60001192

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-291-98
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 338' receipt; handwritten notes; downhole camera images 40p. 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-291-98

60001192 4010

6000 1192

- 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-291-98	LOCATION	STOPE 50 SEC 1475
PAGE 1 OF 6		NORTHING	
DATE	9/27	EASTING	
LOGGED BY	ALLYN NILES	ELEVATION	
SCALE	1" = 10'	AZIMUTH	125
TOTAL DEPTH	338	INCLINATION	36

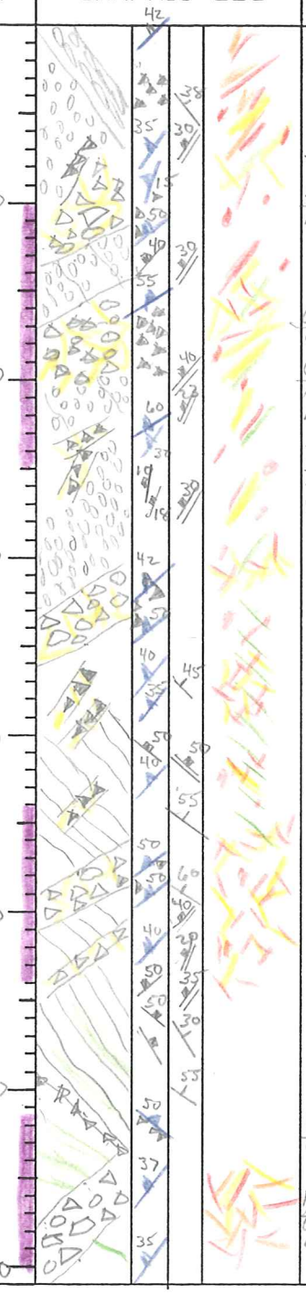
REMARKS

REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
0.0 - 7.0 BXA		0.0 - 7.0 BRECCIA ZONE, MOSAIC, MOSTLY ROUND CLASTS, SOME ANGULAR, OF PINK F.G. FLOW FRAGS.				0.0 - 7.0 CEMENTED W/ LT. GRN CLAY, DK. GRN CLAY, QUARTZ & DROZY QUART, MINOR MARC.
7.0 - 29.2 F.G. MASSIVE		7.0 - 15.5 GREEN, VERY FINE GRAIN FLOW, DEVOID OF FLOW STRUCTURES.	10			14.0 - 17' IRREGULAR TO ROUNDED SHAPED SULFIDIC SELVAGES ASSOC. W/ FRACTURES.
		15.5 - 29.2 PINKISH TO LT. PINKISH GREEN, FINE GRAIN FLOW, ALSO DEVOID OF FLOW FEATURES.	20		15.0 - 15.5 HEALED MOSAIC FAULT BXA.	15.0 - 15.5 CEMENTED W/ QUARTZ, MINOR MARC.
					19.5 - 20.5 THIN BXA W/ SMALL ROUND CLASTS.	19.5 - 20.5 CEMENTED W/ WHITE CLAY, PYRITE, MINOR MARC.
29.2 - 111.5 PLANAR LAMINAR		29.2 - 111.5 PINK TO GRAYISH-PINK, FINE GRAIN FLOW(S) W/ VESICLES & SOME FLOW BANDING. RARE LAMINAR PARTINGS ALONG BED PLANES.	30		26.0 - 33.5 STRONG VEINING, OPEN FRACTS, THIN BXA'S. 29.2 - 2" BXA FORMS CONTACT W/ PLANAR UNIT	26.0 - 33.5 FRACTS. LINED W/ DROZY QUARTZ, BLADED MARC., MINOR PYRITE, SOME WHITE CLAY FILLING. BXAS CEMENTED W/ SAME. VEINS MOSTLY QUARTZ, BLADED MARC., SOME PROPYLITIC CLAY. 29.2 BXA CEMENTED W/ DROZY QUART, BLADED MARC.
			40		41.0 - 55.0 STRONG VEINING / FILLING / FRACTURE: SOME OPEN FRACTS, BXA'S.	41.0 - 55.0 VEINS MOSTLY WHITE CLAY FILLED OPEN FRACTS W/ BLADED MARC. OPEN FRACTS HAVE PYRITE AFTER MARC.
			50			

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag
0.0	4.0					
4.0	7.4					
7.4	12.0					
12.0	16.0					
16.0	20.3					
20.3	25.0					
25.0	29.3					
29.3	33.6					
33.6	38.0					
38.0	42.0					
42.0	46.0					
46.0	49.8					

HOLE NUMBER D-291-98 PAGE 2 OF 6

888 900 3333

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
29.2 – PLANAR LAMINAR	111.5	29.2 – 111.5 SEE DESCRIPTION PAGE 1	60 70 80 90 100 110 120		57.0 – 57.5 HEALED BXA 59.0 – 62.7 HEALED BXA MOSTLY ANGULAR CLASTS. 66.0 – 70.0 HEALED BXA W/ ROUND CLASTS 68.0 – 87.0 STRONG RECENT FRACTURING, LOW RQD. 70.0 – 103.0 SERIES OF HEALED BXA'S UP TO 4' Ø UNRELATED TO RECENT FRACTURING.	57.0 – 57.5 CEMENTED W/ QUARTZ, WHITE CLAY, PYRITE, MINOR MARC. 59.0 – 62.7 CEMENTED W/ QUARTZ, PYRITE, MINOR MARC. & WHITE CLAY 66.0 – 70.0 CEMENTED W/ QUARTZ, PYRITE, MARC., MINOR WHITE CLAY. 68.0 – 87.0 FRACTURE MOSTLY UNLINED/UNFILLED. 70.0 – 103.0 CEMENTED W/ QUARTZ, PYRITE MINOR MARC. BLADES. RARE MINOR → MOD. SILICA REP. OF SOME CLASTS. 98.0 – 103.0 MOD. BLADED MARC. IN BXA'S. 108.6 – 111.5 WEAK ARGILLIC ALT.
111.5 – 137.4 F.G. MASSIVE	137.4	111.5 – 137.4 GRAY-GREEN → LT. GREEN, VERY FINE GRAIN; MOTTLED APPEARENCE DUE TO DIFFERENTIAL PROPYLITIC ALT. FRACTURE PATTERN IS SIMILAR TO VITROPHYRE.			111.5 1" BXA CONTACT W/ ANGULAR FRAGS, HEALED. 115.5 – 120.7 BXA ZONE W/ ANGULAR → ROUND CLASTS, HEALED	111.5 CEMENTED W/ PURPLE ROCK FLOOR

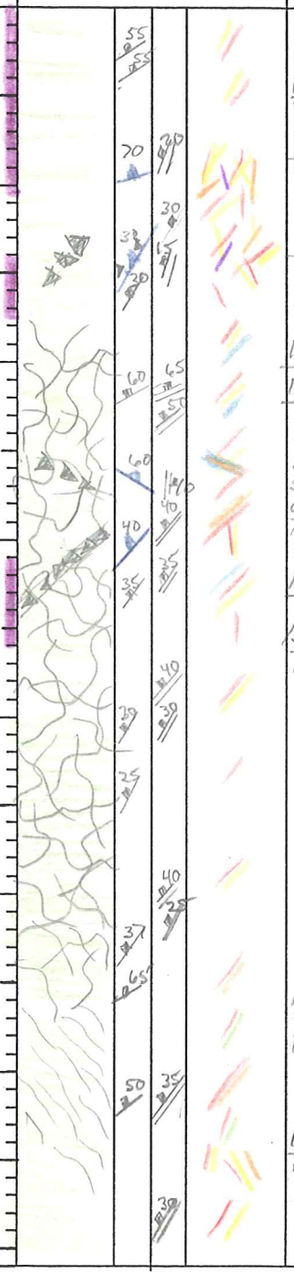
ANALYTICAL DATA					
FROM	TO	W	Au	Ag	Au2
49.8	55.2				
55.2	60.6				
60.6	66.0				
66.0	70.0				
70.0	75.0				
75.0	80.0				
80.0	84.0				
84.0	89.0				
89.0	94.0				
94.0	97.5				
97.5	100.5				
100.5	103.7				
103.7	106.8				
106.8	111.5				
111.5	116.0				

HOLE NUMBER D-291-98 PAGE 3 OF 6

LITH.	OX/RED.	LITHOLOGY	STRUCTURE	ALTERATION AND MINERALIZATION
111.5 - 137.4 F.G. MASSIVE		111.5 - 137.4. SEE DESCRIPTION PAGE 2	127.0 - 137.4 INCREASED VUGS, OPEN FRACTURES 129.4 - 130.4 BXA, ROUND FRAGS, HEALED. 133.7 - 134.7 BXA POSSIBLE AUTOBXA, ROUND CLASTS IN A PINKISH CLAY CEMENT. 137.4 GRADATIONAL CONTACT.	127.0-137.4 OPEN FRACTS/VUGS FILLED W/ DRUZY QUARTZ, BLADED MARC, RARE BARITE 129.4-130.4 CEMENTED W/ QUARTZ, BARITE, BLADED MARC. 133.7-134.7 VERY MINOR QUARTZ/SULFIDE VEINING.
137.4 - 175.4 VITROPHYRE		137.4 - 175.4 LT. GREEN, EXTREEMLY FINE GRAIN. W/ CRACKED GLASS TEXTURE FROM DEVITRIFICATION/DESICATION. PIMA @ 46' ALSO PIMA →	137.4 - 183.2 RARE NATURAL FRACTURES HIGH RQD. VEINS & LINEAR FEATURES SHOW PREFERRED ORIENTATION OF 50°-60° TO CORE AXIS CHANGING TO 25°-35° ABOUT 150'. 146.0 3" Ø BXA W/ VUGS, HEALED. 152.2 - 152.7 HEALED BXA, VUGGY.	138 - 154 RARE CALCITE VEINING. 137.4 - 183.2 THIN VEINS COMMON, FILLED W/ QUARTZ/PYRITE, SOME QUARTZ/MARC./CALCITE VEINS TO 154. 146.0 CEMENTED W/ CALCITE MARC., SOME QUARTZ, VUGS LINED W/ SAME. 152.2 - 152.7 CEMENTED W/ QUARTZ, PYRITE, WHITE CLAY, MINOR MARC.
175.4 - 199.0 F.G. MASSIVE		175.4 - 199.0 GREEN, VERY FINE GRAIN TO FINE GRAIN FLOW W/ TUFFACEOUS BEDS 190.0 - 194.0 AND A VITROPHYRE-LIKE CHILLED MARGIN 196.0 - 199.0	175.4 GRADATIONAL TRANSITION, NO DISTINCT CONTACT. 183.2 - 194.0 MOD. VUGS & OPEN FRACTURES	183.2 - 194.0 VUGS/OPEN FRACTURES LINED W/ DRUZY QUARTZ, BLADED MARC, PYRITE COATING MARC.

FT: 130, 140, 150, 160, 170, 180, 190

GRAPHIC LOG



ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
116.0	121.3				
121.3	126.0				
126.0	130.4				
130.4	134.0				
134.0	137.4				
137.4	141.5				
141.5	146.0				
146.0	151.2				
151.2	156.0				
156.0	161.0				
161.0	166.0				
166.0	171.0				
171.0	175.3				
175.3	181.0				
181.0	186.0				
186.0	190.1				

HOLE NUMBER D-291-98 PAGE 4 OF 6

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
175.4 - 199.0		175.4 - 199.0										
F6. MASSIVE		SEE DESCRIPTION PAGE 3					190.1	195.2				
							195.2	199.0				
199.0 - 220.5		199.0 - 220.5	200		199.0 · CONTACT SHARP.	199.0 - 200.0 INCREASED QUARTZ / MARC. VEINS,	199.0	201.8				
PLANAR LAMINAR		ALTERNATING PINK & LT. GREEN PLANAR BANDED TUFFS/FLOW(S) W/ LAMINAR PARTINGS ALONG BED PLANES.			199.0 - 216.0 MOST VEINS, FRACTURE FILLINGS AT NEAR 90° TO BED PLANES.	199.0 - 216.0. VEINS ARE MOSTLY THIN, FILLED W/ PYRITE; HARD LT. GREEN CLAY, MINOR QUARTZ. RARE THICKER VEINS/ FRACTURE FILLINGS TO 1/2" ø W/ QUARTZ, MARC., HARD LT. GRN CLAY OR WHITE CLAY	201.8	206.0				
			210				206.0	210.5				
					216.0 - 266.0 VEINS/ FRACTURE FILLINGS ARE MINOR AND THIN.	216.0 - 266.0 VEINS/ FRACTURES FILLED W/ PYRITE, GREEN CLAY, WHITE CLAY, MINOR QUARTZ	210.5	216.0				
			220		220.5 GRADATIONAL CONTACT		216.0	220.5				
220.5 - 229.3		220.5 - 229.3				214.0 - 266.0 IRREGULAR TO ROUND SHAPED SULFIDE SELVAGES ASSOC. W/ THIN SULFIDE VEINLETS & FRACTURE FILLINGS						
SPOTTED TUFF		GREEN VOLCANIC CLAY W/ PINK ROUND TO FLATTENED/ELONGATED VESICLES SOMETIMES FILLED W/ DK. GREEN CLAY OR LINED W/ VERY FINE DRUZY QUARTZ X-TALS.					220.5	226.0				
			230		229.3 GRADATIONAL CONTACT.		226.0	229.3				
229.3 - 263.4		229.3 - 263.4				205 - 206.0 & 210.5 - 216.0 MOD VEINING W/ PYRITE, QUARTZ, MINOR WHITE CLAY.	229.3	233.0				
PLANAR LAMINAR		PINK TO GREEN, ALTERNATING BANDS OF BEDDED TUFFS/FLOW(S) W/ LAMINAR PARTINGS ALONG BED PLANES					233.0	236.0				
		236.0 - 246.0 SUBSTANTIAL CORE LOSS 4.0' REC. FOR 10' DRILLED MISLATCH	240				236.0	241.0				
							241.0	246.0				
			250				246.0	251.0				
							251.0	256.0				
			260		260.0 - 261.0 2" ø HEALED BXA W/ SMALL ROUND CLASTS,	260.0 - 261.0 CEMENTED W/ PINKISH GREEN ROCK FLOUR & PYRITE,	256.0	260.5				

HOLE NUMBER D-291-98 PAGE 5 OF 6

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
229.3-263.4 PLANAR	LAMINAR	229.3-263.4				
263.4-273.5 ???		263.4-273.5 GREEN → LT. GREEN, EXTREEMLY FINE GRAIN, VITROPHYRIE-LIKE W/ CRACKED GLASS FRACTURE PATTERN	270		263.4 CONTACT SHARP, THIN AUTOBXA BASE ?~1"Ø W/ROUND VITROPHYRE-LIKE FRAGS. 266.0-269.5 STRONG OPEN FRACTURES/VUGS	266.0-269.5 VUGS/FRACTS LINED W/ DRUZY QUARTZ, PYRITE, MINOR MARC.
273.5-338.0 PLANAR LAMINAR		273.5-296.3 GREEN, FINE GRAIN, WEAKLY PLANAR FLOW(S)/TUFFS.	280		273.5 GRADATIONAL CONTACT 278.6-279.5 HEALED BXA.	276.0-279.0 MOD. CALCITE VEINING. 278.6-279.5 ROUND CLASTS IN A DK. GREEN CLAY MATRIX.
		296.3-298.1 GREEN ROUND, VITROPHYRE-LIKE CLASTS IN A GREEN TO PINK VOLCANIC CLAY MATRIX. CHILLED MARGIN?	290		284.0-290.4 HEALED BXA, ROUND CLASTS IN A MOSTLY STOCKWORK CEMENT, MOD. VUGS. 292.4-293.4 HEALED BXA	284.0-290.4 STOCKWORK CEMENT IS QUARTZ & PYRITE SMALLER CLASTS ARE SILICA REP. VUGS LINED W/DRUZY QUARTZ, PYRITE MINOR MARC. 292.4-293.4 CEMENTED W/ QUARTZ, BLADED MARC, LT. GREEN HARD CLAY
		298.1-301.8 PINK, FINE GRAIN SLIGHTLY PLANAR TUFFACEOUS BEDS	300			
		301.8-307.0 POSSIBLE SOUTH RIDGE FAULT, ROUND BXA FRAGS, MOSTLY SILICA REP., IN STOCKWORK QUARTZ MATRIX.	AMA		301.8-307.0 STRONG STOCKWORK VEINING. ASSOC. W/ HEALED BXA 303.2-306.5 309.5-310.5 HEALED BXA W/ STOCKWORK VEINING	301.8-307.0 STOCKWORK MATRIX IS MOSTLY QUARTZ W/ MINOR → MOD. BLADED MARC., PYRITE, HARD LT. GREEN CLAY. 309.5-310.5 CLASTS SILICA REP., CEMENTED W/ QUARTZ & PYRITE.
		313.0-317.0 LT. YELLOW → LT. PINK TUFF BED RESEMBLING SPOTTED TUFF W/ STRONGLY FLATTENED VESICLES.	310		311.5-325.5 MOD. VEINING & OPEN FRACTURES, DIP IS ~90° TO DIP OF BEDS.	311.5-325.5 VEINS/FRACTS FILLED/LINED W/ DRUZY QUARTZ, PYRITE, ISOLATED BARITE.
		317.0-338.0 LT YELLOW PINK CHANGING TO GREEN @ 325'. FINE GRAIN, VESICULAR-PLANAR TO WEAKLY BANDED-PLANAR-LAMINAR PARTINGS.	320		323.5-323.8 HEALED BXA W/ AMBUMIC → ROUND CLASTS	312.0-338.0 IRREGULAR TO ROUND SHAPED SULFIDIC SELVAGES ASSOC. W/ THIN SULFIDE FILLED VEINLETS/FRACTS, 323.5-323.8 CEMENTED W/ WHITE & GREEN CLAY, PYRITE, MINOR QUARTZ
			330			

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
260.5	263.4				
263.4	266.0				
266.0	269.5				
269.5	273.5				
273.5	276.0				
276.0	281.0				
281.0	284.0				
284.0	287.0				
287.0	290.4				
290.4	293.4				
293.4	296.0				
296.0	298.1				
298.1	301.8				
301.8	304.7				
304.7	307.0				
307.0	311.6				
311.6	314.5				
314.5	318.3				
318.3	323.5				
323.5	326.0				
326.0	330.0				

HOLE NUMBER D-291-98 PAGE 6 OF 6

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
273.5-338.0 PLANAR LAMINAR		317.0-338.0 SEE DESCRIPTION PAGE 5	338	35 55 60 60		326.0-338.0 MINOR VEINING W/ GREEN CLAY, PYRITE, MINOR QUARTZ	330.0	335.0				
							335.0	338.0				

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-291-98 DATE: 9/26/98 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	6.0	0	85.0	46.6										
6.0	16.0	72.0	100.0	47.0										
16.0	25.0	96.0	100.0	50.0										
25.0	35.0	100.0	100.0	61.0										
35.0	39.0	62.5	100.0	50.0										
39.0	46.0	100.0	100.0	35.7										
46.0	56.0	100.0	100.0	79.0										
56.0	66.0	100.0	100.0	92.0										
66.0	70.0	50.0	92.5	42.5										
70.0	80.0	66.0	100.0	13.0										
80.0	84.0	100.0	100.0	40.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-291-98 DATE: 9/26/98 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.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
84.0	94.0	100.0	100.0	55.0										
94.0	96.5	0	100.0	0										
96.5	106.0	96.8	96.8	38.9										
106.0	116.0	97.0	97.0	69.0										
116.0	126.0	101.0	101.0	83.0										
126.0	136.0	68.0	92.0	56.0										
136.0	146.0	98.0	98.0	93.0										
146.0	156.0	102.0	102.0	93.0										
156.0	166.0	97.0	97.0	69.0										
166.0	176.0	100.0	102.0	83.0										
176.0	186.0	100.0	100.0	87.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-291-98 DATE: 9/28/98 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.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
186.0	196.0	100.0	100.0	90.0										
196.0	206.0	80.0	86.0	54.0										
206.0	216.0	96.0	100.0	53.0										
216.0	226.0	100.0	100.0	66.0										
226.0	236.0	95.0	97.0	66.0										
236.0	246.0	0	40.0	5.0										
246.0	256.0	94.0	98.0	78.0										
256.0	266.0	98.0	98.0	69.0										
266.0	276.0	92.0	97.0	73.0										
276.0	286.0	102.0	102.0	80.0										
286.0	296.0	100.0	103.0	73.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-291-98 DATE: 9/28/98 LOGGED BY: ALLYN NILES 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)
296.0	306.0	100.0	100.0	83.0										
306.0	316.0	100.0	100.0	78.0										
316.0	326.0	91.0	100.0	69.0										
326.0	330.0	92.5	92.5	27.5										
330.0	335.0	84.0	90.0	16.0										
335.0	338.0	0	76.6	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 0051258-IN
INVOICE DATE: 11/09/98

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-291-98	DEVELOPMENT	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
84	SAMPLES RECEIVED	.00	.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
26	Au ANALYSES/GRAVIMETRIC	8.75	227.50
84	HYDROCHLORIC/NITRIC DIGESTION	2.00	168.00
84	Ag ANALYSES	1.00	84.00

86-5110-477

NET INVOICE:	1,998.10
LESS DISCOUNT:	399.62
FREIGHT:	.00
INVOICE TOTAL:	1,598.48

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051258

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-291-98 RECEIVED : 23 OCT 1998

No. SAMPLES : 84 REPORTED : 9 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 SP051258

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-291-98

REPORTED : 9 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-291-98 0-4	0.071	0.009		0.04
D-291-98 4.0-7.4	0.219		0.195	0.39
D-291-98 7.4-12.0	0.003			0.03
D-291-98 12-16	0.002			0.04
D-291-98 16.0-20.3	0.002			0.03
D-291-98 20.3-25.0	0.004			0.06
D-291-98 25.0-29.3	0.016			0.11
D-291-98 29.3-33.6	0.009	0.008		0.09
D-291-98 33.6-38.0	0.008			0.07
D-291-98 38-42	0.010			0.07
D-291-98 42-46	0.020			0.07
D-291-98 46.0-49.8	0.006			0.06
D-291-98 49.8-52.7	0.007			0.07
D-291-98 52.7-55.2	0.010			0.05
D-291-98 55.2-60.6	0.089		0.110	0.18
D-291-98 60.6-66.0	0.142		0.130	0.16
D-291-98 66-70	0.277	0.235	0.231	0.14
D-291-98 70-75	0.320		0.234	0.22
D-291-98 75-80	0.063		0.091	0.33
D-291-98 80-84	0.074		0.074	0.60
D-291-98 84-89	0.082		0.073	0.08
D-291-98 89-94	0.118		0.129	0.12
D-291-98 94.0-97.5	0.549		0.489	0.39
D-291-98 97.5-100.5	0.568		0.692	0.46
D-291-98 100.5-103.7	0.465		0.464	1.57

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051258

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-291-98

REPORTED : 9 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-291-98 103.7-106.8	0.039			0.09
D-291-98 106.8-111.5	0.050	0.036		0.17
D-291-98 111.5-116.0	0.244		0.208	0.08
D-291-98 116.0-121.3	0.407		0.452	0.13
D-291-98 121.3-126.0	0.194			0.55
D-291-98 126.0-130.4	1.724		1.832	0.95
D-291-98 130.4-134.0	0.060		0.094	0.14
D-291-98 134.0-137.4	0.237		0.225	0.31
D-291-98 137.4-141.5	0.052		0.052	0.07
D-291-98 141.5-146.0	0.022			0.07
D-291-98 146.0-151.2	0.028			0.05
D-291-98 151.2-156.0	0.144		0.132	0.07
D-291-98 156-161	0.021			0.04
D-291-98 161-166	0.004	0.005		0.03
D-291-98 166-171	0.003			0.03
D-291-98 171.0-175.3	0.011			0.08
D-291-98 175.3-181.0	0.009			0.03
D-291-98 181-186	0.033			0.06
D-291-98 186.0-190.1	0.016			0.05
D-291-98 190.1-195.2	0.090		0.103	0.12
D-291-98 195.2-199.0	0.069		0.080	0.08
D-291-98 199.0-201.8	0.053		0.060	0.10
D-291-98 201.8-206.0	0.013			0.08
D-291-98 206.0-210.5	0.007			0.08
D-291-98 210.5-216.0	0.480		0.549	1.50

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051258

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-291-98

REPORTED : 9 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-291-98 216.0-220.5	0.063		0.063	0.09
D-291-98 220.5-226.0	0.001			0.04
D-291-98 226.0-229.3	0.001			0.03
D-291-98 229.3-233.0	0.049		0.062	0.05
D-291-98 233-236	0.212		0.204	0.24
D-291-98 236-241	0.043			0.62
D-291-98 241-246	0.025			0.09
D-291-98 246-251	0.037			0.34
D-291-98 251-256	0.009			0.04
D-291-98 256.0-260.5	0.008			0.09
D-291-98 260.5-263.4	0.009			0.03
D-291-98 263.4-266.0	0.006			0.05
D-291-98 266.0-269.5	0.010			0.07
D-291-98 269.5-273.5	0.004	0.006		0.05
D-291-98 273.5-276.0	0.001			0.03
D-291-98 276-281	0.003			0.03
D-291-98 281-284	<0.001			0.04
D-291-98 284-287	0.040			0.04
D-291-98 287.0-290.4	0.034	0.029		0.05
D-291-98 290.4-293.4	0.007			0.02
D-291-98 293.4-296.0	0.002			0.02
D-291-98 296.0-298.1	0.003			0.04
D-291-98 298.1-301.8	0.026			0.05
D-291-98 301.8-304.7	0.004			0.05
D-291-98 304.7-307.0	0.014			0.10

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051258

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-291-98

REPORTED : 9 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-291-98 307.0-311.6	0.025			0.08
D-291-98 311.6-314.5	0.041			0.09
D-291-98 314.5-318.3	0.026			0.08
D-291-98 318.3-323.5	0.026			0.08
D-291-98 323.5-326.0	0.026			0.09
D-291-98 326-330	0.001			0.02
D-291-98 330-335	0.004			0.07
D-291-98 335-338	<0.001			<0.02
43577	0.529			2.75

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051258

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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-291-98 307.0-311.6	0.025			0.08
D-291-98 311.6-314.5	0.041			0.09
D-291-98 314.5-318.3	0.026			0.08
D-291-98 318.3-323.5	0.026			0.08
D-291-98 323.5-326.0	0.026			0.09
D-291-98 326-330	0.001			0.02
D-291-98 330-335	0.004			0.07
D-291-98 335-338	<0.001			<0.02
43577	0.529			2.75

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SR051258

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-291-98
No. SAMPLES : 84
MAIN SAMPLE TYPE : DRILL CORE

RECEIVED : 23 OCT 1998
REPORTED : 9 NOV 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
AuGRAV	GRAV	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051258

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-291-98

REPORTED : 9 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-291-98 0-4	0.071	0.009		0.04
D-291-98 4.0-7.4	0.219		0.195	0.39
D-291-98 7.4-12.0	0.003			0.03
D-291-98 12-16	0.002			0.04
D-291-98 16.0-20.3	0.002			0.03
D-291-98 20.3-25.0	0.004			0.06
D-291-98 25.0-29.3	0.016			0.11
D-291-98 29.3-33.6	0.009	0.008		0.09
D-291-98 33.6-38.0	0.008			0.07
D-291-98 38-42	0.010			0.07
D-291-98 42-46	0.020			0.07
D-291-98 46.0-49.8	0.006			0.06
D-291-98 49.8-52.7	0.007			0.07
D-291-98 52.7-55.2	0.010			0.05
D-291-98 55.2-60.6	0.089		0.110	0.18
D-291-98 60.6-66.0	0.142		0.130	0.16
D-291-98 66-70	0.277	0.235	0.231	0.14
D-291-98 70-75	0.320		0.234	0.22
D-291-98 75-80	0.063		0.091	0.33
D-291-98 80-84	0.074		0.074	0.60
D-291-98 84-89	0.082		0.073	0.08
D-291-98 89-94	0.118		0.129	0.12
D-291-98 94.0-97.5	0.549		0.489	0.39
D-291-98 97.5-100.5	0.568		0.692	0.46
D-291-98 100.5-103.7	0.465		0.464	1.57

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051258

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-291-98

REPORTED : 9 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-291-98 103.7-106.8	0.039			0.09
D-291-98 106.8-111.5	0.050	0.036		0.17
D-291-98 111.5-116.0	0.244		0.208	0.08
D-291-98 116.0-121.3	0.407		0.452	0.13
D-291-98 121.3-126.0	0.194			0.55
D-291-98 126.0-130.4	1.724		1.832	0.95
D-291-98 130.4-134.0	0.060		0.094	0.14
D-291-98 134.0-137.4	0.237		0.225	0.31
D-291-98 137.4-141.5	0.052		0.052	0.07
D-291-98 141.5-146.0	0.022			0.07
D-291-98 146.0-151.2	0.028			0.05
D-291-98 151.2-156.0	0.144		0.132	0.07
D-291-98 156-161	0.021			0.04
D-291-98 161-166	0.004	0.005		0.03
D-291-98 166-171	0.003			0.03
D-291-98 171.0-175.3	0.011			0.08
D-291-98 175.3-181.0	0.009			0.03
D-291-98 181-186	0.033			0.06
D-291-98 186.0-190.1	0.016			0.05
D-291-98 190.1-195.2	0.090		0.103	0.12
D-291-98 195.2-199.0	0.069		0.080	0.08
D-291-98 199.0-201.8	0.053		0.060	0.10
D-291-98 201.8-206.0	0.013			0.08
D-291-98 206.0-210.5	0.007			0.08
D-291-98 210.5-216.0	0.480		0.549	1.50

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051258

American Assay Laboratories

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SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-291-98 216.0-220.5	0.063		0.063	0.09
D-291-98 220.5-226.0	0.001			0.04
D-291-98 226.0-229.3	0.001			0.03
D-291-98 229.3-233.0	0.049		0.062	0.05
D-291-98 233-236	0.212		0.204	0.24
D-291-98 236-241	0.043			0.62
D-291-98 241-246	0.025			0.09
D-291-98 246-251	0.037			0.34
D-291-98 251-256	0.009			0.04
D-291-98 256.0-260.5	0.008			0.09
D-291-98 260.5-263.4	0.009			0.03
D-291-98 263.4-266.0	0.006			0.05
D-291-98 266.0-269.5	0.010			0.07
D-291-98 269.5-273.5	0.004	0.006		0.05
D-291-98 273.5-276.0	0.001			0.03
D-291-98 276-281	0.003			0.03
D-291-98 281-284	<0.001			0.04
D-291-98 284-287	0.040			0.04
D-291-98 287.0-290.4	0.034	0.029		0.05
D-291-98 290.4-293.4	0.007			0.02
D-291-98 293.4-296.0	0.002			0.02
D-291-98 296.0-298.1	0.003			0.04
D-291-98 298.1-301.8	0.026			0.05
D-291-98 301.8-304.7	0.004			0.05
D-291-98 304.7-307.0	0.014			0.10

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051258

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-291-98

REPORTED : 9 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-291-98 307.0-311.6	0.025			0.08
D-291-98 311.6-314.5	0.041			0.09
D-291-98 314.5-318.3	0.026			0.08
D-291-98 318.3-323.5	0.026			0.08
D-291-98 323.5-326.0	0.026			0.09
D-291-98 326-330	0.001			0.02
D-291-98 330-335	0.004			0.07
D-291-98 335-338	<0.001			<0.02
43577	0.529			2.75

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP051258

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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:
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CLIENT REFERENCE No: D-291-98 RECEIVED : 23 OCT 1998

No. SAMPLES : 84 REPORTED : 9 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.

11/09/1998 13:57 7023561413 AMERICAN ASSAY LABS PAGE 01
7023561413

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP051258

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-291-98

REPORTED : 9 NOV 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)	
D-291-98 0-4	0.071	0.009		0.04	
D-291-98 4.0-7.4	0.219		0.195	0.39	
D-291-98 7.4-12.0	0.003			0.03	
D-291-98 12-16	0.002			0.04	
D-291-98 16.0-20.3	0.002			0.03	
D-291-98 20.3-25.0	0.004			0.06	
D-291-98 25.0-29.3	0.016			0.11	
D-291-98 29.3-33.6	0.009	0.008		0.09	
D-291-98 33.6-38.0	0.008			0.07	
D-291-98 38-42	0.010			0.07	
D-291-98 42-46	0.020			0.07	
D-291-98 46.0-49.8	0.006			0.06	
D-291-98 49.8-52.7	0.007			0.07	60.6-75' = 14.4'
D-291-98 52.7-55.2	0.010			0.05	14.4'@
D-291-98 55.2-60.6	0.089		0.110	0.18	
D-291-98 60.6-66.0 5.4	0.142		0.130	0.16	0.241 Au
D-291-98 66-70 4.'	0.277	0.235	0.231	0.14	0.18 Ag
D-291-98 70-75 5	0.320		0.234	0.22	
D-291-98 75-80	0.063		0.091	0.33	
D-291-98 80-84	0.074		0.074	0.60	
D-291-98 84-89	0.082		0.073	0.08	89'-103.7' = 14.7'@
D-291-98 89-94 5	0.118		0.129	0.12	
D-291-98 94.0-97.5 3.5	0.549		0.489	0.39	0.388 Au
D-291-98 97.5-100.5 3	0.568		0.692	0.46	0.57 Ag
D-291-98 100.5-103.7 3.2	0.465		0.464	1.57	

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP051258

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-291-98

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SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)	
D-291-98 103.7-106.8	0.039			0.09	111.5-137.4'
D-291-98 106.8-111.5	0.050	0.036		0.17	25.9' @
D-291-98 111.5-116.0 4.5	0.244		0.208	0.08	
D-291-98 116.0-121.3 5.3	0.407		0.452	0.13	0.493 Au
D-291-98 121.3-126.0 4.7	0.194			0.55	0.36 Ag
D-291-98 126.0-130.4 4.4	1.724		1.832	0.95	
D-291-98 130.4-134.0 3.6	0.060		0.094	0.14	
D-291-98 134.0-137.4 3.4	0.237		0.225	0.31	
D-291-98 137.4-141.5	0.052		0.052	0.07	
D-291-98 141.5-146.0	0.022			0.07	
D-291-98 146.0-151.2	0.028			0.05	
D-291-98 151.2-156.0	0.144		0.132	0.07	
D-291-98 156-161	0.021			0.04	
D-291-98 161-166	0.004	0.005		0.03	
D-291-98 166-171	0.003			0.03	
D-291-98 171.0-175.3	0.011			0.08	
D-291-98 175.3-181.0	0.009			0.03	
D-291-98 181-186	0.033			0.06	
D-291-98 186.0-190.1	0.016			0.05	
D-291-98 190.1-195.2	0.090		0.103	0.12	
D-291-98 195.2-199.0	0.069		0.080	0.08	
D-291-98 199.0-201.8	0.053		0.060	0.10	
D-291-98 201.8-206.0	0.013			0.08	210.5-216 =
D-291-98 206.0-210.5	0.007			0.08	5.5' @
D-291-98 210.5-216.0	0.480		0.549	1.50	

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP051258

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-291-98

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SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-291-98 216.0-220.5	0.063		0.063	0.09
D-291-98 220.5-226.0	0.001			0.04
D-291-98 226.0-229.3	0.001			0.03
D-291-98 229.3-233.0	0.049		0.062	0.05
D-291-98 233-236	0.212		0.204	0.24
D-291-98 236-241	0.043			0.62
D-291-98 241-246	0.025			0.09
D-291-98 246-251	0.037			0.34
D-291-98 251-256	0.009			0.04
D-291-98 256.0-260.5	0.008			0.09
D-291-98 260.5-263.4	0.009			0.03
D-291-98 263.4-266.0	0.006			0.05
D-291-98 266.0-269.5	0.010			0.07
D-291-98 269.5-273.5	0.004	0.006		0.05
D-291-98 273.5-276.0	0.001			0.03
D-291-98 276-281	0.003			0.03
D-291-98 281-284	<0.001			0.04
D-291-98 284-287	0.040			0.04
D-291-98 287.0-290.4	0.034	0.029		0.05
D-291-98 290.4-293.4	0.007			0.02
D-291-98 293.4-296.0	0.002			0.02
D-291-98 296.0-298.1	0.003			0.04
D-291-98 298.1-301.8	0.026			0.05
D-291-98 301.8-304.7	0.004			0.05
D-291-98 304.7-307.0	0.014			0.10

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP051258

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D-291-98 311.6-314.5	0.041			0.09
D-291-98 314.5-318.3	0.026			0.08
D-291-98 318.3-323.5	0.026			0.08
D-291-98 323.5-326.0	0.026			0.09
D-291-98 326-330	0.001			0.02
D-291-98 330-335	0.004			0.07
D-291-98 335-338	<0.001			<0.02
43577	0.529			2.75

SP

SUBMITTAL FORM

American Assay Laboratories

Geochemical • Environmental • Metallurgical

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1500 Glendale Ave.
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Elko, NV 89801
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Fax
(702) 738-2594

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011-52-69-170035

Other Offices
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Santiago, Chile
Mendoza, Argentina

Company: ROSEBUD MINING LLC

Address: P.O. BOX 2610

City WINNEMUCCA State NV Zip 89316

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

Project Name: DEVELOPMENT Purchase Order Number:

Date Submitted: 10/20/98 Number of Samples: 83

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

Au-Ag ACCORDING TO ROSEBUD HAVE PROTOCOL

D-291-98 SAMPLE IDENTIFICATION				TYPE	ELEMENTS REQUIRED	
0-4	60.6-66	126-130.4	195.2-199		260.5-263.4	307-311.6
4-7.4	66-70	130.4-134	199-201.8		263.4-266	311.6-314.5
7.4-12	70-75	134-137.4	201.8-206		266-269.5	314.5-318.3
12-16	75-80	137.4-141.5	206-210.5		269.5-273.5	318.3-323.5
16-20.3	80-84	141.5-146	210.5-216		273.5-276	323.5-326
20.3-25	84-89	146-151.2	216-220.5		276-281	326-330
25-29.3	89-94	151.2-156	220.5-226		281-284	330-335
29.3-33.6	94-97.5	156-161	226-229.3		284-287	335-338
33.6-38	97.5-100.5	161-166	229.3-233		287-290.4	
38-42	100.5-103.7	166-171	233-236		290.4-293.4	
42-46	103.7-106.8	171-175.3	236-241		293.4-296	
46-49.8	106.8-111.5	175.3-181	241-246		296-298.1	
49.8-52.7	111.5-116	181-186	246-251		298.1-301.8	
52.7-55.2	116-121.3	186-190.1	251-256		301.8-304.7	
55.2-60.6	121.3-126	190.1-195.2	256-260.5		304.7-307	

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-291-98	50	33.5	123.2
	170	34.5	123.2
	320	34	123.7

D - 291 - 98 BOX 2
DEPTH 10 - 19_5
16

D - 291 - 98 BOX 1
DEPTH 0 - 10

D - 291 - 98 BOX 3
DEPTH 19_5 - 29
25

D - 291 - 98 BOX 5
DEPTH 38_5 - 48
37'
46'

D - 291 - 98 BOX 4
DEPTH 29 - 38_5
35'

D - 291 - 98 BOX 6
DEPTH 48 - 57

70
D - 291 - 98 BOX 8
DEPTH 66_5 - 76

66'
D - 291 - 98 BOX 7
DEPTH 57 - 66_5

80'
84'
D - 291 - 98 BOX 9
DEPTH 76 - 85_5

96.5
D- 291 - 98 BOX 11
DEPTH 95 - 105

94
D- 291 - 98 BOX 10
DEPTH 85_5 - 95

106
D- 291 - 98 BOX 12
DEPTH 105 - 114_5

D - 291 - 98 BOX 14
DEPTH 124 - 133_5
126

D - 291 - 98 BOX 13
DEPTH 114_5 - 124
116

D - 291 - 98 BOX 15
DEPTH 133_5 - 143
136

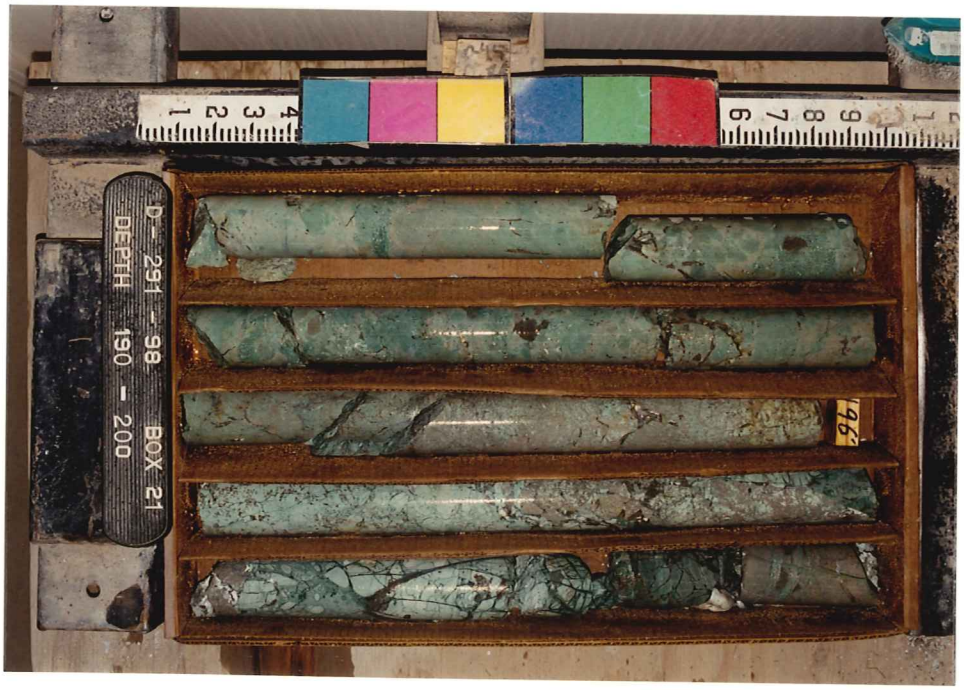
156
D - 291 - 98 BOX 17
DEPTH 152_5 - 162

146
D - 291 - 98 BOX 16
DEPTH 143 - 152_5

D - 291 - 98 BOX 18
DEPTH 162 - 171_5
166

186
D - 291 - 98 BOX 20
DEPTH 181 - 190

176
D - 291 - 98 BOX 19
DEPTH 171.5 - 181


D - 291 - 98 BOX 21
DEPTH 190 - 200

216
D - 291 - 98 BOX 23
DEPTH 210 - 219_5

206
D - 291 - 98 BOX 22
DEPTH 200 - 210

D - 291 - 98 BOX 24
DEPTH 219_5 - 229
226

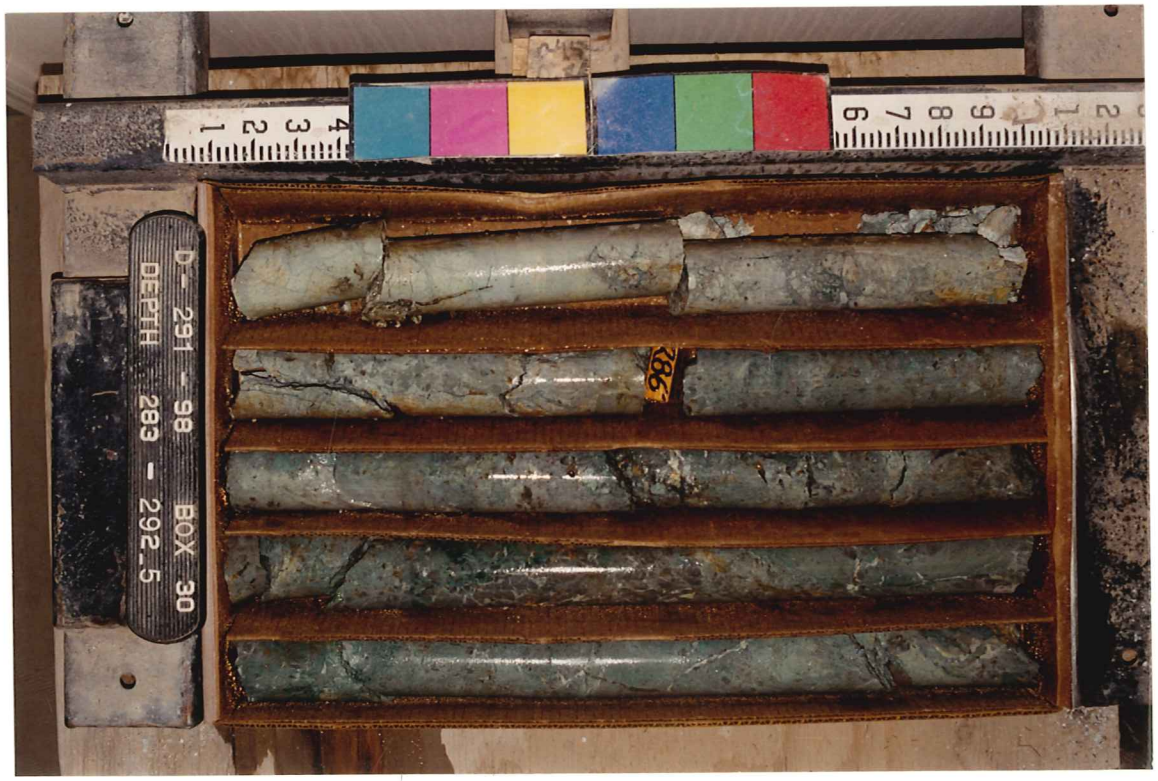
D - 291 - 98 BOX 26
DEPTH 244 - 254

D - 291 - 98 BOX 25
DEPTH 229 - 244

D - 291 - 98 BOX 27
DEPTH 254 - 263.5

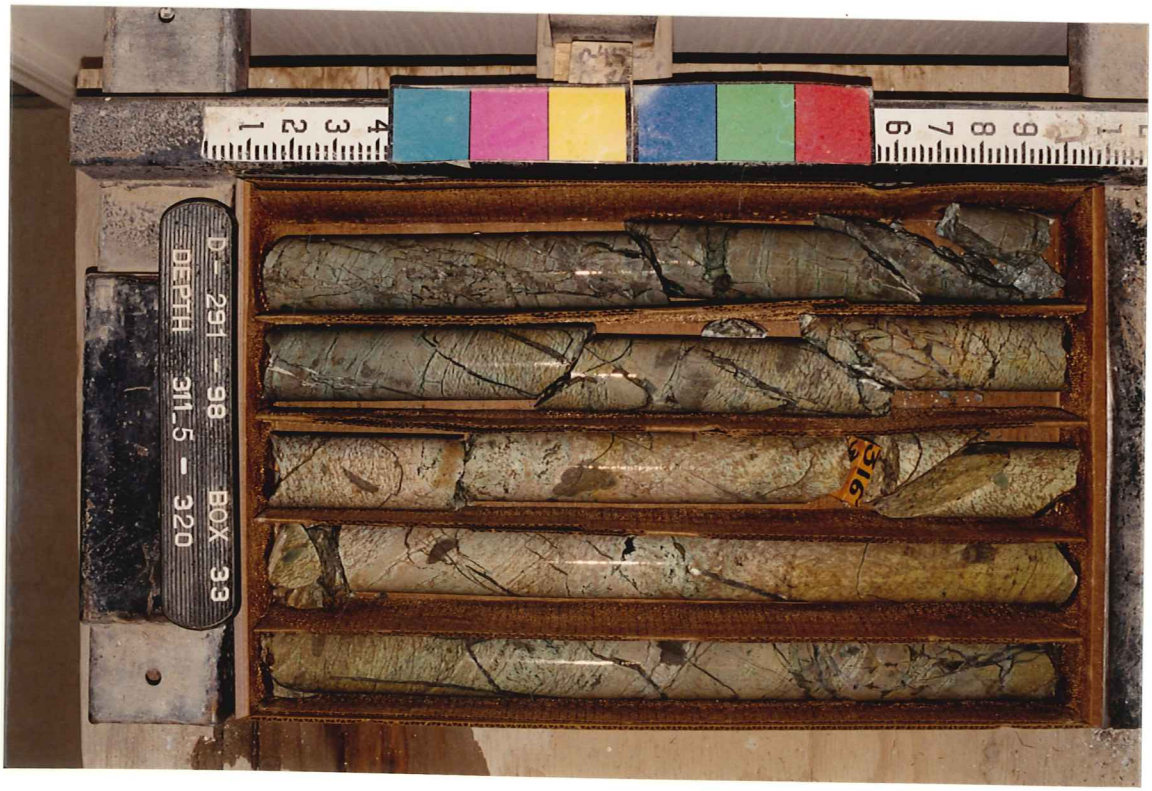
D - 291 - 98 BOX 29
DEPTH 273_5 - 283
276

D - 291 - 98 BOX 28
DEPTH 263_5 - 273_5
266


D - 291 - 98 BOX 30
DEPTH 283 - 292_5
286

D- 291 - 98 BOX 32
DEPTH 302 - 311_5
306

D- 291 - 98 BOX 31
DEPTH 292_5 - 302
296

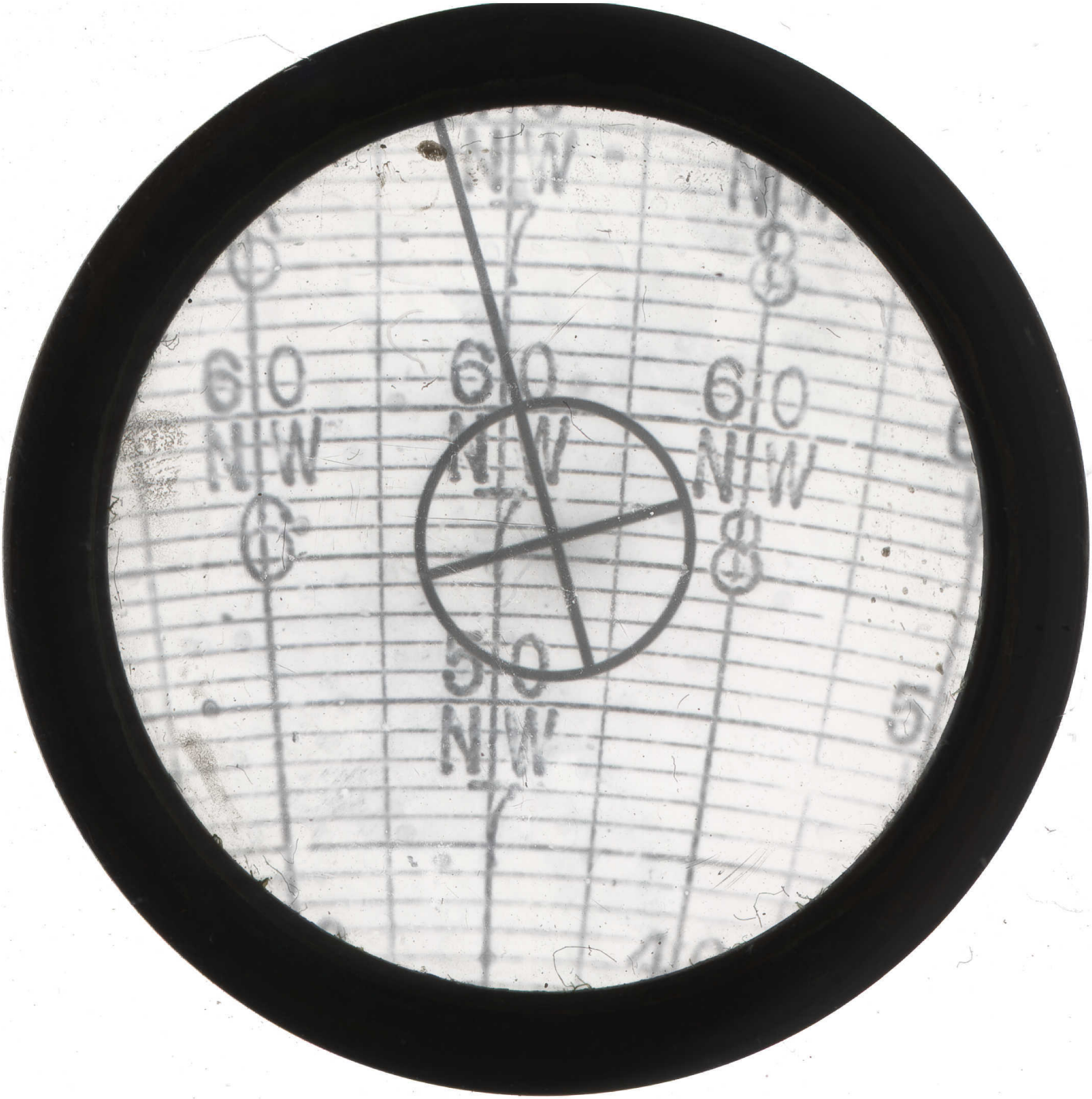

D- 291 - 98 BOX 33
DEPTH 311_5 - 320
316

338
335
330
D - 291 - 98 BOX 35
DEPTH 330 - 338 TD

326
D - 291 - 98 BOX 34
DEPTH 320 - 330

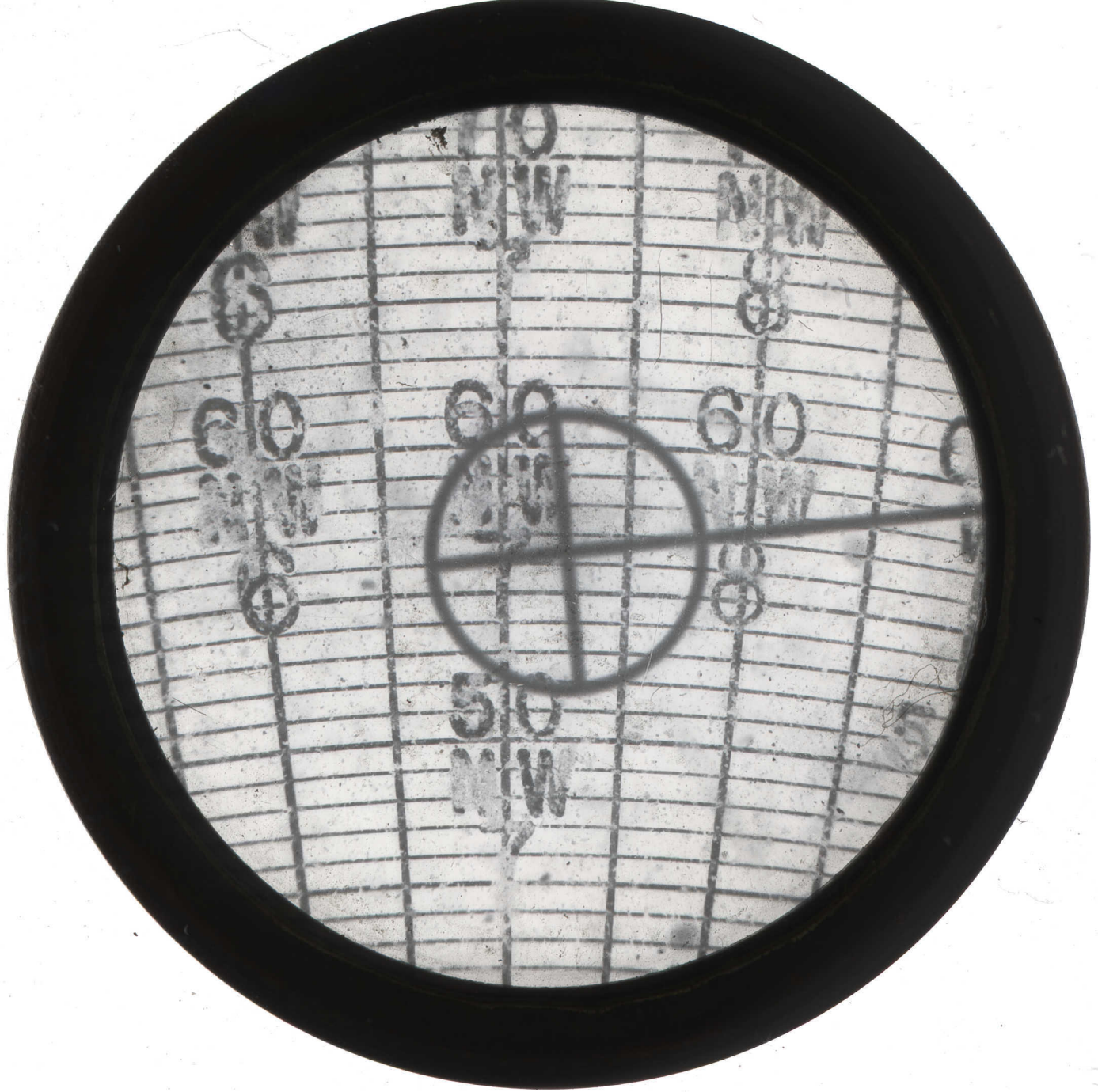
SINGLE SHOT
PHOTO DISC RECORD

COMPANY HECLA
WELL NAME D29198
LEASE
TAKEN BY BAMFORD
DEPTH 170
DATE 8-14-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO.
HI-1408


60
NW
60
NW
60
NW
50
NW

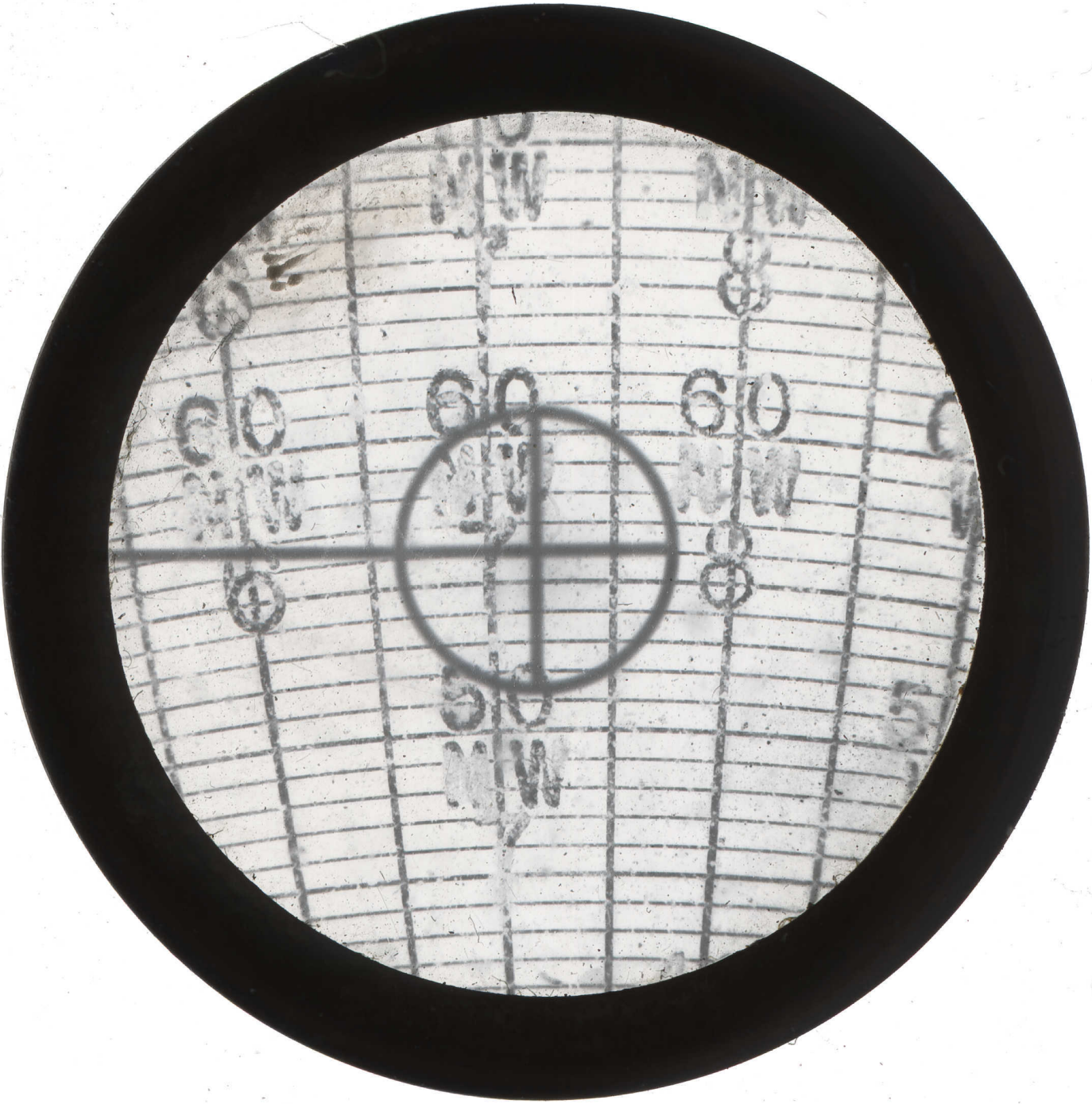
SINGLE SHOT
PHOTO DISC RECORD

COMPANY HECLA
WELL NAME D29198
LEASE
TAKEN BY BAMFORD
DEPTH 50
DATE 8-14-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO.
HI-1408


60
NW
60
NW
60
NW
60
NW
60
NW
50
NW

SINGLE SHOT
PHOTO DISC RECORD

COMPANY HECLA
WELL NAME D291-98
LEASE
TAKEN BY BAMFORD
DEPTH 320
DATE 8-14-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO.
HI-1408


60
MW
60
MW
60
MW
60
MW
60
MW