60001169

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-268-98
AUTHOR	S. King; K. Allen; A. Niles
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 receipt; handwritten notes; downhole camera images 44p 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: DD 5/14/08
Initials Date
DB: mah
Initials Date
SCANNED: NB
Initials Date

Revised: 1/22/08

D-268-98

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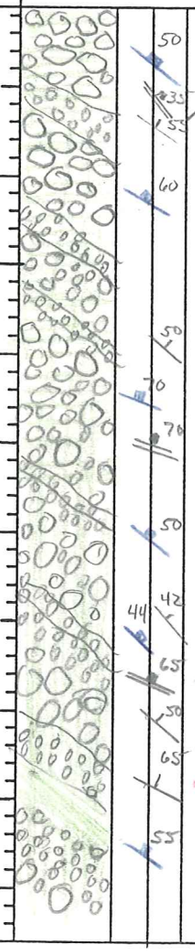
Hecla MINING COMPANY

- 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-268-98	LOCATION	STOPE 50 1325 SECTION
PAGE 1 OF 5		NORTHING	
DATE	8/17-19/98	EASTING	
LOGGED BY	ALLYN NILES	ELEVATION	
SCALE	1" = 10'	AZIMUTH	125
TOTAL DEPTH	280	INCLINATION	28

REMARKS

ITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
0.0 - 51.2 TOS		0.0 - 51.2 GREEN, LT. GREEN, WHITE, LITHIC LAPILLIS 1/8" -> 1/2" DIA, SOME TO 1 1/4" DIA, MOST ARE MOD. SORTED W/ OCCASIONAL LINEAR FABRIC FEATURES (BEDDING), GROUNDMASS IS GREEN APHANITIC VOLCANIC CLAY. MINOR DISSEM PYRITE IN LAPILLIS & CLAY GROUNDMASS. OCCASIONAL BLACK CLAY FRAGS, ALS? 38.0 - 51.2 PINK LAPILLIS MIXED W/ LT. GREEN & GREEN. 44.0-46.0 GREEN, FINE GRAIN TUFF BEDS W/ THIN BEDS/LAYERS OF LITHIC LAPILLIS, MAY BE WATER LAIN.	10 20 30 40 50		0.0 - 51.2 FRACTURES FOLLOW BED PLANES OR AT OBLIQUE? ∠'S TO BEDS.	0.0 - 38.1 RARE, SCATTERED LAPILLIS W/ STRONG DISSEM, MARC. BLADES, DOESN'T SEEM TO CORRELATE W/ VEINS, SELVAGES OR OTHER EPIGENETIC FEATURES, 0.0 - 51.2 OCCASIONAL CALCITE VEINS TO 1" + ø W/ VERY MINOR MARC. 0.0 - 51.2 OCCASIONAL "VEIN-LIKE" MARC. X-TAL AGGREGATES OFTEN W/ CALCITE. 38.1 - 44.0 OCCASIONAL ZONES TO 2" ø OF CONCENTRATED, DISSEM MARC. 44.0 - 46.0 TUFF BEDS HAVE CONSIDERABLE DISSEM. PYRITE.

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	44.0					
44.0	46.0					
46.0	48.2					

HOLE NUMBER D-268-98 PAGE 2 OF 5

ITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
51.2-253.0		51.2 - 72.5			51.2 CONTACT HAS PINK LITHIC LAPPILI TUFF ON GREEN TUFF. PINK TUFF IS OVERLAIN BY PINK FLOW. EROSION FEATURES	51.2 - 55.0 PINK, POTASSIC-LIKE, PERVASIVE STAIN.
PLANAR LAMINAR		PINK (51.2 - 55.0) TO LT. GREENISH GRAY, APHANITIC, AUTOBRECCIATED FLOW. BRECCIA FRAGS VARIABLE, MOSTLY ANGULAR BUT SOME ROUNDED. MAYBE MIXED AUTOBRECCIA W/ TECTONIC BXA. GREEN PROPYLITIC CLAY W/ VERY MINOR SULFIDES. 61.0 - 69.0 SLABS? OF FLOW BANDED PLANAR - LAMINAR ORIENTED AT 0° - 25° TO CORE AXIS.	60 PIMA		51.2 - 55.0 BRECCIA, BOTH AUTO & TECTONIC BRECCIAS.	51.2 - 55.0 AUTO BRECCIA & BXA HEALED MOSTLY W/ GREEN PROPYLITIC CLAY
					55.0 - 63.0 BRECCIA ZONE, PROBABLE FAULT	55.0 - 63.0 BXA CEMENTED W/ WHITE & GREEN CLAY, CALCITE, MINOR MARC., RARE PYRITE
		72.5 - 93.5	70		68.5 - 78.0 BRECCIA ZONE, HETEROLITHIC, MOSAIC TYPE - HYDROTHERMAL? MOSTLY CLAST SUPPORTED	68.5 - 78.0 CLASTS CEMENTED W/ WHITE CLAY, CALCITE, SOME PROPYLITIC CLAY, SOME ROCK FLOUR. DISSEM. PYRITE IN CEMENT & MOST SMALLER (1/2" OR LESS) FRAGS. VARIABLE BLADED MARC.
		PINK FINE GRAIN TUFF, COMMON FINE VESICULAR TEXTURE. ZONED DISSEM. PYRITE IS RELATED THIN FRACTURE FILLINGS/ VEINLETS. GRADES INTO VERY LT. GRAY APHANITIC FLOW? OFTEN W/ PROPYLITIC CLAY FILLING THIN FRACTURES, 89.0-93.5. FLOW MAYBE COMPACTED TUFF BEDS. SEEMS TO BE FAINT VESICULAR FEATURES IN PLACES.	80		78.0 - 85.0 VUGS COMMON, FORMED BY OPEN FRACTURES. 87.5 - 87.6 2" Ø FAULT CEMENTED W/ HARD PINKISH CLAY & MARC.	78.0 - 85.0 LINED/FILLED W/ WHITE CLAY BLADED MARC., DRUZY QUARTZ, MINOR PROP. CLAY
			90		93.5 - 98.4 FAULT BXA, MOSTLY TUFF CLASTS (MONOLITHIC), ROUND CLASTS.	93.5 - 98.4 CEMENTED W/ SILICA, MARC. BLADES, PYRITE. SMALLER CLASTS (1/2") ARE OFTEN SILICA REPLACED.
		98.5 - 156.0	100		100.0 - 2" Ø VERY LT. GREEN CLAY W/ ENVELOPING RARE ANGULAR BXA FRAGS.	98.4 - 103.1 LT. GREEN CLAY VEINS W/ MARC. BLADES FILLING FRACTS.
		SAME DESCRIPTION AS 72.5-93.5, POSSIBLE REPETITION OF BEDS DUE TO FAULT.				105.0 - 113.0 INCREASED VEINING, WHITE CLAY DRUZY QUARTZ, MARC. VUGS LINED/FILLED W/ SAME.
		PIMA →	110			113.0 - 116.0 SULFIDIC SELVAGES ASSOC. W/ MARC. FILLED FRACTURES
			120		116.8 - 119.0 FAULT BRECCIA, MOSAIC, HEALED, MATRIX SUPPORT	116.8 - 119.0 MATRIX CEMENT IS QUARTZ W/ MARC., SOME CALCITE, STRONG GREEN CLAY

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	A
48.2	51.2					
51.2	55.0					
55.0	57.3					
57.3	61.5					
61.5	65.7					
65.7	68.5					
68.5	71.8					
71.8	75.0					
75.0	78.0					
78.0	81.3					
81.3	85.0					
85.0	88.0					
88.0	92.0					
92.0	93.5					
93.5	95.5					
95.5	98.5					
98.5	103.1					
103.1	105.0					
105.0	109.2					
109.2	113.0					
113.0	115.0					
115.0	117.0					
117.0	119.0					

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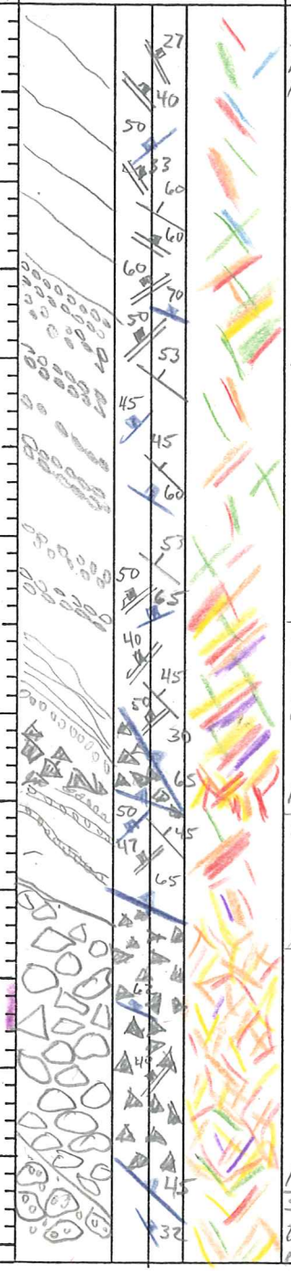
ITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
51.2 – 253.0		98.5 – 156.0			119.0 – 162.5 LITTLE STRUCTURE, FRACTURES ARE OFTEN THIN, CLAY-SULFIDE LINED FEATURES ‖ TO BEDDING OR @ 90° TO BEDDING. BOTH ARE 50°–60° TO CORE AXIS	124.0 – 130.0 · OCCASIONAL SULFIDIC SELVAGES UP TO 2" DIA. ASSOC. W/ THIN SULFIDE FILLED FRACTURES 119.0 – 150.0 PROPYLITIC CLAY & SULFIDES LINING / FILLING THIN FRACTURES. COMMON "BLEEDING" OF GREEN STAIN INTO WALL ROCK. OTHER LARGER FRACTURES FILLED/LINED W/ WHITE CLAY, MARC.
PLANAR LAMINAR		INTERBEDDED PINK, FINE GRAIN, VESICULAR TUFF & VERY LT. GRAY-GREEN APHANITIC COMPACT TUFF? W/ VAGUE VESICULAR FEATURES AND WEAK OUTLINES OF FLOW OR BEDDING LINEATIONS, NO CLEAR CONTACTS OBSERVED, GRADATIONAL CHANGE.	130 140 150 160 170 180 190			
		156.0 – 171.0 156.5 – 160.0 POSSIBLE INTERSAMPLE CONTAMINATION DUE TO SMASHING OF X-TALS. VERY LT. GREEN-GRAY, APHANITIC W/ POSSIBLE FLOW BANDS. GRADING? INTO PINK, FINE GRAIN TO APHANITIC, WEAKLY VESICULAR, PLANAR PIMA TUFFACEOUS FLOW.			153.0 – 174.0 STRONG FRACTURING @ 50°–60° TO CORE AXIS, OFTEN FILLED W/ CLAY + SULFIDES 162.5 – 164.3 FAULT BRECCIA, CLAST SUPPORT	150.0 – 160.0 INCREASE FREQUENCY & THICKNESS OF QUARTZ, MARC., BARITE VEINS UP TO 2" Ø. 162.2 – 171.0 VERY LT. GREEN CLAY VEINS W/ MARC. & MINOR? BARITE 163.0 – 164.3 STRONG, THICK (2") MARC, WHITE CLAY, QUARTZ VEINS. ABUNDANT MARC. BLADES.
		171.0 – 178.0 HETEROLITHIC BRECCIA, HYDROTHERMAL? IN ORIGIN. SUBROUND → ROUND FRAGS OF GRAYISH, BANDED, APHANITIC FLOW & PINK TUFFACEOUS, VESICULAR, FINE GRAIN ROCKS. CLAST SUPPORTED 178.0 – 186.0 MONOLITHIC FAULT BRECCIA, PINK ROUNDED, FINE GRAIN VESICULAR TUFF CLASTS, CLAST SUPPORTED			171.0 – 186.0 FAULT ZONE 186.0 – 209.0 VERY STRONG FRACTURE DENSITY. PATTERN IS IRREGULAR	171.0 – 186.0 CEMENTED W/ VERY LT. GREEN CLAY, WHITE CLAY, BLADED MARC., QUARTZ, SOME PROPYLITIC CLAY. 186.0 – 209.0 FRACTURES FILLED/LINED W/ QUARTZ, BLADED MARC., BARITE.

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
119.0	125.0				
125.0	130.0				
130.0	135.0				
135.0	140.0				
140.0	145.0				
145.0	150.0				
150.0	153.4				
153.4	156.5				
156.5	158.5				
158.5	160.0				
160.0	162.2				
162.2	165.0				
165.0	168.0				
168.0	171.0				
171.0	174.2				
174.2	176.1				
176.1	178.0				
178.0	180.0				
180.0	183.4				
183.4	186.0				
186.0	188.0				
188.0	190.0				

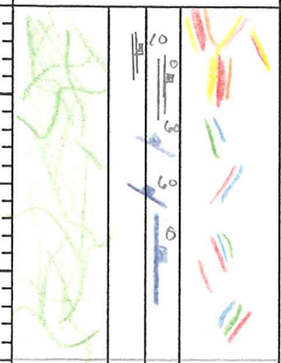
HOLE NUMBER D-268-98 PAGE 4 OF 5

ITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
51.2 – 253.0		186.0 – 232.0: PINK MATRIX BXA? PINK, FINE GRAIN VESICULAR TUFF FRAGS, MOSTLY ROUNDED, IN A PINK FINE GRAIN VESICULAR TUFFY MATRIX.				186.0 – 209.0 VUGS FORMED BY OPEN FRACTURES LINED W/ DRUZY QUARTZ, MARC., BARITE, SOME WHITE CLAY
PLANAR LAMINAR		190.0-195.0 SIGNIFICANT CORE LOSS. 2.5' REC. FOR 5.0' DRILLED	200	70 50	206.0 – 209.0 CRACKLE ZONE W/ SOME ROTATED FRAGS.	
			210	55 60 40 60	209.0 – 220.0 MOD → STRONG FRACTURING SOME CRACKLE ZONES.	209.0 – 220.0 FRACTURES FILLED W/ QUARTZ, MARC., WHITE CLAY. VUGS LINED W/ DRUZY QUARTZ, MARC & SOME WHITE CLAY. RARE PY. ON QUARTZ.
			220	55		
		226.0 QUICK CHANGE TO BEDDED PINK TUFF. THIN FAULT ALONG FRACTURE?	230	30 60 55 55	232.0 THIN 2" FAULT BRECCIA	230.0-235.0 VUGGY TEXTURE FROM OPEN FRACTURES, LINED W/ DRUZY QUARTZ & MARC. 235.0-239.2 PROPYLITIC STAIN GROWING IN INTENSITY.
		232.0 – 239.2 SLIGHTY PLANAR LAMINATED FLOW. PINK, FINE GRAIN, ABUNDANT CLOSE SPACE WAVY FLOW LINES.				
		239.2 – 248.0 SERIES OF CLOSE SPACED FAULTS.	240	40 60 40 60	239.2 – 240.5 FAULT BRECCIA, MATRIX SUPPORT 242.0 – 244.0 FAULT BRECCIA 245.0 – 248.0 FAULT BRECCIA - CLASTS SUPPORTED, ROUND FRAGS.	239.2-240.5 VITRO PHYRE & TUFF FRAGS IN CLAY CEMENT 242.0-244.0 VITROPHYRE FRAGS IN QUARTZ & CLAY 245.0-248.0 CEMENTED W/ QUARTZ, DRUZY QUARTZ BLADED MARC., WHITE CLAY. VUGGY FRACTURES LINED W/ SAME. MOD SILICAREP. OF FRAGS
		248.0 – 253.0 SLIGHTLY PLANAR FLOW, ABUNDANT WAVY FLOW BANDS AS DESCRIBED 232.0-239.2	250	60 40	253.0 – 266.0 STRONG VEINING, FRACTURE DENSITY & VUGS.	253.0-266.0 FRACTURES FILLED W/ MARC., WHITE CLAY, GREEN CLAY, QUARTZ. VUGS LINED W/ DRUZY QUARTZ, MARC., WHITE CLAY
			260			

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
190.0	195.0				
195.0	197.5				
197.5	200.0				
200.0	205.0				
205.0	209.0				
209.0	212.0				
212.0	215.0				
215.0	220.0				
220.0	225.0				
225.0	230.0				
230.0	232.2				
232.2	235.0				
235.0	239.0				
239.0	241.0				
241.0	243.0				
243.0	245.0				
245.0	248.0				
248.0	251.0				
251.0	253.0				
253.0	255.0				
255.0	257.5				
257.5	260.0				

HOLE NUMBER D-268-98 PAGE 5 OF 5

ITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
253.0 F.G. MASSIVE?	-280.0	253.0 - 280.0: VITROPHYRE-LIKE; LT. GREEN, DEVITRIFIED, EXTREEMLY FINE GRAIN W/ CRACKED GLASS APPEARANCE, MOTTLED TEXTURE W/ PINK COLORATION ALONG MANY THIN FRACTURES & AS IRREGULAR PODS IN ROCK. FINE GRAIN MASSIVE?	270 280		266.0 - 280.0 FRACTURES WEAK, MOSTLY 60°-70° TO CORE AXIS. 1 LONG FRAC. @ 0° 273'-278'
		T.D. 280				

266.0 - 280.0 CALCITE W/ MINOR MARC. LINING/FILLING FRACTURES, OFTEN W/ GREEN PROPYLITIC CLAY.

ANALYTICAL DATA					
FROM	TO	W	Au	Ag	Au2
260.0	262.5				
262.5	265.0				
265.0	270.0				
270.0	275.0				
275.0	280.0				

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-268-98 DATE: 8/17/98 LOGGED BY: ALLYN NILES PAGE 1 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)
0.0	5.0	92.0	92.0	52.0										
5.0	10.0	96.0	96.0	80.0										
10.0	15.0	100.0	100.0	94.0										
15.0	20.0	100.0	100.0	84.0										
20.0	25.0	100.0	100.0	94.0										
25.0	30.0	100.0	100.0	96.0										
30.0	35.0	100.0	100.0	90.0										
35.0	40.0	100.0	100.0	92.0										
40.0	45.0	100.0	100.0	86.0										
45.0	55.0	100.0	94.0	59.0										
55.0	65.0	70.0	100.0	61.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-268-98 DATE: 8/17/98 LOGGED BY: _____ PAGE 2 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)
65.0	75.0	98.0	98.0	80.0										
75.0	85.0	99.0	99.0	70.0										
85.0	88.0	93.3	93.3	83.3										
88.0	89.0	0	110.0	0										
89.0	92.0	73.3	73.3	26.6										
92.0	100.0	105.0	105.0	62.5										
100.0	105.0	80.0	80.0	40.0										
105.0	110.0	80.0	120.0	40.0										
110.0	115.0	98.0	98.0	54.0										
115.0	120.0	98.0	98.0	70.0										
120.0	125.0	80.0	90.0	50.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-268-98 DATE: 8/18/98 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)
125.0	130.0	100.0	100.0	46.0										
130.0	135.0	100.0	100.0	72.0										
135.0	140.0	100.0	100.0	64.0										
140.0	145.0	100.0	100.0	54.0										
145.0	150.0	100.0	100.0	58.0										
150.0	155.0	100.0	100.0	44.0										
155.0	160.0	98.0	98.0	52.0										
160.0	165.0	96.0	96.0	42.0										
165.0	170.0	90.0	90.0	0										
170.0	175.0	96.0	96.0	30.0										
175.0	180.0	100.0	100.0	74.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-268-98 DATE: 8/18/98 LOGGED BY: _____ PAGE 4 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)
180.0	185.0	100.0	100.0	66.0										
185.0	190.0	96.0	96.0	56.0										
190.0	195.0	0	50.0	0										
195.0	200.0	70.0	160.0	42.0										
200.0	205.0	104.0	104.0	90.0										
205.0	210.0	98.0	98.0	70.0										
210.0	215.0	100.0	100.0	76.0										
215.0	220.0	100.0	100.0	94.0										
220.0	225.0	100.0	100.0	64.0										
225.0	230.0	100.0	100.0	36.0										
230.0	235.0	100.0	100.0	70.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-268-98 DATE: 8/19/98 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)
235.0	240.0	78.0	100.0	0										
240.0	245.0	100.0	100.0	72.0										
245.0	250.0	60.0	70.0	36.0										
250.0	251.0	0	80.0	40.0										
251.0	253.0	0	90.0	0										
253.0	255.0	95.0	95.0	0										
255.0	257.5	80.0	100.0	20.0										
257.5	260.0	92.0	92.0	0										
260.0	265.0	92.0	92.0	70.0										
265.0	270.0	98.0	98.0	80.0										
270.0	275.0	108.0	108.0	68.0										
275.0	280.0	34.0	70.0	0										

SP

SUBMITTAL FORM

566615

3/15

American Assay Laboratories

Geochemical • Environmental • Metallurgical

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Company: Hecla Mining Co.

Address: P.O. Box 2610

City Winca. State Nv. Zip 89445

Telephone Number: (775) 623-6912 Fax Number: (775) 623-6967

Project Name: Rose Lvd Purchase Order Number:

Date Submitted: 3-15-00 Number of Samples: 56

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

SAMPLE IDENTIFICATION	TYPE	ELEMENTS REQUIRED
83874-83929	Rock Chip	Daily Grade Control Au, Ag

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:

Brian Morris
S.A.A.

Results to:

✓

Comments:

DTF

* Priority #1

CLIENT FILE COPY

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP056615

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : 83874/929

REPORTED : 16 MAR 2000

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)			
83874	0.011		0.07	34 P5A -1BS +41-65	(ER)	L3
83875	0.061		DTF 0.33			L4
83876	0.002	0.002	<0.05	34 P5A -1g + 65	(F)	1
83877	0.053		0.63			2
83878	0.460		0.17			3
83879	0.027		<0.05			4
83880	0.007		<0.05		(RR) To Geo	1
83881	0.027		<0.05			2
83882	0.037		<0.05			3
83883	0.043		0.30			4
83884	0.006		DTF ϕ			U3
83885	0.259	0.302	0.19			L3
83886	0.286		0.12			U4
83887	0.076		<0.05			L4
83888	0.270		0.36	34 P8/P9BS +28	(F)	4
83889	0.038		DTF 0.18	34 P7-1g + 102	(F)	1
83890	0.382		0.78			2
83891	0.114		0.26			3
83892	0.062	0.061	0.30			4
83893	0.033		<0.05	34 P7-1g + 94-102	(ER)	U1
83894	0.026		<0.05			L1
83895	0.074		0.05			U2
83896	0.143		0.46			L2
83897	0.270		0.17		(RR)	U1
83898	0.044		2.32			L1

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REPORTED : 16 MAR 2000

34 ~~P7~~ 32
~~P8~~ 42 4A
~~P9~~ 44 (F)
33 RA
D14

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)		
83899	DTF 0.027		DTF 0.10		U2
83900	0.033		1.83		L2
76004	0.368		3.03	Standard	
83901	0.003		DTF ϕ	Blank	
83902	0.333		1.88	33 RA-2BS + 44-68 (R)	U1
83903	0.163		0.19		L1
83904	0.094		<0.05		U2
83905	0.443		0.53		L2
83906	DTF 0.174		DTF 0.54		U3
83907	0.143		<0.05		L3
83908	0.273		0.41		U4
83909	0.298		<0.05		L4
83910	0.086		0.36	(RD)	U1
83911	0.351		0.31		L1
83912	0.100	0.079	DTF ϕ		U2
83913	0.045		0.12		L2
83914	0.050		DTF 0.11		U3
83915	0.090		0.15		L3
83916	0.072		0.20		U4
83917	0.172		0.27		L4
83918	0.285		0.47	33 Acc/RA-2BS+68 (F)	1
83919	0.075		<0.05		2
83920	0.125	0.128	0.35		3
83921	0.079		0.05		4
83922	0.125		<0.05	34 P3BS +97 (F)	1

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REFERENCE : 83874/929

REPORTED : 16 MAR 2000

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)		
83923	0.074	0.052	0.05		2
83924	0.071		DTF	0.14	3
83925	0.115		0.08		4
83926	0.127		<0.05	34P3BS +91-97 (LR)	U1
83927	0.225		0.08		L1
83928	0.015		<0.05	(RR)	U1
83929	0.138		0.19		L1
76005	0.156		1.44	standard	

AMERICAN ASSAY LABORATORIES

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REPORTED : 19 MAR 2000

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)
83874	0.011		0.07
83875	0.061		0.33
83876	0.002	0.002	<0.05
83877	0.053		0.63
83878	0.460		0.17
83879	0.027		<0.05
83880	0.007		<0.05
83881	0.027		<0.05
83882	0.037		<0.05
83883	0.043		0.30
83884	0.006		<0.05
83885	0.259	0.302	0.19
83886	0.286		0.12
83887	0.076		<0.05
83888	0.270		0.36
83889	0.038		0.14
83890	0.382		0.78
83891	0.114		0.26
83892	0.062	0.061	0.30
83893	0.033		<0.05
83894	0.026		<0.05
83895	0.074		0.05
83896	0.143		0.46
83897	0.270		0.17
83898	0.044		2.32

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REPORTED : 19 MAR 2000

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)
83899	0.027		0.10
83900	0.033		1.83
76004	0.368		3.03
83901	0.003		<0.05
83902	0.333		1.88
83903	0.163		0.19
83904	0.094		<0.05
83905	0.443		0.53
83906	0.176		0.54
83907	0.143		<0.05
83908	0.273		0.41
83909	0.298		<0.05
83910	0.096		0.36
83911	0.351		0.31
83912	0.100	0.079	<0.05
83913	0.045		0.12
83914	0.050		0.11
83915	0.090		0.15
83916	0.072		0.20
83917	0.172		0.27
83918	0.285		0.47
83919	0.075		<0.05
83920	0.125	0.128	0.35
83921	0.079		0.05
83922	0.125		<0.05

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CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : 83874/929

REPORTED : 19 MAR 2000

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)
83923	0.074	0.052	0.05
83924	0.071		0.16
83925	0.115		0.08
83926	0.127		<0.05
83927	0.225		0.08
83928	0.015		<0.05
83929	0.138		0.19
76005	0.156		1.44

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: SP 0050362-IN
INVOICE DATE: 09/14/98

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-268-98	DEVELOPMENT	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
84	SAMPLES RECEIVED	.00	.00
83	DRYING	1.00	83.00
83	JAW CRUSHING CHARGE	1.30	107.90
83	COARSE MILLING CHARGE	4.50	373.50
83	SPLITTING CHARGE	2.40	199.20
83	RING MILLING CHARGE	2.00	166.00
84	Au (1 A.T. FIRE ASSAY)	8.00	672.00
1	Au ANALYSES/GRAVIMETRIC	8.75	8.75
84	HYDROCHLORIC/NITRIC DIGESTION	2.00	168.00
84	Ag ANALYSES	1.00	84.00

86-5110-477
LA

NET INVOICE:	1,862.35
LESS DISCOUNT:	372.47
FREIGHT:	.00
INVOICE TOTAL:	1,489.88

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ANALYSIS REPORT SP050362

American Assay Laboratories

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

HECLA MINING COMPANY

COPIES TO : KURT ALLEN

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CLIENT REFERENCE No: D-268-98 RECEIVED : 1 SEP 1998

No. SAMPLES : 84 REPORTED : 15 SEP 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 SP050362

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-268-98

REPORTED : 15 SEP 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-268-98 00-05	<0.001			0.02
D-268-98 05-10	<0.001			<0.02
D-268-98 10-15	<0.001			<0.02
D-268-98 15-20	0.001			<0.02
D-268-98 20-25	<0.001			<0.02
D-268-98 25-30	<0.001			<0.02
D-268-98 30-35	<0.001			<0.02
D-268-98 35-40	<0.001			<0.02
D-268-98 40-44	0.002			<0.02
D-268-98 44-46	<0.001			<0.02
D-268-98 46.0-48.2	<0.001			<0.02
D-268-98 48.2-51.2	<0.001			0.02
D-268-98 51.2-55.0	0.005			0.11
D-268-98 55.0-57.3	0.003			0.03
D-268-98 57.3-61.5	0.009			0.04
D-268-98 61.5-65.7	0.004			0.06
D-268-98 65.7-68.5	0.002			0.05
D-268-98 68.5-71.8	0.003			0.07
D-268-98 71.8-75.0	0.017	0.016		0.07
D-268-98 75-78	0.007			0.06
D-268-98 78.0-81.3	0.020			0.06
D-268-98 81.3-85.0	0.009			0.07
D-268-98 85-88	0.010			0.08
D-268-98 88-92	0.007			0.05
D-268-98 92.0-93.5	0.006			0.06

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP050362

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-268-98

REPORTED : 15 SEP 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-268-98 93.5-95.5	0.007			0.06
D-268-98 95.5-98.5	0.003			0.04
D-268-98 98.5-103.1	0.009			0.08
D-268-98 103.1-105.0	0.001			0.04
D-268-98 105-109	0.006			0.06
D-268-98 109-113	0.005	0.005		0.08
D-268-98 113-115	0.004			0.07
D-268-98 115-117	0.004			0.09
D-268-98 117-119	0.008			0.09
D-268-98 119-125	0.005			0.05
D-268-98 125-130	0.003			0.05
D-268-98 130-135	0.005			0.09
D-268-98 135-140	0.005			0.07
D-268-98 140-145	0.007			0.06
D-268-98 145-150	0.007			0.06
D-268-98 150.0-153.4	0.008			0.06
D-268-98 153.4-156.5	0.014	0.014		0.10
D-268-98 156.5-158.5	0.005			0.05
D-268-98 158.5-160.0	0.003			0.03
D-268-98 160.0-162.2	0.004			0.04
D-268-98 162.2-165.0	0.006			0.07
D-268-98 165-168	0.008			0.05
D-268-98 168-171	0.002			0.03
D-268-98 171.0-174.2	0.005			0.06
D-268-98 174.2-176.1	0.004			0.09

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SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-268-98 176.1-178.0	0.258		0.346	0.14
D-268-98 178-180	0.003			0.08
D-268-98 180.0-183.4	0.001			0.05
D-268-98 183.4-186.0	0.003			0.04
D-268-98 186-188	0.002			0.04
D-268-98 188-190	0.022			0.10
D-268-98 190-195	0.003			0.04
D-268-98 195.0-197.5	0.002			0.04
D-268-98 197.5-200.0	0.002			0.04
D-268-98 200-205	0.007			0.04
D-268-98 205-209	0.005			0.07
D-268-98 209-212	0.002			0.04
D-268-98 212-215	0.012			0.04
D-268-98 215-220	0.003			0.03
D-268-98 220-225	0.002			0.05
D-268-98 225-230	0.005			0.08
D-268-98 230.0-232.2	0.003			0.04
D-268-98 232.2-235.0	0.014			0.07
D-268-98 235-239	0.002			0.04
D-268-98 239-241	0.002			0.04
D-268-98 241-243	0.004			0.04
D-268-98 243-245	0.007			0.09
D-268-98 245-248	0.005			0.07
D-268-98 248-251	0.010			0.08
D-268-98 251-253	0.014			0.12

AMERICAN ASSAY LABORATORIES

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SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-268-98 253-255	0.020			0.10
D-268-98 255.0-257.5	0.004			0.06
D-268-98 257.5-260.0	0.003			0.05
D-268-98 260.0-262.5	0.006			0.06
D-268-98 262.5-265.0	0.006			0.06
D-268-98 265-270	0.006			0.15
D-268-98 270-275	0.011			0.07
D-268-98 275-280	0.014			0.04
40486	0.554			2.76

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ANALYSIS REPORT SP050362

American Assay Laboratories

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

HECLA MINING COMPANY

COPIES TO : KURT ALLEN

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CLIENT REFERENCE No: D-268-98 RECEIVED : 1 SEP 1998

No. SAMPLES : 84 REPORTED : 15 SEP 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 SP050362

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PROJECT : ROSEBUD DEVELOPMENT
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SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-268-98 00-05	<0.001			0.02
D-268-98 05-10	<0.001			<0.02
D-268-98 10-15	<0.001			<0.02
D-268-98 15-20	0.001			<0.02
D-268-98 20-25	<0.001			<0.02
D-268-98 25-30	<0.001			<0.02
D-268-98 30-35	<0.001			<0.02
D-268-98 35-40	<0.001			<0.02
D-268-98 40-44	0.002			<0.02
D-268-98 44-46	<0.001			<0.02
D-268-98 46.0-48.2	<0.001			<0.02
D-268-98 48.2-51.2	<0.001			0.02
D-268-98 51.2-55.0	0.005			0.11
D-268-98 55.0-57.3	0.003			0.03
D-268-98 57.3-61.5	0.009			0.04
D-268-98 61.5-65.7	0.004			0.06
D-268-98 65.7-68.5	0.002			0.05
D-268-98 68.5-71.8	0.003			0.07
D-268-98 71.8-75.0	0.017	0.016		0.07
D-268-98 75-78	0.007			0.06
D-268-98 78.0-81.3	0.020			0.06
D-268-98 81.3-85.0	0.009			0.07
D-268-98 85-88	0.010			0.08
D-268-98 88-92	0.007			0.05
D-268-98 92.0-93.5	0.006			0.06

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SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-268-98 93.5-95.5	0.007			0.06
D-268-98 95.5-98.5	0.003			0.04
D-268-98 98.5-103.1	0.009			0.08
D-268-98 103.1-105.0	0.001			0.04
D-268-98 105-109	0.006			0.06
D-268-98 109-113	0.005	0.005		0.08
D-268-98 113-115	0.004			0.07
D-268-98 115-117	0.004			0.09
D-268-98 117-119	0.008			0.09
D-268-98 119-125	0.005			0.05
D-268-98 125-130	0.003			0.05
D-268-98 130-135	0.005			0.09
D-268-98 135-140	0.005			0.07
D-268-98 140-145	0.007			0.06
D-268-98 145-150	0.007			0.06
D-268-98 150.0-153.4	0.008			0.06
D-268-98 153.4-156.5	0.014	0.014		0.10
D-268-98 156.5-158.5	0.005			0.05
D-268-98 158.5-160.0	0.003			0.03
D-268-98 160.0-162.2	0.004			0.04
D-268-98 162.2-165.0	0.006			0.07
D-268-98 165-168	0.008			0.05
D-268-98 168-171	0.002			0.03
D-268-98 171.0-174.2	0.005			0.06
D-268-98 174.2-176.1	0.004			0.09

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP050362

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-268-98

REPORTED : 15 SEP 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-268-98 176.1-178.0	0.258		0.346	0.14
D-268-98 178-180	0.003			0.08
D-268-98 180.0-183.4	0.001			0.05
D-268-98 183.4-186.0	0.003			0.04
D-268-98 186-188	0.002			0.04
D-268-98 188-190	0.022			0.10
D-268-98 190-195	0.003			0.04
D-268-98 195.0-197.5	0.002			0.04
D-268-98 197.5-200.0	0.002			0.04
D-268-98 200-205	0.007			0.04
D-268-98 205-209	0.005			0.07
D-268-98 209-212	0.002			0.04
D-268-98 212-215	0.012			0.04
D-268-98 215-220	0.003			0.03
D-268-98 220-225	0.002			0.05
D-268-98 225-230	0.005			0.08
D-268-98 230.0-232.2	0.003			0.04
D-268-98 232.2-235.0	0.014			0.07
D-268-98 235-239	0.002			0.04
D-268-98 239-241	0.002			0.04
D-268-98 241-243	0.004			0.04
D-268-98 243-245	0.007			0.09
D-268-98 245-248	0.005			0.07
D-268-98 248-251	0.010			0.08
D-268-98 251-253	0.014			0.12

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP050362

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CLIENT : HECLA MINING COMPANY
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REFERENCE : D-268-98

REPORTED : 15 SEP 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-268-98 253-255	0.020			0.10
D-268-98 255.0-257.5	0.004			0.06
D-268-98 257.5-260.0	0.003			0.05
D-268-98 260.0-262.5	0.006			0.06
D-268-98 262.5-265.0	0.006			0.06
D-268-98 265-270	0.006			0.15
D-268-98 270-275	0.011			0.07
D-268-98 275-280	0.014			0.04
40486	0.554			2.76

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP050362

PO BOX 11539
RENO NV, USA
Ph.(702) 356-0606, Fax.(702) 356-1413

HECLA MINING COMPANY

COPIES TO : KURT ALLEN

:

:

:

CLIENT REFERENCE No: D-268-98 RECEIVED : 1 SEP 1998

No. SAMPLES : 84 REPORTED : 15 SEP 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)	DZ10	10%	OPT	0.02

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP050362

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-268-98

REPORTED : 15 SEP 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-268-98 00-05	<0.001			0.02
D-268-98 05-10	<0.001			<0.02
D-268-98 10-15	<0.001			<0.02
D-268-98 15-20	0.001			<0.02
D-268-98 20-25	<0.001			<0.02
D-268-98 25-30	<0.001			<0.02
D-268-98 30-35	<0.001			<0.02
D-268-98 35-40	<0.001			<0.02
D-268-98 40-44	0.002			<0.02
D-268-98 44-46	<0.001			<0.02
D-268-98 46.0-48.2	<0.001			<0.02
D-268-98 48.2-51.2	<0.001			0.02
D-268-98 51.2-55.0	0.005			0.11
D-268-98 55.0-57.3	0.003			0.03
D-268-98 57.3-61.5	0.009			0.04
D-268-98 61.5-65.7	0.004			0.06
D-268-98 65.7-68.5	0.002			0.05
D-268-98 68.5-71.8	0.003			0.07
D-268-98 71.8-75.0	0.017	0.016		0.07
D-268-98 75-78	0.007			0.06
D-268-98 78.0-81.3	0.020			0.06
D-268-98 81.3-85.0	0.009			0.07
D-268-98 85-88	0.010			0.08
D-268-98 88-92	0.007			0.05
D-268-98 92.0-93.5	0.006			0.06

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP050362

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-268-98

REPORTED : 15 SEP 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-268-98 93.5-95.5	0.007			0.06
D-268-98 95.5-98.5	0.003			0.04
D-268-98 98.5-103.1	0.009			0.08
D-268-98 103.1-105.0	0.001			0.04
D-268-98 105-109	0.006			0.06
D-268-98 109-113	0.005	0.005		0.08
D-268-98 113-115	0.004			0.07
D-268-98 115-117	0.004			0.09
D-268-98 117-119	0.008			0.09
D-268-98 119-125	0.005			0.05
D-268-98 125-130	0.003			0.05
D-268-98 130-135	0.005			0.09
D-268-98 135-140	0.005			0.07
D-268-98 140-145	0.007			0.06
D-268-98 145-150	0.007			0.06
D-268-98 150.0-153.4	0.008			0.06
D-268-98 153.4-156.5	0.014	0.014		0.10
D-268-98 156.5-158.5	0.005			0.05
D-268-98 158.5-160.0	0.003			0.03
D-268-98 160.0-162.2	0.004			0.04
D-268-98 162.2-165.0	0.006			0.07
D-268-98 165-168	0.008			0.05
D-268-98 168-171	0.002			0.03
D-268-98 171.0-174.2	0.005			0.06
D-268-98 174.2-176.1	0.004			0.09

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP050362

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-268-98

REPORTED : 15 SEP 1998

176.1-178 = 1.9' @

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-268-98 176.1-178.0	0.258		0.346	0.14
D-268-98 178-180	0.003			0.08
D-268-98 180.0-183.4	0.001			0.05
D-268-98 183.4-186.0	0.003			0.04
D-268-98 186-188	0.002			0.04
D-268-98 188-190	0.022			0.10
D-268-98 190-195	0.003			0.04
D-268-98 195.0-197.5	0.002			0.04
D-268-98 197.5-200.0	0.002			0.04
D-268-98 200-205	0.007			0.04
D-268-98 205-209	0.005			0.07
D-268-98 209-212	0.002			0.04
D-268-98 212-215	0.012			0.04
D-268-98 215-220	0.003			0.02
D-268-98 220-225	0.002			0.05
D-268-98 225-230	0.005			0.08
D-268-98 230.0-232.2	0.003			0.04
D-268-98 232.2-235.0	0.014			0.07
D-268-98 235-239	0.002			0.04
D-268-98 239-241	0.002			0.04
D-268-98 241-243	0.004			0.04
D-268-98 243-245	0.007			0.09
D-268-98 245-248	0.005			0.07
D-268-98 248-251	0.010			0.08
D-268-98 251-253	0.014			0.12

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REFERENCE : D-268-98

REPORTED : 15 SEP 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-268-98 253-255	0.020			0.10
D-268-98 255.0-257.5	0.004			0.06
D-268-98 257.5-260.0	0.003			0.05
D-268-98 260.0-262.5	0.006			0.06
D-268-98 262.5-265.0	0.006			0.06
D-268-98 265-270	0.006			0.15
D-268-98 270-275	0.011			0.07
D-268-98 275-280	0.014			0.04
40486	0.554			2.76

SP

SUBMITTAL FORM

American Assay Laboratories

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Telephone
(702) 738-9100
Fax
(702) 738-2594

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

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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) 623-6967

Project Name: DEVELOPMENT Purchase Order Number:

Date Submitted: 8/25/98 Number of Samples: 83

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

SAMPLE IDENTIFICATION				TYPE	ELEMENTS REQUIRED		
D-268-98					AU-AG ACCORDING TO		
0-5	57.3-61.5	103.1-105	156.5-158.5		ROSEBUD MINE PROTOCOL		
5-10	61.5-65.7	105-109	158.5-160				
10-15	65.7-68.5	109-113	160-162.2		190-195	235-239	265-270
15-20	68.5-71.8	113-115	162.2-165		195-197.5	239-241	270-275
20-25	71.8-75	115-117	165-168		197.5-200	241-243	275-280 TD
25-30	75-78	117-119	168-171		200-205	243-245	
30-35	78-81.3	119-125	171-174.2		205-209	245-248	
35-40	81.3-85	125-130	174.2-176.1		209-212	248-251	
40-44	85-88	130-135	176.1-178		212-215	251-253	
44-46	88-92	135-140	178-180		215-220	253-255	
46-48.2	92-93.5	140-145	180-183.4		220-225	255-257.5	
48.2-51.2	93.5-95.5	145-150	183.4-186		225-230	257.5-260	
51.2-55	95.5-98.5	150-153.4	186-188		230-232.2	260-262.5	
55-57.3	98.5-103.1	153.4-156.5	188-190		232.2-235	262.5-265	

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:

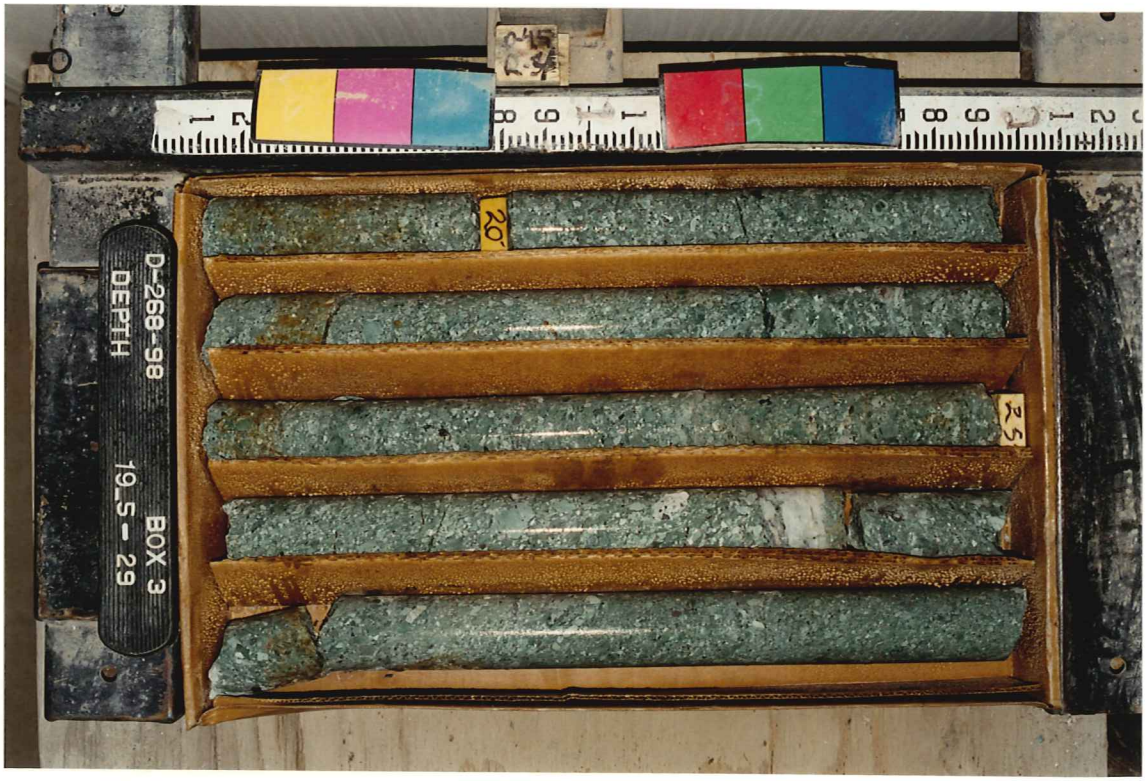
KURT ALLEN

Comments:

CLIENT FILE COPY

15'
10'
D-268-98
DEPTH
BOX 2
10 - 19_5

5'
D-268-98
DEPTH
BOX 1
0 - 10


20'
25'
D-268-98
DEPTH
BOX 3
19_5 - 29

40
45
D-268-98
BOX 5
DEPTH
38_5 - 48

30
35
D-268-98
BOX 4
DEPTH
29 - 38_5

D-268-98
BOX 6
DEPTH
48 - 57

D-268-98
BOX 8
DEPTH
67 - 76

D-268-98
BOX 7
DEPTH
57 - 67

D-268-98
BOX 9
DEPTH
76 - 86

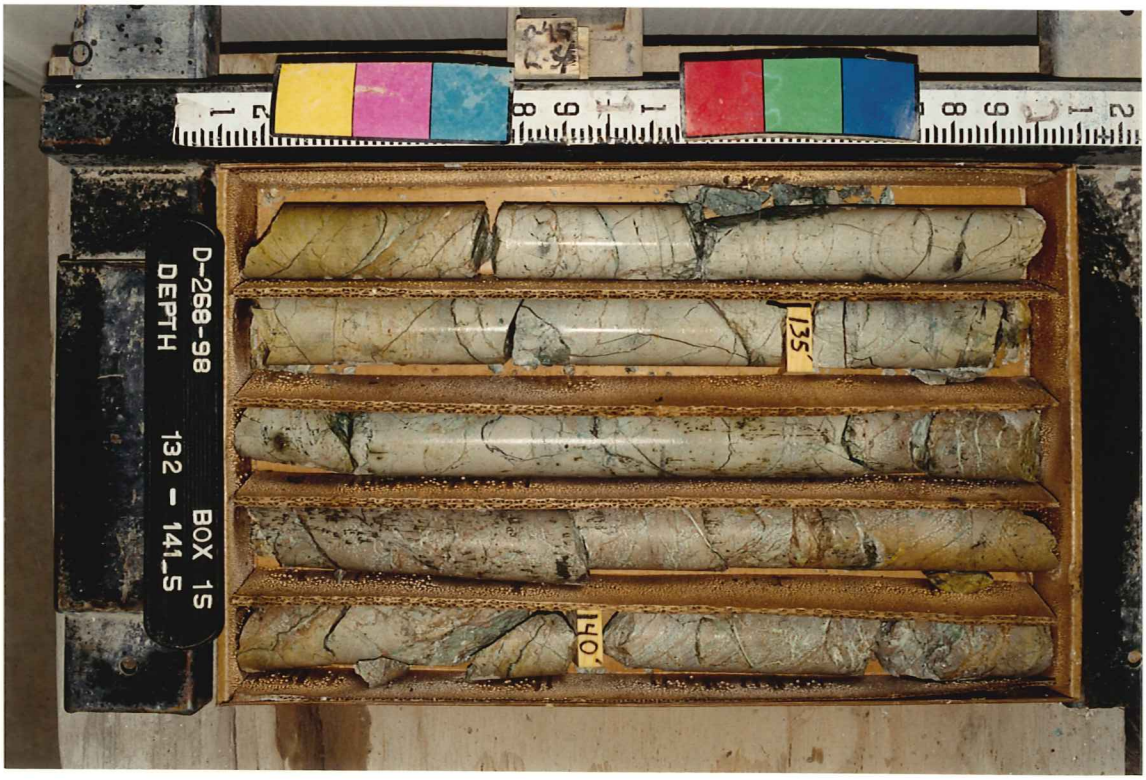
105
105
100
D-268-98
BOX 11
DEPTH
96 - 105

89
88
92
D-268-98
BOX 10
DEPTH
86 - 96

D-268-98
BOX 12
DEPTH
105 - 113

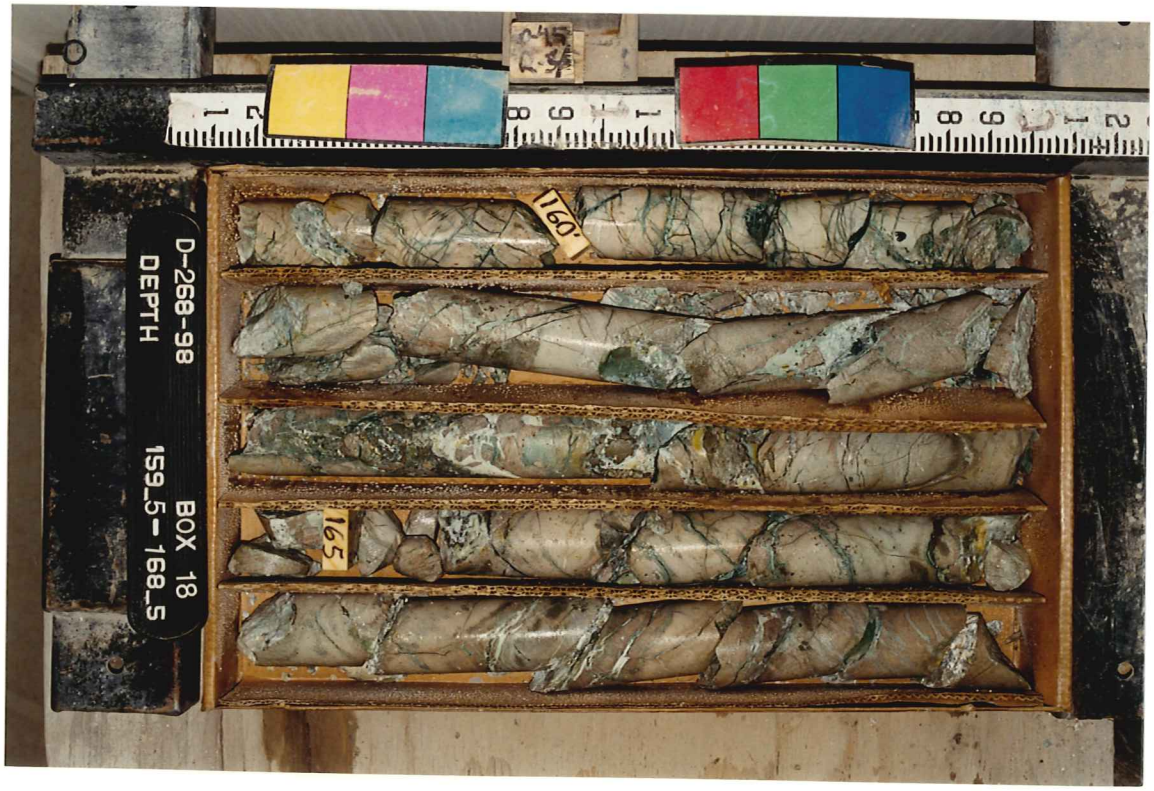
130'
125
D-268-98
DEPTH
BOX 14
122_5 - 132

115
120
D-268-98
DEPTH
BOX 13
113 - 122_5


D-268-98
DEPTH
BOX 15
132 - 141_5
135'
140'

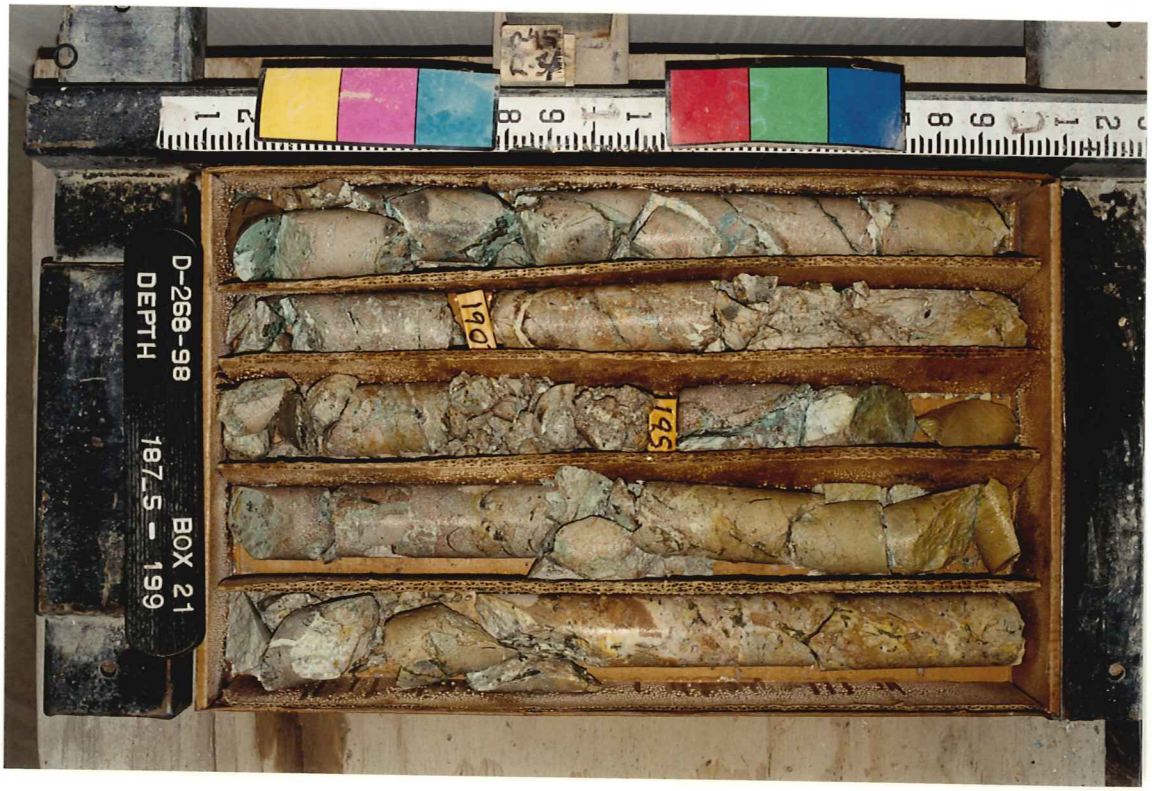
155
D-268-98
DEPTH
BOX 17
150 - 159_5

50'
145
D-268-98
DEPTH
BOX 16
141_5 - 150


160'
165
D-268-98
DEPTH
BOX 18
159_5 - 168_5

D-268-98
BOX 20
DEPTH
178 - 187_5
180
185

D-268-98
BOX 19
DEPTH
168_5 - 178
170
175


D-268-98
BOX 21
DEPTH
187_5 - 199
190
195

210
215
D-268-98
BOX 23
DEPTH
208 - 217.5

200
205
D-268-98
BOX 22
DEPTH
199 - 208

D-268-98
DEPTH
217.5 - 227
BOX 24
210
225

245
240
D-268-98
BOX 26
DEPTH
236 - 245

230
235
D-268-98
BOX 25
DEPTH
227 - 236

250
251
253
255
D-268-98
BOX 27
DEPTH
245 - 256

D-268-98
BOX 29
DEPTH
265 - 274_5
265
270

D-268-98
BOX 28
DEPTH
256 - 265
257.5
260

D-268-98
BOX 30
DEPTH
274_5 - 280 TD
275
TD
280

SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecla
WELL NAME D-268-98
LEASE
TAKEN BY Gene
DEPTH @ Coll AR
DATE 6-12-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO. 1

HI-1408

SINGLE SHOT
PHOTO DISC RECORD

53

COMPANY Hecla
WELL NAME D-268-98
LEASE
TAKEN BY Gene
DEPTH 140'
DATE 6-12-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO. 1

HI-1408

SINGLE SHOT
PHOTO DISC RECORD

S17E?

COMPANY Aec/A
WELL NAME D-268-98
LEASE
TAKEN BY Gene
DEPTH 280'
DATE 6-12-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO. 1

HI-1408