6000 0683

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-197A-98
AUTHOR	K. Allen; C. Raspa; S. King
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, Hecla Mining Co; Rosebud Project Rosebud Mining Co., LLC
COMMODITY If not obvious	gold; silver
NOTES	drill logs; assay; geology; photographs; receipts; total depth 130' handwritten notes down hole camera images 24p. 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 9/28/08
Initials Date

DB:
Initials Date

SCANNED:
Initials Date

Revised: 1/22/08

D-197A-98

6000 0683
4010

6000 0683

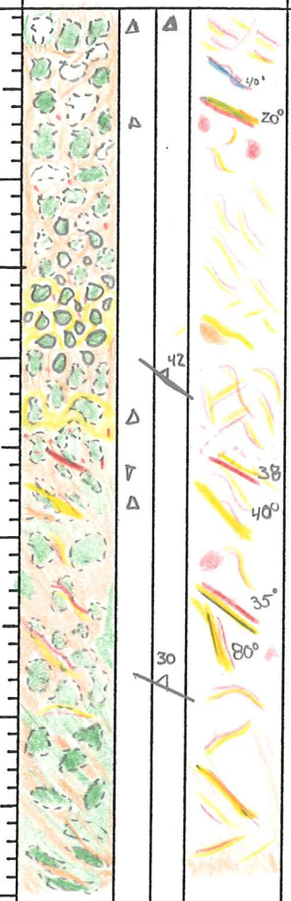
Hecla MINING COMPANY

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

ROSEBUD PROJECT
DIAMOND DRILL LOG

EAST ZONE

HOLE NUMBER	D-197A-98	LOCATION	Stope Access 42	REMARKS	
PAGE 1 OF 3		NORTHING			
DATE	3-27-98	EASTING			
LOGGED BY	C. Raspa	ELEVATION			
SCALE	1" = 10'	AZIMUTH			
TOTAL DEPTH	130'	INCLINATION			

TH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
0-102.4 Dozer		0-4' light green - fine grain dozer. Irregular clast shape. high hydrothermal overprint 4-10' Autobrecciation with small zone (less than 0.5') hydrothermal overprint. 10'-20' Autobrecciated Dozer 21'-29' Hydrothermal brecciation 21-22' showing foliation 29'-40' Hydrothermal brecciation showing small zones of foliation	0 5 10 20 30 40 50			Small SiO_2, Py veinlets @ 3'a + 3mm $CaCO_3$, Py, marc vein. Spotty desseminated py. + chl. clay alt 5.3' - SiO_2 + Py. / marc stock. Open space SiO_2 filling 7.7'-8.8' - Hydrothermal overprint 10'-20' - Med green chl alt with bon oxide matrix. Stringy SiO_2, Py - stockwork Density 2 4 per inch avg. 16.2-18.6' SiO_2 matrix with SiO_2 vein associated with white clay space fill. 22.4 → 24.2' SiO_2 matrix of brecciated region + py space fill and spotty desemmated py. 26' → SiO_2 : Marc 29.1-29.7' - Hydrothermal breccia w/ SiO_2 matrix influx ± py. 34' and 35' - Qtz veins w/ py, + marc ~~and + chalcopyrite~~ 38'-38.8' - Disseminated pyr 40'-50' - low % 3mm SiO_2 w/ pyr veining, + ree argillic alt 48.2-49' spotty marc + white argillic alteration (light) in wall rock.

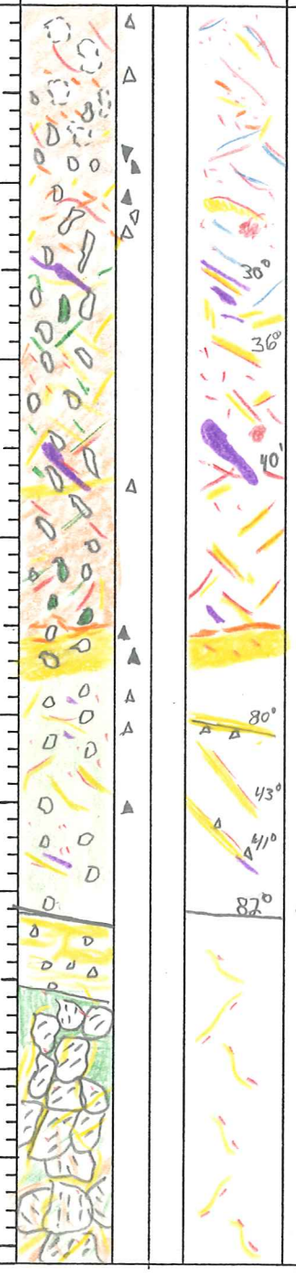
ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ac
0	5					
5	10					
10	16.8					
16.8	19.4					
19.4	24.3					
24.3	30.0					
30.0	34.7					
34.7	40.0					
40.0	45.0					
45.0	50.0					

HOLE NUMBER D-197A-98 PAGE 2 OF 3

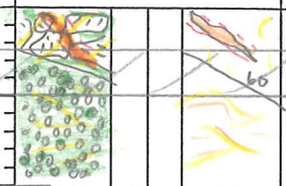
LITH.	OX/RED.	LITHOLOGY	FT
		58'-64' - Autobreciation, tan → light red matrix w/light green → light tan clasts. Increasing SiO_2 stock xcutting clasts 64'-85.4' - Autobrecciated w/small zones hydrothermal solution breccia. Pale grey to lightly pink/red FeO_x stain. 86' → 102.4' - Autobrecciated to, increasing affect of structural brecciation. Increase of SiO_2 influx into matrix and increasing vug/vein fill w/SiO_2 & Marc. Dom SiO_2 stock/vein following same appx trend. light - dark green dozer w/grey SiO_2. 102.4' → 130' @TD - Brecciated fault zone. Dom Chl alt, Greenmatrix and overprint. to tan/grey in semi-whole rock realms. 102.4 → 105.8' → Dom. breccia of Dozer origin. 105.8 → 122.6' → Wavy Planer laminated clasts. Clast Supported w/ Hydrothermal SiO_2	60 70 80 90 100' 110' 120'

GRAPHIC LOG



STRUCTURE	ALTERATION AND MINERALIZATION	FROM	TO	W	Au	Ag	Au2
	50.4 → 58' - Argillic alt, loss of chl alt. Small sized, low % $CaCO_3$/Py stockwork. Spotty disseminated pyr. Small % FeO_x	50.0	55.3				
	58'-64' - Small $CaCO_3$ & py veinlets crosscutting clasts in breccia ± disseminated pyr and marc in frags SiO_2 void fill	55.3	60.0				
	65.2' - Barite void/fracture fill ≈ 1/2 to 1 cm in size w/SiO_2 wallrock coating ± Marc core	60.0	65.1				
	65.8 → 70.3' - SiO_2 banding and veins ± barite ± py/marc ± chl alt zones	65.1	68.8				
	70.3' → 88' - Grey SiO_2 vein/stock w/+py, +marc, Dominant ⤫ shown. lightly prop. w/spotty chl. clay. ± Disseminated py	68.8	75.5				
		75.5	76.7				
	76.3-76.6 - 3' barite/SiO_2 space fill vein w/open vug. Silica in hydrothermal breccia	76.7	81.0				
	86-88' → grey SiO_2 hydrothermal matrix ± marc +py ± chl alt in clasts w ± fe stain in matrix	81.0	86.1				
	91.2 → 91.8' → Hydrotherm alt Silicified flooded breccia	86.1	88.1				
	95.6 → 98' → SiO_2 flood breccia w/barite/SiO_2 vug fill ± mass marc. increasing SiO_2 in rock mass	88.1	92.0				
South Ridge fault start ← Fault Breccia. Highly Silicified w/silica flooding, void/vug fill & white → grey SiO_2 veins. Contact almost perpendicular to core Axis.	100' → 102.4' - Chl alt w grey SiO_2 +marc ± py/marc stocks.	92.0	97.0				
	102.4 - 105.8': STR. SILICA-FLOODING OVER GRN CLAY ALTERAT'N. SPOTTY MOD. DISS'D PY.	97.0	102.3				
	105.8 → 122.6 - grey SiO_2 veins w/py/Marc in vug and void fill. Disseminated py	102.3	105.6				
	121-122', grey SiO_2 stocks w/py & 1" clay fill void with pyrargyrite ± proustite	105.6	110.0				
		110.0	114.9				
		114.9	117.9				
		117.9	120.5				

HOLE NUMBER D-197A-98 PAGE 3 OF 3

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		122.6' → 130' ⇒ Bud, LOSS Upper Bud? Silica Supported structural breccia.				122.6 → 130' Small % grey SiO_2 vein & vug fill ± py & white clays + chl alt.
		TD 130'	130			105.8 → 122.6 – wavy PC displaying chl alt along flow banding & grey SiO_2 veins. SiO_2 & Py vug fill in spots displaying Hematite oxidation. More w/ py replacement. Spotty white clay alteration w/ oxidized py.

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
120.5	122.3				
125.0	127.0				
127.0	128.7				
128.7	130.0				

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-197A-98 DATE: 03/27/98 LOGGED BY: MJM PAGE 1 OF

DRILL RUN FROM	DRILL RUN TO	SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH DOWNHOLE DEPTH	ROCK STRENGTH POINT LOAD INDEX (psi)	FRACTURE DATA FRACTURE DENSITY (FT.)	FRACTURE DATA AVG. ANGLE TO C.A.	FRACTURE DATA ROUGHNESS	FRACTURE DATA INFILL	DENSITY DATA DOWNHOLE DEPTH	DENSITY DATA SAMPLE WEIGHT (g)	DENSITY DATA DISPLACEMENT (cc)	DENSITY DATA DENSITY (g/cc)
0	5.0	95.0	96.0	66.0										
5.0	10.0	100.0	100.0	64.0										
10.0	20.0	101.0	101.0	95.0										
20.0	30.0	101.0	101.0	90.0										
30.0	40.0	101.0	101.0	93.0										
40.0	50.0	102.0	102.0	72.0										
50.0	60.0	102.0	102.0	77.0										
60.0	70.0	97.0	97.0	82.0										
70.0	80.0	100.0	100.0	66.0										
80.0	90.0	97.0	97.0	82.0										
90.0	100.0	94.0	94.0	92.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-197A-98 DATE: 03/30/98 LOGGED BY: AB M/ PAGE 2 OF 2

DRILL RUN FROM	DRILL RUN TO	SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH DOWNHOLE DEPTH	ROCK STRENGTH POINT LOAD INDEX (psi)	FRACTURE DATA FRACTURE DENSITY/FT.	FRACTURE DATA AVG. ANGLE TO C.A.	FRACTURE DATA ROUGHNESS	FRACTURE DATA INFILL	DENSITY DATA DOWNHOLE DEPTH	DENSITY DATA SAMPLE WEIGHT (g)	DENSITY DATA DISPLACEMENT (cc)	DENSITY DATA DENSITY (g/cc)
100.0	110.0	100.0	100.0	63.0										
110.0	117.0	94.3	94.3	35.7										
117.0	125.0	67.5	67.5	42.5										
125.0	130.0	110.0	110.0	68.0										
130.0	TD													

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP048403

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-197A-98 RECEIVED : 31 MAR 1998

No. SAMPLES : 32 REPORTED : 10 APR 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

PROVISIONAL REPORT SP048403

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-197A-98

REPORTED : 10 APR 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-197A-98 00-05	0.034			0.14
D-197A-98 05-10	0.014			0.06
D-197A-98 10.0-16.8	0.036			0.07
D-197A-98 16.8-19.4	0.125		0.136	0.09
D-197A-98 19.4-24.3	0.051		0.038	0.10
D-197A-98 24.3-30.0	0.021			0.07
D-197A-98 30.0-34.7	0.002			0.06
D-197A-98 34.7-40.0	0.001			0.03
D-197A-98 40-45	0.007			0.04
D-197A-98 45-50	<0.001			0.03
D-197A-98 50.0-55.3	0.001			0.03
D-197A-98 55.3-60.0	0.003			0.05
D-197A-98 60.0-65.1	0.002			0.07
D-197A-98 65.1-68.8	0.008			0.14
D-197A-98 68.8-75.5	0.014			0.06
D-197A-98 75.5-76.7	0.057		0.041	0.15
D-197A-98 76.7-81.0	0.004			0.06
D-197A-98 81.0-86.1	0.025			0.07
D-197A-98 86.1-88.1	0.164		0.129	0.72
D-197A-98 88.1-92.0	0.046		0.053	0.20
D-197A-98 92-97	0.026			0.23
D-197A-98 97.0-102.3	0.060		0.052	0.10
D-197A-98 102.3-105.6	0.023			0.05
D-197A-98 105.6-110.0	0.065		0.060	0.11
D-197A-98 110.0-114.9 49	0.175		0.132	0.58

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP048403

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-197A-98

REPORTED : 10 APR 1998

SAMPLES		Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-197A-98 114.9-117.9	3	0.162		0.138	3.50
D-197A-98 117.9-120.5	2.6	0.222		0.201	6.47
D-197A-98 120.5-122.3	1.8	0.270		0.251	54.96
D-197A-98 125-127		0.024			0.16
D-197A-98 127.0-128.7		0.006			0.32
D-197A-98 128.7-130.0		0.010			0.11
27816		0.130			2.67

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP04R403

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Ph.(702) 356-0606, fax (702) 356-1413

HECLA MINING COMPANY

COPIES TO : KURT ALLEN

:

:

:

CLIENT REFERENCE No: D-197A-98 RECEIVED : 31 MAR 1998

No. SAMPLES : 32 REPORTED : 10 APR 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

PROVISIONAL REPORT SP048403

CLIENT : BECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-197A-98

REPORTED : 10 APR 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-197A-98 00-05	0.034			
D-197A-98 05-10	0.014			
D-197A-98 10.0-16.8	0.036			
D-197A-98 16.8-19.4	0.125		0.136	
D-197A-98 19.4-24.3	0.051		0.038	
D-197A-98 24.3-30.0	0.021			
D-197A-98 30.0-34.7	0.002			
D-197A-98 34.7-40.0	0.001			
D-197A-98 40-45	0.007			
D-197A-98 45-50	<0.001			
D-197A-98 50.0-55.3	0.001			
D-197A-98 55.3-60.0	0.003			
D-197A-98 60.0-65.1	0.002			
D-197A-98 65.1-68.8	0.008			
D-197A-98 68.8-75.5	0.014			
D-197A-98 75.5-76.7	0.057		0.041	
D-197A-98 76.7-81.0	0.004			
D-197A-98 81.0-86.1	0.025			
D-197A-98 86.1-88.1	0.164		0.129	
D-197A-98 88.1-92.0	0.046		0.053	
D-197A-98 92-97	0.026			
D-197A-98 97.0-102.3	0.060		0.052	
D-197A-98 102.3-105.6	0.023			
D-197A-98 105.6-110.0	0.065		0.060	110-122.3 = 12.3' @
D-197A-98 110.0-114.9 4.9	0.175		0.132	0.196 Au

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP04H403

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-197A-98

REPORTED : 10 APR 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-197A-98 114.9-117.9 3	0.152		0.138	
D-197A-98 117.9-120.5 2.6	0.222		0.201	
D-197A-98 120.5-122.3 1.8	0.270		0.251	
D-197A-98 125-127	0.024			
D-197A-98 127.0-128.7	0.006			
D-197A-98 128.7-130.0	0.010			
27816	0.130			

SP

SUBMITTAL FORM

American Assay Laboratories

Geochemical • Environmental • Metallurgical

Sparks Office
1500 Glendale Ave.
Nevada 89431
Box 11530
Reno, NV 89510
Telephone
(702) 356-0606
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Mazatlan Office
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011-52-69-170035

Other Offices
Lima, Peru
Santiago, Chile
Mendoza, Argentina

Company: Rosebud Mining Co LLT

Address: PO Box 2610

City Winnemucca State NV Zip 89446

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

Project Name: Developement Purchase Order Number:

Date Submitted: 3/30/98 Number of Samples:

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

D-197A-98 SAMPLE IDENTIFICATION			TYPE	ELEMENTS REQUIRED
0-5	75.5-76.7	127-128.7		
5-10	76.7-81	128.7-130	CORE	Au-Ag According to
10-16.8	81-86.1			Rosebud Mine protocols
16.8-19.4				
19.4-24.3	86.1-88.1			
24.3-30	88.1-92			
30-34.7	92-97			
34.7-40	97-102.3			
40-45	102.3-105.6			
45-50	105.6-110			
50-55.3	110-114.9			
55.3-60	114.9-117.9			
60-65.1	117.9-120.5			
65.1-68.8	120.5-122.3			
68.8-75.5	125-127			

COARSE REJECTS (Normally Discarded After 60 Days)

[ ] Return COD after analysis complete

PULPS (Normally Stored Free For One Month)

[ ] Discard after one month

[ ] Return COD after one month

RESULTS AND INVOICES TO BE SENT TO:

Invoice to:

Kurt Allen

Results to:

Kurt Allen

Comments:

CLIENT FILE COPY

American Assay Laboratories

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

(702) 356-0606

INVOICE NO: SP 0048403-IN
INVOICE DATE: 04/16/98

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-197A-98	DEVELOPMENT	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
32	SAMPLES RECEIVED	.00	.00
31	JAW CRUSHING CHARGE	1.30	40.30
31	COARSE MILLING CHARGE	4.50	139.50
31	SPLITTING CHARGE	2.40	74.40
31	RING MILLING CHARGE	2.00	62.00
32	Au (1 A.T. FIRE ASSAY)	8.00	256.00
11	Au ANALYSES/GRAVIMETRIC	8.75	96.25
32	HYDROCHLORIC/NITRIC DIGESTION	2.00	64.00
32	Ag ANALYSES	1.00	32.00
3	Ag (ore grade) ANALYSES	5.00	15.00

86- 5110-477
KJA

NET INVOICE:	779.45
LESS DISCOUNT:	155.89
FREIGHT:	.00
INVOICE TOTAL:	623.56

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP048403

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-197A-98 RECEIVED : 31 MAR 1998

No. SAMPLES : 32 REPORTED : 10 APR 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

ANALYSIS REPORT SP048403

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-197A-98

REPORTED : 10 APR 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-197A-98 00-05	0.034			0.14
D-197A-98 05-10	0.014			0.06
D-197A-98 10.0-16.8	0.036			0.07
D-197A-98 16.8-19.4	0.125		0.136	0.09
D-197A-98 19.4-24.3	0.051		0.038	0.10
D-197A-98 24.3-30.0	0.021			0.07
D-197A-98 30.0-34.7	0.002			0.06
D-197A-98 34.7-40.0	0.001			0.03
D-197A-98 40-45	0.007			0.04
D-197A-98 45-50	<0.001			0.03
D-197A-98 50.0-55.3	0.001			0.03
D-197A-98 55.3-60.0	0.003			0.05
D-197A-98 60.0-65.1	0.002			0.07
D-197A-98 65.1-68.8	0.008			0.14
D-197A-98 68.8-75.5	0.014			0.06
D-197A-98 75.5-76.7	0.057		0.041	0.15
D-197A-98 76.7-81.0	0.004			0.06
D-197A-98 81.0-86.1	0.025			0.07
D-197A-98 86.1-88.1	0.164		0.129	0.72
D-197A-98 88.1-92.0	0.046		0.053	0.20
D-197A-98 92-97	0.026			0.23
D-197A-98 97.0-102.3	0.060		0.052	0.10
D-197A-98 102.3-105.6	0.023			0.05
D-197A-98 105.6-110.0	0.065		0.060	0.11
D-197A-98 110.0-114.9	0.175		0.132	0.58

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP048403

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-197A-98

REPORTED : 10 APR 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-197A-98 114.9-117.9	0.162		0.138	3.50
D-197A-98 117.9-120.5	0.222		0.201	6.47
D-197A-98 120.5-122.3	0.270		0.251	54.96
D-197A-98 125-127	0.024			0.16
D-197A-98 127.0-128.7	0.006			0.32
D-197A-98 128.7-130.0	0.010			0.11
27816	0.130			2.67

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP048403

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-197A-98 RECEIVED : 31 MAR 1998

No. SAMPLES : 32 REPORTED : 10 APR 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 SP048403

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-197A-98

REPORTED : 10 APR 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-197A-98 00-05	0.034			0.14
D-197A-98 05-10	0.014			0.06
D-197A-98 10.0-16.8	0.036			0.07
D-197A-98 16.8-19.4	0.125		0.136	0.09
D-197A-98 19.4-24.3	0.051		0.038	0.10
D-197A-98 24.3-30.0	0.021			0.07
D-197A-98 30.0-34.7	0.002			0.06
D-197A-98 34.7-40.0	0.001			0.03
D-197A-98 40-45	0.007			0.04
D-197A-98 45-50	<0.001			0.03
D-197A-98 50.0-55.3	0.001			0.03
D-197A-98 55.3-60.0	0.003			0.05
D-197A-98 60.0-65.1	0.002			0.07
D-197A-98 65.1-68.8	0.008			0.14
D-197A-98 68.8-75.5	0.014			0.06
D-197A-98 75.5-76.7	0.057		0.041	0.15
D-197A-98 76.7-81.0	0.004			0.06
D-197A-98 81.0-86.1	0.025			0.07
D-197A-98 86.1-88.1	0.164		0.129	0.72
D-197A-98 88.1-92.0	0.046		0.053	0.20
D-197A-98 92-97	0.026			0.23
D-197A-98 97.0-102.3	0.060		0.052	0.10
D-197A-98 102.3-105.6	0.023			0.05
D-197A-98 105.6-110.0	0.065		0.060	0.11
D-197A-98 110.0-114.9	0.175		0.132	0.58

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP048403

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REFERENCE : D-197A-98

REPORTED : 10 APR 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-197A-98 114.9-117.9	0.162		0.138	3.50
D-197A-98 117.9-120.5	0.222		0.201	6.47
D-197A-98 120.5-122.3	0.270		0.251	54.96
D-197A-98 125-127	0.024			0.16
D-197A-98 127.0-128.7	0.006			0.32
D-197A-98 128.7-130.0	0.010			0.11
27816	0.130			2.67

D-197A-98 BOX NO 2
DEPTH 9.5 - 19

D-197A-98 BOX NO 1
DEPTH 0 - 9.5

D-197A-98 BOX NO 3
DEPTH 19 - 28

45
40
D-197A-98 BOX NO 5
DEPTH 37.5 - 46.5

30
D-197A-98 BOX NO 4
DEPTH 28 - 37.5

D-197A-98 BOX NO 6
DEPTH 46.5 - 56.
50
553

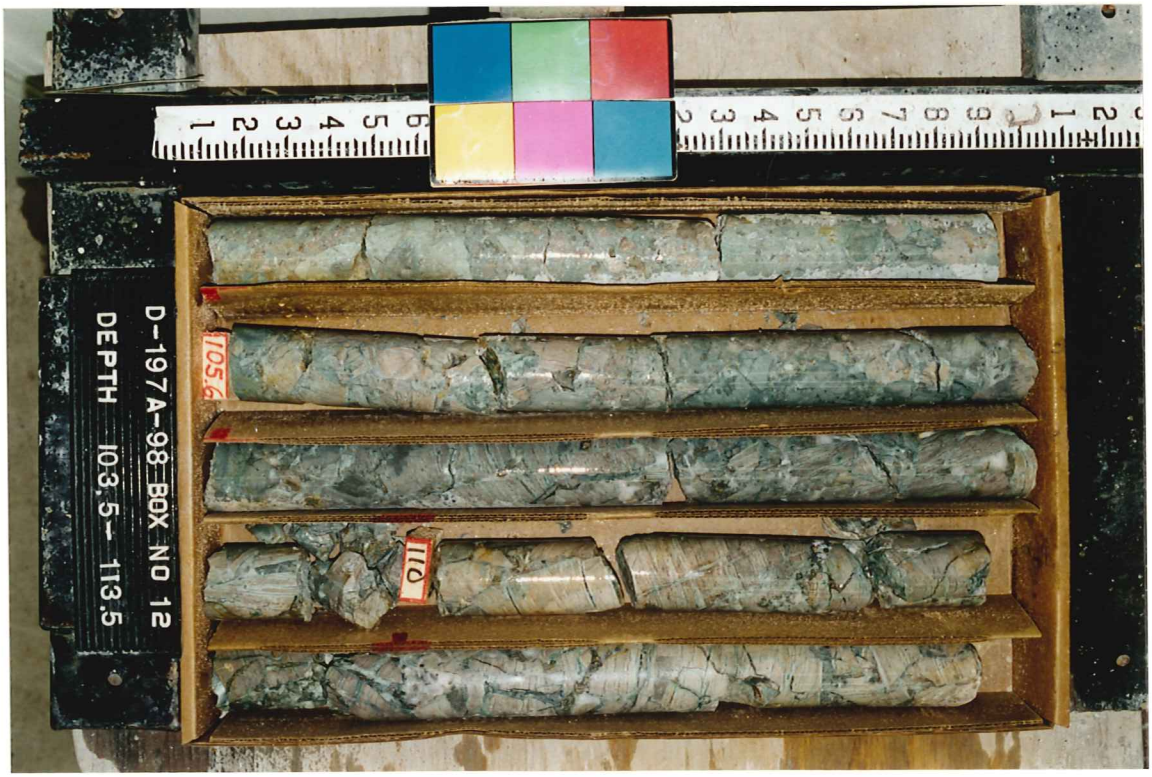
D-197A-98 BOX NO 8
DEPTH 65 - 75.

D-197A-98 BOX NO 7
DEPTH 56. - 65.

D-197A-98 BOX NO 9
DEPTH 75 - 84.

100
97.0
102.3
D-197A-98 BOX NO 11
DEPTH 94 - 103.5

90
90
86.
88
92.0
D-197A-98 BOX NO 10
DEPTH 84 - 94.


105.6
110
D-197A-98 BOX NO 12
DEPTH 103.5 - 113.5

130
125
LOSS
122.3
D-197A-98 BOX NO 14
DEPTH 124 - 130.

114.9
117.9
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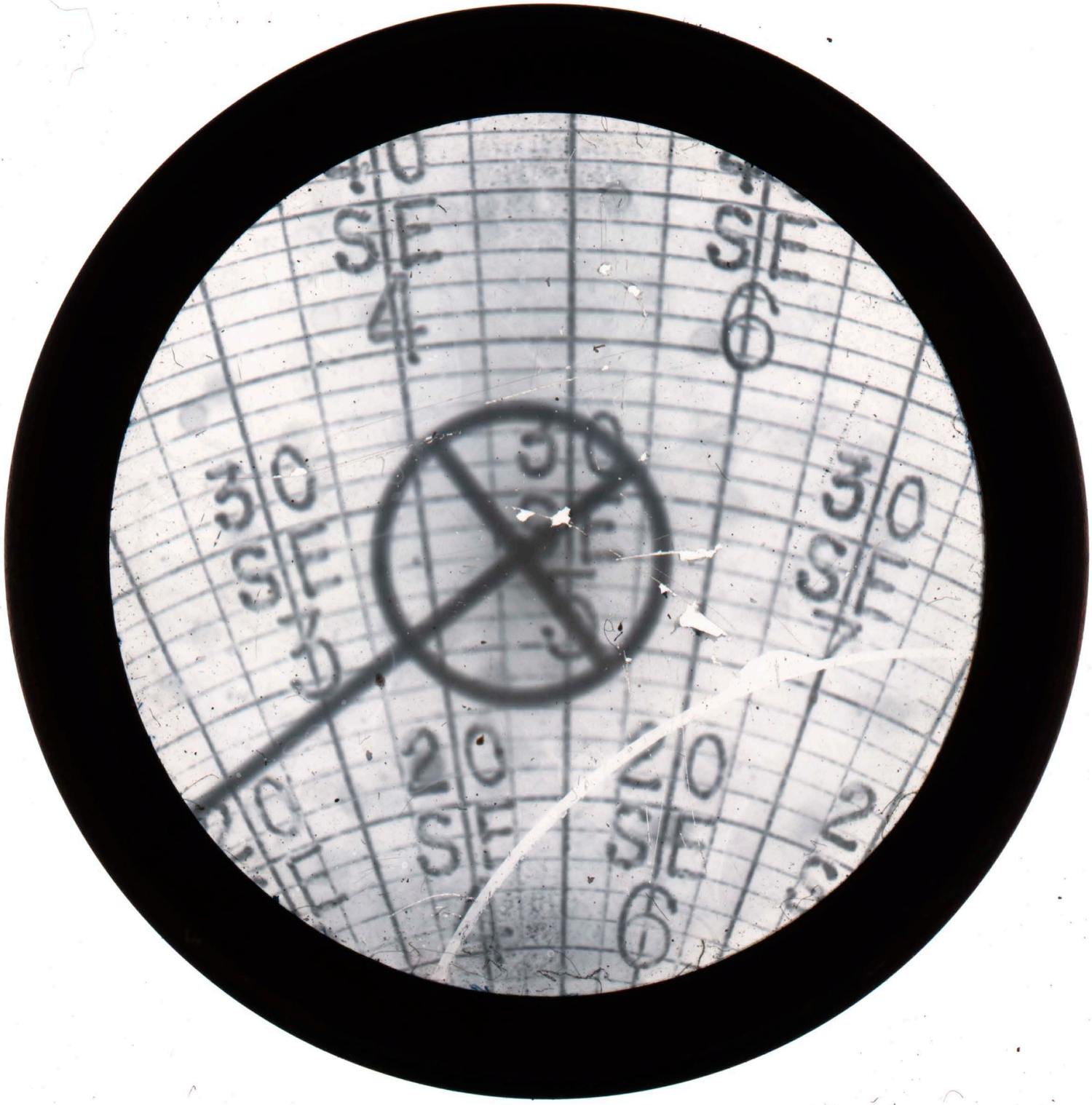
120.5
D-197A-98 BOX NO 13
DEPTH 113.5- 124.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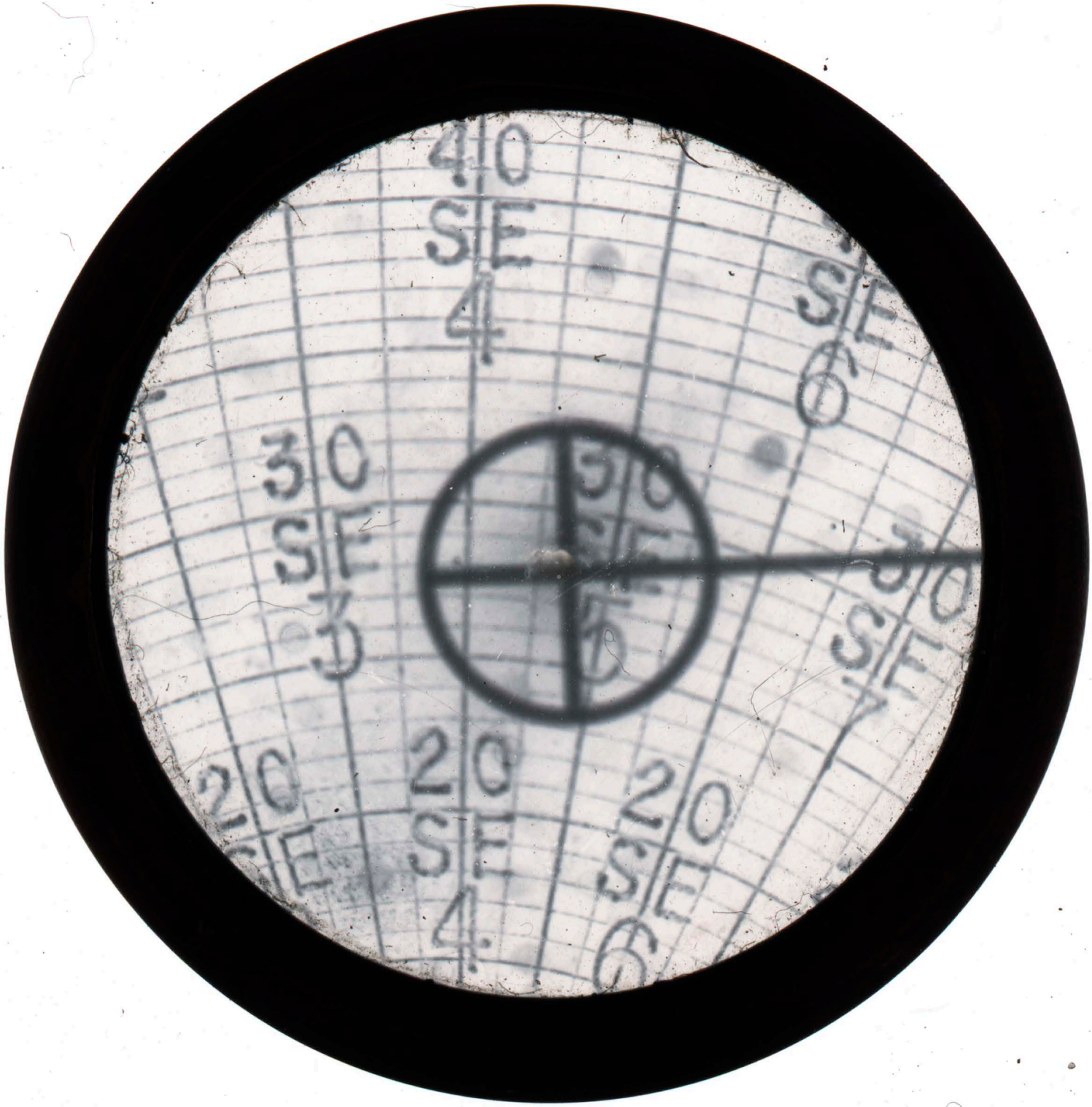
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