60001165

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-263-98
AUTHOR	S. King; K. Allen; A. Nilec
DATE OF DOC(S)	1998
MULTI_DIST Y / (N?) Additional Dist_Nos:	
QUAD_NAME	Sulphur 7.5'
P_M_C_NAME (mine, claim & company names)	Rosebud Mine; Rosebud Project; Rosebud Mining Co. LLC Hecla Mining Co.
COMMODITY If not obvious	gold; silver
NOTES	Drill log; geology; assay; photographs; total depth 219' receipt; hand written notes; downhole camera images 32p. 3 down hole camera images

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: DP 5/14/08
Initials Date
DB: Mali
Initials Date
SCANNED: NB
Initials Date

Revised: 1/22/08

D- 263-98

6000 1165 4010

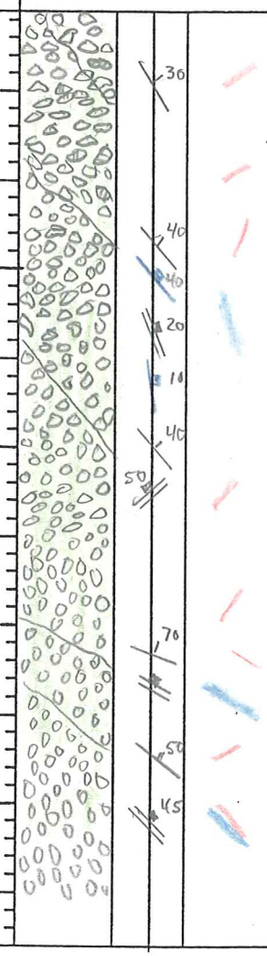
60001166

Hecla MINING COMPANY

- quartz, chalcedony, silicification
- faults, fractures
- FeOx / BARITE
- sulfide
- calcite, carbonate
- argillization, white clays
- propylitization
- potassic alteration
- chlorite, chloritic clays

ROSEBUD PROJECT
DIAMOND DRILL LOG

HOLE NUMBER	D-263-98	LOCATION	NORTH ZONE STOPE 50 EOA	REMARKS	
PAGE 1 OF 4		NORTHING			
DATE	8/9-8/11/98	EASTING			
LOGGED BY	ALLYN NILES	ELEVATION			
SCALE	1" = 10'	AZIMUTH	141		
TOTAL DEPTH	219.0	INCLINATION	25		

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
0.0 – 55.5 TOS		0.0 – 42.5 GREEN. LT. GREEN → DK. GREEN → WHITE LAPILLIS IN A GREEN, BEDDED, TUFFY CLAY. BEDS ARE GRADED AND MODERATELY SORTED W/ SEQUENCE FINING UPWARDS. SOME BEDS ARE VERY SHALEY AND MAY BE WATER-LAIN. LAPILLIS ARE MOSTLY CIRCULAR W/ SHARP EDGES, LITTLE → NO REWORKING. 42.5 – 55.5 GRADUAL COLOR CHANGE TO PINK CLAYEY GROUNDMASS W/ LT. PINK TO WHITE LAPILLIS. ALL OTHER DISCRIPTIVE ASPECTS ARE THE SAME AS ABOVE.	10 20 30 40 50		0.0 – 55.6 FRACTURES RARE, USUALLY ALONG BEDDING OR AT LOW ∡ TO CORE AXIS	3.0 – 45.0 MODERATE CALCITE VEINING, THICKER VEINS HAVE MARC. IN THEM. 0.0 – 42.5 MINOR V.F.G. DISSEM. PYRITE IN BOTH LAPILLIS & MATRIX. 0.0 – 55.5 MINOR, THIN MARC. VEINLETS, RUN AT OBLIQUE ∡'S TO BEDS 42.5 – 52.0 SIGNIFICANT INCREASE IN DISSEM. PYRITE. 45.2 – 45.5 1" Ø DK QUARTZ VEIN W/ WEAK (→ MOD.) SILIC. SELVAGES TOP & BOTTOM, WEAK < ARG. ALT. ADJACENT TO IT.

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
0.0	5.0					
5.0	10.0					
10.0	15.0					
15.0	20.0					
20.0	25.0					
25.0	30.0					
30.0	35.0					
35.0	40.0					
40.0	42.5					
42.5	45.0					
45.0	50.0					

HOLE NUMBER D-263-98 PAGE 2 OF 4

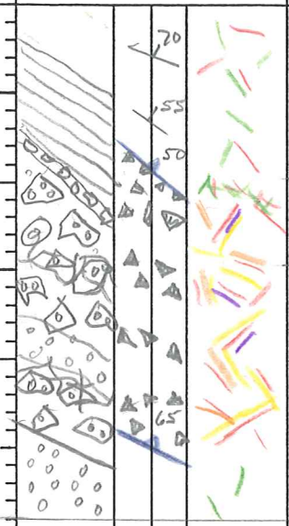
LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
0.0 – 55.5 TOS		42.5 – 55.5 SEE DESCRIPTION PAGE 1				55.0 – 91.4 MODERATE CALCITE VEINING, INCREASED PRESENCE OF MARC. IN VEINS.	50.0	55.6				
55.5 – 64.2 F.G. MASSIVE		55.5 – 64.2 PINK, FINE GRAIN, RARE FLOW STRUCTURES, AUTOBRECCIA COMMON W/ NON-BRECCIATED INTERBEDS 3' Ø, DISSEM. PYRITE IS PERVASIVE, TO 1%.	60		55.5 CONTACT		55.6	60.0				
64.2 – 71.5 F.G. MASSIVE		64.3 – 71.5 GRAY → GREENISH-GRAY, ULTRA FINE GRAIN, DEVITRIFIED, FRACTURE PATTERN RESEMBLES CRACKED GLASS.	70		64.3 CONTACT SHARP, HAS 1" Ø TUFF LAYER SANDWICHED BETWEEN VITROPHYRE. TUFF VIT. TUFF VIT. 3" 71.5 CONTACT APPEARS TO BE FAULT W/ BXA	64.3 – 71.5 PROPYLITIC CLAY IN FRACTURES CREATES SPIDER WEB EFFECT.	60.0	64.2				
71.5 – 100.8 PLANAR LAMINAR		71.5 – 100.8 PINK, FINE GRAIN, AUTOBRECCIATION COMMON, RARE FLOW TEXTURES. AUTOBRECCIA IS MONOLITHIC, ANGULAR TO ROUND CLASTS IN A PINK, FINE GRAIN, VOLCANIC CLAY MATRIX.	80				64.2	70.0				
		78.3 – 85.0 TECTONIC BRECCIA. ANGULAR TO SUBROUND CLASTS TO 2½" DIA, MOSAIC TYPE CLAST SUPPORTED MONOLITHIC. WHITE OR GREEN CLAY IS CEMENTING AGENT, ALONG W/ SOME CALCITE.	90			78.3 – 85.0 MODERATE SULFIDES IN CEMENTING AGENTS, MOD. DISSEM. PYRITE IN CLASTS. 91.4 – 95.0 MOD. DISSEM PYRITE & CRYSTAL MASSES. 95.0 – 99.0 MOD. BLADED MARC. IN MATIX WHICH HAS BEEN REPLACED BY QUARTZ/CLAY/MINOR CALCITE IN PLACES.	70.0	71.5				
							71.5	75.0				
							75.0	80.0				
							80.0	85.0				
							85.0	89.0				
							89.0	91.4				
							91.4	95.0				
							95.0	98.8				
100.8 – 145.1 PLANAR LAMINAR ?		100.8 – 145.1 PINK, FINE GRAIN TUFF AND LAPILLI TUFF, OFTEN W/ VERY SMALL VESICULAR TEXTURES. LAPILLI TUFF HAS GREENISH ROUND LAPILLIS TO 1.5" DIA IN A PINK, FINE GRAIN MATRIX. 117-127.5	100		100.8 CONTACT SHARP, SULFIDE RICH 101.0 – 102.5 BRECCIA ZONE. 102.5 – 104.0 CRACKLE ZONE	98.8 – 100.8 101.0 – 105.7 INCREASED SULFIDES (MOD. – STRONG) IN FRACTURE FILLINGS (CLAY/CALCITE/QUARTZ) 100.8 – 117.0 PROPYLITIC CLAY LINING FRACTURES	100.8	102.8				
		101.0 – 102.5 TECTONIC BXA, ROUNDED CLASTS TO 1" DIA OF SPOTTE TUFF 104.0 – 105.7 TECTONIC BXA ANGULAR → ROUND CLASTS	110				102.8	105.7				
							105.7	110.0				
							110.0	115.0				
			120		117.0 – 121.1 FAULT BRECCIA, MOSAIC – ANGULAR FRAGS.	117.0 – 121.1 STRONG SILIC. OF CLASTS, QUARTZ & BLADED MARC. MATRIX. DRUZY QUARTZ & MARC. LINING VUGS	115.0	117.0				

HOLE NUMBER D-263-98 PAGE 3 OF 4

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
100.8	145.1	100.8-145.1 TUFF & LAPILLI TUFF PLANAR LAMINAR?	130 PMA → 140 150 160 170 180 190	138.0-144.0 AUTOBRECCIATED PYROCLASTIC FLOW BASE? TRUNCATED BY FAULT 167.0-170.0 AUTOBRECCIA ZONE, FLOW BASE? 173.2-174.5 FLOW BASE?, AUTO-BRECCIATED.	125.0-125.3 HEALED MOSAIC BRECCIA 140.3 POSSIBLE CONTACT W/ QUARTZ VEIN ALONG SUTURE. MAYBE THIN FAULT 145.1 THIN FAULT; CLAST SUPPORTED 149.5-150.5 FAULT BRECCIA, CLAST SUPPORT. 151.5-152.0 FAULT BRECCIA, VERY VUGGY, CLAST SUPPORTED. 160.5-161.5 FAULT BRECCIA, OPEN VUGS COMMON. 174.5-177.5 FAULT ZONE 2 FAULTS 1' APART, MOSAIC, HEALED BXA'S, CLAST SUPPORTED. 188.5 0.1' FAULT BXA, MATRIX SUPPORTED, MOSAIC	117.0-126.5 STRONG QUARTZ/MARC. VEIN ASSOC. W/FAULTS. PYRITE COATING SOME BLADES 125.0-125.3 MANY CLASTS ARE SILICIFIED CEMENTED W/ QUARTZ & BLADED MARC. 131.0-132.5 STRONG QUARTZ/CLAY VEINING (WHITE & GREEN) W/ WEAK SULFIDES. 137.7-142.0 INCREASED MARC./QUARTZ VEINING & VUG FILLING. 145.0-160.0 PROPYLITIC CLAY W/ PYRITE OFTEN FILLING FRACTURES 145.1 CEMENTED W/ QUARTZ & MARC. 149.5-150.5 CEMENTED W/ WHITE & GREEN CLAY SULFIDES, MINOR QUARTZ 151.5-152.0 BXA CEMENTED W/ QUARTZ/MARC., VUGS LINED W/ DRUZY QTZ/MARC. SOME VUGS FILLED W/ WHITE CLAY 160.5-161.5 VUGS LINED W/DRUZY QUARTZ, MARC. BLADES. 174.5-177.5 QUARTZ, SULFIDES, BLADED MARC. & WHITE AS CEMENT & OPEN SPACE/VUG LINING/FILLING. SOME CLASTS ARE SILICIFIED, HYDRO BXA? 188.5 MATRIX IS QUARTZ, BLADED MARC SOME GREEN CLAY, BXA CLASTS ARE SILICIFIED
145.1	193.0	145.1-193.0 VERY LT. GRAY APHANITIC FLOWS W/ FAINT FLOW TEXTURES AT SPORADIC INTERVALS. INTERBEDS OF FINE GRAIN PINK TUFF, UP TO 3' Ø AND PROBABLY TRUNCATED BY FAULTS. PLANAR LAMINAR				

ANALYTICAL DATA					
FROM	TO	W	Au	Ag	Au2
117.0	121.1				
121.1	124.1				
124.1	127.0				
127.0	130.0				
130.0	132.5				
132.5	135.0				
135.0	137.7				
137.7	140.0				
140.0	142.0				
142.0	145.0				
145.0	150.0				
150.0	154.0				
154.0	156.0				
156.0	160.0				
160.0	162.0				
162.0	165.0				
165.0	169.0				
169.0	174.0				
174.0	176.0				
176.0	178.5				
178.5	181.5				
181.5	185.0				
185.0	190.0				

HOLE NUMBER D-263-98 PAGE 4 OF 4

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
193.0-219.0 PLANAR LAMINAR		193.0 — 219.0 THIN BED ALTERNATING PINK & YELLOW FINE GRAIN TUFF TO 197.0', PINK FINE GRAIN THIN BEDDED TUFF 197.0-200.0 200.0-219.0 PINK, THICK BEDDED? FINE GRAIN TUFF W/ SMALL VESICULAR TEXTURES THAT ARE MOSTLY OPEN. 200.0-204.0 SUBSTANTIAL CORE LOSS "MISLATCH" 2' RECOVERED PIMA FOR 4' DRILLED	200 210		199.0-199.8 OLDER HEALED; CLAST SUPPORT MOSAIC BRECCIA 200.5-215.0 TECTONIC ZONE, SEVERAL HEALED BRECCIAS W/ HIGHER DENSITY FRACTURE ZONES SEPARATING. THEN, ALL CLAST SUPPORTED MOSAIC TYPE	185.0-199.0 PROPPLITIC CLAY IN FRACTURES, USUALLY W/ PYRITE & MINOR MARC. 199.0-199.5 CEMENTED W/ ROCK FLOUR & GREEN CLAY. 200.5-215.0 QUARTZ, MARC. & WHITE CLAY ARE MAIN CEMENTING AGENTS. VUGS & OPEN FRACTURES ARE LINED W/ DRUZY QUARTZ, BLADED MARC. & MINOR BARITE.
		219.0 T.D.				

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
190.0	195.0				
195.0	200.0				
200.0	204.0				
204.0	209.0				
209.0	211.0				
211.0	214.8				
214.8	219.0				

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-263-98 DATE: 8/9/98 LOGGED BY: ALLYN NILE. PAGE 1 OF ____

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)
0.0	5.0	96.0	92.0	46.0										
NO BLOCK FOR 10' 5.0	15.0	140.0	196.0	66.0										
15.0	20.0	92.0	92.0	60.0										
20.0	25.0	94.0	94.0	70.0										
25.0	30.0	96.0	100.0	46.0										
30.0	33.0	20.0	100.0	76.6										
33.0	35.0	110.0	110.0	100.0										
35.0	40.0	99.0	100.0	68.0										
40.0	45.0	94.0	94.0	68.0										
45.0	50.0	100.0	100.0	34.0										
50.0	55.0	100.0	100.0	68.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-263-98 DATE: 8/9/98 LOGGED BY: _____ PAGE 2 OF ____

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)
55.0	60.0	100.0	100.0	64.0										
60.0	65.0	100.0	100.0	50.0										
65.0	70.0	86.0	90.0	56.0										
70.0	75.0	70.0	100.0	32.0										
75.0	80.0	80.0	100.0	32.0										
80.0	85.0	100.0	100.0	78.0										
85.0	90.0	88.0	100.0	84.0										
90.0	95.0	100.0	100.0	70.0										
95.0	100.0	96.0	96.0	82.0										
100.0	105.0	100.0	100.0	60.0										
105.0	110.0	100.0	100.0	50.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-263-98 DATE: 8/10/98 LOGGED BY: _____ PAGE 3 OF 5

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)
		100.0	4.0	3.0										
110.0	115.0	100.0	96.0	66.0										
115.0	120.0	60.0	100.0	60.0										
120.0	125.0	100.0	100.0	76.0										
125.0	130.0	94.0	94.0	80.0										
130.0	135.0	50.0	96.0	26.0										
135.0	140.0	90.0	96.0	70.0										
140.0	145.0	100.0	100.0	56.0										
145.0	150.0	90.0	100.0	64.0										
150.0	154.0	100.0	105.0	50.0										
154.0	160.0	0	96.0	8.0										
160.0	165.0	100.0	100.0	24.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-263-98 DATE: 8/10/98 LOGGED BY: _____ PAGE 4 OF 5

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)
165.0	169.0	32.5	77.5	0										
169.0	172.0	0	83.3	0										
172.0	173.5	0	66.6	0										
173.5	178.5	60.0	100.0	32.0										
178.5	181.5	86.0	93.3	46.6										
181.5	185.0	0	94.3	11.4										
185.0	190.0	40.0	80.0	8.0										
190.0	195.0	30.0	98.0	12.0										
195.0	200.0	40.0	100.0	26.0										
200.0	204.0	25.0	54.0	10.0										
204.0	209.0	80.0	100.0	38.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-263-98 DATE: 8/10/98 LOGGED BY: ALLYN NILES PAGE 5 OF 5

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)
209.0	214.0	52.0	72.0	22.0										
214.0	219.0	90.0	100.0	70.0										

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP050090

PO BOX 11530
RENO NV,USA
Ph.(702) 356-0606, Fax.(702) 356-1413

HECLA MINING COMPANY

COPIES TO : KURT ALLEN

:

:

:

NSI

CLIENT REFERENCE No: D-263-98 RECEIVED : 14 AUG 1998

No. SAMPLES : 60 REPORTED : 14 AUG 1998

MAIN SAMPLE TYPE : DRILL CORE

NEVADA LEGISLATIVE DISCLAIMER :-
The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim or deposit has been determined based on the results of assays of multiple samples of geological materials collected by the prospective investor or by a qualified person selected by him and based on an evaluation of all engineering data which is available concerning any proposed project.

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
AuGRAV	GRAV	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP050090

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-263-98

REPORTED : 14 AUG 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-263-98 00-05	0.002			0.02
D-263-98 05-10	<0.001			<0.02
D-263-98 10-15	<0.001			<0.02
D-263-98 15-20	0.002			<0.02
D-263-98 20-25	0.003			<0.02
D-263-98 25-30	0.002			<0.02
D-263-98 30-35	<0.001			<0.02
D-263-98 35-40	0.001			<0.02
D-263-98 40.0-42.5	0.003			0.04
D-263-98 42.5-45.0	0.002			0.03
D-263-98 45-50	<0.001	<0.001		0.05
D-263-98 50.0-55.6	0.003	0.003		0.07
D-263-98 55.6-60.0	0.005			0.07
D-263-98 60.0-64.2	0.013			0.08
D-263-98 64.2-70.0	0.013			0.10
D-263-98 70.0-71.5	0.002			0.05
D-263-98 71.5-75.0	0.015			0.08
D-263-98 75-80	0.043			0.10
D-263-98 80-85	0.073		0.068	0.07
D-263-98 85-89	0.040			0.05
D-263-98 89.0-91.4	0.095			0.05
D-263-98 91.4-95.0	0.003			0.05
D-263-98 95.0-98.8	0.008			0.06
D-263-98 98.8-100.8	0.003			0.05
D-263-98 100.8-102.8	0.005			0.11

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP050090

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-263-98

REPORTED : 14 AUG 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-263-98 102.8-105.7	0.009			0.13
D-263-98 105.7-110.0	0.006			0.07
D-263-98 110-115	0.004			0.06
D-263-98 115-117	0.009	0.008		0.07
D-263-98 117.0-121.1	0.006			0.09
D-263-98 121.1-124.1	0.005			0.07
D-263-98 124.1-127.0	0.004			0.06
D-263-98 127-130	0.005			0.06
D-263-98 130.0-132.5	0.004			0.07
D-263-98 132.5-135.0	0.016			0.06
D-263-98 135.0-137.7	0.050	0.043	0.057	0.12
D-263-98 137.7-140.0	0.049			0.17
D-263-98 140-142	0.003			0.08
D-263-98 142-145	0.002			0.05
D-263-98 145-150	0.007			0.11
D-263-98 150-154	0.008			0.07
D-263-98 154-156	0.006			0.07
D-263-98 156-160	0.007			0.08
D-263-98 160-162	0.009			0.09
D-263-98 162-165	0.012			0.10
D-263-98 165-169	0.004			0.08
D-263-98 169-174	0.008			0.08
D-263-98 174-176	0.011			0.09
D-263-98 176.0-178.5	0.027			0.13
D-263-98 178.5-181.5	0.022			0.10

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP050090

CLIENT : UECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-263-98

REPORTED : 14 AUG 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-263-98 181.5-185.0	0.005			0.06
D-263-98 185-190	0.005			0.05
D-263-98 190-195	0.003			0.05
D-263-98 195-200	0.014			0.06
D-263-98 200-204	0.016	0.011		0.08
D-263-98 204-209	0.004			0.05
D-263-98 209-211	0.017			0.07
D-263-98 211.0-214.8	0.013			0.11
D-263-98 214.8-219.0	0.006			0.06
34529	0.516			2.88

American Assay Laboratories

INVOICE

Remit To: P.O. Box11530
Reno, Nevada 89510
Phone NO.: 702-356-0606
Fax No.: 702-356-1413

AMERICAN ASSAY LABORATORIES
1500 GLENDALE AVE.
SPARKS, NV 89431-5902

(702) 356-0606

INVOICE NO: SR 0050090-IN
INVOICE DATE: 08/27/98

INVOICE TO:
THE ROSEBUD MINING CO., LLC
HECLA MINING COMPANY, OPERATOR
P.O. BOX 2610
WINNEMUCCA NV 89446

THE ROSEBUD MINING CO., LLC
HECLA MINING COMPANY, OPERATOR
P.O. BOX 2610
WINNEMUCCA NV 89446

CUSTOMER P.O.	PROJECT	TERMS
D-269-98	DEVELOPMENT	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
60	SAMPLES RECEIVED	.00	.00
59	JAW CRUSHING CHARGE	1.30	76.70
59	COARSE MILLING CHARGE	4.50	265.50
59	SPLITTING CHARGE	2.40	141.60
59	FINE MILLING CHARGE	2.00	118.00
60	Au (1 A.T. FIRE ASSAY)	8.00	480.00
2	Au ANALYSES/GRAVIMETRIC	8.75	17.50
60	HYDROCHLORIC/NITRIC DIGESTION	2.00	120.00
60	Ag ANALYSES	1.00	60.00

86-5110-477
KDA

NET INVOICE:	1,279.30
LESS DISCOUNT:	255.86
FREIGHT:	.00
INVOICE TOTAL	1,023.44

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP050090

American Assay Laboratories

PO BOX 11530
RENO NV,USA
Ph.(702) 356-0606, Fax.(702) 356-1413

HECLA MINING COMPANY

COPIES TO : KURT ALLEN

:

:

:

CLIENT REFERENCE No: D-263-98 RECEIVED : 14 AUG 1998

No. SAMPLES : 60 REPORTED : 14 AUG 1998

MAIN SAMPLE TYPE : DRILL CORE

NEVADA LEGISLATIVE DISCLAIMER :-
The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim or deposit has been determined based on the results of assays of multiple samples of geological materials collected by the prospective investor or by a qualified person selected by him and based on an evaluation of all engineering data which is available concerning any proposed project.

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
AuGRAV	GRAV	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP050090

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-263-98

REPORTED : 14 AUG 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-263-98 00-05	0.002			0.02
D-263-98 05-10	<0.001			<0.02
D-263-98 10-15	<0.001			<0.02
D-263-98 15-20	0.002			<0.02
D-263-98 20-25	0.003			<0.02
D-263-98 25-30	0.002			<0.02
D-263-98 30-35	<0.001			<0.02
D-263-98 35-40	0.001			<0.02
D-263-98 40.0-42.5	0.003			0.04
D-263-98 42.5-45.0	0.002			0.03
D-263-98 45-50	<0.001	<0.001		0.05
D-263-98 50.0-55.6	0.003	0.003		0.07
D-263-98 55.6-60.0	0.005			0.07
D-263-98 60.0-64.2	0.013			0.08
D-263-98 64.2-70.0	0.013			0.10
D-263-98 70.0-71.5	0.002			0.05
D-263-98 71.5-75.0	0.015			0.08
D-263-98 75-80	0.043			0.10
D-263-98 80-85	0.073		0.068	0.07
D-263-98 85-89	0.040			0.05
D-263-98 89.0-91.4	0.005			0.05
D-263-98 91.4-95.0	0.003			0.05
D-263-98 95.0-98.8	0.008			0.06
D-263-98 98.8-100.8	0.003			0.05
D-263-98 100.8-102.8	0.005			0.11

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP050090

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-263-98

REPORTED : 14 AUG 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-263-98 181.5-185.0	0.005			0.06
D-263-98 185-190	0.005			0.05
D-263-98 190-195	0.003			0.05
D-263-98 195-200	0.014			0.06
D-263-98 200-204	0.016	0.011		0.08
D-263-98 204-209	0.004			0.05
D-263-98 209-211	0.017			0.07
D-263-98 211.0-214.8	0.013			0.11
D-263-98 214.8-219.0	0.006			0.06
34529	0.516			2.88

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP050090

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HECLA MINING COMPANY

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ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
AuGRAV	GRAV	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP050090

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-263-98

REPORTED : 14 AUG 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-263-98 00-05	0.002			0.02
D-263-98 05-10	<0.001			<0.02
D-263-98 10-15	<0.001			<0.02
D-263-98 15-20	0.002			<0.02
D-263-98 20-25	0.003			<0.02
D-263-98 25-30	0.002			<0.02
D-263-98 30-35	<0.001			<0.02
D-263-98 35-40	0.001			<0.02
D-263-98 40.0-42.5	0.003			0.04
D-263-98 42.5-45.0	0.002			0.03
D-263-98 45-50	<0.001	<0.001		0.05
D-263-98 50.0-55.6	0.003	0.003		0.07
D-263-98 55.6-60.0	0.005			0.07
D-263-98 60.0-64.2	0.013			0.08
D-263-98 64.2-70.0	0.013			0.10
D-263-98 70.0-71.5	0.002			0.05
D-263-98 71.5-75.0	0.015			0.08
D-263-98 75-80	0.043			0.10
D-263-98 80-85	0.073		0.068	0.07
D-263-98 85-89	0.040			0.05
D-263-98 89.0-91.4	0.005			0.05
D-263-98 91.4-95.0	0.003			0.05
D-263-98 95.0-98.8	0.008			0.06
D-263-98 98.8-100.8	0.003			0.05
D-263-98 100.8-102.8	0.005			0.11

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP050090

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CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-263-98

REPORTED : 14 AUG 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-263-98 102.8-105.7	0.009			0.13
D-263-98 105.7-110.0	0.006			0.07
D-263-98 110-115	0.004			0.06
D-263-98 115-117	0.009	0.008		0.07
D-263-98 117.0-121.1	0.006			0.09
D-263-98 121.1-124.1	0.005			0.07
D-263-98 124.1-127.0	0.004			0.06
D-263-98 127-130	0.005			0.06
D-263-98 130.0-132.5	0.004			0.07
D-263-98 132.5-135.0	0.016			0.06
D-263-98 135.0-137.7	0.050	0.043	0.057	0.12
D-263-98 137.7-140.0	0.049			0.17
D-263-98 140-142	0.003			0.08
D-263-98 142-145	0.002			0.05
D-263-98 145-150	0.007			0.11
D-263-98 150-154	0.008			0.07
D-263-98 154-156	0.006			0.07
D-263-98 156-160	0.007			0.08
D-263-98 160-162	0.009			0.09
D-263-98 162-165	0.012			0.10
D-263-98 165-169	0.004			0.08
D-263-98 169-174	0.008			0.08
D-263-98 174-176	0.011			0.09
D-263-98 176.0-178.5	0.027			0.13
D-263-98 178.5-181.5	0.022			0.10

AMERICAN ASSAY LABORATORIES

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REFERENCE : D-263-98

REPORTED : 14 AUG 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-263-98 181.5-185.0	0.005			0.06
D-263-98 185-190	0.005			0.05
D-263-98 190-195	0.003			0.05
D-263-98 195-200	0.014			0.06
D-263-98 200-204	0.016	0.011		0.08
D-263-98 204-209	0.004			0.05
D-263-98 209-211	0.017			0.07
D-263-98 211.0-214.8	0.013			0.11
D-263-98 214.8-219.0	0.006			0.06
34529	0.516			2.88

SP

SUBMITTAL FORM

American Assay Laboratories

Geochemical • Environmental • Metallurgical

Sparks Office
1500 Glendale Ave.
Nevada 89431
Box 11530
Reno, NV 89510
Telephone
(702) 356-0606
Fax
(702) 356-1413

Tucson Office
2775 E. Ganley
Tucson, AZ 85706
Telephone
(520) 294-8078
Fax
(520) 294-6352

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

Mazatlan Office
Telephone/Fax
011-52-69-170035

Other Offices
Lima, Peru
Santiago, Chile
Mendoza, Argentina

Company: ROSEBUD MINING LLC

Address: P.O. Box 2610

City: WINNEMUCCA State: NV Zip: 89445

Telephone Number: (702) 623-6912 Fax Number: (702) 623-6962

Project Name: DEVELOPMENT Purchase Order Number:

Date Submitted: 8/12/98 Number of Samples: 59

RESULTS REPORTED IN: ppm [ ] ppb [ ] opt [ ]

SAMPLE IDENTIFICATION	TYPE	ELEMENTS REQUIRED
D-263-98		AU-AG ACCORDING TO
	core	ROSEBUD MINE PROTOCOL
O-219		

COARSE REJECTS (Normally Discarded After 60 Days)

[ ] Return COD after analysis complete

PULPS (Normally Stored Free For One Month)

[ ] Discard after one month
[ ] Return COD after one month

RESULTS AND INVOICES TO BE SENT TO:

Invoice to:

KURT ALLEN

Results to:

KURT ALLEN

Comments:

CLIENT FILE COPY

D-263-98	0	25.5	134.2
	110	25.5	133.7
	219	25.5	133.7

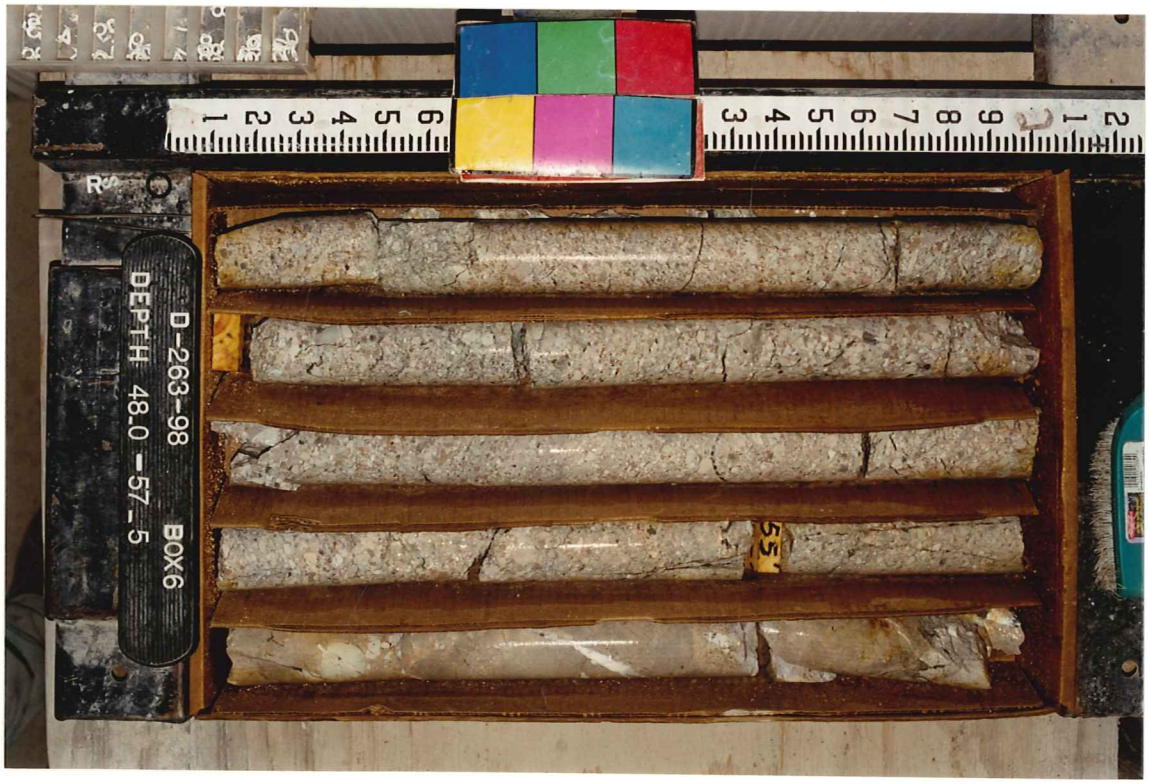
D-263-98 BOX 2
DEPTH 10.0-19.5
15

D-263-98 BOX 01
DEPTH 0.0-10
5

D-263-98 BOX 3
DEPTH 19.5-31.0
20
25
30

D-263-98 BOX 5
DEPTH 38.0 - 48.0
40
45

D-263-98 BOX 4
DEPTH 31.0 - 38.0
33
35


D-263-98 BOX6
DEPTH 48.0 - 57.5
55

D-263-98 BOX 8
DEPTH 67.0 - 76.5
75

D-263-98 BOX 7
DEPTH 57.5 -67.0
60
65

D-263-98 BOX 9
DEPTH 76.5 - 86.0
85

D-263-98 BOX 11
DEPTH 95.0 - 104.8

95'
90'
D-263-98 BOX 10
DEPTH 86.0 - 95.0

105'
110'
D-263-98 BOX 12
DEPTH 104.8 - 114.0

115
D-263-98 BOX 13
DEPTH 114.0 -123.5

115
D-263-98 BOX 13
DEPTH 114.0 -123.5

D-263-98 BOX 14
DEPTH 123.5 -133.0

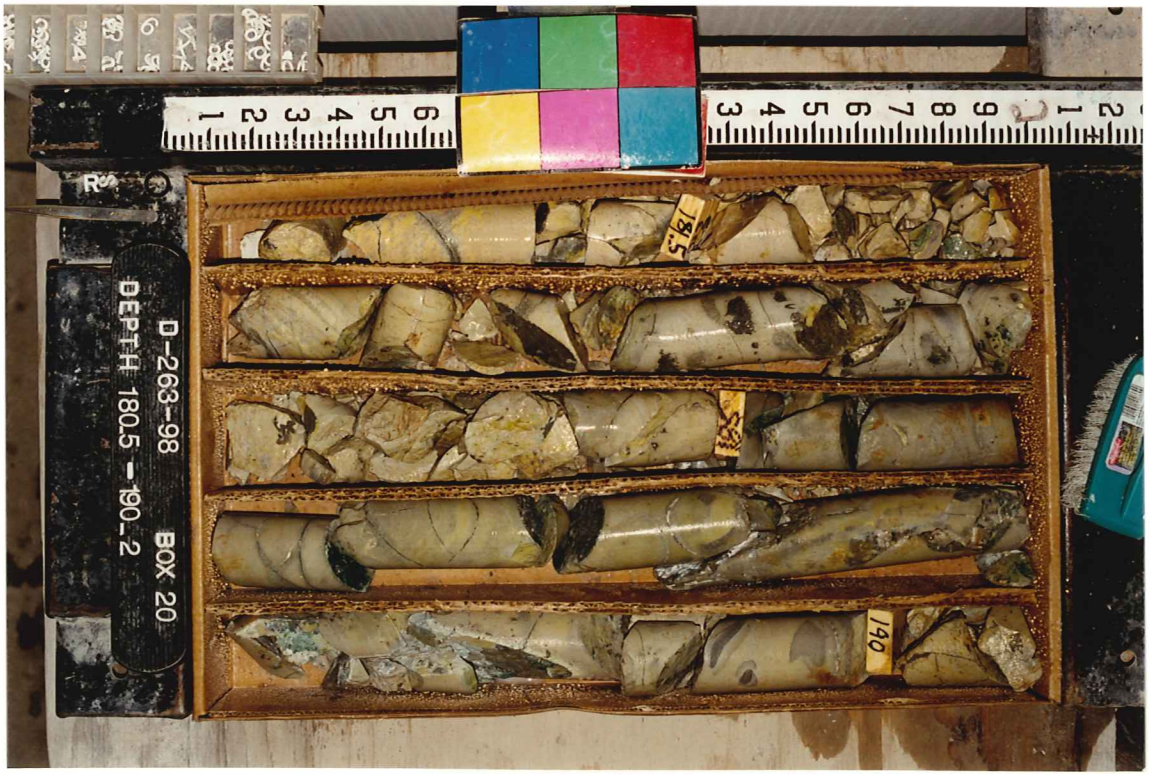
D-263-98 BOX 16
DEPTH 142.5 - 151.5

D-263-98 BOX 15
DEPTH 133.0 - 142.5

D-263-98 BOX 17
DEPTH 151.5 - 160.5

D-263-98 BOX 19
DEPTH 171.0 - 180.5
178
173

D-263-98 BOX 18
DEPTH 160.5 - 171.0
165
169


D-263-98 BOX 20
DEPTH 180.5 - 190.2
185
190

D-263-98 BOX 22
DEPTH 198.5 -209 0
MIS-LATCH 204
200

D-263-98 BOX 21
DEPTH 190.2 -198_5
195

D-263-98 BOX 23
DEPTH 209.0 -219_0
MIS-LATCH 214
219 TD

SINGLE SHOT
PHOTO DISC RECORD

COMPANY Heck
WELL NAME D-263-98
LEASE
TAKEN BY Jerome
DEPTH 8011'
DATE 6-8-98
DRIFT ANGLE
DIRECTION 25°
TYPE
JOB NO. 1
HI-1408

NW
7 0
NW
5
6 0
NW
5
7 0
NW
6
6 0
NW
6
7 0
NW
7
6 0
NW
7

SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecla
WELL NAME P-263-98
LEASE
TAKEN BY Jerome
DEPTH 110'
DATE 6-4-98
DRIFT ANGLE 0
DIRECTION +25°
TYPE
JOB NO. 1

HI-1408

SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecla
WELL NAME D-263-98
LEASE
TAKEN BY Jerome
DEPTH 219'
DATE 6-4-98
DRIFT ANGLE
DIRECTION
TYPE 1-25
JOB NO.
HI-1408