60001222

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-322-98
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 222' receipt; handwritten notes; downhole camera images 30p. 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-322-98

6000 1222 4010

6066 1222

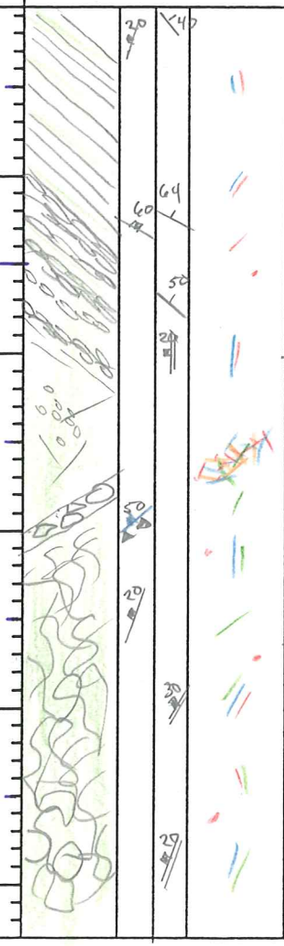
- quartz, chalcedony, silicification
- faults, fractures
- FeOx
- sulfide
- calcite, carbonate
- argillization, white clays
- propylitization
- potassic alteration
- chlorite, chloritic clays

BaSO4

Hecla MINING COMPANY

ROSEBUD PROJECT
DIAMOND DRILL LOG

HOLE NUMBER	D-322-98	LOCATION	STOPE 50 NORTH SEC 1700	REMARKS	
PAGE 1 OF 4		NORTHING			
DATE	11/7-8/98	EASTING			
LOGGED BY	ALLYN NILES	ELEVATION			
SCALE	1" = 10'	AZIMUTH	125		
TOTAL DEPTH	222	INCLINATION	43		

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
0.0 - 19.0 PLANAR LAMINAR		0.0 - 19.0 LT. YELLOW-GREEN → LT. GREEN FINE GRAIN FLOW W/ COMMON PLANAR BANDS, GRADING INTO VESICLE TRAINS ~11', MINOR LAMINAR PARTINGS ALONG PLANAR FEATURES.	10		0.0 - 19.0 MOST FRACTURES AT NEAR 90° TO CORE, FEW NATURAL FRACTURES, HIGH RQD	3.0 - 17.0 MINOR CALCITE VEINING EXTREEMLY RARE PYRITE 0.0 - 132 SAMPLE BREAKS ON LITH CONTACTS EXCEPT FOR FAULT @ 30.0', OR AT DRILLER BLOCKS 17.0 - 64.0 MOD. CALCITE VEINING OFTEN W/ MINOR → MOD. PYRITE STRINGERS & X-TAL AGGREGATES, AND/OR HARD GREEN CLAY. RARE, SCATTERED ROUND PYRITE BLEBS.
19.0 - 30.0 F.G. MASSIVE	30.0	19.0 - 30.0 GREEN → LT. GREENS, VERY FINE GRAIN FLOW W/ STRONG FRACTURE PATTERN SIMILAIR TO VITROPHYRE W/ CRACKS FILLED W/ BROWN-PINK CLAY, SOME VESICULAIR TEXTURES (WORMY SPLAT TYPE)	20		19.0 GRADATIONAL CONTACT 19.0 - 133.6 RARE NATURAL FRACTS HIGH RQD.	
30.0 - 61.5 VITROPHYRE	61.5	30.0 - 51.0 LT. GREEN → GREEN; EXTREEMLY FINE GRAIN FLOW W/ CRACKED GLASS & PERLITIC TEXTURES.	30 40 50		30.0 FAULT CONTACT BXA 29.0 - 30.0, PREFERRED VEIN & FABRIC ALIGNMENT MOSTLY CRACKLE ZONE SOME ROTATION OF CLASTS	29.0 - 30.0 CEMENTED W/ WHITE CLAY, HARD LT. GREEN CLAY, CALCITE, MOD. DISSEM PYRITE, MINOR PYRITE VEINING

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
0.0	5.0					
5.0	9.0					
9.0	14.0					
14.0	19.0					
19.0	24.6					
24.6	29.0					
29.0	31.0					
31.0	34.6					
34.0	39.6					
39.0	44.0					
44.0	49.0					

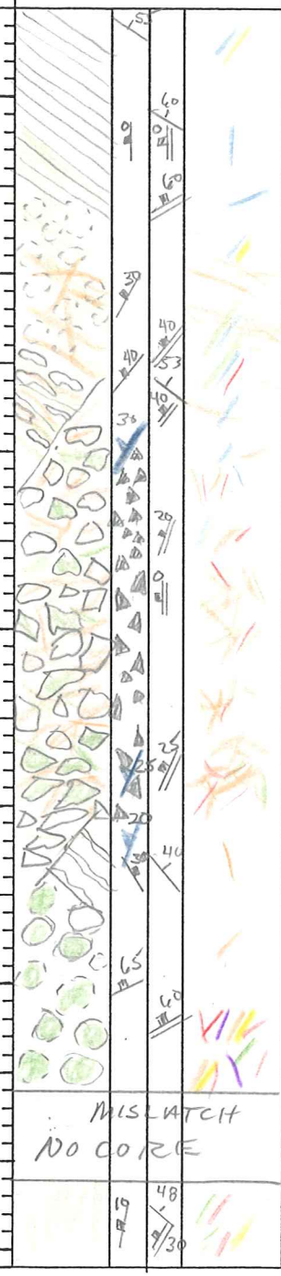
HOLE NUMBER D-322-98 PAGE 2 OF 4

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
30.0 – 61.5 VITROPHYRE		51.0 – 61.5 AUTO BXA / FLOW SHEAR ZONE, LT. GREEN GLASSY VESICULAR FLOW FRAGS, ROUND IN A GREEN GLASSY MATRIX.	60				49.0	54.0				
							54.0	59.0				
61.5 – 100.1 F.G. MASSIVE		61.5 – 80.0 GREEN, VERY FINE GRAIN FLOW W/ THICK AUTO BXA SEQUENCE 61.5 – 80.0 W/ ANGULAR → SUB ROUND CLASTS OF F.G. MASS IN SAME CLAY MATRIX.		46			59.0	61.5				
							61.5	64.0				
			70			64.0 – 80.0 MOD. CALCITE VEINING W/ MINOR QUARTZ, PYRITE, MINOR → MOD. HARD GREEN CLAY.	64.0	69.0				
		80 – 91.0 GREEN, VERY FINE GRAIN FLOW, FEATURELESS.		25			69.0	74.0				
			80	20			74.0	79.0				
						80.0 MOD. CALCITE VEINING W/ MOD PYRITE	79.0	84.0				
		91.0 – 93.4 AUTO BXA, LT. GREEN VITROPHYRE-LIKE CLASTS IN A PINKISH → GREENISH VERY FINE GRAINS MATRIX		0								
			90				84.0	89.0				
		93.4 – 100.1 LT. GREEN, PERLITIC VITROPHYRE-LIKE CHILLED ZONE					89.0	94.0				
							94.0	97.0				
100.1 – 140.0 PLANAR LAMINAR		100.1 – 131.5 VARIABLE COLOR, PURPLE, BROWN, GREEN. FINE TO VERY FINE GRAIN FLOW W/ PLANAR BANDS GRADING INTO FLATTENED VESICLE TRAINS ~126.0	100	60	100.1 GRADATIONAL CONTACT		97.0	100.0				
				10			100.0	104.0				
			110	60			104.0	109.0				
							109.0	114.0				
			120	10 / 63			114.0	119.0				

HOLE NUMBER D-322-98 PAGE 3 OF 4

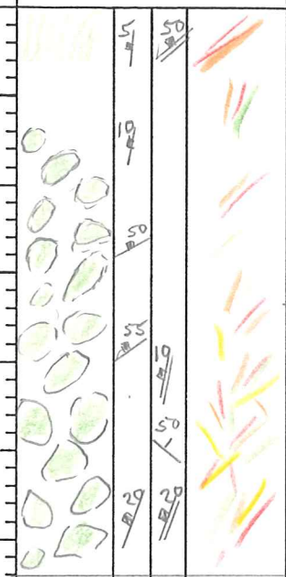
LITH.	OX/RED.	LITHOLOGY	FT	STRUCTURE	ALTERATION AND MINERALIZATION
100.1 – PLANAR LAMINAR	140.0	100.1 – 131.5 131.5 – 139.0 ROUND → ANGULAR RL. CLASTS, LT. GREEN IN A PINKISH F.G. VOLCANIC CLAY MATRIX.	130	131.5 – 139.0 AUTO BXA 140.0 GRADATIONAL CONTACT 133.0 – 138.6 MOD. FRACTURE DENSITY & VEINING, MOSTLY AT NEAR 90° TO BED PLANES.	133.0 – 138.6 VEINS FILLED W/ LT. GREEN CLAY, W/MINOR PYRITE, LOCAL DISSEM PYRITE W/ ARGILLIC ALT
140.0 – SPOTTED TUFF	144.6	140.0 – 144.6 PURPLE, IRREGULAR SHAPED VESICLES TO FLATTENED TRAINS W/ BANDS OF GREEN OVAL → FLATTENED VESICLE TRAINS.	140	138.6 – 144.6 STRONG TO V. STRONG FRACTURING & VEINING	138.6 – 144.6 VEINS FILLED W/ LT. GREEN CLAY
144.6 – FAULT ZONE	167.6	144.6 – 167.6 144.6 – 160.0 MOSTLY HOMOLITHIC W/ CLASTS OF VESICULAR PLANAR LAMINAR OR SPOTTED TUFF, GREEN TO PINK IN COLOR, IN A PINK TO LT. GREEN TO OFF WHITE CLAY MATRIX; BXA IS HEALED W/ VARIABLE ARGILLIC ALT., 152.8 – 155 HAS SOME SILICIFIED CLASTS. 160.0 – 167.6 HOMOLITHIC BXA COMPOSED OF GREEN, ROUND CHANGING TO ANGULAR ~ 164' OF FINE GRAIN MASSIVE TYPE CLASTS IN A PURPLE TO WHITE CLAY.	150 PIMA 160	144.6 – 166.5 GENERALLY WEAK VEINING, MOST VEINS ARE FRAGMENTED BY FAULT. MAY BE POST-MIN.	144.6 – 147.0 FRAGMENTED CALCITE VEINS W/ SOME PYRITE. WEAK ARGILLIC ALT. 147.0 – 166.5 DISSEM. PYRITE WEAK → LOCALLY STRONG, MINOR → MOD. FRAGMENTED CLAY/PYRITE VEINS, MOD ARGILLIC ALT. OF CLASTS & MATRIX. COMMON WHITE CLAY + PYRITE AS VEIN & PARTIAL CEMENTING AGENT. RARE MARC. W/ WHITE CLAY, MOSTLY PYRITE IN MOD. QUART.
167.6 – PLANAR LAMINAR	186.0	167.6 – 171.0 GREEN W/ ALTERNATING IRREGULAR FLATTED VESICLE TRAINS / BANDS. 171.0 – 181.0 AUTO BXA? LT. GREEN CLASTS IN A DK. PURPLE FINE GRAIN CLAY MATRIX. 181.0 – 186.6 SEVER CORE LOSS, MISMATCH 5' REC. FOR 10' DRILLED	170 180	166.5 – 167.6 MOD OPEN FRACTS / VUGS 176.0 – 181.0 STRONG VEINS / VUGS.	166.5 – 167.6 VUGS / OPEN FRACTS LINED W/ BLADED MARC., LT. GRN. HARD CLAY, STRONG WHITE CLAY, ARGILLIC ALT W/ DISSEM. PYRITE 167.6 – 170.5 STRONG ARG. ALT. W/ STRONG DISSEM. PYRITE 176.0 – 181.0 VEINS / VUGS LINED / FILLED W/ BARITE BLADED MARC., MINOR QUARTZ & WHITE CLAY
186.0 – F.G. MASSIVE?	222	186.0 – 197.0 SEE DESCRIPTION PAGE 4	190	186.0 – 206.0 MINOR → MOD. VEINING	186.0 – 206.0 VEINS FILLED W/ PYRITE, HARD CLAY, WHITE CLAY & BLADED MARC.

GRAPHIC LOG



ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
119.0	123.0				
123.0	127.0				
127.0	132.0				
132.0	135.0				
135.0	138.3				
138.3	140.8				
140.8	144.6				
144.6	147.0				
147.0	149.7				
149.7	153.2				
153.2	157.0				
157.0	160.0				
160.0	163.0				
163.0	165.5				
165.5	168.0				
168.0	171.0				
171.0	176.0				
176.0	179.0				
179.0	181.0				
NO SAMPLE 181.0	186.0				
186.0	190.0				

HOLE NUMBER D-322-98 PAGE 4 OF 4

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
186.0 – F.G. MASSIVE?		186.0 – 197.0 GREEN → LT. GRAY → LT. GREEN, FINE GRAIN FLOW w/ RARE, ISOLATED PLANAR BANDS. 197.0 – 222.0 AUTOBXA, LT. GREEN, ROUND → ANGULAR. VITROPHYRE-LIKE CLASTS IN A FINE GRAIN GRAYISH PINK VOLCANIC CLAY MATRIX. RARE FABRIC ALIGNMENT FEATURES. PIMA →	200 210 222		206.0 – 222.0 MOD → STRONG VEINING, ISOLATED VUGS.	206.0-222.0 VEINS FILLED W/ BLADED MARC., HARD LT. GRN. CLAY, HARD WHITE CLAY, PYRITE, VERY MINOR QUARTZ, VUGS LINED W/SAME.
		T.D. 222'				

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
190.0	193.0				
193.0	196.0				
196.0	200.0				
200.0	205.2				
205.2	207.8				
207.8	210.0				
210.0	213.0				
213.0	216.0				
216.0	218.5				
218.5	222.0				

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-322-98 DATE: 11/7/98 LOGGED BY: ALLYN NICES 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	5.0	88.0	92.0	28.0										
5.0	9.0	100.0	100.0	60.0										
9.0	14.0	96.0	96.0	50.0										
14.0	19.0	104.0	104.0	102.0										
19.0	24.0	100.0	100.0	98.0										
24.0	29.0	100.0	100.0	92.0										
29.0	34.0	100.0	100.0	92.0										
34.0	39.0	100.0	100.0	100.0										
39.0	49.0	96.0	96.0	86.0										
49.0	59.0	98.0	98.0	94.0										
59.0	69.0	100.0	100.0	93.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-322-98 DATE: 11/7/98 LOGGED BY: ALLYN WILES 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)
69.0	79.0	100.0	100.0	95.0										
79.0	89.0	100.0	100.0	96.0										
89.0	99.0	99.0	99.0	86.0										
99.0	109.0	100.0	100.0	86.0										
109.0	119.0	100.0	100.0	100.0										
119.0	127.0	96.2	96.2	90.0										
127.0	137.0	85.0	100.0	68.0										
137.0	147.0	100.0	103.0	35.0										
147.0	157.0	97.0	97.0	89.0										
157.0	167.0	83.0	97.0	12.0										
167.0	177.0	100.0	101.0	62.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-322-98 DATE: 11/7/98 LOGGED BY: ALLYN NILES PAGE 3 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)
177.0	187.0	26.0	50.0	22.0										
187.0	196.0	100.0	100.0	67.0										
196.0	206.0	100.0	100.0	62.0										
206.0	216.0	100.0	100.0	49.0										
216.0	222.0	100.0	100.0	33.0										

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 0051569-IN
INVOICE DATE: 11/30/98

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

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

CUSTOMER P.O.	PROJECT	TERMS
D-322-98	DEVELOPMENT	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
58	SAMPLES RECEIVED	.00	.00
57	DRYING	1.00	57.00
57	JAW CRUSHING CHARGE	1.30	74.10
57	COARSE MILLING CHARGE	4.50	256.50
57	SPLITTING CHARGE	2.40	136.80
57	RING MILLING CHARGE	2.00	114.00
58	Au (1 A.T. FIRE ASSAY)	8.00	464.00
58	HYDROCHLORIC/NITRIC DIGESTION	2.00	116.00
58	Ag ANALYSES	1.00	58.00

86-5110-477
EAA

NET INVOICE:	1,276.40
LESS DISCOUNT:	255.28
FREIGHT:	.00
INVOICE TOTAL:	1,021.12

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051569

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-322-98 RECEIVED : 17 NOV 1998

No. SAMPLES : 58 REPORTED : 30 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
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051569

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-322-98

REPORTED : 30 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
D-322-98 0-5	<0.001		0.02
D-322-98 5-9	<0.001		<0.02
D-322-98 9-14	<0.001		<0.02
D-322-98 14-19	<0.001		0.02
D-322-98 19.0-24.6	<0.001		0.02
D-322-98 24.6-29.0	<0.001		0.02
D-322-98 29-31	0.005		0.03
D-322-98 31-34	<0.001		0.02
D-322-98 34-39	<0.001		0.03
D-322-98 39-44	<0.001		0.02
D-322-98 44-49	<0.001		0.02
D-322-98 49-54	<0.001		0.02
D-322-98 54-59	<0.001		0.02
D-322-98 59.0-61.5	<0.001		0.02
D-322-98 61.5-64.0	<0.001		0.02
D-322-98 64-69	<0.001		0.02
D-322-98 69-74	<0.001		0.02
D-322-98 74-79	0.004		0.03
D-322-98 79-84	0.013		0.04
D-322-98 84-89	<0.001		0.04
D-322-98 89-94	0.081	0.091	0.23
D-322-98 94-97	0.031		0.03
D-322-98 97-100	0.002		0.02
D-322-98 100-104	<0.001		<0.02
D-322-98 104-109	0.001		<0.02

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ANALYSIS REPORT SP051569

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-322-98

REPORTED : 30 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
D-322-98 109-114	<0.001		<0.02
D-322-98 114-119	0.001		0.05
D-322-98 119-123	<0.001		<0.02
D-322-98 123-127	<0.001		<0.02
D-322-98 127-132	<0.001		<0.02
D-322-98 132-135	<0.001		0.02
D-322-98 135.0-138.3	<0.001		0.02
D-322-98 138.3-140.8	<0.001		0.02
D-322-98 140.8-144.6	<0.001		0.02
D-322-98 144.6-147.0	<0.001		0.02
D-322-98 147.0-149.7	<0.001	0.002	0.02
D-322-98 149.7-153.2	0.001		0.02
D-322-98 153.2-157.0	0.002		0.02
D-322-98 157-160	0.001		0.02
D-322-98 160-163	0.002		0.06
D-322-98 163.0-165.5	0.004		0.11
D-322-98 165.5-168.0	0.006		0.19
D-322-98 168-171	0.002		0.11
D-322-98 171-176	0.005		0.07
D-322-98 176-179	0.006		0.12
D-322-98 179-181	0.006		0.06
D-322-98 181-186		SAMPLE NOT RECEIVED	
D-322-98 186-190	0.002		0.04
D-322-98 190-193	0.002		0.03
D-322-98 193-196	0.001		0.03

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051569

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-322-98

REPORTED : 30 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
D-322-98 196-200	0.001		0.03
D-322-98 200.0-205.2	0.002		0.03
D-322-98 205.2-207.8	0.002		0.03
D-322-98 207.8-210.0	0.005		0.02
D-322-98 210-213	0.031		0.09
D-322-98 213-216	0.006		0.08
D-322-98 216.0-218.5	0.027	0.024	0.15
D-322-98 218.5-222.0	<0.001		0.02
46606	0.510		5.24

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051569

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-322-98 RECEIVED : 17 NOV 1998

No. SAMPLES : 58 REPORTED : 30 NOV 1998

MAIN SAMPLE TYPE : DRILL CORE

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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
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051569

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-322-98

REPORTED : 30 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
D-322-98 0-5	<0.001		0.02
D-322-98 5-9	<0.001		<0.02
D-322-98 9-14	<0.001		<0.02
D-322-98 14-19	<0.001		0.02
D-322-98 19.0-24.6	<0.001		0.02
D-322-98 24.6-29.0	<0.001		0.02
D-322-98 29-31	0.005		0.03
D-322-98 31-34	<0.001		0.02
D-322-98 34-39	<0.001		0.03
D-322-98 39-44	<0.001		0.02
D-322-98 44-49	<0.001		0.02
D-322-98 49-54	<0.001		0.02
D-322-98 54-59	<0.001		0.02
D-322-98 59.0-61.5	<0.001		0.02
D-322-98 61.5-64.0	<0.001		0.02
D-322-98 64-69	<0.001		0.02
D-322-98 69-74	<0.001		0.02
D-322-98 74-79	0.004		0.03
D-322-98 79-84	0.013		0.04
D-322-98 84-89	<0.001		0.04
D-322-98 89-94	0.081	0.091	0.23
D-322-98 94-97	0.031		0.03
D-322-98 97-100	0.002		0.02
D-322-98 100-104	<0.001		<0.02
D-322-98 104-109	0.001		<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051569

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-322-98

REPORTED : 30 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
D-322-98 109-114	<0.001		<0.02
D-322-98 114-119	0.001		0.05
D-322-98 119-123	<0.001		<0.02
D-322-98 123-127	<0.001		<0.02
D-322-98 127-132	<0.001		<0.02
D-322-98 132-135	<0.001		0.02
D-322-98 135.0-138.3	<0.001		0.02
D-322-98 138.3-140.8	<0.001		0.02
D-322-98 140.8-144.6	<0.001		0.02
D-322-98 144.6-147.0	<0.001		0.02
D-322-98 147.0-149.7	<0.001	0.002	0.02
D-322-98 149.7-153.2	0.001		0.02
D-322-98 153.2-157.0	0.002		0.02
D-322-98 157-160	0.001		0.02
D-322-98 160-163	0.002		0.06
D-322-98 163.0-165.5	0.004		0.11
D-322-98 165.5-168.0	0.006		0.19
D-322-98 168-171	0.002		0.11
D-322-98 171-176	0.005		0.07
D-322-98 176-179	0.006		0.12
D-322-98 179-181	0.006		0.06
D-322-98 181-186		SAMPLE NOT RECEIVED	
D-322-98 186-190	0.002		0.04
D-322-98 190-193	0.002		0.03
D-322-98 193-196	0.001		0.03

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051569

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-322-98

REPORTED : 30 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
D-322-98 196-200	0.001		0.03
D-322-98 200.0-205.2	0.002		0.03
D-322-98 205.2-207.8	0.002		0.03
D-322-98 207.8-210.0	0.005		0.02
D-322-98 210-213	0.031		0.09
D-322-98 213-216	0.006		0.08
D-322-98 216.0-218.5	0.027	0.024	0.15
D-322-98 218.5-222.0	<0.001		0.02
46606	0.510		5.24

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP051569

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-322-98 RECEIVED : 17 NOV 1998

No. SAMPLES : 59 REPORTED : 25 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
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP051569

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-322-98

REPORTED : 25 NOV 1998

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)
D-322-98 0-5	<0.001		0.02
D-322-98 5-9	<0.001		<0.02
D-322-98 9-14	<0.001		<0.02
D-322-98 14-19	<0.001		0.02
D-322-98 19.0-24.6	<0.001		0.02
D-322-98 24.6-29.0	<0.001		0.02
D-322-98 29-31	0.005		0.03
D-322-98 31-34	<0.001		0.02
D-322-98 34-39	<0.001		0.03
D-322-98 39-44	<0.001		0.02
D-322-98 44-49	<0.001		0.02
D-322-98 49-54	<0.001		0.02
D-322-98 54-59	<0.001		0.02
D-322-98 59.0-61.5	<0.001		0.02
D-322-98 61.5-64.0	<0.001		0.02
D-322-98 64-69	<0.001		0.02
D-322-98 69-74	<0.001		0.02
D-322-98 74-79	0.004		0.03
D-322-98 79-84	0.013		0.04
D-322-98 84-89	<0.001		0.04
D-322-98 89-94	0.081		0.23
D-322-98 94-97	0.031		0.03
D-322-98 97-100	0.002		0.02
D-322-98 100-104	<0.001		<0.02
D-322-98 104-109	0.001		<0.02

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP051569

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-322-98

REPORTED : 25 NOV 1998

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)
D-322-98 109-114	<0.001		<0.02
D-322-98 114-119	0.001		0.05
D-322-98 119-123	<0.001		<0.02
D-322-98 123-127	<0.001		<0.02
D-322-98 127-132	<0.001		<0.02
D-322-98 132-135	<0.001		0.02
D-322-98 135.0-138.3	<0.001		0.02
D-322-98 138.3-140.8	<0.001		0.02
D-322-98 140.8-144.6	<0.001		0.02
D-322-98 144.6-147.0	<0.001		0.02
D-322-98 147.0-149.7	<0.001	0.002	0.02
D-322-98 149.7-153.2	0.001		0.02
D-322-98 153.2-157.0	0.002		0.02
D-322-98 157-160	0.001		0.02
D-322-98 160-163	0.002		0.06
D-322-98 163.0-165.5	0.004		0.11
D-322-98 165.5-168.0	0.006		0.19
D-322-98 168-171	0.002		0.11
D-322-98 171-176	0.005		0.07
D-322-98 176-179	0.006		0.12
D-322-98 179-181	0.006		0.06
D-322-98 181-186			
D-322-98 186-190	0.002		0.04
D-322-98 190-193	0.002		0.03
D-322-98 193-196	0.001		0.03

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP051569

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-322-98

REPORTED : 25 NOV 1998

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)
D-322-98 196-200	0.001		0.03
D-322-98 200.0-205.2	0.002		0.03
D-322-98 205.2-207.8	0.002		0.03
D-322-98 207.8-210.0	0.005		0.02
D-322-98 210-213	0.031		0.09
D-322-98 213-216	0.006		0.08
D-322-98 216.0-218.5	0.027		0.15
D-322-98 218.5-222.0	<0.001		0.02
46606	0.510		5.24

SP

SUBMITTAL FORM

American Assay Laboratories

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011-52-69-170035

Other Offices
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Santiago, Chile
Mendoza, Argentina

Company: ROSEBUD MINING LLC

Address: 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: 11/12/98 Number of Samples: 58

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

Au-Ag ACCORDING TO ROSEBUD MINE PROTOCOL

D-322-98 SAMPLE IDENTIFICATION				TYPE	ELEMENTS REQUIRED
0-5	64-69	132-135	179-181		
5-9	69-74	135-138.3	181-186		
9-14	74-79	138.3-140.8	186-190		
14-19	79-84	140.8-144.6	190-193		
19-24.6	84-89	144.6-147	193-196		
24.6-29	89-94	147-149.7	196-200		
29-31	94-97	149.7-153.2	200-205.2		
31-34	97-100	153.2-157	205.2-207.8		
34-39	100-104	157-160	207.8-210		
39-44	104-109	160-163	210-213		
44-49	109-114	163-165.5	213-216		
49-54	114-119	165.5-168	216-218.5		
54-59	119-123	168-171	218.5-222 TD		
59-61.5	123-127	171-176			
61.5-64	127-132	176-179			

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-322-98	20	42	127.7
	110	43	127.7
	220	43.5	128.7

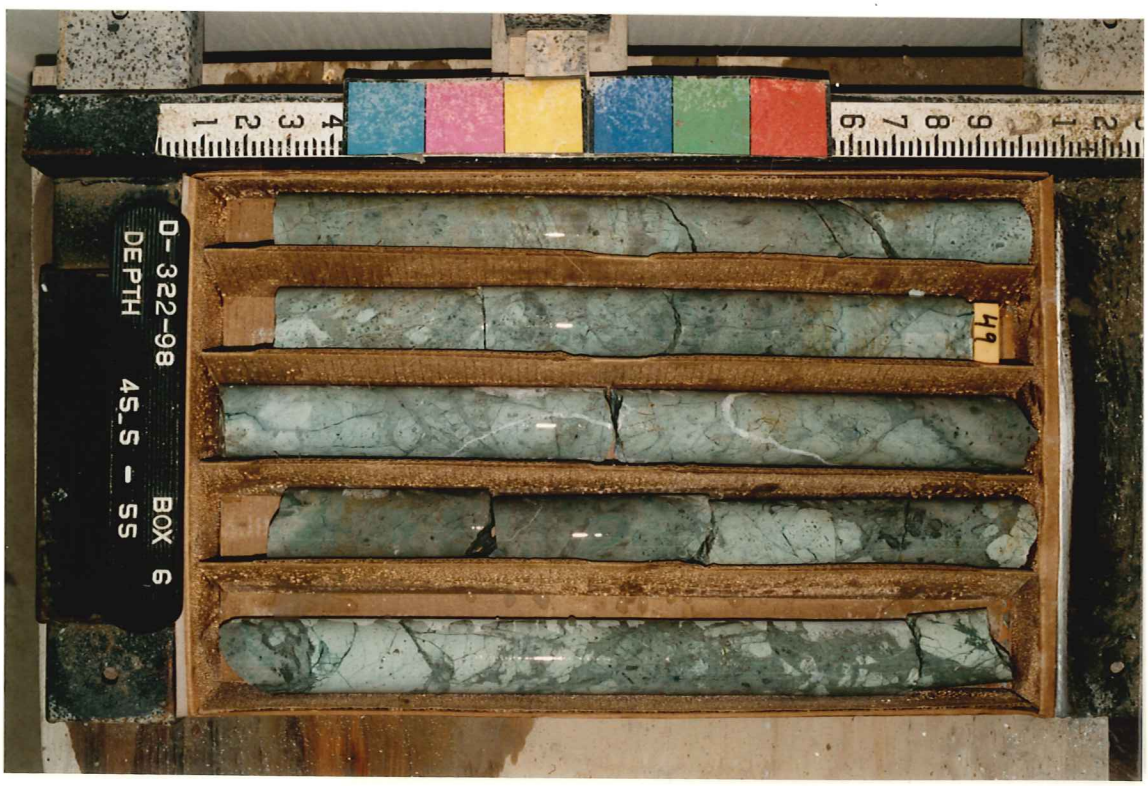
D- 322-98 BOX 2
DEPTH 9 - 18_5

D- 322-98 BOX 1
DEPTH 0 - 9

D- 322-98 BOX 3
DEPTH 18_5 - 27

D- 322-98 BOX 5
DEPTH 36 - 45_5

D- 322-98 BOX 4
DEPTH 27 - 36


D- 322-98 BOX 6
DEPTH 45_5 - 55

69
D- 322-98 BOX 8
DEPTH 64 - 73

59
D- 322-98 BOX 7
DEPTH 55 - 64

D- 322-98 BOX 9
DEPTH 73 - 82
79

D- 322-98
BOX 11
DEPTH 91 - 100_5
99

D- 322-98
BOX 10
DEPTH 82 - 91
89

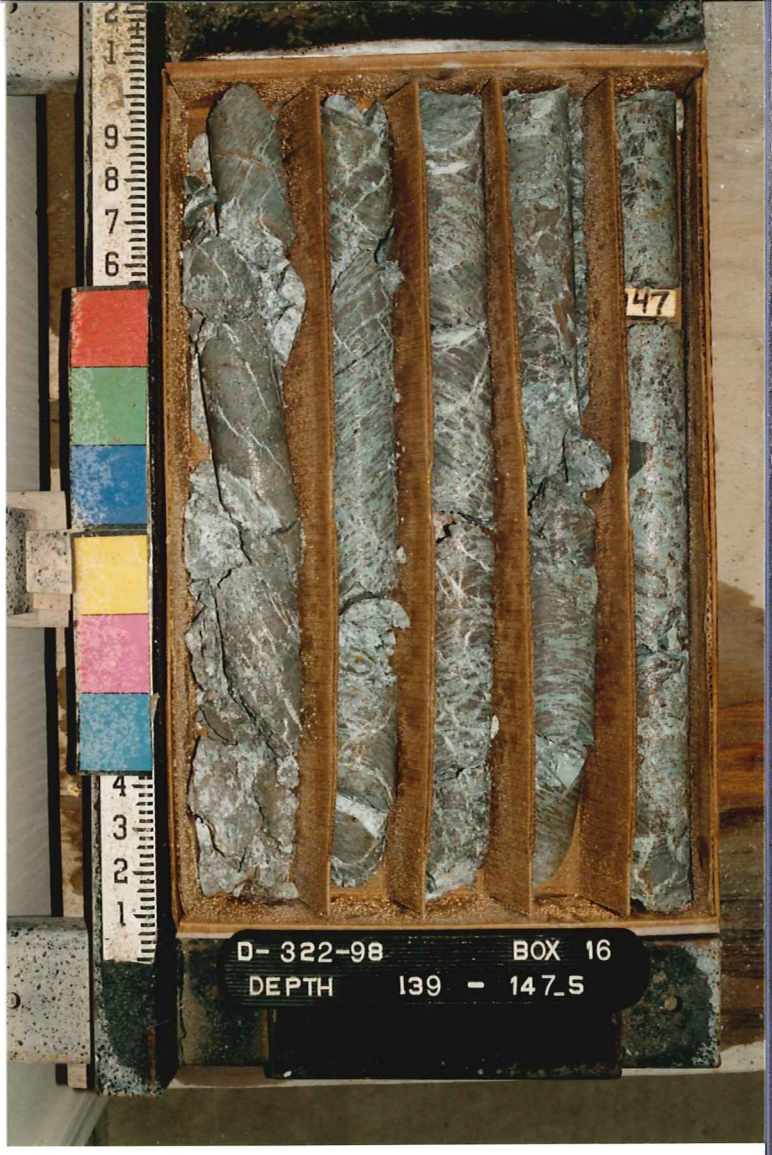
D- 322-98
BOX 12
DEPTH 100_5 - 110_5
101

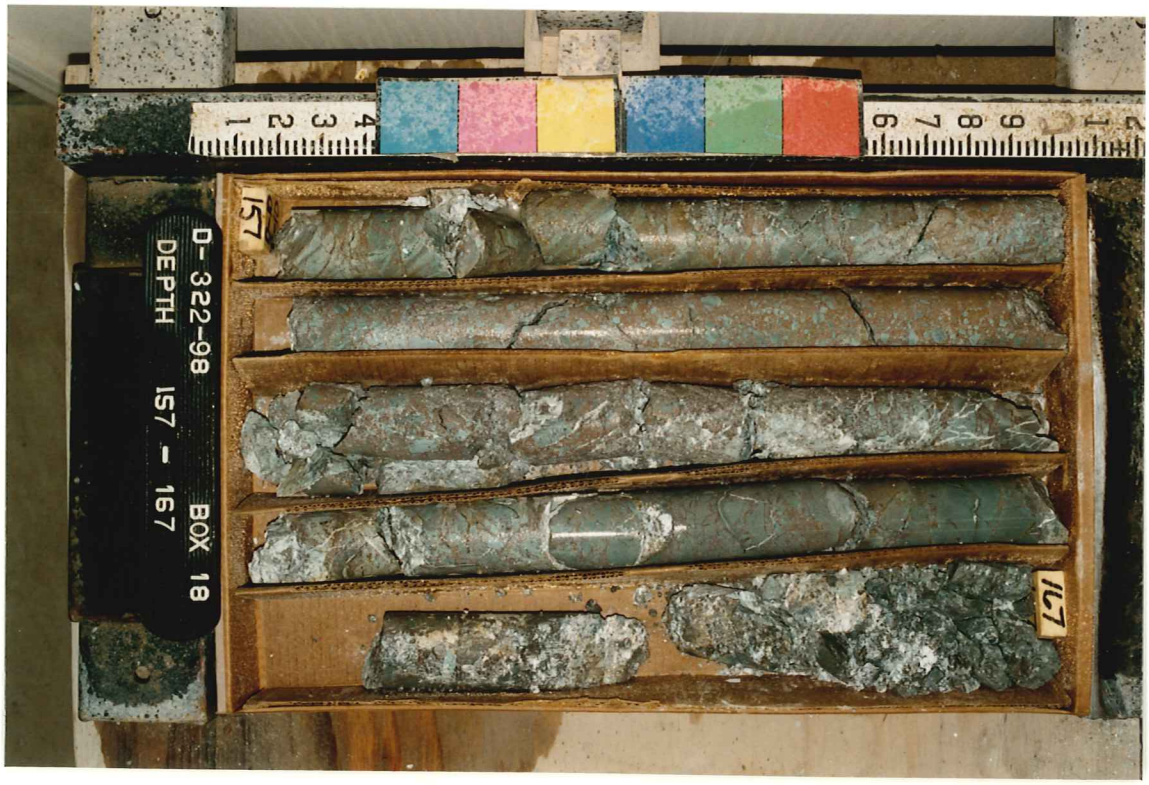
127
D- 322-98
BOX 14
DEPTH
119_5 - 129_5

119
D- 322-98
BOX 13
DEPTH
110_5 - 119_5

D- 322-98
BOX 15
DEPTH
129_5 - 139
137

D- 322-98 BOX 17
DEPTH 147_5 - 157


47
D- 322-98 BOX 16
DEPTH 139 - 147_5


157
167
D- 322-98 BOX 18
DEPTH 157 - 167

D- 322-98 BOX 20
DEPTH 176_5 - 191
177
187

D- 322-98 BOX 19
DEPTH 167 - 176_5

D- 322-98 BOX 21
DEPTH 191 - 200_5
196

D- 322-98 BOX 23
DEPTH 210 - 219
216

D- 322-98 BOX 22
DEPTH 200_5 - 210
206

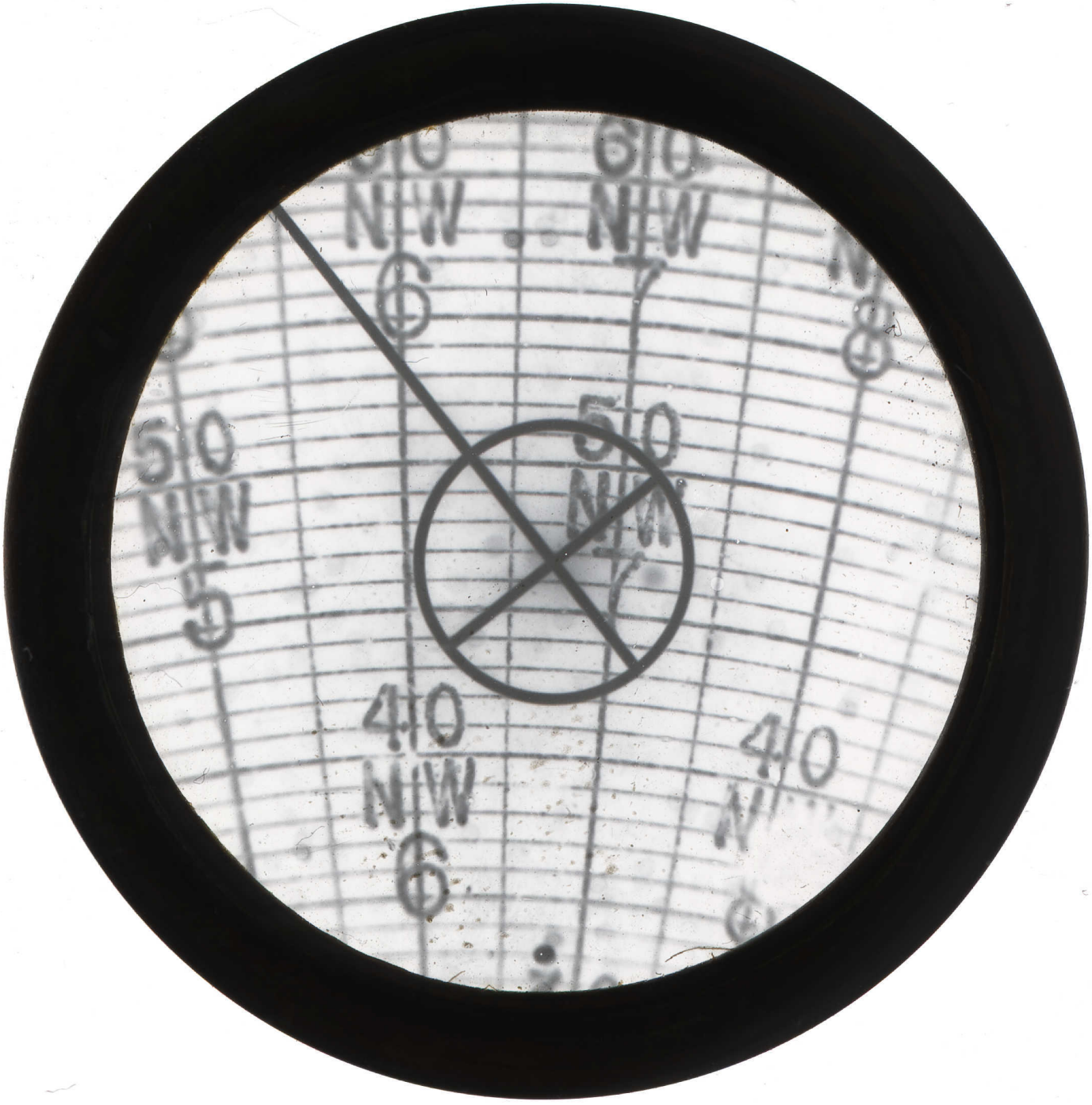
D- 322-98 BOX 24
DEPTH 219 - 222 TD
222

SINGLE SHOT
PHOTO DISC RECORD

COMPANY Heck
WELL NAME D-322-98
LEASE
TAKEN BY Magoon/Jerome
DEPTH 20'
DATE 10-5-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO.
HI-1408

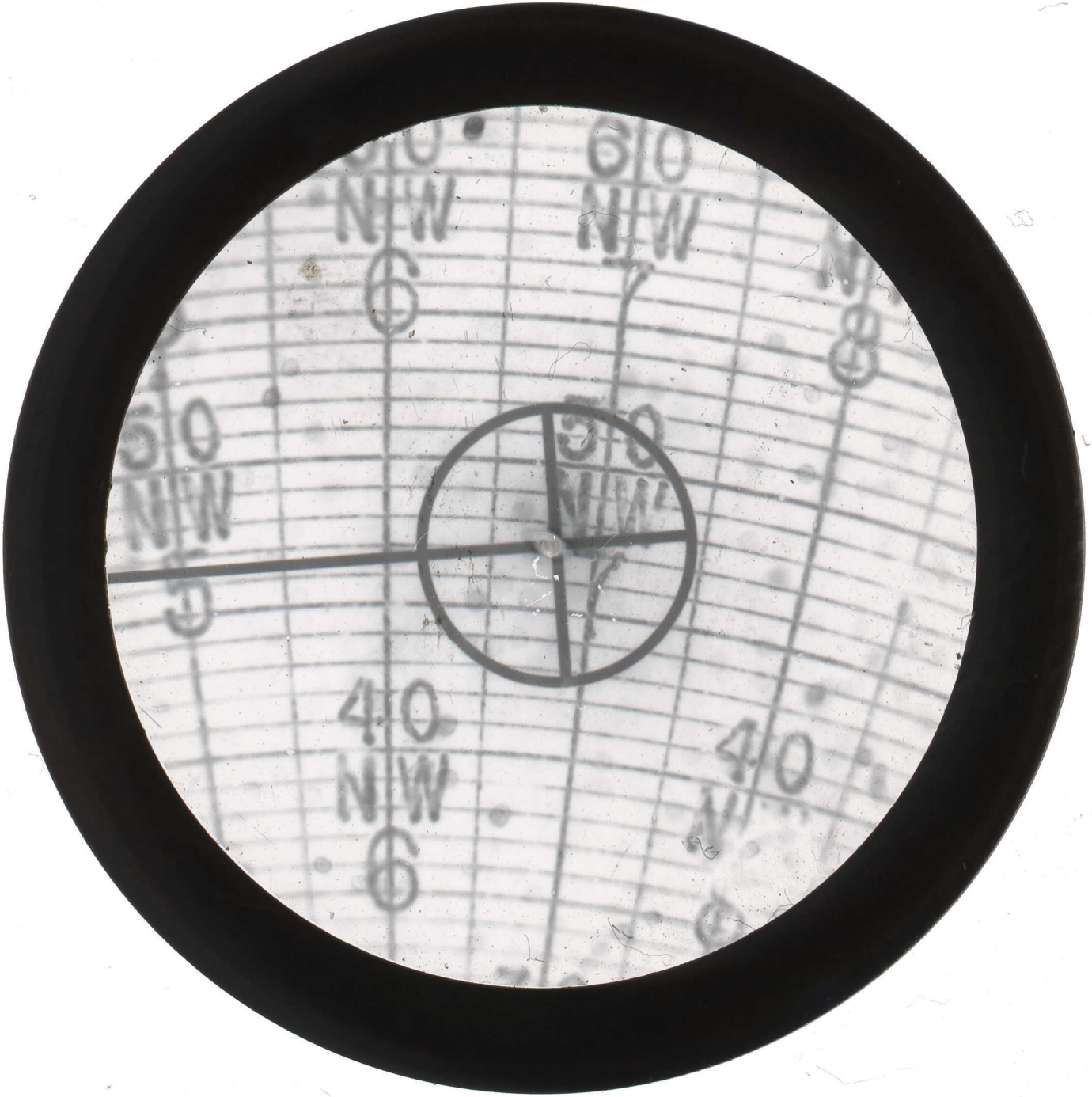
SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hesla
WELL NAME D-322-98
LEASE
TAKEN BY Magnow / Jerome
DEPTH 220
DATE 10-5-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO.
HI-1408


NW
6
7
8
50
NW
5
4
40
NW
6

SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecla
WELL NAME D-322-98
LEASE
TAKEN BY Magrow/Jerome
DEPTH 110
DATE 10-5-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO.
HI-1408


NW
NW
NW
NW
NW
NW