60001203

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-302-98
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 300' receipt; handwritten notes; downhole camera images 4 p. 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: mah
Initials Date
SCANNED: NB
Initials Date

Revised: 1/22/08

D-302-98

60001203 4010

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

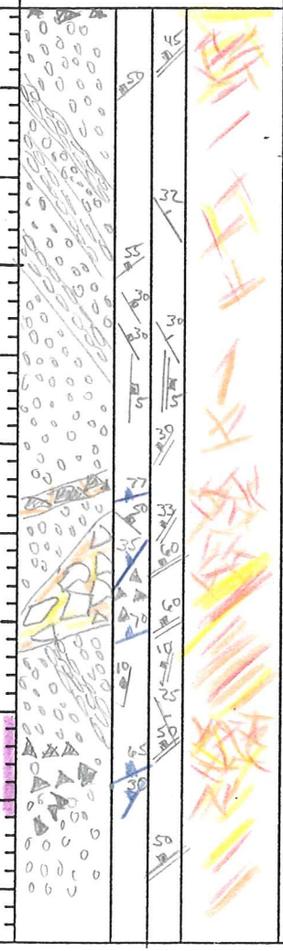
BASO4

6000 1203

Hecla MINING COMPANY

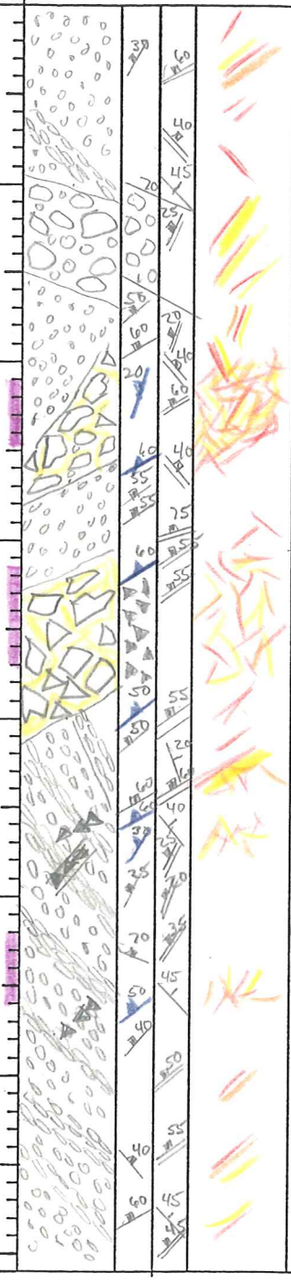
ROSEBUD PROJECT
DIAMOND DRILL LOG

HOLE NUMBER	D-302-98	LOCATION	STOPE 50 NORTH SE 1575	REMARKS	
PAGE 1 OF 5		NORTHING			
DATE	10/15-17/98	EASTING			
LOGGED BY	ALLYN NILES	ELEVATION			
SCALE	1" = 10'	AZIMUTH	125		
TOTAL DEPTH	300	INCLINATION	10		

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
0.0 - 142.2		0.0 - 60.6			0.0 - 6.3 MOD. VEINING BXA 0.0 - 0.8 CEMENTED W/ QUARTZ, FRAGS ARE SILICIFIED.	0.0 - 6.3 VEINS FILLED W/ PYRITE, OLIVE GRN. CLAY, QUARTZ, SOME DRUZY QUARTZ IN OPEN FRACTURES.
PLANAR LAMINAR		PINK, FINE GRAIN VESICULAR FLOW(S) W/ ISOLATED VESICLE TRAINS AS PLANAR FEATURES. RARE LAMINAR PARTINGS.	10 20 30 40 50		0.0 - 43.0 STRONG FRACTURING, APPEARS TO BE NEAR 90° TO FABRIC ALIGNMENT. LOW RQD.	
					27.3 - 46.0 STRONG VEINING, FRACTURING & FRACTURE FILLING. BXA'S COMMON, OFTEN W/ OPEN FRACTURES/ VUGS.	27.3 - 46.0 VEINS FILLED W/ HARD GREEN CLAY, PYRITE, VARIABLE QUARTZ, SOME MARC. FRACTURES FILLED W/ WHITE CLAY PYRITE, MINOR MARC., BXA'S, VUGS & OPEN FRACTS, CEMENTED LINED W/ WHITE QUARTZ, DRUZY QUARTZ, BLADED MARC., BARITE, WHITE CLAY. LOCALIZED SILICA REPLACEMENT OF SMALLER CLASTS IN BXA'S.

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
0.0	3.0					
3.0	6.7					
6.7	10.0					
10.0	13.0					
13.0	16.0					
16.0	21.0					
21.0	25.0					
25.0	27.3					
27.3	30.0					
30.0	34.0					
34.0	37.0					
37.0	40.0					
40.0	43.0					
43.0	46.0					
46.0	50.0					

HOLE NUMBER D-302-98 PAGE 2 OF 5

ITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
0.0 – 142.2 PLANAR LAMINAR		0.0 – 60.6 SEE DESCRIPTION PAGE 1 60.6 – 65.8 GREEN ROUND → SUBANGULAR VESICULAR CLASTS FROM PLANAR UNIT, IN A PINK FINE GRAIN VOLCANIC CLAY. RESEMBLES PINK MATRIX BRECCIA. MAYBE OLDER PRE-MIN FAULT 65.8 – 126.0 PINK, VESICULAR, FINE GRAIN FLOW(S) W/ SPOTTY ZONES OF FABRIC ALIGNMENT DEFINED BY VESICLE TRAINS.	60 70 80 90 100 110 120		60.6 – 62.2 MOD. QUARTZ VEINING TO 2" ø 72.0 – 77.0 HEALED BXA ZONE W/ STOCKWORK VEINING & VUGS 77.0 – 82.4 MOD. VEINING VUG FORMATION 82.4 – 90.0 HEALED BXA ZONE. COMMON OPEN FRACTURES. STOCKWORK VEINING. BXA IS MOSTLY ANGULAR FRAGS SUPPORTED BY STOCKWORK MATRIX. 90.0 – 110.0 MOD. VEINING OFTEN ASSOC. W/ THIN (TO 4" ø) HEALED BXA'S OCCASIONAL VUGS/OPEN FRACTURES.	60.6 – 62.2 VEINS HAR WHITE → CHALCEDONIC W/ PYRITE AFTER MARC. 72.0 – 77.0 VEINING VUGS LINED/FILLED W/ QUARTZ DRUZY QUARTZ PYRITE & BLADED MARC. LOCALIZED SILICA REP. OF SMALLER BXA CLASTS. 77.0 – 82.4 VUGS & VEINS LINE/FILLED W/ DRUZY QTZ, HARD WHITE CLAY, PYRITE. 82.4 – 90.0 OPEN FRACTURES LINED W/ DRUZY QUARTZ, BLADED MARC. MOD. OPEN SPACE FILLING TO 1 1/3" LONG W/ SOFT BLACK CLAY (SILVER SALTS?). STOCKWORK VEINS/MATRIX IS QUARTZ W/ BLADED MARC., SOME PYRITE, HARD LT. GRN CLAY. 90.0 – 110.0 VEINS FILLED W/ HARD GRN & LT. GRN CLAY. QUARTZ, PYRITE. VUGS LINED W/ DRUZY QUARTZ, BLADED MARC., MINOR WHITE CLAY. RARE BLACK CLAY FILLING ISOLATED OPEN SPACES.

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
50.0	52.2				
52.2	55.0				
55.0	60.0				
60.0	63.3				
63.3	66.0				
66.0	71.0				
71.0	74.5				
74.5	77.0				
77.0	81.7				
81.7	84.5				
84.5	87.2				
87.2	90.0				
90.0	95.0				
95.0	98.0				
98.0	102.0				
102.0	106.0				
106.0	109.8				
109.8	115.0				
115.0	120.0				

HOLE NUMBER D-302-98 PAGE 3 OF 5

ITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
0.0 - 142.2 PLANAR LAMINAR		65.8 - 126.0 SEE DESCRIPTION PAGE 2 126.0 - 142.2 FAULT BRECCIA, ASSOC. W/ SRF COMPOSED OF ROUND → ANGULAR → SHATTERED VESICULAR PLANAR FRAGS. DISSEM. PYRITE IS COMMON IN CLASTS & CEMENT.	130 140		118.0 - 126.0 MOD. VEINING & OPEN FRACTURES. 126.0 - 142.2 SHATTERED ZONE/ BXA, FRAGMENTED VEINS & VEINLETS	118.0 - 126.0 VEINS FILLED W/ PYRITE & HARD LT. GRN. CLAY, VARIABLE QUARTZ, OPEN FRACTS. LINED W/ DRUZY QUARTZ, PYRITE, BLADED MARC. 126.0 - 142.2 CEMENTED W/ QUARTZ, HARD LT. GRN & WHITE CLAY. FRAGS INCLUDE DISASSOC. QUARTZ & PYRITE VEINS, SILICA REPLACEMENT ASSOC. W/ INCREASED QUARTZ CEMENT BECOMES STRONGER CLOSER TO SRF CONTACT DRUZY QUARTZ, STIBNITE & SOME WHITE CLAY IN VUGS 136.0 - 142.2 + BARITE
142.2 - 177.5 SRF		142.2 - 144.0 DK. GRAY → LT. GRAY, WELL ROUNDED SMALL BXA CLASTS IN VERY FINE GRAIN MATRIX. ALL COMPONENTS ARE COMPLETE SILICA FLOODED. 144.0 - 149.0 WHITE, MOD. HARD CLAY GOUGE W/ SMALL ROUND, STRONG MILLED BXA FRAGS., MOSTLY FROM PLANAR UNIT, WITH STRONG SILICA REP. 149.0 - 177.5 DK. GRAY → LT. GRN → LT. GRAY HETEROLITHIC(?) BXA W/ ROUND CLASTS TO 1" DIA. IN A VERY FINE GRAIN MATRIX. STRONG TO COMPLETE SILICA FLOODING OF ALL COMPONENTS. DK GRAY BANDS OF SULFIDES? OFTEN HAVE DISTINCT PREFERENTIAL ORIENTATIONS (FABRIC ALIGNMENTS).	150 160 170		142.2 - 143.0 PROMINENT DK. GRAY BANDED FEATURE. 144.0 - 157.0 STRONG MYLONITIC/ SHEAR PLANE ALIGNMENTS 149.0 - 177.5 STRONG VEINING, OPEN FRACTS. 159.8 - 160.0 WHITE CLAY GOUGE W/ SMALL ROUND SILICIF. CLASTS, POST-MIN	142.2 - 144.0 SMALL PYRITE BLEBS ENCAPSULATED BY SILICA FLOODING. BARITE IN FRACTS. 144.0 - 149.0 ALL COMPONENTS INCLUDING QUARTZ/SULFIDE VEINS HAVE BEEN MILLED. 149.0 - 177.5 VEINS FILLED W/ WHITE CLAY, QUARTZ, STIBNITE & BARITE. OPEN FRACTURES LINED W/SAME + ODD BRASSEY TETRAGONAL-LIKE X-TALS, VERY SOFT, USUALLY IN AGGREGATES W/ PYRITE. STIBNITE IS SOMETIMES IN BARITE.
177.5 - 194.2 SRF 2nd BRANCH?		177.5 - 194.2 CONTINUATION OF SRF W/ CLASTS DERIVED FROM DOZER UNIT.	180 190		177.5 - 194.2 MOD. VEINING & THIN DISCONTINUOUS VEINLETS, MINOR VUGS/OPEN FRACTS	177.5 - 194.2 BLADED MARC. AS DISSEM-LIKE BLADES & AGGREGATES, WHITE CLAY VEINS W/ PYRITE & STIBNITE, VARIABLE QUARTZ. VUGS OPEN FRACTS LINED W/ DRUZY QUARTZ, QUARTZ AFTER MARC. BLADES STIBNITE.

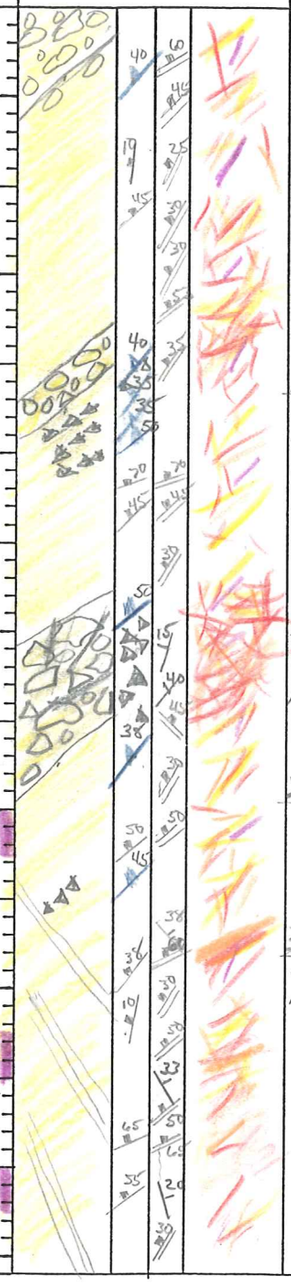
ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
120.0	125.0				
125.0	128.0				
128.0	131.7				
131.7	135.0				
135.0	138.0				
138.0	142.2				
142.2	144.0				
144.0	147.0				
147.0	148.8				
148.8	150.8				
150.8	153.4				
153.4	157.0				
157.0	160.0				
160.0	163.0				
163.0	165.5				
165.5	168.0				
168.0	170.0				
170.0	172.7				
172.7	175.2				
175.2	177.5				
177.5	180.0				
180.0	183.0				
183.0	185.7				
185.7	188.0				
188.0	190.0				

HOLE NUMBER D-302-98 PAGE 4 OF 5

ITH.	OX/RED.	LITHOLOGY	STRUCTURE	ALTERATION AND MINERALIZATION
177.5-194.2 SRF		177.5-194.2 SEE DESCRIPTION PAGE 3		
194.2-224.6 DOZER		194.2 - 224.6 GRAY, THICK DOZER GENERALLY FEATURELESS EXCEPT FOR VEINS/FRACTURE FILLINGS. STRONG SILICA FLOODING 194.2-210.7.	194.2-224.6 STRONG VEINING, MINOR VUGS/OPEN FRACTURES.	194.2-210.7 VEINS FILLED W/ BLADED MARC., QUARTZ, WHITE CLAY, STIBNITE, VUGS/FRACTS LINED W/ BLADED MARC., BARITE, DRUZY QTZ. STRONG SILICA FLOODING.
		PMA →	210.7-212.6 HEALED BXA, ROUND CLASTS W/4 RELATED BXA'S TO 4" Ø 212.8-215.5	210.7-267.4 PYRARGYRITE COMMON → ABUNDANT. 210.7-224.6 PYRARGYRITE STARTS W/ BANG. STOCKWORK QUARTZ VEINS W/ MINOR MARC/PYRITE, STRONG PYRARGYRITE. OTHER BXA'S ALSO HAVE PYRARGYRITE W/ BLADED MARC. & QUARTZ. STIBNITE BARITE ALSO PRESENT IN VUGS/OPEN FRACTS. W/ PYRARGYRITE.
224.6-232.6 SPLAY OF SRF?		224.6-232.6 GRAY → GREEN GRAY ROUND → ANGULAR DOZER CLASTS IN A VERY FINE GRAIN MATRIX, OR CLAST SUPPORT. ALL COMPONENTS STRONG → COMPLETE SILICA FLOODED. FABRIC ALIGNMENT FEATURES/DK. GRAY BAND LIKE THOSE SEEN IN SRF.	224.6-232.6 STRONG VEINING, VUGS & OPEN FRACTURES, HEALED BXA.	224.6-232.6 VEINS FILLED W/ QUARTZ, BLADED MARC, SOME STIBNITE, OPEN FRACTS & VUGS LINED W/ DRUZY QUARTZ, PYRARGYRITE, BARITE, WHITE CLAY
232.6-300.0 DOZER		232.6-300.0 GRAY, FINE GRAIN FLOW W/ ISOLATED BUT PROMINENT FLOW BANDS. MOD → STRONG SILICA FLOODING TO 300' TD, SEEMS TO BE ASSOC. W/ VEINING & STOCKWORK BXA FILLINGS.	232.6-267.4 STRONG VEINING, VUGS, OPEN FRACTURES	232.6-267.4 VUGS & FRACTS. LINED W/ DRUZY QUARTZ, PYRARGYRITE WHICH OFTEN HAS SOFT FLAKEY, GREENISH-YELLOW METAL/X-TALS IN & ON & ASSOC. W/ PYRAGYRITE. SOME IS CHALCOPYRITE, SOME PYRITE, SOME UNIDENTIFIED (SEEMS TO HAVE TETRAGONAL X-TAL HABIT) ~ SAME HARDNESS AS PYRARGYRITE.
			242.7 3" Ø WHITE CLAY VEIN W/ PYRARG. IN CLAY & ON BOARDERS	248.0-249.5 RED BANDS OF QUARTZ IN QUARTZ, HAS BEEN SEEN RARELY IN OTHER NORTH ZONE HOLES. MARC. IS GENERALLY SCARCE.

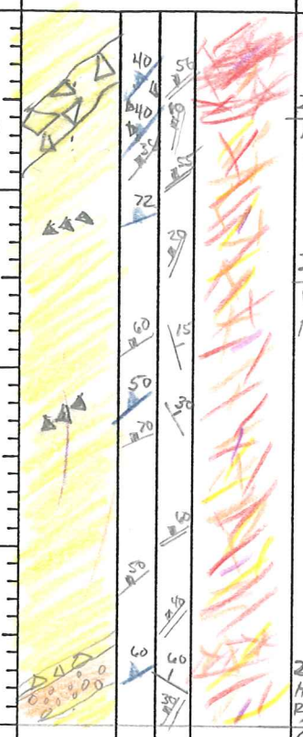
GRAPHIC LOG



ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
190.0	192.5				
192.5	195.0				
195.0	197.5				
197.5	200.0				
200.0	202.5				
202.5	205.0				
205.0	207.5				
207.5	210.4				
210.4	212.8				
212.8	215.0				
215.0	217.5				
217.5	220.0				
220.0	222.4				
222.4	224.9				
224.9	227.0				
227.0	230.0				
230.0	232.8				
232.8	235.0				
235.0	237.5				
237.5	240.0				
240.0	242.5				
242.5	245.0				
245.0	247.5				
247.5	250.0				
250.0	252.7				
252.7	255.2				
255.2	257.5				
257.5	260.0				

HOLE NUMBER D-302-98 PAGE 5 OF 5

ITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
232.6 - 300.0 DOZER		232.6 - 300.0 SEE DESCRIPTION PAGE 4. (*) 265.5 VISIBLE AU IN & ON PYRARGYRITE X-TALS - PIMA, VISIBLE AU IS VERY COMMON HERE.	PIMA 270 280 290 300		264.2 - 267.3 HEALED BXA W/ STOCKWORK QUARTZ. 267.4 - 297.2 STRONG VEINING, VUGS & OPEN FRACTS. 296.5 - 298.5 FAULT BXA. HEALE BXA; PARTIALLY REACTIVATED W/ SOME CLAY GOUGE & SMALL ROUND CLASTS & SILICI FRAGS.	264.4 - 267.3 ABUNDANT PYRARGYRITE, SOFT GREENISH YELLOW METAL, VISIBLE GOLD IN & ON PYRARGYRITE THICK 1" QUARTZ VEIN STOCKWORK. 267.4 - 297.2 VEINS FILLED W/ WHITE CLAY, QUARTZ, BLADED MARC., VARIABLE PYRITE, VUGS & OPEN FRACTS. LINED W/ DRUZY QUARTZ BARITE, BLADED MARC. & QUARTZ AFTER MARC., MINOR PYRARGYRITE, VARIABLE WHITE CLAY, GREENISH YELLOW METAL IS PRESENT IN VARIABLE AMOUNTS TO 300.0. 297.2 300.0 F.G. BLACK SULFIDES IN CLAY GOUGE, VUGS LINED W/ DRUZY QUARTZ, BARITE, PYRITE, SOME SOFT GREENISH-YELLOW METAL.

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
260.0	262.4				
262.4	264.4				
264.4	265.4				
265.4	267.4				
267.4	270.0				
270.0	272.5				
272.5	275.7				
275.7	277.5				
277.5	280.0				
280.0	283.0				
283.0	285.5				
285.5	287.5				
287.5	290.0				
290.0	293.0				
293.0	295.5				
295.5	297.2				
297.2	300.0				

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-302-98 DATE: 10/15/98 LOGGED BY: ALLYN NILES PAGE 1 OF 4

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	10.0	77.0	96.0	19.0										
10.0	13.0	33.0	83.3	13.0										
13.0	16.0	83.3	83.3	33.3										
16.0	21.0	90.0	94.0	16.0										
21.0	30.0	102.2	102.2	7.7										
30.0	34.0	50.0	87.5	15.0										
34.0	43.0	61.1	94.4	50.0										
43.0	50.0	102.8	102.8	94.2										
50.0	60.0	100.0	100.0	85.0										
60.0	70.0	102.0	102.0	96.0										
70.0	80.0	100.0	98.0	76.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-302-98 DATE: 10/15/98 LOGGED BY: _____ PAGE 2 OF 4

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.	A/G. ANGLE TO C.A	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
80.0	90.0	102.0	102.0	82.0										
90.0	100.0	100.0	100.0	62.0										
100.0	108.0	88.0	100.0	53.7										
108.0	115.0	87.5	90.0	50.0										
115.0	125.0	90.0	100.0	64.0										
125.0	128.0	0	60.0	0										
128.0	135.0	100.0	100.0	64.3										
135.0	145.0	100.0	100.0	87.0										
145.0	150.0	96.0	100.0	22.0										
150.0	160.0	98.0	100.0	90.0										
160.0	170.0	96.0	96.0	68.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-302-98 DATE: 10/16/98 LOGGED BY: _____ PAGE 3 OF 4

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.	A/G. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
170.0	180.0	100.0	100.0	82.0										
180.0	190.0	100.0	100.0	100.0										
190.0	200.0	100.0	100.0	87.0										
200.0	210.0	100.0	100.0	86.0										
210.0	220.0	103.0	103.0	89.0										
220.0	230.0	100.0	100.0	80.0										
230.0	240.0	96.0	96.0	86.0										
240.0	250.0	100.0	100.0	73.0										
250.0	260.0	98.0	98.0	89.0										
260.0	270.0	99.0	99.0	74.0										
270.0	280.0	74.0	83.0	50.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-302-98 DATE: 10/16/98 LOGGED BY: ALLEN WILES PAGE 4 OF 4

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)
280.0	290.0	76.0	100.0	87.0										
290.0	300.0	94.0	86.0	31.0										

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 0051323-IN
INVOICE DATE: 11/25/98

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-302-98	DEVELOPMENT	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
105	SAMPLES RECEIVED	.00	.00
104	JAW CRUSHING CHARGE	1.30	135.20
104	COARSE MILLING CHARGE	4.50	468.00
104	SPLITTING CHARGE	2.40	249.60
104	RING MILLING CHARGE	2.00	208.00
105	Au (1 A.T. FIRE ASSAY)	8.00	840.00
29	Au ANALYSES/GRAVIMETRIC	8.75	253.75
105	HYDROCHLORIC/NITRIC DIGESTION	2.00	210.00
105	Ag ANALYSES	1.00	105.00
41	Ag (ore grade) ANALYSES	5.00	205.00

86-5110-477
PD

NET INVOICE:	2,674.55
LESS DISCOUNT:	534.91
FREIGHT:	.00
INVOICE TOTAL:	2,139.64

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051323

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-302-98 RECEIVED : 28 OCT 1998

No. SAMPLES : 105 REPORTED : 24 NOV 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 SP051323

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-302-98

REPORTED : 24 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-302-98 0-3	0.033			0.42
D-302-98 3.0-6.7	0.061		0.055	0.13
D-302-98 6.7-10.0	0.045			0.07
D-302-98 10-13	0.012			0.06
D-302-98 13-16	0.011			0.03
D-302-98 16-21	0.093		0.126	0.12
D-302-98 21-25	0.030			0.04
D-302-98 25.0-27.3	0.020			0.04
D-302-98 27.3-30.0	0.092		0.139	0.43
D-302-98 30-34	0.121		0.152	0.23
D-302-98 34-37	0.045			0.17
D-302-98 37-40	0.037			0.07
D-302-98 40-43	0.522		0.591	0.31
D-302-98 43-46	0.192		0.208	0.63
D-302-98 46-50	0.006			0.06
D-302-98 50.0-52.2	0.008			0.07
D-302-98 52.2-55.0	0.109		0.131	0.56
D-302-98 55-60	0.017			0.06
D-302-98 60.0-63.3	0.047			0.17
D-302-98 63.3-66.0	0.316		0.356	1.00
D-302-98 66-71	0.055		0.057	0.06
D-302-98 71.0-74.5	0.198		0.240	0.23
D-302-98 74.5-77.0	0.121		0.111	0.09
D-302-98 77.0-81.7	0.074		0.108	0.07
D-302-98 81.7-84.5	3.717		3.864	2.92

AMERICAN ASSAY LABORATORIES

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American Assay Laboratories

CLIENT : HECLA MINING COMPANY
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SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-302-98 84.5-87.2	0.188		0.135	0.27
D-302-98 87.2-90.0	0.117		0.169	0.27
D-302-98 90-95	0.108		0.098	0.11
D-302-98 95-98	0.032			0.18
D-302-98 98-102	0.033			0.08
D-302-98 102-106	0.302		0.216	2.86
D-302-98 106.0-109.8	0.085		0.053	0.52
D-302-98 109.8-115.0	0.023			0.29
D-302-98 115-120	0.020			0.11
D-302-98 120-125	0.048			0.15
D-302-98 125-128	0.101		0.082	0.15
D-302-98 128.0-131.7	0.197		0.269	0.59
D-302-98 131.7-135.0	0.623		0.604	0.37
D-302-98 135-138	0.233		0.229	0.21
D-302-98 138.0-142.2	0.008			0.08
D-302-98 142.2-144.0	0.007			0.09
D-302-98 144-147	0.011			0.18
D-302-98 147.0-148.8	0.017			0.15
D-302-98 148.8-150.8	0.006			0.11
D-302-98 150.8-153.4	0.004	0.007		2.01
D-302-98 153.4-157.0	0.005			1.10
D-302-98 157-160	0.010			1.11
D-302-98 160-163	0.026			0.98
D-302-98 163.0-165.5	0.010			2.96
D-302-98 165.5-168.0	0.004			0.17

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051323

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-302-98

REPORTED : 24 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-302-98 168-170	0.004			0.28
D-302-98 170.0-172.7	0.003			0.40
D-302-98 172.7-175.2	0.004			0.20
D-302-98 175.2-177.5	0.005			3.54
D-302-98 177.5-180.0	0.003			0.25
D-302-98 180-183	0.002			0.38
D-302-98 183.0-185.7	0.004			0.54
D-302-98 185.7-188.0	0.004			1.96
D-302-98 188-190	0.003	0.004		2.74
D-302-98 190.0-192.5	0.010			4.24
D-302-98 192.5-195.0	0.006			3.87
D-302-98 195.0-197.5	0.006			8.40
D-302-98 197.5-200.0	0.008			5.37
D-302-98 200.0-202.5	0.006			3.00
D-302-98 202.5-205.0	0.008			3.11
D-302-98 205.0-207.5	0.013			6.49
D-302-98 207.5-210.4	0.008			3.02
D-302-98 210.4-212.8	0.021			47.61
D-302-98 212.8-215.0	0.012			25.14
D-302-98 215.0-217.5	0.003			2.98
D-302-98 217.5-220.0	0.005			3.94
D-302-98 220.0-222.4	0.005			4.43
D-302-98 222.4-224.9	0.007			1.35
D-302-98 224.9-227.0	0.020			4.01
D-302-98 227-230	0.019	0.020		16.57

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051323

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CLIENT : HECLA MINING COMPANY
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SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-302-98 230.0-232.8	0.032			21.30
D-302-98 232.8-235.0	0.008			6.04
D-302-98 235.0-237.5	0.150		0.146	26.60
D-302-98 237.5-240.0	0.050		0.074	29.35
D-302-98 240.0-242.5	0.024			17.85
D-302-98 242.5-245.0	0.080		0.067	21.64
D-302-98 245.0-247.5	0.003			0.57
D-302-98 247.5-250.0	0.342		0.383	95.91
D-302-98 250.0-252.7	0.080		0.105	13.55
D-302-98 252.7-255.2	0.003			0.36
D-302-98 255.2-257.5	0.207		0.225	13.10
D-302-98 257.5-260.0	0.011			4.56
D-302-98 260.0-262.4	0.012			13.30
D-302-98 262.4-264.4	0.046			6.77
D-302-98 264.4-265.4	0.036			5.78
D-302-98 265.4-267.4	0.104		0.115	18.00
D-302-98 267.4-270.0	0.015			4.75
D-302-98 270.0-272.5	0.006			0.39
D-302-98 272.5-275.7	0.008			1.11
D-302-98 275.7-277.5	0.006			1.39
D-302-98 277.5-280.0	0.001			0.15
D-302-98 280-283	0.001			0.22
D-302-98 283.0-285.5	0.002			0.28
D-302-98 285.5-287.5	0.003			2.21
D-302-98 287.5-290.0	0.006			5.41

AMERICAN ASSAY LABORATORIES

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SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-302-98 290-293	0.002			0.17
D-302-98 293.0-295.5	0.003			2.88
D-302-98 295.5-297.2	0.005			8.50
D-302-98 297.2-300.0	0.003			0.16
43590	0.115			2.95

xAMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP051323

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-302-98 RECEIVED : 28 OCT 1998

No. SAMPLES : 105 REPORTED : 24 NOV 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

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D-302-98 0-3	0.033			0.42
D-302-98 3.0-6.7	0.061		0.055	0.13
D-302-98 6.7-10.0	0.045			0.07
D-302-98 10-13	0.012			0.06
D-302-98 13-16	0.011			0.03
D-302-98 16-21	0.093		0.126	0.12
D-302-98 21-25	0.030			0.04
D-302-98 25.0-27.3	0.020			0.04
D-302-98 27.3-30.0	0.092		0.139	0.43
D-302-98 30-34	0.121		0.152	0.23
D-302-98 34-37	0.045			0.17
D-302-98 37-40	0.037			0.07
D-302-98 40-43	0.522		0.591	0.31
D-302-98 43-46	0.192		0.208	0.63
D-302-98 46-50	0.006			0.06
D-302-98 50.0-52.2	0.008			0.07
D-302-98 52.2-55.0	0.109		0.131	0.56
D-302-98 55-60	0.017			0.06
D-302-98 60.0-63.3	0.047			0.17
D-302-98 63.3-66.0	0.316		0.356	1.00
D-302-98 66-71	0.055		0.057	0.06
D-302-98 71.0-74.5	0.198		0.240	0.23
D-302-98 74.5-77.0	0.121		0.111	0.09
D-302-98 77.0-81.7	0.074		0.108	0.07
D-302-98 81.7-84.5	3.717		3.864	2.92

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SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-302-98 84.5-87.2	0.188		0.135	0.27
D-302-98 87.2-90.0	0.117		0.169	0.27
D-302-98 90-95	0.108		0.098	0.11
D-302-98 95-98	0.032			0.18
D-302-98 98-102	0.033			0.08
D-302-98 102-106	0.302		0.216	2.86
D-302-98 106.0-109.8	0.085		0.053	0.52
D-302-98 109.8-115.0	0.023			0.29
D-302-98 115-120	0.020			0.11
D-302-98 120-125	0.048			0.15
D-302-98 125-128	0.101		0.082	0.15
D-302-98 128.0-131.7	0.197		0.269	0.59
D-302-98 131.7-135.0	0.623		0.604	0.37
D-302-98 135-138	0.233		0.229	0.21
D-302-98 138.0-142.2	0.008			0.08
D-302-98 142.2-144.0	0.007			0.09
D-302-98 144-147	0.011			0.18
D-302-98 147.0-148.8	0.017			0.15
D-302-98 148.8-150.8	0.006			0.11
D-302-98 150.8-153.4	0.004	0.007		2.01
D-302-98 153.4-157.0	0.005			1.10
D-302-98 157-160	0.010			1.11
D-302-98 160-163	0.026			0.98
D-302-98 163.0-165.5	0.010			2.96
D-302-98 165.5-168.0	0.004			0.17

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D-302-98 168-170	0.004			0.28
D-302-98 170.0-172.7	0.003			0.40
D-302-98 172.7-175.2	0.004			0.20
D-302-98 175.2-177.5	0.005			3.54
D-302-98 177.5-180.0	0.003			0.25
D-302-98 180-183	0.002			0.38
D-302-98 183.0-185.7	0.004			0.54
D-302-98 185.7-188.0	0.004			1.96
D-302-98 188-190	0.003	0.004		2.74
D-302-98 190.0-192.5	0.010			4.24
D-302-98 192.5-195.0	0.006			3.87
D-302-98 195.0-197.5	0.006			8.40
D-302-98 197.5-200.0	0.008			5.37
D-302-98 200.0-202.5	0.006			3.00
D-302-98 202.5-205.0	0.008			3.11
D-302-98 205.0-207.5	0.013			6.49
D-302-98 207.5-210.4	0.008			3.02
D-302-98 210.4-212.8	0.021			47.61
D-302-98 212.8-215.0	0.012			25.14
D-302-98 215.0-217.5	0.003			2.98
D-302-98 217.5-220.0	0.005			3.94
D-302-98 220.0-222.4	0.005			4.43
D-302-98 222.4-224.9	0.007			1.35
D-302-98 224.9-227.0	0.020			4.01
D-302-98 227-230	0.019	0.020		16.57

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SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-302-98 230.0-232.8	0.032			21.30
D-302-98 232.8-235.0	0.008			6.04
D-302-98 235.0-237.5	0.150		0.146	26.60
D-302-98 237.5-240.0	0.050		0.074	29.35
D-302-98 240.0-242.5	0.024			17.85
D-302-98 242.5-245.0	0.080		0.067	21.64
D-302-98 245.0-247.5	0.003			0.57
D-302-98 247.5-250.0	0.342		0.383	95.91
D-302-98 250.0-252.7	0.080		0.105	13.55
D-302-98 252.7-255.2	0.003			0.36
D-302-98 255.2-257.5	0.207		0.225	13.10
D-302-98 257.5-260.0	0.011			4.56
D-302-98 260.0-262.4	0.012			13.30
D-302-98 262.4-264.4	0.046			6.77
D-302-98 264.4-265.4	0.036			5.78
D-302-98 265.4-267.4	0.104		0.115	18.00
D-302-98 267.4-270.0	0.015			4.75
D-302-98 270.0-272.5	0.006			0.39
D-302-98 272.5-275.7	0.008			1.11
D-302-98 275.7-277.5	0.006			1.39
D-302-98 277.5-280.0	0.001			0.15
D-302-98 280-283	0.001			0.22
D-302-98 283.0-285.5	0.002			0.28
D-302-98 285.5-287.5	0.003			2.21
D-302-98 287.5-290.0	0.006			5.41

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SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-302-98 290-293	0.002			0.17
D-302-98 293.0-295.5	0.003			2.88
D-302-98 295.5-297.2	0.005			8.50
D-302-98 297.2-300.0	0.003			0.16
43590	0.115			2.95

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP051323

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-302-98 RECEIVED : 28 OCT 1998

No. SAMPLES : 105 REPORTED : 24 NOV 1998

MAIN SAMPLE TYPE : DRILL CORE

NEVADA LEGISLATIVE DISCLAIMER :-
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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

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SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)	
D-302-98 0-3	0.033			0.42	
D-302-98 3.0-6.7	0.061		0.055	0.13	
D-302-98 6.7-10.0	0.045			0.07	
D-302-98 10-13	0.012			0.06	
D-302-98 13-16	0.011			0.03	
D-302-98 16-21	0.093		0.126	0.12	
D-302-98 21-25	0.030			0.04	
D-302-98 25.0-27.3	0.020			0.04	
D-302-98 27.3-30.0	0.092		0.139	0.43	
D-302-98 30-34	0.121		0.152	0.23	
D-302-98 34-37	0.045			0.17	40-46
D-302-98 37-40	0.037			0.07	=6' @
D-302-98 40-43	0.522		0.591	0.31	0.357 Au
D-302-98 43-46	0.192		0.208	0.63	0.47 Ag
D-302-98 46-50	0.006			0.06	
D-302-98 50.0-52.2	0.008			0.07	
D-302-98 52.2-55.0	0.109		0.131	0.56	
D-302-98 55-60	0.017			0.06	
D-302-98 60.0-63.3	0.047			0.17	
D-302-98 63.3-66.0	0.316		0.356	1.00	
D-302-98 66-71	0.055		0.057	0.06	
D-302-98 71.0-74.5	0.198		0.240	0.23	
D-302-98 74.5-77.0	0.121		0.111	0.09	81.7 - 87.2
D-302-98 77.0-81.7	0.074		0.108	0.07	= 5.5' @
D-302-98 81.7-84.5 2.8	3.717		3.864	2.92	1.985 Au 1.62 Ag

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SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)	
D-302-98 84.5-87.2 2.7	0.188		0.135	0.27	
D-302-98 87.2-90.0	0.117		0.169	0.27	
D-302-98 90-95	0.108		0.098	0.11	
D-302-98 95-98	0.032			0.18	
D-302-98 98-102	0.033			0.08	
D-302-98 102-106	0.302		0.216	2.86	
D-302-98 106.0-109.8	0.085		0.053	0.52	
D-302-98 109.8-115.0	0.023			0.29	
D-302-98 115-120	0.020			0.11	
D-302-98 120-125	0.048			0.15	128-138 = 10'
D-302-98 125-128	0.101		0.082	0.15	@
D-302-98 128.0-131.7 3.7	0.197		0.269	0.59	0.348 Au
D-302-98 131.7-135.0 3.3	0.623		0.604	0.37	0.40 Ag
D-302-98 135-138 3	0.233		0.229	0.21	
D-302-98 138.0-142.2	0.008			0.08	
D-302-98 142.2-144.0	0.007			0.09	
D-302-98 144-147	0.011			0.18	
D-302-98 147.0-148.8	0.017			0.15	
D-302-98 148.8-150.8	0.006			0.11	
D-302-98 150.8-153.4	0.004	0.007		2.01	
D-302-98 153.4-157.0	0.005			1.10	
D-302-98 157-160	0.010			1.11	
D-302-98 160-163	0.026			0.98	
D-302-98 163.0-165.5	0.010			2.96	
D-302-98 165.5-168.0	0.004			0.17	

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REFERENCE : D-302-98

REPORTED : 24 NOV 1998

SAMPLES		Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)	
D-302-98 168-170		0.004			0.28	
D-302-98 170.0-172.7		0.003			0.40	
D-302-98 172.7-175.2		0.004			0.20	
D-302-98 175.2-177.5		0.005			3.54	
D-302-98 177.5-180.0		0.003			0.25	185.7' to 270' =
D-302-98 180-183		0.002			0.38	84.3' @
D-302-98 183.0-185.7		0.004			0.54	
D-302-98 185.7-188.0	2.3'	0.004			1.96	
D-302-98 188-190	2	0.003	0.004		2.74	
D-302-98 190.0-192.5	2.5	0.010			4.24	0.039 Au
D-302-98 192.5-195.0	2.5	0.006			3.87	12.99 Ag
D-302-98 195.0-197.5	2.5	0.006			8.40	
D-302-98 197.5-200.0	2.5	0.008			5.37	
D-302-98 200.0-202.5	2.5	0.006			3.00	
D-302-98 202.5-205.0	2.5	0.008			3.11	
D-302-98 205.0-207.5	2.5	0.013			6.49	
D-302-98 207.5-210.4	2.9	0.008			3.02	
D-302-98 210.4-212.8	2.4	0.021			47.61	
D-302-98 212.8-215.0	2.2	0.012			25.14	
D-302-98 215.0-217.5	2.5	0.003			2.98	
D-302-98 217.5-220.0	2.5	0.005			3.94	
D-302-98 220.0-222.4	2.4	0.005			4.43	
D-302-98 222.4-224.9	2.5	0.007			1.35	
D-302-98 224.9-227.0	2.1	0.020			4.01	
D-302-98 227-230	3	0.019	0.020		16.57	

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP051323

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-302-98

REPORTED : 24 NOV 1998

SAMPLES		Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-302-98 230.0-232.8	2.8	0.032			21.30
D-302-98 232.8-235.0	2.2	0.008			6.04
D-302-98 235.0-237.5	2.5	0.150		0.146	26.60
D-302-98 237.5-240.0	2.5	0.050		0.074	29.35
D-302-98 240.0-242.5	2.5	0.024			17.85
D-302-98 242.5-245.0	2.5	0.080		0.067	21.64
D-302-98 245.0-247.5	2.5	0.003			0.57
D-302-98 247.5-250.0	2.5	0.342		0.383	95.91
D-302-98 250.0-252.7	2.7	0.080		0.105	13.55
D-302-98 252.7-255.2	2.5	0.003			0.36
D-302-98 255.2-257.5	2.3	0.207		0.225	13.10
D-302-98 257.5-260.0	2.5	0.011			4.56
D-302-98 260.0-262.4	2.4	0.012			13.30
D-302-98 262.4-264.4	2.0	0.046			6.77
D-302-98 264.4-265.4	1.0	0.036			5.78
D-302-98 265.4-267.4	2.0	0.104		0.115	18.00
D-302-98 267.4-270.0	2.6	0.015			4.75
D-302-98 270.0-272.5		0.006			0.39
D-302-98 272.5-275.7		0.008			1.11
D-302-98 275.7-277.5		0.006			1.39
D-302-98 277.5-280.0		0.001			0.15
D-302-98 280-283		0.001			0.22
D-302-98 283.0-285.5		0.002			0.28
D-302-98 285.5-287.5		0.003			2.21
D-302-98 287.5-290.0		0.006			5.41

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP051323

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REPORTED : 24 NOV 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-302-98 290-293	0.002			0.17
D-302-98 293.0-295.5	0.003			2.88
D-302-98 295.5-297.2	0.005			8.50
D-302-98 297.2-300.0	0.003			0.16
43590	0.115			2.95

SP

SUBMITTAL FORM

American Assay Laboratories

Geochemical • Environmental • Metallurgical

Sparks Office
1500 Glendale Ave.
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(702) 356-0606
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Tucson, AZ 85706
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(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: ROSE BUD MINING LLC

Address: P.O. BOX 2610

City WINNEMUCCA State NV Zip 89445

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

Project Name: DEVIL Purchase Order Number:

Date Submitted: 10/22/98 Number of Samples: 104

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

Au-Ag ACCORDING TO ROSEBUD MINE PROTOCOL

D-302-98 SAMPLE IDENTIFICATION				TYPE	ELEMENTS REQUIRED		
0-3	50-52.2	102-106	153.4-157		192.5-195	230-232.8	265.4-267.4
3-6.7	52.2-55	106-109.8	157-160		195-197.5	232.8-235	267.4-270
6.7-10	55-60	109.8-115	160-163		197.5-200	235-237.5	270-272.5
10-13	60-63.3	115-120	163-165.5		200-202.5	237.5-240	272.5-275.7
13-16	63.3-66	120-125	165.5-168		202.5-205	240-242.5	275.7-277.5
16-21	66-71	125-128	168-170		205-207.5	242.5-245	277.5-280
21-25	71-74.5	128-131.7	170-172.7		207.5-210.4	245-247.5	280-283
25-27.3	74.5-77	131.7-135	172.7-175.2		210.4-212.8	247.5-250	283-285.5
27.3-30	77-81.7	135-138	175.2-177.5		212.8-215	250-252.7	285.5-287.5
30-34	81.7-84.5	138-142.2	177.5-180		215-217.5	252.7-255.2	287.5-290
34-37	84.5-87.2	142.2-144	180-183		217.5-220	255.2-257.5	290-293
37-40	87.2-90	144-147	183-185.7		220-222.4	257.5-260	293-295.5
40-43	90-95	147-148.8	185.7-188		222.4-224.9	260-262.4	295.5-297.2
43-46	95-98	148.8-150.8	188-190		224.9-227	262.4-264.4	297.2-300 TD
46-50	98-102	150.8-153.4	190-192.5		227-230	264.4-265.4	

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

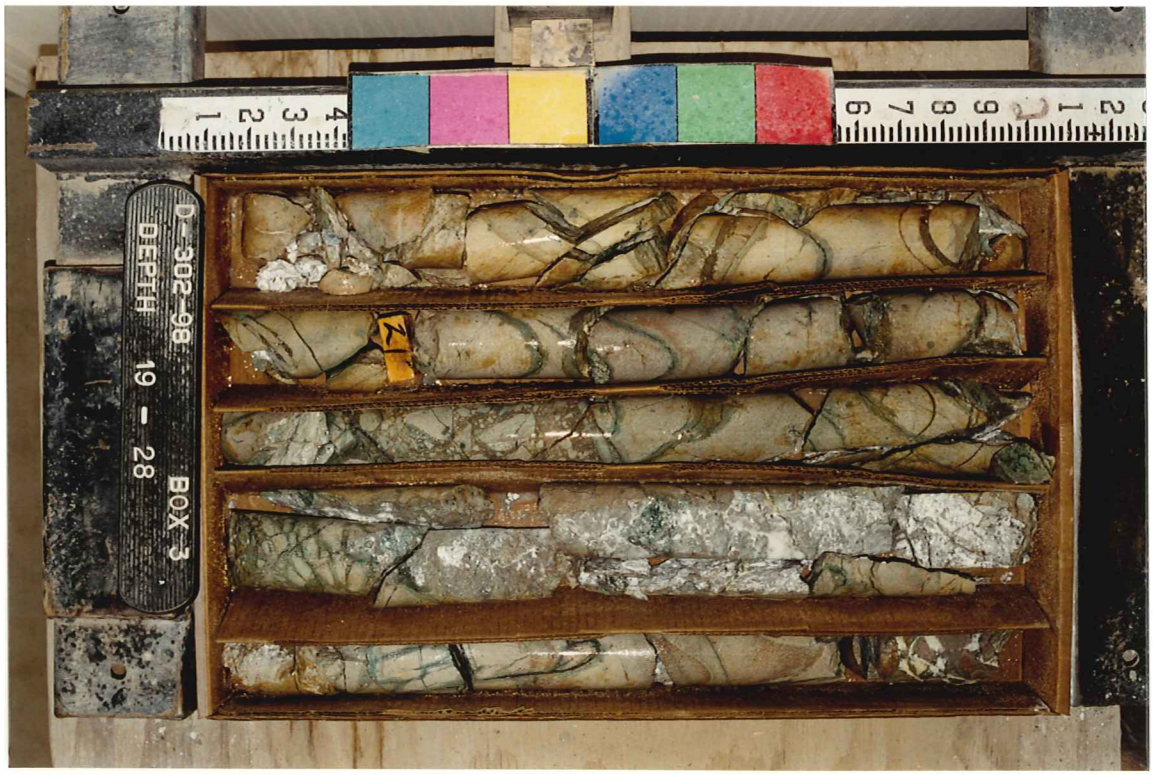
Comments:

CLIENT FILE COPY

D-302-98	35	9	121.2
	150	9	121.7
	300	9	121.2

D-302-98
BOX 2
DEPTH 9.5 - 19
10'
16'
13'

D-302-98
BOX 1
DEPTH 0 - 9.5


D-302-98
BOX 3
DEPTH 19 - 28

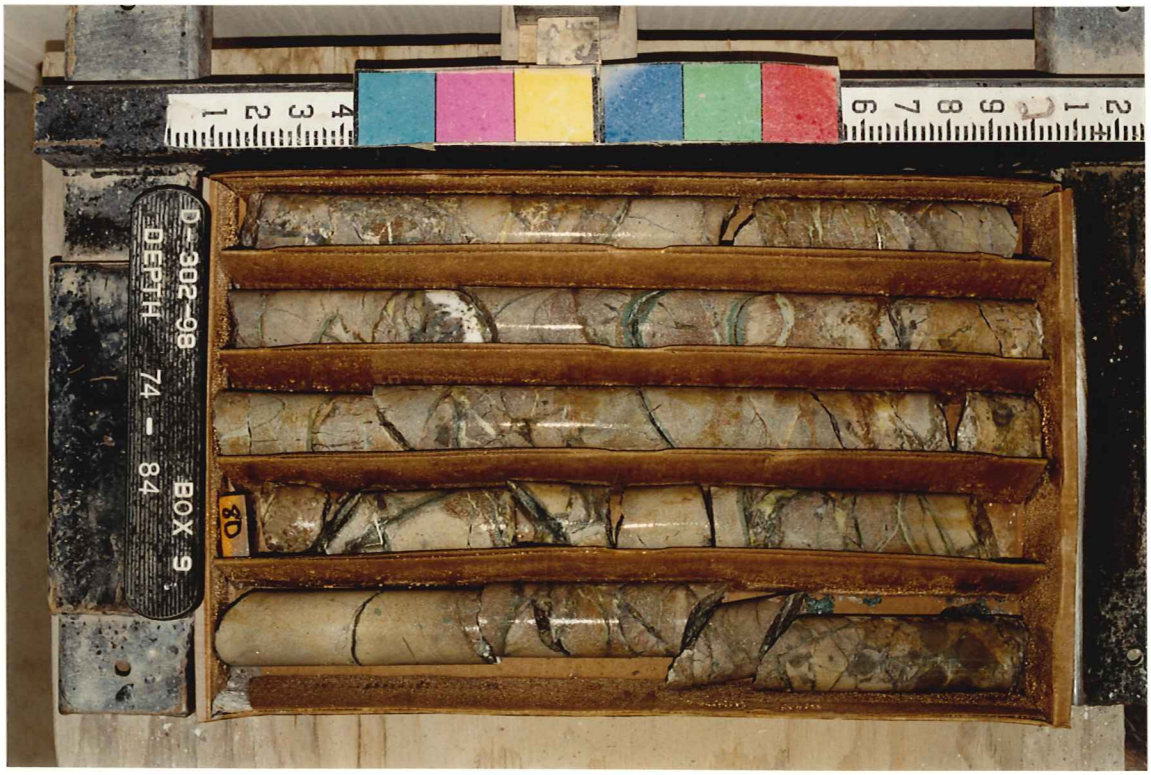
43'
D-302-98 BOX 5
DEPTH 37_5 - 47

30'
34'
D-302-98 BOX 4
DEPTH 28 - 37_5

D-302-98 BOX 6
DEPTH 47 - 56

70
D-302-98 BOX 8
DEPTH 65_5 - 74

69
D-302-98 BOX 7
DEPTH 56 - 65_5


D-302-98 BOX 9
DEPTH 74 - 84
80

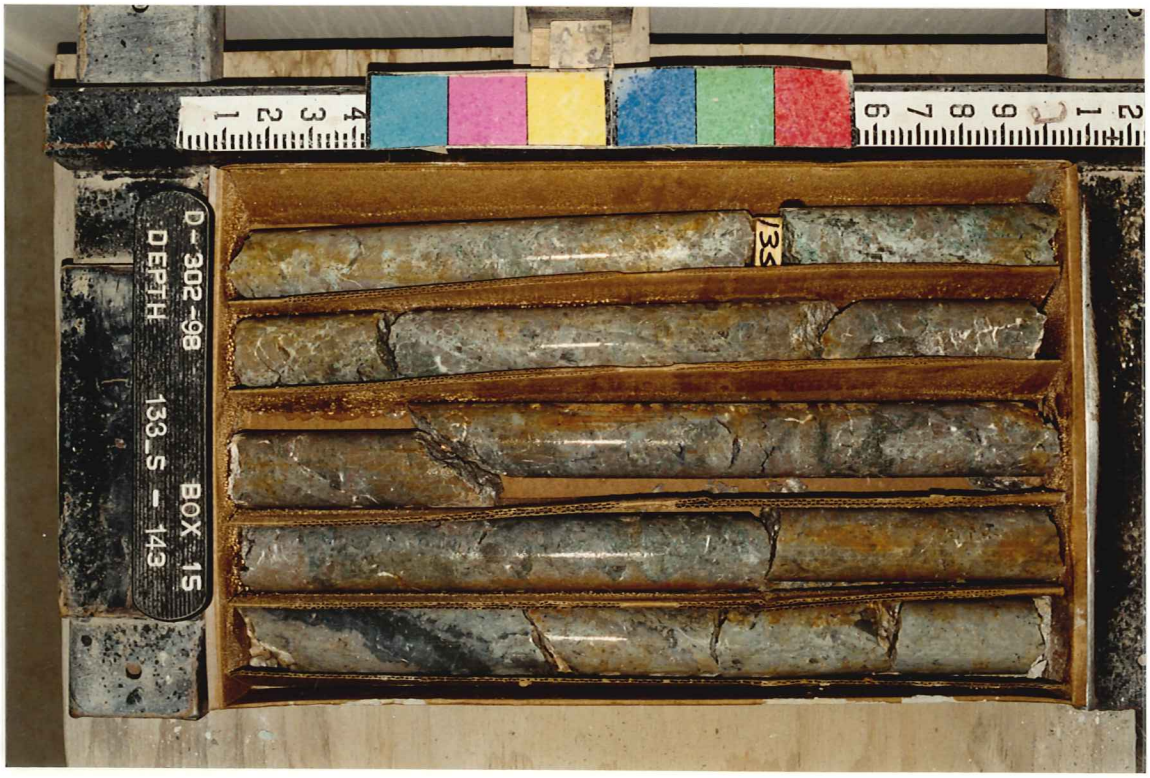
D-302-98
BOX 11
DEPTH 93 - 102

D-302-98
BOX 10
DEPTH 84 - 93

D-302-98
BOX 12
DEPTH 102 - 111.5

D-302-98
BOX 14
DEPTH 122 - 133_5
125
128

D-302-98
BOX 13
DEPTH 111_5 - 122
115


D-302-98
BOX 15
DEPTH 133_5 - 143
135

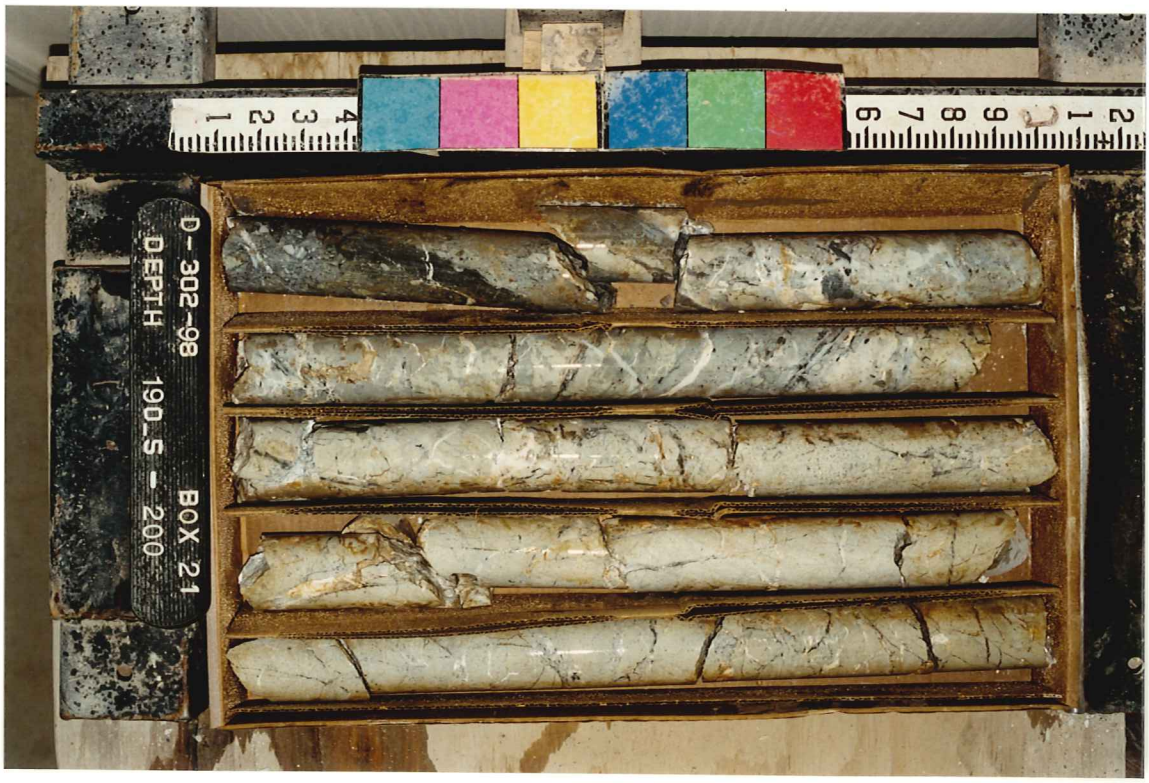
D-302-98
BOX 17
DEPTH 152_5 - 162
150

D-302-98
BOX 16
DEPTH 143 - 152_5
145
150

D-302-98
BOX 18
DEPTH 162 - 172
170

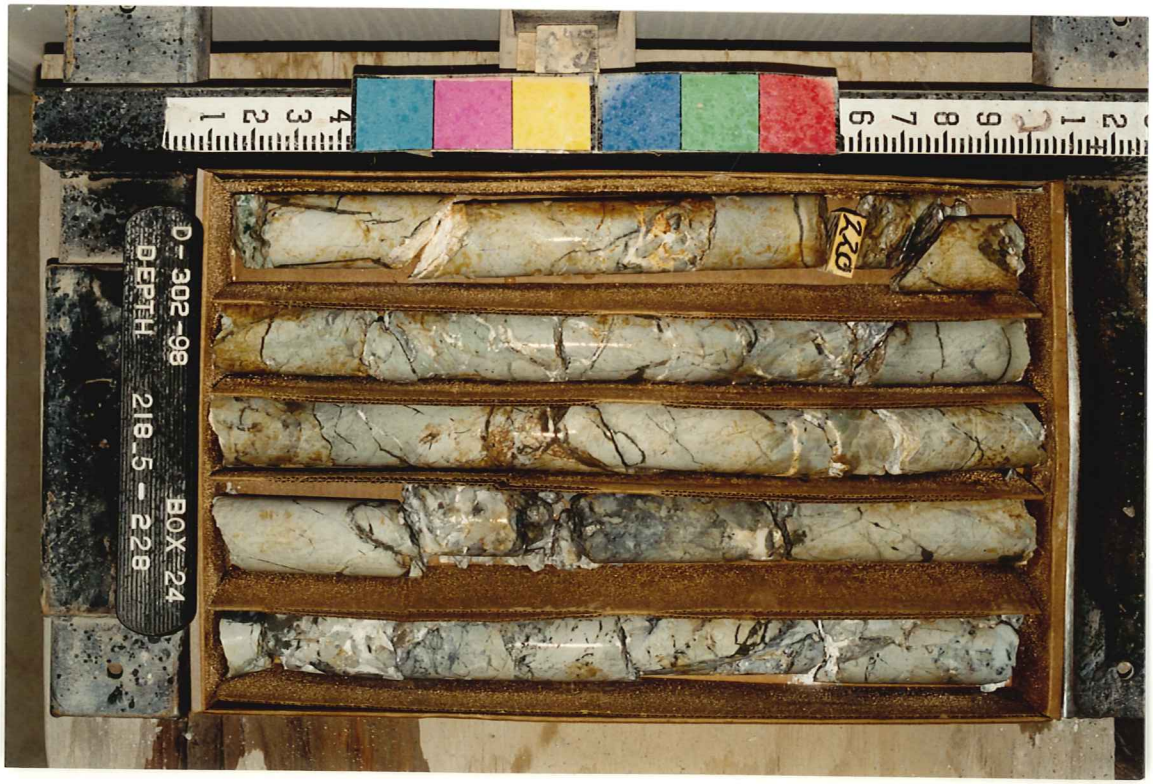
D-302-98 BOX 20
DEPTH 181 - 190.5
90.

D-302-98 BOX 19
DEPTH 172 - 181
180


D-302-98 BOX 21
DEPTH 190.5 - 200

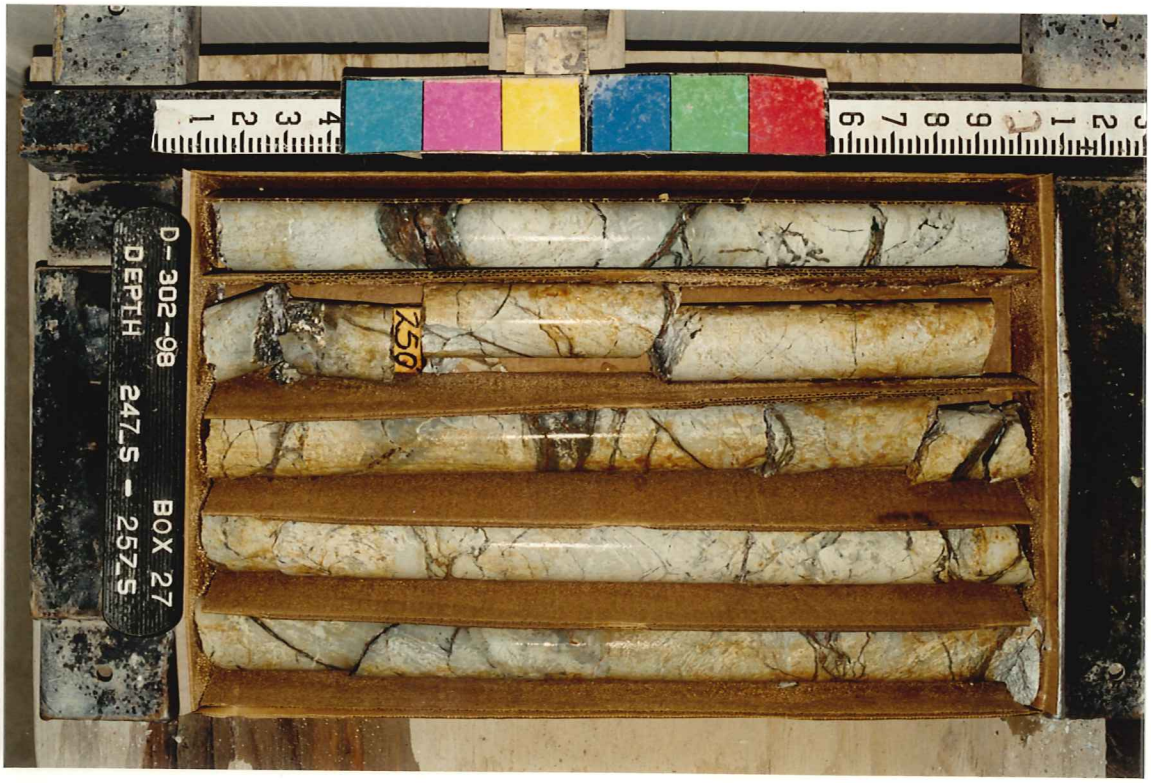
210'
D-302-98
BOX 23
DEPTH 209_5 - 218_5

200
D-302-98
BOX 22
DEPTH 200 - 209_5


220
D-302-98
BOX 24
DEPTH 218_5 - 228

240
D-302-98
BOX 26
DEPTH 238 - 247.5

230
D-302-98
BOX 25
DEPTH 228 - 238


250
D-302-98
BOX 27
DEPTH 247.5 - 257.5

270
D-302-98
BOX 29
DEPTH
267 - 278.5

260
D-302-98
BOX 28
DEPTH
257.5 - 267

280
D-302-98
BOX 30
DEPTH
278.5 - 288

300TD
D-302-98
BOX 32
DEPTH 298 - 300TD

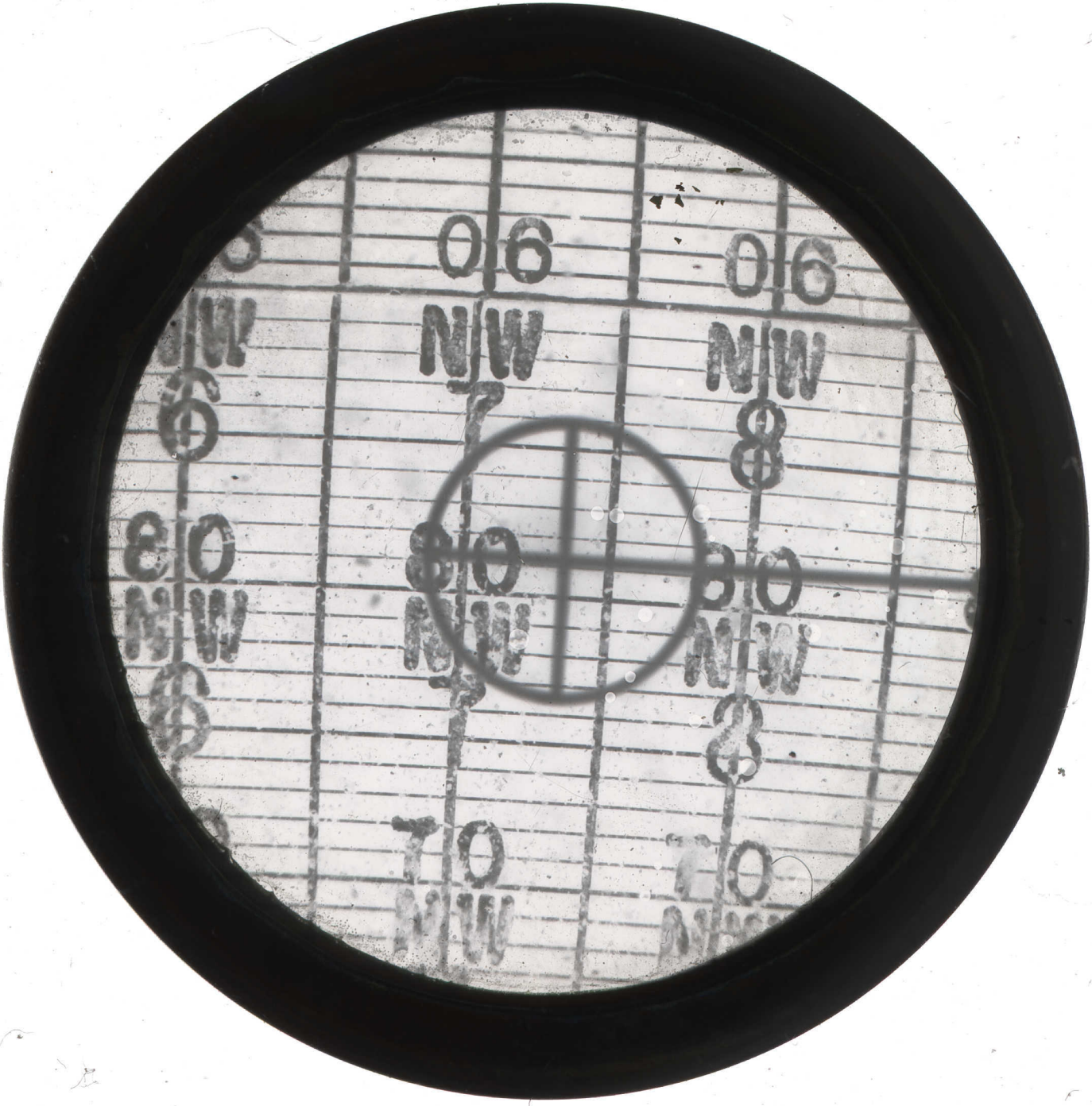
290
D-302-98
BOX 31
DEPTH 288 - 298

SINGLE SHOT
PHOTO DISC RECORD

COMPANY Heck
WELL NAME D-302-98
LEASE
TAKEN BY Magoon / Jerome
DEPTH 35
DATE 9-1-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO.
HI-1408

SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecla
WELL NAME D-302-98
LEASE
TAKEN BY magoon/Jerome
DEPTH 150
DATE 9-1-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO.
HI-1408


06
NW
7
8
10
NW
8
10
NW
8
10
NW

SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecla
WELL NAME D-302-98
LEASE
TAKEN BY Mangoon/Jerome
DEPTH 300'
DATE 9-1-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO.
HI-1408

NW
W
8
8
0
8
0
NW
W
8
8
7
0
7
0
NW
W