6000 0697

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 SL-D401-00
AUTHOR	K. Allen; D. Mackerrow; L. Mackedon; B. Morris
DATE OF DOC(S)	2000
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 593'; hand written notes down hole camera images 58p. 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)

	Initials	Date
SS:	DD	4/25/08
DB:		
SCANNED:		

Revised: 1/22/08

SL-D401-00

6000 0697
4010

6000 0697

Hecla MINING COMPANY

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

Intensity: • • • — — —

ROSEBUD PROJECT
DIAMOND DRILL LOG

HOLE NUMBER	SL-0401-00	LOCATION	ST. Louis 4335
PAGE 1 OF 9		NORTHING	
DATE	5/12/00	EASTING	
LOGGED BY	D.G. Mulherin	ELEVATION	
SCALE	1" = 10'	AZIMUTH	N 65E
TOTAL DEPTH	593	INCLINATION	-69

REMARKS

TH	OX/RE	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ac
Td		0–214.5 DOZER Fine grain to aphantic rhyolite flow. Due to brecciated flow texture. Matrix of Autobxs is rhyolitic. Clast can be laminated. Hematite stains core pinkish brown. Dark brick red stains on fracture and more alterable breccia clasts.	10 20 30 40 50	60	Minimal fracturing Present	Hematite present as fine specularite crystals, No significant alteration 34.5 – 35.5 moderate rxn to acid by calcite in autobxs matrix							

HOLE NUMBER SL-D401-00 PAGE 2 OF 9

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ag2
Td		0-214.5 DOZER Rhyolite flow continue Hematite begins to get a slight propylitic overprint at 67'	50 60 70 80 90 100 110 120		No significant fractures 50 to 120	67 Propylitic/chloritic alteration turns core greenish gray with dark red brown matrix clas 113 50° Tan calcite vein							

HOLE NUMBER SL-0401-00 PAGE 3 OF 9

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ag2
Td		0-214.5 DOZER Autobrecciated rhyolite flow continues. Propylitic/chloritic green alteration dominates. Traces of hematite locally stain Autobx matrix when argillized core bleaches light whitish gray	120 130 140 150 160 170 180 190			148 A Trace of pyrite begins to be found below .5%							

HOLE NUMBER SL-D401-00 PAGE 4 OF 9

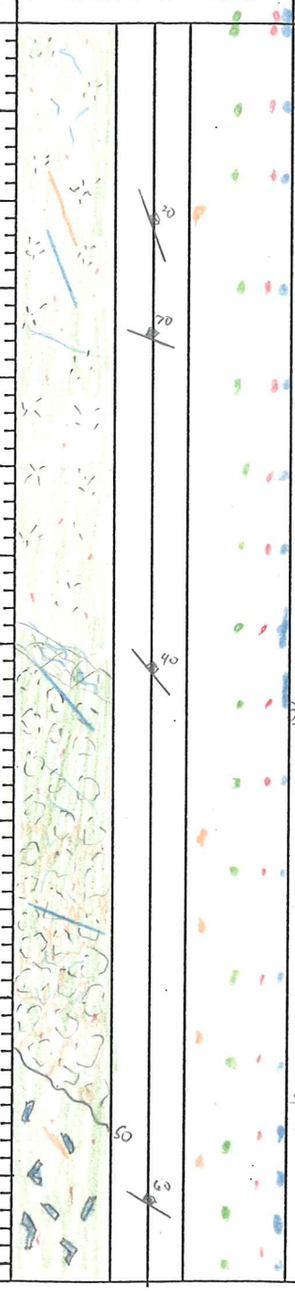
LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
Td		0-214.5 DOZER Fine grained rhyolite flow	190 200 210	40 60 60 30	203.3—209.6 Contact lost during drilling. Possible dip at 60 to	
BMP		214.5-248.5 BMP TYPE PORPHYRY Fine grained matrix with calcite replaced sanadines and glomerophoritic feldspar clast. Dark greenish alteration of phenocryst	220 230 240	50 30 20 50 40 40	213.5-214.5 Fault contact with BMPT. Calcite Vein on along shear at 213.5	223 white clay on fxs
Td		248.5-378.5 DOZER Rhyolite autobreccia continues. Pale greenish gray.	250 260	30		248-268 Pyrite agglomeration forms small masses

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
203.3	209.6					
209.6	213					
213	214.5					

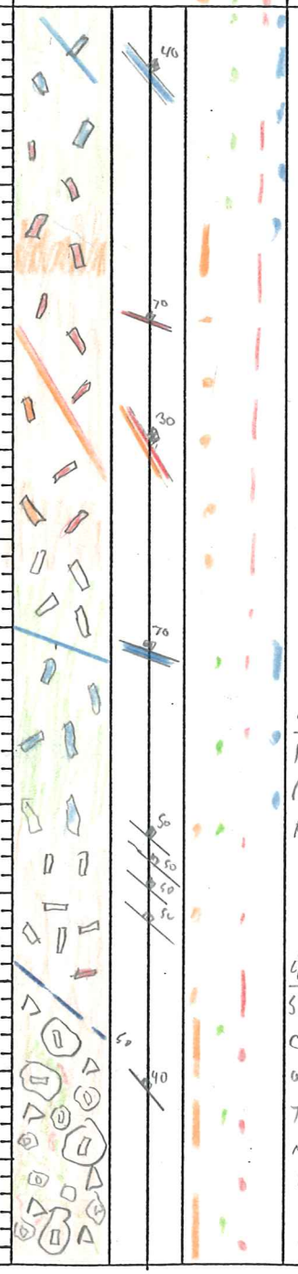
HOLE NUMBER SL-DH01-00 PAGE 5 OF 9

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ag2
Td		248.5 - 328.5 DOZER Rhyolite flow continue Intensity (expansion) of auto breccia decreases 328 Auto brecciation begins a general increase	260 270 280 290 300 310 320 330	40 6		293 - 2" very argillized core 299 Pyrite coats fracture, on 40° to fracture							

HOLE NUMBER SL-D401-00 PAGE 6 OF 9

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ag2
Td		248.5 – 389.5 DOZER Fine grained rhyolitic flow continues. Minor flow lamination present when autobreccia is not present	330 340 350 360 370 380 390 400		360 – 389.5 autobrecciated 389.5 Irregular 50° to intrusive contact	Pyrite content <1% to 400' 343 white clay unit 373 Trace of argillic alteration of the autobreccia matrix 400 Fracture with white clay							
Td		389.5 – 473.7 BMP TYPE PORPHYRY Glomeroporphyritic intrusive; calcite replace sanidine and feldspars											

HOLE NUMBER SL-D401-00 PAGE 7 OF 9

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
Td		389.5-473.7 BMP TYPE PORPHYRY Glomeroporphoritic intrusive calcite or pyrite replace phenocryst. Pale green gray in color bleached by argillization to white gray. Very weak calcite RXN on occasional Fx 434-446.7 calcite replaced large sanadines 456-478 FAULT ZONE Upper portion of breccia is BMP intrusive clast. Possible multiple intrusions after remobilization of fault Large clast of second intrusion at 460-461. Green clay matrix contains shiny pyrite cubes	400 410 420 430 440 450 460 470		446.7-456 Hanging wall fracture zone High fracture frequency 456-473.7 Matrix supported breccia clast of intrusive and possible Qozeo This is the green clay matrix breccia that is not healed. Late fault	412-415.2 Moderate argillization with pyrite and marcasite in white clay veins Pyrite replaces phenocrys 415.2-431.9 weak to moderate argillization Pyrite ± marcasite white clay and sulfide replace phenocrys There is bleeding of pyrite out of the veinlets. 431.9-434.2 Moderate to heavy argillization Soft rock with pyrite ± marcasite veinlets 434.2-446.7 Pale green alteration (propy) calcite replaced phenocrys No argillization 446.7-456 Hanging wall argillization is weak Hard green clay on fracture 456-458 Heavy argillization core is brecciated rock white clay and pyrite ± marcasite

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
408	412					
412	415.2					
415.2	418					
418	423					
423	428					
428	431.9					
431.9	434.2					
434.2	438					
438	443					
443	446.7					
446.7	453					
453	456					
456	458					
458	463					
463	468					
468	471.8					

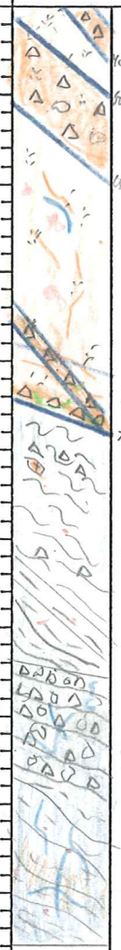
HOLE NUMBER SL-D401-00 PAGE 8 OF 9

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
BMP		389.5 473.7 "BMP" TYPE PORPHYRY	470		473.7-478 Fault	
Td		473.7 -496.7 DOZER Argillized rhyolite with pale gray white color. Locally fractures are filled with white clay and calcite. Pyrite ± marcasite veins and small fracture filling. There is a General foliation/shear fabric at 70° to	480 490		473.7 Shear plane contact, Oblique slicks 60° to. Breccia of fault zone continues to 478 but in fact effects core to contact with ALS 496-497 Sheared Dozer upper contact is at 20° while contact with ALS is 70° to 496.7 No significant brecciation in the ALS	473.7 Trace of silica hardens clay near contact for .5'
ALS		496.7-504 ALS Phillitic shale and fine grained intrusive. Highly calcite veined and calcareous	500		504 Fault contact 40° to	499.5-501 Argillized Intrusive breccia on the foot wall to fault contact with Dozer
Td		504-508.2 DOZER Pale green gray rhyolite with weak argillization			508.2 Depositional contact Dozer on ALS	
ALS		508.2-512.8 ALS Phillitic shale fine grained intrusive	510		512.8 Fault contact ALS/Dozer. Breccia from 511 to 515.2	
Td		512.8 -519 DOZER Shear pale green gray rhyolite			519 contact is depositional between Dozer and ALS	
ALS		519-531.5 ALS. Phillitic shale with fine grain igneous. Major core loss 525.5-528 525.5-531.5 Very black with fine disseminated pyrite in decalcified shale	520 530		531.5 Fault contact Shearing in dozer continues to 533	525-1" quartz vein with drusy surface coating 525.5-531.5 Decalcified Phillitic shale added Carbon make core very black. Bad drilling
Td		531.5-563 DOZER Rhyolite flow continues as above. Argillization continue through the whole fault block. Green clay alteration for 536-544	540		531.8 Sharp 60° shear plane with decreasing disruption to 533 539.5 Fault contact lost to drilling	531.5-563 Argillized Dozer. Greater clay development in breccia zone Low % pyrite with trace marcasite

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
468	471.8					
471.8	473.7					
473.7	478					
478	483					
483	488					
488	493					
493	496.7					
496.7	499.5					
499.5	504					
504	508.2					
508.2	512.8					
512.8	515.2					
515.2	519					
519	522.5					
522.5	525.5					
525.5	528					
528	531.5					
531.5	533					
533	538					
538	539.5					
539.5	540.4					

HOLE NUMBER SL-D401-00 PAGE 9 OF 9

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
Td		531.5-563 DOZER Rhyolite continues pale green gray to white gray in color	540 550 560 570 580 590		543-547.7 MOSAIC breccia with minor interclastal clay development 562.5-563 Brecciated dozer with green clay matrix upper plane is 40° tex and lower plane is 70° tex 577.5-583.4 Bedding breccia locally milled	558.5-563 Increased argillization with lime green clay matrix at fault contact
ACS		563-593 ALS. Phillitic shales with minor silty interbeds A.L.S. is disrupted to moderate levels to 568 bedding breccia and ½" boudens of igneous rock ACL shale is calcareous and contains calcite veining				
		TD 593				

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
540.4	543					
543	547.7					
547.7	553					
553	558.5					
558.5	563					
563	568					
568	573					
573	578					
578	583					
583	588					
588	593					

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-D4101 DATE: 5-11-00 LOGGED BY: D.G. MacKenzie PAGE 1 OF 11

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	8	33	59	45										
8	13	100	100	100										
13	18	100	104	100										
18	23	100	102	100										
23	28	100	102	90										
28	33	100	100	80										
33	38	100	100	100										
38	43	100	100	100										
43	48	100	100	100										
48	53	100	100	100										
53	58	100	100	100										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-0401-00 DATE: 5-11-00 LOGGED BY: D.G. MacHerra PAGE 2 OF 11

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)
58	63	100	100	100										
63	68	100	100	100										
68	73	100	98	100										
73	78	100	104	100										
78	83	100	101	100										
83	88	100	98	100										
88	93	100	102	100										
93	98	100	100	100										
98	103	100	100	100										
103	108	100	100	100										
108	113	100	100	100										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-D401-00 DATE: 5-11-00 LOGGED BY: D.G. Mackenzie PAGE 3 OF 11

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)
113	118	100	100	100										
118	123	100	100	100										
123	128	100	96	100										
128	133	100	104	100										
133	138	100	102	100										
138	143	100	92	100										
143	148	100	100	100										
148	153	100	100	98										
153	158	100	106	98										
158	163	100	102	100										
163	168	100	100	100										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-D401-00 DATE: 5-11-00 LOGGED BY: D.G. Mackerrow PAGE 4 OF 11

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)
168	173	100	100	100										
173	178	100	100	100										
178	183	100	100	86										
183	188	100	102	88										
188	193	100	100	100										
193	198	100	100	100										
198	203	100	94	54										
203	208	0	60	FLT 0										
208	213	46	88	8										
213	218	40	100	20										
218	223	56	94	28										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # S1-D401-00 DATE: 5-11-00 LOGGED BY: D.G. Mackerow PAGE 5 OF 11

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)
223	228	92	100	60										
228	233	100	100	78										
233	238	100	104	96										
238	243	100	96	62										
243	248	100	102	46										
248	253	100	102	92										
253	258	100	100	92										
258	263	100	100	100										
263	268	100	100	80										
268	273	100	102	100										
273	278	100	100	90										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SC-D-401-00 DATE: 5-11-00 LOGGED BY: D.G. Muckerra PAGE 6 OF 11

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)
278	283	100	100	100										
283	288	100	100	100										
288	293	100	100	94										
293	298	100	102	94										
298	303	100	100	92										
303	308	100	100	100										
308	313	100	98	100										
313	318	100	100	100										
318	323	100	100	100										
323	328	100	100	100										
328	333	100	104	100										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-D401-00 DATE: 5-12-00 LOGGED BY: D.G. MacKenzie PAGE 7 OF 11

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)
333	338	100	100	100										
338	343	100	98	100										
343	348	100	100	92										
348	353	100	100	100										
353	358	100	98	100										
358	363	100	102	84										
363	368	100	100	96										
368	373	100	100	100										
373	378	100	96	100										
378	383	100	100	100										
383	388	100	100	100										
388	393	100	100	68										
393	398	100	102	99										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-401-00 DATE: 4-12-00 LOGGED BY: D.G. MacKenzie PAGE 8 OF 11

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)
398	403	100	100	66										
403	408	100	100	36										
408	413	100	100	68										
413	418	100	98	96										
418	423	100	102	76										
423	428	100	98	70										
428	433	100	96	88										
433	438	100	104	84										
438	443	100	100	82										
443	448	100	94	34										
448	453	28	98	24										
453	458	46	74	12										
458	463	72	100	70										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SCD401-00 DATE: 4-12-06 LOGGED BY: D.G. Mackenzie PAGE 9 OF 11

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)
463	468	28	106	8										
468	473	64	100	42										
473	478	58	98	10										
478	483	100	98	86										
483	488	88	102	36										
488	493	94	100	58										
493	498	98	96	46										
498	503	98	100	46										
503	508	100	100	64										
508	513	98	96	0										
513	518	100	102	18										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-D401-00 DATE: 4-12-00 LOGGED BY: D.G. Mackerron PAGE 10 OF ____

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)
518	523	100	98	14										
523	525.5	100	84	0										
525.5	528	0	4	0										
528	531.5	0	88	0										
531.5	533	100	100	53										
533	538	80	100	64										
538	543	92	100	18										
543	548	100	96	0										
548	553	94	100	12										
553	558	50	100	50										
558	563	82	100	24										

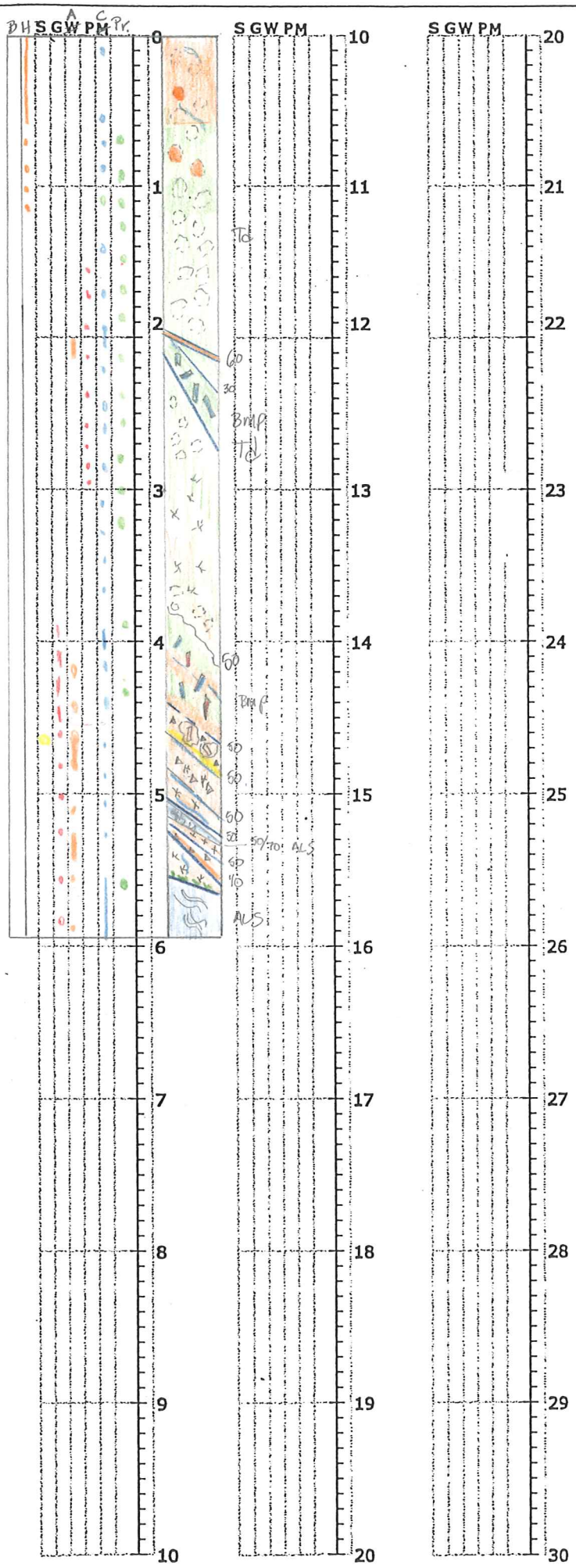
HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-D401-00 DATE: 4-12-00 LOGGED BY: D.G. Mackerrow PAGE 11 OF

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)
563	568	40	100	0										
568	573	90	100	0										
573	578	98	100	0										
578	583	92	100	0										
583	588	96	90	0										
588	593	24	88	12										

ROSEBUD MINING COMPANY, LLC.

HOLE #	SL-D401-00
START HOLE	
FINISH HOLE	
HOLE TYPE	
LOGGED BY	D.G. Mackerrow
BEARING	52
ANGLE	-67
T.D	593
PAGE 1 OF 1	
SURVEYED TO	453
COLLAR COORDINATES	
NORTH	
EAST	
ELEV	
DRILLER	
DRILLING CO.	Action Drilling



ALTERATION INTENSITY

1 WEAK	2 MODERATE	3 STRONG

VERITHIN COLOR

737	SILICIFICATION
751	GREEN CLAY
747½	WHITE CLAY
755	PYRITE
757	MARCASITE

GRAPHIC LOG

VERITHIN COLOR

	BRECCIA
741	FAULT 741
	CONTACT
737	QUARTZ VEIN
741½	CALCITE VEIN
747½	CLAY VEIN
755	PYRITE VEIN

B	Barite
H	Hematite
S	Silicification
G	Green Clay
A	Argillization
P	Py/Marc
C	Calcite
Pr.	Propylitization

Drill hole # SL-D401-00

Down hole depth	Quadrant:	Measured Bearing	Corrected Azimuth	Measured Inclination	Corrected Dip
53	NE	52.5	68.12	23.2	-66.8
253	NE	52.5	68.12	22.8	-67.2
453	NE	52	67.62	22.2	-67.8

TD Depth 593

2000 Declination 15.62

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

(775) 356-0606

INVOICE NO: SP 0057430-IN
INVOICE DATE: 06/02/00

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
SL-D401-00	KURT ALLEN	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
4	SAMPLES RECEIVED	.00	.00
1	NO PREPARATION REQUIRED	.00	.00
3	DRY/JAW CRUSH ENTIRE SAMPLE	2.30	6.90
3	COARSE MILLING CHARGE	6.00	18.00
3	"JONES" RIFFLE SPLIT	2.40	7.20
3	RING/PUCK MILL	2.00	6.00
4	Au (1 A.T. FIRE ASSAY)	8.00	32.00
4	HYDROCHLORIC/NITRIC DIGESTION	2.00	8.00
4	Ag ANALYSES	1.00	4.00

86-3010-477
KDJ

NET INVOICE:	82.10
LESS DISCOUNT:	24.63
FREIGHT:	.00
INVOICE TOTAL:	57.47

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057430

American Assay Laboratories

PO BOX 11530
RENO NV,USA
Ph.(775) 356-0606, Fax.(775) 356-1413

HECLA MINING COMPANY

COPIES TO : BRIAN MORRIS
: KURT ALLEN
:
:

CLIENT REFERENCE No: SL-D401-00 RECEIVED : 15 MAY 2000

No. SAMPLES : 4 REPORTED : 2 JUN 2000

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 : Leonard E. Mackedon B.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057430

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SL-D401-00

REPORTED : 2 JUN 2000

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
SL-D401-00 203.3-209.6	0.001		0.03
SL-D401-00 209.6-213.0	<0.001		<0.02
SL-D401-00 213.0-214.5	<0.001		<0.02
34765	0.063		1.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057430

American Assay Laboratories

PO BOX 11530
RENO NV,USA
Ph.(775) 356-0606, Fax.(775) 356-1413

HECLA MINING COMPANY

COPIES TO : BRIAN MORRIS
: KURT ALLEN
:
:

CLIENT REFERENCE No: SL-D401-00 RECEIVED : 15 MAY 2000

No. SAMPLES : 4 REPORTED : 2 JUN 2000

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
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Leonard E. Mackedon B.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057430

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SL-D401-00

REPORTED : 2 JUN 2000

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
SL-D401-00 203.3-209.6	0.001		0.03
SL-D401-00 209.6-213.0	<0.001		<0.02
SL-D401-00 213.0-214.5	<0.001		<0.02
34765	0.063		1.02

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057430

PO BOX 11530
RENO NV,USA
Ph.(775) 356-0606, Fax.(775) 356-1413

HECLA MINING COMPANY

COPIES TO : BRIAN MORRIS

: KURT ALLEN

:

:

CLIENT REFERENCE No: SL-D401-00 RECEIVED : 15 MAY 2000

No. SAMPLES : 4 REPORTED : 2 JUN 2000

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 : Leonard E. Mackedon B.S.

06/02/2000 13:55 7753561413 AMERICAN ASSAY LABS PAGE 01
7753561413

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057430

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SL-D401-00

REPORTED : 2 JUN 2000

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)
SL-D401-00 203.3-209.6	0.001		0.03
SL-D401-00 209.6-213.0	<0.001		<0.02
SL-D401-00 213.0-214.5	<0.001		<0.02
34765	0.063		1.02

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057430

PO BOX 11530
RENO NV,USA
Ph.(775) 356-0606, Fax.(775) 356-1413

HECLA MINING COMPANY

COPIES TO : BRIAN MORRIS
: KURT ALLEN
:
:

CLIENT REFERENCE No: SL-D401-00 RECEIVED : 15 MAY 2000

No. SAMPLES : 4 REPORTED : 22 MAY 2000

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 : Leonard E. Mackedon B.S.

05/22/2000 12:49 7753561413 AMERICAN ASSAY LABS PAGE 03

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057430

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SL-D401-00

REPORTED : 22 MAY 2000

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)
SL-D401-00 203.3-209.6	0.001		
SL-D401-00 209.6-213.0	<0.001		
SL-D401-00 213.0-214.5	<0.001		
34765	0.063		

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057025

American Assay Laboratories

PO BOX 11530
RENO NV,USA
Ph.(775) 356-0606, Fax.(775) 356-1413

HECLA MINING COMPANY

COPIES TO : BRIAN MORRIS

: KURT ALLEN

:

:

CLIENT REFERENCE No: SL-D401-00 RECEIVED : 17 APR 2000

No. SAMPLES : 48 REPORTED : 25 APR 2000

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 : Leonard E. Mackedon B.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057025

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SL-D401-00

REPORTED : 25 APR 2000

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
SL-D401-00 408-412	0.008		0.07
SL-D401-00 412.0-415.2	0.074	0.076	0.24
SL-D401-00 415.2-418.0	0.018		0.09
SL-D401-00 418-423	0.003		0.05
SL-D401-00 423-428	0.003		0.05
SL-D401-00 428.0-431.9	0.024		0.05
SL-D401-00 431.9-434.2	0.009		0.13
SL-D401-00 434.2-438.0	<0.001		0.02
SL-D401-00 438-443	<0.001		<0.02
SL-D401-00 443.0-446.7	<0.001		<0.02
SL-D401-00 446.7-453.0	0.030		0.02
SL-D401-00 453-456	<0.001		0.02
SL-D401-00 456-458	0.142		0.26
SL-D401-00 458-463	<0.001		0.02
SL-D401-00 463-468	<0.001		<0.02
SL-D401-00 468.0-471.8	<0.001		<0.02
SL-D401-00 471.8-473.7	0.001		<0.02
SL-D401-00 473.7-478.0	<0.001		0.03
SL-D401-00 478-483	<0.001		0.02
SL-D401-00 483-488	<0.001		0.02
SL-D401-00 488-493	<0.001	<0.001	<0.02
SL-D401-00 493.0-496.7	0.002		<0.02
SL-D401-00 496.7-499.5	<0.001		0.02
SL-D401-00 499.5-504.0	<0.001		0.03
SL-D401-00 504.0-508.2	<0.001		<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057025

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SL-D401-00

REPORTED : 25 APR 2000

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
SL-D401-00 508.2-512.8	<0.001		0.04
SL-D401-00 512.8-515.2	0.008		0.02
SL-D401-00 515.2-519.0	0.002		0.10
SL-D401-00 519.0-522.5	<0.001		0.04
SL-D401-00 522.5-525.5	<0.001		<0.02
SL-D401-00 525.5-528.0	<0.001		0.05
SL-D401-00 528.0-531.5	<0.001		0.07
SL-D401-00 531.5-533.0	0.003		<0.02
SL-D401-00 533-538	<0.001		<0.02
SL-D401-00 538.0-539.5	<0.001		<0.02
SL-D401-00 539.5-540.4	<0.001		<0.02
SL-D401-00 540.4-543.0	<0.001		<0.02
SL-D401-00 543.0-547.7	0.001		0.02
SL-D401-00 547.7-553.0	0.002		<0.02
SL-D401-00 553.0-558.5	0.002	0.002	<0.02
SL-D401-00 558.5-563.0	0.003		<0.02
SL-D401-00 563-568	<0.001	<0.001	<0.02
SL-D401-00 568-573	<0.001		<0.02
SL-D401-00 573-578	<0.001		<0.02
SL-D401-00 578-583	<0.001		<0.02
SL-D401-00 583-588	<0.001		0.02
SL-D401-00 588-593	<0.001		0.02
89657	0.385		3.35

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057025

American Assay Laboratories

PO BOX 11530
RENO NV,USA
Ph.(775) 356-0606, Fax.(775) 356-1413

HECLA MINING COMPANY

COPIES TO : BRIAN MORRIS

: KURT ALLEN

:

:

CLIENT REFERENCE No: SL-D401-00 RECEIVED : 17 APR 2000

No. SAMPLES : 48 REPORTED : 25 APR 2000

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 : Leonard E. Mackedon B.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057025

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SL-D401-00

REPORTED : 25 APR 2000

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
SL-D401-00 408-412	0.008		0.07
SL-D401-00 412.0-415.2	0.074	0.076	0.24
SL-D401-00 415.2-418.0	0.018		0.09
SL-D401-00 418-423	0.003		0.05
SL-D401-00 423-428	0.003		0.05
SL-D401-00 428.0-431.9	0.024		0.05
SL-D401-00 431.9-434.2	0.009		0.13
SL-D401-00 434.2-438.0	<0.001		0.02
SL-D401-00 438-443	<0.001		<0.02
SL-D401-00 443.0-446.7	<0.001		<0.02
SL-D401-00 446.7-453.0	0.030		0.02
SL-D401-00 453-456	<0.001		0.02
SL-D401-00 456-458	0.142		0.26
SL-D401-00 458-463	<0.001		0.02
SL-D401-00 463-468	<0.001		<0.02
SL-D401-00 468.0-471.8	<0.001		<0.02
SL-D401-00 471.8-473.7	0.001		<0.02
SL-D401-00 473.7-478.0	<0.001		0.03
SL-D401-00 478-483	<0.001		0.02
SL-D401-00 483-488	<0.001		0.02
SL-D401-00 488-493	<0.001	<0.001	<0.02
SL-D401-00 493.0-496.7	0.002		<0.02
SL-D401-00 496.7-499.5	<0.001		0.02
SL-D401-00 499.5-504.0	<0.001		0.03
SL-D401-00 504.0-508.2	<0.001		<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057025

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SL-D401-00

REPORTED : 25 APR 2000

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
SL-D401-00 508.2-512.8	<0.001		0.04
SL-D401-00 512.8-515.2	0.008		0.02
SL-D401-00 515.2-519.0	0.002		0.10
SL-D401-00 519.0-522.5	<0.001		0.04
SL-D401-00 522.5-525.5	<0.001		<0.02
SL-D401-00 525.5-528.0	<0.001		0.05
SL-D401-00 528.0-531.5	<0.001		0.07
SL-D401-00 531.5-533.0	0.003		<0.02
SL-D401-00 533-538	<0.001		<0.02
SL-D401-00 538.0-539.5	<0.001		<0.02
SL-D401-00 539.5-540.4	<0.001		<0.02
SL-D401-00 540.4-543.0	<0.001		<0.02
SL-D401-00 543.0-547.7	0.001		0.02
SL-D401-00 547.7-553.0	0.002		<0.02
SL-D401-00 553.0-558.5	0.002	0.002	<0.02
SL-D401-00 558.5-563.0	0.003		<0.02
SL-D401-00 563-568	<0.001	<0.001	<0.02
SL-D401-00 568-573	<0.001		<0.02
SL-D401-00 573-578	<0.001		<0.02
SL-D401-00 578-583	<0.001		<0.02
SL-D401-00 583-588	<0.001		0.02
SL-D401-00 588-593	<0.001		0.02
89657	0.385		3.35

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

(775) 356-0606

INVOICE NO: SP 0057025-IN
INVOICE DATE: 05/02/00

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
SL-D401-00	KURT ALLEN	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
48	SAMPLES RECEIVED	.00	.00
1	NO PREPARATION REQUIRED	.00	.00
47	DRY/JAW CRUSH ENTIRE SAMPLE	2.60	122.20
47	COARSE MILLING CHARGE	6.00	282.00
47	ROTARY SPLIT	2.40	112.80
47	RING/PUCK MILL	2.00	94.00
48	Au (1 A.T. FIRE ASSAY)	8.00	384.00
48	HYDROCHLORIC/NITRIC DIGESTION	2.00	96.00
48	Ag ANALYSES	1.00	48.00

86-3010-477
KM

NET INVOICE:	1,139.00
LESS DISCOUNT:	341.70
FREIGHT:	.00
INVOICE TOTAL:	797.30

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057025

PO BOX 11530
RENO NV,USA
Ph.(775) 356-0606, Fax.(775) 356-1413

HECLA MINING COMPANY

COPIES TO : BRIAN MORRIS

: KURT ALLEN

:

:

CLIENT REFERENCE No: SL-D401-00 RECEIVED : 17 APR 2000

No. SAMPLES : 48 REPORTED : 25 APR 2000

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 : Leonard E. Mackedon B.S.

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057025

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SL-D401-00

REPORTED : 25 APR 2000

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)
SL-D401-00 408-412	0.008		0.07
SL-D401-00 412.0-415.2	0.074	0.076	0.24
SL-D401-00 415.2-418.0	0.018		0.09
SL-D401-00 418-423	0.003		0.05
SL-D401-00 423-428	0.003		0.05
SL-D401-00 428.0-431.9	0.024		0.05
SL-D401-00 431.9-434.2	0.009		0.13
SL-D401-00 434.2-438.0	<0.001		0.02
SL-D401-00 438-443	<0.001		<0.02
SL-D401-00 443.0-446.7	<0.001		<0.02
SL-D401-00 446.7-453.0	0.030		0.02
SL-D401-00 453-456	<0.001		0.02
SL-D401-00 456-458	0.142		0.26
SL-D401-00 458-463	<0.001		0.02
SL-D401-00 463-468	<0.001		<0.02
SL-D401-00 468.0-471.8	<0.001		<0.02
SL-D401-00 471.8-473.7	0.001		<0.02
SL-D401-00 473.7-478.0	<0.001		0.03
SL-D401-00 478-483	<0.001		0.02
SL-D401-00 483-488	<0.001		0.02
SL-D401-00 488-493	<0.001	<0.001	<0.02
SL-D401-00 493.0-496.7	0.002		<0.02
SL-D401-00 496.7-499.5	<0.001		0.02
SL-D401-00 499.5-504.0	<0.001		0.03
SL-D401-00 504.0-508.2	<0.001		<0.02

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057025

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SL-D401-00

REPORTED : 25 APR 2000

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)
SL-D401-00 508.2-512.8	<0.001		0.04
SL-D401-00 512.8-515.2	0.008		0.02
SL-D401-00 515.2-519.0	0.002		0.10
SL-D401-00 519.0-522.5	<0.001		0.04
SL-D401-00 522.5-525.5	<0.001		<0.02
SL-D401-00 525.5-528.0	<0.001		0.05
SL-D401-00 528.0-531.5	<0.001		0.07
SL-D401-00 531.5-533.0	0.003		<0.02
SL-D401-00 533-538	<0.001		<0.02
SL-D401-00 538.0-539.5	<0.001		<0.02
SL-D401-00 539.5-540.4	<0.001		<0.02
SL-D401-00 540.4-543.0	<0.001		<0.02
SL-D401-00 543.0-547.7	0.001		0.02
SL-D401-00 547.7-553.0	0.002		<0.02
SL-D401-00 553.0-558.5	0.002	0.002	<0.02
SL-D401-00 558.5-563.0	0.003		<0.02
SL-D401-00 563-568	<0.001	<0.001	<0.02
SL-D401-00 568-573	<0.001		<0.02
SL-D401-00 573-578	<0.001		<0.02
SL-D401-00 578-583	<0.001		<0.02
SL-D401-00 583-588	<0.001		0.02
SL-D401-00 588-593	<0.001		0.02
89657	0.385		3.35

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057025

PO BOX 11530
RENO NV,USA
Ph.(775) 356-0606, Fax.(775) 356-1413

HECLA MINING COMPANY

COPIES TO : BRIAN MORRIS

: KURT ALLEN

:

:

CLIENT REFERENCE No: SL-D401-00 RECEIVED : 17 APR 2000

No. SAMPLES : 48 REPORTED : 21 APR 2000

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 : Leonard E. Mackedon B.S.

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057025

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SL-D401-00

REPORTED : 21 APR 2000

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)
SL-D401-00 408-412	0.008		
SL-D401-00 412.0-415.2	0.074	0.076	
SL-D401-00 415.2-418.0	0.018		
SL-D401-00 418-423	0.003		
SL-D401-00 423-428	0.003		
SL-D401-00 428.0-431.9	0.024		
SL-D401-00 431.9-434.2	0.009		
SL-D401-00 434.2-438.0	<0.001		
SL-D401-00 438-443	<0.001		
SL-D401-00 443.0-446.7	<0.001		
SL-D401-00 446.7-453.0	0.030		
SL-D401-00 453-456	<0.001		
SL-D401-00 456-458	0.142		
SL-D401-00 458-463	<0.001		
SL-D401-00 463-468	<0.001		
SL-D401-00 468.0-471.8	<0.001		
SL-D401-00 471.8-473.7	0.001		
SL-D401-00 473.7-478.0	<0.001		
SL-D401-00 478-483	<0.001		
SL-D401-00 483-488	<0.001		
SL-D401-00 488-493	<0.001	<0.001	
SL-D401-00 483.0-496.7	0.002		
SL-D401-00 496.7-499.5	<0.001		
SL-D401-00 499.5-504.0	<0.001		
SL-D401-00 504.0-508.2	<0.001		

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057025

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SL-D401-00

REPORTED : 21 APR 2000

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)
SL-D401-00 508.2-512.8	<0.001		
SL-D401-00 512.8-515.2	0.008		
SL-D401-00 515.2-519.0	0.002		
SL-D401-00 519.0-522.5	<0.001		
SL-D401-00 522.5-525.5	<0.001		
SL-D401-00 525.5-528.0	<0.001		
SL-D401-00 528.0-531.5	<0.001		
SL-D401-00 531.5-533.0	0.003		
SL-D401-00 533-538	<0.001		
SL-D401-00 538.0-539.5	<0.001		
SL-D401-00 539.5-540.4	<0.001		
SL-D401-00 540.4-543.0	<0.001		
SL-D401-00 543.0-547.7	0.001		
SL-D401-00 547.7-553.0	0.002		
SL-D401-00 553.0-558.5	0.002	0.002	
SL-D401-00 558.5-563.0	0.003		
SL-D401-00 563-568	<0.001	<0.001	
SL-D401-00 568-573	<0.001		
SL-D401-00 573-578	<0.001		
SL-D401-00 578-583	<0.001		
SL-D401-00 583-588	<0.001		
SL-D401-00 588-593	<0.001		
89657	0.385		

SAMPLE SUBMITTAL FORM

American Assay Laboratories Inc.

Sparks Office
1500 Glendale Ave.
Nevada 89431
Box 71060
Reno, NV. 89570
Telephone
(702) 356-0606
Fax
(702) 356-1413

Elko Office
2320 Last Chance Rd.
Nevada 89801
Box 2908
Elko, NV. 89801
Telephone
(702) 738-9100
Fax
(702) 738-2594

Company: Rosebud Mining L.L.C.

Address: P.O. Box 2670 Winnemucca, NV 89446

Telephone Number: (775) 623-6912 Fax Number: (775) 623-6967

Project Name: _____ Purchase Order Number: _____

Transport Company: _____ Waybill Number: _____

Date Shipped: [illegible] Number of Packages: 3 [ ] Prepaid [ ] Collect

ANALYSIS REQUIRED

SAMPLE	TYPE	ELEMENTS REQUIRED
SLD 401-00	Core	Au Ag: use Rosebud Mine development protocol
Depth: [redacted] Interval:		
203.3-209.6 6.3		
209.6-213 3.4		
213-214.5 1		
1 Reserved Production Standard at end of run	Pulp	

COARSE REJECTS (Normally Discarded)

[ ] Return COD after analysis complete
[X] By prior arrangements

PULPS (Normally Stored Free For One Month)

[ ] Discard after one month
[ ] Return COD after one month
[X] By prior arrangements

RESULTS AND INVOICES TO BE SENT TO:

Please mark invoice person and address [I]

(1) Kurt Allen (see above)

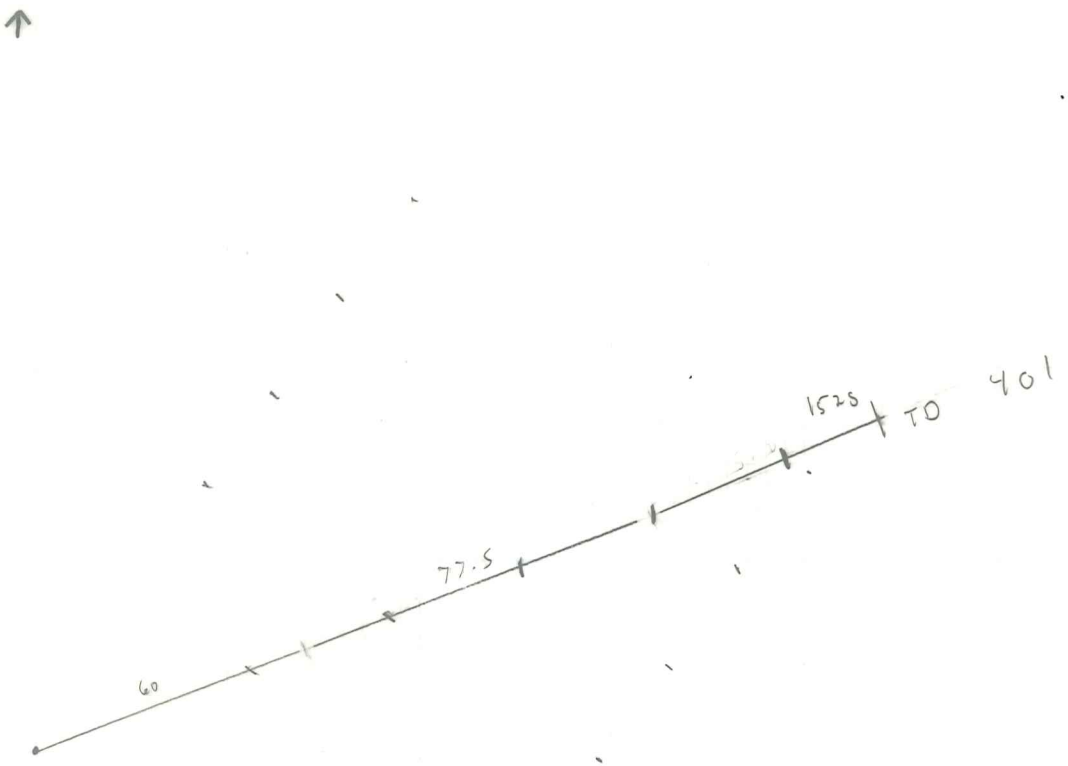
(2) _____

(3) _____

Comments:

CLIENT FILE COPY

401



Drill hole # SL-D401-00

Down hole depth	Quadrant:	Measured Bearing	Corrected Azimuth	Measured Inclination	Corrected Dip
53	NE	52.5	68.12	23.2	-66.8
153					
253	NE	52.5	68.12	22.8	-67.2
353					
453	NE	52	67.62	22.2	-67.8

67.2

TD Depth 593

2000 Declination 15.62

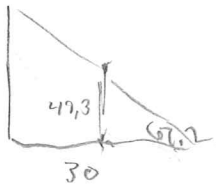
1525 3936.5

2743 Td elevation 3887.7

station 2 3937

2805 3937

398.6



71.3

71.3

167

167.6

1921

77.6

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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Tucson, AZ 85706
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(520) 294-8078
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(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 Mining L.L.C.

Address: PO Box 2610

City Winnemucca State NV Zip 89446

Telephone Number: (775) 623-6112 Fax Number: (775) 623-6167

Project Name: Purchase Order Number:

Date Submitted: 4/14/00 Number of Samples: 47

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

SAMPLE IDENTIFICATION	TYPE	ELEMENTS REQUIRED
SL-D401-00	Core	Au Ag: Use Rosebud Mine
		development protocol
See attached sheet for		
sample intervals		
1 Rosebud Production Standard	RP	
at end of Run		

COARSE REJECTS (Normally Discarded After 60 Days)

[X] Return COD after analysis complete

PULPS (Normally Stored Free For One Month)

[ ] Discard after one month

[X] Return COD after one month

RESULTS AND INVOICES TO BE SENT TO:

Invoice to:

Kurt Allen

Results to:

Kurt Allen

Comments:

CLIENT FILE COPY

SL-D401-00

Depth From	To	Interval	Au	Ag	Sample Number
408	412	4	x	x	1
412	415.2	3.2	x	x	2
415.2	418	2.8	x	x	3
418	423	5	x	x	4
423	428	5	x	x	5
428	431.9	3.9	x	x	6
431.9	434.2	2.3	x	x	7
434.2	438	3.8	x	x	8
438	443	5	x	x	9
443	446.7	3.7	x	x	10
446.7	453	6.3	x	x	11
453	456	3	x	x	12
456	458	2	x	x	13
458	463	5	x	x	14
463	468	5	x	x	15
468	471.8	3.8	x	x	16
471.8	473.7	1.9	x	x	17
473.7	478	4.3	x	x	18
478	483	5	x	x	19
483	488	5	x	x	20
488	493	5	x	x	21
493	496.7	3.7	x	x	22
496.7	499.5	2.8	x	x	23
499.5	504	4.5	x	x	24
504	508.2	4.2	x	x	25
508.2	512.8	4.6	x	x	26
512.8	515.2	2.4	x	x	27
515.2	519	3.8	x	x	28
519	522.5	3.5	x	x	29
522.5	525.5	3	x	x	30
525.5	528	2.5	x	x	31
528	531.5	3.5	x	x	32
531.5	533	1.5	x	x	33
533	538	5	x	x	34
538	539.5	1.5	x	x	35
539.5	540.4	0.9	x	x	36
540.4	543	2.6	x	x	37
543	547.7	4.7	x	x	38
547.7	553	5.3	x	x	39
553	558.5	5.5	x	x	40
558.5	563	4.5	x	x	41
563	568	5	x	x	42

SL-D401-00

Depth From	To	Interval	Au	Ag	Sample Number
568	573	5	x	x	43
573	578	5	x	x	44
578	583	5	x	x	45
583	588	5	x	x	46
588	593	5	x	x	47

TARGET	Drill Hole	Dip	Azimuth
	401	-69	65

CUMULATIVE DEVIATION				CUMULATIVE LOCATION			
NO.	DEPTH ft.	NORTHING ft.	EASTING ft.	NO.	ELEV. ft.	NORTHING ft.	EASTING ft.
1	0.93	0.15	0.32	0	4334.07	2204855.15	481254.32
2	19.61	3.18	6.82	20	4315.39	2204858.18	481260.82
3	38.28	6.21	13.32	40	4296.72	2204861.21	481267.32
4	56.95	9.24	19.81	60	4278.05	2204864.24	481273.81
5	75.62	12.27	26.31	80	4259.38	2204867.27	481280.31
6	94.29	15.30	32.80	100	4240.71	2204870.30	481286.80
7	112.96	18.32	39.30	120	4222.04	2204873.32	481293.30
8	131.64	21.35	45.79	140	4203.36	2204876.35	481299.79
9	150.31	24.38	52.29	160	4184.69	2204879.38	481306.29
10	168.98	27.41	58.79	180	4166.02	2204882.41	481312.79
11	187.65	30.44	65.28	200	4147.35	2204885.44	481319.28
12	206.32	33.47	71.78	220	4128.68	2204888.47	481325.78
13	224.99	36.50	78.27	240	4110.01	2204891.50	481332.27
14	243.67	39.53	84.77	260	4091.33	2204894.53	481338.77
15	262.34	42.56	91.26	280	4072.66	2204897.56	481345.26
16	281.01	45.58	97.76	300	4053.99	2204900.58	481351.76
17	299.68	48.61	104.25	320	4035.32	2204903.61	481358.25
18	318.35	51.64	110.75	340	4016.65	2204906.64	481364.75
19	337.02	54.67	117.25	360	3997.98	2204909.67	481371.25
20	355.70	57.70	123.74	380	3979.30	2204912.70	481377.74
21	374.37	60.73	130.24	400	3960.63	2204915.73	481384.24
22	393.04	63.76	136.73	420	3941.96	2204918.76	481390.73
23	411.71	66.79	143.23	440	3923.29	2204921.79	481397.23
24	430.38	69.81	149.72	460	3904.62	2204924.81	481403.72
25	449.06	72.84	156.22	480	3885.94	2204927.84	481410.22
26	467.73	75.87	162.71	500	3867.27	2204930.87	481416.71
27	486.40	78.90	169.21	520	3848.60	2204933.90	481423.21
28	505.07	81.93	175.71	540	3829.93	2204936.93	481429.71
29	523.74	84.96	182.20	560	3811.26	2204939.96	481436.20
30	542.41	87.99	188.70	580	3792.59	2204942.99	481442.70
31	561.09	91.02	195.19	600	3773.91	2204946.02	481449.19
32	579.76	94.05	201.69	620	3755.24	2204949.05	481455.69
33	598.43	97.07	208.18	640	3736.57	2204952.07	481462.18
34	617.10	100.10	214.68	660	3717.90	2204955.10	481468.68
35	635.77	103.13	221.18	680	3699.23	2204958.13	481475.18
36	654.44	106.16	227.67	700	3680.56	2204961.16	481481.67
37	673.12	109.19	234.17	720	3661.88	2204964.19	481488.17
38	691.79	112.22	240.66	740	3643.21	2204967.22	481494.66
39	710.46	115.25	247.16	760	3624.54	2204970.25	481501.16
40	729.13	118.28	253.65	780	3605.87	2204973.28	481507.65
41	747.80	121.30	260.15	800	3587.20	2204976.30	481514.15
42	766.47	124.33	266.64	820	3568.53	2204979.33	481520.64

418
415.2
413
SLD 401 -00 BOX 44
DEPTH 413. - 422.

413
410
405
SLD 401 -00 BOX 43
DEPTH 403.5 - 413.

SLD 401 -00 BOX 45
DEPTH 422. - 431.5

443
446.7
448
SLD 401 -00 BOX 47
DEPTH 440.5 - 449.5

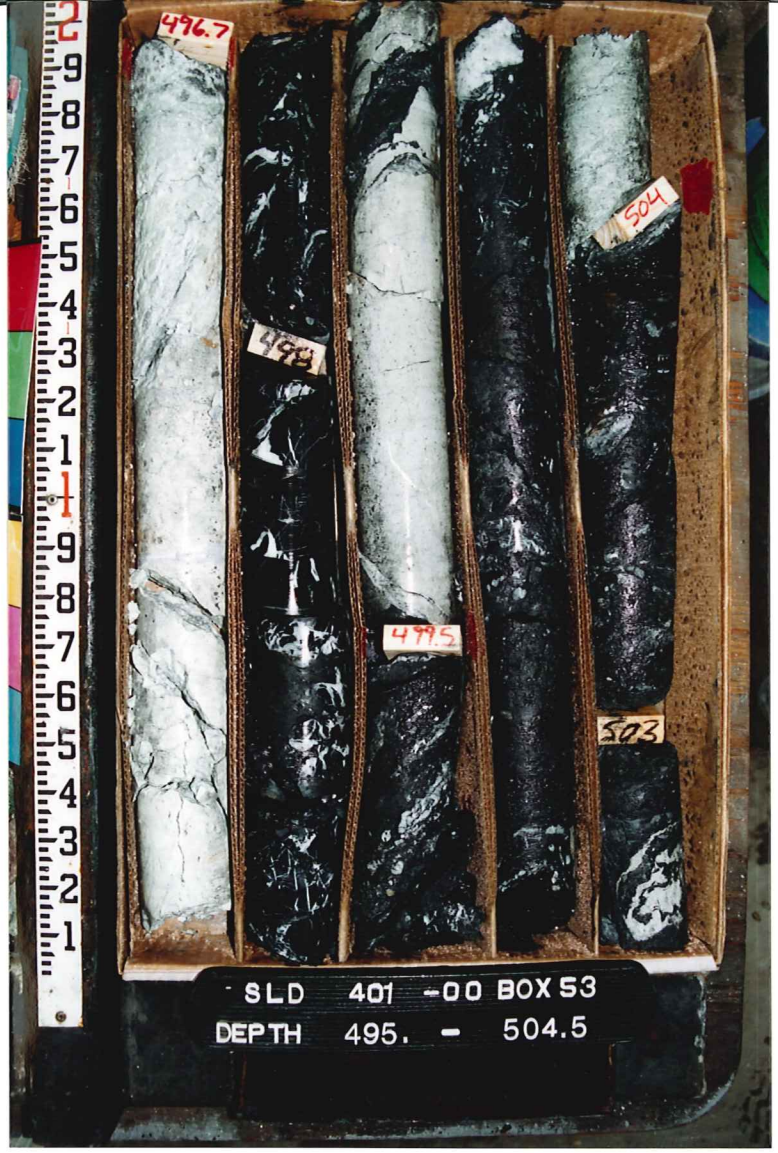
431.9
434.2
438
433
SLD 401 -00 BOX 46
DEPTH 431.5 - 440.5

453
457
458
SLD 401 -00 BOX 48
DEPTH 449.5 - 458.

473
473.7
471.8
SLD 401 -00 BOX 50
DEPTH 467. - 475.5

458
SLD 401 -00 BOX 49
DEPTH 458. - 467.

SLD 401 -00 BOX 51
DEPTH 475.5 - 485.5


496.7
499
499.5
504
503
SLD 401 -00 BOX 53
DEPTH 495. - 504.5

489
503
SLD 401 -00 BOX 52
DEPTH 485.5 - 495.

SL-D 401 -00 BOX 54
DEPTH 504.5 - 514.0
508.2
508
512.8
513

528
525
521.5
532
SL- D401 - 00 BOX 56
DEPTH 524.0 - 536.0

515.2
519
523
527.5
518
SL- D401 - 00 BOX 55
DEPTH 514.0 - 524.0

538
535
540.1
543
SL- D401 - 00 BOX 57
DEPTH 536.0 - 545.5

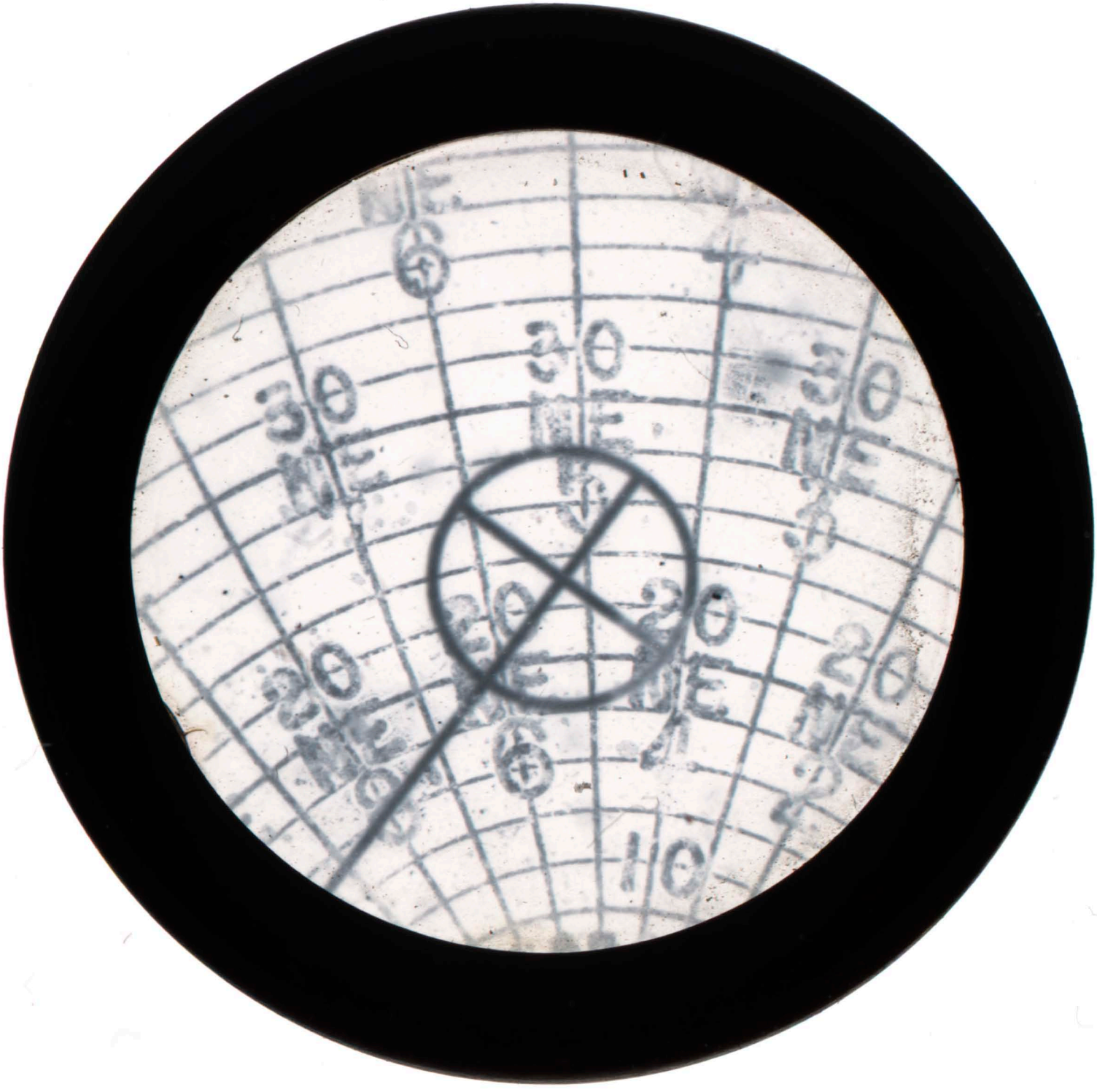
SL- D401 -00 BOX 59
DEPTH 555.5 - 565.0
558.5
558
563

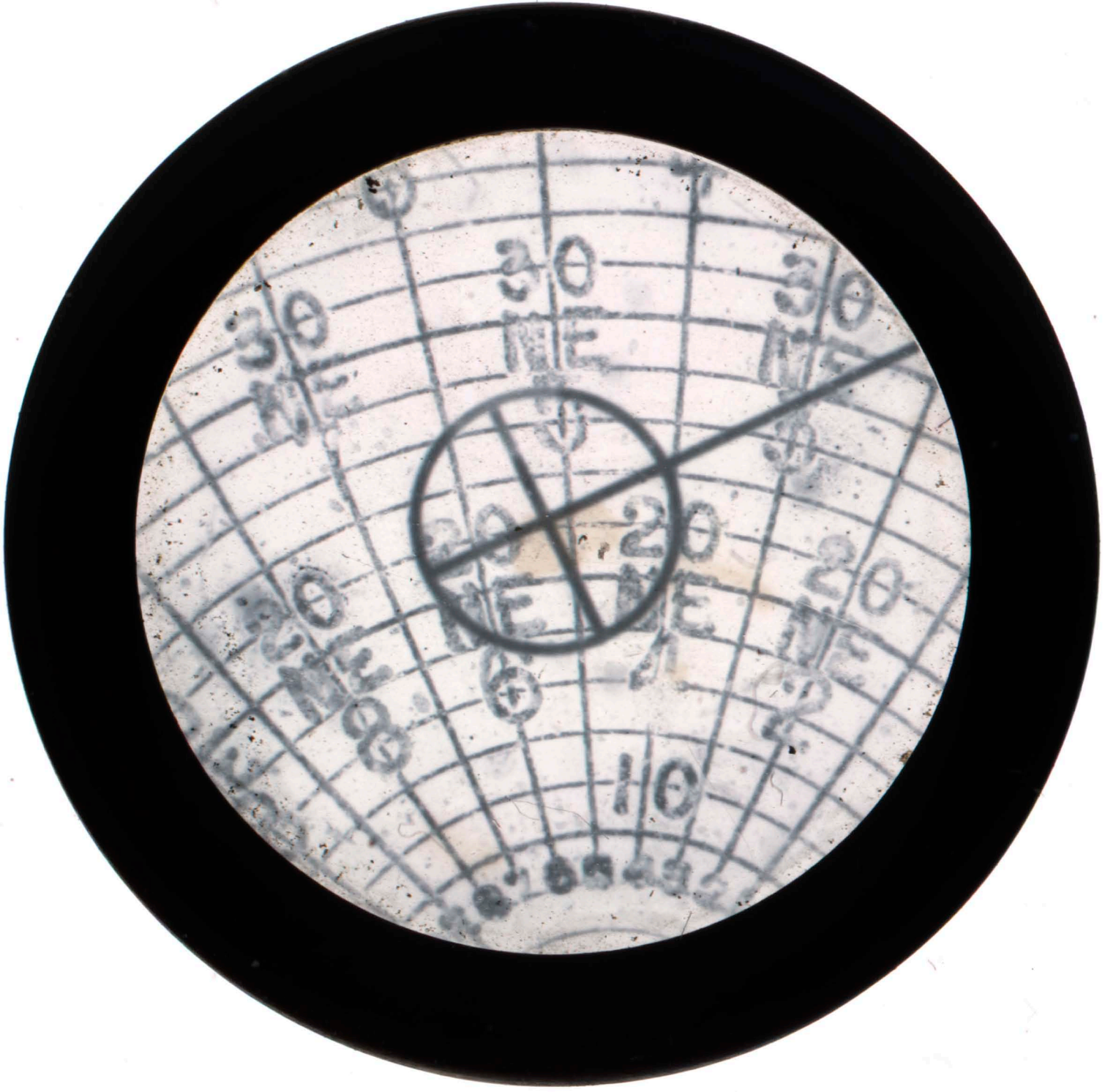
SL- D401 -00 BOX 58
DEPTH 545.5 - 555.5
547.7
553

SL- D401 -00 BOX 60
DEPTH 565.0 - 574.0
568

SL- D401 -00 BOX 62
DEPTH 583.0 - 593.0 TD

SL- D401 -00 BOX 61
DEPTH 574.0 - 583.0

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