6000 0838

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-36-94
AUTHOR	C. Winterer; 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 log; geology; assay; total depth 178'; receipt, handwritten notes 6 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 5/1/08
Initials Date
DB:
Initials Date
SCANNED:
Initials Date

Revised: 1/22/08

D-36-94

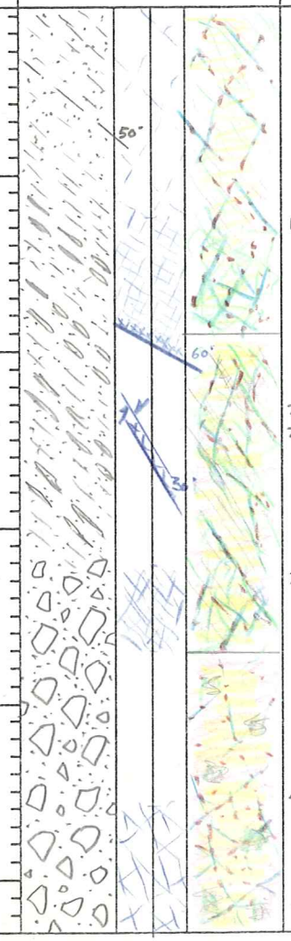
6000 0838
4010

6000 0838

Hecla
MINING COMPANY

ROSEBUD PROJECT
DIAMOND DRILL LOG

HOLE NUMBER	D-36-94	LOCATION	South Zone	REMARKS	ORIENT ∡ TO CORE AXIS;
PAGE 1 OF	3	NORTHING	2203637.2		CORE PHOTO'D; WHOLE CORE ASSAY
DATE	10-25-94	EASTING	481544.1		SAMPLES; DDS # 10 ; SECTION 550N;
LOGGED BY	CB WINETEER	ELEVATION	4704.8		NQ CORE
SCALE	1" = 10'	AZIMUTH	133.5°		
TOTAL DEPTH	178'	INCLINATION	+61.5°		

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
90	.33	0-32' Flow-laminated, fine-grained, well-sorted waterlain (?) tuff and local interbedded lithic tuff. Moderately hard, siliceous, pale green and pink. Locally brecciated and fractured as at right.	10		0-12.5' frac'd w/ minor frac-fill ser-chl-$CaCO_3$	0-19.9' wk silic + 1-2% f.g. cubic py-T + tr lam'd alun + wk ser-T (lam) & ser-rich matrix in bx's + min stx's discont. 0.001-0.10" $CaCO_3$-ser-f.g. py ± marc ± tr ill & f.g. xln Q 3-5/ft.
92	.41		20		12.5-19.9' Crackle bx Δing ↓ to fault bx (19.5-19.9') >>20/ft discont. ser ± $CaCO_3$ frac's.	
100	.56		30		25' 30° slick w/ REG's @ 30° to dip. 26.5' 30° slick & micro bx w/ grey sulf-ser 3/8" gouge	19.9-37' wk to mod. silic + arg-T salvages + wk lam'd & salvage alun. + 1-3% f.g. py-T + wk ser-T min stx's discont. 30° 0.005-0.10" 4-8/ft w/ ser-$CaCO_3$-py + py & marc
94	.47	32-105' Lithic tuff breccia: matrix-supported poorly-sorted, angular fine-grained tuff lithic fragments ash to 5.0 cm. in a siliceous and locally alunitic/sericitic matrix. Local breccia zones & variable alteration. Generally siliceous & moderately hard. Pale green & pink.	40		32-37' $CaCO_3$-ser fault bx - contact & unlen.	
97	.58		50		46-89' Intermittant crackle bx w/ ser ± $CaCO_3$ matrix on 15°, 50°, -40°, & 80° stx's	37-89' mod silic + wk to mod. alun + wk arg-T + 1-3% cubic & bladed py-T + wk to mod ser-T (clasts); 0-10 strong 1st order RR's incr. strength ↓; min stx's 4-8/ft @ 15, 50, 40, 80° 0.005-1.0" $CaCO_3$ ± ser + segregated ill + py + py & marc + tr spl ± tr cpy
98	.51					

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
0	5	5.0'	<.001	<.02		
5	10	5.0'	<.001	<.02		
10	15	5.0'	<.001	.02		
15	19.9	4.9'	<.001	.03		
19.9	25	5.1'	.001	.02		
25	30	5.0'	.002	.03		
30	33.5	3.5'	.028	.14		
33.5	37	3.5	1.074	24.68	.904 (g)	
37	42	5.0'	.336	11.99	.389 (g)	
42	47	5.0'	.050	.55	.054 (g)	
47	52	5.0'	.028	.25		

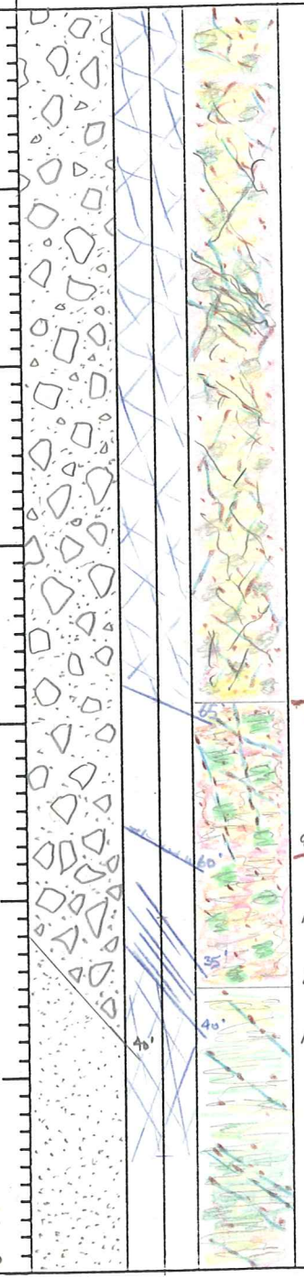
HOLE NUMBER D-36-94 PAGE 2 OF 3

REC	RQD
94	.54
96	.42
105	.80
100	.29
100	.67
100	.89
95	.59
93	.49

LITHOLOGY

105–121' Fine-grained, massive-bedded, well-sorted, vitroclastic airfall tephra. Pale-green, argillized w/ chlorite microstockwork.

FT



STRUCTURE

ALTERATION AND MINERALIZATION

89–105' wk silic + tr to 2% v.f.g. cubic py-T + pinkish tan alun-hem stnd g/m w/ mod. ser-T + arg-T clasts: wk 1st order RR's min stx's 2-3/ft & 97' 0.05–0.10" @ 5' & 35' w/ $CaCO_3$ + f.g. py + marc + pyrr (m.g.)

105–121' wk silic + mod to wk arg-T + ser-T; tr–1% py-T (bladed) + tr incr. chl-T/alun.: min stx's 0-3/ft @ 50' 0.005–0.15" $CaCO_3$ + chl + marc

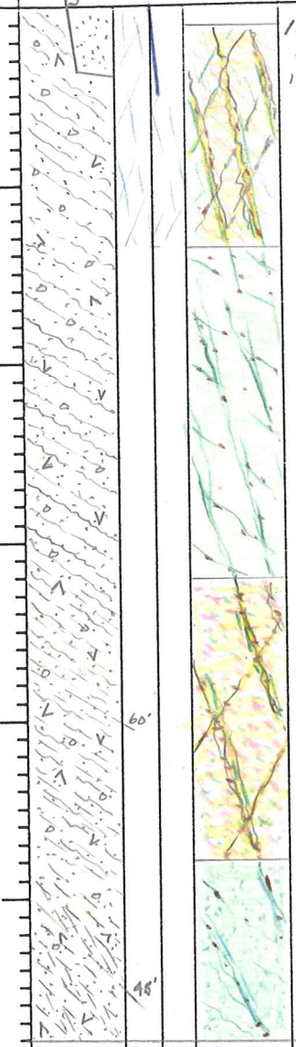
ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
52	57	5.0'	.650	5.47	.644 (g)	
57	62	5.0'	.075	2.81	.082 (g)	
62	67	5.0'	.028	3.73		
67	72	5.0'	.019	.22		
72	77	5.0'	.021	.89		
77	83	6.0'	.003	.06		
83	89	6.0'	.009	.05		
89	95	6.0'	.002	.03		
95	100	5.0'	<.001	<.02		
100	105	5.0'	<.001	<.02		
105	110	5.0'	<.001	<.02		
110	115	5.0'	<.001	.02		
115	121	6.0'	<.001	.02		

HOLE NUMBER D-36-94 PAGE 3 OF 3

REC	RQD	LITHOLOGY	FT	STRUCTURE	ALTERATION AND MINERALIZATION
100	.45	121-178' Fine-grained, planar & wavy laminated, moderately well sorted, slightly porphyritic w/ occassional rounded devitrified pumice lapilli - flow-laminations contorted around lapilli.	130	121' microbx - fault cont @ 5° 120-133.5' frac'd w/ser slicks @ 5°, 20°	121-133.5' wk silic + wk lam'd alun + wk lam'd ser-T + tr py-T + wk arg-T; min stx's 2.5/ft @ 0-5° & 20° w/ chl → f.g. Q → ill + marc + py ft marc ± blk sooty surf's.
94	.48		140		133.5-152 v. wk silic (hard) + mod. ser-T + frac & lam & diss. chl-T + tr f.g. cubic py-T + v. wk arg-T; min stx's 4-10/ft @ 50-60° (lam's) 15°, 30° 0.001-0.05" chl. → $CaCO_3$ - marc. ± tr ill
90	.47		150		
93	.62	- 154-170.5 intermittant leopard skin or spotted tuff texture	160		152-168' mod. int. silic + lam ser-T x-cut by silic/alun/chl-T in spotts, clotts & stringers py-T adj. to stx's bright yellow cubic py: min stx's 1-2/ft 0.005-0.10" @ 5-10° & 35° w/ f.g. Q ± chl + ill + py ft marc ± tr v.f.g. xln (exsolved) v.cr.
97	.48				
100	.75	- 170.5-178' speckled tuff texture w/ isolate rounded devitrified pumice lapilli & planar-cross lamination.	170		168-178' wk silic + wk to mod. g/m ser-T + mod. int. lam speckled chl + chl-frac's. + tr py-T: min stx's 1-2/ft @ 15-20° w/ chl - $CaCO_3$ - marc.
		END OF HOLE @ 178'			

GRAPHIC LOG



ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
121	125	4.0'	.083	.58	.077 (g)	
125	129	4.0'	.031	.18		
129	133.5	4.5'	.015	.13		
133.5	139	5.5'	<.001	.04		
139	146	7.0'	<.001	.05		
146	152	6.0'	.017	.38		
152	157	5.0'	.024	.10		
157	163	6.0'	.025	.09		
163	168	5.0	.001	.05		
168	173	5.0'	.001	.04		
173	178	5.0'	.004	.05		

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-36-94
LABORATORY JOB No. : SP031461
SAMPLE TYPE :

RECEIVED : 28 OCT 1994
REPORTED : 9 NOV 1994
No. SAMPLES : 35

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

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : D-36-94
JOB NUMBER : SP031461
REPORTED : 9 NOV 1994

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-36-94 00-05	<0.001			<0.02
D-36-94 05-10	<0.001			<0.02
D-36-94 10-15	<0.001			0.02
D-36-94 15-19.9	<0.001			0.03
D-36-94 19.9-25	0.001			0.02
D-36-94 25-30	0.002			0.03
D-36-94 30-33.5	0.028			0.14
D-36-94 33.5-37	1.074		0.904	24.68
D-36-94 37-42	0.336		0.389	11.99
D-36-94 42-47	0.050		0.054	0.55
D-36-94 47-52	0.028			0.25
D-36-94 52-57	0.650		0.644	5.47
D-36-94 57-62	0.075		0.082	2.81
D-36-94 62-67	0.028			3.73
D-36-94 67-72	0.019			0.22
D-36-94 72-77	0.021			0.89
D-36-94 77-83	0.003			0.06
D-36-94 83-89	0.009			0.05
D-36-94 89-95	0.002			0.03
D-36-94 95-100	<0.001			<0.02
D-36-94 100-105	<0.001			<0.02
D-36-94 105-110	<0.001			<0.02
D-36-94 110-115	<0.001			0.02
D-36-94 115-121	<0.001			0.02
D-36-94 121-125	0.083		0.077	0.58

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : D-36-94
JOB NUMBER : SP031461
REPORTED : 9 NOV 1994

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-36-94 125-129	0.031			0.18
D-36-94 129-133.5	0.015			0.13
D-36-94 133.5-139	<0.001			0.04
D-36-94 139-146	<0.001			0.05
D-36-94 146-152	0.017			0.38
D-36-94 152-157	0.024			0.10
D-36-94 157-163	0.025			0.09
D-36-94 163-168	0.001			0.05
D-36-94 168-173	0.001			0.04
D-36-94 173-178	0.004			0.05

SAMPLE SUBMITTAL FORM

American Assay Laboratories Inc.

Sparks Office
1500 Glendale Ave.
Nevada 89431
Box 71060
Reno, NV. 89570
Telephone
(702) 356-0606
Fax
(702) 356-1413

Elko Office
2320 Last Chance Rd.
Nevada 89801
Box 2908
Elko, NV. 89801
Telephone
(702) 738-9100
Fax
(702) 738-2594

Company: HECLA MINING CO.

Address:

Telephone Number: ( ) Fax Number: ( )

Project Name: ROSEBUD Purchase Order Number:

Transport Company: Waybill Number:

Date Shipped: Number of Packages: [ ] Prepaid [ ] Collect

ANALYSIS REQUIRED 10-25-94

D-36-94 SAMPLE			TYPE	ELEMENTS REQUIRED
0-5	72-77	152-157	CORE	2 AT FIRE ASSAY Au & Ag
5-10	77-83	157-163		W/ HECLA ROSE BUD
10-15	83-89	163-168		CUSTOM PREP
15-19.9'	89-95	168-173		
19.9-25	95-100	173-178		
25-30	100-105			
30-33.5	105-110			* GRAV FINISH ON ALL
33.5-37	110-115			
37-42	115-121			Au ≥0.05 opt
42-47	121-125			
47-52	125-129			
52-57	129-133.5			NO CORE (≤15 lbs)
57-62	133.5-139			
62-67	139-146			
67-72	146-152			

COARSE REJECTS (Normally Discarded)

[ ] Return COD after analysis complete
[X] By prior arrangements

PULPS (Normally Stored Free For One Month)

[ ] Discard after one month
[ ] Return COD after one month
[X] By prior arrangements

RESULTS AND INVOICES TO BE SENT TO:

Please mark invoice person and address [I]

(1) Charlie Muerhoff

(2)

(3)

Comments:

CLIENT FILE COPY