60001483

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. 94-304c
AUTHOR	C. Winchester; C. Muerhoff; S. Faircloth
DATE OF DOC(S)	1994
MULTI_DIST Y / N? Additional Dist_Nos:	
QUAD_NAME	Sulphur 7.5'
P_M_C_NAME (mine, claim & company names)	Rosebud Mine; Rosebud Project; Hecla Mining Co.; South Zone
COMMODITY If not obvious	gold silver
NOTES	Drill log; geology; assay; total depth 351' handwritten notes 15 p.

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 5/29/08
Initials Date
DB: mah
Initials Date
SCANNED:
Initials Date

Revised: 1/22/08

94-304 c SOUTH ZONE

6000 1483 4010

6000 1483

Hecla
MINING COMPANY

ROSEBUD PROJECT
DIAMOND DRILL LOG

HOLE NUMBER	94-304C	LOCATION	South Zone	REMARKS	ORIENTATIONS
PAGE 1 OF 11		NORTHING	2203364.4		STATED AS ∡ TO CORE AXIS;
DATE	JUNE 25, 1994	EASTING	481143.7		WHOLE CORE SAMPLES COLLECTED,
LOGGED BY	CB, WINETEER	ELEVATION	5268.5		CORE PHOTOGRAPHED,
SCALE	1" = 5'	AZIMUTH	0		
TOTAL DEPTH	351'	INCLINATION	-90°		

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ag2
		0-8' No RECOVERY	5										
Box 1		8-27.5' Protolith appears to be coarse-grained, heterolithic tuff breccia; matrix & clasts partially-totally replaced by fine-grained quartz; green-grey-tan; hard dense, mod density fracturing.	10		FRAC's @ 60-75' ∡ 1/ft.	FeOx stnd clays on frac's (lim.± hem.± geot.) & loc. pseudomorphs after mafics & diss. py/marc. Silic. intense ↓ to 44'; mod to intense ↓ to +64' total repl. of groundmass & partial repl. of clasts.	8	13	5.0'	0.002	0.02		
17			15				13	18.0	5.0'	0.002	0.02		
2	18		20		FRAC's @ 60-70' + 0-10'		18	23	5.0'	0.002	0.03		
	23		25				23	28	5.0'	0.001	0.02		
26.5													

HOLE NUMBER 94-304C PAGE 2 OF 11

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
Box 3		27.5-40' Silicified, fine-grained, porphyritic tuff w/ FeOx pseudomorphs after disseminated py ± mafic crystal fragments; light green, grey, tan, FeOx stained locally, hard, dense frac'd moderate to intense on 5-10, 30, 65-80°; 2% diss. FeOx; frac-opening generally small, w/ open-space Q ± FeOx (lim/hem/goet) ± clays.	30		27.5 Irreg. non-planar contact.	
35.5	33		35			
4		40-44' Medium grey, medium grained (?) moderately-well sorted (?), vitrodastic tuff or porphyritic vitrophere; frac'd & intensely silicified; 2% diss FeOx, hard, dense	40		40' Undulating sharp contact @ 55°	
44	43					
5		44-64.5 Fine-grained, moderately-sorted, porphyritic ash flow tuff, light to medium grey, moderate intense to intensely silicified, disseminated FeOx pseudom's, hard, dense, moderate fractured on 30, 80, 60, 5°	45		44' Wavy sharp contact @ 60°	
	40% Rec.		50		Intensely frac'd - clay-filled	
	52					
54			55			
6			60			

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
28	33	5.0'	0.001	0.02		
33	38	5.0'	0.001	<0.02		
38	43	5.0'	<0.001	<0.02		
43	48	5.0'	0.001	0.02		
48	53	5.0'	0.001	0.03		
53	58	5.0'	0.068	<0.02	0.012	Au 3 0.029

HOLE NUMBER 94-304C PAGE 3 OF 11

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
64 Box 7	63 70	64.5'-130.5' Coarse-grained, poorly-sorted, matrix-supported, heterolithic-polylithic tuff breccia; med. grn-gry to med. dk grn; mod soft clay alt. to mod. hd mod to wk silic., mod. density frac 2-5/ft.; prophylitically altered, oxidized; weakly porphyritic	65 70		64.5' Gradational transition FRAC'D @ 60-55' & 35-30'	w/ white to cream sandy f. g. silica frac-fill. FeOx ± SiO2 ± clay on frac's. diss. FeOx after mafic's ?py mod. silic ↓ 68' decr. Silic ↓
74 8	80 83		75 80		decr. frac's ↓ 60' & 30' 2-3/ft.	→ w/ FeOx + clay (cream, waxy) ± SiO2 - FeOx stn of clasts loc.
84 9			85		decr. frac's ↓ 30-40' & 60-80	→ cream waxy clay Δing to wht soft silec/ill
		- 89-91 Vitroclastic - siliceous groundmass	90			89-91' silic. w/ irreg vugs on 50' frac's w/ open-space f. g. Q + FeOx (lim + hem) stnd. varved clay
93 10	93		95			

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
58	64	6.0'	0.002	0.02		
64	69	5.0'	0.002	0.02		
69	74	5.0'	0.001	0.02		
74	79	5.0'	<0.001	<0.02		
79	84	5.0'	0.004	0.05		
84	89	5.0'	0.003	0.05		
89	94	5.0'	0.002	0.03		

HOLE NUMBER 94-304C PAGE 4 OF 11

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
102 Box 11	103		100 105		clay-gouge & siliz band controlled by 25' & 40' frac's	cream to wht clay on 60'; 40'; & 5' frac's 2/ft.; FeOx stnd clasts & on frac's OXIDATION ↓
117.5 12	113		110		frac's @ 40' & 60-75' w/ 1-2/ft. soft clay-bdding @ 70' 111-115'	MIXED OXIDE/SULFIDE Cubic med. grd py concentrated w/ clasts-loc.
		-116 Marked increase in fragments w/ flow-lamination - alternating siliceous & clay altered bands/Tam's.	115			116-117' F.g. wht SiO_2 + FeOx ± clay @ 60° x-cutting smec/fill @ 20'
120 13	123	- 124-126.5' Crackle breccia w/ soft pale grn clayey matrix w/ weakly siliz. pink to grey clasts (of tuff bx)	120 125		-120-122' plotty med. dk grass grn chl. clay w/in clay alt. clasts in siliz. g.m.	117-131' Pink, grey slightly siliceous matrix w/ incr. diss py up to 7% @ 120-121' - FeOx + wht clay ± SiO_2 on frac's @ 20' & 60°. - wht smec/fill + f.g. marc. ±Q @ 20'; 60', 40°
130			130			

FROM	TO	W	Au	Ag	Au2	Ag2
94	99	5.0'	0.004	0.07		
99	104	5.0'	0.005	0.02		
104	109	5.0'	0.002	<0.02		
109	114	5.0'	0.001	<0.02		
114	119	5.0'	0.002	0.55		
119	124	5.0'	0.002	0.34		
124	129	5.0'	0.002	0.06		

HOLE NUMBER 94-304C PAGE 5 OF 11

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
Box 14		130.5' – Lapilli tuff – tuff breccia Pale green, fine-grained clayey matrix, w/ angular to sub-angular pale green clay-alt. lapilli; matrix supported, poorly-sorted; generally homogeneous clast lithology, mod. soft to mod.			130.5' contact & multiple 60 & 90°	
	133		135		133-140.5' Frac'd w/ @ 5° & 60°	→ hem + lim FeOx stn + open-space f.g. Q ± infilt. clay
					– 133-138 v. strong hem-FeOx stn.	
140 / 15	140.5		140			140.5-170 Minor lim-FeOx + f.g. open-sp. Q @ 30, 55° – diss. marc. ≈1% – minor marc + py microhairline stv. @ 30°
			145			
149 / 16						
	151		150			
			155			
158 / 17						
	161		160			
			165			

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
129	133	4.0'	0.002	0.06		
133	138	5.0'	0.003	0.09		
138	143	5.0'	0.004	0.06		
143	148	5.0'	0.002	0.03		
148	153	5.0'	0.001	0.03		
153	158	5.0'	0.001	0.02		
158	163	5.0'	0.001	0.02		

HOLE NUMBER 94-304C PAGE 6 OF 11

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
169 Box 18	171.5	-171.5- Lithic fragments becoming heterogeneous ↓	170		170-171.5 Frac'd w/weak to mod. lim-FeOx stn clay ± Q @30; 55'	MIXED OXIDE/SULFIDE ↓
178 19	182	-182-193.5' Clast-supported, heterolithic tuff breccia or reworked epiclastic tuff.	175 180		-175 @15' pale tomed grn clay + bright to med gry py-ohedrons -cubic py in g.m.	SULFIDE 171.5-178 diss. cubic py 1-10 loc. 7% ave <1-2 - minor py + marc Q 20; 70° ± f.g. Q 178-209 weak silic. of matrix w/ minor Q + marc. ± py ± smec./ill @ 60-70° + < 30° -diss marc/py 1-2 Ave. loc. >10%
187 20	192.5	193.5-223' Matrix-supported, poorly-sorted, heterolithic tuff breccia w/angular to rnded clay-altered fragments in a fine-grained wkly silicified groundmass, grn-gry, tan; mod. hd.; weak frac's.	185 190 195 200		193.5' apparent contact @ 70°	
196 21						

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
163	167	4.0'	<0.001	0.02		
167	171.5	4.5'	0.003	0.03		
171.5	175	3.5'	0.006	0.07	0.006	
175	180	5.0'	<0.001	<0.02		
180	185	5.0'	<0.001	0.02		
185	190	5.0'	0.003	0.03		
190	195	5.0'	0.001	0.02		
195	200	5.0'	0.001	0.02		

HOLE NUMBER 94-304C PAGE 7 OF 11

%REC	RQD	LITHOLOGY			FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
	203	mod. hd	pale to med grn & tan				-Ba (minor)	202-208 Marc+Py+smec/ill ± Q ± bar (c. xln zoned) w/v. to wk avg. alt.
206 Box 22					205			
					210			209-223' S.A.A. + 5'+ 50-60' white smec/ill ± Q ± marc. + slight size/abund. incr. in diss py ± marc.
	213	mod/ mod hd						
215 23					215		214-217' Frac'd w/ Py-Q Unlt frag's	
					220			
	223	mod	Pale grn-gry	223-231' Flow-laminated, lithic lapilli tuff; fiamme w/ 5:1 to 8:1 Flattening ratio's @ 65'; matrix-supported, moderate-sorted, angular lithic clasts <5%; elongated pumice lapilli in a clayey f.g. matrix			223' Contact ∡ unknw.	223-231' v. Minor py ± smec/ill @ 70-85' <1% diss. py
224 24					225			
		mod-mod hd	tan	231-237.5 Coarse-grained, poorly-sorted, heterolithic matrix-supported tuff breccia	230		231 Contact ∡ unknw, frac'd w/ slickes @ 60' apparent tectonic brecciation post-dating vole. bx	231-235' 1-2% diss. py no x-cutting sulf/Q/clay vnlts.
233 25	233 60% II TOTAL >4"				235			

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
200	205	5.0'	0.002	0.04		
205	210	5.0'	0.002	0.03		
210	215	5.0'	0.002	0.02		
215	220	5.0'	0.002	0.05		
220	225	5.0'	0.002	0.04		
225	230	5.0'	<0.001	0.08		
230	235	5.0'	<0.001	0.05		

HOLE NUMBER 94-304C PAGE 8 OF 11

%REC	RQD	LITHOLOGY			FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		mod soft-mod	pale grn-tan	237.5-238.5' well-sorted, fine-grained devitrified rounded pumice lapilli in devitrified glass matrix, devitr. gas-pipes @ 0-5°, upper contact @ 60' lower contact @ 35'			235-270' frac's/slicks prim. @ 50-60' & 5-10'	231-237' silicified sulf-bearing angular to subrnd clasts
		mod hd-hd	grn					
		mod soft	pale grn	238.5-245' Flow-laminated, coarse-grained, lithic lapilli ash flow tuff; elongated pumice lapilli (fiamme) w/ flattening ratio's of 2:1 to 5:1; porphyritic w/3-4% euhedral to subhed. biotite (pseudomorphically replaced by sericite) mod. arg. alt; ash to coarse-grained angular to rounded silic. lithic frags in a siliceous devitr. glass matrix w/ <1% v.f.g. diss cubic py	240		*245-278' Pervassive seritization inert + mod to strong sulf-idation + Q+mar+py+ sulfosalts on high & Sty	238.5-253' Silic, sulf-bearing angular to subrnd. clasts.
243 BOX 26	243 76% 13 TOTAL >4'	mod hd			245		245' sharp planar contact @ 60'	silic. bands @ 40' irreg. discont. py str.
		mod	tan matrix w/ grn clasts				fiamme @ 50' grn sericite + sooty marc w/ss. rims	246' @ 70° SiO_2 + marc. + smec/ill 247-251' @ 50-60' smec/ill + marc + py & Q 2-3/ft. same comp. @ 15-20' + grn clay (sericite)
				245-253' Coarse-grained, poorly-sorted, hetero lithic, clast-supported, flow-laminated (at base) tuff breccia, w/ angular to subrnd lithic clasts (including med to dk grey bdd carbonaceous epiclastic sed) and elongated devitr. pumice lapilli in a clayey devitr. glass matrix; inverse-graded bd of clasts,	250			
253	253						253' contact & unkn	253-254.5' Silicified f.g. g.m. w/ x-cutting 0-10° marc + smec/ill + sericite + Q
27	69% 10 TOTAL	mod hd			255		254.5' contact @ 70° 255' contact @ 60' grn seric. + sooty marc / ss. rims	255-262' minor py + marc + smec/ill at 50° & 0-5' (+ sericite) c.g. marc blk sooty exterior surf's w/ Sted-Ag cores
		mod		253-254.5' Medium to coarse-grained, mod to poorly-sorted, matrix-supported, heterolithic-lithic lapilli tuff, porphyritic clay alt. lapilli & 2-4% feldspar, Tr Q & bio pheno's in a devitr. clay alt. vitroclastic groundmass.	260			
262 28	263 84% 13 TOTAL >4'			254.5-255 Fine-grained, well-sorted, slightly porphy. airfall tephra w/ Tr to 2% clay alt feldspar, bio in sucrosic sugary f.g. g.m.	265		262' contact @ 70° 262.3' contact @ 70°	light to med. dk green waxy (sericitic) clay w/ dimorphic, cubic & py-ohedrons on 0-5' frac
				255-262' Coarse-grd, poorly-sorted, clast-supported, heterolithic polylithic tuff breccia, inverse-graded bdd. 262-262.3 Fig. well-sorted airfall tephra.	270			

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
235	240	5.0'	<0.001	<0.02		
240	245	5.0'	<0.001	<0.02		
* ser + ss						
245	250	5.0'	0.005	0.08		
* ser + ss.						
250	255	5.0'	0.003	0.06		
*						
255	260	5.0'	0.002	0.06		?
*						
260	265	5.0'	0.002	0.04		
*						
265	270	5.0'	0.002	0.05		

HOLE NUMBER 94-304C PAGE 9 OF 11

%REC	RQD	LITHOLOGY			FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
271 BOx29	273 78% 14 TOTAL >4"	mod	S.AA.	262.3-277' Coarse-grained poorly-sorted, clast-supported, heterolithic-polylithic tuff breccia ↳ loc. center of unit: matrix-supported, w/ pale grn f.g. vitroclastic matrix				
				277-278' Fine-grained, well-sorted, mod. arg. alt, massive-bedded, airfall tephra	275			
280		mod-mod hd	v. pale grn	278-278.5' Upper & lower contacts @ 60° w/ Q + py + marc. + smec/ill + yellow clay on bounding stx - bx'iated & silic-sulfidized f.g. airfall betwn stx's	280		277' irreg. contact 278' Apparent vnlt/contact @ 60' Slicks + Q + marc + smec/ill @ 60'	278-288' silicified + mod arg. alt + mod. sulfidation w/ marc ± f. to c.g. sulfosalts + Q + smec/ill @ 25' ± yellow to orange (oxid) clay (not smeared)
	283 45% 12 TOTAL >4"			278.5-288' Fine-grained, arg. alt., well-sorted, massive-bdd airfall tephra, loc. auto bx'ed., silicified, 2-4% diss. f. grd cubic, dimorphic & py-chedung sugary f.g. g.m.	285			
289		mod hd w/ mod soft frags	pink matrix w/ pale grn clasts	288-292.7' Coarse-grained, poorly-sorted, matrix-supported, heterolithic (?) tuff breccia w/ a pink siliceous matrix and siliceous and/or clay-alt. angular to subrnd clasts.	290			287-292.7 weak to mod oxid of smec/ill
	293 10% 2 TOTAL >4"	Mixed mod hd & mod soft	pink, tan, grn mixed	292.7-302.1' Tectonic/fault breccia of tuff breccia above, clast-supported, angular frags composed of tuff breccia, barite, sulfides, quartz-clay-sulf. vnlts., very minor inter-frag clay gouge	295		292.7' gradational contact ↓ fault bx.	vuggy silicification, bx'id-ion, sulfidation c. xln, zoned barite in part post-silic.-sulf.
299				302.1-310' Tectonic/fault breccia w/in fine-grained, clay-altered fine-grained airfall tephra	300			298-302.1 Mod oxid of smec/ill 12.8' @ 0.392, 2.39 7.5' @ 0.627, 3.51
	303 15% 3 TOTAL >4"	mod soft-soft			305			

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
270	274	4.0'	0.001	0.04		
274	278	4.0'	0.003	0.06		
* ss 278	282	4.0'	0.003	0.08		
* ss. 282	287	5.0'	0.006	0.08		
* 287	292.7	5.7'	0.011	0.20	0.012	
? 292.7	298.	5.3'	0.052	0.60		
? 298	302.1	4.1'	0.548	2.31	0.756	(grav) 0.852
? 302.1	305.5	3.4'	0.272	4.95	0.330	(grav) 0.367

HOLE NUMBER 94-304 C PAGE 10 OF 11

%REC	RQD	LITHOLOGY			FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		Soft-mod soft	S.A.A.				305-313' Slickes @ 50°S40°	
310	310	mod hd to hd	pale pink matrix w/ pale grn & yellow-grn clasts	310-351' (EOH) Matrix-supported, poorly-sorted, coarse-grained, heterolithic tuff breccia w/ distinctive fine-grained siliceous pink matrix and clay altered sulfide-rich angular clasts (f.g. massive & planar laminated tephra)	310		FOOTWALL OF SOUTH RIDGE FAULT ↓ No. Not sef. C.H.	310-323' Minor <1% f.g. diss cubic py, minor clear Q ± py + marc ± clear tabular barite @ 40'
BOX 33	80% 12 TOTAL >4"			PINK MATRIX LITHIC TUFF BX	315			
319 34	320				320			
	98% 15 TOTAL >4"							
328 35	330				325			
	+95%				330			329-345' Minor, thin $CaCO_3$ ± smec/ill marc ± py @ 40° & 70°-X-cutting 40°'s
337 36					335			Minor c.g. cubic py clotts - pref. repl. of clasts assoc. w/ $CaCO_3$ + py + smec/ill veins
	340.5				340			

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
305.5	309	3.5'	0.035	1.20		
309	312	3.0'	0.021	0.21		
312	317	5.0'	0.001	0.02		
317	322	5.0'	<0.001	<0.02		
322	327	5.0'				
327	332	5.0'				
332	337	5.0'				
337	342	5.0'				

HOLE NUMBER 94-304C PAGE 11 OF 11

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ag2
	+95%	S.AA - 340-348' Clasts of pale green, f.g. planar laminated (waterlain) tephra w/ contorted lam's.											
346		mod-mod hd - 348-351' Becoming interbedded f.g. pale green planar laminated (waterlain) tephra w/ pink f.g. siliceous tephra w/ contorted flaser laminations - x-lam's, at 45°	345				342	347	5.0'	<0.001	<0.02		
351	351		350			minor f.g. cubic py per w/ bdd. & assoc. w/ $CaCO_3$ ± sweet/ill ± py	347	351	4.0'	0.002	0.02		
		351' END OF HOLE											

ANALYSIS REPORT

American Assay Laboratories Inc.

P.O. BOX 71060
RENO, NV,,U.S.A.,
Ph.1-702-356-0606, Fax.1-702-356-1413
Telex:

POSTED

HECLA MINING CO.

COPIES TO : CHARLIE MUERHOFF
:
:
:

CLIENT REFERENCE No: 94-304C
LABORATORY JOB No. : SP029874
SAMPLE TYPE :

RECEIVED : 7/07/94
REPORTED : 15/07/94
No. SAMPLES : 71

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au(OZ)	FA60	15%	OPT	0.001
Au(RZ)	FA60	15%	OPT	0.001
Au RZ2	FA60	15%	OPT	0.001
AuGRAV	GRAV	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Sue Faircloth M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT

American Assay Laboratories Inc.

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 94-304C
JOB NUMBER : SP029874
REPORTED : 15/07/94

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Au RZ2 FA60 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
94-304C 8-13	0.002				0.02
94-304C 13-18	0.002				0.02
94-304C 18-23	0.002				0.03
94-304C 23-28	0.001				0.02
94-304C 28-33	0.001				0.02
94-304C 33-38	0.001				<0.02
94-304C 38-43	<0.001				<0.02
94-304C 43-48	0.001				0.02
94-304C 48-53	0.001				0.03
94-304C 53-58	0.068	0.012	0.029		<0.02
94-304C 58-64	0.002				0.02
94-304C 64-69	0.002				0.02
94-304C 69-74	0.001				0.02
94-304C 74-79	<0.001				<0.02
94-304C 79-84	0.004				0.05
94-304C 84-89	0.003				0.05
94-304C 89-94	0.002				0.03
94-304C 94-99	0.004				0.07
94-304C 99-104	0.005				0.02
94-304C 104-109	0.002				<0.02
94-304C 109-114	0.001				<0.02
94-304C 114-119	0.002				0.55
94-304C 119-124	0.002				0.34
94-304C 124-129	0.002				0.06
94-304C 129-133	0.002				0.06

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT

American Assay Laboratories Inc.

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 94-304C
JOB NUMBER : SP029874
REPORTED : 15/07/94

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Au RZ2 FA60 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
94-304C 133-138	0.003				0.09
94-304C 138-143	0.004				0.06
94-304C 143-148	0.002				0.03
94-304C 148-153	0.001				0.03
94-304C 153-158	0.001				0.02
94-304C 158-163	0.001				0.02
94-304C 163-167	<0.001				0.02
94-304C 167-171.5	0.003				0.03
94-304C 171.5-175	0.006	0.006			0.07
94-304C 175-180	<0.001				<0.02
94-304C 180-185	<0.001				0.02
94-304C 185-190	0.003				0.03
94-304C 190-195	0.001				0.02
94-304C 195-200	0.001				0.02
94-304C 200-205	0.002				0.04
94-304C 205-210	0.002				0.03
94-304C 210-215	0.002				0.02
94-304C 215-220	0.002				0.05
94-304C 220-225	0.002				0.04
94-304C 225-230	<0.001				0.08
94-304C 230-235	<0.001				0.05
94-304C 235-240	<0.001				<0.02
94-304C 240-245	<0.001				<0.02
94-304C 245-250	0.005				0.08
94-304C 250-255	0.003				0.06

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT

American Assay Laboratories Inc.

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 94-304C
JOB NUMBER : SP029874
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SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Au RZ2 FA60 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
94-304C 255-260	0.002				0.06
94-304C 260-265	0.002				0.04
94-304C 265-270	0.002				0.05
94-304C 270-274	0.001				0.04
94-304C 274-278	0.003				0.06
94-304C 278-282	0.003				0.08
94-304C 282-287	0.006				0.08
94-304C 287-292.7	0.011	0.012			0.20
94-304C 292.7-298	0.052				0.60
94-304C 298-302.1	0.548	0.756		0.852	2.31
94-304C 302.1-305.5	0.272	0.330		0.367	4.95
94-304C 305.5-309	0.035				1.20
94-304C 309-312	0.021				0.21
94-304C 312-317	0.001				0.02
94-304C 317-322	<0.001				<0.02
94-304C 322-327	<0.001				<0.02
94-304C 327-332	<0.001				<0.02
94-304C 332-337	<0.001				<0.02
94-304C 337-342	<0.001				<0.02
94-304C 342-347	<0.001				<0.02
94-304C 347-351	0.002				0.02