6000 0723

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. 95-347
AUTHOR	L. Senter; K. Allen; 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; Rosebud Deposit - Far East Zone
COMMODITY If not obvious	gold; silver
NOTES	drill logs; geology; assay; total depth 598' directional survey; receipt; handwritten notes 30p. 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

95-347

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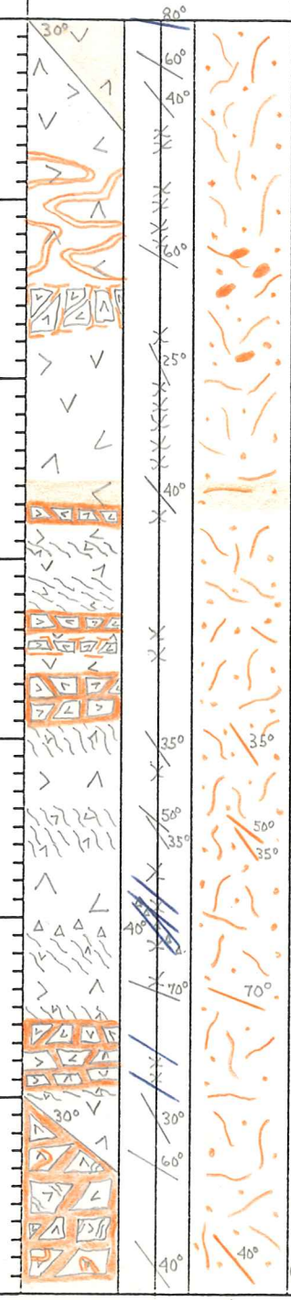
Hecla
MINING COMPANY

ROSEBUD PROJECT
DIAMOND DRILL LOG

HOLE NUMBER	95-347	LOCATION	Rosebud Deposit-Far East Zone
PAGE 1 OF 9		NORTHING	
DATE	9/29/95	EASTING	
LOGGED BY	Lance Senter	ELEVATION	
SCALE	1"=10'	AZIMUTH	S62°W
TOTAL DEPTH	598'	INCLINATION	-89°

REMARKS: HQ Core, Longyear 44, PC Exploration

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ag2
		0'-30' drilled with tri-cone; no recovery Colluvium	0 10 20 30										
		30'-50' Mod-mod hard, med-dk grey, white to buff, lt-dk grn aphanitic to fine-grained monolithic porphyritic andesitic? to latitic? volcanic flow? or ash flow tuff? sugary to glassy text. groundmass w/10%-15% subhedral to euhedral phenocrysts of plagioclase or sanadine 1mm-8mm in size replaced by clay, hematite, pyrite & calcite; unit also contains ≈ 5%-10% subhedral to euhedral phenocrysts of hornblende & biotite 0.5mm-4mm in size replaced by black hematite or goethite & chlorite; the replaced mafic phenocrysts by hematite may once have been pyrite; rock unit is monolithic in nature but has textures of being massive, "crackle" bx or autobrecciat'n, volcanic bx & flow laminated; unit is altered by argillizat'n, hematite, & propylitic "banding" or "flooding"; fxs & "crackle" bx heal'd by hematite; unit @30'-50' is perv argilliz'd & white to buff in color @38.5'-40.5' is "crackle" bx text heal'd w/ grey clay & hematite stkwk @30'-50' rx str broken & fxs & rx unit locally hematitically Fe-stain'd by surface weather'g	40 50	10° 50° 40° 60° 30°	@30'-50' rx str broken & mod fx'd w/.55 fxs/ft w/50% 60°∠-70° to C.A., 25% 40°∠-50° to C.A. & 25% 10°∠-15° to C.A. @32.5'-33.5' broken rubble zn @34.5'-35' shear zn w/50°∠ to C.A heal'd w/clay gouge @37.5'-39' broken rubble zn @39' is shear zn heal'd w/clay gouge & no contacts recognized @44'-45' broken rubble zn	@30'-50' unit is perv wk-mod argilliz'd & perv diss hematite replac'g py &/or mafic phenos @50' is gradational alteration change w/≈30°∠ to C.A., rx unit is the same	30 35 40 45	35 40 45 50					

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		50'-141' Mod hard to hard, same rock unit as described @30'-50'; med grey-dk grey to dk brn, rx "fairly fresh" show'g an andesitic text., hematitically alter'd perv (wk-str) & w/ "Liesegang banding" locally; gradational contact w/≈30°∠ to c.A. at 50' w/argilliz'd alter'd unit above @57.5'-64.5' rx "fairly unalter'd" w/mod hematite vns & "Liesegang band'g" locally @65'-67.5' is "crackle" bx text. heal'd w/hematite stkwk @69.5'-71' is "crackle" bx text. heal'd w/hematite stkwk @75.8'-77' is perv argilliz'd zn w/in rx unit describ'd @ 50'-141' @77'-78' is volcanic bx text. heal'd w/str hematite matrix, str broken @79'-79.5' flow laminated text. w/70°∠ to c.A @81'-83' flow laminated text. w/70°∠ to C.A. @83'-84' volcanic bx text. heal'd w/hematite matrix @84.5'-85' "crackle" bx text. heal'd w/hematite stkwk @86.7'-89' volcanic bx text. heal'd w/hematite matrix @89'-91' flow laminated text. w/30°∠-50°∠ to C.A. @94'-96.5' flow laminated text. w/40°∠ to C.A. @101.2'-103' flow laminated text. w/50°∠ to C.A. @105'-105.5' flow laminated text. w/40°∠ to C.A. @105.5'-109.2' is volcanic bx text heal'd w/hematite matrix @108.6'-109.2' drillers washed out this footage & no recovery w/in flt zn describ'd @ 107'-109.2' @109.2'-110' flow laminat'd text. w/80°∠ to C.A. @110'-136.5' is volcanic bx text. heal'd w/hematite matrix w/30°∠ to C.A. upper contact & 40°∠ to C.A. lower contact w/well clast to matrix support & 50% of clasts lapilli size & 50% block size show'g text. of flow laminations & "Liesegang band'g" locally	50 60 70 80 90 100 110 120		@50' gradational contact w/30°∠ to C.A. w/alter'd unit above @50.1' is thin shear zn heal'd w/clay gouge w/80°∠ to C.A. @50.1'-75.8' rx wk-mod fx'd w/0.39 fxs/ft w/75% 60°∠-70°∠ to C.A., 20% 40°∠ to C.A. & 5% 25°∠ to C.A. @56'-57.5' broken rubble zn @59.5'-61' broken rubble zn @61.5'-62' & 62.5'-63' broken rubble zns @67.5'-68.5' broken rubble zn @70'-75.8' broken rubble zn @76.8' fx w/40°∠ to C.A. w/in argilliz'd zn @77'-78' rx str fx'd & broken @84'-84.5' broken rubble zn @85'-86' broken rubble zn @86.5'-87' broken rubble zn @91' fx lined w/hematite w/35°∠ to C.A @91'-92.5' broken rubble zn @92.5'-94' str fx'd w/6 fxs/ft w/75% 50°∠-60°∠ to C.A. & 25% 30°∠ to C.A. @95.3' fx lined w/hem w/50°∠ to C.A. @96' fx lined w/hem w/35°∠ to C.A. @97'-98' broken rubble zn @98.5'-100' is shear zn w/str broken rx & rubble heal'd w/clay gouge locally, no contacts recogniz'd @100.2'-101.2' well cemented tectonic bx flt zn heal'd w/hem & wk chlorite & clay gouge w/40°∠ to C.A. @101.2'-102' broken rubble zn @103.3'-103.7' broken rubble zn @104' fx w/70°∠ to C.A. lined w/hem, goethite & limonite @107'-109.2' flt or shear zn w/broken rubble zn, wk clay gouge & fx surfaces w/hem. & lim. @110'-136.5' rx mod fx'd w/0.75 fxs/ft. w/60% 50°∠-60°∠ to C.A, 25% 30°∠-40°∠ to C.A. & 15% 80°∠ to C.A. @119.5' fx w/40°∠ to C.A. coat'd w/limonite along fx	@50'-141' rx unit wk-str perv hematitically alter'd locally; "fairly unalter'd" locally, perv diss hematite replac'g py and mafic phenos @57.5'-64.5' rx "fairly unalter'd" w/mod hematite vns & "Liesegang band'g" locally w/hematite "blebs" @69.5' hematite "bleb" @75.8'-77' rx unit is perv argilliz'd @82'-82.5' str perv yellow limonite Fe-stain'g @85.7'-86' rx is vuggy w/perv yellow limonite Fe-stain'g

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
50	55					
55	60					
60	65					
65	70					
70	75.8					
75.8	77					
77	80					
80	85					
85	90					
90	95					
95	100					
100	105					
105	110					
110	115					
115	120					

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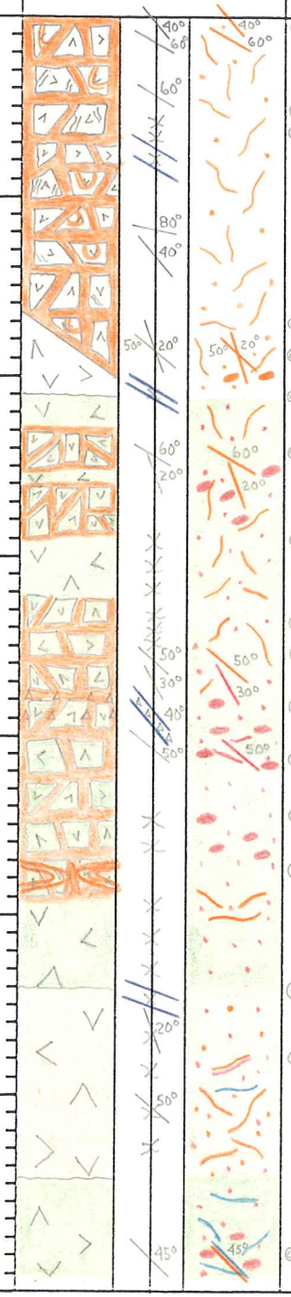
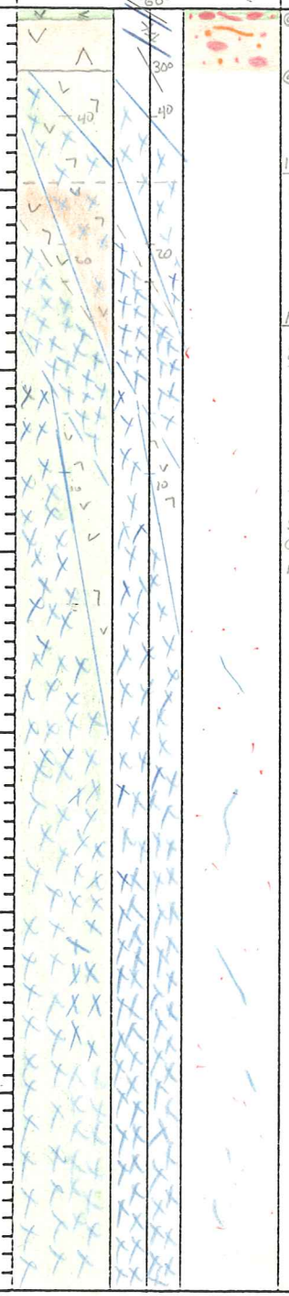
%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		141'-174' Mod hard to hard, same rock unit as described at 30'-50'; lt grn-med grn due to perv propylitic alter'n @143'-145' is volcanic bx text. heal'd w/hematite & lt grn clay matrix @146'-149' is volcanic bx text. heal'd w/ hematite & lt grn clay matrix @152'-169' is volcanic bx text. heal'd w/ hematite & lt-dk grn clay matrix Note: @160' is the oxidation/reduced zone 174'-184.7' Mod soft, same rock unit as described @ 141'-174'; lt grn-med grn due to propylitic alter'n but over-printed by argillic alter'n 184.7'-190.5 Mod hard to hard, same rock unit as described @30'-50' & @ 141'-174'; lt grn-med grn due to perv propylitic alter'n	120 130 140 150 160 170 180 190		@120.5' & 121.2' are fxs w/40°∠ & 60°∠ to C.A. respectively w/hem & lim. coat'g fxs @126'-127.4' broken rubble zn @127.4'-128.4' flt or shear zn w/ perv hem rubble & clay gouge, contacts not recogniz'd @137.5'-138.5' broken rubble zn @138'-139' is fx w/20°∠ to C.A. cutting a series of 50°∠ to C.A. fxs lined w/hem @140.5'-141' is flt or shear zn w/ rubble & wk clay gouge, contacts not recogniz'd @141'-149' rx mod fx'd w/0.75 fxs/ft w/65% 60°∠-70°∠ to C.A. & 35% 20°∠-30°∠ to C.A. @149'-152.2' broken rubble zn @153'-155' broken rubble zn @155'-157 str fx'd w/2.5 fxs/ft w/50% 50°∠ to C.A. & 50% 30°∠ to C.A. lined w/hem & py @157.5'-159' is flt or shear zn w/40°∠ to C.A. w/tectonic bx & broken rx w/wk clay gouge @160.3' is fx w/50°∠ to C.A. w/py & wk clay coat'g fx & py stringers surround'g fx @165'-167' rx mod broken w/wk clay & diss py along broken surfaces @169'-174' rx is mod broken @174'-175' is flt or shear zn, very soft clay gouge zn w/ slicks on broken surfaces, no contacts recogniz'd @175'-184.7' rx str-mod broken w/ broken rubble zns @ 178'-179' & 183'-183.5', fxs @ 0.4 fxs/ft w/75% 50°∠-60°∠ to C.A. & 25% 20°∠ to C.A. @189' fx w/45°∠ to C.A. lined w/calcite-hematite	@139.5' are ½" wide oval hematite "blebs" @141'-174' rx perv propylitic alter'n w/finely diss & "blebs" of py throughout rx, phenos of plagioclase or sanadine & mafics replac'd by chlorite, clay & py; fxs lined or coat'd w/hematite to the ox/redox zn @ 160' @157.5'-159' w/in flt or shear zn is mod-str hematite & limonite perv locally @158.5'-160' is str perv hem, lim, & goethite w/in flt zn & w/in footwall of flt to 160' @165'-167' diss py along broken rx surfaces @167.5'-169' are hematitic "Liesegang band'g" w/in rx @169'-170.5' is hematite stringers throughout rx @174'-184.7' perv argillic alter'n overprint'g lt grn propylitic alter'n; diss & stringers of hematite w/wk diss py; wk calcite vnlts locally @184.7'-190.5' rx perv propylitic alter'n w/finely diss & "blebs" of py throughout rx, phenos of plagioclase or sanadine & mafics replac'd by chlorite, clay & py; stringers or vnlts of calcite locally

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
120	125					
125	130					
130	135					
135	140					
140	141					
141	145					
145	150					
150	155					
155	158.5					
158.5	160					
160	165					
165	170					
170	174					
174	175					
175	180					
180	184.7					
184.7	190.8					

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		190.5'-193.5' Mod soft, same rx unit as describ'd @ 141'-174'; white to ltgrn due to perv propylitic alter'n but overprinted by perv argillic alter'n 193.5'-393.2' - MODERATELY HARD to MODERATELY SOFT, SLIGHTLY PORPHYRITIC, w/5-10% ANHEDRAL to EUHEDRAL PHENOCRYSTS of PLAGIOCLASE OR SANIDINE REPLACED BY CLAY, OR CaCO3, LATITIC to ANDESITIC FLOW OR ASH-FLOW Tuff. UNIT IS LT-DK GREEN WHERE PROPYLITIZED, Buff to CREEM WHERE ARGILLIZED, AND DK REDISH BROWN WHEN UN-ALTERED (Hematitic). INTERNAL CONTAINS GRAPHITIC OR CARBONACEOUS "BLEBS" WHERE HEMATITICALLY ALTERED. THESE BLEBS ARE PYRITE "BLEBS" WHERE INTERNAL IS PROPYLITIZED.	190 200 210 220 230 240 250 260		@190.5'-192.2' is broken rubble zn w/in flt or shear zn w/wk chlorite & clay gouge w/slicks along broken surfaces @193.5' fx w/chlorite-graphite lining fx w/slicks 193.5-196.2' - GREEN CHLORITIC CLAY ± GRAPHITIC MATERIAL ± $CaCO_3$ ± PYRITE FILLED FRACTURES ⇒ .37 FR/FT @ 60° to CA. 1.48 FR/FT @ 30-40° to CA. 1.11 FR/FT @ 0-20° to CA 196.2-203.2' - RUBBLE ZONE 203.2-205.2' - GREEN CHLORITIC CLAY ± GRAPHITIC MATERIAL FRACTURES ⇒ 2.00 FR/FT @ 0-20° to CA. 205.2-212.6' - RUBBLE ZONE 212.6-215.8' - GREEN CHLORITIC CLAY ± GRAPHITIC MATERIAL ± PYRITE FRACTURES ⇒ .63 FR/FT @ 30° to CA 1.25 FR/FT @ 0-20° to CA. 215.8-270' - RUBBLE ZONE.	@190.5'-193.5 rx unit perv argillic alter'n over print'g propylitic alter'n; diss & "blebs" of py w/wk hematite along fxs 193.5-199.8' - PROPYLITIZED w/ GREEN CHLORITIC CLAY w/up to 2% DISSEMINATED & FRACTURE COATED PYRITE. 199.8-203.2' - HEMATITIC ALTERATION w/ HEMATITE & HEMATITIC CLAY 203.2-276.5' - PROPYLITIZED w/ GREEN CHLORITIC CLAY. CONTAINS UP TO 2% DISSEMINATED & FRACTURE CONTROLED PYRITE. INTERNAL CONTAINS VARIABLE AMOUNTS of GRAPHITIC / CARBONACEOUS MATERIAL FRACTURE COATINGS. COMMON $CaCO_3$ ALONG FRACTURES

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
190.8	192.2					
192.2	193.5					
193.5	196.2					
196.2	199.8					
199.8	203.2					
203.2	205.2					
205.2	209.8					
209.8	212.6					
212.6	215.8					
215.8	220					
220	225					
225	231.5					
231.5	236.5					
236.5	241.5					
241.5	245.2					
245.2	250.8					
250.8	255					
255	259.5					

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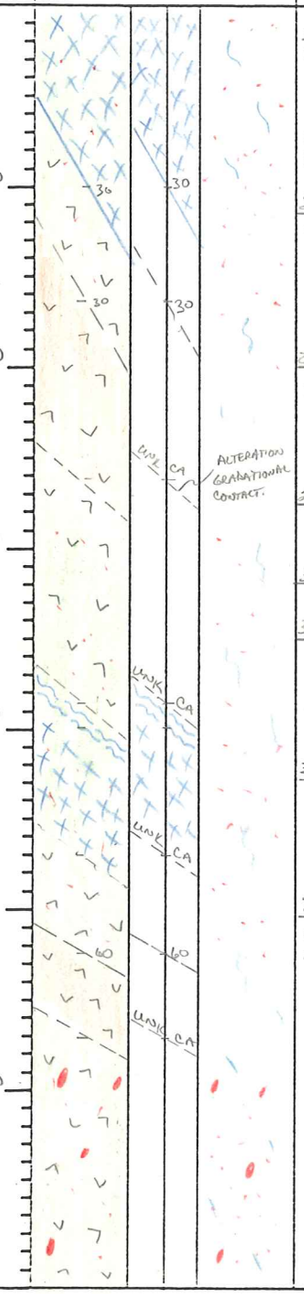
% REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
			270 280 290 300 310 320 330		270-276.5' - GREEN CHLORITIC CLAY ± PYRITE ± $CaCO_3$ FILLED FRACTS ⇒ .46 FR/FT @ 70° to CA .77 FR/FT @ 50-60° to CA 1.23 FR/FT @ 30-40° to CA. 1.23 FR/FT @ 0-20° to CA. 276.5-286.1' - HEMATITIC CLAY ± $CaCO_3$ FRACTURES ⇒ .10 FR/FT @ 70° to CA. .31 FR/FT @ 50-60° to CA. 1.25 FR/FT @ 30-40° to CA 1.04 FR/FT @ 0-20° to CA. 286.1-298.7' - GREEN CHLORITIC CLAY ± PYRITE ± $CaCO_3$ FILLED FRACTURES ⇒ .48 FR/FT @ 50-60° to CA. .71 FR/FT @ 30-40° to CA. .16 FR/FT @ 0-20° to CA. 298.7-300' - CLAY SHEARZONE w/ TRACE GRAPHITIC MATERIAL. 300-307' - RUBBLE ZONE 307-312.5' - GREEN CHLORITIC CLAY ± PYRITE ± $CaCO_3$ FRACTURES ⇒ .90 FR/FT @ 50-60° to CA. 1.64 FR/FT @ 30-40° to CA. 1.27 FR/FT @ 0-20° to CA. 312.5-317.1' - HEMATITIC CLAY ± $CaCO_3$ FRACTURES ⇒ .65 FR/FT @ 50-60° to CA .65 FR/FT @ 30-40° to CA .22 FR/FT @ 0-20° to CA. 317.1-340' - GREEN CHLORITIC CLAY ± PYRITE ± $CaCO_3$ ± GRAPHITIC MATERIAL COATED FRACTURES ⇒ .04 FR/FT @ 70° to CA .83 FR/FT @ 50-60° to CA. 1.39 FR/FT @ 30-40° to CA. .35 FR/FT @ 0-20° to CA.	276.5-286.1' - HEMATITICALLY ALTERED. COMMON $CaCO_3$. 286.1-312.5' - PROPYLITIZED w/ GREEN CHLORITIC CLAY AND up to 3% PYRITE. $CaCO_3$ COMMON AS STOCKWORKS & VEINLETS. 312.5-317.1' - HEMATITICALLY ALTERED. COMMON $CaCO_3$ veinlets. 317.1-340' - PROPYLITIZED w/ GREEN CHLORITIC CLAY AND up to 4% PYRITE. PYRITE OCCURS AS DISSEMINATIONS, FRACTURE FILLS, AND PYRITE BLEBS. MINOR GRAPHITIC OR CARBONACEOUS MATERIAL COATING FRACTURES. CALCITE IS COMMON.

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
259.5	263					
263	266					
266	270					
270	274					
274	276.5					
276.5	281					
281	286.1					
286.1	290					
290	294.5					
294.5	298.7					
298.7	300					
300	303.6					
303.6	307					
307	312.5					
312.5	317.1					
317.1	320.1					
320.	324					
324	329					

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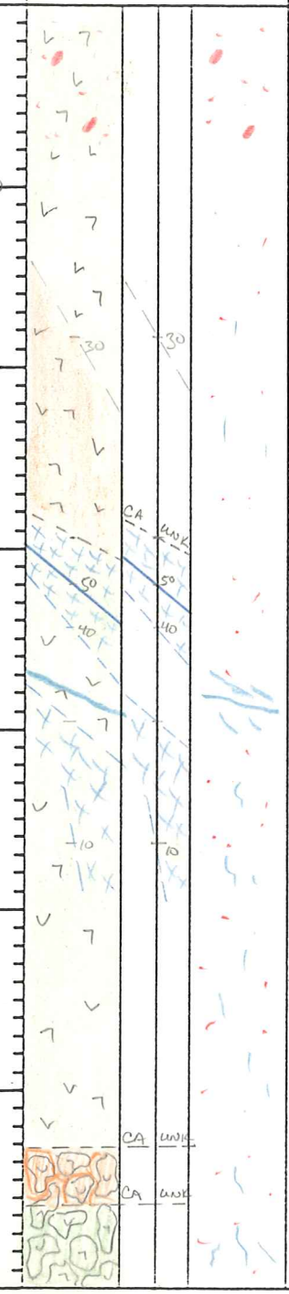
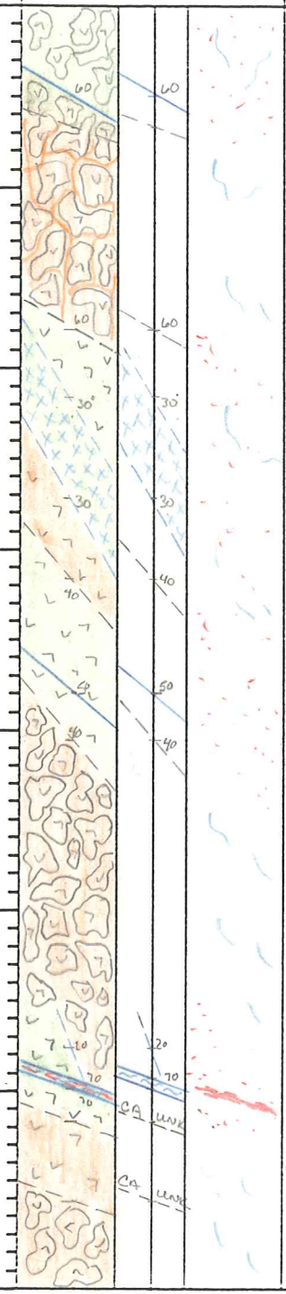
%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		393.2-482.9' - LT-DK GREEN (WHERE PROPYLITIZED) to DK REDISH BROWN, MODERATELY SOFT TO MODERATELY HARD, SLIGHTLY PORPHYRITIC, w/ 5-10% ANHEDRAL TO SUBHEDRAL PHENOCRYSTS OF PLAGIOCLASE OR SANIDINE REPLACED BY GREEN CHLORITIC CLAY, HEMATITIC CLAY, OR CALCITE, MATRIX TO CLAST SUPPORTED, LAPILLI MONOLITHIC VOLCANIC BRECCIA, w/ INTERCOLATED NON-BRECCIA INTERVALS. THIS IS THE SAME LATITIC to ANDESITIC ROCK AS DESCRIBED @ 193.5-393.2' (EXCEPT BRECCIATED). 393.2-418' - MATRIX to CLAST SUPPORTED VOLCANIC BRECCIA, MONOLITHIC.	340 350 360 370 380 390 400		340-342 - RUBBLE ZONE 342-348.5' - DK GREEN CHLORITIC CLAY ± PYRITE ± CaCO3 FRACTURES => ± GRAPHITIC MATERIAL .77 FR/FT @ 50-60° to CA. .46 FR/FT @ 30-40° to CA .77 FR/FT @ 0-20° to CA 348.5-359.5 - RED HEMATITIC CLAY ± CACO3 FRACTURES: .18 FR/FT @ 50° to CA. .36 FR/FT @ 30-40° to CA. .82 FR/FT @ 0-20° to CA 359.5-364.5' - RUBBLE ZONE GRAPHITIC FAULT @ 362' @ 50° to CA 364.5-369.6' - GREEN CHLORITIC CLAY + CALCITE ± PYRITE FRACTURES .40 FR/FT @ 80° to CA. 1.37 FR/FT @ 50-60° to CA .20 FR/FT @ 30-40° to CA .40 FR/FT @ 0-20° to CA. 369.6-376.4 - RUBBLE ZONE 376.4-393.2' - GREEN CHLORITIC CLAY ± CACO3 ± PYRITE FRACTURES .54 FR/FT @ 50-60° to CA. .36 FR/FT @ 30-40° to CA .66 FR/FT @ 0-20° to CA. 393.2-396.7' - HEMATITIC CLAY FILLED FRACTURES => .57 FR/FT @ 50-60° to CA .57 FR/FT @ 30-40° to CA. 396.7-406.7' - GREEN CHLORITIC CLAY ± PYRITE ± CACO3 FRACTURES => .80 FR/FT @ 50-60° to CA. .40 FR/FT @ 30-40° to CA .10 FR/FT @ 70° to CA 405' - FAULT w/ SLICKS INDICATING STRIKE SLIP MOVEMENT.	340-348.5' - PROPYLITIZED w/ GREEN CHLORITIC CLAY AND up to 2% PYRITE (DISSEMINATED) AND 2% PYRITE AS "PYRITE BLEBS". GRAPHITIC MATERIAL COMMON ALONG FRACTURES. 348.5-359.5' - HEMATITICALLY ALTERED w/ MINOR CaCO3. 359.5-368.6' - PROPYLITIZED w/ up to 2% PYRITE & MINOR CaCO3 368.6-369.6' - ABUNDANT CaCO3 veinlets & stockworks. PYRITE up to 2%. 369.6-393.2' - PROPYLITIZED w/ ABUNDANT CHLORITIC CLAY. TRACE GRAPHITIC MATERIAL. PYRITE up to 3%, COMMON CaCO3. 393.2-396.7' - HEMATITICALLY ALTERED MINOR CACO3 396.7-406.7' - PROPYLITIC ALTERATION CENTERED AROUND STRUCTURE @ 405' @ 60° to CA. ABUNDANT DK-LT GREEN CHLORITIC CLAY, w/ up to 3% PYRITE. ABUNDANT CALCITE veinlets & STOCKWORK.

ANALYTICAL DATA

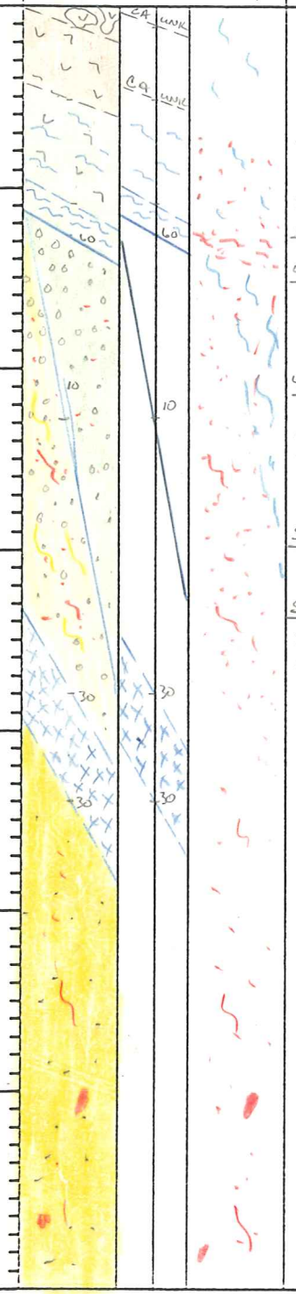
FROM	TO	W	Au	Ag	Au2	Ag2
329	334					
334	337					
337	340					
340	342					
342	348.5					
348.5	353.2					
353.2	356.2					
356.2	359.5					
359.5	362					
362	364.5					
364.5	368.6					
368.6	369.6					
369.6	372.5					
372.5	376.4					
376.4	380.5					
380.5	384.1					
384.1	388					
388	393.2					
393.2	396.7					
396.7	401.7					

HOLE NUMBER 95-347 PAGE 7 OF 9

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		418 – 440.6' – NON-BRECCIATED LATITE-ANDESITE ASH-FLOW tuff OR FLOW. 440.6 – 457.8' – MATRIX-CLAST SUPPORTED VOLCANIC BRECCIA. 457.8-466.2' – NON-BRECCIATED LATITE-ANDESITE ASH-FLOW tuff OR FLOW. 459.5-459.9' – SPLAY of SOUTH RIDGE FAULT. 466.2-471.2' – MATRIX-CLAST SUPPORTED VOLC BX.	410 420 430 440 450 460 470		406.7-418' – HEMATITIC CLAY ± CACO3 FRACTURES ⇒ .09 FR/FT @ 70° to CA .44 FR/FT @ 50-60° to CA .62 FR/FT @ 30-40° to CA. 418-421.8' – GREEN CHLORITIC CLAY ± CACO3 ± PYRITE FRACTURES ⇒ .26 FR/FT @ 70° to CA. 1.05 FR/FT @ 50-60° to CA. .79 FR/FT @ 30-40° to CA .53 FR/FT @ 0-20° to CA 421.8-427.4' – RUBBLE ZONE 427.4-431.7' – HEMATITIC CLAY ± CACO3 FRACTURES ⇒ .47 FR/FT @ 50-60° to CA 1.16 FR/FT @ 30-40° to CA .70 FR/FT @ 0-20° to CA 431.7-440.6' – GREEN CHLORITIC CLAY ± CACO3, ± PYRITE FRACTURES ⇒ .45 FR/FT @ 50-60° to CA. .79 FR/FT @ 30-40° to CA .23 FR/FT @ 0-20° to CA. 438' – FAULT w/ GRAPHITIC SLICKS 440.6-457.8' – HEMATITIC CLAY + CACO3 FRACTURES ⇒ .12 FR/FT @ 70° to CA .23 FR/FT @ 50-60° to CA. .47 FR/FT @ 30-40° to CA. .35 FR/FT @ 0-20° to CA 457.8-461.8' – GREEN CHLORITIC CLAY ± PYRITE ± GRAPHITIC FRACTURES ⇒ .50 FR/FT @ 70° to CA .25 FR/FT @ 50-60° to CA .25 FR/FT @ 0-20° to CA. 459.5-459.9' – SPLAY of THE SOUTH RIDGE FAULT. 461.8-466.2' – HEMATITIC CLAY ± CACO3 FRACTURES ⇒ .68 FR/FT @ 70-90° to CA .23 FR/FT @ 50-60° to CA .46 FR/FT @ 30-40° to CA. 466.2-471.2' – HEMATITIC CLAY ± CACO3 FRACTURES ⇒ .40 FR/FT @ 70° to CA 1.00 FR/FT @ 50-60° to CA .20 FR/FT @ 30-40° to CA.	406.7-418.' – HEMATITICALLY ALTERED w/ COMMON CACO3. 418-427.4' – PROPYLITIZED w/ ABUNDANT LT-DK GREEN CHLORITIC CLAY, TRACE Amounts of GRAPHITIC MATERIAL, AND up to 1% PYRITE. ABUNDANT CaCO3 veinlets & stockwork. 427.4-431.7' – HEMATITICALLY ALTERED w/ Common CALCITE. 431.7-440.6' – PROPYLITIZED w/ ABUNDANT GREEN CHLORITIC CLAY AND up to 2% PYRITE. TRACE Amounts of Calcite. TRACE Amounts of GRAPHITIC MATERIAL. ALTERATION CENTERED AROUND FAULT @ 438'. 440.6-457.8' – HEMATITICALLY ALTERED w/ ABUNDANT $CaCo_3$. 457.8-461.8' – PROPYLITIZED. ABUNDANT GREEN CHLORITIC CLAY & PYRITE up to 3%. PROPYLITIZATION CENTERED AROUND "PROBABLE SPLAY of SRF @ 459.5-459.9'. 461.8-475.2' – HEMATITICALLY ALTERERED w/ ABUNDANT $CaCO_3$

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
401.7	406.7					
406.7	411.7					
411.7	415					
415	418					
418	421.8					
421.8	427.4					
427.4	431.7					
431.7	436.7					
436.7	440.6					
440.6	446					
446	451					
451	456					
456	457.8					
457.8	459.5					
459.5	459.9					
459.9	461.8					
461.8	466.2					
466.2	471.2					

HOLE NUMBER 95-347 PAGE 8 OF 9

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		471.2-481.'- SHEARED LATITE-ANDESITE ASH-FLOW TUFF OR FLOW. 481-482.9'- SHEAR ZONE of SRF. SRF @ 482.9' 482.9-492.8'- LT GREEN, MODERATELY HARD, HETEROLITHIC CONGLOMERATE. CLASTS INCLUDE TK PHYLLITES?, FINE-GRAINED APHANITIC LATITES? AND FLOW LAMINATED LATITES? THIS IS PROBABLY TOS? 492.8-508.'- Buff to LT GREY, HARD, SILICIFIED, PROBABLE HETEROLITHIC CONGLOMERATE. PROBABLY SAME AS 482.9-492.8 ONLY BLEACHED & SILICIFIED. 508-595'- CREAM-LT GREY, PORPHYRITIC, 5-15% .05-.10 INCH SUBHEDRAL TO EUHEDRAL PLAGIOCLASE PHENOCRYST MOLDS, PROBABLY RHYOLITIC? FLOW OR ASH-FLOW TUFF AND BRECCIA. PERVASIVELY SILICA FLOODED. CONTAINS ABUNDANT PYRITE "BLEBS".	480 490 500 510 520 530 540		471.2-475.2'- HEMATITIC CLAY ± CACO3 FRACTURES ⇒ .25 FR/FT @ 70° to CA .75 FR/FT @ 50-60° to CA. 1.50 FR/FT @ 30-40° to CA. 475.2-481'- GREEN CHLORITIC CLAY & CACO3 FRACTURES ⇒ SHEARED @ LOWARD 70-50° to CA 481-482.9'- SRF SHEAR ZONE. 482.9'- SOUTH RIDGE FAULT. 482.9-492.8'- GREEN CHLORITIC CLAY + CACO3 FRACTURES ⇒ .20 FR/FT @ 50-60° to CA .10 FR/FT @ 30-40° to CA .20 FR/FT @ 0-20° to CA. 492.8-508- QUARTZ ± PYRITE ± MARCASITE ± WHITE DICKITE CLAY FRACTURES ⇒ .46 FR/FT @ 50-60° to CA. .66 FR/FT @ 30-40° to CA .86 FR/FT @ 0-20° to CA 508-514'- RUBBLE ZONE 514-555'- SILICA ± GREEN CLAY ± WHITE CLAY ± PYRITE W/TRACE MARCASITE & Ag-Sulfo? FRACTURES. .10 FR/FT @ 70° to CA .44 FR/FT @ 50-60° to CA. .76 FR/FT @ 30-40° to CA. .49 FR/FT @ 0-20° to CA.	475.2-482.9'- PROPYLITIZED W/ ABUNDANT GREEN CHLORITIC CLAY & COMMON CACO3. PYRITE up to 5%. HIGH-CLAY SHEAR ZONE. 482.9-492.8'- PROPYLITIZED W/ CACO3 up to 7% AND PYRITE up to 5%. 492.8-508'- MODERATELY BLEACHED AND SILICIFIED. ABUNDANT GREY-CLEAR QUARTZ VEINLETS W/ MINOR OPEN SPACE FRACTURE FILLS of PYRITE ± MARCASITE. TRACE AMOUNTS of POSSIBLE CPY. MINOR WHITE "DICKITE" CLAY. PYRITE up to 5%. 508-514'- PYRITE up to 7% COMMON LIME-GREEN CLAY PLUS TRACE AMOUNTS of MARCASITE. 514-555'- INTENSELY SILICA FLOODED W/ COMMON GREEN CLAY FRACTURES & MINOR WHITE CLAY FRACTURES. COMMON PYRITE "BLEBS" W/TRACE AMOUNTS of MARCASITE & POSSIBLE Ag-SULFOSALTS. PYRITE up to 5-7%.

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
471.2	475.2					
475.2	481					
481	482.9					
482.9	487.9					
487.9	492.8					
492.8	497.8					
497.8	502.8					
502.8	508					
508	510.7					
510.7	514					
514	518.5					
518.5	523.5					
523.5	528.8					
528.8	533.8					
533.8	539					

HOLE NUMBER 95-347 PAGE 9 OF 9

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		595-598' TD – HARD, PORPHYRITIC, MATRIX SUPPORTED BOLCANIC BRECCIA. CLASTS ARE LAPILLI SIZED & COMPOSED of ROCK DESCRIBED AT 508-595'. 598' TD	550, 560, 570, 580, 590, 600	CA CWK	555-595' – GREEN CHLORITIC CLAY + PYRITE ± Cpy ± WHITE CLAY FRACTURES ⇒ .10 FR/FT @ 70-90° to CA .43 FR/FT @ 50-60° to CA 1.20 FR/FT @ 30-40° to CA .28 FR/FT @ 0-20° to CA 595-598' TD – PYRITE FILLED FRACTURES ⇒ 2.00 FR/FT @ 30-40° to CA.	555-598' TD – INTENSE SILICA FLOODING w/ COMMON QUARTZ VEINLETS & STOCKWORK PYRITE up to 7% OCCURRING AS FRACTURE FILLS & DISSEMINATIONS TRACE Amounts of Cpy ALSO PRESENT. MINOR CaCO3. GREEN CHLORITIC CLAY COMMON w/ MINOR WHITE "DICKITE" CLAY.

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
539	544					
544	549					
549	554					
554	559					
559	564					
564	569					
569	574					
574	579					
579	583					
583	588					
588	591					
591	595					
595	598					

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 95-347 HQ DATE: 9/29/95 LOGGED BY: LES PAGE 1 OF 8

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)
30	35	58	94	16							31.5	943	405	2.33
35	45	53	84	14										
45	54	93	101	47							50	778	320	2.43
54	56	55	75	Ø										
56	58.8	57	96	14										
58.8	64	60	100	29										
64	69.5	45	102	29										
69.5	72	24	60	Ø										
72	75.8	18	55	Ø										
75.8	85	81	103	13										
85	87	30	110	20										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 95-347 HQ DATE: 9/29/95 LOGGED BY: LES PAGE 2 OF 8

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)
87	95	94	105	26										
95	100	30	96	0										
100	109.2	61	91	18							100.7	1283	560	2.29
109.2	119.8	100	100	77										
119.8	128.4	70	100	48										
128.4	135	92	103	58										
135	139	88	113	25										
139	148	89	106	33										
148	149	100	110	40										
149	153.5	24	120	16							152.5	1786.5	720	2.48
153.5	159	45	98	0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 95-347 HQ DATE: 9/29/95 LOGGED BY: LES PAGE 3 OF 8

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)
159	169	101	103	62										
169	175	65	100	22										
175	179	31	83	10										
179	185	80	100	18										
185	192.2	79	106	68										
192.2	198.5	68	110	35										
198.5	203.2	30	104	⊖							200.3	670	305	2.20
203.2	209.8	29	103	7										
209.8	212.6	⊖	125	⊖										
212.6	219	45	106	28										
219	222	⊖	117	⊖										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 95-347 HQ DATE 10/1/95 LOGGED BY: LES PAGE 4 OF 8

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)
222	228	33	93	⊖										
228	231.5	29	80	10										
231.5	241.5	⊖	75	⊖										
241.5	245.2	41	116	24										
245.2	250.8	⊖	71	⊖										
250.8	253.5	19	137	⊖										
253.5	256.3	⊖	146	⊖							253.7	801.5	340	2.35
256.3	259.5	19	84	⊖										
259.5	263	40	114	⊖										
263	266	18	123	⊖										
266	270	68	103	10										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 95-347 HQ DATE 10/1/95 LOGGED BY: LES PAGE 5 OF 8

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)
270	274	93	125	10										
274	281	77	106	26										
281	286.5	80	115	56										
286.5	294.5	70	101	39										
294.5	300	78	104	60										
300	303.6	31	125	11							301	1151	470	2.45
303.6	307	26	109	0										
307	313.8	84	109	41										
313.8	324	99	101	54										
324	334	100	109	53										
334	342	71	109	36										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 95-347 DATE 10/12/95 LOGGED BY: LAA PAGE 6 OF 8

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)
342	349.4	89	104	68										
349.4	353.2	95	100	34							351	880	340	2.59
353.2	360.5	66	100	21										
360.5	364.1	33	94	11										
364.1	372.5	60	95	35							366	964	430	2.24
372.5	376.4	36	82	10										
376.4	380.5	100	100	88										
380.5	388	65	103	48										
388	395	90	90	50										
395	405	100	100	70										
405	415	100	100	73							406	705	285	2.47

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 95-347 DATE 10/12/95 LOGGED BY: KDA PAGE 7 OF 8

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)
415	424	73	96	54										
424	429	66	100	46										
429	439	95	97	52										
439	449	97	97	62										
449	459.4	71	100	57							449	961	390	2.46
459.4	469.7	101	103	72										
469.7	480	84	101	55										
480	490.4	82	100	72										
490.4	500.7	100	100	48							491	1171	460	2.55
500.7	510.7	81	100	60										
510.7	518.5	54	105	22										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 95-347 DATE 10/13/95 LOGGED BY: KDA PAGE 8 OF 8

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)
518.5	528.8	101	101	78										
528.8	539	102	102	82										
539	549	100	100	80										
549	559	100	100	90							557	1818	700	2.60
559	569	102	102	90										
569	579	102	102	77										
579	588	102	108	86										
588	598	102	102	90							596	730	300	2.43
	TD													

DRILLHOLE DIP AND DIRECTION MEASUREMENTS WITH REFLEX FOTOBOR DDI

CUSTOMER: HECLA
CUSTOMER REFERENCE: ROSEBUD
SURVEYOR: KURT ALLEN
DATE: 09-26-95
DRILL HOLE: 95-347
NO CASING

COLLAR POSITION

X(FT)	Y(FT)	Z(FT)	DIP (DEG.)	DIR. (DEG.)
483457.5	2203733	5380.47	89	228

POSITION AT 570 FT

X(FT)	Y(FT)	Z(FT)	DIP (DEG.)	DIR. (DEG.)
483451.2	2203728	4810.52	89.61	176.64

LOCAL COORDINATES AT 570 FT
Y-LOC= -1.44 FT TO THE LEFT
Z-LOC= -2.04 FT DOWNWARDS

RESULTS

STATION (FT)	X(FT)	Y(FT)	Z(FT)	DIP (DEG.)	DIR. (DEG.)
0	483457.5	2203733	5380.47	89	228
20	483457.3	2203733	5360.47	89.1	222.18
40	483457	2203733	5340.47	89.02	213.73
60	483456.7	2203732	5320.47	88.97	215.38
80	483456.4	2203732	5300.48	88.93	217.47
100	483456.1	2203732	5280.48	88.97	214.77
* 100	1.72	-.39	-.03		
120	483455.8	2203732	5260.48	88.99	219.18
140	483455.5	2203732	5240.49	88.95	220.33
160	483455.3	2203731	5220.49	89	220.31
180	483455	2203731	5200.49	88.99	219.52
200	483454.8	2203731	5180.5	88.93	215.26
* 200	3.37	-.69	-.12		
220	483454.5	2203731	5160.5	88.92	220.19
240	483454.2	2203731	5140.5	89.05	215.45
260	483453.9	2203730	5120.5	89.18	207.75
280	483453.6	2203730	5100.51	89.16	209.42
300	483453.4	2203730	5080.51	89.15	204.41
* 300	5.06	-1.03	-.18		
320	483453.1	2203730	5060.51	89.16	209.64
340	483452.9	2203730	5040.51	89.2	217.37
360	483452.6	2203729	5020.52	89.31	221.17
380	483452.5	2203729	5000.52	89.38	219.93
400	483452.4	2203729	4980.52	89.45	215.96
* 400	6.51	-1.11	-.47		
420	483452.2	2203729	4960.52	89.39	218.03
440	483452.1	2203729	4940.52	89.44	218.78
460	483451.9	2203728	4920.52	89.47	221.74
480	483451.8	2203728	4900.52	89.56	217.26
500	483451.6	2203728	4880.52	89.56	200.87
* 500	7.6	-1.09	-1.13		
520	483451.5	2203728	4860.52	89.57	192.95
540	483451.4	2203728	4840.52	89.62	197.29
570	483451.2	2203728	4810.52	89.61	176.64
* 570	7.91	-1.44	-2.04		

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HECLA MINING COMPANY
1225 UPPER VALLEY ROAD
P. O. BOX 1861
LOVELOCK NV 89419

CUSTOMER P.O.	PROJECT	TERMS
95-347	ROSEBUD	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
35	SAMPLES RECEIVED	.00	.00
35	JAW CRUSHING CHARGE	1.30	45.50
35	COARSE MILLING CHARGE	4.00	140.00
35	SPLITTING CHARGE	1.80	63.00
35	KEEGOR MILLING CHARGE	2.00	70.00
35	MIX/ROLL BLEND	1.20	42.00
35	RING MILLING CHARGE	2.00	70.00
35	Au (2 A.T. FIRE ASSAY)	10.25	358.75
35	HYDROCHLORIC/NITRIC DIGESTION	2.00	70.00
35	Ag ANALYSES	1.00	35.00

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CLIENT REFERENCE No: 95-347 RECEIVED : 9 OCT 1995

No. SAMPLES : 35 REPORTED : 24 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 : SP035889

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 95-347

REPORTED : 24 OCT 1995

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
95-347 30-35	<0.001		<0.02
95-347 35-40	<0.001		<0.02
95-347 40-45	<0.001	<0.001	<0.02
95-347 45-50	<0.001		<0.02
95-347 50-55	<0.001		<0.02
95-347 55-60	<0.001		<0.02
95-347 60-65	<0.001		<0.02
95-347 65-70	<0.001		<0.02
95-347 70-75.8	<0.001		<0.02
95-347 75.8-77	<0.001		<0.02
95-347 77-80	<0.001		<0.02
95-347 80-85	<0.001	<0.001	<0.02
95-347 85-90	<0.001		<0.02
95-347 90-95	<0.001		<0.02
95-347 95-100	<0.001		<0.02
95-347 100-105	<0.001		<0.02
95-347 105-110	<0.001		<0.02
95-347 110-115	<0.001		<0.02
95-347 115-120	<0.001		<0.02
95-347 120-125	<0.001		<0.02
95-347 125-130	<0.001		<0.02
95-347 130-135	<0.001		<0.02
95-347 135-140	<0.001		<0.02
95-347 140-141	<0.001	<0.001	<0.02
95-347 141-145	<0.001		<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT : SP035889

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 95-347

REPORTED : 24 OCT 1995

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
95-347 145-150	<0.001	<0.001	0.03
95-347 150-155	<0.001		<0.02
95-347 155-158.5	<0.001		<0.02
95-347 158.5-160	0.013		0.10
95-347 160-165	<0.001		0.02
95-347 165-170	<0.001		<0.02
95-347 170-174	<0.001		<0.02
95-347 174-175	<0.001		<0.02
95-347 175-180	<0.001		<0.02
95-347 180-184.7	<0.001		<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT : SP035889

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: 95-347 RECEIVED : 9 OCT 1995

No. SAMPLES : 35 REPORTED : 24 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 : SP035889

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 95-347

REPORTED : 24 OCT 1995

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
95-347 30-35	<0.001		<0.02
95-347 35-40	<0.001		<0.02
95-347 40-45	<0.001	<0.001	<0.02
95-347 45-50	<0.001		<0.02
95-347 50-55	<0.001		<0.02
95-347 55-60	<0.001		<0.02
95-347 60-65	<0.001		<0.02
95-347 65-70	<0.001		<0.02
95-347 70-75.8	<0.001		<0.02
95-347 75.8-77	<0.001		<0.02
95-347 77-80	<0.001		<0.02
95-347 80-85	<0.001	<0.001	<0.02
95-347 85-90	<0.001		<0.02
95-347 90-95	<0.001		<0.02
95-347 95-100	<0.001		<0.02
95-347 100-105	<0.001		<0.02
95-347 105-110	<0.001		<0.02
95-347 110-115	<0.001		<0.02
95-347 115-120	<0.001		<0.02
95-347 120-125	<0.001		<0.02
95-347 125-130	<0.001		<0.02
95-347 130-135	<0.001		<0.02
95-347 135-140	<0.001		<0.02
95-347 140-141	<0.001	<0.001	<0.02
95-347 141-145	<0.001		<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT : SPO35889

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 95-347

REPORTED : 24 OCT 1995

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
95-347 145-150	<0.001	<0.001	0.03
95-347 150-155	<0.001		<0.02
95-347 155-158.5	<0.001		<0.02
95-347 158.5-160	0.013		0.10
95-347 160-165	<0.001		0.02
95-347 165-170	<0.001		<0.02
95-347 170-174	<0.001		<0.02
95-347 174-175	<0.001		<0.02
95-347 175-180	<0.001		<0.02
95-347 180-184.7	<0.001		<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT : SP036053

American Assay Laboratories

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

HECLA MINING CO.

COPIES TO : CHARLIE MUERHOFF

:

:

:

CLIENT REFERENCE No: 95-347 RECEIVED : 18 OCT 1995

No. SAMPLES : 103 REPORTED : 26 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 : SP036053

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 95-347

REPORTED : 26 OCT 1995

SAMPLES		Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT	
95-347 184.7-190.8		<0.001		0.04	
95-347 190.8-192.2		0.011		0.14	
95-347 192.2-193.5		0.036		0.64	
95-347 193.5-196.2		0.004	0.003	0.15	
95-347 196.2-199.8		0.002		0.10	
95-347 199.8-203.2		<0.001		<0.02	
95-347 203.2-205.2		<0.001		0.02	
95-347 205.2-209.8		0.002		0.04	
95-347 209.8-212.6		0.001		0.04	
95-347 212.6-215.8		0.004		0.08	
95-347 215.8-220	4.2'	0.017		0.22	
95-347 220-225	5'	0.015		1.00	
95-347 225-231.5	6.5'	0.005		0.20	FLT
95-347 231.5-236.5	5'	0.022		0.13	ZONE
95-347 236.5-241.5	5'	0.021		0.31	54.2' @ 0.014 Au
95-347 241.5-245.2	3.7'	0.012		0.86	0.27 Ag
95-347 245.2-250.8	5.6'	0.005	0.005	0.20	
95-347 250.8-255	4.2'	0.001		0.07	
95-347 255-259.5	4.5'	0.003		0.13	
95-347 259.5-263	3.5'	0.082		0.06	
95-347 263-266	3.0'	0.003		0.02	
95-347 266-270	4.0'	<0.001		<0.02	
95-347 270-274		<0.001		0.02	
95-347 274-276.5		<0.001		<0.02	
95-347 276.5-281		<0.001		<0.02	

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT : SP036053

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 95-347

REPORTED : 26 OCT 1995

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
95-347 281-286.1	<0.001		0.02
95-347 286.1-290	<0.001		0.02
95-347 290-294.5	0.002		<0.02
95-347 294.5-298.7	<0.001		0.02
95-347 298.7-300	0.007		0.10
95-347 300-303.6	0.001		0.04
95-347 303.6-307	<0.001	<0.001	0.04
95-347 307-312.5	<0.001		0.02
95-347 312.5-317.1	<0.001		<0.02
95-347 317.1-320.1	<0.001		0.03
95-347 320.1-324	<0.001		<0.02
95-347 324-329	0.001		0.02
95-347 329-334	0.013		0.10
95-347 334-337	0.002		0.07
95-347 337-340	0.001		0.10
95-347 340-342	0.039	0.040	0.18
95-347 342-348.5	0.008		0.07
95-347 348.5-353.2	<0.001		<0.02
95-347 353.2-356.2	<0.001		0.02
95-347 356.2-359.5	<0.001		<0.02
95-347 359.5-362	0.005		0.10
95-347 362-364.5	<0.001		<0.02
95-347 364.5-368.6	0.003		0.10
95-347 368.6-369.6	0.017		0.41
95-347 369.6-372.5	0.011		0.31

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT : SP036053

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 95-347

REPORTED : 26 OCT 1995

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
95-347 372.5-376.4	<0.001	<0.001	0.02
95-347 376.4-380.5	<0.001		<0.02
95-347 380.5-384.1	0.010		0.05
95-347 384.1-388	0.014		0.52
95-347 388-393.2	0.002		<0.02
95-347 393.2-396.7	<0.001		0.04
95-347 396.7-401.7	0.001		<0.02
95-347 401.7-406.7	0.004		0.03
95-347 406.7-411.7	<0.001		0.09
95-347 411.7-415	<0.001	<0.001	<0.02
95-347 415-418	<0.001		<0.02
95-347 418-421.8	<0.001		<0.02
95-347 421.8-427.4	0.004		0.03
95-347 427.4-431.7	<0.001		0.34
95-347 431.7-436.7	0.001		<0.02
95-347 436.7-440.6	0.001		0.04
95-347 440.6-446	<0.001		0.06
95-347 446-451	<0.001		<0.02
95-347 451-456	<0.001		<0.02
95-347 456-457.8	<0.001		<0.02
95-347 457.8-459.5	<0.001		<0.02
95-347 459.5-459.9	0.004		0.33
95-347 459.9-461.8	0.001	0.001	0.03
95-347 461.8-466.7	<0.001		0.02
95-347 466.7-471.2	<0.001		<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT : SP036053

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 95-347

REPORTED : 26 OCT 1995

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
95-347 471.2-475.2	<0.001		<0.02
95-347 475.2-481	<0.001		0.03
95-347 481-482.9	<0.001		0.06
95-347 482.9-487.9	0.006		0.05
95-347 487.9-492.8	0.005		0.03
95-347 492.8-497.8	0.001		0.03
95-347 497.8-502.8	0.001		0.05
95-347 502.8-508	0.001		0.03
95-347 508-510.7	<0.001		0.03
95-347 510.7-514	0.001		0.02
95-347 514-518.5	<0.001		0.04
95-347 518.5-523.5	0.012		0.03
95-347 523.5-528.8	<0.001		<0.02
95-347 528.8-533.8	0.004	0.003	0.04
95-347 533.8-539	0.002		0.03
95-347 539-544	0.008		0.03
95-347 544-549	0.003		0.03
95-347 549-554	0.002		0.03
95-347 554-559	0.004		0.04
95-347 559-564	0.002		0.04
95-347 564-569	0.001		0.04
95-347 569-574	0.006		0.04
95-347 574-579	0.009		0.06
95-347 579-583	0.002	0.002	0.03
95-347 583-588	0.010		0.04

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT : SP036053

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 95-347

REPORTED : 26 OCT 1995

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
95-347 588-591	0.004	0.004	0.04
95-347 591-595	0.007		0.07
95-347 595-598	0.003		0.06

FIELD NOTE SHEET

REFLEX–FOTOBOR DDI

BY KHA

DRILLHOLE 95-347

LOCATION FAR EAST ZONE

DIP -89° 562W DATE 9/26/95

TIME MIN	DEPTH	NOTES	DEPTH	NOTES	TIME MIN	DEPTH	NOTES	DEPTH	NOTES
1	Set				31	460'			
2	Set				32	480'			
3	Set				33	500'			
4	Set				34	520'			
5	ST				35	540'			
6	BURN				36				
7	20'				37				
8	40'				38				
9	60'				39				
10	80'				40				
11	100'				41				
12	120'				42				
13	140'				43				
14	160'				44				
15	180'				45				
16	200'				46				
17	220'				47				
18	240'				48				
19	260'	- LINE fell off counter		- (+1 foot)	49				
20	260'				50				
21	280'				51				
22	300'				52				
23	320'				53				
24	340'				54				
25	360'	Fell off Counter		(+1 foot)	55				
26	360'				56				
27	380'				57				
28	400'				58				
29	420'				59				
30	440'				60				

SHUT CAMERA OF @ 67 MIN.

Hole DEPTH - 598
- 40' RODS
558
OFF BOTTOM - 8
550
CORE BARREL - 0
550

SURVEY to 540