6000 680

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-195-98
AUTHOR	K. Allen; B. Morris; 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 210; handwritten notes down hole camera images 33p 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 7/28/08
Initials Date

DB:
Initials Date

SCANNED:
Initials Date

Revised: 1/22/08

D-195-98

60000680
4010

6000 0680

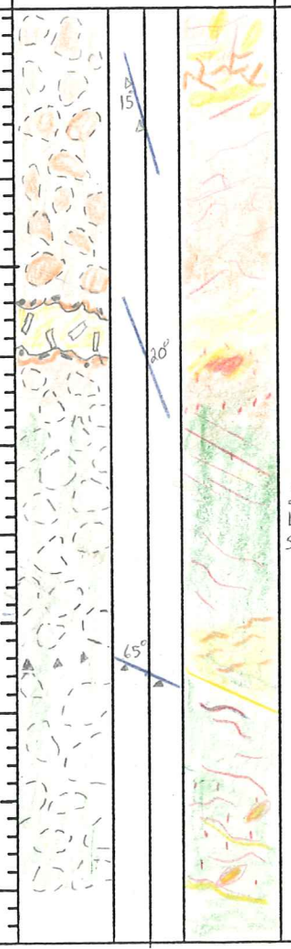
- quartz, chalcedony, silicification
- faults, fractures
- FeOx
- sulfide
- calcite, carbonate
- argillization, white clays
- propylitization B barite
- potassic alteration
- chlorite, chloritic clays

Hecla MINING COMPANY

ROSEBUD PROJECT DIAMOND DRILL LOG

HOLE NUMBER	D-195-98	LOCATION	End of Access stope 82
PAGE 1 OF 4		NORTHING	
DATE	4-2-98	EASTING	
LOGGED BY	Brian W. Morris	ELEVATION	
SCALE	1" = 10'	AZIMUTH	N42W
TOTAL DEPTH	210	INCLINATION	20°

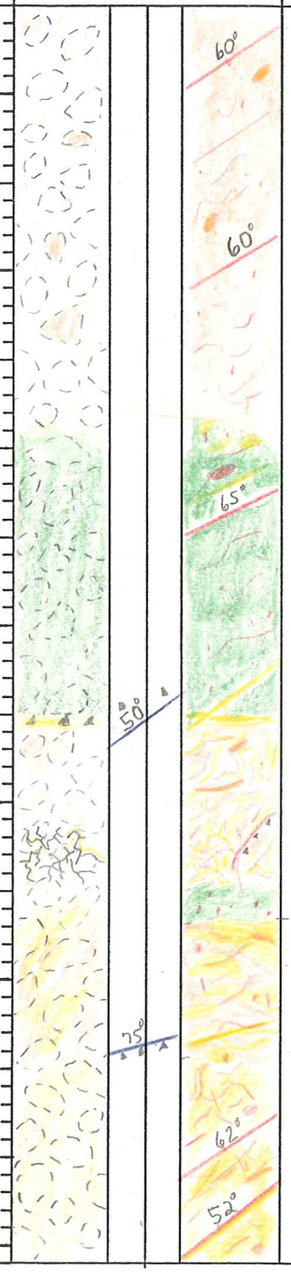
REMARKS

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
	Reduced	0-50' Autobrecciated Dacite; Lt gray fg rounded Monolithic faint ghost Clasts Supported by fg equigranular groundmass. 17.3-19.5' BMB like felsic porphyry dike Contact looks oblique to drill hole. May have just Nicked the porph. Maybe drilling near contact @ top of drill hole (0-) due to str Fx & locally str argilt Silic + blch.	5, 10, 15, 20, 25, 30, 35, 40, 45, 50		32.2-37.0' Mottled olive gr - Lt gr w/ Mottled color representing Silic/argil	0-7.3 Wk-Mod silic w/ argil fx & shears, locally clast ghosts are argil, wk sulf blebs, locally wk diss py. 7.3-20.0' Mod blch & argil, wk diss py xls + sulf subparallel blebs. 21.2'-24.0' Wk-Mod, 1cm wide subparallel sulf blebs, wk pervv. gr clay alt. 20.8-21.2' Str bright brassy diss Marc/py 22.5 .3' wide-Str diss Marc blebs. 28.9-32.2' Wk pyrv, wk pervv. gr clay alt, wk-Mod argil clasts. 34.8-38.0' Mod-Str silic, Mod chlor alt; Mod diss sulf blebs 37.0-38.0 Rubble BXA Mtx Supported, Gr SiO_2 flooded Mtx w/ Lt gry gr subangular Volcanic Clastic clasts, BXA wk ly vuggie. 38.0-42.0' Mod gr clay alt, Mod diss sulf + sulf soaked patches, Mod SiO_2 + sulf blebs + str wk, locally argil 48-56 Locally str diss sulf + SiO_2, locally mod argil, Mod sulf vnlets + str wk.

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag
0	5					
5	10					
10	15					
15.0	17.3					
17.3	19.5					
19.5	24.0					
24.0	28.9					
28.9	32.2					
32.2	34.8					
34.8	38.0					
38.0	42.0					
42.0	45.0					
45.0	48.0					
48.0	51.0					

HOLE NUMBER D-195-98 PAGE 2 OF 4

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
	Reduced	50-120' Autobrecciated Dozer Rhyolite Lt gry v.f.g equigranular subrounded-rounded monolithic Clast ghosts supported by Lt gry v.f.g equigranular Mtx.	55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 105, 110, 115, 120		91-101.6' .5-1' wide clast supported mosaic Bxa Vn & Mtx supported rubble Bxa Vn, Bxa is healed by gry SiO_2 ± Rx flour, Mod-Str leaching & wh clay replacement of Mtx, wk diss bladed Marc 96-100' Str SiO_2 ± Sulf. healed Fx	56-75 Mod blch & argil w/ Sulf & silic patches, wk-Mod Sulf Vnlets + hairline Stk wk 75-91' Perv Mod Chlor clay alt, wk-Mod Sulf ± SiO_2 Vnlets + hairline Vnlets, Str Chlor gr st along hairline Fx, 75-87.2 locally mod argil. 87.2-91 Abundant Silic patches 85-87.2' wk chlor gr small circular blebs. 90-91 Gry SiO_2 healed crackle-rubble bxa Vn 91-101.6' wk-Mod Lt gry SiO_2 + Marc/py ± wh clay ± barite Vn, Vnlets, & fine stkwk, locally wk Orbr FeOx st, Mod-Str Silic, 99' gr clay Vn. 101.6-102.6 Mod gr clay alt, wk diss Sulf. 102.6-109.3' Mottled Lt gry argil/Med. gry Mod Silic, wk Sulf stkwk + Sulf blebs 109.3-121.3 Mod-Str Silic, Mod hairline Sulf + SiO_2 Vnlets + stkwk, Minor 1-2 cm wide gry SiO_2 + Bladed Marc + wh Clay, Minor SiO_2 leaching in Vn & stkwk

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
48	51				
51	54				
54	56				
56	60				
60	65				
65	70				
70	75				
75	80				
80	85				
85	90				
90	91				
91	96				
96	101.6				
101.6	102.6				
102.6	105				
105	109.3				
109.3	114.0				
114.0	119.0				
119.	121.3				

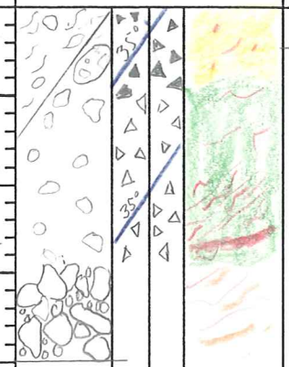
HOLE NUMBER D-195-98 PAGE 3 OF 4

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
	Reduced	120'-132.4 Autobrecciated Dozer: Monolithic Lt gry fg subrounded-rounded clast ghosts in Lt gr vfg equigranular Mtx, locally flow banded text.	125, 130			
		132.4' "BMB Like" Felsic Porphyry — Wh euhedral-subhedral .1-.5cm long raggie edge feld phenos supported by v.fg gray equigranular groundmass. Contact: Gradational over .5' w/ dk gry aphanitic spherical blebs in porph.	135, 140			132.4- Mod silic, str bladed Marc + SiO_2 Vnt stkwk ± wh Clay, 143' .5' wide gry gr SiO_2 rubble bxc Vn. Str Sulf blebs, ≈ 50% sulf replacement of phenos, str argil of phenos. 143.2-144.9' Str SiO_2 + Marc + Gr Clay ± wh clay Vn + stkwk. NO Sulf Socked blebs.
		152' Dozer Contact — Structural Contact! 4-6cm wide Gry SiO_2 healed Fract.	145, 150		152' Contact: Dk gry SiO_2 w/ bladed Marc + wh Clay inclusions, mod leaching of SiO_2. 155' Lower SRF Plane: .2' wide gry SiO_2 w/ wk SiO_2 in Interior of plane	152'-153.7' Str gry SiO_2 Vnt stkwk w/ mod diss py + bladed Marc, minor wh SiO_2 + bladed Marc Vn, wk gr clay alt, 153.7-166.5 Gr SiO_2 Flooded Mtx w/ wk diss Bladed marc, Localized SiO_2 leaching w/ wh clay replacement wk argil of Clasts
		153.7-199.0' South Ridge Fault Zone	155, 160			
153.7-166.5		Breccia is composed of MTX supported Rubble-Milled Bxc w/ subangular-rounded br-gr & mottled Mg-Coarse gr epiclastic Sandstone - locally minor clasts of microconglomerate, healed by gr SiO_2. Minor blk Clast .1-.3cm dia are present (Tos?) 166.5-173' SiO_2 Flooded w/ gr clay alt overprint, faint hetrolith clast ghosts are visable.	165		167.5-173.0 Faint Clast ghosts having a 45° shear fabric.	166.5-173' Str SiO_2 Flooding w/ Secondary gr clay overprint, wk diss sulf blebs.
		173.0-191 Hetrolithic Volcaniclastic coarse gr - Microconglomeratic, distinctive blk .3-1cm dia Clasts ~ Tos	170, 175			173-191 Gr SiO_2 Flooding, wk diss sulf, wk leaching + wk Clay replacement ± barite
		Pima	180, 185, 190			183.6-191.2' Euhedral-Massive pyrargyrite restricted to wh-dk gry SiO_2 Veins.

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
119	121.3				
121.3	126				
126	130				
130	132.4				
132.4	135				
135	140				
140	143.2				
143.2	144.9				
144.9	150				
150	152				
152	153.7				
153.7	158.7				
158.7	163.7				
163.7	166.5				
166.5	170				
170	173				
173	176				
176	180				
180	183.6				
183.6	187				
187	191.2				

HOLE NUMBER D-195-98 PAGE 4 OF 4

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
	Reduced	191.2-192.5' Heterolithic Mtx supported milled bxa. Clasts are composed of wh qt frags + volcaniclastic clasts healed by dk gry SiO_2. 192.5-192.9' Mtx supported Milled BXA: Clasts are subangular - Subrounded heterolith gry volcaniclastic & vfg & br in color healed by wh SiO_2 + Rx flour Mtx. 192.9-195.5' Mostly Mtx Supported Rubble BXA: Clasts are br str Fx & SiO_2 healed Volcaniclastic - v.fg healed by gry Rx flour + SiO_2. 195.5-196.5' Clast Supported Rubble Bxa healed by massive barite 196.5-210' Heterolithic Volcaniclastic bxa: .5-3cm dia subrounded - subangular vfg clasts supported by .1-1cm mg-cg rounded clast mtx.	195 200 205 210		192.5' Upper SRF plane. Foot Wall of Contact is Dk gry SiO_2 Hanging Wall is wh SiO_2 + Rx flour BXA Mtx seperated by striated slick surface	191.2-192.5' Dk gry sulfidic silica flooded Mtx, Wk diss sulf blebs, ∴ pyrargyrite. 192.9-195.5' Br clast color maybe Alt color, wk-Mod bladed Marc. 195.5-196.5 Vuggie w/ euhedral xls, Mod diss bladed Marc. 200-204.3 Rubble-Milled Bxa w/ str gr clay Mtx w/ Mod-Str fine subparallel sulf vnlets & sulf lining of clasts. 204.3' Massive brassy Py. & v.str diss py. 204.3-210 Wk-locally str argil, Wk sulf vnlets, Mod wh clay vnlet ± barite.
		T.D. 210'				

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
187	191.2				
191.2	192.5				
192.5	195.5				
195.5	196.5				
196.5	200				
200	203.5				
203.5	204.3				
204.3	207				
207	210				

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-195-98 DATE 4-2-98 LOGGED BY: Brian W. Morris. 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	5	100	100	56										
5	10	82	82	54										
10	15	98	98	96										
15	20	86	86	83										
20	30	95	95	82										
30	37	89	89	76										
37	45	104	104	81										
45	55	95	95	87										
55	65	96	96	94										
65	75	92	92	98										
75	85	94	94	98										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-195-98 DATE: 4-3-95 LOGGED BY: Brian W. Morris 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)
85	90	94	94	78										
90	100	100	100	92										
100	110	98	98	84										
110	120	98	98	92										
120	130	90	90	82										
130	140	99	99	93										
140	150	86	86	74										
150	160	91	91	66										
160	170	94	94	100										
170	180	96	96	75										
180	187	93	93	86										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-195-98 DATE: 4-5-95 LOGGED BY: BWM 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)
187	191	95	95	55										
191	192.5	100	100	67										
192.5	200	100	100	64										
200	210	84	84	27										

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 0048461-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-195-98	DEVELOPMENT	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
61	SAMPLES RECEIVED	.00	.00
60	DRYING	2.00	120.00
60	JAW CRUSHING CHARGE	2.60	156.00
60	COARSE MILLING CHARGE	9.00	540.00
60	SPLITTING CHARGE	2.40	144.00
60	RING MILLING CHARGE	2.00	120.00
61	Au (1 A.T. FIRE ASSAY)	8.00	488.00
10	Au ANALYSES/GRAVIMETRIC	8.75	87.50
60	HYDROCHLORIC/NITRIC DIGESTION	2.00	120.00
60	Ag ANALYSES	1.00	60.00
4	Ag (ore grade) ANALYSES	5.00	20.00

86-5110-477

NET INVOICE:	1,855.50
LESS DISCOUNT:	371.10
FREIGHT:	.00
INVOICE TOTAL:	1,484.40

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ANALYSIS REPORT SP048461

American Assay Laboratories

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RENO NV,USA
Ph.(702) 356-0606, Fax.(702) 356-1413

HECLA MINING COMPANY

COPIES TO : KURT ALLEN
:
:
:

CLIENT REFERENCE No: D-195-98 RECEIVED : 7 APR 1998

No. SAMPLES : 61 REPORTED : 15 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 SP048461

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-195-98

REPORTED : 15 APR 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-195-98 00-05	0.006			0.06
D-195-98 05-10	0.015	0.009		0.05
D-195-98 10-15	0.001			0.03
D-195-98 15.0-17.3	0.001			0.03
D-195-98 17.3-19.5	0.001			0.04
D-195-98 19.5-24.0	0.006			0.05
D-195-98 24.0-28.9	0.005			0.05
D-195-98 28.9-32.2	0.029	0.019		0.05
D-195-98 32.2-34.8	0.028			0.07
D-195-98 34.8-38.0	0.032	0.040		0.07
D-195-98 38-42	0.007			0.05
D-195-98 42-45	0.001			0.04
D-195-98 45-48	0.006			0.06
D-195-98 48-51	0.010			0.09
D-195-98 51-54	0.004			0.06
D-195-98 54-56	0.003	0.002		0.07
D-195-98 56-60	0.001			0.04
D-195-98 60-65	0.003			0.08
D-195-98 65-70	0.002			0.03
D-195-98 70-75	0.011			0.04
D-195-98 75-80	0.004			0.04
D-195-98 80-85	0.007			0.03
D-195-98 85-90	0.012			0.03
D-195-98 90-91	0.026			0.07
D-195-98 91-96	0.034			0.05

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP048461

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-195-98

REPORTED : 15 APR 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-195-98 96.0-101.6	0.031			0.06
D-195-98 101.6-102.6	0.010			0.13
D-195-98 102.6-105.0	0.003			0.06
D-195-98 105.0-109.3	0.004			0.13
D-195-98 109.3-114.0	0.006			0.31
D-195-98 114-119	0.021			0.07
D-195-98 119.0-121.3	0.024			0.07
D-195-98 121.3-126.0	0.017			0.06
D-195-98 126-130	0.020			0.07
D-195-98 130.0-132.4	0.055		0.061	0.05
D-195-98 132.4-135.0	0.068		0.059	0.14
D-195-98 135-140	0.106		0.092	0.13
D-195-98 140.0-143.2	0.077		0.081	0.10
D-195-98 143.2-144.9	0.010			0.08
D-195-98 144.9-150.0	0.088		0.100	0.62
D-195-98 150-152	0.142		0.168	0.11
D-195-98 152.0-153.7	0.023			0.09
D-195-98 153.7-158.7	0.114		0.119	0.69
D-195-98 158.7-163.7	0.022			0.98
D-195-98 163.7-166.5	0.047			0.07
D-195-98 166.5-170.0	0.005			0.03
D-195-98 170-173	0.006			0.25
D-195-98 173-176	0.360		0.327	0.63
D-195-98 176-180	0.026			0.19
D-195-98 180.0-183.6	0.132		0.104	1.64

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP048461

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-195-98

REPORTED : 15 APR 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-195-98 183.6-187.0	0.033			15.22
D-195-98 187.0-191.2	0.117		0.098	66.93
D-195-98 191.2-192.5	0.019			24.83
D-195-98 192.5-195.5	0.021			0.62
D-195-98 195.5-196.5	0.009			1.18
D-195-98 196.5-200.0	0.004			0.43
D-195-98 200.0-203.5	0.002			0.14
D-195-98 203.5-204.3	0.004			0.29
D-195-98 204.3-207.0	0.002			0.14
D-195-98 207-210	0.002			0.24
27834	0.536			ISF

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ANALYSIS REPORT SP048461

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-195-98 RECEIVED : 7 APR 1998

No. SAMPLES : 61 REPORTED : 15 APR 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
AuGRAV	GRAV	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP048461

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-195-98

REPORTED : 15 APR 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-195-98 00-05	0.006			0.06
D-195-98 05-10	0.015	0.009		0.05
D-195-98 10-15	0.001			0.03
D-195-98 15.0-17.3	0.001			0.03
D-195-98 17.3-19.5	0.001			0.04
D-195-98 19.5-24.0	0.006			0.05
D-195-98 24.0-28.9	0.005			0.05
D-195-98 28.9-32.2	0.029	0.019		0.05
D-195-98 32.2-34.8	0.028			0.07
D-195-98 34.8-38.0	0.032	0.040		0.07
D-195-98 38-42	0.007			0.05
D-195-98 42-45	0.001			0.04
D-195-98 45-48	0.006			0.06
D-195-98 48-51	0.010			0.09
D-195-98 51-54	0.004			0.06
D-195-98 54-56	0.003	0.002		0.07
D-195-98 56-60	0.001			0.04
D-195-98 60-65	0.003			0.08
D-195-98 65-70	0.002			0.03
D-195-98 70-75	0.011			0.04
D-195-98 75-80	0.004			0.04
D-195-98 80-85	0.007			0.03
D-195-98 85-90	0.012			0.03
D-195-98 90-91	0.026			0.07
D-195-98 91-96	0.034			0.05

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP048461

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-195-98

REPORTED : 15 APR 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-195-98 96.0-101.6	0.031			0.06
D-195-98 101.6-102.6	0.010			0.13
D-195-98 102.6-105.0	0.003			0.06
D-195-98 105.0-109.3	0.004			0.13
D-195-98 109.3-114.0	0.006			0.31
D-195-98 114-119	0.021			0.07
D-195-98 119.0-121.3	0.024			0.07
D-195-98 121.3-126.0	0.017			0.06
D-195-98 126-130	0.020			0.07
D-195-98 130.0-132.4	0.055		0.061	0.05
D-195-98 132.4-135.0	0.068		0.059	0.14
D-195-98 135-140	0.106		0.092	0.13
D-195-98 140.0-143.2	0.077		0.081	0.10
D-195-98 143.2-144.9	0.010			0.08
D-195-98 144.9-150.0	0.088		0.100	0.62
D-195-98 150-152	0.142		0.168	0.11
D-195-98 152.0-153.7	0.023			0.09
D-195-98 153.7-158.7	0.114		0.119	0.69
D-195-98 158.7-163.7	0.022			0.98
D-195-98 163.7-166.5	0.047			0.07
D-195-98 166.5-170.0	0.005			0.03
D-195-98 170-173	0.006			0.25
D-195-98 173-176	0.360		0.327	0.63
D-195-98 176-180	0.026			0.19
D-195-98 180.0-183.6	0.132		0.104	1.64

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP048461

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-195-98

REPORTED : 15 APR 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-195-98 183.6-187.0	0.033			15.22
D-195-98 187.0-191.2	0.117		0.098	66.93
D-195-98 191.2-192.5	0.019			24.83
D-195-98 192.5-195.5	0.021			0.62
D-195-98 195.5-196.5	0.009			1.18
D-195-98 196.5-200.0	0.004			0.43
D-195-98 200.0-203.5	0.002			0.14
D-195-98 203.5-204.3	0.004			0.29
D-195-98 204.3-207.0	0.002			0.14
D-195-98 207-210	0.002			0.24
27834	0.536			ISF

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP048461

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-195-98 RECEIVED : 7 APR 1998

No. SAMPLES : 61 REPORTED : 14 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 SP048461

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-195-98

REPORTED : 14 APR 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-195-98 00-05	0.006			
D-195-98 05-10	0.015	0.009		
D-195-98 10-15	0.001			
D-195-98 15.0-17.3	0.001			
D-195-98 17.3-19.5	0.001			
D-195-98 19.5-24.0	0.006			
D-195-98 24.0-28.9	0.005			
D-195-98 28.9-32.2	0.029	0.019		
D-195-98 32.2-34.8	0.028			
D-195-98 34.8-38.0	0.032	0.040		
D-195-98 38-42	0.007			
D-195-98 42-45	0.001			
D-195-98 45-48	0.006			
D-195-98 48-51	0.010			
D-195-98 51-54	0.004			
D-195-98 54-56	0.003	0.002		
D-195-98 56-60	0.001			
D-195-98 60-65	0.003			
D-195-98 65-70	0.002			
D-195-98 70-75	0.011			
D-195-98 75-80	0.004			
D-195-98 80-85	0.007			
D-195-98 85-90	0.012			
D-195-98 90-91	0.026			
D-195-98 91-96	0.034			

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP048461

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-195-98

REPORTED : 14 APR 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-195-98 96.0-101.6	0.031			
D-195-98 101.6-102.6	0.010			
D-195-98 102.6-105.0	0.003			
D-195-98 105.0-109.3	0.004			
D-195-98 109.3-114.0	0.006			
D-195-98 114-119	0.021			
D-195-98 119.0-121.3	0.024			
D-195-98 121.3-126.0	0.017			
D-195-98 126-130	0.020			
D-195-98 130.0-132.4	0.055		0.061	
D-195-98 132.4-135.0	0.068		0.059	
D-195-98 135-140	0.106		0.092	
D-195-98 140.0-143.2	0.077		0.081	
D-195-98 143.2-144.9	0.010			
D-195-98 144.9-150.0	0.088		0.100	
D-195-98 150-152	0.142		0.168	
D-195-98 152.0-153.7	0.023			
D-195-98 153.7-158.7	0.114		0.119	
D-195-98 158.7-163.7	0.022			
D-195-98 163.7-166.5	0.047			
D-195-98 166.5-170.0	0.005			
D-195-98 170-173	0.006			
D-195-98 173-176	0.360		0.327	
D-195-98 176-180	0.026			
D-195-98 180.0-183.6	0.132		0.104	

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP048461

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-195-98

REPORTED : 14 APR 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-195-98 183.6-187.0	0.033			
D-195-98 187.0-191.2	0.117		0.098	
D-195-98 191.2-192.5	0.019			
D-195-98 192.5-195.5	0.021			
D-195-98 195.5-196.5	0.009			
D-195-98 196.5-200.0	0.004			
D-195-98 200.0-203.5	0.002			
D-195-98 203.5-204.3	0.004			
D-195-98 204.3-207.0	0.002			
D-195-98 207-210	0.002			
27834	0.536			

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP048461

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HECLA MINING COMPANY

COPIES TO : KURT ALLEN
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CLIENT REFERENCE No: D-195-98 RECEIVED : 7 APR 1998

No. SAMPLES : 61 REPORTED : 15 APR 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
AuGRAV	GRAV	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

04/15/1998 13:26 7023561413 AMERICAN ASSAY LABS PAGE 01
7023561413

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP048461

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-195-98

REPORTED : 15 APR 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-195-98 00-05	0.006			0.06
D-195-98 05-10	0.015	0.009		0.05
D-195-98 10-15	0.001			0.03
D-195-98 15.0-17.3	0.001			0.03
D-195-98 17.3-19.5	0.001			0.04
D-195-98 19.5-24.0	0.006			0.05
D-195-98 24.0-28.9	0.005			0.05
D-195-98 28.9-32.2	0.029	0.019		0.05
D-195-98 32.2-34.8	0.028			0.07
D-195-98 34.8-38.0	0.032	0.040		0.07
D-195-98 38-42	0.007			0.05
D-195-98 42-45	0.001			0.04
D-195-98 45-48	0.006			0.06
D-195-98 48-51	0.010			0.09
D-195-98 51-54	0.004			0.06
D-195-98 54-56	0.003	0.002		0.07
D-195-98 56-60	0.001			0.04
D-195-98 60-65	0.003			0.08
D-195-98 65-70	0.002			0.03
D-195-98 70-75	0.011			0.04
D-195-98 75-80	0.004			0.04
D-195-98 80-85	0.007			0.03
D-195-98 85-90	0.012			0.03
D-195-98 90-91	0.026			0.07
D-195-98 91-96	0.034			0.05

04/15/1998 13:26 7023561413 AMERICAN ASSAY LABS PAGE 02

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP048461

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-195-98

REPORTED : 15 APR 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-195-98 96.0-101.6	0.031			0.06
D-195-98 101.6-102.6	0.010			0.13
D-195-98 102.6-105.0	0.003			0.06
D-195-98 105.0-109.3	0.004			0.13
D-195-98 109.3-114.0	0.006			0.31
D-195-98 114-119	0.021			0.07
D-195-98 119.0-121.3	0.024			0.07
D-195-98 121.3-126.0	0.017			0.06
D-195-98 126-130	0.020			0.07
D-195-98 130.0-132.4	0.055		0.061	0.05
D-195-98 132.4-135.0	0.068		0.059	0.14
D-195-98 135-140	0.106		0.092	0.13
D-195-98 140.0-143.2	0.077		0.081	0.10
D-195-98 143.2-144.9	0.010			0.08
D-195-98 144.9-150.0	0.088		0.100	0.62
D-195-98 150-152	0.142		0.168	0.11
D-195-98 152.0-153.7	0.023			0.09
D-195-98 153.7-158.7	0.114		0.119	0.69
D-195-98 158.7-163.7	0.022			0.98
D-195-98 163.7-166.5	0.047			0.07
D-195-98 166.5-170.0	0.005			0.03
D-195-98 170-173	0.006			0.25
D-195-98 173-176	0.360		0.327	0.63
D-195-98 176-180	0.026			0.19
D-195-98 180.0-183.6	0.132		0.104	1.64

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP048461

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-195-98

REPORTED : 15 APR 1998

183.6-192.5 = 8.9'

SAMPLES		Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)	
D-195-98 183.6-187.0	3.4'	0.033			15.22	
D-195-98 187.0-191.2	4.2	0.117		0.098	66.93	0.071 Au
D-195-98 191.2-192.5	1.3	0.019			24.83	41.03 Ag
D-195-98 192.5-195.5		0.021			0.62	
D-195-98 195.5-196.5		0.009			1.18	
D-195-98 196.5-200.0		0.004			0.43	
D-195-98 200.0-203.5		0.002			0.14	
D-195-98 203.5-204.3		0.004			0.29	
D-195-98 204.3-207.0		0.002			0.14	
D-195-98 207-210		0.002			0.24	
27834		0.536			ISF	

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
Fax
(702) 356-1413

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Tucson, AZ 85706
Telephone
(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: Rosebud Mine

Address: P.O. Box 2610

City Winnemucca State NV Zip 89446

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

Project Name: Development Purchase Order Number:

Date Submitted: 4/5/98 Number of Samples: 60 ~~lbs~~

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

D-195-98 SAMPLE IDENTIFICATION		TYPE	ELEMENTS REQUIRED	
0-5	54.0-56.0	Core	114.0-119.0	166.5-170.0
5-10	56.0-60.0		119.0-121.3	170.0-173.0
10-15	60.0-65.0		121.3-126.0	173.0-176.0
15-17.3	65.0-70.0		126.0-130.0	176.0-180.0
17.3-19.5	70.0-75.0		130.0-132.4	180.0-183.6
19.5-24.0	75.0-80.0		132.4-135.0	183.6-187
24.0-28.9	80.0-85.0		135.0-140.0	187-191.2
28.9-32.2	85.0-90.0		140.0-143.2	191.2-192.5
32.2-34.8	90.0-91.0		143.2-144.9	192.5-195.5
34.8-38.0	91.0-96.0		144.9-150.0	195.5-196.5
38.0-42.0	96.0-101.6		150-152.0	196.5-200.0
42.0-45.0	101.6-102.6		152.0-153.7	200.0-203.5
45.0-48.0	102.6-105.0		153.7-158.7	203.5-204.3
48.0-51.0	105.0-109.3		158.7-163.7	204.3-207.0
51.0-54.0	109.3-114.0		163.7-166.5	207.0-210.0

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:
Au-Ag According to Rosebud Mining Protocol

CLIENT FILE COPY

D 195-98
BOX 02
DEPTH
9.5 - 19.0

D 195-98
BOX 01
DEPTH
0.0 - 9.5

D 195-98
BOX 03
DEPTH
19.0 - 29.0

D 195-98
BOX 05
DEPTH
38.5 - 47.5

D 195-98
BOX 04
DEPTH
39.0 - 38.5

D 195-98
BOX 06
DEPTH
47.5 - 57.0

D 195-98
BOX 08
DEPTH
66.5- 76.0
76

D 195-98
BOX 07
DEPTH
57.0- 66.5
65

D 195-98
BOX 09
DEPTH
76.0- 85.5
85

D 195-98
BOX 11
DEPTH
95.0 - 104.5

D 195-98
BOX 10
DEPTH
85.5 - 95.0

D 195-98
BOX 12
DEPTH
104.5 - 114.0

D 195-98
BOX 14
DEPTH
123.5 - 133.5
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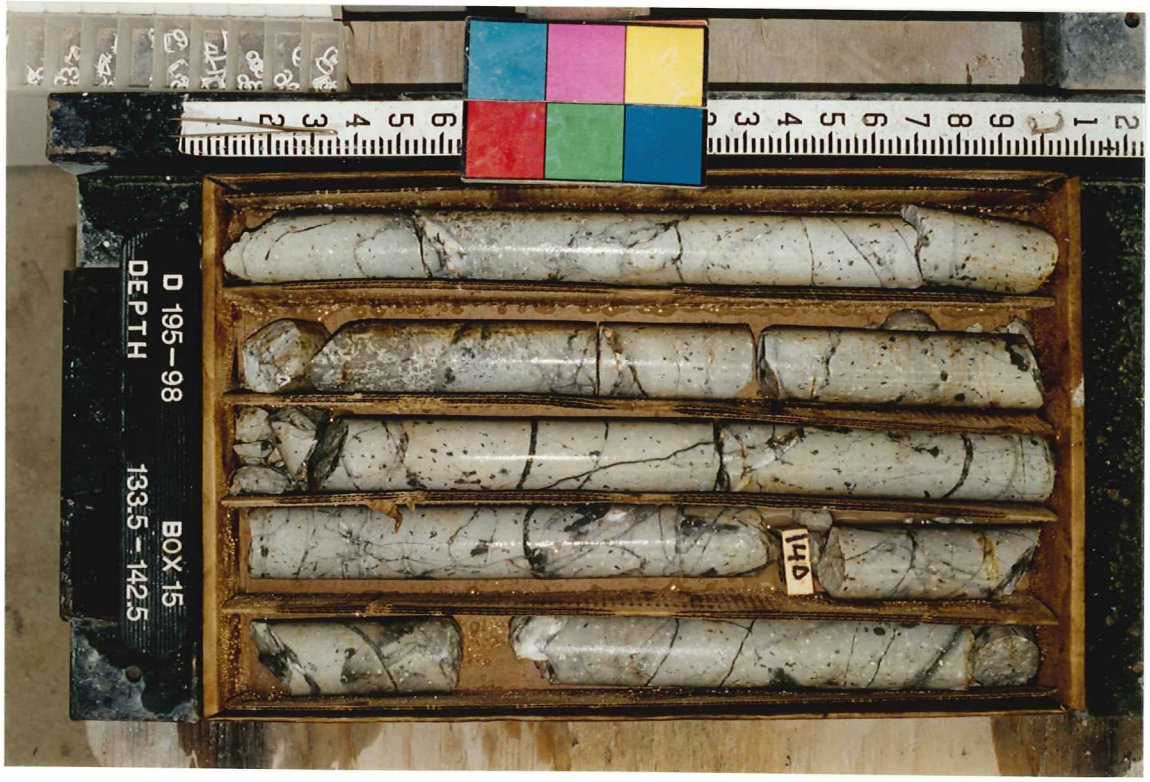
D 195-98
BOX 13
DEPTH
114.0 - 123.5
120


D 195-98
BOX 15
DEPTH
133.5 - 142.5
140

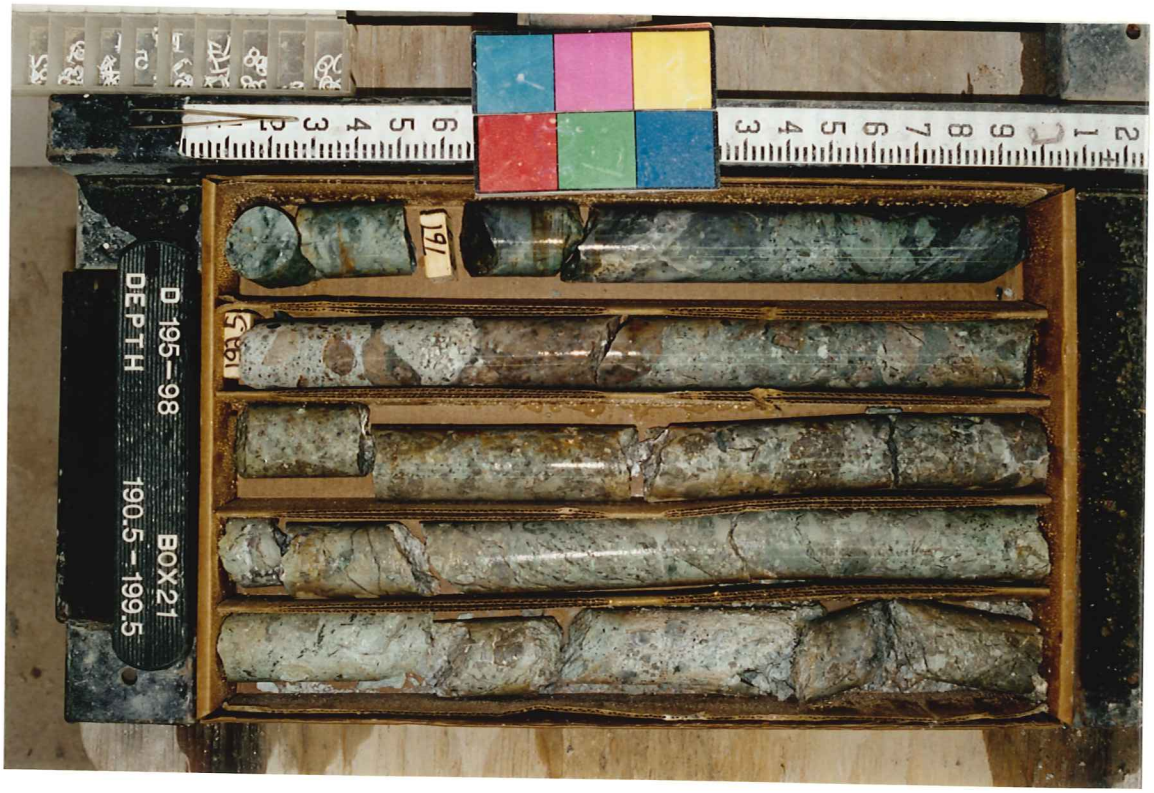
D 195-98
BOX 17
DEPTH
152.0 - 161.5
160

D 195-98
BOX 16
DEPTH
142.5 - 152.0
150

D 195-98
BOX 18
DEPTH
162.5 - 171.5
170

D 195-98
BOX 20
DEPTH
181.0 - 190.5
187

D 195-98
BOX 19
DEPTH
171.5 - 181.0
180


D 195-98
BOX 21
DEPTH
190.5 - 199.5
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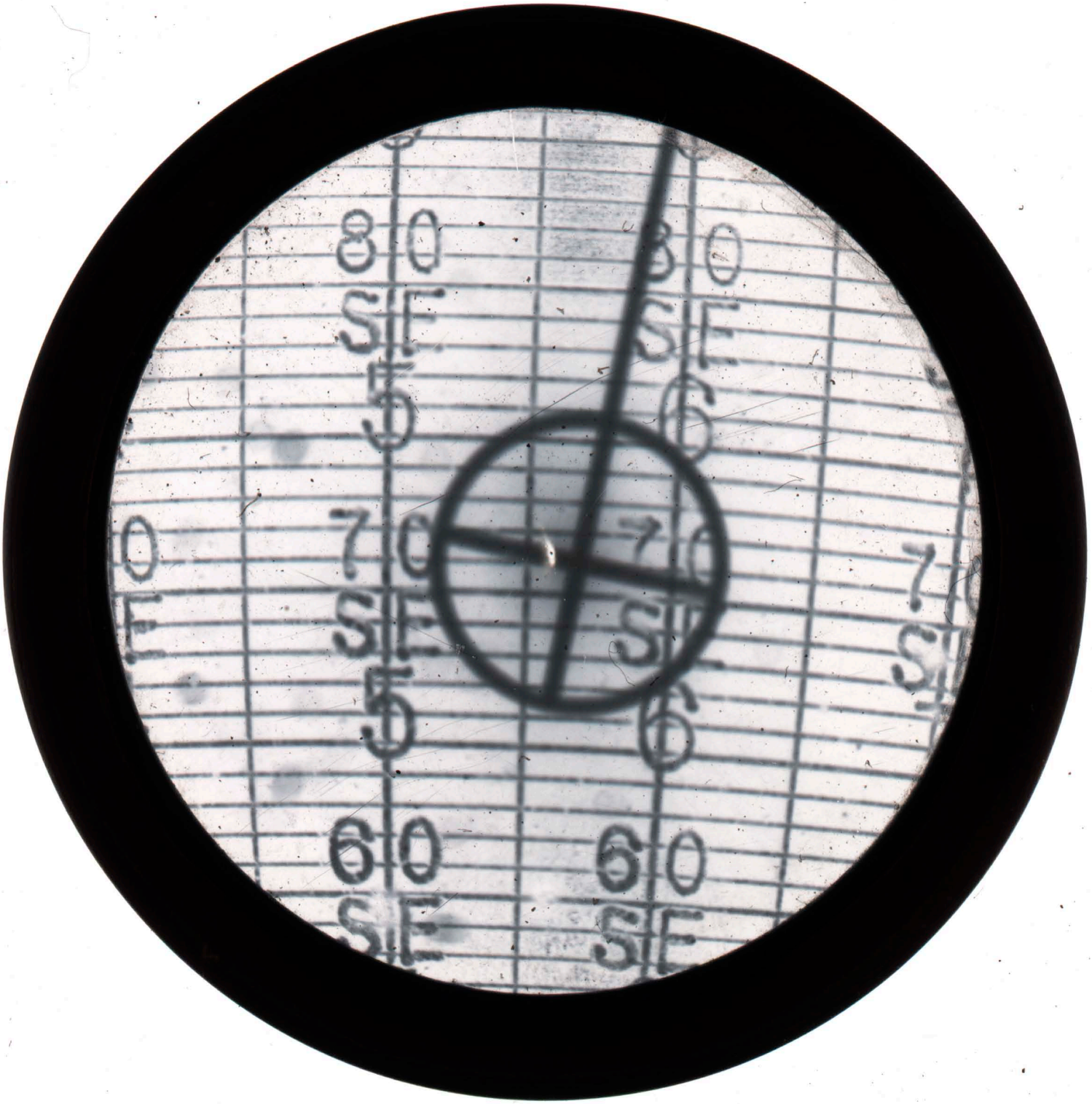
195

210
D 195-98
BOX23
DEPTH
209.0 - 210.TD

D 195-98
BOX22
DEPTH
199.5 -209.0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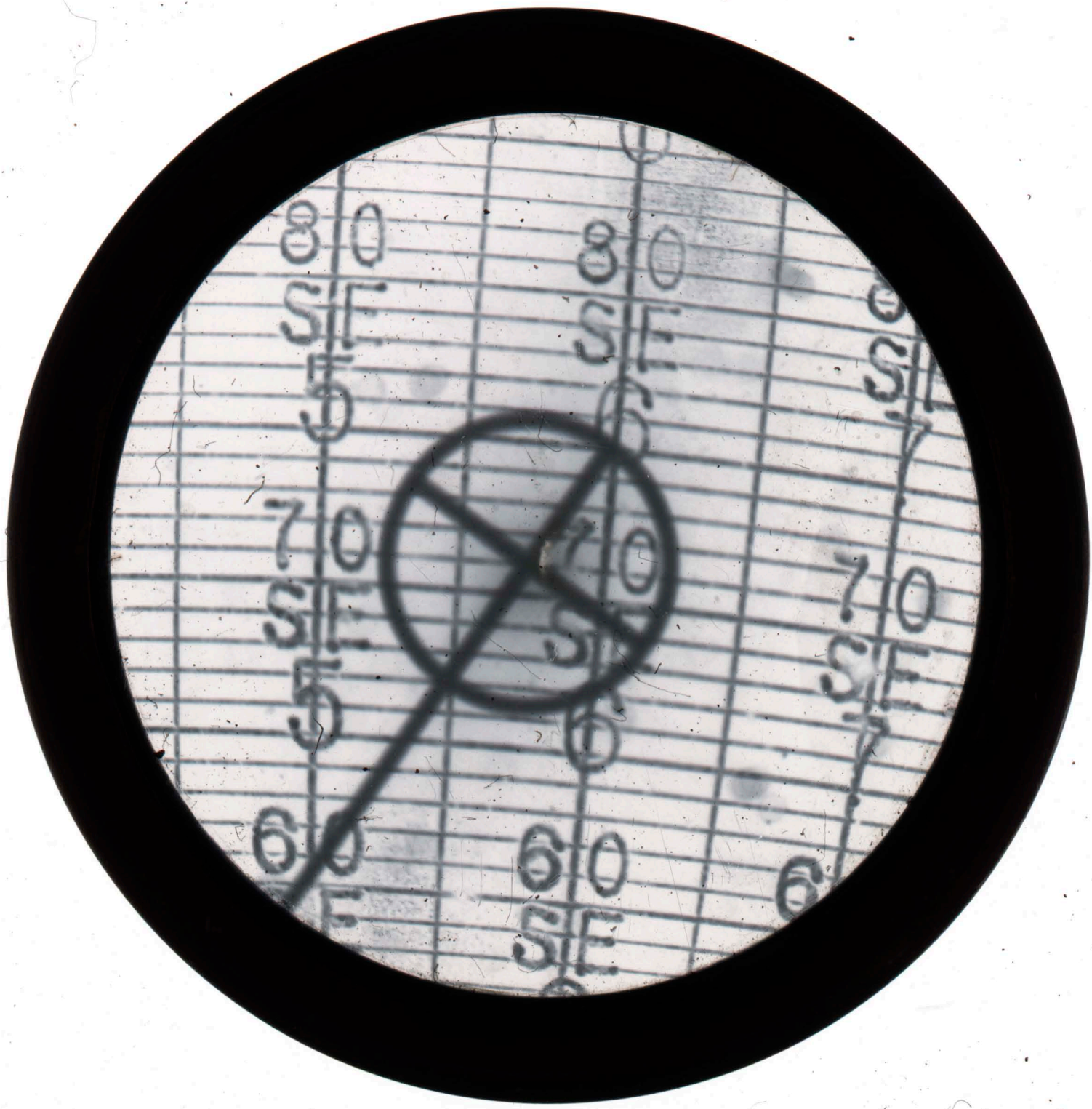
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