D-240-98

4010 0053

SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecla
WELL NAME D-241B-98
LEASE
TAKEN BY Hunter
DEPTH 100'
DATE 5-4-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO. 1
HI-1408

SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecla
WELL NAME D-241B-98
LEASE
TAKEN BY Hunter
DEPTH 200'
DATE 5-4-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO. 1
HI-1408

SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecla
WELL NAME D-241B-98
LEASE
TAKEN BY Hunter
DEPTH Collar
DATE 5-4-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO. 1
HI-1408

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 0950092-IN
INVOICE DATE: 08/28/98

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-241-98	DEVELOPMENT	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
49	SAMPLES RECEIVED	.00	.00
48	JAW CRUSHING CHARGE	1.30	62.40
48	COARSE MILLING CHARGE	4.50	216.00
48	SPLITTING CHARGE	2.40	115.20
48	RING MILLING CHARGE	2.00	96.00
49	Au (1 A.T. FIRE ASSAY)	8.00	392.00
49	HYDROCHLORIC/NITRIC DIGESTION	2.00	98.00
49	Ag ANALYSES	1.00	49.00

86 $030-477
FAB

NET INVOICE	1,028.60
LESS DISCOUNT	205.72
FREIGHT	.00
INVOICE TOTAL	822.88

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP050092

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-241-98B

No. SAMPLES : 49

MAIN SAMPLE TYPE : DRILL CORE

RECEIVED : 14 AUG 1998

REPORTED : 28 AUG 1998

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
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP050092

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-241-98B

REPORTED : 28 AUG 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
D-241-98B 0-3	0.007		0.09
D-241-98B 3-8	0.004		0.06
D-241-98B 8-13	0.004		0.07
D-241-98B 13-17	<0.001		<0.02
D-241-98B 17-20	<0.001		<0.02
D-241-98B 20.0-24.7	0.003		1.22
D-241-98B 24.7-30.0	0.002		0.02
D-241-98B 30.0-34.9	0.007		0.06
D-241-98B 34.9-40.0	0.004		0.08
D-241-98B 40.0-44.6	0.005		0.04
D-241-98B 44.6-50.0	0.002	0.001	0.03
D-241-98B 50.0-55.8	0.005		0.25
D-241-98B 55.8-60.0	<0.001		<0.02
D-241-98B 60.0-65.2	<0.001		<0.02
D-241-98B 65.2-70.6	<0.001		<0.02
D-241-98B 70.6-74.8	<0.001		<0.02
D-241-98B 74.8-80.0	0.003		0.02
D-241-98B 80-85	0.001	0.001	0.04
D-241-98B 85.0-88.5	<0.001		0.05
D-241-98B 88.5-93.3	0.001		0.06
D-241-98B 93.3-98.5	0.002		0.02
D-241-98B 98.5-102.9	<0.001		0.02
D-241-98B 102.9-107.5	<0.001		<0.02
D-241-98B 107.5-111.0	0.006		0.07
D-241-98B 111.0-113.4	<0.001		<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP050092

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-241-98B

REPORTED : 28 AUG 1998

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D-241-98B 124.8-130.0	<0.001		0.02
D-241-98B 130-134	<0.001		0.04
D-241-98B 134.0-139.1	0.001		0.03
D-241-98B 139.1-144.0	<0.001		0.09
D-241-98B 144.0-146.4	0.001	<0.001	0.07
D-241-98B 146.4-150.0	0.001		0.06
D-241-98B 150-154	<0.001		<0.02
D-241-98B 154-159	<0.001		<0.02
D-241-98B 159-161	<0.001	<0.001	0.02
D-241-98B 161.0-166.4	<0.001		<0.02
D-241-98B 166.4-170.0	<0.001		<0.02
D-241-98B 170.0-174.4	<0.001		<0.02
D-241-98B 174.4-178.0	<0.001		<0.02
D-241-98B 178.0-182.1	<0.001		<0.02
D-241-98B 182.1-185.0	<0.001		<0.02
D-241-98B 185-187	0.002		0.08
D-241-98B 187.0-190.9	0.002		0.02
D-241-98B 190.9-194.4	0.004	0.006	0.02
D-241-98B 194.4-197.0	0.005		0.02
D-241-98B 197-200	0.030		0.09
34531	0.490		3.67

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP050092

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-241-98B

No. SAMPLES : 49

MAIN SAMPLE TYPE : DRILL CORE

RECEIVED : 14 AUG 1998

REPORTED : 28 AUG 1998

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Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP050092

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-241-98B

REPORTED : 28 AUG 1998

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D-241-98B 17-20	<0.001		<0.02
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D-241-98B 24.7-30.0	0.002		0.02
D-241-98B 30.0-34.9	0.007		0.06
D-241-98B 34.9-40.0	0.004		0.08
D-241-98B 40.0-44.6	0.005		0.04
D-241-98B 44.6-50.0	0.002	0.001	0.03
D-241-98B 50.0-55.8	0.005		0.25
D-241-98B 55.8-60.0	<0.001		<0.02
D-241-98B 60.0-65.2	<0.001		<0.02
D-241-98B 65.2-70.6	<0.001		<0.02
D-241-98B 70.6-74.8	<0.001		<0.02
D-241-98B 74.8-80.0	0.003		0.02
D-241-98B 80-85	0.001	0.001	0.04
D-241-98B 85.0-88.5	<0.001		0.05
D-241-98B 88.5-93.3	0.001		0.06
D-241-98B 93.3-98.5	0.002		0.02
D-241-98B 98.5-102.9	<0.001		0.02
D-241-98B 102.9-107.5	<0.001		<0.02
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AMERICAN ASSAY LABORATORIES

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REFERENCE : D-241-98B

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D-241-98B 120.0-124.8	<0.001		0.04
D-241-98B 124.8-130.0	<0.001		0.02
D-241-98B 130-134	<0.001		0.04
D-241-98B 134.0-139.1	0.001		0.03
D-241-98B 139.1-144.0	<0.001		0.09
D-241-98B 144.0-146.4	0.001	<0.001	0.07
D-241-98B 146.4-150.0	0.001		0.06
D-241-98B 150-154	<0.001		<0.02
D-241-98B 154-159	<0.001		<0.02
D-241-98B 159-161	<0.001	<0.001	0.02
D-241-98B 161.0-166.4	<0.001		<0.02
D-241-98B 166.4-170.0	<0.001		<0.02
D-241-98B 170.0-174.4	<0.001		<0.02
D-241-98B 174.4-178.0	<0.001		<0.02
D-241-98B 178.0-182.1	<0.001		<0.02
D-241-98B 182.1-185.0	<0.001		<0.02
D-241-98B 185-187	0.002		0.08
D-241-98B 187.0-190.9	0.002		0.02
D-241-98B 190.9-194.4	0.004	0.006	0.02
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D-241-98B 197-200	0.030		0.09
34531	0.490		3.67

SP

SUBMITTAL FORM

American Assay Laboratories

Geochemical • Environmental • Metallurgical

Sparks Office
1500 Glendale Ave.
Nevada 89431
Box 11530
Reno, NV 89510
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(702) 356-0606
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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 ~~LLC~~ Mining Co LLC

Address: PO Box 2610

City Winnemucca State NV Zip 89446

Telephone Number: (702) 623-6912 Fax Number: (702) 623-6967

Project Name: Development Purchase Order Number:

Date Submitted: 8/12/98 Number of Samples: 48

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

D-24698-B SAMPLE IDENTIFICATION		TYPE	ELEMENTS REQUIRED	
0-3	70-6 - 74.8		Au-Ag A P-R Agreement	
3-8	74.8 - 80		of Rosebud Mine Protocol	
8-13	80 - 85			
13-17	85 - 88.5			
17-20	88.5 - 93.3		134-139.1	179 - 182.1
20-24.7	93.3 - 98.5		139.1-144	182.1 - 185
24.7-30	98.5 - 102.9		144 - 146.4	185 - 187
30-34.9	102.9 - 107.5		146.4-150	187 - 190.9
34.9-40	107.5 - 111		150-154	190.9 - 194.4
40-44.6	111 - 113.4		154-159	194.4 - 197
44.6-50	113.4 - 116		159-161	197 - 200 TD
50-55.8	116 - 120		161-166.4	
55.8-60	120 - 124.8		166.4-170	
60-65.2	124.8 - 130		170-174.4	
65.2-70.6	130 - 134		174.4-178	

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

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP050092

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-241-98B

RECEIVED : 14 AUG 1998

No. SAMPLES : 49

REPORTED : 25 AUG 1998

MAIN SAMPLE TYPE : DRILL CORE

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SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP0500092

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-241-98B

REPORTED : 25 AUG 1998

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D-241-98B 17-20	<0.001		<0.02
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D-241-98B 34.9-40.0	0.004		0.08
D-241-98B 40.0-44.6	0.005		0.04
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D-241-98B 65.2-70.6	<0.001		<0.02
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D-241-98B 80-85	0.001	0.001	0.04
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D-241-98B 88.5-93.3	0.001		0.06
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D-241-98B 124.8-130.0	<0.001		0.02
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D-241-98B 139.1-144.0	<0.001		0.09
D-241-98B 144.0-146.4	0.001	<0.001	0.07
D-241-98B 146.4-150.0	0.001		0.06
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D-241-98B 170.0-174.4	<0.001		<0.02
D-241-98B 174.4-178.0	<0.001		<0.02
D-241-98B 178.0-182.1	<0.001		<0.02
D-241-98B 182.1-185.0	<0.001		<0.02
D-241-98B 185-187	0.002		0.08
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D-241-98B 194.4-197.0	0.005		0.04
D-241-98B 197-200	0.030		0.09
34531	0.490		2.67

08/25/1998 09:33 7023561413 AMERICAN ASSAY LABS PAGE 03

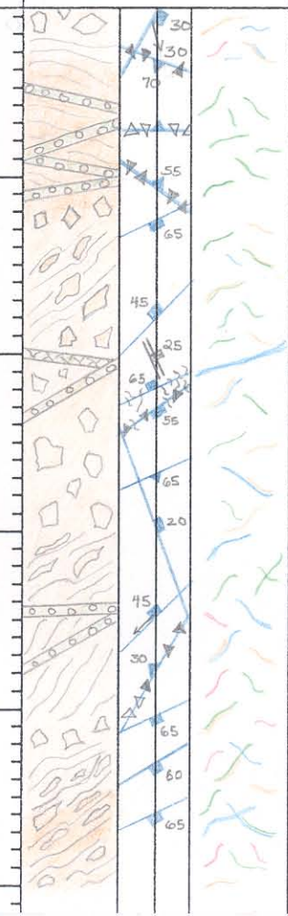
- quartz, chalcedony, silicification
- faults, fractures
- FeOx
- Barite
- sulfide
- calcite, carbonate
- argillization, white clays
- propylitization
- potassic alteration
- chlorite, chloritic clays

Hecla
MINING COMPANY

ROSEBUD PROJECT
DIAMOND DRILL LOG

HOLE NUMBER	D-241-98-B	LOCATION	STOPE 13
PAGE 1 OF 4		NORTHING	
DATE	6-24-98	EASTING	
LOGGED BY	BLC	ELEVATION	
SCALE	1" = 10'	AZIMUTH	302°
TOTAL DEPTH	200'	INCLINATION	+10°

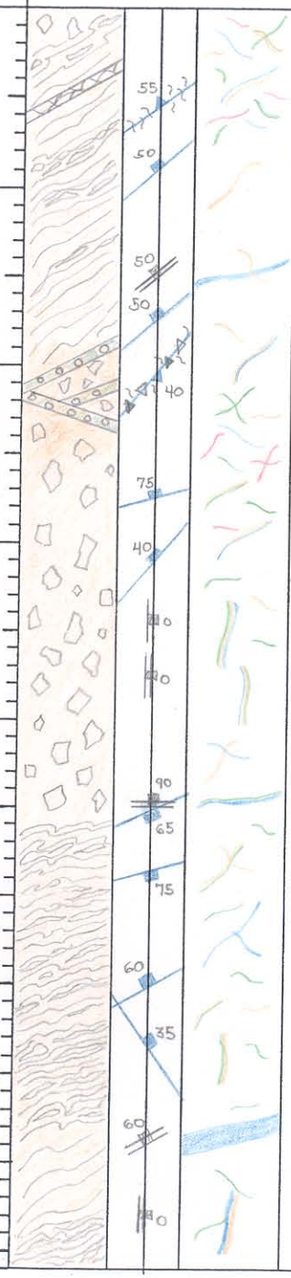
REMARKS

REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
0.0 - 200.0 PINK MATRIX BX	RED	0.0 - 1.9': LT PINK MATRIX-SUPPORTED MONOLITHIC (?) BRECCIA; APHANATIC MATRIX; CLASTS UP TO 1" DIAM 1.9 - 12.3': VOLCANIC FLOW W/ FLOW BANDING, DOMINANTLY LACKING CLASTS; 4" ZONE FROM 8'-8.4' WITH ENTRAINED CLASTS SMEARED OUT BY FLOW 12.3 - 33.6': DOMINANTLY LT GRY-GRN MATRIX-SPPTD BX - OCCASIONAL LT PINK PATCHES; APHANITIC MTX; MOST CLASTS UP TO 1" DIAM; SOME CLASTS ELONGATE FROM PLASTIC DEFORMATION DURING FLOW 33.6 - 41.0': LT GRN VOLCANIC FLOW W/FLOW BANDING 41.0 - 54.3': DOMINANTLY MATRIX-SUPPORTED BX, ALTERNATING LT PINK & LT GRN MATRIX COLOR; CLASTS OFTEN DEFORMED PARALLEL TO FLOW; SOME SHORT SECTIONS OF BX-FREE FLOW	10 20 30 40 50		0.5': FRACTURE W/SLICKS; FILLED W/MARC+CALCITE 1.9-12.3': TECTONIC BX ZONE-HEALED & UNHEALED 20.0-20.5': 1/4" WIDE CALCITE VN 22.0-22.8': CRACKLE BX 23.4-24.0': TECTONIC BX 27.2': FAULT W/GREEN CLAY 34.5-34.9': HEALED TECT. BX 35.5': FRACTURE W/SLICKS 37.8-38.2': TECT BX 41.0': FRACTURE W/CALCITE & GRN CLAY 43.6': FRACTURE W/GRN CLAY	0.0 - 1.9': WK/MOD ARGILL; CALCITE, WHT CLAY & SULF VNLTS; DISS PY & MARC 1.9 - 12.3': STG ARGILLIZATION-PERVASIVE; GRN CLAY MTX IN HEALED BX ZONES, DISS PY & MARC; GRN CLAY VNLTS 12.3 - 20.0': WK ARGILL; CLASTS MORE STGLY ARGILL THAN MTX; WHT CLY & GRN CLY VNLTS; DISSEM PY & MARC; TRACE CALCITE VNLTS 20.0 - 59.1': SAME AS ABOVE BUT WITH INCREASE IN CALCITE VNG. 30.0 - 52.0': SAME AS ABOVE W/ SULFIDE VNLTS 47.2 - 48.0': MOD/STG ARGILL

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
0.0	3.0					
3.0	8.0					
8.0	13.0					
13.0	17.0					
17.0	20.0					
20.0	24.7					
24.7	30.0					
30.0	34.9					
34.9	40.0					
40.0	44.6					
44.6	50.0					

HOLE NUMBER D-241-98-B PAGE 2 OF 4

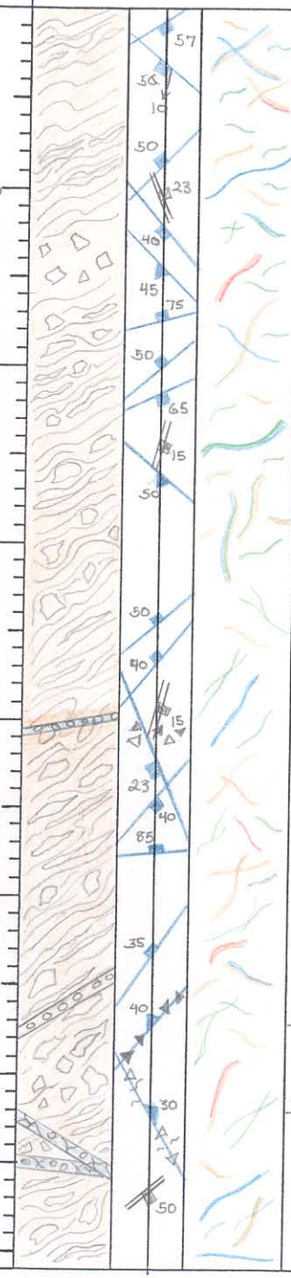
ITH. 0.0 - 200.0	OX/RED	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
PINK MATRIX BX		54.3 - 71.0': UNBXD DOMINANTLY VOLCANIC FLOW W/ FLOW BANDING; INTERMITTENT SHORT SECTIONS ARE MOTTLED - DUE TO PLASTIC DEFORMATION OF CLASTS?; DOMINANTLY LT GRN; LT PINK IN MOTTLED AREAS 71.0 - 77.4': DOMINANTLY LT GRN MATRIX-SUPPORTED BX; APHANITIC MATRIX; CLASTS UP TO 1" DIAM 77.4 - 80.0': SAME AS ABOVE BUT W/ DOMINANTLY LT PINK MTX; CLASTS MOSTLY GRN; SOME BLEACHED 80.0 - 95.5: SAME AS ABOVE BUT W/ DOMINANTLY LT GRN MTX 95.5 - 133.8': DOMINANTLY LT GRN FLOW W/ UNDULATING FLOW BANDS; STG PLASTIC DEFORMATION OF CLASTS - SMEARED OUT ∥ TO BNDG	60 70 80 90 100 110 120		55.8 - 56.2': CRACKLE BX W/ GRN CLAY & MOD/STG ARGILL. 66.6': 1" WIDE CALCITE VN ~70.0 - ~75.0: TECT BX ZONE 82.0': FRACTURE FILLED W/ WHT CLY & CALCITE	52.0 - 59.1': SAME AS ABOVE BUT W/ OCCASIONAL PY + MARC CLUSTERING 59.1 - 66.2': WK/MOD ARGILL.; RED CLAY STRINGERS; WHT CLY, GRN CLY, & CALCITE VNLTS; DISS PY & MARC 66.2 - 70.0': GRN CLY, WHT CLY, & CALCITE VNLTS; DISS PY & MARC 70.0 - 75.0: MOD/STG ARGILL; WHT CLY, GRN CLAY, & CALCITE FRAX & BX FILLING; DISS. SULFS. 75.0 - 82.0': GRN CLY, WHT CLY, & CALCITE VNLTS; TRACE SULF VNLTS; DISS PY & MARC - SOME CLUSTERING 84.1 - 85.0: NEAR VERT VEIN - WHT CLY, GRN CLY & CALCITE 85.7 - 88.5: NEAR VERT VN - WHT CLY, GRN CLY & CALCITE * 88.5 - 200.0': GRN CLY, WHT CLY, & CALCITE VNLTS; TRACE SULF VNLTS; DISSEM PY & MARC; WK/MOD ARGILLIZATION 95.1': CALCITE & GRN CLAY VN - 1" WIDE 108.5 - 111.0': NEAR VERT WHT & GRN CLAY VN 113.1 - 113.2: SULF. CLUSTERS 114.4 - 115.5': 1' WIDE CALCITE VN 113.6 - 113.7': PURPLISH CLOT OF FINE GRND QTZ - 1" x 2"

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	A
50.0	55.8					
55.8	60.0					
60.0	65.2					
65.2	70.6					
70.6	74.8					
74.8	80.0					
80.0	85.0					
85.0	88.5					
88.5	93.3					
93.3	98.5					
98.5	102.9					
102.9	107.5					
107.5	111.0					
111.0	113.4					
113.4	116.0					
116.0	120.0					

HOLE NUMBER D-241-98-B PAGE 3 OF 4

LITH. 0.0-200.0	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION (SEE DESCRIPTION PAGE 2 (*))	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
PINK MATRIX BX		SAME AS ABOVE - DESCRIPTION PAGE 2			122.8': FRACTURE W/SLICKS	117.3 - 118.6': NEAR VERT WHT CLY + CALCITE VN	120.0	124.8				
						127.9 - 129.7': NEAR VERT WHT CLAY VN	124.8	130.0				
		133.7 - 135.8': DOMINANTLY LT PNK MATRIX-SUPPORTED BRECCIA; MOST CLASTS UP TO 1" DIAM, MONOLITHIC?	120		133.7': CONTACT BTWN FLOW & BX, SOMEWHAT FRIABLE - FAULT?	129.0 - 129.5: FRIABLE GRN CLY ZONE W/SLICKS	130.0	134.0				
		135.8 - 159.8': SAME AS ABOVE BUT DOMINATED BY FLOW TEXTURES; MANY CLASTS DEFORMED BY FLOW				130.6 - 130.9': 1/2" WIDE CALCITE VN						
			140			137.3 - 138.0': PATCHY DK GRN PERVASIVE STAINING	134.0	139.1				
						138.5 - 143.5': INTERMITTENT PY + MARC CLUSTERING	139.1	144.0				
					145.8-146.4': STGLY ARGILLIZED; FRIABLE ZONE - FAULT? - SLICKS ON FRAX SURFACES	145.0 - 145.4': 1" WIDE CALCITE + GRN CLY VN	144.0	146.4				
						146.4 - 154.8': VERT VNG - WHT CLY, GRN CLY + CALCITE	146.4	150.0				
			150				150.0	154.0				
							154.0	159.0				
		161.0 - 161.9': DOMINANTLY LT PNK MTX-SUPPT'D AUTOBRECCIA; APHANITIC MTX; CLASTS UP TO 1" DIAM.	160		160.4 - 160.9': TECT BX? HEALED BY CALCITE. LOWER 2" UNHEALED; FRIABLE, ARGILL.	159.7 - 161.1': CALCITE VN	159.0	161.0				
		161.9 - 190.9': SAME AS ABOVE BUT DOMINATED BY FLOW TXTRS; CLASTS DEFORMED BY FLOW					161.0	166.4				
			170				166.4	170.0				
							170.0	174.4				
					177.4 - 178.0': HEALED TECT BX		174.4	178.0				
			180		182.1 - 185.0': TECT/CRACKLE BX? FRIABLE, FRACTURING & VNLTS		178.0	182.1				
							182.1	185.0				
						186.0 - 186.5: CALCITE VN; ABOVE 186.5: GRADING INTO BX FLIG? OR MATRIX REPLACEMENT	185.0	187.0				
			190				187.0	190.9				



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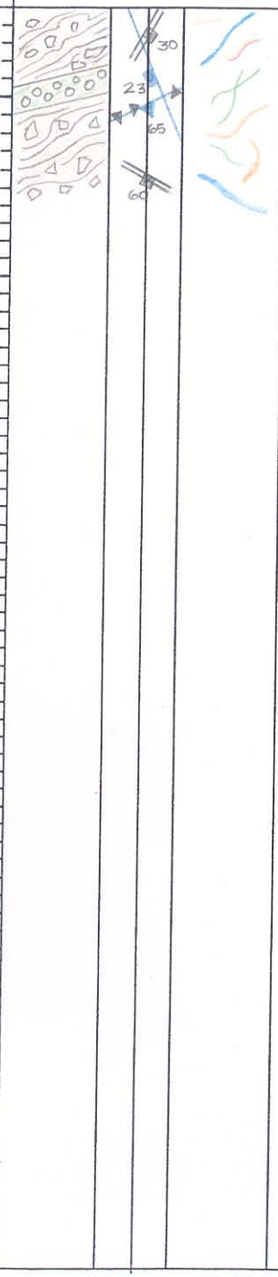
LITH. 0.0-200.0	OX/RED	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION SEE DESCRIPTION PAGE 2 (*)
PINK MATRIX BX ↓	↓	190.9 - 200.0': DOMINANTLY LT GRN, MATRIX-SUPPORTED AUTOBRECCIA; APHANITIC MTX; CLASTS GENERALLY SMALLER THAN ABOVE - MOST UP TO ½" DIAM; EXHIBITS FLOW TXTRS * 200.0': BOTTOM OF HOLE *	200		194.6 - 196.2': HEALED TECT BX - MOD ARGILL, DK GRN CLAY IN MTX; 195.7 - 195.6: CALCITE BX FLLG	186.5 - 189.7': PERVASIVE CALCITE - VNG? MATRIX REPLACEMENT? BX HEALING? 189.7 - 190.3': PURE CALCITE VN 190.9': ½" WIDE CALCITE VN 191.9' - 191.4': ½" WIDE CACITE VN (30°) 198.45 - 198.6': 1½" WIDE CALCITE VN

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	
190.9	194.4					
194.4	197.0					
197.0	200.0					

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-241-98-B DATE: 6-24-98 LOGGED BY: BLC PAGE 1 OF 3

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	3.0	86.7	100.0	0.0										
3.0	8.0	14.0	62.0	0.0										
8.0	13.0	62.0	90.0	9.0										
13.0	20.0	104.3	104.3	40.7										
20.0	30.0	93.0	100.0	52.5										
30.0	40.0	78.0	99.0	13.0										
40.0	50.0	101.0	101.0	48.0										
50.0	60.0	95.0	98.0	86.5										
60.0	70.0	100.0	100.0	58.0										
70.0	73.5	40.0	97.1	17.1										
73.5	80.0	76.9	98.5	41.5										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE #: D-241-98-B DATE: 6-24-98 LOGGED BY: BLC PAGE 2 OF 3

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)
80.0	85.0	76.0	92.0	36.0										
85.0	88.5	17.1	82.9	17.1										
88.5	98.5	60.0	99.5	22.5										
98.5	107.5	77.8	85.6	44.4										
107.5	111.0	54.3	97.1	0.0										
111.0	120.0	100.0	100.0	40.0										
120.0	130.0	100.0	101.0	14.5										
130.0	134.0	67.5	72.5	20.0										
134.0	144.0	101.5	101.5	45.0										
144.0	150.0	60.0	100.0	0.0										
150.0	159.0	64.4	100.0	27.8										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # LD-241-98-B DATE: 6-25-98 LOGGED BY: BLC PAGE 3 OF 3

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)
159.0	161.0	85.0	125.0	20.0										
161.0	170.0	94.4	94.4	68.9										
170.0	178.0	94.4	94.4	36.9										
178.0	185.0	63.6	82.1	45.7										
185.0	190.0	34.0	70.0	17.0										
190.0	197.0	85.7	96.4	30.0										
197.0	200.0	106.7	106.7	28.3										

D-241-98-B
DEPTH
BOX 01
0.0-11.0

D-241-98-B
DEPTH
BOX 02
11 - 20

D-241-98-B
DEPTH
BOX 03
20-29.5

34.9
26
D-241-98-B
BOX 04
DEPTH
29_5 - 39

44.6
40
D-241-98-B
BOX 05
DEPTH
39 - 48

50
55
D-241-98-B
BOX 06
DEPTH
48 - 57_5

D-241-98-B
BOX 07
DEPTH
57_5 - 67
65.2
60

D-241-98-B
BOX 08
DEPTH
67 - 76_5
70
73.5
74.5
70.3

D-241-98-B
BOX 09
DEPTH
76_5 - 86
80
85

D-241-98-B
BOX 10
DEPTH
86 - 96

D-241-98-B
BOX 11
DEPTH
96-107

D-241-98-B
DEPTH
BOX 12
107- 116

ARCHIVAL PRESERVERS

D-241-98-B
DEPTH
BOX 13
116-126-5
120
124.2

D-241-98-B
DEPTH
BOX 14
126_5 - 137
130
134

D-241-98-B
DEPTH
BOX 15
137-146_5
139.1
144.3

ARCHIVAL PRESERVER

D-241-98-B
BOX 19
DEPTH
174_5 - 185.5
178
132.1
185

D-241-98-B
BOX 20
DEPTH
185_5 - 196.5
190
187
190.9
194.5

D-241-98-B
BOX 21
DEPTH
196_5 - 200 TD
197
200.4