60001170

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-269-98
AUTHOR	S. King; K. Allen; R. Stoeberl
DATE OF DOC(S)	1998
MULTI_DIST Y / (N?) Additional Dist_Nos:	
QUAD_NAME	Sulphur 7.5'
P_M_C_NAME (mine, claim & company names)	Rosebud Mine; Rosebud Project; Rosebud Mining Co. LLC Hecla Mining Co.
COMMODITY If not obvious	gold; silver
NOTES	Drill log; geology; assay; photographs; total depth 318' receipt; handwritten notes; downhole camera images 40p. 3 down hole camera images

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

SS: DP 5/14/08
Initials Date
DB: mch
Initials Date
SCANNED: NB
Initials Date

Revised: 1/22/08

D-269-98

66001170 4010

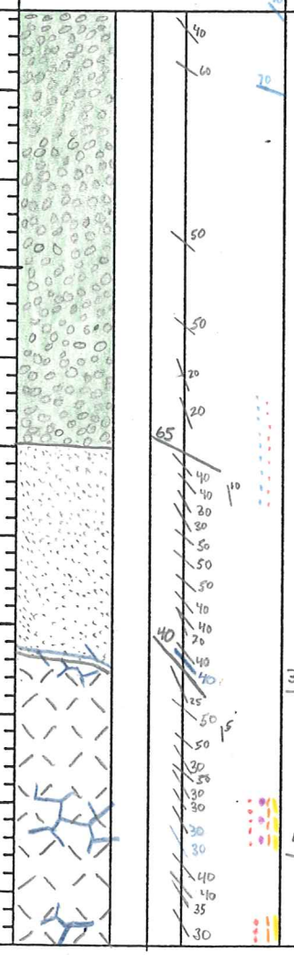
6000 1170

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

Hecla MINING COMPANY

ROSEBUD PROJECT DIAMOND DRILL LOG

HOLE NUMBER	D-269-98	LOCATION	North 1350	REMARKS	0-24.8' TOS
PAGE 1 OF	5	NORTHING			24.8-37' FG massive
DATE	8/18/98 8/26/98	EASTING			37'-153.5' Slight Planar Laminar
LOGGED BY	RK Stoebert	ELEVATION			153.5-203' Vitrophyre
SCALE	1" = 10'	AZIMUTH	S55E		203'-219' FG massive
TOTAL DEPTH	318'	INCLINATION	37		219-254' Planar Laminar
					254-259 Lst
					259-284 Planar Laminar
					284-316 Lower Bud

ITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		0-24.8' TOS "Bud Look Alike" Green, lt gray, wht, polylithic, clast supported tuff: Clasts consists of flow banded material, fine grained tuff & Auld Lang Syne. They range in size from 2mm - 2cm. The avg size is ± 1cm: Rare clasts >2cm. They are rounded to sub-angular with most (~75%) falling into the sub-rounded class. At the contact the avg size decreases (in this hole). Contact is sharp with a 65° angle	0 10 20 30 40 50			@ 1' = one small calc vn w/ trace sulf. @ 4.5' = SAA
		24.8-37' FG Massive Pale Green to lt Gray FG massive and near Featureless Flow(?) The contact is broken up and Fractured w/ an angle of 40°				23-28' minor calc, wht clay and mc dissem in rock and small seams.
		37'-153.5 Slight Planar Laminar lt Gray, Buff & Pale Green Slight Planar Laminar			37-38' Frax Contact Zone Strg to Intense Frax w/ minor clay gouge at 37.5'. Gouge zone only about .1' wide 45-47' Frax Zone: Mod to Lcl strg.	37-38' Frax w/ druzy Qtz, wht: lt Green clay, trace to very wk sulf. Sulf = Py: mc 45-47' Frax: Open space contains druzy Qtz, Barite mc, Py wht clay and Green clay: mc wk overall

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
0	5					
5	8					
8	13					
13	18					
18	23					
23	28					
28	33					
33	37					
37	38					
38	42					
42	45					
45	47					
47	51					

316-318 BMB ?

HOLE NUMBER D-269-98 PAGE 2 OF 5

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		37- 153.5' Slight Planar Lam. *	50		51-52.5' - Frax silica cemen mod - Lcl strg	51-55.5 - Frax druzy Qtz cement. Wht : green clay : Py mc wk overall
				rubble	54-58' - Frax ± silica cemen rubble zone	55.5-62' Calc : clay cemen wk rubble suif wk overall,
			60		58-62 wk Frax	
		Note: Pima Clay Samples @ 1) 53' 2) 73' 3) 96' *	70			68-71 minor Frax zone w/ mod-strg mc Py, clay filled cracks
						73-75 - minor Veins and Un Brx, Trace Calc. mod mc in Silica veins. Euhedral Py cubes in clay along with mc
			80		83.5-84.5 Fault Brx	83-85 Frax ; Fault Brx clay filled seams, ± druzy Qtz ; mc Py ;
			90			
		@ 102' Rck becomes finer grain lt Grey to wht : Pale Green and more massive Looking May be a Δ Rck but Still Slight Planar Laminar ∴ will Keep logging SAA. ? This clean unit extends down to 118' *	100		95-98 Frax strg to Lcl Intense. 98-102 Breccia : Silica Cemented Fault (?) zone	95-102 Frax 95-98' w/ strg clay ± silica ± trace calc. mod mc Py. 98-102 Intense Frax & Brx cemented w/ silica wht and pale green clay. Suif wk-mod overall
			110		104-106 - Brx - Fault(?)	104-106' - Breccia same as 98-102 except sulfide increased mod overall Py ; mc.
			120		118' Sharp contact w/ Brx 60°	118-128' silica, clay cemented Brx

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
51	55.5				
55.5	58				
58	62				
62	65				
65	68				
68	71				
71	73				
73	75'				
75	78'				
78	83'				
83	85				
85	88				
88	93				
93	95				
95	98				
98	102				
102	104				
104	106				
106	108				
108	113				
113	118				
118	123				

HOLE NUMBER D-269-98 PAGE 3 OF 5

ITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		37'-153.5' Slight Planar Laminar - SAA - Note: Pima sample @ 1) 128' 153.5-203' Vitrophyre Pale Green, Green : wht shattered looking Vitrophyre. Devit text Green Clay common on frax : lcl near complete alt → Green clay. 8/25/98 BAD Attitude Water Truck accident. I cannot keep my mind on work because of Jim Jacobson treating me like dirt.	120 130 140 150 160 170 180 190		118-123' Fault Breccia Recemented 125'-128' Fault Breccia Recemented 128-140 very wk to wk Crackle Zone 145-163 very wk crackle zone 185-187' Fault Zone(?)	118-123' - Breccia Zone re-cemented w/ drusy Qtz clay and sulf. Clay is wht, cream and pale Green. Sulf is Py : mc 123'-125' Intense frax w/ SAA in frax seams 125-128 - Breccia Zone Same as 118-123' Good looking zone from 118'-128' 128-140 Crackle wk to very weak. Open space filled w/ chlorite, clay + drusy Qtz + sulf. 155-160 minor, small sulf. veins and trace calc. 163-168 minor; small sulf vns wk calc vns; very small @ 177' .5 cm wide Py/mc vn. 183-188' silica cemented Box : Vuggy w/ trace calc in vugs. Py : mc but wk - mod overall

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	A
118	SAA 123					
123	128					
128	133					
133	138					
138	143					
143	148					
148	153					
153	158					
158	163					
163	168					
168	173					
173	178					
178	183					
183	188					
188	193					

HOLE NUMBER D-269-98 PAGE 4 OF 5

ITH.	OX/RED.	LITHOLOGY	FT 190	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		153.5 - 203' Vitrophyre Vitrophyre SAA [→ Darker Green in color 188-203']	200		188 - 211' Very wk crackle zone ; Seams filled w/ Py ± mc, chlorite, ± calc	
		203 - 219 FG massive Pale Green, green to wht, FG Massive flow. One contact at 212' vitrophyre - glassy contact but same material above and below contact the glassy portion is only ~1 foot from 211-212 Glassy again at the contact from 218-219'. De-vit text at both contacts.	210		211-215 minor Frax Zone	208 - 211' Very wk alt ± crackle Seams filled w/ chlorite ; sulf ± calc. 211 - 215' Frax : open space filled w/ druzy Qtz, Py, mc, Barite ± trace wht clay.
		219 - 254' Flow Banded Planar Grey to Lt Lav. ; Buff Slight Planar Laminar to Planar Laminar	220		220-225 wk - Lcl mod Frax 225'-228' mod - Lcl strg Frax 228-230' wk - mod Frax 230-233' mod - Lcl strg frax @ 232 - 232.5' minor Brx 236.5 - 237' minor vein Brx ; could be small struct ?	215-219' Bleached Rck, minor Frax, wk Sulf. in Frax 219-220' Green, minor Frax w Crackle w/ chlorite Py ± mc filled Seams.. 220-225' Increase Frax 225 - 228 Frax : seams filled w/ druzy Qtz, wht Clay, Barite, more ; Py, ± chlorite 228 - 230' SAA wk - Lcl mod 230-234' SAA w/ Lcl Brx @ 232 - 232.5', note: vuggy druzy Qtz Brx may be trace Chalco Py 236 - 237' ~5cm wide vein and vein Brx
		Note; @ 230-234' Trace Chalco ; Trace Pyragyrite in open space ; Maybe not It looks more like tetrahedrite ? It doesn't look like Ruby Ag.	230			
		254 - 259' LST ? Pale Green, wht, Lav Spotted vesicular tuff	240			
		259 - 284' Slight Planar Lam.	250			
			260			

ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
193	198				
198	205				
205	208				
208	211				
211	215				
215	220				
220	225				
225	228				
228	230				
230	234				
234	236				
236	237				
237	243				
243	248				
248	253				
253	258				

HOLE NUMBER D-269-98 PAGE 5 OF 5

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		259-284 Slight Planar Lam SAA.	260		268-268 Frax: wk to Lcl mod → re cemented w/ Calc, wht clay, mc Py	263-268 Calc, Qtz : clay filled Frax w/ Lcl strg mc : Py
			270			
			280		283-286.5' Frax: mod to Lcl strg re-cemented	281-282 Trace to wk veins of Calc, mc Py, wht clay
		284-316 Lower Bud? Lav, Green, wht lt Gray,				283-286.5' wht druzy Qtz, and wht Calc. clay filled frax of Lcl strg sulf. sulf = More : Py.
			290		293-302.5' Frax: strg re-cemented	293-302.5' Good looking zone lots of open space w/ Euhedral Py : More. Same as 283-286.5'
			300			302.5-313' Crackle w/ minor sulf veins : Lcl silica clay vns.
		316 318' BMB? Green to Pale Green FG Rhyo.? mafic minerals, Biotite?, have been altered to chlorite wk to very wk flow band Text.	310		314' minor Frax w/ ~.2' Brx, may be strong	313-315' Bleached, Arg w/ trace altd Brx open space w/ mc Py : clay. minor drusy Qtz
		TD 318'	320	TD		

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	
258	263					
263	268					
268	273					
273	278					
278	283					
283	287					
287	293					
293	298					
298	303					
303	308					
308	313					
313	315					
315	318					
	TD					

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-269-98 DATE: 8/19/98 LOGGED BY: RK Stoeberl PAGE 1 OF 5

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	102	90										
5	8	100	90	100										
8	13	100	100	100										
13	18	100	100	100										
18	28	98	99	100										
28	38	94	96	86										
38	42	80	90	68										
42	45	86	70	42.										
45	52	90	94.	74.										
52	55.5	80	97.	51										
55.5	58	96	101	100										
58	63	100	100	100										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-269-98 DATE: 8/19/98 LOGGED BY: RKS PAGE 2 OF 5

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)
63	68	100	96	100										
68	73	100	98	100										
73	78	100	? 136	96										
78	83	100	Block must be in wrong slot 62	100										
83	88	94	96	90										
88	93	100	100	94										
93	98	90	100	74										
98	103	100	100	100										
103	108	100	100	98										
108	113	99	98	90										
113	118	100	96	88										
118	123	100	100	100										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-269 DATE: 8/19/98 LOGGED BY: RK Stoebert PAGE 3 OF 5

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)
123	128	96	94	60										
128	133	98	102	86										
133	138	94	100	70										
138	143	100	100	92										
143	145.5	96	104	40										
145.5	148	100	108	98										
148	153	100	100	84										
153	158	100	100	100										
158	163	100	98	100										
163	168	100	100	100										
168	178	96	99	96										

3.5
1.5 +1
1.5 >4

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-269-98 DATE: 8/24/98 LOGGED BY: RKS PAGE 4 OF 5

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)
178	188	100	99	100										
188	198	100	98	96										
198	208	100	99	94										
208	218	100	100	100										
218	223	90	97	84										
223	228	90	96	96										
228	234	98	100	92										
234	243	98	101	84										
243	253	100	96	100										
253	263	100	100	98										
263	269	100	104	90										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-269-98 DATE: 8/24/98 LOGGED BY: RKS PAGE 5 OF 5

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)
269	278	100	96	83										
278	288	100	100	89										
288	298	98	101	95										
298	308	100	92	100										
308	318 TD	100	100	95										

American Assay Laboratories

INVOICE

Remit To: P.O. Box11530
Reno, Nevada 89510
Phone NO.: 702-356-0606
Fax No.: 702-356-1413

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

(702) 356-0606

INVOICE NO: SP 0050522-IN
INVOICE DATE: 09/16/98

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-269-98	ROSEBUD	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
79	SAMPLES RECEIVED	.00	.00
78	DRYING	1.00	78.00
78	JAW CRUSHING CHARGE	1.30	101.40
78	COARSE MILLING CHARGE	4.50	351.00
78	SPLITTING CHARGE	2.40	187.20
78	RING MILLING CHARGE	2.00	156.00
79	Au (1 A.T. FIRE ASSAY)	8.00	632.00
79	HYDROCHLORIC/NITRIC DIGESTION	2.00	158.00
79	Ag ANALYSES	1.00	79.00

~~86-5010-777~~ 86-5110-477
RAA

NET INVOICE:	1,742.60
LESS DISCOUNT:	348.52
FREIGHT:	.00
INVOICE TOTAL:	1,394.08

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP050522

American Assay Laboratories

PO BOX 11530
RENO NV,USA
Ph.(702) 356-0606, Fax.(702) 356-1413

HECLA MINING COMPANY

COPIES TO : KURT ALLEN
:
:
:

CLIENT REFERENCE No: D-269-98 RECEIVED : 9 SEP 1998

No. SAMPLES : 79 REPORTED : 16 SEP 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
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP050522

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-269-98

REPORTED : 16 SEP 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
D-269-98 0-5	<0.001		<0.02
D-269-98 5-8	<0.001		<0.02
D-269-98 8-13	<0.001		<0.02
D-269-98 13-18	<0.001		<0.02
D-269-98 18-23	<0.001		0.02
D-269-98 23-28	0.002		0.05
D-269-98 28-33	0.002		0.06
D-269-98 33-37	0.003		0.06
D-269-98 37-38	0.008		0.12
D-269-98 38-42	0.006		0.06
D-269-98 42-45	0.009		0.06
D-269-98 45-47	0.006		0.04
D-269-98 47-51	0.005		0.04
D-269-98 51.0-55.5	0.005		0.06
D-269-98 55.5-58.0	0.010		0.07
D-269-98 58-62	0.004		0.05
D-269-98 62-65	0.004		0.05
D-269-98 65-68	0.005		0.09
D-269-98 68-71	0.010		0.13
D-269-98 71-73	0.008		0.09
D-269-98 73-75	0.008		0.15
D-269-98 75-78	0.014		0.09
D-269-98 78-83	0.005		0.07
D-269-98 83-85	0.007		0.08
D-269-98 85-88	<0.001		<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP050522

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-269-98

REPORTED : 16 SEP 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
D-269-98 88-93	<0.001		<0.02
D-269-98 93-95	<0.001		<0.02
D-269-98 95-98	0.002		0.05
D-269-98 98-102	0.005		0.06
D-269-98 102-104	0.007		0.06
D-269-98 104-106	0.017		0.10
D-269-98 106-108	0.004		0.04
D-269-98 108-113	0.005		0.06
D-269-98 113-118	0.012		0.06
D-269-98 118-123	0.099		0.12
D-269-98 123-128	0.192		0.28
D-269-98 128-133	0.114		0.09
D-269-98 133-138	0.019		0.21
D-269-98 138-143	0.023		0.06
D-269-98 143-148	<0.001		0.04
D-269-98 148-153	<0.001		0.02
D-269-98 153-158	0.002		0.24
D-269-98 158-163	0.004		0.06
D-269-98 163-168	<0.001		0.02
D-269-98 168-173	<0.001		0.04
D-269-98 173-178	<0.001		0.34
D-269-98 178-183	<0.001		0.38
D-269-98 183-188	0.002		0.06
D-269-98 188-193	<0.001		0.04
D-269-98 193-198	0.002		0.04

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP050522

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-269-98

REPORTED : 16 SEP 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
D-269-98 198-205	<0.001		0.05
D-269-98 205-208	<0.001		0.04
D-269-98 208-211	0.002		0.04
D-269-98 211-215	0.005		0.05
D-269-98 215-220	0.036		0.11
D-269-98 220-225	0.016		0.10
D-269-98 225-228	0.026		0.13
D-269-98 228-230	0.029		0.10
D-269-98 230-234	0.018		0.10
D-269-98 234-236	0.002		0.06
D-269-98 236-237	0.020		0.08
D-269-98 237-243	0.015		0.04
D-269-98 243-248	<0.001		<0.02
D-269-98 248-253	<0.001		<0.02
D-269-98 253-258	0.002		0.05
D-269-98 258-263	0.003		0.06
D-269-98 263-268	0.007		0.07
D-269-98 268-273	<0.001		<0.02
D-269-98 273-278	<0.001		0.02
D-269-98 278-283	0.002		0.05
D-269-98 283-287	0.010		0.10
D-269-98 287-293	0.005		0.05
D-269-98 293-298	0.034		0.22
D-269-98 298-303	0.020		0.14
D-269-98 303-308	0.001		0.21

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP050522

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-269-98

REPORTED : 16 SEP 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
D-269-98 308-313	0.014		0.74
D-269-98 313-315	0.001		0.19
D-269-98 315-318	0.005		0.11
40497	0.517		4.47

xAMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP050522

American Assay Laboratories

PO BOX 11530
RENO NV,USA
Ph.(702) 356-0606, Fax.(702) 356-1413

HECLA MINING COMPANY

COPIES TO : KURT ALLEN
:
:
:

CLIENT REFERENCE No: D-269-98 RECEIVED : 9 SEP 1998

No. SAMPLES : 79 REPORTED : 16 SEP 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
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP050522

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-269-98

REPORTED : 16 SEP 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
D-269-98 0-5	<0.001		<0.02
D-269-98 5-8	<0.001		<0.02
D-269-98 8-13	<0.001		<0.02
D-269-98 13-18	<0.001		<0.02
D-269-98 18-23	<0.001		0.02
D-269-98 23-28	0.002		0.05
D-269-98 28-33	0.002		0.06
D-269-98 33-37	0.003		0.06
D-269-98 37-38	0.008		0.12
D-269-98 38-42	0.006		0.06
D-269-98 42-45	0.009		0.06
D-269-98 45-47	0.006		0.04
D-269-98 47-51	0.005		0.04
D-269-98 51.0-55.5	0.005		0.06
D-269-98 55.5-58.0	0.010		0.07
D-269-98 58-62	0.004		0.05
D-269-98 62-65	0.004		0.05
D-269-98 65-68	0.005		0.09
D-269-98 68-71	0.010		0.13
D-269-98 71-73	0.008		0.09
D-269-98 73-75	0.008		0.15
D-269-98 75-78	0.014		0.09
D-269-98 78-83	0.005		0.07
D-269-98 83-85	0.007		0.08
D-269-98 85-88	<0.001		<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP050522

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-269-98

REPORTED : 16 SEP 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
D-269-98 88-93	<0.001		<0.02
D-269-98 93-95	<0.001		<0.02
D-269-98 95-98	0.002		0.05
D-269-98 98-102	0.005		0.06
D-269-98 102-104	0.007		0.06
D-269-98 104-106	0.017		0.10
D-269-98 106-108	0.004		0.04
D-269-98 108-113	0.005		0.06
D-269-98 113-118	0.012		0.06
D-269-98 118-123	0.099		0.12
D-269-98 123-128	0.192		0.28
D-269-98 128-133	0.114		0.09
D-269-98 133-138	0.019		0.21
D-269-98 138-143	0.023		0.06
D-269-98 143-148	<0.001		0.04
D-269-98 148-153	<0.001		0.02
D-269-98 153-158	0.002		0.24
D-269-98 158-163	0.004		0.06
D-269-98 163-168	<0.001		0.02
D-269-98 168-173	<0.001		0.04
D-269-98 173-178	<0.001		0.34
D-269-98 178-183	<0.001		0.38
D-269-98 183-188	0.002		0.06
D-269-98 188-193	<0.001		0.04
D-269-98 193-198	0.002		0.04

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP050522

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-269-98

REPORTED : 16 SEP 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
D-269-98 198-205	<0.001		0.05
D-269-98 205-208	<0.001		0.04
D-269-98 208-211	0.002		0.04
D-269-98 211-215	0.005		0.05
D-269-98 215-220	0.036		0.11
D-269-98 220-225	0.016		0.10
D-269-98 225-228	0.026		0.13
D-269-98 228-230	0.029		0.10
D-269-98 230-234	0.018		0.10
D-269-98 234-236	0.002		0.06
D-269-98 236-237	0.020		0.08
D-269-98 237-243	0.015		0.04
D-269-98 243-248	<0.001		<0.02
D-269-98 248-253	<0.001		<0.02
D-269-98 253-258	0.002		0.05
D-269-98 258-263	0.003		0.06
D-269-98 263-268	0.007		0.07
D-269-98 268-273	<0.001		<0.02
D-269-98 273-278	<0.001		0.02
D-269-98 278-283	0.002		0.05
D-269-98 283-287	0.010		0.10
D-269-98 287-293	0.005		0.05
D-269-98 293-298	0.034		0.22
D-269-98 298-303	0.020		0.14
D-269-98 303-308	0.001		0.21

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP050522

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-269-98

REPORTED : 16 SEP 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
D-269-98 308-313	0.014		0.74
D-269-98 313-315	0.001		0.19
D-269-98 315-318	0.005		0.11
40497	0.517		4.47

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP050522

PO BOX 11530
RENO NV, USA
Ph.(702) 356-0606, Fax.(702) 356-1413

HECLA MINING COMPANY

COPIES TO : KURT ALLEN 9:10 Am 9/16

:

:

:

NSI

CLIENT REFERENCE No: D-269-98 RECEIVED : 9 SEP 1998

No. SAMPLES : 79 REPORTED : 16 SEP 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
Ag(OZ)	DZ10	10%	OPT	0.02

SIGNATORY : Susan King M.S.

09/16/1998 08:53 7023561413 AMERICAN ASSAY LABS PAGE 01
7023561413

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP050522

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-269-98

REPORTED : 16 SEP 1998

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)
D-269-98 0-5	<0.001		<0.02
D-269-98 5-8	<0.001		<0.02
D-269-98 8-13	<0.001		<0.02
D-269-98 13-18	<0.001		<0.02
D-269-98 18-23	<0.001		0.02
D-269-98 23-28	0.002		0.05
D-269-98 28-33	0.002		0.06
D-269-98 33-37	0.003		0.05
D-269-98 37-38	0.008		0.12
D-269-98 38-42	0.006		0.06
D-269-98 42-45	0.009		0.06
D-269-98 45-47	0.006		0.04
D-269-98 47-51	0.005		0.04
D-269-98 51.0-55.5	0.005		0.06
D-269-98 55.5-58.0	0.010		0.07
D-269-98 58-62	0.004		0.05
D-269-98 62-65	0.004		0.05
D-269-98 65-68	0.005		0.09
D-269-98 68-71	0.010		0.13
D-269-98 71-73	0.008		0.09
D-269-98 73-75	0.008		0.15
D-269-98 75-78	0.014		0.09
D-269-98 78-83	0.005		0.07
D-269-98 83-85	0.007		0.08
D-269-98 85-88	<0.001		<0.02

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP050522

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-269-98

REPORTED : 16 SEP 1998

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)
D-269-98 88-93	<0.001		<0.02
D-269-98 93-95	<0.001		<0.02
D-269-98 95-98	0.002		0.05
D-269-98 98-102	0.005		0.06
D-269-98 102-104	0.007		0.06
D-269-98 104-106	0.017		0.10
D-269-98 106-108	0.004		0.04
D-269-98 108-113	0.005		0.06
D-269-98 113-118	0.012		0.06
D-269-98 118-123	0.099		0.12
D-269-98 123-128	0.192		0.28
D-269-98 128-133	0.114		0.09
D-269-98 133-138	0.019		0.21
D-269-98 138-143	0.023		0.06
D-269-98 143-148	<0.001		0.04
D-269-98 148-153	<0.001		0.02
D-269-98 153-158	0.002		0.24
D-269-98 158-163	0.004		0.06
D-269-98 163-168	<0.001		0.02
D-269-98 168-173	<0.001		0.04
D-269-98 173-178	<0.001		0.34
D-269-98 178-183	<0.001		0.38
D-269-98 183-188	0.002		0.06
D-269-98 188-193	<0.001		0.04
D-269-98 193-198	0.002		0.04

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP050522

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-269-98

REPORTED : 16 SEP 1998

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)
D-269-98 198-205	<0.001		0.05
D-269-98 205-208	<0.001		0.04
D-269-98 208-211	0.002		0.04
D-269-98 211-215	0.005		0.05
D-269-98 215-220	0.036		0.11
D-269-98 220-225	0.016		0.09
D-269-98 225-228	0.026		0.13
D-269-98 228-230	0.029		0.10
D-269-98 230-234	0.018		0.10
D-269-98 234-236	0.002		0.06
D-269-98 236-237	0.020		0.08
D-269-98 237-243	0.015		0.04
D-269-98 243-248	<0.001		<0.02
D-269-98 248-253	<0.001		<0.02
D-269-98 253-258	0.002		0.05
D-269-98 258-263	0.003		0.06
D-269-98 263-268	0.007		0.07
D-269-98 268-273	<0.001		<0.02
D-269-98 273-278	<0.001		0.02
D-269-98 278-283	0.002		0.05
D-269-98 283-287	0.010		0.10
D-269-98 287-293	0.005		0.05
D-269-98 293-298	0.034		0.22
D-269-98 298-303	0.020		0.14
D-269-98 303-308	0.001		0.21

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP050522

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-269-98

REPORTED : 16 SEP 1998

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)
D-269-98 308-313	0.014		0.74
D-269-98 313-315	0.001		0.19
D-269-98 315-318	0.005		0.11
40497	0.517		4.47

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

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

Company: Hecla Rosebud

Address: PO Box 2610

City Winnemucca State NV Zip

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

Project Name: Rosebud Purchase Order Number:

Date Submitted: 9/3/98 Number of Samples: 78

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

SAMPLE IDENTIFICATION			TYPE	ELEMENTS REQUIRED		
D-269-98			Core	Au, Ag	Rosebud	Specs
0-5	55.5-58	98-102		158-163	225-228	283-287
5-8	58-62	102-104		163-168	228-230	287-293
8-13	62-65	104-106		168-173	230-234	293-298
13-18	65-68	106-108		173-178	234-236	298-303
18-23	68-71	108-113		178-183	236-237	303-308
23-28	71-73	113-118		183-188	237-243	308-313
28-33	73-75	118-123		188-193	243-248	313-315
33-37	75-78	123-128		193-198	248-253	315-318 TD
37-38	78-83	128-133		198-205	253-258	
38-42	83-85	133-138		205-208	258-263	
42-45	85-88	138-143		208-211	263-268	
45-47	88-93	143-148		211-215	268-273	
47-51	93-95	148-153		215-220	273-278	
51-55.5	95-98	153-158		220-225	278-283	

COARSE REJECTS (Normally Discarded After 60 Days)

[ ] Return COD after analysis complete

PULPS (Normally Stored Free For One Month)

[ ] Discard after one month
[ ] Return COD after one month

RESULTS AND INVOICES TO BE SENT TO:

Invoice to: Kurt Allen

Results to: Kurt Allen

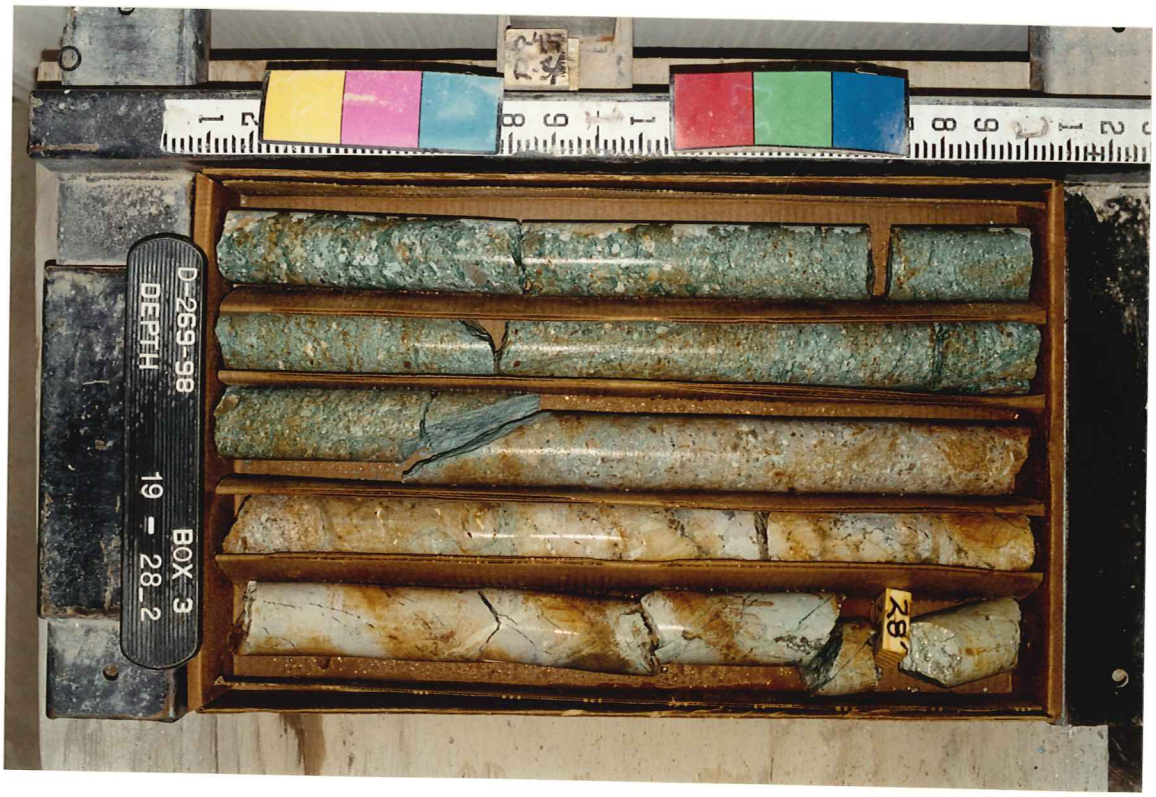
Comments:

CLIENT FILE COPY

D-269-98	0	36.5	126.2
	160	36	125.7
	318	36	124.7

13'
18'
D-269-98
DEPTH
BOX 2
9_5 - 19

5
8'
D-269-98
DEPTH
BOX 1
0 - 9_5


D-269-98
DEPTH
BOX 3
19 - 28_2
28'

42'
D-269-98
BOX 5
DEPTH
38 - 47

38'
D-269-98
BOX 4
DEPTH
28_2 - 38

D-269-98
DEPTH
BOX 6
47 - 56_5
52'
55.5

D-269-98
BOX 8
DEPTH
65_5 - 74_5
73

D-269-98
BOX 7
DEPTH
56_5 - 65_5
58'
63

D-269-98
BOX 9
DEPTH
74_5 - 83_5
78
83

98
D-269-98
BOX 11
DEPTH
93_2 - 102_5

93
88
D-269-98
BOX 10
DEPTH
83_5 - 93_2

103
108
D-269-98
BOX 12
DEPTH
102_5 - 112

123
128
D-269-98
BOX 14
DEPTH
121_5 - 130_5

113
118
D-269-98
BOX 13
DEPTH
112 - 121_5

D-269-98
BOX 15
DEPTH
130_5 - 139_5
138

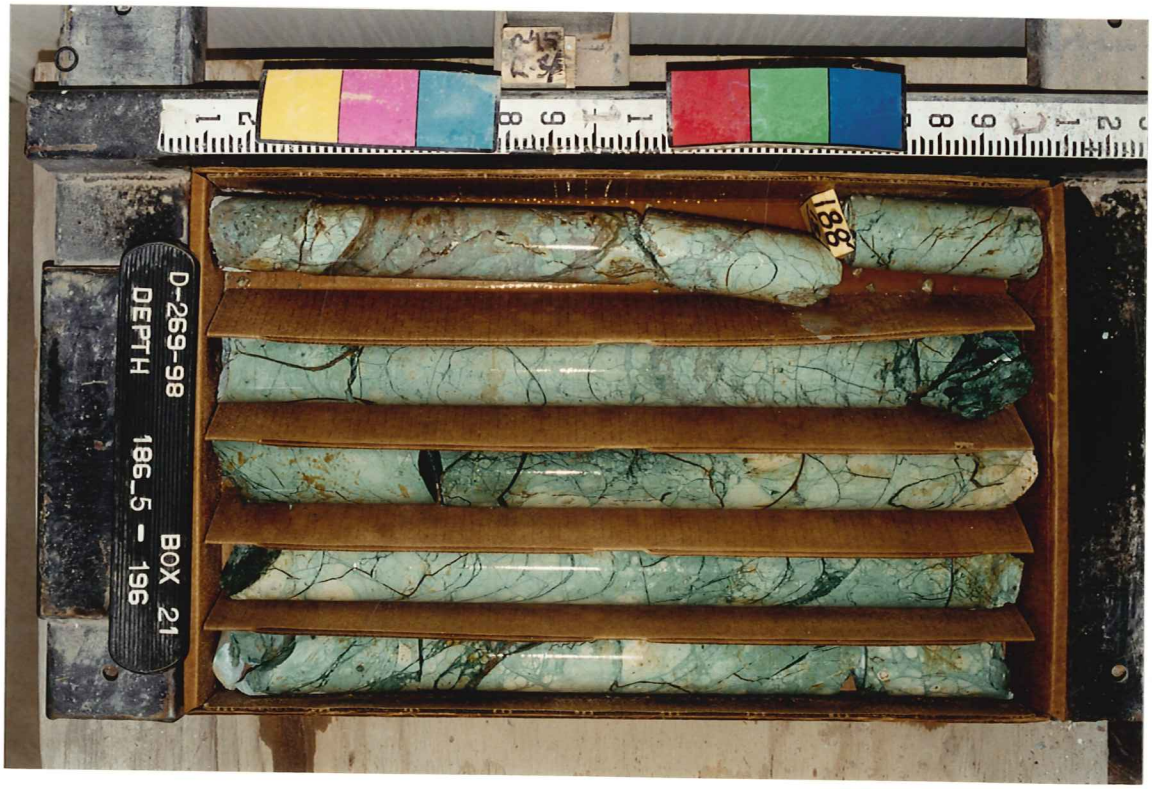
153
D-269-98
BOX 17
DEPTH
148 - 158

143
148
145.5
D-269-98
BOX 16
DEPTH
139_5 - 148

158
163
D-269-98
BOX 18
DEPTH
158 - 167_5

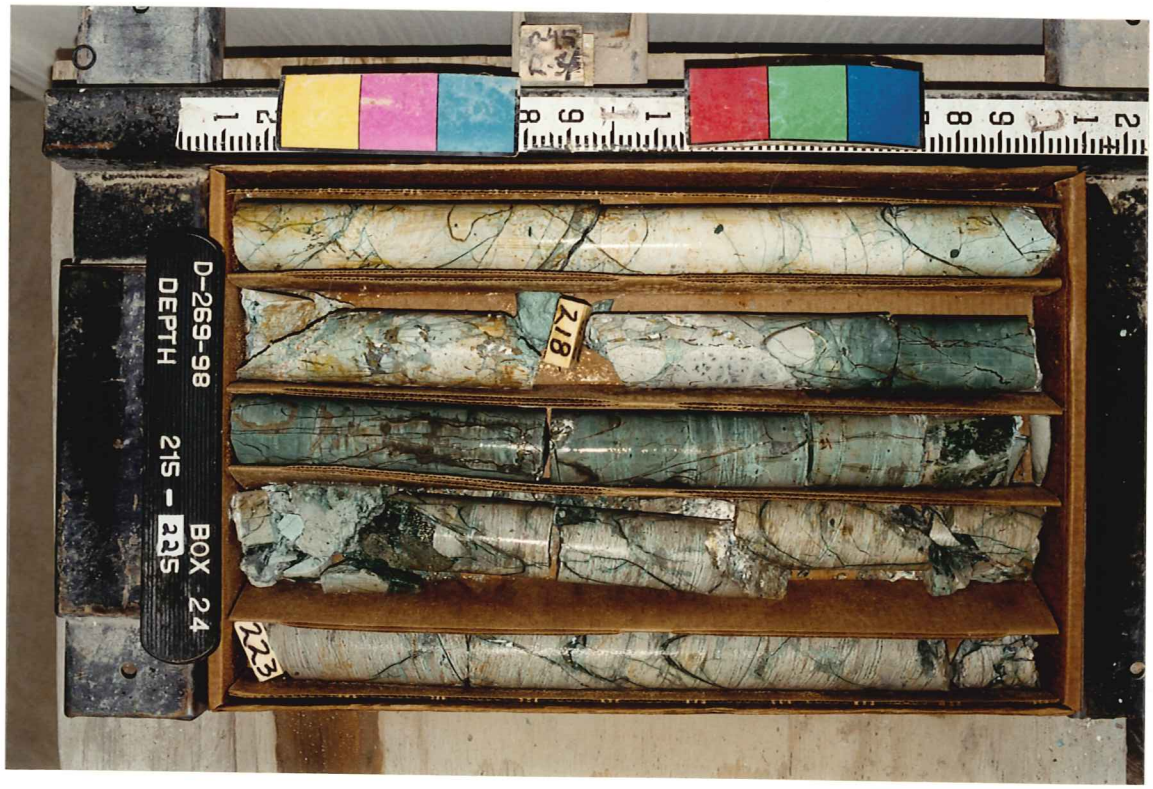
178
D-269-98
BOX 20
DEPTH
177 - 186_5

168
D-269-98
BOX 19
DEPTH
167_5 - 177


188
D-269-98
BOX 21
DEPTH
186_5 - 196

208
D-269-98
BOX 23
DEPTH
205.5 - 215

198
D-269-98
BOX 22
DEPTH
196 - 205.5


D-269-98
BOX 24
DEPTH
215 - 225
218
223

243
D-269-98
BOX 26
DEPTH
234_1 - 243_5

234
228
D-269-98
BOX 25
DEPTH
225 - 234_1

D-269-98
BOX 27
DEPTH
243_5 - 253_2
253

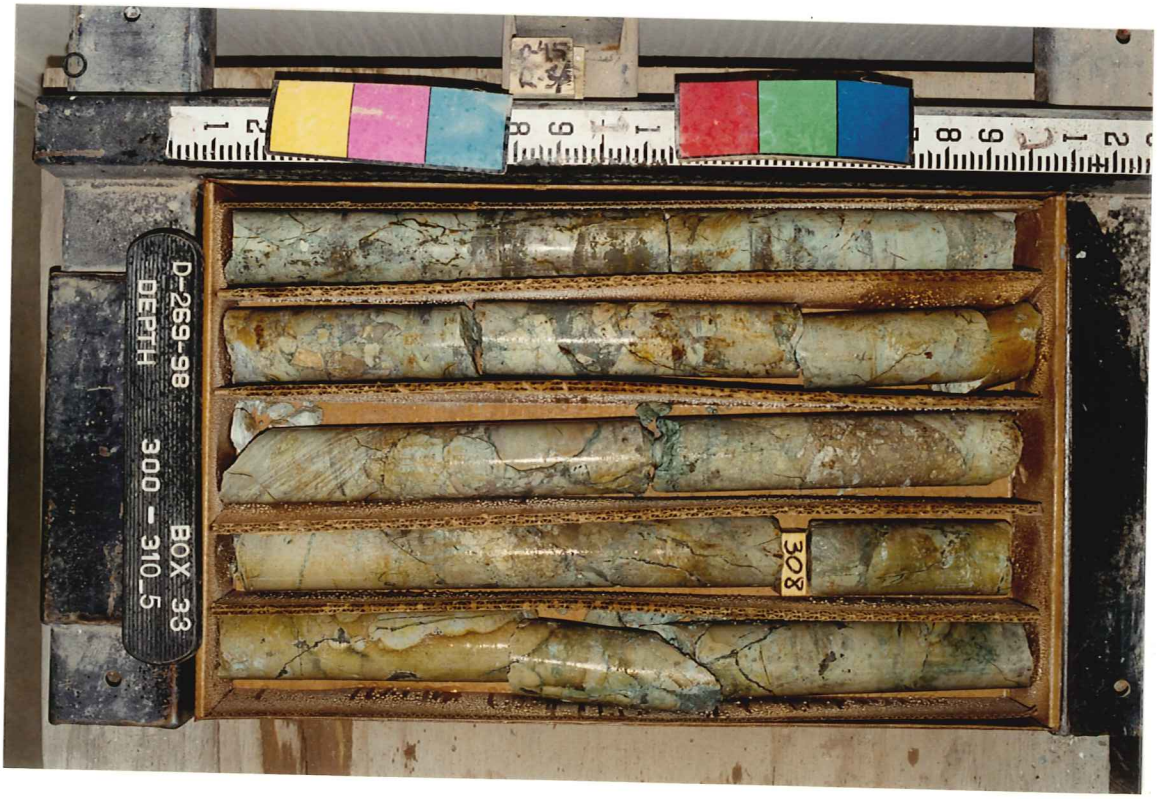
D-269-98
BOX 29
DEPTH 262_5 - 272
263
269

D-269-98
BOX 28
DEPTH 253_2 - 262_5

D-269-98
BOX 30
DEPTH 272 - 281_5
278

298
D-269-98
BOX 32
DEPTH 290 - 300

D-269-98
BOX 31
DEPTH 281_5 - 290


308
D-269-98
BOX 33
DEPTH 300 - 310_5

318TD
D-269-98
BOX 34
DEPTH
310_5 - 318 TD

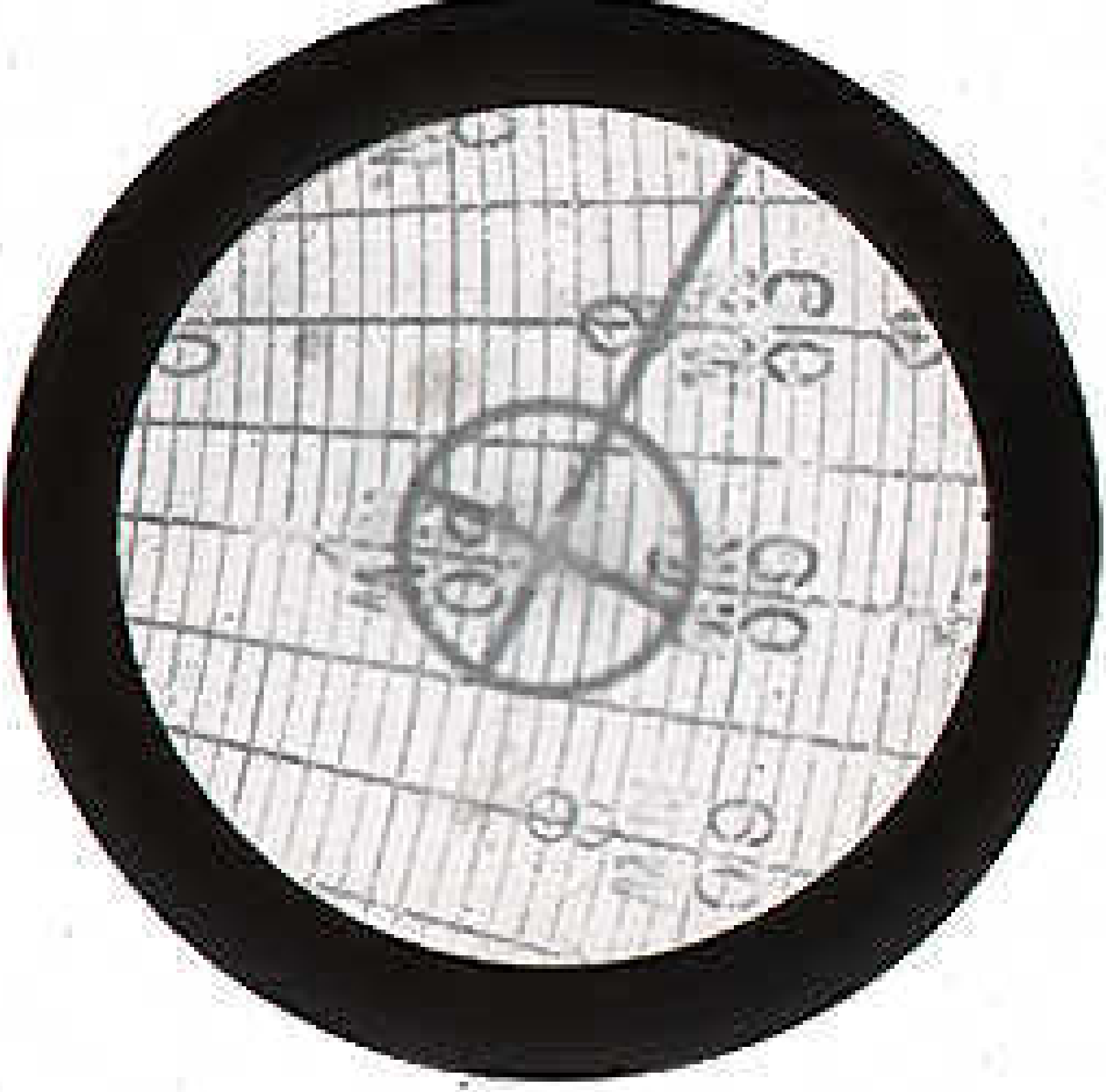
SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecla
WELL NAME D-269-98
LEASE
TAKEN BY Hunter
DEPTH 318'
DATE 6-15-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO. 1

HI-1408

SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecla
WELL NAME D-269-98
LEASE
TAKEN BY Hunter
DEPTH Collar
DATE 6-15-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO. 1
HI-1408



SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecla
WELL NAME D-269-98
LEASE
TAKEN BY Hunter
DEPTH 160'
DATE 6-15-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO. 1
HI-1408