT, BRECCIA. ORIGINAL ROCK SIMILAR TO THAT DESCRIBED at 140-156.9' ONLY IS MORE PORPHYRITIC w/ UP TO 5% PHENOCRYSTS of GREEN CLAY AFTER ? PLAGIOCLASE? THIS BRECCIA IS MORE MATRIX SUPPORTED UNLIKE THE BX @ 156.9-171.8 WHICH IS MORE LIKE A CRACKLE BRECCIA. THESE BRECCIAS ARE STILL PRIMARY ?? THIS MATRIX SUPPORTED BRECCIA BEGINS @ 182'. 182-194.2 - PROPYLITIZED & ARGILLIZED GREENISH-YELLOW, SOFT to MODERATELY SOFT, MATRIX SUPPORTED MONOLITHIC BRECCIA.	130 140 150 160 170 180 190		140-156.9' - Ø FR/FT 156.9-171.9' - WHITE CLAY + PYRITE FILLED FRACTURES ⇒ .07 FR/FT @ 50-60° to CA. .20 FR/FT @ 30-40° to CA .07 FR/FT @ 0-20° to CA. 172.6-182' - WHITE CLAY + PYRITE FILLED FRACTURES ⇒ .32 FR/FT @ 50-60° to CA .64 FR/FT @ 30-40° to CA .21 FR/FT @ 0-20° to CA. 176.7-178.2' - FRACTURE @ 20° to CA w/ 20-30% PYRITE, ± TRACE Cpy. Some trace Cpy tarnished to PEACOCK colors. 182-192' - WHITE CLAY + PYRITE FILLED FRACTURES ⇒ .10 FR/FT @ 50-60° to CA .20 FR/FT @ 30-40° to CA .10 FR/FT @ 0-20° to CA.	140-156.9' - TRACE DISSEMINATED CaCO3 AND MODERATE CaCO3 REPLACMENT OF PLAGIOCLASE PHENOCRYSTS. 156.9-171.8' - ARGILLIZED & PROPYLITIZED. CONTAINS 1-3% PYRITE (MASSIVE "BLEBS", CUBES, & PYRITOHEDRONS) USUALLY TARNISHED TO A yellowish color. MAY CONTAIN TRACE AMOUNTS OF Cpy. MAY ALSO HAVE ONCE CONTAINED ARSENOPYRITE NOW OXIDIZED TO SCORODITE (ARSENIC Sulfate) GIVING THE ROCK THE GREENISH-YELLOW COLOR. SOME FRACTURE SURFACES CONTAIN THE WHITE CLAY SEEN IN THE UNDERGROUND CROSS-CUT. 171.8-172.6' - FAULT AROUND WHICH THE ABOVE DESCRIBED ALTERATION SEEMS TO BE CENTERED. ZONE CONTAINS LT. GREEN CLAY w/ ABUNDANT PYRITE. SOME of the PYRITE HAS A yellowish TINT EITHER SOME Cpy OR DUE TO TARNISH. 172.6-182' * ARGILLIZED & PROPYLITIZED. CONTAINS 3-7% PYRITE ALONG FRACTURES & FLOW LAMINATIONS? COLOR IS STILL GREENISH YELLOW SIMILAR TO 156.9-171.8'. 182'-194.2 - SAME AS 172.6-182' ONLY ≈ 1% PYRITE.

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
117	122					
122	127					
127	132					
132	137					
137	140					
140	145					
145	150					
150	152					
152	156.9					
156.9	162					
162	167					
167	171.8					
171.8	172.6					
172.6	176.7					
176.7	178.2					
178.2	182					
182	187					
187	192					

HOLE NUMBER 95-357 PAGE 4 OF 14

%REC	RQD	LITHOLOGY	FT.	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		194.2-202' - PROPYLITIZED & ARGILLIZED MODERATELY SOFT TO SOFT yellowish-GREEN "CRACKLE" BRECCIA, MONOLITHIC. THIS ROCK IS LESS ALTERED (MORE GREEN THAN YELLOW) than at 182-194.2. CLASTS OF PARENT ROCK CONTAINS up to 5% PHENOCRYSTS of GREEN CLAY after mafics AND OR PLAGIOCLASE. 202-210.1' - PROPYLITIZED & ARGILLIZED, SOFT, GREENISH-YELLOW, MATRIX SUPPORTED, MONOLITHIC BRECCIA OVERPRINTED w/ AN ALTERATION "CRACKLE BRECCIA" "YELLOW" ALTERATION IS MUCH MORE INTENSE (COULD THIS BE SCORODITE?) THE FRACTURES ARE FILLED WITH GREEN CLAY @ 202' GRADING INTO "BUCKS BUTTER" yellowish CLAY AT 203-210.1. 210.1 - 213.1' - PROPYLITIZED, ARGILLIZED, & SILICIFIED MODERATELY HARD to HARD, MATRIX SUPPORTED, MONOLITHIC, VOLCANIC BRECCIA. GREENISH-Yellow to Yellowish BROWN IN COLOR. VUGGY, OPEN SPACED FRACTURES & SILICA STOCKWORK. 213.1 - 237' - Soft - MODERATELY SOFT, MATRIX to CLAST SUPPORTED, PORPHYRITIC, MONOLITHIC, VOLCANIC BRECCIA. CLASTS RANGE IN COLOR FROM LT GREEN to Buff IN A Buff to LT GREYISH RED MATRIX. LOCALLY HAS a "CRACKLE" BRECCIA TEXTURE. 237'-250' - SOFT - MODERATELY SOFT, GREEN CLAY GOUGE, RUBBLE ZONE. ROCK CLASTS APPEAR TO BE NON-BRECCIATE PORPHYRITIC "LATITE"? 250-253.2' - MODERATELY SOFT, LT GREEN, MONOLITHIC VOLCANIC BRECCIA. CLASTS ARE LARGE IN SIZE, SLIGHTLY PORPHYRITIC, LATITE IN COMPOSITION. MINOR FLOW LAMINATIONS ARE PRESENT IN A FEW CLASTS. 253.2-261.2' - MODERATELY SOFT, GREEN to LT BROWN CLAY GOUGE RUBBLE ZONE.	200 210 220 230 240 250		194.2-202' - GREEN CLAY + PYRITE & Ag-Sulfide FILLED FRACTURES @ .06 FR/FT @ 50° to CA .06 FR/FT @ 30° to CA .12 FR/FT @ 10° to CA. 202-210.1' - GREEN to "BUCKS BUTTER" yellow CLAY + PYRITE & Ag-Sulfide & [illegible] FILLED FRACTURES @ .86 FR/FT @ 50-60° to CA .49 FR/FT @ 30-40° to CA .74 FR/FT @ 0-20° to CA. SULFIDES & "BUCKS BUTTER" CLAY IS PRESENT MOSTLY ON THE 0-20° TO CA SET OF FRACTURES. 210.1 - 213.1' - POSSIBLY 1 FRACTURE 90° to CA (.33 FR/FT) 213.1-237' - GREEN CLAY & BROWN CLAY ± PYRITE FILLED FRACTURES @ .34 FR/FT @ 50-60° to CA 1.01 FR/FT @ 30-40° to CA .04 FR/FT @ 0-20° to CA. 237-250' - RUBBLE ZONE, GREEN CLAY & SULFIDE GOUGE	194.2-202' - PROPYLITICALLY AND ARGILLICALLY ALTERED. CONTAINS 1-3% PYRITE (MAY BE TRACES of Ag-Sulfides) AS DISSEMINATIONS, PYRITE "BLEBS", AND along GREEN CLAY FILLED FRACTURES. $CaCO_3$ ABSENT. 202-210.1' - PROPYLITIZED AND ARGILLIZED. CONTAINS 5-10% PYRITE w/ SOME POSSIBLE VERY FINE-GRAINED Ag-Sulfide & Cpy. THE PYRITE OCCURS MAINLY AS DISSEMINATIONS, PYRITE "BLEBS", AND FRACTURE FILLINGS. THE QUESTIONABLE Ag-Sulfide AND Cpy OCCURS ONLY ALONG FRACTURES. FRACTURES ARE ALSO FILLED w/ GREEN CLAY at 202' GRADING INTO "BUCKS BUTTER" yellowish CLAY AT 203'-210'. IN AREAS WHERE THESE CLAYS ARE IN DIRECT CONTACT w/ SULFIDES - the CLAY IS WHITE. SULFIDES ALONG FRACTURES ARE VERY FINE-GRAINED - USUALLY DARKER IN COLOR. MAGNESITE BLADE ALL ALSO PRESENT - MAY HAVE USUALLY BEEN REPLACED BY PYRITE. CALCITE IS ABSENT. 210.1-213.1' - OPEN SPACE VUGGY FRACTURES? w/ WHITE TO CLEAR QUARTZ AND PA RHACEDONY. PYRITE CRYSTALS MAGNESITE BLADES (SOME REPLACED BY PYRITE) AND POSSIBLE VERY FINE-GRAINED Ag-SULFIDES AND Cpy. ABUNDANT "BUCKS BUTTER" CLAY STOCKWORKS. [illegible] "[illegible]" w/ ASSOCIATED MINERALIZATION MAY BE A FRACTURE @ ≥ 90° to CA. Other OPEN SPACED VUGS ⊥ to CA UNKNOWN. SULFIDES ARE ≈ 5% of ROCK. 213.1-237' - UP TO 1% PYRITE ON FRACTURE SURFACES w/ TRACE AMOUNTS of POSSIBLE Ag-Sulfide. ROCK IS ARGILLIZED & PROPYLITIZED. FRACTURES COMMONLY FILLED w/ GREEN to LT BROWN CLAY. $CaCO_3$ ABSENT. 237-250' - UP TO .2% SULFIDE (PYRITE) VEINING PRESENT IN SOME of the RUBBLE ZONE. 250-253.2 - TRACE AMOUNTS of DISSEMINATED PYRITE. 253.2-261.2' - UP TO 1% PYRITE IN DISSEMINATIONS & "BLEBS".

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
1						
182	194.2					
194.2	196					
196	199					
199	202					
202	206					
206	210.1					
210.1	213.1					
213.1	217					
217	222					
222	227					
227	232					
232	237					
237	242					
242	247					
247	250					
250	253.2					
253.2	258.2					

HOLE NUMBER 95-352 PAGE 5 OF 14

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		261.2-266.3 - SOFT, GRAPHITIC OR CARBONACEOUS GOUGE FILLED RUBBLE/FAULT ZONE. PROBABLY SHEAR ZONE 266.3-276.2' - MODERATELY SOFT TO MODERATELY HARD, BUFF TO LT. PINK COLORED MATRIX SUPPORTED BRECCIA. THIS BRECCIA IS "GHOST" BRECCIA OR AUTOBRECCIA WHERE MATRIX IS COMPOSED OF SAME MATERIAL AS CLASTS. THIS UNIT IS VERY SLIGHTLY PORPHYRITIC WHERE RARE GREEN CLAY HAS REPLACED PROBABLY PLAGIOCLASE. => <0.5%. 276.2-280.8' - SHEAR ZONE - VERY SOFT. ROCK IS SAME AS DESCRIBED @ 266.3-276.2', ONLY TOTALLY REPLACED BY CLAY AND PROPYLITIZED. (GREEN) 280.8-282.8' - BLOCK OF SAME ROCK AS DESCRIBED @ 266.3-276.2', ONLY PROPYLITIZED. (GREEN) 282.8'-283.7' - SHEAR ZONE, GREEN 283.7-286.4' - SAME AS 266.3-276.2' ONLY SOFT AND PROPYLITIZED (GREEN) 286.4-289.2' - SHEAR ZONE (GREEN) 289.2-295.8' - SAME AS 266.3-276.2' ONLY SOFT AND PROPYLITIZED GREEN. 295.8-327' - SHEAR AND RUBBLE ZONE 327-337' - MODERATELY SOFT, LT GREEN W/MINOR BUFF TO LT. BUFF COLORED MATRIX, MATRIX SUPPORTED BRECCIA. MONOLITHIC FINE-GRAINED SLIGHTLY PORPHYRITIC. BRECCIA CLASTS ARE LAPILLI IN SIZE AND ARE PROBABLY LATITIC IN COMPOSITION.	270 280 290 300 310 320 330		261.2-266.3 - GRAPHITIC OR CARBONACEOUS GOUGE FILLED FAULT OR SHEAR ZONE. (HIGH-CLAY). HIGH ANGLE TO CA => 10° & 25°. 266.3-276.2' - CALCITE + PYRITE FILLED FRACTURES => .58 FR/FT @ 50-60° TO CA .40 FR/FT @ 30-40° TO CA 2.22 FR/FT @ 0-20° TO CA 276.2-280.8' - SHEAR ZONE. ROCK (NOW CLY) IS EXTREMELY SHEARED. SHEAR SURFACE @ 276.2' @ 30° TO CA. SHOWS STRIKE SLIP SLICKENSIDES. 280.8-282.8' - GREEN CLAY + PYRITE FILLED FRACTURES =>. .50 FR/FT @ 50° TO CA 1.00 FR/FT @ 0-20° TO CA. 282.8-283.7 - SHEAR ZONE 283.7-286.4' - GREEN CLAY + PYRITE FILLED FRACTURES. =>. 1.48 FR/FT @ 50-60° TO CA .37 FR/FT @ 30-40° TO CA .74 FR/FT @ 0-20° TO CA. 286.4-289.2' - SHEAR ZONE 289.2-295.8' - GREEN CLAY ± CACO3 ± PYRITE FILLED FRACTURES =>. 0.46 FR/FT @ 50-60° TO CA 1.21 FR/FT @ 30-40° TO CA 0.30 FR/FT @ 0-20° TO CA 0.15 FR/FT @ 80° TO CA. 295.8-327' - SHEAR & RUBBLE ZONE. 327-337' - CALCITE + PYRITE + GREEN CLAY FILLED FRACTURES =>. .10 FR/FT @ 50-60° TO CA. .40 FR/FT @ 30-40° TO CA 1.00 FR/FT @ 0-20° TO CA.	261.2-266.3' - BLACK GOUGE ZONE CONSISTS OF CARBONACEOUS GOUGE W/UP TO 5% PYRITE. 266.3-276.2' - CONTAINS UP TO 5% DISSEMINATED PYRITE (SOME OF WHICH IS PROBABLY REPLACING ORIGINAL MAFIC MINERALS) AND PYRITE/CALCITE VEINLETS AND FRACTURE FILLINGS. PYRITE & CACO3 FILLINGS DOMINATE THE 0-20° TO CA SET OF FRACTURES. 276.2-327' - PROPYLITICALLY & ARGILLICALLY ALTERED, GREEN, SHEAR & RUBBLE ZONE W/UP TO 3% PYRITE COATING FRACTURES AND DISSEMINATED IN CLAY & ROCK. 327'-337' - UP TO 10% DISSEMINATED PYRITE W/IN ROCK & ALONG FRACTURES. ABUNDANT CACO3 STOCKWORKS & VEINLETS.

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
261.2	266.3	5.1'	.308	12.22	.366	
266.3	271.3	5'	.029	2.00		
271.3	276.2	4.9	.006	.16		
276.2	280.8	4.6	.075	.03		
280.8	282.8					
282.8	283.7					
283.7	286.4					
286.4	289.2					
289.2	295.8					
295.8	299					
299	302.5					
302.5	307					
307	312					
312	317					
317	322					
322	327					

HOLE NUMBER 95-352 PAGE 6 OF 14

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		337-344.8 - RUBBLE ZONE 344.8-376.6' - MODERATELY SOFT to SOFT, LT GREEN w/ LT PINK MATRIX, MATRIX SUPPORTED, MONOLITHIC, SLIGHTLY PORPHYRITIC VOLCANIC BRECCIA. 376.6' - 389.9' - MODERATELY SOFT, DK BROWNISH RED, HEMATITIC, MATRIX SUPPORTED, MONOLITHIC, SLIGHTLY PORPHYRITIC, VOLCANIC BRECCIA. LATITIC IN COMPOSITION. SAME ROCK as 344.8-376.6 ONLY UN-AFFECTED BY PROPYLITIC ALTERATION 389.9' - 396' - SAME ROCK as at 376.6-389.9' ONLY PROPYLITIZED 396-399 - RUBBLE ZONE 399-402' - SAME ROCK AS 389.9' - 396'.	340 350 360 370 380 390 400	CA UNK UNK CA UNK CA 20 30 40 50	344.8 - 352.5' - GREEN CLAY ± MARCASITE BLACK FILLED FRACTURES ⇒ .77 FR/FT @ 0-20° to CA .13 FR/FT @ 30° to CA 352.5 - 368.2' - RUBBLE ZONE. GREEN CLAY FILLED GOUGE. 368.2 - 372.4' - GREEN CLAY ± CALCITE FILLED FRACTURES ⇒ .48 FR/FT @ 30° to CA .48 FR/FT @ 50° to CA. 372.4-374.7' - RUBBLE ZONE GREEN CLAY + PYRITE FILLED GOUGE. 376.6-389.9' - HEMATITIC CLAY ± CALCITE STOCKWORKS FILLED FRACTURES ⇒ 0.08 FR/FT @ 60° to CA 0.30 FR/FT @ 30-40° to CA 0.30 FR/FT @ 20° to CA. 389.9-396' - GREEN CLAY ± $CaCO_3$ FILLED FRACTURES: 0.16 FR/FT @ 50-60° to CA. 0.82 FR/FT @ 30-40° to CA 0.82 FR/FT @ 0-20° to CA. 396-399' - RUBBLE ZONE 399-402' - GREEN CLAY ± $CaCO_3$ FILLED FRACTURES ⇒ 1.33 FR/FT @ 50-60° to CA .33 FR/FT @ 70° to CA 1.00 FR/FT @ 30-40° to CA 1.33 FR/FT @ 0-20° to CA	337-344.8 - MINOR PYRITE 344.8-376.6' - PROPYLITICALLY ALTERED w/ CHLORITE? ± DISSEMINATE PYRITE ± STOCKWORK & VEINLET $CaCO_3$. PYRITE content up to 1% w/ TRACE AMOUNTS of MARCASITE. 376.6' - GRADATIONAL ALTERATION Contact BETWEEN PROPYLITIC ALT. AND UN-ALTERED HEMATITIC BX 376.6-389.9' - MINOR $CaCO_3$ Stockworks & veinlets. 389.9 - 405.1' - MINOR $CaCO_3$ Stockworks. TRACE to 1% PYRITE

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
327	332					
332	337					
337	342					
342	344.8					
344.8	348					
348	352.6					
352.6	358					
358	363					
363	368.2					
368	372.4					
372	376.6					
376.6	382					
382	385					
385	389.9					
389.9	396					
396	399					

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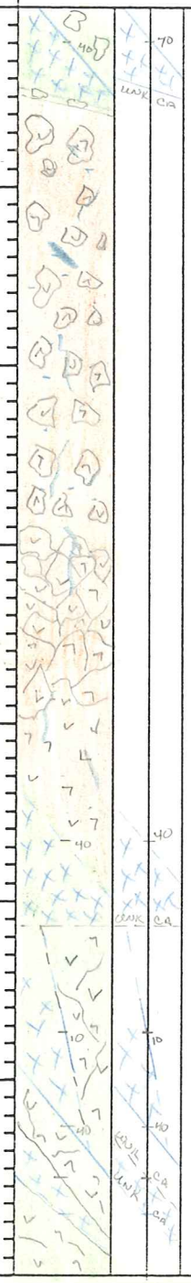
%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		402-404.5' - RUBBLE ZONE 404.5-405.1 - SAME ROCK AS DESCRIBED AT 394-402'. 405.1-446.7 - MODERATELY SOFT, LT to DK BROWNISH RED, MATRIX SUPPORTED, MONOLITHIC BRECCIA FROM 405.1 to 429' WITH CLAST SUPPORTED MONOLITHIC BRECCIA TO NON-BRECCIATED SLIGHTLY PORPHYRITIC LATITIC to ANDESITIC FLOW OR ASH-FLOW TUFF. SAME UNIT AS ABOVE ONLY NOT PROPYLITIZED. LIESEGANG BANDING (FeOx) COMMON. 446.7-497.4' MODERATELY SOFT, LT GREEN, CLAST SUPPORTED MONOLITHIC BRECCIA TO SLIGHTLY PORPHYRITIC, NON BRECCIATED LATITIC TO ANDESITIC FLOW OR ASH-FLOW TUFF. SAME AS 405.1-446.7 ONLY PROPYLITIZED.	410 420 430 440 450 460 470		405.1-446.7' - HEMATITIC CLAY + CaCO3 FRACTURE FILLINGS ⇒ .05 FR/FT @ 50-60° to CA .17 FR/FT @ 30-40° to CA. 447-451.5' - RUBBLE ZONE 451.5-457.5' - GREEN CHLORITIC CLAY + PYRITE ± MARCASITE FILLED FRACTURES ⇒ .33 FR/FT @ 50-60° to CA .17 FR/FT @ 40° to CA. 457.5-462.8' - RUBBLE ZONE 462.8-465.6' - GREEN CHLORITIC CLAY ± PYRITE ± CaCO3 FILLED FRACTURES ⇒ .71 FR/FT @ 50-60° to CA 1.43 FR/FT @ 30-40° to CA .71 FR/FT @ 0-20° to CA 465.6-467.7' - RUBBLE ZONE 467.7-471.4' - GREEN CHLORITIC CLAY ± PYRITE FILLED FRACTURES ⇒ 2.43 FR/FT @ 0-20° to CA .27 FR/FT @ 30° to CA	405.1-446.7' - HEMATICALLY ALTERED w/ CALCITE VEINING & STOCKWORKS. CALCITE VEINLET/VEIN @ 414.3-414.5' 446.7-497.4' - TRACE AMOUNTS of CaSO3. UP TO 1% DISSEMINATED AND veinlet stockwork PYRITE ± MARCASITE

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
399.	402					
402	405.1					
405.1	409.5					
409.5	414.5					
414.5	419.5					
419.5	424.5					
424.5	427					
427	432					
432	437					
437	442					
442	446.7					
446.7	451.5					
451.5	457.5					
457.5	462.8					
462.8	465.1					
465.1	467.7					
467.7	471.4					

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%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		497.4-507' - MODERATELY SOFT, CLAST SUPPORTED, MONOLITHIC, CRACKLE BRECCIA. COMPOSITION OF ROCK CONSISTS OF SLIGHTLY PORPHYRITIC LATITE TO ANDESITE FLOW OR ASH-FLOW TUFF. SAME ROCK AS DESCRIBED PREVIOUSLY BUT UNPROPYLIZED. DK BROWNISH RED IN COLOR DUE TO PRIMARY HEMATITE. 507-540' - SAME UNIT AS AT 497.4-507' ONLY SLIGHTLY MORE PORPHYRITIC (LARGER PHENOS OF GREEN CHLORITIC CLAY after PLAGIOCLASE) AND PROPYLITIZED. MATRIX IS A LT PINKISH COLOR DUE TO NOT COMPLETE PROPYLITIZATION OF THE ROCK. OVERALL COLOR of ROCK IS LT. GREEN.	480 490 500 510 520 530 540	30 30 30 30 45 55 55	471.4-474' - RUBBLE ZONE. 474-477.4' - GREEN CHLORITIC CLAY ± PYRITE FILLED FRACTURES ⇒ 1.18 FR/FT @ 30-40° to CA. .59 FR/FT @ 0-20° to CA. 477.4-480.5' - RUBBLE ZONE. 480.5-497.4' - GREEN CHLORITIC CLAY + PYRITE ± CACO3 FILLED FRACTURES ⇒ .18 FR/FT @ 50-60° to CA. .65 FR/FT @ 30-40° to CA 497.4-507' - HEMATITIC CLAY ± CACO3 FILLED FRACTURES ⇒ .10 FR/FT @ 50-60° to CA. 1.15 FR/FT @ 30-40° to CA .21 FR/FT @ 0-20° to CA 507-533.5' - GREEN CHLORITIC CLAY ± HEMATITIC CLAY ± PYRITE ± CACO3 FILLED FRACTURES ⇒ .45 FR/FT @ 50-60° to CA .94 FR/FT @ 30-40° to CA. .53 FR/FT @ 0-20° to CA 533.5-536.4' - RUBBLE ZONE 536.4-540' - Calcite + GREEN CHLORITIC CLAY FILLED FRACTURES ⇒ .56 FR/FT @ 50-60° to CA. 1.67 FR/FT @ 30-40° to CA .33 FR/FT @ 0-20° to CA.	497.4' - GRADATIONAL ALTERATION Contact FROM PROPYLITIZED to HEMATITICALLY ALTERED. 497.4-507' - CALCITE VEINLETS & STOCKWORKS COMMON WITH INCREASED DENSITY NEAR 507' ALTERATION contact 507' - GRADATIONAL ALTERATION CONTACT FROM HEMATITICALLY ALTERED TO PROPYLITIZED. 507-540' - UP TO 4% DISSEMINATED AND PYRITE "BLEB" PYRITE. UNIT ALSO CONTAINS GRAPHITIC OR CARBONACEOUS "BLEBS" SIMILAR TO THE PYRITE BLEBS ALSO CONTAINS COMMON CaCO3 STOCKWORK & VEINLETS.

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
471.4	474					
474	477.4					
477.4	480.5					
480.5	484					
484	487					
487	492					
492	497.4					
497.4	502					
502	507					
507	512					
512	517					
517	522					
522	527					
527	532					
532	533.5					
533.5	536.4					
536.4	540					

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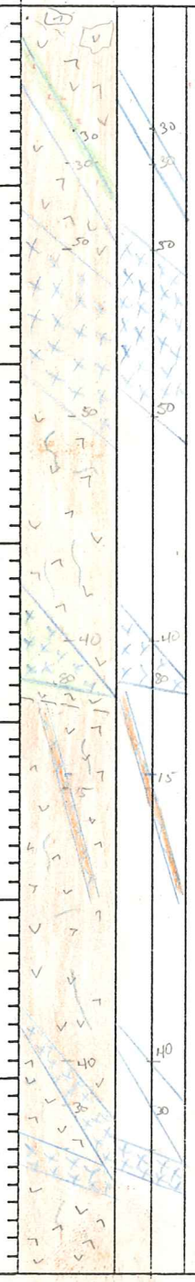
%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		540-664.5' - MODERATELY SOFT to MODERATELY HARD, LEISEGANG BANDED, SLIGHTLY PORPHYRITIC, NON-BRECCIATED TO CLAST SUPPORTED BRECCIATION, LOCALLY PROPYLITIZED (LT GREEN), DK to LT. BROWNISH RED, LATITIC to ANDESITIC FLOW OR ASH-FLOW TUFF. ROCK CONTAINS 2-4% PHENOCRYSTS OF CALCITE AND OR CLAY AFTER PLAGIOCLASE AND 3-5% PHENOCRYSTS OF HEMATITE (BLACK) AFTER MAFICS (HORNEBLEND OR BIOTITE).	550 560 570 580 590 600 610		540-544 - BROWN CLAY FILLED FRACTURES ⇒ .5 FR/FT @ 50° to CA 544-553.7' - GREEN CHLORITIC CLAY ± BROWN CLAY ± $CaCO_3$ FILLED FRACTURES ⇒ .10 FR/FT @ 70° to CA .62 FR/FT @ 50-60° CA .82 FR/FT @ 30-40° CA .52 FR/FT @ 0-20° CA 548.9' - .2' WIDE SHEAR FILLED w/ DK BROWN CLAY/ROCK flour @ 30° to CA. 547' - .3' WIDE SHEAR w/ GREEN CLAY 553.7-563' - RUBBLE ZONE 563-575.6' - GREEN CHLORITIC CLAY ± BROWN CLAY ± CALCITE FILLED FRACTURES ⇒ 0.64 FR/FT @ 70-80° to CA 0.95 FR/FT @ 50-60° to CA 1.35 FR/FT @ 30-40° to CA. 0.32 FR/FT @ 0-20° to CA. 575.6-578' - RUBBLE ZONE 578-583.1 - BROWN CLAY FILLED FRACTURES ⇒ 1.37 FR/FT @ 50-60° CA 0.98 FR/FT @ 30-40° CA 0.59 FR/FT @ 0-20° CA 583.1-583.9' - BROWN CLAY Gouge RUBBLE ZONE. 583.9-599' - BROWN CLAY ± $CaCO_3$ FILLED FRACTURES ⇒ .60 FR/FT @ 70-90° to CA 1.39 FR/FT @ 50-60° to CA 1.46 FR/FT @ 30-40° to CA. .20 FR/FT @ 0-20° to CA. 599-601.7' - RUBBLE ZONEE 601.7-604' - BROWN CLAY ± $CaCO_3$ FRACTURES 1.30 FR/FT @ 70-90° to CA 1.30 FR/FT @ 50-60° to CA .87 FR/FT @ 30-40° to CA. 604-605.8' - RUBBLE ZONE 605.8-611' - BROWN CLAY ± $CaCO_3$ FRACTS. 1.35 FR/FT @ 70-90° to CA. .58 FR/FT @ 50-60° to CA .39 FR/FT @ 30-40° to CA	540-544 - calcite Stockworks 544-547' - $CaCO_3$ stockworks. 547' - 1' WIDE ZONE of PROPYLITIZATION ASSOCIATED w/ STRUCTURE LOCATED THERE UP TO 1% PYRITE. 547-579' - Common $CaCO_3$ Stockworks & veinlets. 575.6-579' - PROPYLITIC ALTERATION ASSOCIATED W/ RUBBLE ZONE. 579-611' - HEMATITE ALTERATION w/ $CaCO_3$ stockworks & veining.

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
540	544					
544	549					
549	553.7					
553.7	558					
558	563					
563	568					
568	572					
572	575.6					
575.6	578					
578	579					
579	584					
584	589					
589	594					
594	599					
599	601.7					
601.7	605.8					
605.8	611					

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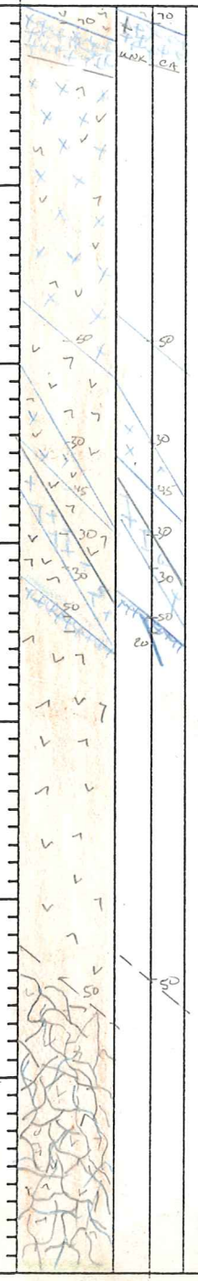
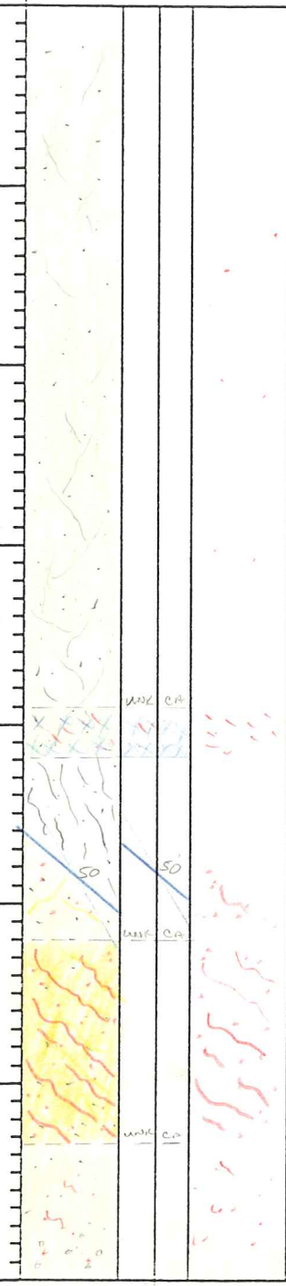
%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		664.5 - 680.3' - MODERATELY SOFT, SLIGHTLY PORPHYRITIC, CLAST SUPPORTED, HEMATITIC, TECTONIC BRECCIA W/IN HANGING WALL OF THE SOUTHRIDGE FAULT. SAME LATITIC TO ANDESITIC FLOW OR ASH-FLOW TUFF AS DESCRIBED AT 550-664.5'. MATRIX IS HEMATITIC CLAYS ± $CaCO_3$.	620 630 640 650 660 670 680		611-613.5' - BROWN CLAY GOUGE & RUBBLE ZONE 613.5'-628.8' - BROKEN ZONE. 628.8'-634.5' - BROWN HEMATITIC CLAY ± $CaCO_3$ FILLED FRACTURES .35 FR/FT @ 70-90° to CA .53 FR/FT @ 50-60° to CA .88 FR/FT @ 30-40° to CA .53 FR/FT @ 0-20° to CA. 634.5-636.7' - BROKEN ZONE 636.7-639.4' - HEMATITE ± $CaCO_3$ FILLED FRACTURES ⇒ .37 FR/FT @ 70° to CA 1.11 FR/FT @ 50-60° to CA 1.89 FR/FT @ 30-40° to CA. 639.4-641.6' - RUBBLE ZONE. 641.6 - 644.2' - BROWN HEMATITIC CLAY ± GREEN CHLORITIC CLAY ± $CaCO_3$ FRACTURES ⇒ 2.31 FR/FT @ 50-60° CA 1.15 FR/FT @ 30-40° to CA 644.2-645' - BROWN CLAY GOUGE & $CaCO_3$ RUBBLE ZONE. 645-664.5' - BROWN HEMATITIC CLAY ± $CaCO_3$ FILLED FRACTURES .41 FR/FT @ 70° to CA. .97 FR/FT @ 50-60° to CA .97 FR/FT @ 30-40° to CA .46 FR/FT @ 0-20° to CA.	613-628.8' - COMMON $CaCO_3$ STOCKWORKS & VEINING. 628.8 - 664.5' - COMMON $CaCO_3$ STOCKWORKS AND VEINLETS TRACE AMOUNTS OF PYRITE. UP TO 5% DISSEMINATED (BLACK) HEMATITE. 664.5-680.3' - COMMON $CaCO_3$ STOCKWORK. W/TRACE PYRITE.

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
611	613.5					
613.5	618					
618	623					
623	628.8					
628.8	634.5					
634.5	636.7					
636.7	639.4					
639.4	641.6					
641.6	644.2					
644.2	645					
645	650					
650	655					
655	660					
660	664.5					
664.5	670					
670	675					
675	680.3					

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		680.3 - 698.1 - MODERATELY SOFT to Soft, GREEN, TECTONIC BRECCIA ⇒ HANGING WALL of SOUTH RIDGE FAULT. SAME ROCK AS DESCRIBED @ 664.5-680.3' ONLY PROPYLITIZED. THE CONTACT BETWEEN THESE TWO "UNITS" IS A GRADATIONAL ALTERATION CONTACT. 698.1-698.3' - SOUTH RIDGE FAULT ZONE. SOUTH RIDGE FAULT @ 698.1'. 698.3-700' - MODERATELY SOFT to HARD, HETEROLITHIC CONGLOMERATE? CONTAINS CLASTS OF ALUCLANG SINE PHYLITES. (BLACK). ROCK IS GREEN AND PROPYLITIZED 700-748.2' - MODERATELY HARD TO HARD, MODERATELY to INTENSELY SILICIFIED, CREAM to LT GREEN TO LT GREY, FINE-GRAINED, SLIGHTLY PORPHYRITIC, RHYOLITIC FLOW to RHYOLITIC VOLCANIC BRECCIA. ROCK CONTAINS up to 1% ANHEDRAL QUARTZ PHENOCRYSTS. In the UPPER PART OF THIS INTERVAL, A "GHOST" BRECCIA IS OBSERVABLE WHICH MAY HAVE BEEN HETEROLITHIC? ⇒ REALLY TOO ALTERED TO TELL FOR SURE.	690 700 710 720 730 740 750	70° SRF CA WK	698.1-698.5' - SOUTH RIDGE FAULT ZONE. WELL DEVELOPED SLICKENSIDES @ 698.1' ⇒ SOUTH RIDGE FAULT. 1/2" GRAY CLAY at that point. SRF @ 70° to C.A. WHICH = 40° true DIP. 700-745.7' - SILICA AND PYRITE ± MARCASITE ± Cpy ± Sulfo? ± CaCO3 ± GRAPHITE? FILLED & HEALED FRACTURES. .28 FR/FT @ 70-80° to CA. 1.12 FR/FT @ 50-60° to CA. 1.36 FR/FT @ 30-40° to CA. .24 FR/FT @ 0-20° to CA. 745.7-747.5' - PYRITE ± GRAPHITE? sulfos? FILLED FRACTURES ⇒ 2.78 FR/FT @ 50° to CA 7.22 FR/FT @ 40° to CA. 747.5' - 748.2' - PYRITE + SILICA ± GRAPHITE? Sulfo? ± GREEN CHLORITIC CLAY FILLED FRACTURES: 1.43 FR/FT @ 50° to CA 2.86 FR/FT @ 30-40° to CA.	680.3-698.1' - PROPYLITIZED WITH COMMON STOCKWORKS & VEINLETS of CaCO3, AND up TO 5% PYRITE AS DISSEMINATIONS AND BRECCIA FILL. 698.1-698.3' - BLACK to DARK GREY, SOFT, SULFIDE-RICH ≈ 50% FINE-GRAINED SULFIDES. 698.3-700' - MINOR SILICA AND PYRITE VEINLETS. 700'-745.7' - INTENSE SILICA (SOME CHALCEDONY) STOCKWORK, VEINLETS, AND OPEN SPACE VUGGY FILLED FRACTURES. SULFIDE STOCKWORKS ALSO OCCUR CONTAINING PYRITE TRACE AMOUNTS of MARCASITE, TRACE AMOUNTS of CHALCOPYRITE, AND A TRACE AMOUNT OF QUESTIONABLE SILVER SULFOSALT OF UNKNOWN COMPOSITION. AT 728' this UNKNOWN BLACK-STEELY GREY MINERAL APPEARS TO "COAT" SOME OF THE PYRITE. AT 711' THIS FINE-GRAINED UNKNOWN MINERAL OCCURS AS AENARITES. COULD THIS FINE-GRAINED BLACK to STEELY GREY UNKNOWN BE GRAPHITE? SOME ARE SOFT, SOME OF THIS MINERAL IS HARD (CAN'T SCRATCH WITH PICK. MINOR AMOUNTS OF CHLORITIC CLAY IS PRESENT ALONG SOME OF THESE FRACTURES & SULFIDE & SILICA STOCKWORKS. ALSO PRESENT ARE TRACE AMOUNTS OF CaCO3. 745.7-747.5' - INTENSE FRACTURING @ 40-50° to CA. FRACTURES FILLED W/ BLACK GRAPHITE? OR SULFOSALT? PYRITE COMMON IN FRACTURES. NOT TO PATCHY SILICA FLOODED 747.5-748.2' - SILICA FLOODING. CONTACT @ 748.2' IS GRADATIONAL WITH NON-SILICIFIED UNIT BELOW.

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
680.3	685.5					
685.5	690					
690	695					
695	698.1					
698.1	700					
700	705					
705	710					
710	715					
715	720					
720	725					
725	730					
730	734.5					
734.5	740					
740	742					
742	745.7					
745.7	747.5	1.8'	.036	6.60		
747.5	748.2					

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		748.2 – 798.3' – SOFT, LT. GREEN, PROPYLITIZED, FINE-GRAINED, SLIGHTLY PROPYLITIC, RHYOLITIC? FLOW OR ASH-FLOW TUFF. THIS UNIT IS VARIABLY "CRACKLE" BRECCIATED W/INFILLINGS OF LT. GREEN CHLORITIC CLAY, BLACK GRAPHITIC MATERIAL, & SULFIDES.	760 770 780 790 800 810 820		748.2-789' – PYRITE ± MARCASITE ± BARITE ± BLACK GRAPHITIC FILLED FRACTURES ⇒ .05 FR/FT @ 70-90° to CA. .98 FR/FT @ 50-60° to CA .66 FR/FT @ 30-40° to CA. .05 FR/FT @ 0-20° to CA. 789-792' – GRAPHITIC RUBBLE ZONE 792-798.3' – GRAPHITIC ± PYRITE ± MARCASITE FILLED FRACTURES ⇒ .16 FR/FT @ 70-90° to CA .95 FR/FT @ 50-60° to CA. .32 FR/FT @ 30-40° to CA .16 FR/FT @ 0-20° to CA. 798.3' – BARITE HEALED FAULT @ 50° to CA. 798.3-802' – GREEN CHLORITIC CLAY ± PYRITE FILLED FRACTURES ⇒ .81 FR/FT @ 50° to CA. 802-813.5' – PYRITE + FRIEBERGITE ± CPY ± GREEN CHLORITIC CLAY ± BARITE FILLED FRACTURES ⇒ .87 FR/FT @ 50-60° to CA. .87 FR/FT @ 30-40° to CA 1.39 FR/FT @ 0-20° to CA	748.2-792' – CRACKLE STOCKWORK FILLED W/ LT GREEN CHLORITIC CLAY. Contains up to 1% PYRITE ALONG FRACTURES & TRACE AMOUNTS of BLACK "GRAPHITIC" ? material? PROPYLITIZED. FRACTURES ALSO CONTAIN MARCASITE AND BARITE STOCKWORKS & veinlets. 789-792' – GRAPHITIC ± PYRITE ± MARCASITE COATED RUBBLE ZONE. 792-798.3' – GRAPHITIC FILLED FRACTURES + BRECCIA, Contains up to 4% PYRITE + MARCASITE. BARITE stockworks. 798.3-802' – MODERATELY SOFT, ARGILLIZED & PROPYLITIZED, LT GREY IN COLOR, W/ MINOR SILICIFICATION AND SILICA STOCKWORKS. BARITE STOCKWORKS PRESENT. Contains up to 1% PYRITE ± MARCASITE W/ TRACE AMOUNTS of PROBABLE Ag-RICH TETRAHEDRITE (FRIEBERGITE) 802-813.5' – INTENSELY SILICIFIED & SILICA STOCKWORKED (HARD) W/OPEN SPACE SILICA FILLINGS. FRACTURE & OPEN SPACES FILLED W/ 1-2% FRIEBERGITE ?, 1-2% PYRITE & MARCASITE, TRACE AMOUNTS to 1% Cpy. Rock Contains up to 3% DISSEMINATED PYRITE. 813.5-831.5' – MODERATELY SILICIFIED, W/ MINOR OPEN-SPACE FILLINGS. PYRITE ± MARCASITE W/ TRACE AMOUNTS OF FRIEBERGITE & CPY.

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
748.2	752					
752	757					
757	762					
762	767					
767	772					
772	777					
777	782					
782	787					
787	789					
789	792					
792	795	3'	.099	.45		
795	798.3	3.3'	.132	.65		
798.3	802					
802	807					
807	812					
812	813.5					
813.5	818					

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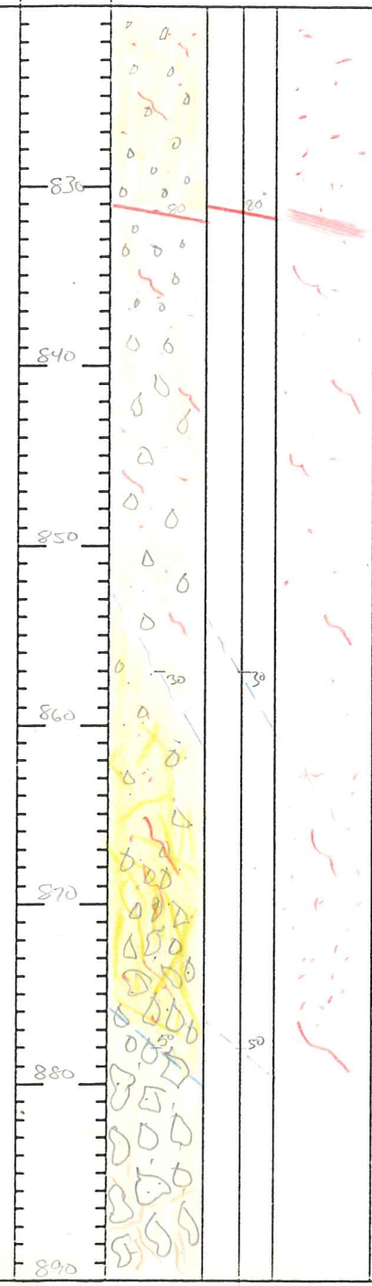
%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
					813.5-831.5' - Silica ± Pyrite, ± Marcasite, ± Barite ± Ag-Sulf ± Cpy filled fractures: .06 fr/ft @ 80° to CA. .39 fr/ft @ 50-60° to CA. .56 fr/ft @ 30-40° to CA .33 fr/ft @ 0-20° to CA. 831.5-857' - Pyrite, marcasite, ± Barite, ± Cpy ± Ag Sulf filled fractures: .08 fr/ft @ 70° to CA. .31 fr/ft @ 50-60° to CA. .47 fr/ft @ 30-40° to CA .16 fr/ft @ 0-20° to CA. 857-878' - Silica ± Barite ± Pyrite ± Marcasite filled fractures ⇒ .33 fr/ft @ 50-60° to CA. .48 fr/ft @ 30-40° to CA. .48 fr/ft @ 0-20° to CA 878-891.4' - FeOx filled fractures ⇒ .45 fr/ft @ 40° to CA.	831.3-831.5 - Banded Qtz + Pyrite (sulfide) vein @ 80° to CA. 831.5-857' - Moderately soft to moderately hard, argillized w/minor SiO_2. up to 4% disseminated pyrite, common fracture filled barite (crystalline), trace amounts of Cpy & Ag-Sulf. Marcasite is a common fracture fill. 857-878' - Strong silicification and silica stockwork/brecciation. Hard. Disseminate pyrite up to 5%. Common white "bickite" clay w/marcasite blade filled open space fractures. Barite common. Trace Cpy. Possible trace amounts of Ag-Sulf. 878-891.4' - Moderately hard, minor SiO_2, minor minor hematite.

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
818	821.5					
821.5	826.5					
826.5	831.3					
831.3	831.5					
831.5	837					
837	842					
842	847					
847	852					
852	857					
857	862					
862	867					
867	872	5'	.026	.05		
872	877	5'	.128	.11		
877	878	1'	.203	.38		
878	882					
882	887					
887	891.4					

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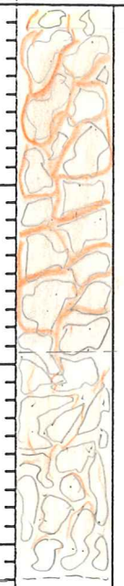
%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
			900 910 920 TD@922		891.4-909.2'- FeOX FILLED FRACTURES ⇒ .17 FR/FT @ 50° to CA. .44 FR/FT @ 30-40° to CA .07 FR/FT @ 0-20° to CA. 909.2-922'- FeOX FILLED FRACTURES: .23 FR/FT @ 50-60° to CA .08 FR/FT @ 30-40° to CA .08 FR/FT @ 0-20° to CA.	891.4-909.2- BROWNISH RED LEPSAGANG BANDED HEMATITICALLY ALTERED 909.2-922'- MINOR ARGILLIZATION. W/ MINOR HEMATITIC MATRIX. "JUST ARGILLIZED 891.4-909.2'."

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
891.4	897					
897	902					
902	907					
907	909.2					
909.2	912					
912	917					
917	922					

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 95-352 DATE: 9/5/95 LOGGED BY: KDA PAGE 1 OF 12

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
16	20	100	108	80										
20	24.5	69	100	58										
24.5	32	97	100	73										
32	41.5	100	104	91										
41.5	42	20	20	Ø										
42	52	99	99	89										
52	62	99	99	94							52	669	300	2.23
62	68	128	128	128										
68	72	58	58	58										
72	78	112	112	112										
78	80	95	95	70										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 95-352 DATE: 9/5/95 LOGGED BY: CDA

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
80	82	75	75	65										
82	92	100	100	100										
92	102	99	99	99										
102	112	102	102	102							102	356.5	170	2.10
112	122	101	101	101										
122	132	98	98	94										
132	142	94	94	89										
142	150	101	105	98										
150	152	100	100	100										
152	162	100	101	95							152	650	290	2.24
162	172	99	101	89							162	480	220	2.18

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 95-352 DATE: 9/5/95 LOGGED BY: KAA PAGE 3 OF 12

DRILL RUN FROM	DRILL RUN TO	SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH DOWNHOLE DEPTH	ROCK STRENGTH POINT LOAD INDEX (psi)	FRACTURE DATA FRACTURE DENSITY/FT.	FRACTURE DATA AVG. ANGLE TO C.A.	FRACTURE DATA ROUGHNESS	FRACTURE DATA INFILL	DENSITY DATA DOWNHOLE DEPTH	DENSITY DATA SAMPLE WEIGHT (g)	DENSITY DATA DISPLACEMENT (cc)	DENSITY DATA DENSITY (g/cc)
172	182	101	102	97										
182	192	100	100	94							192	494	220	2.25
192	196	115	115	113										
196	202	92	92	92										
202	206	93	93	65										
206	212	105	105	105										
212	215	100	100	100							212	906	370	2.45
215	222	99	99	99										
222	224	100	100	100										
224	232	101	101	91										
232	242	50	100	47										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 95-352 DATE: 9/7/95 LOGGED BY: KBA PAGE 4 OF 12

DRILL RUN FROM	DRILL RUN TO	SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH DOWNHOLE DEPTH	ROCK STRENGTH POINT LOAD INDEX (psi)	FRACTURE DATA FRACTURE DENSITY/FT.	FRACTURE DATA AVG. ANGLE TO C.A.	FRACTURE DATA ROUGHNESS	FRACTURE DATA INFILL	DENSITY DATA DOWNHOLE DEPTH	DENSITY DATA SAMPLE WEIGHT (g)	DENSITY DATA DISPLACEMENT (cc)	DENSITY DATA DENSITY (g/cc)
242	250	26	75	15										
250	260	57	98	33							251	486	220	2.21
260	268	20	61	10										
268	270	175	175	60										
270	280.3	75	100	59							272	468	190	2.46
280.3	290.6	67	100	45										
290.6	299	62	83	43							291	637	280	2.28
299	302.5	Ø	36	Ø										
302.5	312	Ø	63	Ø										
312	317	24	100	14										
317	322	24	92	20										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 95-352 DATE: 9/7/95 LOGGED BY: KLA PAGE 5 OF 12

DRILL RUN FROM	DRILL RUN TO	SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH DOWNHOLE DEPTH	ROCK STRENGTH POINT LOAD INDEX (psi)	FRACTURE DATA FRACTURE DENSITY/FT.	FRACTURE DATA AVG. ANGLE TO C.A.	FRACTURE DATA ROUGHNESS	FRACTURE DATA INFILL	DENSITY DATA DOWNHOLE DEPTH	DENSITY DATA SAMPLE WEIGHT (g)	DENSITY DATA DISPLACEMENT (cc)	DENSITY DATA DENSITY (g/cc)
322	328	35	95	28										
328	337	83	101	56										
337	342	46	88	16										
342	346	28	100	25							345	395	170	2.32
346	353.5	73	105	44										
353.5	359	58	89	36										
359	362	77	120	57										
362	368	Ø	65	Ø										
368	375	67	93	51										
375	382	107	107	94							382	463	200	2.32
382	392	89	89	70										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 95-352 DATE: 9/7/95 LOGGED BY: KAA PAGE 6 OF 12

DRILL RUN FROM	DRILL RUN TO	SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH DOWNHOLE DEPTH	ROCK STRENGTH POINT LOAD INDEX (psi)	FRACTURE DATA FRACTURE DENSITY/FT.	FRACTURE DATA AVG. ANGLE TO C.A.	FRACTURE DATA ROUGHNESS	FRACTURE DATA INFILL	DENSITY DATA DOWNHOLE DEPTH	DENSITY DATA SAMPLE WEIGHT (g)	DENSITY DATA DISPLACEMENT (cc)	DENSITY DATA DENSITY (g/cc)
392	398.5	55	95	39							392	516	225	2.29
398.5	404.5	53	97	37										
404.5	414.5	95	98	84										
414.5	424.5	98	98	86										
424.5	432	96	96	96										
432	442	96	96	94							442	404.5	170	2.38
442	451	83	93	67										
451	451.5	Ø	100	Ø										
451.5	461	62	98	55										
461	468	47	100	37							465	295	130	2.27
468	474	42	107	33										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 95-352 DATE: 9/7/95 LOGGED BY: KAA PAGE 7 OF 12

DRILL RUN FROM	DRILL RUN TO	SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH DOWNHOLE DEPTH	ROCK STRENGTH POINT LOAD INDEX (psi)	FRACTURE DATA FRACTURE DENSITY/FT.	FRACTURE DATA AVG. ANGLE TO C.A.	FRACTURE DATA ROUGHNESS	FRACTURE DATA INFILL	DENSITY DATA DOWNHOLE DEPTH	DENSITY DATA SAMPLE WEIGHT (g)	DENSITY DATA DISPLACEMENT (cc)	DENSITY DATA DENSITY (g/cc)
474	484	73	96	49										
484	492	100	100	98										
492	502	99	100	90										
502	512	100	100	92							504	358	160	2.24
512	522	90	97	66										
522	531	100	100	80										
531	532	100	100	60										
532	537	68	100	42							532	695.5	300	3.32
537	544	93	100	71							544	398.5	170	2.34
544	551.5	91	95	63										
551.5	556	40	122	27										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 95-352 DATE: 9/12/95 LOGGED BY: KDA

DRILL RUN FROM	DRILL RUN TO	SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH DOWNHOLE DEPTH	ROCK STRENGTH POINT LOAD INDEX (psi)	FRACTURE DATA FRACTURE DENSITY/FT.	FRACTURE DATA AVG. ANGLE TO C.A.	FRACTURE DATA ROUGHNESS	FRACTURE DATA INFILL	DENSITY DATA DOWNHOLE DEPTH	DENSITY DATA SAMPLE WEIGHT (g)	DENSITY DATA DISPLACEMENT (cc)	DENSITY DATA DENSITY (g/cc)
556	558	60	80	25										
558	563	24	72	08										
563	572	91	92	79										
572	579	56	72	51										
579	584	56	80	38										
584	587	47	100	23										
587	594	80	110	51										
594	601	79	86	60							599	575	260	2.21
601	605	56	100	45										
605	613.5	62	91	52										
613.5	620	37	85	20										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 95-352 DATE: 9/12/95 LOGGED BY: KDA PAGE 9 OF 12

DRILL RUN FROM	DRILL RUN TO	SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH DOWNHOLE DEPTH	ROCK STRENGTH POINT LOAD INDEX (psi)	FRACTURE DATA FRACTURE DENSITY/FT.	FRACTURE DATA AVG. ANGLE TO C.A.	FRACTURE DATA ROUGHNESS	FRACTURE DATA INFILL	DENSITY DATA DOWNHOLE DEPTH	DENSITY DATA SAMPLE WEIGHT (g)	DENSITY DATA DISPLACEMENT (cc)	DENSITY DATA DENSITY (g/cc)
620	622.5	76	88	32										
622.5	623	Ø	100	Ø										
623	629	43	97	23										
629	637	88	94	59										
637	645	63	100	31										
645	653	91	100	56							645	588	260	2.26
653	663	100	100	67										
663	669	70	83	55										
669	676	89	96	57							676	403	180	2.24
676	685.5	84	95	44										
685.5	695	104	104	100										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 95-352 DATE: 9/12/95 LOGGED BY: KDA PAGE 10 OF 12

DRILL RUN FROM	DRILL RUN TO	SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH DOWNHOLE DEPTH	ROCK STRENGTH POINT LOAD INDEX (psi)	FRACTURE DATA FRACTURE DENSITY/FT.	FRACTURE DATA AVG. ANGLE TO C.A.	FRACTURE DATA ROUGHNESS	FRACTURE DATA INFILL	DENSITY DATA DOWNHOLE DEPTH	DENSITY DATA SAMPLE WEIGHT (g)	DENSITY DATA DISPLACEMENT (cc)	DENSITY DATA DENSITY (g/cc)
695	705	95	99	95							695	504	220	2.29
705	715	100	100	89							705	619	240	2.58
715	725	100	100	100							725	410	170	2.41
725	732	100	100	100										
732	734.5	80	80	80										
734.5	742	100	100	93										
742	752	88	100	64										
752	762	101	101	89							752	605	300	2.02
762	772	100	100	87										
772	782	100	100	93										
782	792	83	96	71										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 95-352 DATE: 9/13/95 LOGGED BY: KDA PAGE 11 OF 12

DRILL RUN FROM	DRILL RUN TO	SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH DOWNHOLE DEPTH	ROCK STRENGTH POINT LOAD INDEX (psi)	FRACTURE DATA FRACTURE DENSITY/FT.	FRACTURE DATA AVG. ANGLE TO C.A.	FRACTURE DATA ROUGHNESS	FRACTURE DATA INFILL	DENSITY DATA DOWNHOLE DEPTH	DENSITY DATA SAMPLE WEIGHT (g)	DENSITY DATA DISPLACEMENT (cc)	DENSITY DATA DENSITY (g/cc)
792	802	98	98	79							802	697	280	2.49
802	812	100	100	97										
812	821.5	103	103	97										
821.5	831.5	97	97	96										
831.5	841	97	97	97										
841	842	130	130	110										
842	849	113	113	107										
849	852	90	90	86							852	530	220	2.41
852	862	100	100	80										
862	872	97	97	78										
872	882	100	100	88										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 95-352 DATE: 9/13/95 LOGGED BY: Edd PAGE 12 OF 12

DRILL RUN FROM	DRILL RUN TO	SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH DOWNHOLE DEPTH	ROCK STRENGTH POINT LOAD INDEX (psi)	FRACTURE DATA FRACTURE DENSITY/FT.	FRACTURE DATA AVG. ANGLE TO C.A.	FRACTURE DATA ROUGHNESS	FRACTURE DATA INFILL	DENSITY DATA DOWNHOLE DEPTH	DENSITY DATA SAMPLE WEIGHT (g)	DENSITY DATA DISPLACEMENT (cc)	DENSITY DATA DENSITY (g/cc)
882	887	92	92	92										
887	892	110	110	110										
892	896	93	93	93										
896	902	105	105	105										
902	905	90	90	90							902	710	300	2.37
905	912	104	104	99										
912	913	100	100	100										
913	922	99	99	83							922	513	210	2.44
	TD													

DRILLHOLE DIP AND DIRECTION MEASUREMENTS WITH REFLEX FOTOBOR DDI

CUSTOMER: HECLA
CUSTOMER REFERENCE: ROSEBUD
DATE: 09-11-95
DRILL HOLE: 95-352
NO CASING

COLLAR POSITION

X(FT)	Y(FT)	Z(FT)	DIP (DEG.)	DIR. (DEG.)
483906.6	2204071	5395.17	59.99	141.99

POSITION AT 890 FT

X(FT)	Y(FT)	Z(FT)	DIP (DEG.)	DIR. (DEG.)
483565.4	2204339	4618.31	61.11	141.68

LOCAL COORDINATES AT 890 FT
Y-LOC= -.83 FT TO THE LEFT
Z-LOC= -12.94 FT DOWNWARDS

RESULTS

STATION (FT)	X(FT)	Y(FT)	Z(FT)	DIP (DEG.)	DIR. (DEG.)
0	483906.6	2204071	5395.17	59.99	141.99
20	483898.7	2204078	5377.84	60.04	141.89
40	483890.9	2204084	5360.52	59.94	141.9
60	483883	2204090	5343.2	60.03	141.87
80	483875.2	2204096	5325.87	60.14	141.84
100	483867.4	2204102	5308.53	60.21	141.99
* 100	49.87	-.07	-.13		
120	483859.5	2204108	5291.17	60.26	142.06
140	483851.6	2204114	5273.81	60.28	142.19
160	483843.8	2204121	5256.43	60.33	142.13
180	483836	2204127	5239.06	60.41	142
200	483828.2	2204133	5221.66	60.43	142.05
* 200	99.63	-.22	-.47		
220	483820.5	2204139	5204.26	60.58	142.04
240	483812.8	2204145	5186.84	60.67	141.95
260	483805.1	2204151	5169.4	60.63	141.95
280	483797.4	2204157	5151.96	60.89	141.84
300	483789.7	2204163	5134.48	61	141.86
* 300	148.53	-.27	-1.71		
320	483782.1	2204169	5116.99	61.09	141.98
340	483774.5	2204175	5099.48	61.09	142.02
360	483766.9	2204181	5081.98	61.13	142.14
380	483759.2	2204187	5064.46	61.08	142.17
400	483751.6	2204193	5046.96	61.02	142.12
* 400	196.89	-.22	-3.59		
420	483743.9	2204199	5029.47	60.97	142.03
440	483736.3	2204205	5011.97	61	141.94

460	483728.6	2204211	4994.48	60.98	141.9
480	483721	2204217	4976.99	60.93	141.78
500	483713.4	2204223	4959.51	60.94	141.69
* 500	245.29	-.14	-5.4		
520	483705.8	2204228	4942.02	60.96	141.85
540	483698.1	2204234	4924.53	61.01	141.81
560	483690.5	2204240	4907.03	61	141.9
580	483682.9	2204246	4889.54	61.02	141.89
600	483675.4	2204252	4872.04	61.01	141.82
* 600	293.57	-.15	-7.33		
620	483667.8	2204258	4854.54	61.01	141.64
640	483660.2	2204264	4837.04	61.05	141.6
660	483652.6	2204270	4819.54	61.06	141.6
680	483645	2204276	4802.03	61.09	141.48
700	483637.5	2204282	4784.52	61.07	141.44
* 700	341.72	-.26	-9.38		
720	483629.9	2204288	4767.01	61.12	141.44
740	483622.4	2204294	4749.5	61.02	141.47
760	483614.8	2204300	4732	60.93	141.6
780	483607.2	2204306	4714.52	60.89	141.6
800	483599.6	2204312	4697.05	60.9	141.55
* 800	390.01	-.53	-11.3		
820	483592	2204318	4679.57	60.97	141.6
840	483584.4	2204324	4662.07	61.04	141.65
860	483576.8	2204330	4644.57	61.06	141.65
890	483565.4	2204339	4618.31	61.11	141.68
* 890	433.58	-.83	-12.94		

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT : SP035484

American Assay Laboratories

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RENO, NV,,USA
Ph.1-702-356-0606, Fax.1-702-356-1413
Telex:

HECLA MINING CO.

COPIES TO : CHARLIE MUERHOFF
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:

CLIENT REFERENCE No: 95-352 RECEIVED : 12 SEP 1995

No. SAMPLES : 60 REPORTED : 29 SEP 1995

MAIN SAMPLE TYPE : DRILL CORE

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au(OZ)	FA60	15%	OPT	0.001
Au(RZ)	FA60	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Sue King M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT : SP035484

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 95-352

REPORTED : 29 SEP 1995

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
95-352 16-20	<0.001		<0.02
95-352 20-23.1	<0.001		<0.02
95-352 23.1-25.3	<0.001		<0.02
95-352 25.3-30	<0.001		<0.02
95-352 30-32	<0.001		<0.02
95-352 32-37	<0.001		<0.02
95-352 37-42	<0.001		<0.02
95-352 42-47.1	<0.001		<0.02
95-352 47.1-52	<0.001		<0.02
95-352 52-57	<0.001		<0.02
95-352 57-62	<0.001		<0.02
95-352 62-64	<0.001		<0.02
95-352 64-67	<0.001		<0.02
95-352 67-72	<0.001	<0.001	<0.02
95-352 72-77	<0.001		<0.02
95-352 77-82	<0.001		<0.02
95-352 82-87	<0.001		<0.02
95-352 87-92	<0.001	<0.001	<0.02
95-352 92-97	<0.001		<0.02
95-352 97-102	<0.001		<0.02
95-352 102-107	<0.001		<0.02
95-352 107-112	<0.001		<0.02
95-352 112-117	<0.001		<0.02
95-352 117-122	<0.001		<0.02
95-352 122-127	<0.001		<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT : SPO35484

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 95-352

REPORTED : 29 SEP 1995

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
95-352 127-132	<0.001		<0.02
95-352 132-137	<0.001		<0.02
95-352 137-140	<0.001		<0.02
95-352 140-145	<0.001		<0.02
95-352 145-150	<0.001		<0.02
95-352 150-152	<0.001		<0.02
95-352 152-156.9	<0.001		<0.02
95-352 156.9-162	<0.001		<0.02
95-352 162-167	<0.001	<0.001	<0.02
95-352 167-171.8	0.001		<0.02
95-352 171.8-172.6	0.005		0.05
95-352 172.6-176.7	<0.001		<0.02
95-352 176.7-178.2	0.010		0.05
95-352 178.2-182	0.003		<0.02
95-352 182-187	<0.001		<0.02
95-352 187-192	<0.001		<0.02
95-352 192-194.2	<0.001		<0.02
95-352 194.2-196	<0.001		<0.02
95-352 196-199	<0.001		<0.02
95-352 199-202	<0.001		<0.02
95-352 202-206	<0.001		0.03
95-352 206-210.1	<0.001		<0.02
95-352 210.1-213.1	0.011		0.10
95-352 213.1-217	0.001		0.04
95-352 217-222	<0.001		<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT : SP035484

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 95-352

REPORTED : 29 SEP 1995

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
95-352 222-227	<0.001		<0.02
95-352 227-232	<0.001		<0.02
95-352 232-237	<0.001		<0.02
95-352 237-242	<0.001		0.03
95-352 242-247	<0.001	<0.001	0.02
95-352 247-250	<0.001		<0.02
95-352 250-253.2	<0.001		<0.02
95-352 253.2-258.2	0.001		0.06
95-352 258.2-261.2	0.009	0.006	0.28
95-352 261.2-266.3	0.308	0.366	12.24

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT : SP035561

American Assay Laboratories

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Telex:

HECLA MINING CO.

COPIES TO : CHARLIE MUERHOFF
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CLIENT REFERENCE No: 95-352 RECEIVED : 18 SEP 1995

No. SAMPLES : 116 REPORTED : 5 OCT 1995

MAIN SAMPLE TYPE : DRILL CORE

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au(OZ)	FA60	15%	OPT	0.001
Au(RZ)	FA60	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Sue King M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT : SP035561

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 95-352

REPORTED : 5 OCT 1995

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
95-352 266.2-271.3	0.029		2.00
95-352 271.3-276.2	0.006		0.16
95-352 276.2-280.8	0.075		0.69
95-352 280.8-282.8	<0.001		0.03
95-352 282.8-283.7	0.003		0.12
95-352 283.7-286.4	0.003		0.06
95-352 286.4-289.2	0.002		0.04
95-352 289.2-295.8	<0.001		0.03
95-352 295.8-299	0.001		0.13
95-352 299-302.5	<0.001		0.04
95-352 302.5-307	<0.001		0.02
95-352 307-312	<0.001		0.03
95-352 312-317	<0.001		0.03
95-352 317-322	<0.001		0.03
95-352 322-327	<0.001		0.02
95-352 327-332	0.002		0.09
95-352 332-337	0.001		0.06
95-352 337-342	<0.001		0.02
95-352 342-344.8	<0.001		0.03
95-352 344.8-348	<0.001		0.02
95-352 348-352.6	<0.001		<0.02
95-352 352.6-358	<0.001	<0.001	0.02
95-352 358-363	0.002		0.08
95-352 363-368.2	<0.001		0.02
95-352 368.2-372.4	<0.001		<0.02

AMERICAN ASSAY LABORATORIES

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American Assay Laboratories

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SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
95-352 372.4-376.6	<0.001		<0.02
95-352 376.6-382	<0.001		<0.02
95-352 382-385	<0.001		<0.02
95-352 385-389.9	<0.001	<0.001	<0.02
95-352 389.9-396	<0.001		<0.02
95-352 396-399	<0.001		<0.02
95-352 399-402	<0.001		<0.02
95-352 402-405.1	<0.001		<0.02
95-352 405.1-409.5	<0.001	<0.001	<0.02
95-352 409.5-414.5	<0.001		<0.02
95-352 414.5-419.5	<0.001		<0.02
95-352 419.5-424.5	<0.001		<0.02
95-352 424.5-427	<0.001		<0.02
95-352 427-432	<0.001		<0.02
95-352 432-437	<0.001		<0.02
95-352 437-442	<0.001	<0.001	<0.02
95-352 442-446.7	<0.001		<0.02
95-352 446.7-451.5	<0.001		0.03
95-352 451.5-457.5	<0.001		0.02
95-352 457.5-462.8	<0.001		0.04
95-352 462.8-465.1	<0.001		0.02
95-352 465.1-467.7	<0.001		0.02
95-352 467.7-471.4	<0.001		0.02
95-352 471.4-474	<0.001		0.03
95-352 474-477.4	0.002		0.03

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SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
95-352 477.4-480.5	<0.001		0.02
95-352 480.5-484	<0.001		<0.02
95-352 484-487	<0.001		<0.02
95-352 487-492	<0.001		<0.02
95-352 492-497.4	<0.001		<0.02
95-352 497.4-502	<0.001		<0.02
95-352 502-507	<0.001	<0.001	<0.02
95-352 507-512	<0.001		<0.02
95-352 512-517	<0.001		<0.02
95-352 517-522	<0.001		0.02
95-352 522-527	<0.001		<0.02
95-352 527-532	<0.001		<0.02
95-352 532-533.5	<0.001		0.02
95-352 533.5-536.4	<0.001		0.04
95-352 536.4-540	<0.001		0.02
95-352 540-544	<0.001		<0.02
95-352 544-549	<0.001	<0.001	<0.02
95-352 549-553.7	<0.001		<0.02
95-352 553.7-558	<0.001		<0.02
95-352 558-563	<0.001		<0.02
95-352 563-568	<0.001		<0.02
95-352 568-572	<0.001		<0.02
95-352 572-575.6	<0.001		<0.02
95-352 575.6-578	<0.001	<0.001	<0.02
95-352 578-579	<0.001		<0.02

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SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
95-352 579-584	<0.001		<0.02
95-352 584-589	<0.001		<0.02
95-352 589-594	<0.001		<0.02
95-352 594-599	<0.001		<0.02
95-352 599-601.7	<0.001		<0.02
95-352 601.7-605.8	<0.001		<0.02
95-352 605.8-611	<0.001		<0.02
95-352 611-613.5	<0.001		<0.02
95-352 613.5-618	<0.001		<0.02
95-352 618-623	<0.001		<0.02
95-352 623-628.8	<0.001		<0.02
95-352 628.8-634.5	<0.001		<0.02
95-352 634.5-636.7	<0.001		<0.02
95-352 636.7-639.4	<0.001		<0.02
95-352 639.4-641.6	<0.001		<0.02
95-352 641.6-644.2	<0.001		<0.02
95-352 644.2-645	<0.001		<0.02
95-352 645-650	<0.001		<0.02
95-352 650-655	<0.001		<0.02
95-352 655-660	<0.001		<0.02
95-352 660-664.5	<0.001		<0.02
95-352 664.5-670	<0.001		<0.02
95-352 670-675	<0.001		<0.02
95-352 675-680.3	<0.001		<0.02
95-352 680.3-685.5	<0.001		0.03

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SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
95-352 685.5-690	<0.001		0.05
95-352 690-695	0.001		0.08
95-352 695-698.1	<0.001		0.34
95-352 698.1-700	0.032		0.12
95-352 700-705	0.029		0.14
95-352 705-710	0.005		0.08
95-352 710-715	0.003		0.04
95-352 715-720	0.002		0.04
95-352 720-725	0.005		0.04
95-352 725-730	0.002		0.05
95-352 730-734.5	0.008		0.06
95-352 734.5-740	<0.001		0.05
95-352 740-742	0.008		0.15
95-352 742-745.7	0.007		0.16
95-352 745.7-747.5	0.036		6.60
95-352 747.5-748.2	0.008		0.04

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT : SP035683

American Assay Laboratories

P.O. BOX 11530
RENO, NV,,USA
Ph.1-702-356-0606, Fax.1-702-356-1413
Telex:

HECLA MINING CO.

COPIES TO : CHARLIE MUERHOFF

:

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CLIENT REFERENCE No: 95-352 RECEIVED : 26 SEP 1995

No. SAMPLES : 40 REPORTED : 5 OCT 1995

MAIN SAMPLE TYPE : DRILL CORE

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au(OZ)	FA60	15%	OPT	0.001
Au(RZ)	FA60	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Sue King M.S.

AMERICAN ASSAY LABORATORIES

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SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
95-352 748.2-752 3.8	0.020		0.02
95-352 752-757 5.0	0.082		0.13
95-352 757-762	0.007		0.02
95-352 762-767	<0.001		<0.02
95-352 767-772	<0.001		<0.02
95-352 772-777	<0.001		<0.02
95-352 777-782	<0.001		<0.02
95-352 782-787	<0.001		0.10
95-352 787-789	<0.001		0.07
95-352 789-792	0.006		0.49
95-352 792-795 3'	0.094		0.45
95-352 795-798.2 3.2'	0.132		0.66
95-352 798.2-802	0.009		0.05
95-352 802-807	0.009		0.05
95-352 807-813.5	0.009		0.07
95-352 813.5-818	0.004		0.07
95-352 818-821.5	0.001		0.03
95-352 821.5-826.5	0.003		0.03
95-352 826.5-831.3	<0.001		0.02
95-352 831.3-831.5	0.005		0.04
95-352 831.5-837	0.001	0.001	0.04
95-352 837-842	<0.001		0.03
95-352 842-847	0.001		0.05
95-352 847-852	0.008		0.05
95-352 852-857	0.010		0.08

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SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
95-352 857-862	0.004		0.04
95-352 862-867	0.001		0.03
95-352 867-872	0.025		0.05
95-352 872-877	0.128		0.11
95-352 877-878	0.203		0.38
95-352 878-882	0.008		0.03
95-352 882-887	<0.001		<0.02
95-352 887-891.4	<0.001		<0.02
95-352 891.4-897	<0.001		<0.02
95-352 897-902	<0.001	<0.001	<0.02
95-352 902-907	<0.001		<0.02
95-352 907-909.2	<0.001		<0.02
95-352 909.2-912	<0.001		<0.02
95-352 912-917	<0.001		<0.02
95-352 917-922	<0.001		<0.02

FIELD NOTE SHEET

DRILLHOLE 95-352

REFLEX–FOTOBOR DDI

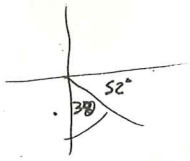
LOCATION Far East

BY Geo. Staff 9/11

DIP -60° Bearing 538°E DATE

TIME MIN	DEPTH	NOTES	DEPTH	NOTES	TIME MIN	DEPTH	NOTES	DEPTH	NOTES
1	setup				31	500'			
2	setup				32	520'			
3	0'	taking pix			33	540'			
4	0'	" " "			34	560'			
5	0'	blurred shot			35	580'			
6	0'	blurred shot?			36	600'			
7	20'				37	620'			
8	40'				38	640'			
9	60'				39	660'			
10	80'				40	680'			
11	100'				41	700'			
12	120'				42	720'			
13	140'				43	740'			
14	160'				44	760'			
15	180'				45	780'			
16	200'				46	800'			
17	220'				47	820'			
18	240'				48	840'			
19	260'				49	860'	End T.D.		
20	280'				50				
21	300'				51				
22	320'				52				
23	340'				53				
24	360'				54				
25	380'				55				
26	400'				56				
27	420'				57				
28	440'				58				
29	460'				59				
30	480'				60				

922
- 40 rods
882
- 3 off bottom
879
- 0 core barrel
879
survey to 860



52
38
0