

Mining District File Summary Sheet

DISTRICT	Rosebud
DIST_NO	4010
COUNTY	Pershing
If different from written on document	
TITLE	Rosebud Drill Hole File - Hole No D-314-98
If not obvious	
AUTHOR	S. King; K. Allen; A. Niles
DATE OF DOC(S)	1998
MULTI_DIST Y / (N)	
Additional Dist Nos:	
QUAD_NAME	Sulphur 7.5'
P_M_C_NAME	Rosebud Mine; Rosebud Project; Rosebud Mining Co. LLC
(mine, claim & company names)	Hecla Mining Co.
COMMODITY	gold; silver
If not obvious	
NOTES	Drill log; geology; assay; photographs; total depth 210' receipt; handwritten notes; downhole camera images 36p. 3 down hole camera images

Keep docs at about 250 pages if no oversized maps attached
(for every 1 oversized page (>11x17) with text reduce
the amount of pages by ~25)

SS: DD 5/14/08
Initials Date

DB: mah
Initials Date

SCANNED: JB
Initials Date

D-314-98

60001214

4010



ROSEBUD PROJECT
DIAMOND DRILL LOG

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

HOLE NUMBER D-314-98 LOCATION _____ REMARKS _____
PAGE 1 OF 4 NORTHING _____
DATE 10/28-29/98 EASTING _____
LOGGED BY ALLEN NILES ELEVATION _____
SCALE 1"=10' AZIMUTH 125
TOTAL DEPTH 210 INCLINATION 40

TH.	OX RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA						
							FROM	TO	W	Au	Ag	Au2	Ag2
0.0-42.0		0.0-37.5 PLANAR LAMINAR LT. GRN. → PINKISH, FINE GRAIN, VESICULAR W/ VESICLE TRAILS & FLOW BANDS, RARE LAMINAR PARTINGS.				0.0-20.0 WEAK → MOD. CALCITE VEINING. SEEMS TO BE LATE STAGE, MINOR MARC.	0.0	5.0					
			10				5.0	10.0					
			20				10.0	15.0					
			30				15.0	17.7					
			40				17.7	20.0					
					15.5-27.5 STRONG VEINING w/ VEINS SUB PARALLEL TO CORE AXIS. VUGS & VEINS ASSOC. w/ THIN BXA'S	15.5-27.5 VEINS FILLED w/ QUARTZ PYRITE, SOME BLADED MARC., CALCITE. VUGS LINED w/ DROZY QUARTZ, BLADED MARC, WHITE CLAY	20.0	23.5					
							23.5	27.0					
							27.0	30.0					
							30.0	33.0					
		37.5-42.0 INCIPIENT SPOTTED TUFF, IRREGULAR VESICLES, PINK, OFTEN w/ THIN DROZY QUARTZ INFILLING. VESICLES EXHIBIT ROUGH ALIGNMENT				33.5-38.6 STRONG VEINING ASSOC. w/ THIN BXA'S.	33.0	36.0					
							36.0	39.0					
42.0-57.5		42.0-57.5 FL. MASSIVE LT. GREEN → DK. GRAY, VERY FINE GRAIN, FRACTURE PATTERN RESEMBLES CRACKED GLASS IN PLACES.				42.0 GRADATIONAL CONTACT	39.0	42.0					
							42.0	45.0					
			50				45.0	50.0					

ITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA					
							FROM	TO	W	Au	Ag	Au2
42.0 - 57.5		42.0 - 57.5 SEE DESCRIPTION PAGE 1										
F.G. MASSIVE						52.0 - 57.0 VEINS & FRACTURE AT VERY LOW ANGLE TO CORE. 57.5 GRADATIONAL CONTACT	52.0 - 100.0 WEAK → MOD. CALCITE VEINING 52.0 - 57.0. VEINS FILLED w/ QUARTZ & PERITE, VUGS LINED w/ DRUZY QUARTZ BLANDED, MARC, CALCITE	50.0	52.7			
57.5 - 86.5		57.5 - 86.5 VITROPHYRE LT. GREEN → DK. GREEN, EXTREMELY FINE GRAIN, MASSIVE w/ PERLITIC - CRACKLED GLASS TEXTURE.				57.5 - 122.0 NATURAL FRACTURES RARE, HIGH RQD. MINOR VEINING, OPEN FRACTS.	57.5 - 122.0 VEINS FILLED w/ QUARTZ, PERITE, WHITE CLAY	52.7	55.0			
			60					55.0	57.0			
								57.0	60.0			
			70					60.0	65.0			
		63.3 - 72.0 DK. GREEN, VERY DENSE, GLASSY TEXTURE						65.0	70.0			
			80					70.0	75.0			
								75.0	80.0			
								80.0	82.5			
86.5 - 128.0		86.5 - 118.0 GREEN, VERY FINE GRAIN FLOW, ZONES OF WELL HEALED AUTOBREA.				86.5 CONTACT GRADATIONAL		82.5	86.5			
F.G. MASSIVE			90					86.5	90.0			
								90.0	95.0			
			100					95.0	100.0			
								100.0	105.0			
			110					105.0	110.0			
								110.0	115.0			
		118.0 - 121.8 LT. GRN, VITROPHYRE - LIKE ZONE w/ PERLITIC - CRACKED GLASS FRACTURE PATTERN.	120					115.0	120.0			

ITH.	OX RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA					
							FROM	TO	W	Au	Ag	Au ₂
118.0-128.0	F6. MASSIVE	121.8-128.0 GREEN, VERY FINE GRAIN. FEATURLESS FLOW,			122.0-125.0 VERY STRONG FRACTURING	122.0-125.0 FRACTURES FILLED W/ DK-GRA. CLAY, PYRITE, MINOR WHITE CLAY.	120.0	125.0				
128.0-189.5	PLANAR LAMINAR	128.0-134.5 PINKISH, FINE GRAIN FLOW W/ PLANAR FLOW BANDS & MINOR VESICLE TRAINS. 134.5-146.5 LT. GRN. → BLUE ROUND, MOSTLY PEA SIZE CLASTS IN A PINKISH VOLCANIC CLAY MATRIX W/ POSSIBLE SMALL VESICLES OR LEACHED SMALL CLASTS. MINERALIZATION IS LOCALIZED TO FRACTURE FILLINGS 146.5-189.5 PINK W/ SOME LT. GRN. VESICLE TRAINS, ISOLATED LAMINAR PARTINGS.			128.0 GRADATIONAL CONTACT. 130.0-150.0 VERY STRONG FRACTURING, LOW → NO RQD 134.5-146.5 OLDER PRE-MIN BXA.	134.5-146.5 FRACTURES FILLED W/ WHITE CLAY & PYRITE, BLADED MARC. IN PLACE OF PYRITE 145.0-147.0.	125.0	130.0				
					150.0-162.5 HEALED BXA W/ STOCKWORK VEINING, ANGULAR CLASTS.	150.0-162.5 STOCKWORK IS DROZY QUARTZ, HARD WHITE & LT. GRN CLAY, PYRITE & MINOR BLADED MARC. VUGS LINED W/ SAME, MOST PYRITE IS AFTER MARC.	130.0	134.5				
					160.0-190.0 STRONG FRACTURING, LOW RQD.	162.5-182.5 VEINS FILLED W/ HARD WHITE OR LT. GRN CLAY DROZY QUARTZ, MINOR PYRITE OR MARC.	134.5	138.0				
					162.5-182.5 MOD → STRONG VEINING.	182.5-185.0 VEINS FILLED W/ LT. GRN HARD CLAY, VUGS LINED W/ DROZY QUARTZ & PYRITE.	138.0	142.0				
					182.5-185.0 STRONG VEINING, MOD. VUGS.		142.0	146.5				
189.5-197.0		SPOTTED TUFF			189.5 CONTACT DESTROYED.		146.5	150.0				
							150.0	152.5				
							152.5	155.0				
							155.0	157.5				
							157.5	160.0				
							160.0	162.5				
							162.5	165.0				
							165.0	170.0				
							170.0	175.0				
							175.0	180.0				
							180.0	182.5				
							182.5	185.0				
							185.0	189.5				

LITH.	OX RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA					
							FROM	TO	W	Au	Ag	Au2
189.5 - 197.0 SPOTTED TUFF		189.5 - 197.0 LT. GRN VOLCANIC CLAY MATRIX W/ PINK IRREGULAR SHAPED VESICLES WHICH SHOW DISTINCT FABRIC ALIGNMENT.			190.0 - 192.0 MOD. VGS / OPEN FRACS. & VEINS.	190.0 - 192.0 OPEN FRACS FILLED W/ DROZY QUARTZ. VEINS FILLED W/ WHITE CLAY, PYRITE, QUARTZ.	189.5	192.0				
197.0 - 210.0 PLANAR LAMINAR		197.0 - 210.0 PINKISH TO LT GRN. VESICULAR FLOW W/ PLANAR FEATURES DEFINED BY VESICLE TRAINS.	200		194.2 - 194.6 FAULT PLANE W/ BUBBLED BXA. 197.0 GRADATIONAL CONTACT	194.2 - 194.6 BARITE, QUARTZ & PYRITE DEFINE FAULT PLANE, QUARTZ & BARITE CEMENT BXA	192.0	197.0				
			210		209.0 - 210.0 VEIN CLOSE TO PARALLEL TO CORE	209.0 - 210.0 VEIN FILLED W/ DROZY QUARTZ & ABUNDANT BLADED MATZC. & PYRITE AFTER MARC.	200.0	204.2				
							204.2	207.6				
							207.6	210.0				

MOLE # D-314-98 DATE: 10/28/98 LOGGED BY: ALLYA NILES PAGE 1 OF 3

PAGE 1 OF 3

[illegible]

[illegible]

DATE: 10/28/98

LOGGED BY: _____

PAGE 2 OF 3

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-314-98

DATE: 10/28/98

LOGGED BY: ALLYN NILES

PAGE 3 OF 3

[illegible]

PROVISIONAL REPORT SP051503

PO BOX 11530

RENO NV, USA

Ph. (707) 356-0606, Fax. (707) 356-1413

HECLA MINING COMPANY

COPIES TO : KURT ALLEN

CLIENT REFERENCE No: D-314-98

RECEIVED : 10 NOV 1998

No. SAMPLES : 57

REPORTED : 10 NOV 1998

MAIN SAMPLE TYPE : DRILL CORE

NEVADA LEGISLATIVE DISCLAIMER :-

The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim or deposit has been determined based on the results of assays of multiple samples of geological materials collected by the prospective investor or by a qualified person selected by him and based on an evaluation of all engineering data which is available concerning any proposed project.

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
DDDDDDDDDDDD	DDDDDDDDDDDDDDDDDDDDDD	DDDDDDDDDDDDDDDDDDDDDD	DDDDDDDDDDDD	DDDDDDDDDDDD
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
AgGRAV	GRAV	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

Page : 1

PROVISIONAL REPORT SP051503

CLIENT : HECLA MINING COMPANY
 PROJECT : ROSEBUD DEVELOPMENT
 REFERENCE : D-314-98
 REPORTED : 10 NOV 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-314-98 00-05	0.002			0.03
D-314-98 05-10	0.004			0.02
D-314-98 10-15	0.002			0.04
D-314-98 15.0-17.7	0.007			0.04
D-314-98 17.7-20.0	0.017			0.26
D-314-98 20.0-23.5	0.008			0.04
D-314-98 23.5-27.0	0.001			0.03
D-314-98 27-30	0.001			0.03
D-314-98 30-33	0.017			0.03
D-314-98 33-36	1.160		1.269	1.60
D-314-98 36-39	0.356		0.371	0.10
D-314-98 39-42	0.018			0.04
D-314-98 42-45	0.012			0.04
D-314-98 45-50	0.003			0.03
D-314-98 50.0-52.7	<0.001			0.02
D-314-98 52.7-55.0	0.002			0.10
D-314-98 55-57	<0.001			0.15
D-314-98 57-60	0.003			0.10
D-314-98 60-65	0.002			0.02
D-314-98 65-70	<0.001			<0.02
D-314-98 70-75	<0.001			0.02
D-314-98 75-80	0.001			0.02
D-314-98 80.0-82.5	<0.001			0.08
D-314-98 82.5-86.5	<0.001			0.04
D-314-98 86.5-90.0	<0.001			0.04

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CLIENT : HECIA MINING COMPANY
 PROJECT : ROSEBUD DEVELOPMENT
 REFERENCE : D-314-98
 REPORTED : 10 NOV 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-314-98 90-95	<0.001			<0.02
D-314-98 95-100	<0.001			0.04
D-314-98 100-105	0.002			0.08
D-314-98 105-110	0.002			0.03
D-314-98 110-115	0.002			0.03
D-314-98 115-120	0.001			0.02
D-314-98 120-125	0.002			0.03
D-314-98 125-130	0.002			0.03
D-314-98 130.0-134.5	<0.001			<0.02
D-314-98 134.5-138.0	<0.001			<0.02
D-314-98 138-142	0.001			<0.02
D-314-98 142.0-146.5	0.001			0.02
D-314-98 146.5-150.0	0.002			0.02
D-314-98 150.0-152.5	0.004			0.05
D-314-98 152.5-155.0	0.002			0.04
D-314-98 155.0-157.5	0.023			0.07
D-314-98 157.5-160.0	0.033			0.10
D-314-98 160.0-162.5	0.004			0.15
D-314-98 162.5-165.0	<0.001			0.03
D-314-98 165-170	0.002			0.05
D-314-98 170-175	<0.001			0.02
D-314-98 175-180	0.001			0.02
D-314-98 180.0-182.5	0.002			<0.02
D-314-98 182.5-185.0	0.007			0.03
D-314-98 185.0-189.5	0.001			0.02

PROVISIONAL REPORT SP051503

REPORTED : 10 NOV 1998

Page : 4



**American
Assay
Laboratories**

INVOICE

Remit To: P.O. Box 11530
Reno, Nevada 89510
Phone NO.: 702-356-0606
Fax No.: 702-356-1413

AMERICAN ASSAY LABORATORIES
1500 GLENDALE AVE.
SPARKS, NV 89431-5902

INVOICE NO: SP 0051503-IN
INVOICE DATE: 11/30/98

(702) 356-0606

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-314-98 DEVELOPMENT NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
57	SAMPLES RECEIVED	.00	.00
56	DRYING	1.00	56.00
56	JAW CRUSHING CHARGE	1.30	72.80
56	COARSE MILLING CHARGE	4.50	252.00
56	SPLITTING CHARGE	2.40	134.40
56	RING MILLING CHARGE	2.00	112.00
57	AU (1 A.T. FIRE ASSAY)	8.00	456.00
3	AU ANALYSES/GRAVIMETRIC	8.75	26.25
57	HYDROCHLORIC/NITRIC DIGESTION	2.00	114.00
57	Ag ANALYSES	1.00	57.00
1	Ag (ore grade) ANALYSES	5.00	5.00

86-5110-477
Deb

NET INVOICE	1,285.45
LESS DISCOUNT	257.09
FREIGHT	.00
INVOICE TOTAL	1,028.36



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-314-98

RECEIVED : 10 NOV 1998

No. SAMPLES : 57

REPORTED : 10 NOV 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

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP051503



American
Assay
Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-314-98

REPORTED : 10 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-314-98 00-05	0.002			0.03
D-314-98 05-10	0.004			0.02
D-314-98 10-15	0.002			0.04
D-314-98 15.0-17.7	0.007			0.04
D-314-98 17.7-20.0	0.017			0.26
D-314-98 20.0-23.5	0.008			0.04
D-314-98 23.5-27.0	0.001			0.03
D-314-98 27-30	0.001			0.03
D-314-98 30-33	0.017			0.03
D-314-98 33-36	1.160		1.269	1.60
D-314-98 36-39	0.356		0.371	0.10
D-314-98 39-42	0.018			0.04
D-314-98 42-45	0.012			0.04
D-314-98 45-50	0.003			0.03
D-314-98 50.0-52.7	<0.001			0.02
D-314-98 52.7-55.0	0.002			0.10
D-314-98 55-57	<0.001			0.15
D-314-98 57-60	0.003			0.10
D-314-98 60-65	0.002			0.02
D-314-98 65-70	<0.001			<0.02
D-314-98 70-75	<0.001			0.02
D-314-98 75-80	0.001			0.07
D-314-98 80.0-82.5	<0.001			0.08
D-314-98 82.5-86.5	<0.001			0.04
D-314-98 86.5-90.0	<0.001			0.04

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP051503



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REFERENCE : D-314-98

REPORTED : 10 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-314-98 90-95	<0.001			<0.02
D-314-98 95-100	<0.001			0.04
D-314-98 100-105	0.002			0.08
D-314-98 105-110	0.002			0.03
D-314-98 110-115	0.002			0.03
D-314-98 115-120	0.001			0.02
D-314-98 120-125	0.002			0.03
D-314-98 125-130	0.002			0.03
D-314-98 130.0-134.5	<0.001			<0.02
D-314-98 134.5-138.0	<0.001			<0.02
D-314-98 138-142	0.001			<0.02
D-314-98 142.0-146.5	0.001			0.02
D-314-98 146.5-150.0	0.002			0.02
D-314-98 150.0-152.5	0.004			0.05
D-314-98 152.5-155.0	0.002			0.04
D-314-98 155.0-157.5	0.023			0.07
D-314-98 157.5-160.0	0.033			0.10
D-314-98 160.0-162.5	0.004			0.15
D-314-98 162.5-165.0	<0.001			0.03
D-314-98 165-170	0.002			0.05
D-314-98 170-175	<0.001			0.02
D-314-98 175-180	0.001			0.02
D-314-98 180.0-182.5	0.002			<0.02
D-314-98 182.5-185.0	0.007			0.03
D-314-98 185.0-189.5	0.001			0.02

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CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-314-98

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SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
	FA30 OPT	FA30 OPT	GRAV OPT	D210 OPT
D-314-98 189.5-192.0	0.058		0.062	0.73
D-314-98 192-197	0.016			0.30
D-314-98 197-200	0.001			0.03
D-314-98 200.0-204.2	0.001			0.07
D-314-98 204.2-207.6	0.002			0.07
D-314-98 207.6-210.0	0.011			0.15
46579	0.498			2.79



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HECLA MINING COMPANY

COPIES TO : KURT ALLEN

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No. SAMPLES : 57

REPORTED : 10 NOV 1998

MAIN SAMPLE TYPE : DRILL CORE

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ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
AuGRAV	GRAV	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP051503



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CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-314-98

REPORTED : 10 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-314-98 00-05	0.002			0.03
D-314-98 05-10	0.004			0.02
D-314-98 10-15	0.002			0.04
D-314-98 15.0-17.7	0.007			0.04
D-314-98 17.7-20.0	0.017			0.26
D-314-98 20.0-23.5	0.008			0.04
D-314-98 23.5-27.0	0.001			0.03
D-314-98 27-30	0.001			0.03
D-314-98 30-33	0.017			0.03
D-314-98 33-36	1.160		1.269	1.60
D-314-98 36-39	0.356		0.371	0.10
D-314-98 39-42	0.018			0.04
D-314-98 42-45	0.012			0.04
D-314-98 45-50	0.003			0.03
D-314-98 50.0-52.7	<0.001			0.02
D-314-98 52.7-55.0	0.002			0.10
D-314-98 55-57	<0.001			0.15
D-314-98 57-60	0.003			0.10
D-314-98 60-65	0.002			0.02
D-314-98 65-70	<0.001			<0.02
D-314-98 70-75	<0.001			0.02
D-314-98 75-80	0.001			0.07
D-314-98 80.0-82.5	<0.001			0.08
D-314-98 82.5-86.5	<0.001			0.04
D-314-98 86.5-90.0	<0.001			0.04

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP051503



**American
Assay
Laboratories**

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-314-98

REPORTED : 10 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-314-98 90-95	<0.001			<0.02
D-314-98 95-100	<0.001			0.04
D-314-98 100-105	0.002			0.08
D-314-98 105-110	0.002			0.03
D-314-98 110-115	0.002			0.03
D-314-98 115-120	0.001			0.02
D-314-98 120-125	0.002			0.03
D-314-98 125-130	0.002			0.03
D-314-98 130.0-134.5	<0.001			<0.02
D-314-98 134.5-138.0	<0.001			<0.02
D-314-98 138-142	0.001			<0.02
D-314-98 142.0-146.5	0.001			0.02
D-314-98 146.5-150.0	0.002			0.02
D-314-98 150.0-152.5	0.004			0.05
D-314-98 152.5-155.0	0.002			0.04
D-314-98 155.0-157.5	0.023			0.07
D-314-98 157.5-160.0	0.033			0.10
D-314-98 160.0-162.5	0.004			0.15
D-314-98 162.5-165.0	<0.001			0.03
D-314-98 165-170	0.002			0.05
D-314-98 170-175	<0.001			0.02
D-314-98 175-180	0.001			0.02
D-314-98 180.0-182.5	0.002			<0.02
D-314-98 182.5-185.0	0.007			0.03
D-314-98 185.0-189.5	0.001			0.02

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP051503



**American
Assay
Laboratories**

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-314-98

REPORTED : 10 NOV 1998

SAMPLES		Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
		FA30 OPT	FA30 OPT	GRAV OPT	D210 OPT
D-314-98	189.5-192.0	0.058		0.062	0.73
D-314-98	192-197	0.016			0.30
D-314-98	197-200	0.001			0.03
D-314-98	200.0-204.2	0.001			0.07
D-314-98	204.2-207.6	0.002			0.07
D-314-98	207.6-210.0	0.011			0.15
46579		0.498			2.79

SP

SUBMITTAL FORM


**American
Assay
Laboratories**
Company: ROSEBUD MINING LLCAddress: Box 2610City WINNI-MUCCA State NV Zip 89445Telephone Number: (702) 623-6912 Fax Number: (702) 623-6967Project Name: DEVELOPMENT Purchase Order Number: _____Date Submitted: 11/4/98 Number of Samples: 56

Geochemical • Environmental • Metallurgical

 Sparks Office
1500 Glendale Ave.
Nevada 89431
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Reno, NV 89510
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(702) 356-0606
Fax
(702) 356-1413

 Tucson Office
2775 E. Ganley
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

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

D-314-98 SAMPLE IDENTIFICATION				TYPE	<u>Au-Ag ACCORDING TO ROSEBUD</u> <u>PROTOCOL</u>	ELEMENTS REQUIRED
2-5	52.7-55	115-120	170-175			
5-10	55-57	120-125	175-180			
10-15	57-60	125-130	180-182.5			
15-17.7	60-65	130-134.5	182.5-185			
17.7-20	65-70	134.5-138	185-189.5			
20-23.5	70-75	138-142	189.5-192			
23.5-27	75-80	142-146.5	192-197			
27-30	80-82.5	146.5-150	197-200			
30-33	82.5-86.5	150-152.5	200-204.2			
33-36	86.5-90	152.5-155	204.2-207.6			
36-39	90-95	155-157.5	207.6-210.7			
39-42	95-100	157.5-160				
42-45	100-105	160-162.5				
45-50	105-110	162.5-165				
50-52.7	110-115	165-170				

COARSE REJECTS (Normally Discarded After 60 Days)

[] Return COD after analysis complete.

RESULTS AND INVOICES TO BE SENT TO:

Invoice to:

KURT ALLEN

Results to:

KURT ALLEN

PULPS (Normally Stored Free For One Month)

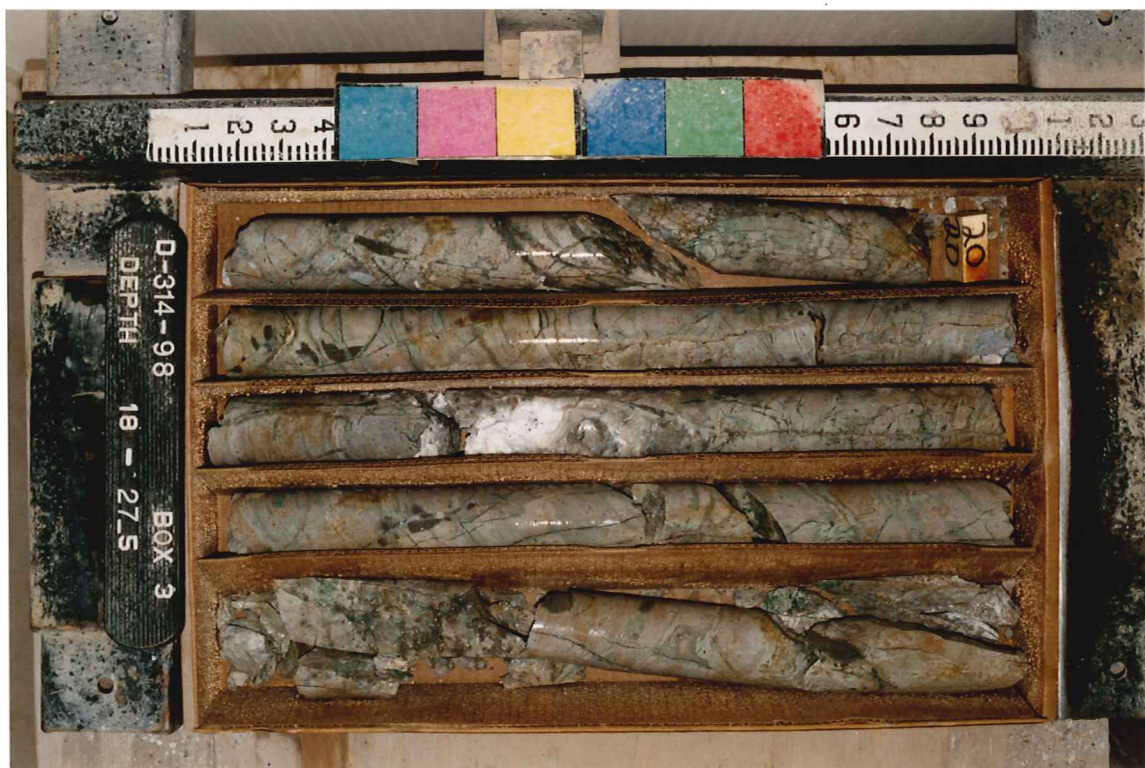
[] Discard after one month

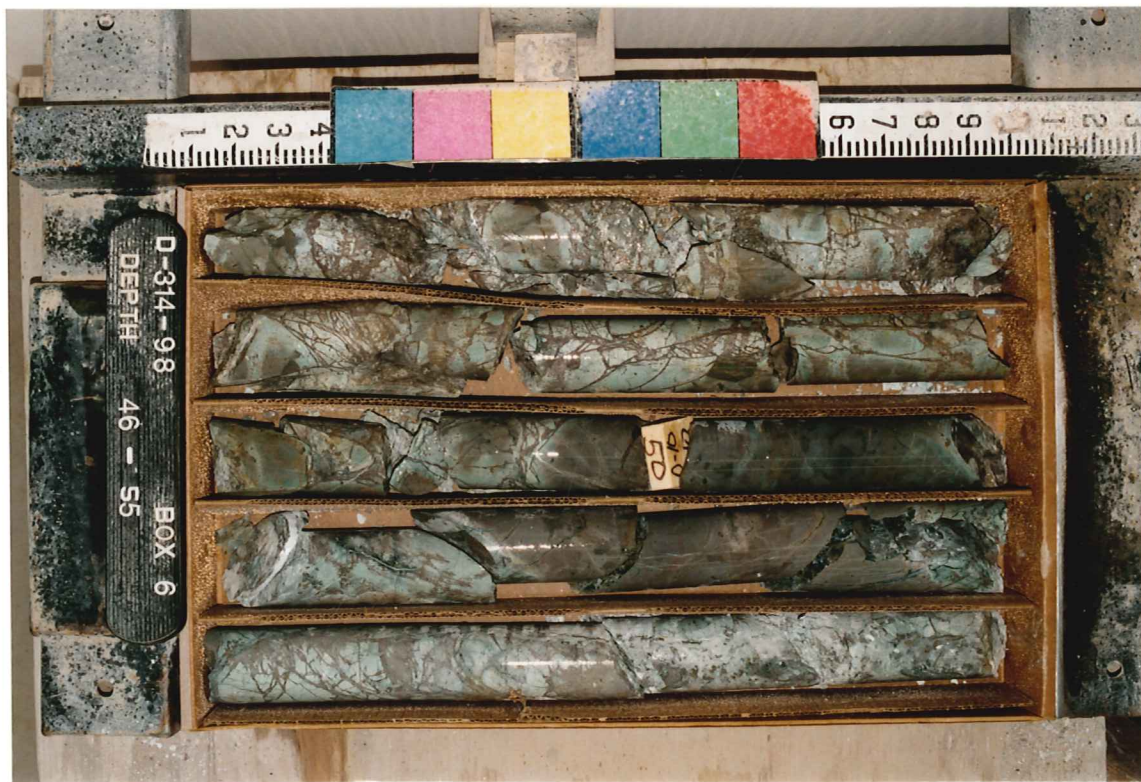
[] Return COD after one month

Comments:

D-314-98

40	39	128.2
105	39	128.7
210	39	131.2













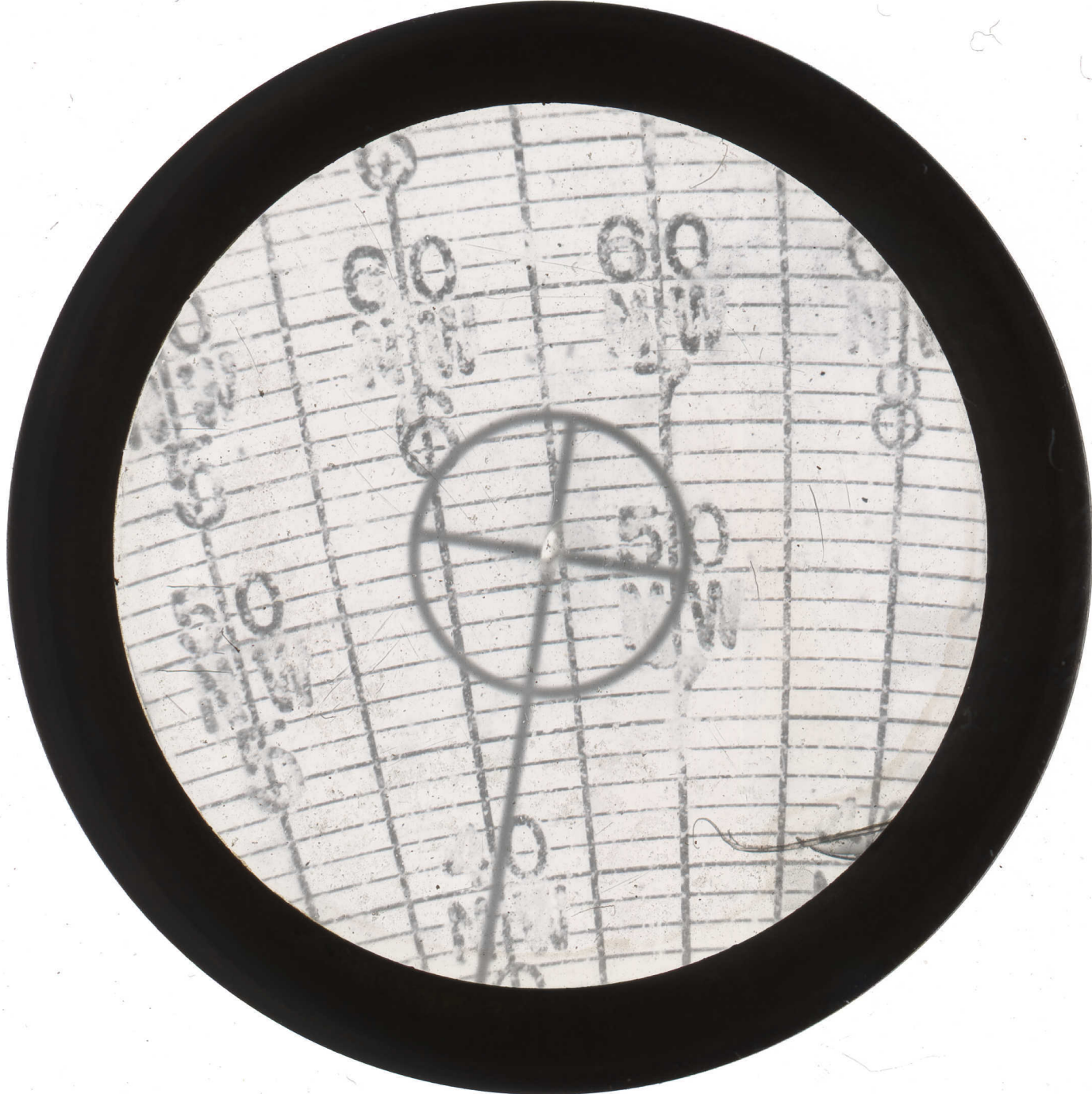




D-314-98 BOX 22
DEPTH 201.5 - 210 TD

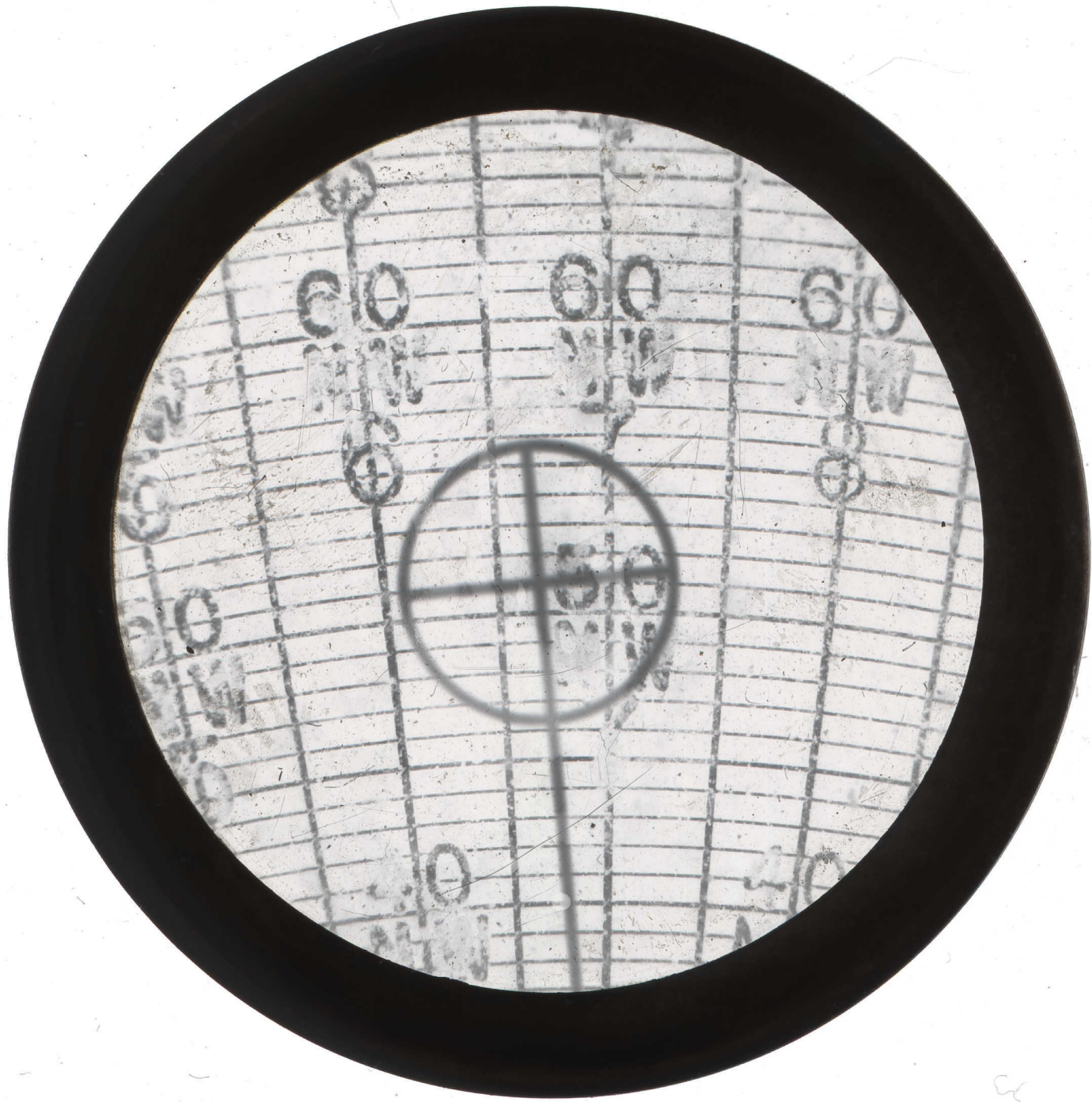
SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecia
WELL NAME D-314-98
LEASE _____
TAKEN BY Hughes
DEPTH 210
DATE 9-18-98
DRIFT ANGLE _____
DIRECTION _____
TYPE _____
JOB NO. _____
HI-1408



SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hec 1A
WELL NAME D-314-98
LEASE _____
TAKEN BY Hughes
DEPTH 105
DATE 9/18/98
DRIFT ANGLE _____
DIRECTION _____
TYPE _____
JOB NO. _____
HI-1408



SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hec14
WELL NAME D-314-98
LEASE _____
TAKEN BY Hulmes
DEPTH 40
DATE 9/18/98
DRIFT ANGLE _____
DIRECTION _____
TYPE _____
JOB NO. _____
HI-1408

