6000 0808

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. D-5-94
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; Hecla Mining Co.; Rosebud Project South Zone
COMMODITY If not obvious	gold; silver
NOTES	drill logs; geology; assay; total depth 220'; receipt; handwritten notes 13p.

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 9/30/08
Initials Date

DB:
Initials Date

SCANNED:
Initials Date

Revised: 1/22/08

D-5-94

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4010

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Hecla
MINING COMPANY

ROSEBUD PROJECT
DIAMOND DRILL LOG

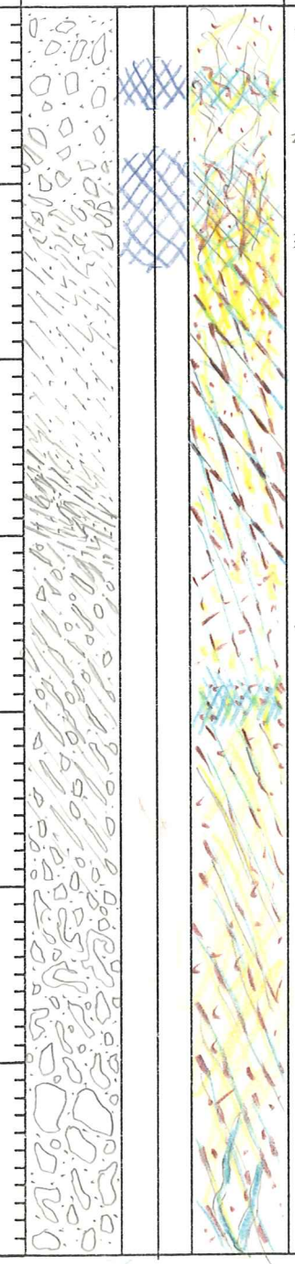
HOLE NUMBER	D-5-94	LOCATION	South Zone	REMARKS	ORIENTATIONS STATED
PAGE 1 OF 7		NORTHING	2203410.5		AS ∡ TO CORE AXIS; WHOLE CORE
DATE	8-5-94	EASTING	481357.0		ASSAY SAMPLING; CORE PHOTOGRAPHED;
LOGGED BY	CB WINETEER	ELEVATION	4734.0		COLLARED IN DRILL STA. NO. 4; SECTION
SCALE	1"=5'	AZIMUTH	134.5°		250N;
TOTAL DEPTH	220'	INCLINATION	+80°		

%REC	RQD	LITHOLOGY			FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	(opt) Au	(opt) Ag	(opt) Au2	(opt) Ag2
78	.22 2>4" 5	MOD-MOD HD	GRY-GRNISH GRY	0-15.5' Fine-grained, planar-laminated, well-sorted, waterlain tuff/tephra, local crackle breccia as noted to right.	5		0-6' Crackle breccia w/ offset to lamination & slight clast-rotation. — ill/smec clay ± framboid py	0-15.5' smec/ill ± sooty black sulfide ± $CaCO_3$ on 20, 30, 60° stkwk >10/ft. +1% diss. py; loc. access. c. xln diss. pyrr groundmass weakly silic. + $CaCO_3$ microvnlts.	0	5	5.0'	0.018	0.17		
90	.44 4>4" 10				10		planar-laminated @ 70' 10.5-16' fracture stkwk to crackle breccia		5	10	5.0'	0.019	0.21		
86	.66 7>4" 15				15			12.5' 1.2" Micro bx-vnlt @ 50' w/ greenish-gry slicks (sulfide-rich) clay + f.g. sulfides	10	15	5.0'	0.039	3.52		
86	.45 4>4" 20		PINKISH TAN & LIGHT GRY	15.5-32' Pink lithic tuff breccia at 35' w/ pink slightly siliceous fine-grained matrix and poorly-sorted, massive bedded angular lithic (tuff/tephra) fragments; matrix-supported. Tectonic brecciation & carbonate flooding as noted to right.	20		15.5' Irregg. fault? contact @ 35' (@ ⊥ ∡ to laminations	15.5-23' @ 25' & 45' $CaCO_3$ + chlorite ± f.g. py + Tr pyrr 25' x-cut 45' clay alt groundmass w/ weak alunite alt. 1+% diss. f.g. py	15	20	5.0'	0.002	0.05		
92	.69 6>4" 25				25		23-24.5 Crackle to fault breccia w/ partial $CaCO_3$ flooded matrix	23-24.5 discont. stringers $CaCO_3$ + py (tarnish) + Tr pyrr; red-orange SiO_2 ± py; clay alt. ground mass. diss mod. g. py 1-2%	20	25	5.0	0.002	0.09		

HOLE NUMBER D-5-94 PAGE 2 OF 7

%REC	RQD	LITHOLOGY	FT	STRUCTURE	ALTERATION AND MINERALIZATION
90	.40 4>4"	MOD-MOD HD; PINKISH TAN & LIGHT GRY	30	26.5-28' $CaCO_3$ healed fault - crackle bx 29-32.5' $CaCO_3$ healed fault - crackle bx	25-32 weak silic. stkwk; 1-2% diss. cubic py $CaCO_3$ vn - stkwk w/ 40° prim orient. 1ST ORDER REACTION RIMS w/ pink SiO_2 frac - stkwk w/ pale green (sage) clay ± < $CaCO_3$ ± < open-space f.g. Q + py coatings & platey repl. minor ill/smec
78	.33 4>4"	32-40' Planar to wavy-laminated rhythmically bedded fine-grained tuff/tephra w/ strongly flow-sheared & locally contorted laminations.	35	32' Fractured - crackle bx at contact, - slightly incr. SiO_2 -Tr cpy -Tr V.E. ± ss ± Ag ± Spl.	32-40' 1-3% diss. f.g. py concentrated w/in white laminations; siliceous pink (alunitic?) laminations, stkwk of $CaCO_3$ + py ± smec/ill microvnlts w/ lateral/vertical segregation of carbonate/sulfide/clay prim. @ 20-40' w/ 40'x-cutting subparallel 20's w/in clay segments minor open-space Q ± $CaCO_3$ ± sulfosalts ± exsolved V.E.; Tr of c.g. (0.025") cu-coated V.E. agglomerates; Tr wire Ag.
94	.86 8>4"		40	35-36'	
88	.60 13>4"	40-88.5' Flow-laminated, well-, moderate to poorly-sorted, lithic tuff and fine-grained flow-laminated tuff/tephra, prob. waterlain; contorted-folded flow-lamination (flow-shear related) common, rythmically inter-laminated pink siliceous f.g. laminations and white slightly clayey, but siliceous, laminations; elongated, stretched white "beds" w/in siliceous pink tuffaceous "beds" - matrix.	45	flow-lamination @ 40' 44.5-45.5 $CaCO_3$ + tarnish py flooded tectonic crackle bx	40-45' incr. $CaCO_3$ + decr. sulf. f.g. cubic py & f. to med. g. bladed py after marc? concentrated w/in white siliceous - clay laminations.
93	.71 12>4"	MOD HD; greenish grey matrix w/ off wht clasts	50 55 60		45-88.5' weak to mod. silic., microhairline clear to pale green SiO_2 stkwk w/ clay + py altered clasts w/ broad SiO_2-rich reaction rims. 2-10/ft. $CaCO_3$ + bladed marc + cubic py + ill/smec + open-space Q @ 20-30° diss. v.f.g. to f.g. cubic py 2-3%; loc. c.x'ln $CaCO_3$ + py + pale green clay ± smec/ill. in irreg. high & (to surf.) frac's.

GRAPHIC LOG



ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
25	30	5.0'	0.002	0.08		
30	35	5.0'	0.003	0.10		
*35	36	1.0'	0.045	7.95		
36	40	4.0'	0.021	1.20	0.023	
40	45	5.0'	0.007	0.29		
45	50	5.0'	0.008	0.05		
50	55	5.0	0.004	0.09		
55	60	5.0	0.008	0.04		

HOLE NUMBER D-5-94 PAGE 3 OF 7

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
90	.62 11>4" 70	MOD HD; S.A.A.	65, 70		late frac's x-cutting $CaCO_3$ @ 30 & 45' post sulfide slicks @ 60'	sulfide-rich microhairline stringers @ ~60' w/ py, py after marc, & tarnished py
90	.70 11>4" 79	-73.5 - 75.5' planar-laminated f.g. tuff/tephra w/lam's @ 60' & locally contorted	75		frac's parallel to flow-lam. elongated, flow-aligned lithic frags @ 25'	incr. in $CaCO_3$ + tarnish py ± py after marc. + incr. width of SiO_2 reaction rim.
91	.75 10>4" 87		80, 85			2-5/ft. 87-107 $CaCO_3$ + marc ± ill/smec. @ 15-20' & 31-35' 4-5% diss. cubic f.g. py, pale to emerald grn clay stkwk ± clear to pink SiO_2 ± alunite stkwk 1st order reaction rims w/ 0.025" pink SiO_2 exterior & off-white clay + sulfide alt. cores.
89	.67 12>4"	HD; bleached light grey matrix w/ pinkish grey clasts; 88.5-	90, 95		88.5' gradational transition from flow-laminated clast-supported into matrix-supported & less lithic fragments	slight incr. in ill/smec clay w/ carbonate/sulfide stringers, but still minor

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
60	65	5.0'	0.002	0.04		
65	70	5.0'	0.006	0.04		
70	75	5.0'	0.002	0.03		
75	80	5.0'	0.012	0.05		
80	85	5.0'	0.005	0.03		
85	90	5.0'	0.016	0.05		
90	95	5.0'	0.014	0.05		

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
	97	MOD HD - HD; Drab green-grey				
83	.44 9>4"	MOD-MOD HD	100		101.5 – 103.5' f.toc.g. $CaCO_3$ ± ill/smec + f.g. py ± Tr open-space @ flooded crackle bx w/ discont. sulf. stringers, clay alt. g.m. post-sulfide/carbonate slicks @55°	100-101.5' frac'd planar-lam water lain tuff breccia frag w/ 25°, 55° $CaCO_3$ + f.g. py x-cut by later 10° c.g. $CaCO_3$ ± FeO_x stn (tan to orange Carbonate) ± f.g py
	107		105		sharp, but not faulted @20° 106.7' Contact between weakly silic./sulfid./clay alt. (chl + mont.) lithic tuff bx above & strongly argillized/sulfid/silic. lithic tuff bx below.	103.5 – 106.7' Minor 40° & 80° c.g. $CaCO_3$ + py after bladed sulfide; diss. f.g. cubic & bladed py
100	.56 8>4"	Bleached grey matrix w/ pink? grey clasts. MOD; MOD; MOD	110		109-110' tectonic bx - clayey gouge & ill/smec clays @ 30° + Tr bar	106.7 – 110.7' Mod. Intense argillization/sulfidation + silicification of clasts. 5-8% diss. f.g. cubic py - distorted & stx adj. to sulf/SiO_2/$CaCO_3$ & clay veins. bladed sulfides w/in clasts only tarnish py str. @ 20° & 60° (pre 20's)
	115	greenish grey matrix pink, cream grey clasts	115		111 – 111.3' tectonic bx @ 30° + Tr bar 113 – 113.5' tectonic bx @ 20°	Partial to total pink SiO_2 ± alunite? repl. of clasts w/ loc. external SiO_2 reaction rim + clay + py/marc. alt. core.
90	.66 6>4"				122 – 140' 3rd order reaction rims common w/ SiO_2 ± alunite; clay + sulfide; SiO_2 ± alunite?	110.7 – 122' 2nd order reaction rims w/ SiO_2 repl. cores & clay ± f.g. py repl. exterior rims. 3-5% diss. f.g. cubic py + Tr to pcy spl.
	120	Slightly bleached pale grn sty	120		4-7% diss. f.g. cubic py & bladed py after marc.; minor 30° $CaCO_3$ ± py after bladed sulf	$CaCO_3$ + py stringers @ 70-80° & 5-10°; ground mass is weakly silic. & mod. clay alt.
100	.90 8>4"				124' post-$CaCO_3$ + py slick @ 55°	5-10° c.g. $CaCO_3$ + f.g py ± Tr Cu-coated Electrum @ intersection w/ 70-80's
	125		125		127' post $CaCO_3$ + py slick @ 15°	
85	.76 6>4"				129-130' post $CaCO_3$ + py slicks at 30° & 65°	
	130	pink matrix w/	130			

106.7' – 150' Poorly-sorted, matrix-supported, massive-bedded lithic tuff breccia w/ clay/silica/sulfide altered f.g. tuff clasts - largely planar-laminated, in a fine-grained, clast-rich, sulfide-rich clay altered, silica microhairline stockwork matrix

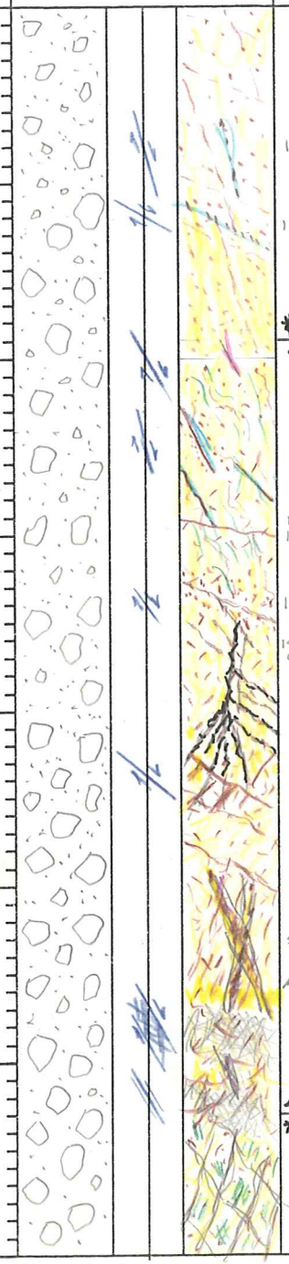
ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
95	100	5.0'	0.004	0.03		
100	104	4.0'	0.003	0.03		
104	107	3.0'	0.002	0.02		
107	111	4.0'	0.006	0.07		
111	115	4.0'	0.005	0.03		
115	120	5.0'	0.012	1.19		
120	125	5.0'	0.011	0.16		
125	130	5.0'	0.006	0.69		

HOLE NUMBER D-5-94 PAGE 5 OF 7

%REC	RQD	LITHOLOGY	FT	STRUCTURE	ALTERATION AND MINERALIZATION
98	.72 6>4' 135	MOD HD – HD; cream, med. grey, pink clasts. * STRONGEST CARBON 147-151' & 155.5-158' 143-147' carbon-coated cpy after bladed sulf w/ $CaCO_3$	135	134' post-$CaCO_3$+py slick @ 15'	130-140' v. minor bladed marc/py on 10' stx's.
95	.73 4>4" 140	DRILLER NOTE: ENCOUNTERED WATER	140	137' post-$CaCO_3$+py slick @ 60' * weak below 140'	135-140' mixed crystal morphology of diss sulfide including inert pyritohedrons + incr. silic of matrix & clasts.
95	.80 7>4" 145	+ med pink brn clasts * CST-5 148.4-149' (0.6')	145	140-147' irreg. wavy micro-hairline marc ± $CaCO_3$ @ 60' w/ access pale green clay 141.5-143 0.01-0.3" $CaCO_3$+ bladed marc? ± Tr sulfosalt w/ py-rons salvage @ 12' w/ sub parallel slicks-pat 143.5' mineral – same as below 144.75' Carbon-coated cpy in pseudo march after bladed sulf. @ 30' x-cutting $CaCO_3$ + carbon-coated sulfide @ 30' diss	139.5-140' c. xln intergrowths of pyrargyrite + naumonite + minor cpy + high z yellow py-ohedrons ± $CaCO_3$ in 0 to 0.25" Unit @ 15'; x-cut by 30' slicked unit of same mineralogy, but f.g.
96	.62 5>4" 150	+ pale green clasts (c.g. blades) – brn clasts predom. pale green clasts in pink matrix	150	146.9 carbon-coated bladed sulf + ill/smec @ 65' 147' carbon + sulf-rich clay slick @ 35' that truncates/offsets 5' carbon-coated bladed sulfide + ill/smec & w/ the 5' s/x x-cutting 60' ill/smec + carbon-coated bladed sulf w/ grey & greenish-blue (cu-stain?) salvages 152' post-sulf ± ss. slick @ 55'	140-150' silicified, bleached pyritohedrons predom. ↓ 142' 142' ↓ bladed f.g. sulfide w/ black carbon coatings pyritohedrons 146-147' ± py-rons ± f.g. open-space Q
96	.86 5>4" 155	MOD HD w/ MOD CLASTS 150- Poorly-sorted, matrix-supported, coarse-grained, massive bedded tuff breccia w/ predominately massive-bedded fine-grained tephra/tuff (airfall?) clasts. Contact between tuff bx above w/ laminated waterlain? tephra clasts & tuff bx below w/ massive airfall? tephra clasts is gradational transition 150-151'	155	silicified + vuggy w/ v.f.g. open-space Q x-lining 158.5-159.5' Strong argillic alteration assoc. w/ tectonic bx	150-155.5' Moderate-intense silic. of groundmass, mod. intense clay alt. of clasts no multiple reaction rims, no silic. of clasts beyond 152' 3-5% f. to med. grd. diss. platey sulf.
81	.35 4>4" 162	* CST-6 161.3-162' (0.7')	160	160.5-161.2 S.A.A.	155.5-158.5' S.A.A. + 15'-20' open-space (partly-open) Tr ~~bar~~ + stacked carbon-coated "books" of bladed sulf. + open-space f.g. Q ± ill/smec vnlets/ blue-green (Cu?) stained salvage (increasing in strength w/ time)
91	.50 10>4"	* NOTE: frags w/ SiO_2-chl +py micro "hair-line" stringers that do not extend into groundmass/matrix of breccia	165		161.2-171' Minor bladed sulf + ill/smec ± open-space Q + py w/ thin carbon-coating on frac.-surfs & bladed sulf. at 15'; 30'; 2-5% diss. f.g. py-cubes

GRAPHIC LOG



ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
130	135	5.0'	<0.001	0.10		
135	139.5	4.5'	0.006	0.49		
139.5	140.0	0.5	0.007	63.30		
140	143.5	3.5'	0.232	8.05		
143.5	147	3.5	0.065	0.28	11.5' .124 5.66	
147	148.4	1.4'	0.072	1.84		
148.4	149	0.6'	.245	1.60	.229(g)	
149	151	2.0'	0.108	0.64		
151	155.5	4.5'	0.047	0.20		
155.5	158.5	3.0'	0.058	0.47		
158.5	161.3	2.8'	0.028	0.44		
161.3	162	0.7	.007	.06		
162.0	165	3.0'	0.008	0.09		

HOLE NUMBER D-5-94 PAGE 6 OF 7

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
	172	S.A.A. S.A.A greenish grey matrix w/ green & cream clasts	170			165-174.5' 2-4% f.g. diss. py & bladed sulf; weak silic.; mod to intense clay alt of clast + wk sulfidation.; clay + sulf vnlts 2-6/ft @ 15° & 30° w/ smec/ill & marc. weak "relic" chl + SiO_2 ± py microvnlts incr. ↓
83	.46 10>4"	MOD SOFT mod hd matrix w/ mod to mod soft clasts	175		174-174.5' soft clayey fault gouge @ 30° slicks w/ SiO_2 ± sulf.	174-174.5' slicked & fragmental SiO_2 ± sulf stringers in clay gouge. 174.5-181 smec/ill + carbon-coated bladed sulf ± f.g. open-space Q @ 15°, 80°, 45° 2-4% v.f.g. diss py; smec/ill loc. yellow.; weakly chl. clasts.
	182	slightly pink matrix green & pink clasts 180-200' Increasing clast size - exceeding diameter of core locally.	180		176-177.5' Rubbly w/ carbon coated blade sulf + ill/smec ± $CaCO_3$ @ 20-30'	181-186' chalcedonic SiO_2 ± py ± Tr bladed marc + chl. salvage @ 5-15' x-cut sulf stringers @ 15° & 60°
77	.34 7>4"		185		-183-186' chl + SiO_2 ± py stkwk filling Cradle bx. 186-193' frac'd & vuggy w/ late-stage open-space f.g. Q + smec/ill ± angular slivers of wall rx	1-3% f.g. diss. cubic py + bladed marc. 186-193 5-20° open-space frac's w/ partial void-filling w/ qtz + ill/smec + thin bladed marc. 1-2% diss. py slightly bleached chl. alt.
	192		190			193-200 Minor ill/smec on 5-30° frac's ± bladed marc & py & marc. bladed marc + ill/smec stringers @ 15° & 60°
74	.34 7>4"	Mod	195			
			200		contact @ 200' w/in rubbly core & unkn	

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
165	170	5.0'	0.005	0.11		
170	175	5.0'	0.019	0.36		
175	180	5.0'	0.022	1.48	0.024	
180	185	5.0'	0.003	0.05		
185	190	5.0'	0.007	0.07		
190	195	5.0'	0.006	0.08		
195	200	5.0'	0.003	0.07		

HOLE NUMBER D-5-94 PAGE 7 OF 7

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
	202	mod pale green w/ thin pinkish bands 200-210' Fine-grained, massive-bedded, well-sorted airfall? tephra/tuff w/ local silicified tectonic? Crackle breccia			200-203 clast-supported fault bx angular frags in silic.-chl. matrix 40' contact @ 203'	200-203 mod. arg. alt w/in wk silic. + chl. fault bx chalcedonic SiO2 w/encasing chl + py
78	.32 7>4"		205			203-210' 70°? 30' irreg. py + chl stringers, chl microhairline stockwork 1-2% diss v.f.g. py local silicified + chl. ± py microbreccias
		mod soft 210-212' Fault breccia w/angular silicified tuff fragments in a clayey gouge matrix; fragments of e.g. bar. veins	210	Ba		210-212 discontinuous frag's of silic. ± bar; ill/smec; chl + py in fault clay
	212	212-213 silicified, vuggy fault breccia w/ open-space f.g. Q + barite + marc. + ill/smec.				212-213' silicified fault bx w/ open-space Q + bar + marc + ill/smec + py
81	.43 8>4"	mod hd 213-220' Fine-grained, planar- and wavy laminated, well-sorted airfall or waterlain tephra/tuff.	215		planar? wavy laminations @ 75-80° local micro crackle-breccia w/ open-space + partial filled w/ py + Q	213-220' 30°, 60°, 5° frac's w/ chl + ill/smec + cubic py + py ~~fr~~ marc.; frac's partially open-space 2-3% v.f.g. diss. cubic py + < bladed sulf. ground mass weakly silic. by SiO2 + chl + py microvnt stringer-stkwk
	220	END OF HOLE @ 220'	220			

FROM	TO	W	Au	Ag	Au2	Ag2
200	203	3.0'	0.003	0.04		
203	206	3.0'	0.002	0.05		
206	210	4.0'	0.003	0.04		
210	213	3.0'	0.004	0.05		
213	216	3.0	0.002	<0.02		
216	220	4.0'	<0.001	<0.02		

ANALYSIS REPORT

American Assay Laboratories

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

HECLA MINING CO.

COPIES TO : CHARLIE MUERHOFF
:
:
:

CLIENT REFERENCE No: D-5-94
LABORATORY JOB No. : SP030391
SAMPLE TYPE :

RECEIVED : 9/08/94
REPORTED : 24/08/94
No. SAMPLES : 52

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 Faircloth M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : D-5-94
JOB NUMBER : SP030391
REPORTED : 24/08/94

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
D-5-94 00-05	0.018		0.17
D-5-94 05-10	0.019		0.21
D-5-94 10-15	0.039		3.52
D-5-94 15-20	0.002		0.05
D-5-94 20-25	0.002		0.09
D-5-94 25-30	0.002		0.08
D-5-94 30-35	0.003		0.10
D-5-94 35-36	0.045		7.95
D-5-94 36-40	0.021	0.023	1.20
D-5-94 40-45	0.007		0.29
D-5-94 45-50	0.008		0.05
D-5-94 50-55	0.004		0.09
D-5-94 55-60	0.008		0.04
D-5-94 60-65	0.002		0.04
D-5-94 65-70	0.006		0.04
D-5-94 70-75	0.002		0.03
D-5-94 75-80	0.012		0.05
D-5-94 80-85	0.005		0.03
D-5-94 85-90	0.016		0.05
D-5-94 90-95	0.014		0.05
D-5-94 95-100	0.004		0.03
D-5-94 100-104	0.003		0.03
D-5-94 104-107	0.002		0.02
D-5-94 107-111	0.006		0.07
D-5-94 111-115	0.005		0.03

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : D-5-94
JOB NUMBER : SP030391
REPORTED : 24/08/94

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
D-5-94 115-120	0.012		1.19
D-5-94 120-125	0.011		0.16
D-5-94 125-130	0.006		0.69
D-5-94 130-135	<0.001		0.10
D-5-94 135-139.5	0.006		0.49
D-5-94 139.5-140	0.007		63.30
D-5-94 140-143.5	0.232		8.05
D-5-94 143.5-147	0.065		0.28
D-5-94 147-148.4	0.072		1.84
D-5-94 149-151	0.108		0.64
D-5-94 151-155.5	0.047		0.20
D-5-94 155.5-158.5	0.058		0.47
D-5-94 158.5-161.3	0.028		0.44
D-5-94 162-165	0.008		0.09
D-5-94 165-170	0.005		0.11
D-5-94 170-175	0.019		0.36
D-5-94 175-180	0.022	0.024	1.48
D-5-94 180-185	0.003		0.05
D-5-94 185-190	0.007		0.07
D-5-94 190-195	0.006		0.08
D-5-94 195-200	0.003		0.07
D-5-94 200-203	0.003		0.04
D-5-94 203-206	0.002		0.05
D-5-94 206-210	0.003		0.04
D-5-94 210-213	0.004		0.05

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : D-5-94
JOB NUMBER : SP030391
REPORTED : 24/08/94

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
D-5-94 213-216	0.002		<0.02
D-5-94 216-220	<0.001		<0.02

ANALYSIS REPORT

American Assay Laboratories

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

HECLA MINING CO.

COPIES TO : CHARLIE MUERHOFF

:

:

:

CLIENT REFERENCE No: D-5-94

LABORATORY JOB No. : SP030768

SAMPLE TYPE :

RECEIVED : 6 SEP 1994

REPORTED : 14 SEP 1994

No. SAMPLES : 2

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

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CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : D-5-94
JOB NUMBER : SP030768
REPORTED : 14 SEP 1994

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-5-94 148.4-149	0.245		0.229	1.60
D-5-94 161.3-162	0.007			0.06

CST-6
D-5-94
NO. 17-505 HQ TOP

NO. 17-505 HQ TOP

NO. 17

NO. 17

NO. 17
D-5-94
CST-5
18.4