60001160

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. DHET-262A-98
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 (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 200' receipt; handwritten notes; downhole camera images 24p, 4 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:	DP	5/14/08
DB:	mah	
SCANNED:	NB	

Revised: 1/22/08

DHED-262A98

60001160
4010

6000 1160

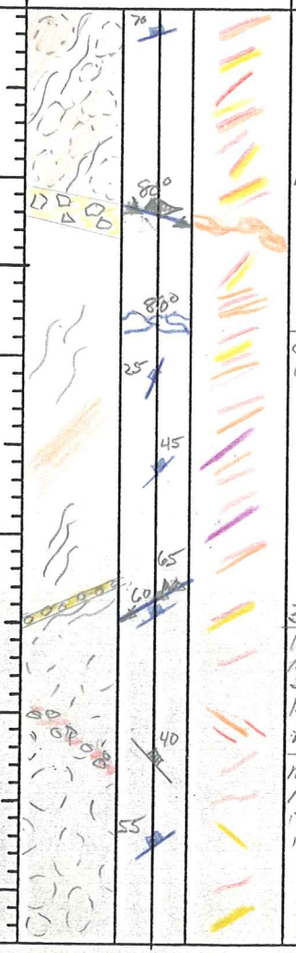
Hecla MINING COMPANY

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

ROSEBUD PROJECT
DIAMOND DRILL LOG

HOLE NUMBER	DHET-262A-98	LOCATION	
PAGE	1 OF 4	NORTHING	
DATE	6/21-22/98	EASTING	
LOGGED BY	ALLYN NILES	ELEVATION	
SCALE	1"=10'	AZIMUTH	
TOTAL DEPTH	200 TD	INCLINATION	

REMARKS: HETEROGENEITY STUDY

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
0.0-119.1 DOZER		0.0-35.0 LT. GREEN W/ COMMON BOT FAINT PINKISH PATCHES & DIFFUSION BANDS. APHANITIC, TRACE TO WEAK CLAY ALTERED. AUTOBRECCIATED TO 10.5' W/ LT. GREEN ANGULAR CLASTS IN A LT. GREEN CLAYEY MATRIX W/ REMNANT FLOW TEXTURES AROUND THE CLASTS. MASSIVE FLOWS 10.5' TO 35.0, GENERALLY FEATURELESS W/ WEAKLY DEFINED FLOW TEXTURES.	10 20 30 40 50		10.5-12.0 TECTONIC BRA W/ CLASTS OF DOZER IN A WHITE CLAY/SILICA CEMENT 17.0-18.0 WEAK CRACKLE BXA ZONE W/ INCREASED SULFIDE VEINLETS & WHITE CLAY IN OPEN SPACES 35.0-35.3 TECTONIC BRECCIA, ANGULAR FRAGS IN A DK GRAY SULFIDIC SILICA MATRIX, RUBBLE BXA TYPE. 42.5-43.2 MOSAIC TEXTURE AUTO BRECCIA	0.0-38.0 THIN STRINGERS & VEINS OF BLADED MARCASITE OFTEN W/ THIN QUARTZ OR WHITE CLAY. THICKER VEINS TO 1/4" OR MORE ARE COMMONLY QUARTZ W/ MARCASITE COATING +/- WHITE CLAY FILLING VOIDS. VEINS SHOW PREFERRED ORIENTATION 24.0-29.0 MINOR BARITE VEINING TO 1/2" Ø 42.5-43.2 INCREASED SULFIDES FILLING OPEN SPACES OF AUTO BRECCIA.
		35.0-119.1 AUTO BRECCIA, MOSAIC TEXTURE. LT. GREEN ROUND TO ANGULAR, TRACE TO WEAKLY ARGILLIC ALT. FRAGS IN A LT. GREEN, TRACE TO WEAKLY ARGILLIC ALT. MATRIX. INTERSPERSED W/ MORE MASSIVE FLOWS TO 4' Ø W/ WEAKLY DEFINE FLOW TEXTURES				

ANALYTICAL DATA

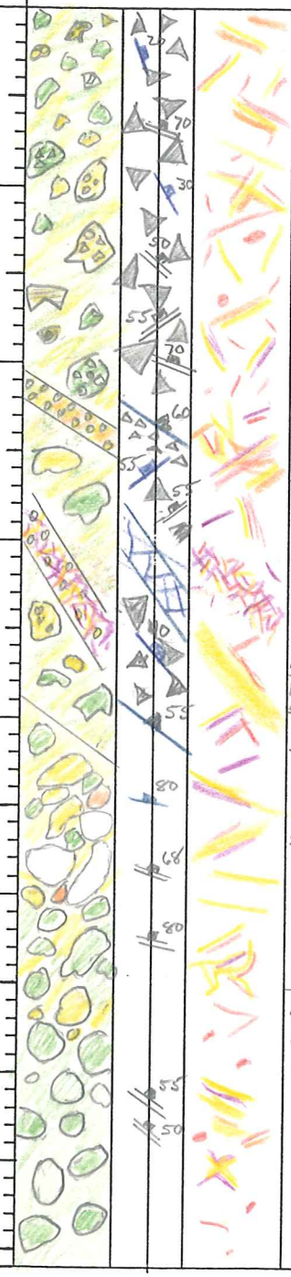
FROM	TO	W	Au	Ag	Au2	Ag
0.0	5.0					
5.0	10.0					
10.0	15.0					
15.0	20.0					
20.0	25.0					
25.0	30.0					
30.0	35.5					
35.5	40.0					
40.0	45.0					
45.0	50.0					

HOLE NUMBER DHET-262A-98 PAGE 2 OF 4

ITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
0.0 – 119.1 DOZER		35.0 – 119.1 AUTO BRECCIA – SEE DESCRIPTION PAGE 1	60, 70, 80, 90, 100, 110, 120		57.0-57.3 CRACKLE ZONE W/ THIN 1" BAND OF TECTONIC BRECCIA. 60.5-61.2 BRECCIA W/ ANGULAR → ROUND FRAGS, SILICIFIED, IN A DK. GRAY → GREENISH SILICA MATRIX	55.0 – 65.0 INCREASED BUT STILL WEAK QUARTZ VEINING W/ ASSOC. MARCASITE/PYRITE & SOME BANDS OF DISSEM. 57.0-57.3 INCREASED QUARTZ/MARCASITE/PYRITE IN BXA 60.5-61.2 INCREASED MARCASITE/PYRITE & QUARTZ/WHITE CLAY FILLING & VEINS IN BXA. MOST ROCK & MATRIX IS SILICIFIED. 66.4 – 75.0 WEAK ARGILLIC ALT. W/ ASSOC. DISSEM.-LIKE SULFIDES 80.0-80.0 LEACHED & ARGILLIZED AUTO BRECCIA FRAGS W/ DK. GRAY QUARTZ FORMING THE INTERFRAGMENT MATRIX IN SOME PLACES. 85.0 – 90.2 MODERATE DK. GRAY QUARTZ/MARCASITE VEINING TO 3" Ø. SEEMS TO BE FOLLOWING WEAK LINES IN THE AUTO BRECCIA.
					105.4 – 119.0 TEXTONIC BRECCIA ZONES AND INCREASED FRACTURE DENSITY DUE TO PROXIMITY TO SOUTH RIDGE FAULT	105.4 – 119.0 MOSAIC BRECCIA ZONES UP TO 6" Ø HAVE ANGULAR TO SUBANGULAR FRAGS +/– SILICA REP. IN A DK. GRAY HARD QUARTZ OR WHITE SOFT QUARTZ MATRIX OFTEN W/ BLADED MARCASITE 119.4 – 120.2 DISSEM. MARCASITE VERY COMMON
119.1 – 120.2 SRF		119.1 – 120.2 SOUTH RIDGE FAULT GREEN → PINKISH W/ SMALL ROUND BXA FRAGS OF DOZER IN CLAY MATRIX OVERPRINTED BY MOD. SILICA & QUARTZ VEINS. FORMED IN DOZER UNIT			119.1 – 120.2 BEGIN SOUTH RIDGE FAULT	

FROM	TO	W	Au	Ag	Au2
50.0	55.0				
55.0	60.0				
60.0	65.0				
65.0	70.0				
70.0	75.0				
75.0	80.0				
80.0	85.0		0.226		
85.0	90.0		0.231		
90.0	95.0		0.126		
95.0	100.0		0.156		
100.0	105.0		0.422		
105.0	110.0		0.432		
110.0	115.0		0.156		
115.0	119.0		0.946		

HOLE NUMBER DHET-262A-98 PAGE 3 OF 4

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
120.2-160.7 SRF		120.2 – 160.7 GREEN → LT. GREEN → PINK → GRAY, ROUND TO ANGULAR BXA FRAGS IN A GREEN APHANITIC, STRONGLY SILICA REPLACED, VITRIOUS, CLAY MATRIX. HETEROLITHIC BRECCIA PIMA	130 140 150 160 170 180 190		120.2 – 160.7 SOUTH RIDGE FAULT HEALED BRECCIA W/ ZONES OF RECENT RE-ACTIVATION W/ UNHEALED HIGH ANGLE FRACTURES. 140.4 – 142.0 ANGULAR TO SUBROUND SILIC. BXA FRAGS IN A WHITE CLAY & QUART MATRIX ← POSSIBLE HIGH GRADE INTERCEPT 149.4 – 157.0 FAULT BRECCIA CEMENTED W/ SILICA & STIBNITE 160.7 ABRUPT CHANGE IN LITHS. BUT NO OBSERVED SUTURE 160.7 – 168.0 MODERATE FRACTURING W/ FRACTURE LINED W/ STIBNITE/BARITE/QTZ. 168.0 – 200.0 FRACTURES RARE, HIGH RQD.	120.2 – 160.7 BOTH CLASTS AND MATRIX ARE STRONGLY SILICA FLOODED IN MOST AREAS OF THE FAULT, PROBABLE 2 STAGES OF SILICA REPLACEMENT. SILICA REPLACED UNITS ARE CUT BY QUARTZ, WHITE CLAY, BARITE & STIBNITE. MARCASITE IS BOTH BLADED & DISSEM. FORMS. W/ BLADED VARIETY OFTEN FOUND IN OPEN SPACES & FRACTURE LININGS W/ QUARTZ & WHITE CLAY. 149.4 – 157.0 INTENSE STIBNITE VEINING ASSOC. W/ BRECCIA. BARITE, MARCASITE & WHITE CLAY PRESENT 155.5 – 156.8 THICK WHITE SILICA/QUARTZ VEIN W/ MINOR BLEBS & BLADES OF MARCASITE. FAINT GREEN STAIN IN PLACES. 160.7 – 173.0 GRADUAL DECREASE IN SILIC INTENSITY AND ASSOC. QUARTZ VEINING W/ STIBNITE. 176.5 – 196.0 INCREASED QUARTZ VEINING OF BOTH DK. GRAY & WHITE VARIETY. VEINS ARE OFTEN ROCK MARKED OR HAVE CENTRAL PORTION LEACHED W/ LATE STAGE BARITE LINING/FILLING THE OPEN SPACES, SELECTIVE ARGILLIC ALT. OF SOME BXA FRAGS.
160.7 – 200.0 BUD		160.7 – 177.3 TECTONIC BRECCIA ZONE. HETEROLITHIC ASSEMBLAGE OF APHANITIC TO PORPHYRITIC VOLCANIC ROCKS ANGULAR TO ROUNDED, WITH VARIABLE INTENSITIES OF SILICA REP. BRECCIA CLASTS ARE OF VARIABLE COLOR BUT MATRIX IS EITHER PINKISH OR GREEN. 177.3 – 200.0 GREEN EPICLASTIC BRECCIA. DK. GREEN TO GRAY TO LT. GREEN CLASTS & SOME LAPILLIS, MOSTLY ROUNDED, SOME ANGULAR, IN A GREEN CLAY ALT. MATRIX. MATRIX SUPPORTED, HETERO				

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
119.0	122.6		0.111		
122.6	125.0		3.302		
125.0	130.0		0.608		
130.0	135.0				
135.0	138.0				
138.0	142.0				
142.0	143.6				
143.0	145.0				
145.0	147.0				
147.0	149.2				
149.2	151.5				
151.5	153.0				
153.0	155.5				
155.5	156.8				
156.8	160.7				
160.7	165.0				
165.0	170.0				
170.0	175.0				
175.0	180.0				
180.0	185.0				
185.0	190.0				

HOLE NUMBER DMET-262A-98 PAGE 4 OF 4

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
160.7-BUD	200.0	177.0 - 200.0 SEE DESCRIPTION PAGE 3				196.0 - 200.0 OCCASIONAL WEAKLY ARGILLIZED BXA FRAGS, RARE SILICIFIED FRAGS PROBABLY OCCURED BEFORE INCORPORATION IN MATRIX	190.0	195.0				
		T.D. 200'	200				195.0	200.0				

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # DHET-262A-98 DATE: 6/21/98 LOGGED BY: ALLYN NILES PAGE 1 OF 4

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)
0.0	10.0	92.0	85.0	50.0										
10.0	20.0	98.0	75.0	37.0										
20.0	25.0	100.0	114.0	70.0										
25.0	30.0	100.0	92.0	48.0										
30.0	35.5	100.0	109.0	29.0										
35.5	45.0	100.0	100.0	82.0										
45.0	51.0	100.0	97.0	62.0										
51.0	60.0	100.0	104.4	58.0										
60.0	70.0	96.0	90.0	48.0										
70.0	80.0	98.0	100.0	56.0										
80.0	88.0	100.0	94.0	41.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # DHET-262A-98 DATE: 6/21/98 LOGGED BY: PAGE 2 OF 4

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)
88.0	95.0	98.0	91.4	47.0										
95.0	105.0	98.0	100.0	74.0										
105.0	115.0	100.0	97.0	67.0										
115.0	125.0	100.0	99.0	57.0										
125.0	130.0	100.0	100.0	52.0										
130.0	135.0	100.0	84.0	36.0										
135.0	138.0	100.0	100.0	13.0										
138.0	142.0	100.0	70.0	24.0										
142.0	143.0	100.0	130.0	110.0										
143.0	145.0	100.0	85.0	0.0										
145.0	147.0	100.0	100.0	25.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # DHET-262A-98 DATE: LOGGED BY: PAGE 3 OF 4

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)
147.0	148.0	100.0	110.0	50.0										
148.0	150.0	100.0	85.0	65.0										
150.0	151.0	70.0	50.0	0.0										
151.0	151.5	100.0	60.0	0.0										
151.5	153.0	96.0	100.0	0.0										
153.0	155.0	98.0	85.0	35.0										
155.0	155.5	100.0	14.0	0.0										
155.5	156.0	100.0	120.0	0.0										
156.0	160.0	100.0	95.0	38.0										
160.0	165.0	100.0	94.0	50.0										
165.0	170.0	100.0	98.0	50.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE #: DHET-262A-98 DATE: 6/22/98 LOGGED BY: ALLYN NILES PAGE 4 OF 4

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)
170.0	175.0	100.0	98.0	82.0										
175.0	180.0	100.0	100.0	94.0										
180.0	185.0	100.0	92.0	78.0										
185.0	190.0	100.0	102.0	96.0										
190.0	195.0	98.0	100.0	80.0										
195.0	200.0	100.0	88.0	60.0										

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 0049293-IN
INVOICE DATE: 07/15/98

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
DHET-262A-98	DEVELOPMENT	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
48	SAMPLES RECEIVED	.00	.00
47	JAW CRUSHING CHARGE	1.30	61.10
47	COARSE MILLING CHARGE	4.50	211.50
47	SPLITTING CHARGE	2.40	112.80
47	FINE MILLING CHARGE	2.00	94.00
48	Au (1 A.T. FIRE ASSAY)	8.00	384.00
13	Au ANALYSES/GRAVIMETRIC	8.75	113.75
48	HYDROCHLORIC/NITRIC DIGESTION	2.00	96.00
48	Ag ANALYSES	1.00	48.00
10	Ag (ore grade) ANALYSES	5.00	50.00

4200-43-9999-477
EBA

NET INVOICE:	1,171.15
LESS DISCOUNT:	234.23
FREIGHT:	.00
INVOICE TOTAL:	936.92

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP049293

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: DHET-262A-98 RECEIVED : 26 JUN 1998

No. SAMPLES : 48 REPORTED : 10 JUL 1998

MAIN SAMPLE TYPE : DRILL CORE

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

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

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP049293

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : DHET-262A-98

REPORTED : 10 JUL 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
DHET-262A-98 00-05	0.020			0.09
DHET-262A-98 05-10	0.021			0.08
DHET-262A-98 10-15	0.036			0.17
DHET-262A-98 15-20	0.045			0.11
DHET-262A-98 20-25	0.022			0.07
DHET-262A-98 25-30	0.011			0.08
DHET-262A-98 30.0-35.5	0.015			0.08
DHET-262A-98 35.5-40.0	0.015			0.05
DHET-262A-98 40-45	0.007			0.04
DHET-262A-98 45-50	0.004			0.04
DHET-262A-98 50-55	0.006			0.02
DHET-262A-98 55-60	0.034			0.10
DHET-262A-98 60-65	0.024			0.09
DHET-262A-98 65-70	0.007			0.05
DHET-262A-98 70-75	0.038			0.07
DHET-262A-98 75-80	0.046			0.07
DHET-262A-98 80-85	0.226		0.250	0.29
DHET-262A-98 85-90	0.231		0.231	0.32
DHET-262A-98 90-95	0.120		0.138	1.04
DHET-262A-98 95-100	0.156		0.167	0.98
DHET-262A-98 100-105	0.422	0.414	0.398	0.23
DHET-262A-98 105-110	0.432		0.395	1.08
DHET-262A-98 110-115	0.156		0.182	0.14
DHET-262A-98 115-119	0.946		0.952	3.45
DHET-262A-98 119.0-122.6	0.111		0.120	0.12

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP049293

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : DHET-262A-98

REPORTED : 10 JUL 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
DHET-262A-98 122.6-125.0	3.302		3.395	3.59
DHET-262A-98 125-130	0.608		0.660	1.52
DHET-262A-98 130-135	0.036			0.37
DHET-262A-98 135-138	0.038			1.24
DHET-262A-98 138-142	0.062		0.068	0.60
DHET-262A-98 142-143	0.088		0.082	0.75
DHET-262A-98 143-145	0.026			1.95
DHET-262A-98 145-147	0.044			1.65
DHET-262A-98 147.0-149.2	0.017			5.84
DHET-262A-98 149.2-151.5	0.013			14.30
DHET-262A-98 151.5-153.0	0.008			1.66
DHET-262A-98 153.0-155.5	0.004			3.74
DHET-262A-98 155.5-156.8	0.003			1.26
DHET-262A-98 156.8-160.7	0.004			5.52
DHET-262A-98 160.7-165.0	0.004			0.71
DHET-262A-98 165-170	0.013			0.47
DHET-262A-98 170-175	0.002			0.08
DHET-262A-98 175-180	0.002			0.06
DHET-262A-98 180-185	0.003			0.66
DHET-262A-98 185-190	0.002			0.05
DHET-262A-98 190-195	0.004			0.05
DHET-262A-98 195-200	0.004			0.04
34556	0.132			2.81

xAMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP049293

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: DHET-262A-98 RECEIVED : 26 JUN 1998

No. SAMPLES : 48 REPORTED : 10 JUL 1998

MAIN SAMPLE TYPE : DRILL CORE

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

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP049293

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : DHET-262A-98

REPORTED : 10 JUL 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
DHET-262A-98 00-05	0.020			0.09
DHET-262A-98 05-10	0.021			0.08
DHET-262A-98 10-15	0.036			0.17
DHET-262A-98 15-20	0.045			0.11
DHET-262A-98 20-25	0.022			0.07
DHET-262A-98 25-30	0.011			0.08
DHET-262A-98 30.0-35.5	0.015			0.08
DHET-262A-98 35.5-40.0	0.015			0.05
DHET-262A-98 40-45	0.007			0.04
DHET-262A-98 45-50	0.004			0.04
DHET-262A-98 50-55	0.006			0.02
DHET-262A-98 55-60	0.034			0.10
DHET-262A-98 60-65	0.024			0.09
DHET-262A-98 65-70	0.007			0.05
DHET-262A-98 70-75	0.038			0.07
DHET-262A-98 75-80	0.046			0.07
DHET-262A-98 80-85	0.226		0.250	0.29
DHET-262A-98 85-90	0.231		0.231	0.32
DHET-262A-98 90-95	0.120		0.138	1.04
DHET-262A-98 95-100	0.156		0.167	0.98
DHET-262A-98 100-105	0.422	0.414	0.398	0.23
DHET-262A-98 105-110	0.432		0.395	1.08
DHET-262A-98 110-115	0.156		0.182	0.14
DHET-262A-98 115-119	0.946		0.952	3.45
DHET-262A-98 119.0-122.6	0.111		0.120	0.12

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP049293

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : DHET-262A-98

REPORTED : 10 JUL 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
DHET-262A-98 122.6-125.0	3.302		3.395	3.59
DHET-262A-98 125-130	0.608		0.660	1.52
DHET-262A-98 130-135	0.036			0.37
DHET-262A-98 135-138	0.038			1.24
DHET-262A-98 138-142	0.062		0.068	0.60
DHET-262A-98 142-143	0.088		0.082	0.75
DHET-262A-98 143-145	0.026			1.95
DHET-262A-98 145-147	0.044			1.65
DHET-262A-98 147.0-149.2	0.017			5.84
DHET-262A-98 149.2-151.5	0.013			14.30
DHET-262A-98 151.5-153.0	0.008			1.66
DHET-262A-98 153.0-155.5	0.004			3.74
DHET-262A-98 155.5-156.8	0.003			1.26
DHET-262A-98 156.8-160.7	0.004			5.52
DHET-262A-98 160.7-165.0	0.004			0.71
DHET-262A-98 165-170	0.013			0.47
DHET-262A-98 170-175	0.002			0.08
DHET-262A-98 175-180	0.002			0.06
DHET-262A-98 180-185	0.003			0.66
DHET-262A-98 185-190	0.002			0.05
DHET-262A-98 190-195	0.004			0.05
DHET-262A-98 195-200	0.004			0.04
34556	0.132			2.81

DETH-262A-98	0	10	316.7
	100	9.5	315.7
	200	8.7	316.2

SP 49293

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: ROSEBUD MINING CO. LLC

Address: P.O. BOX 2610

City WINNEMUCCA State NV Zip 89820

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

Project Name: DEVELOPMENT Purchase Order Number:

Date Submitted: Number of Samples:

7 LGS DRY

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

SAMPLE IDENTIFICATION	TYPE	ELEMENTS REQUIRED
DHET-262A-98		AU-Ag ACCORDING TO
0.0-5.0 ; 70.0-75.0 ; 135.0-138.0	3	ROSEBUD MINE PROTOCOL
5.0-10.0 ; 75.0-80.0 ; 138.0-142.0	4	
10.0-15.0 ; 80.0-85.0 ; 142.0-143.0	1	175.0-180.0 ;
15.0-20.0 ; 85.0-90.0 ; 143.0-145.0	2	180.0-185.0 ;
20.0-25.0 ; 90.0-95.0 ; 145.0-147.0	2	185.0-190.0 ;
25.0-30.0 ; 95.0-100.0 ; 147.0-149.2	2.2	190.0-195.0 ;
30.0-35.5 ; 100.0-105.0 ; 149.2-151.5	2.3	195.0-200.0 ;
35.5-40.0 ; 105.0-110.0 ; 151.5-153.0	1.5	
40.0-45.0 ; 110.0-115.0 ; 153.0-155.5	2.5	
45.0-50.0 ; 115.0-119.4 ; 155.5-156.8	1.3	
50.0-55.0 ; 119.0-122.6 ; 3.6 ; 156.8-160.7	3.9	
55.0-60.0 ; 122.6-125.0 ; 2.4 ; 160.7-165.0	4.3	
60.0-65.0 ; 125.0-130.0 ; 165.0-170.0	5	
65.0-70.0 ; 130.0-135.0 ; 170.0-175.0	5	

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:

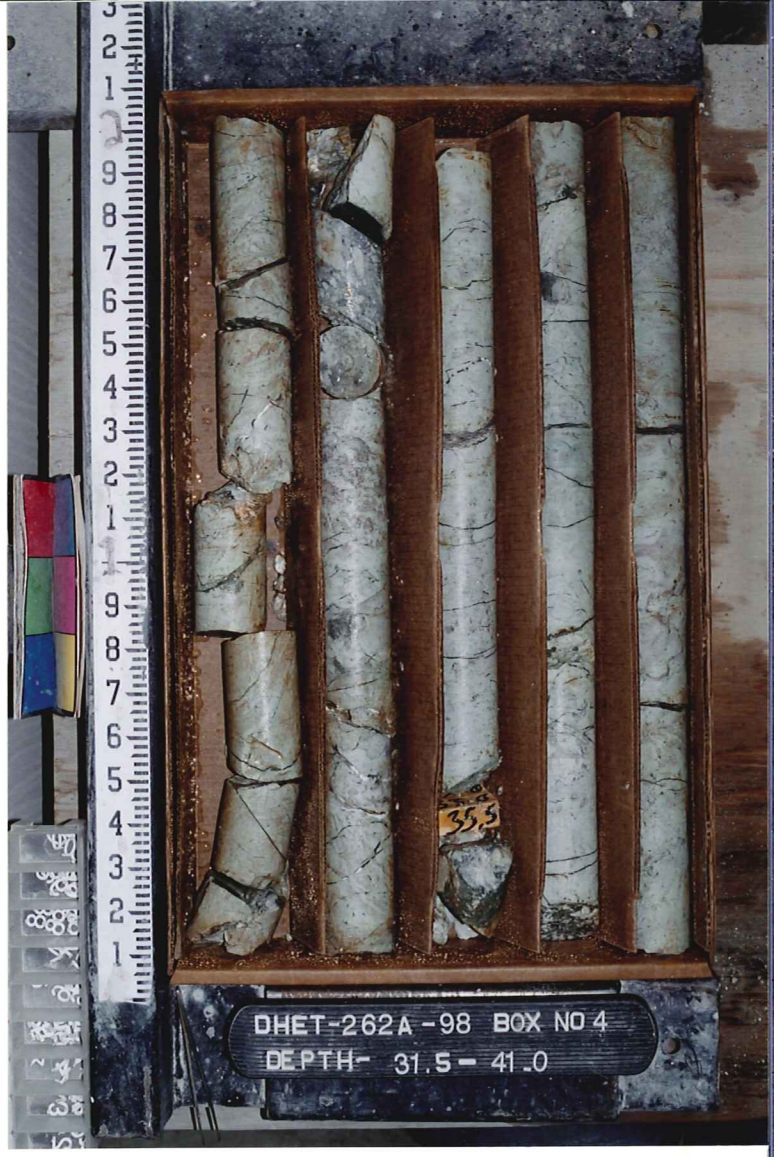
LABORATORY COPY

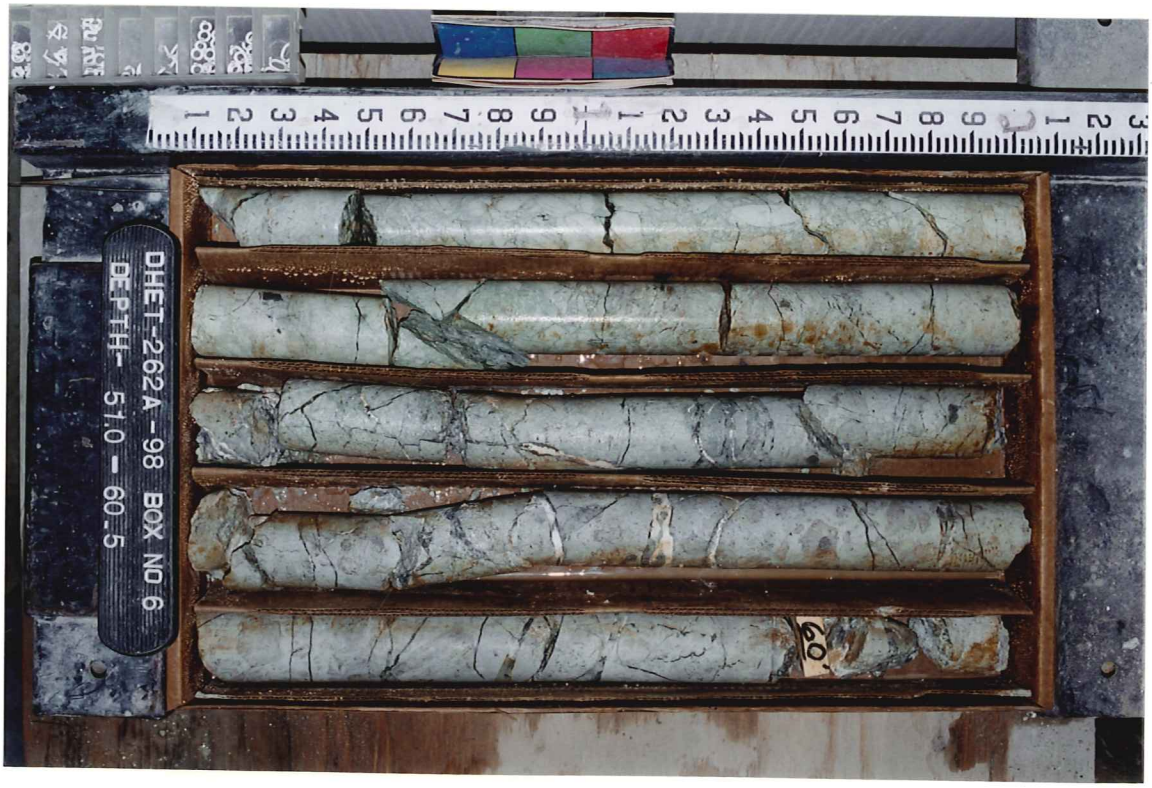
DHET-262A-98 BOX NO2
DEPTH- 10.5 - 22.0

DHET-262A-98 BOX NO 1
DEPTH- 0.0 - 10.0

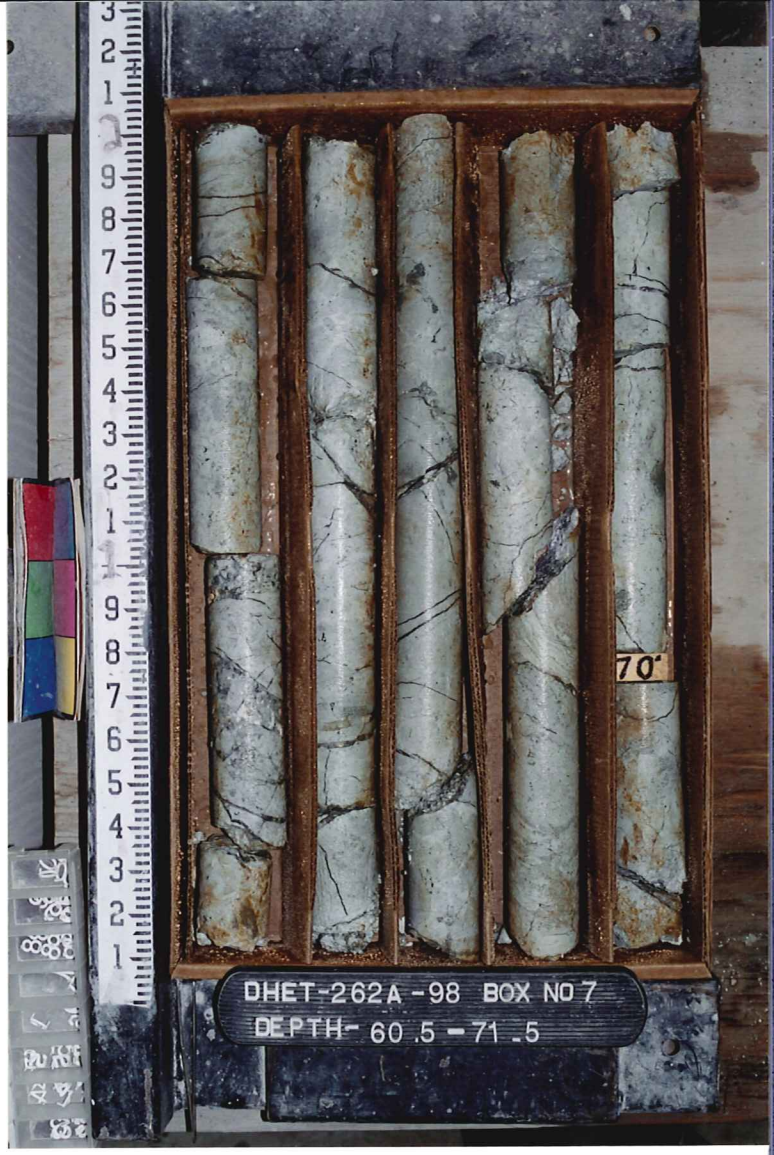
DHET-262A-98 BOX NO3
DEPTH- 22.0 - 31.5
25'
30'

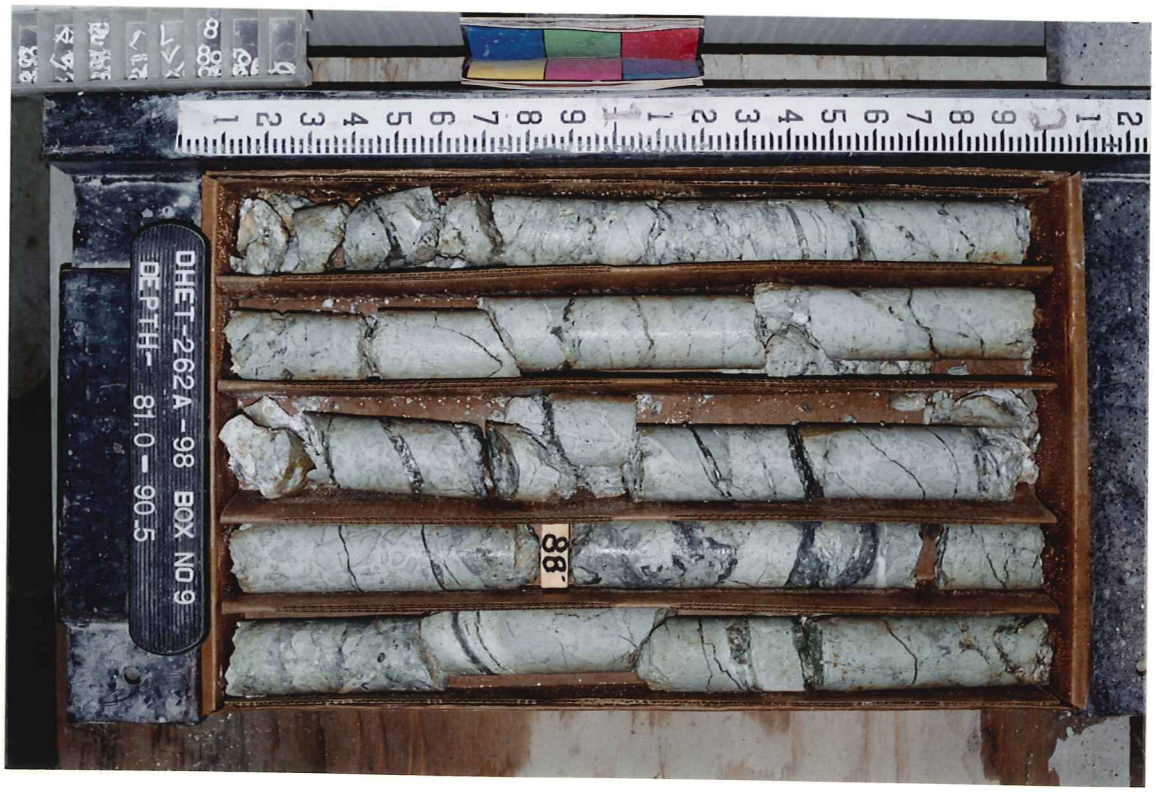
45
51
DHET-262A-98 BOX NO 5
DEPTH- 41.0 - 51.0


35.5
DHET-262A-98 BOX NO 4
DEPTH- 31.5 - 41.0


DHET-262A-98 BOX NO 6
DEPTH- 51.0 - 60.5
60

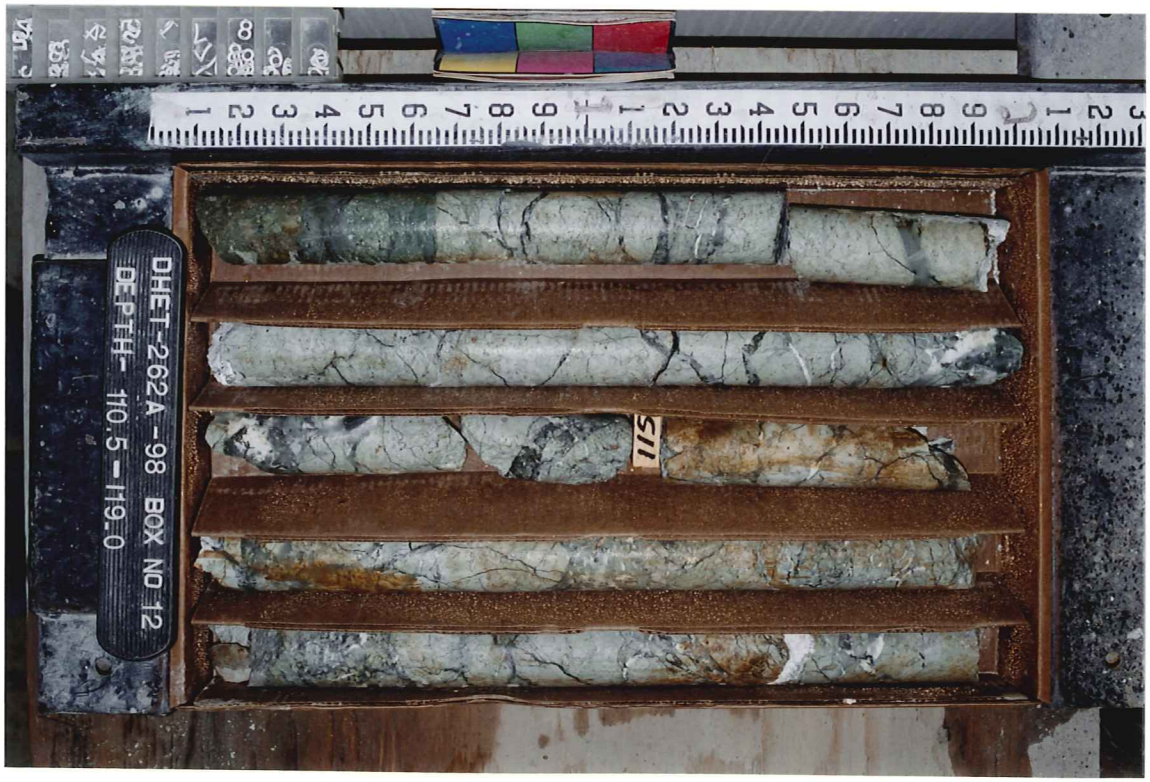
DHET-262A-98 BOX NO8
DEPTH- 71.5 - 81.0


70'
DHET-262A-98 BOX NO7
DEPTH- 60.5 - 71.5


DHET-262A-98 BOX NO9
DEPTH- 81.0 - 90.5
88'

105
DHET-262A-98 BOX NO 11
DEPTH- 101.0 - 110.5

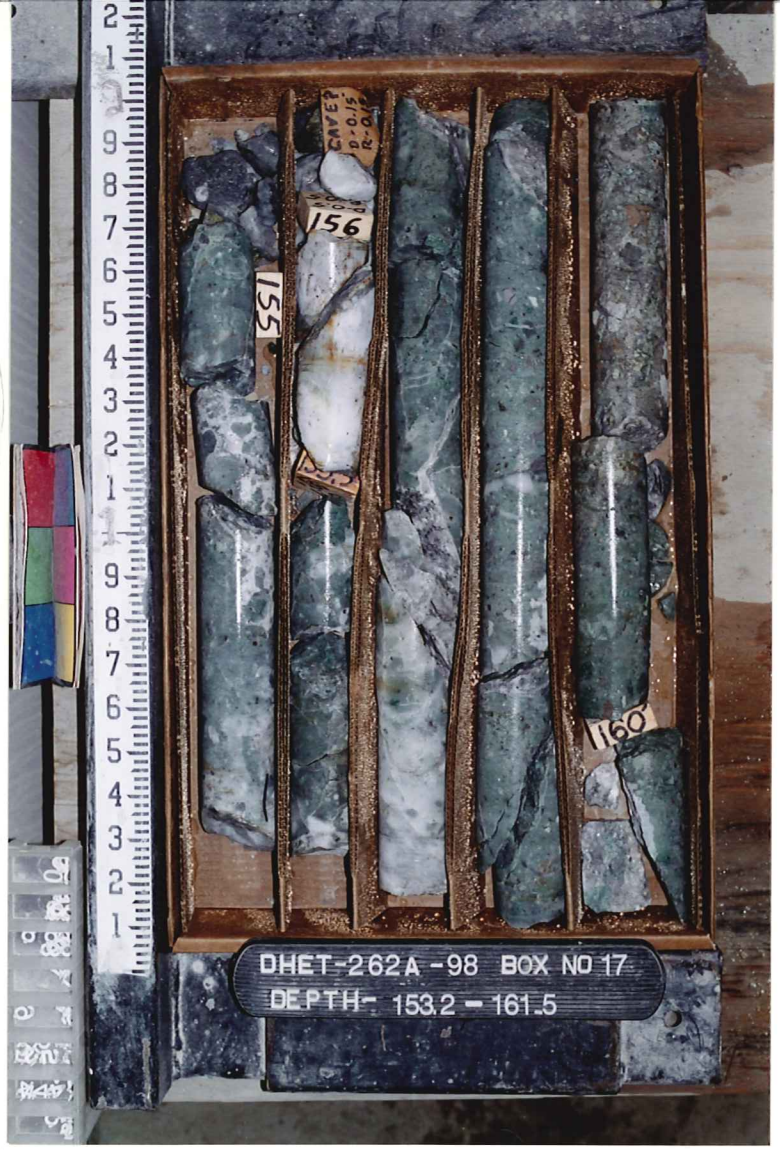
95
DHET-262A-98 BOX NO 10
DEPTH- 90.5 - 101.0

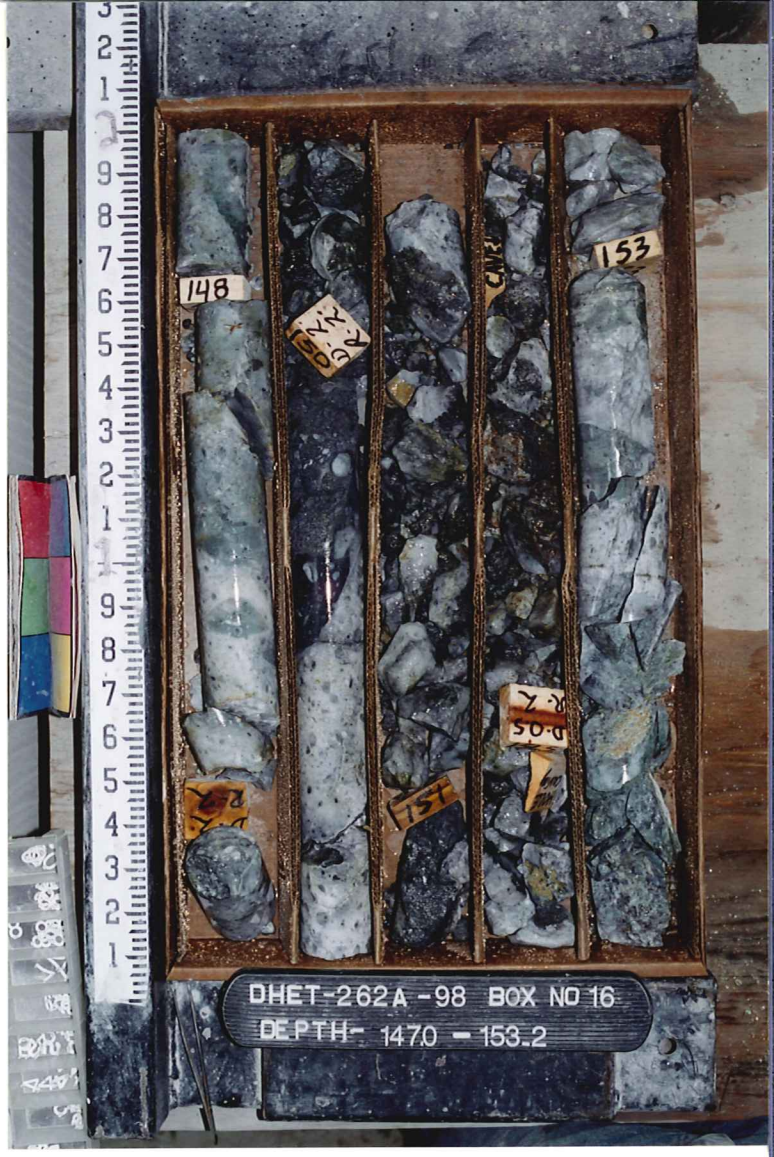

115
DHET-262A-98 BOX NO 12
DEPTH- 110.5 - 119.0

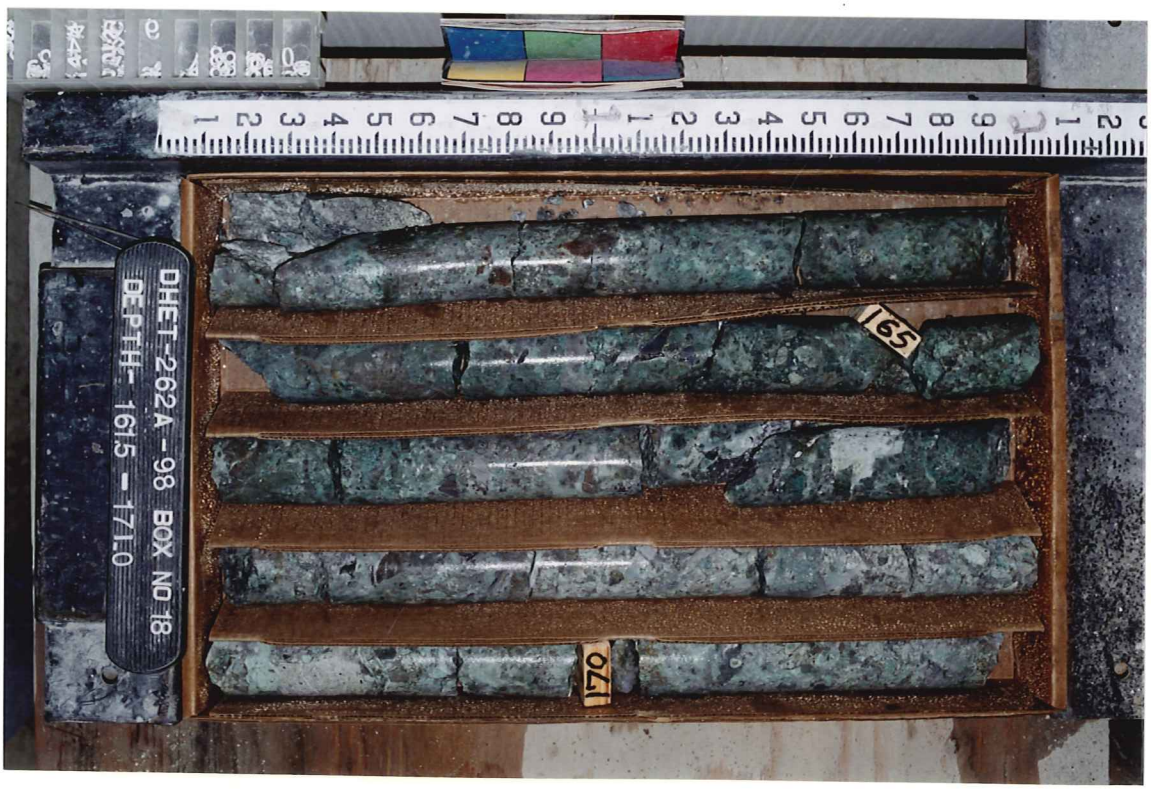
130
135
DHET-262A-98 BOX NO 14
DEPTH- 129.0 - 138.0

125
DHET-262A-98 BOX NO 13
DEPTH- 119.0 - 129.0

138
142
143
145
DHET-262A-98 BOX NO 15
DEPTH- 138.0 - 147.0

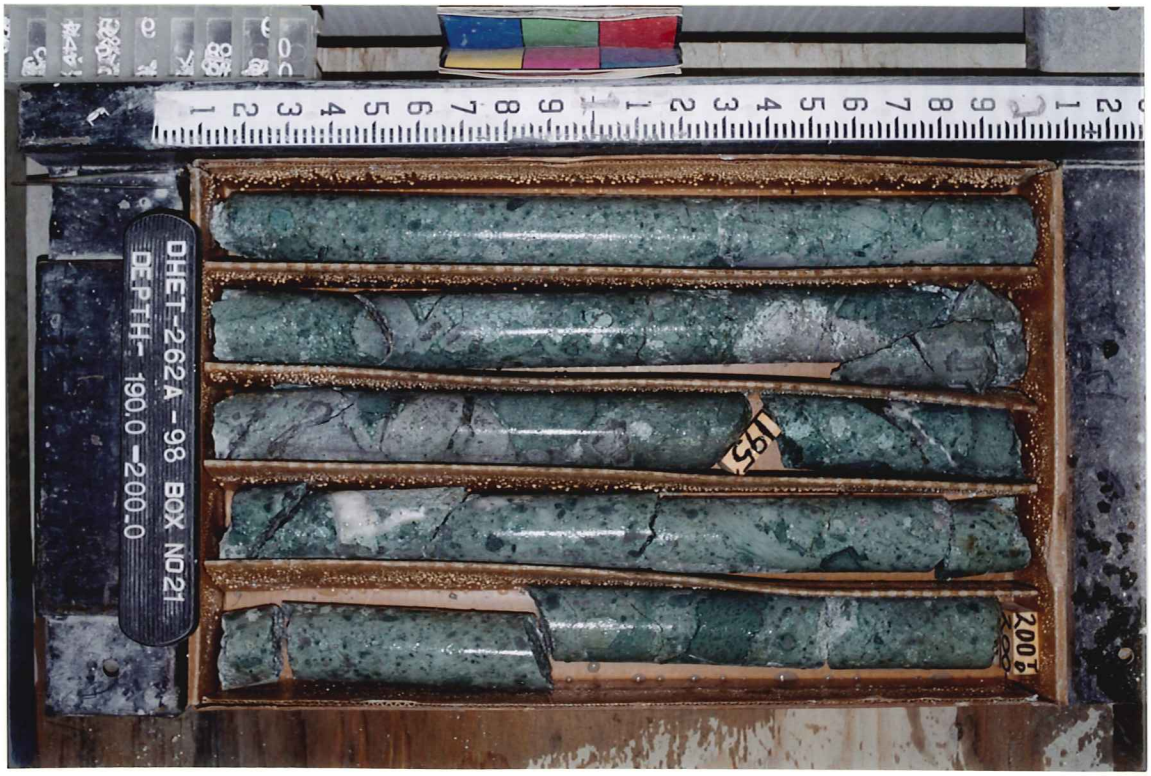

155
156
160
DHET-262A-98 BOX NO 17
DEPTH- 153.2 - 161.5


148
150
151
153
DHET-262A-98 BOX NO 16
DEPTH- 147.0 - 153.2


DHET-262A-98 BOX NO 18
DEPTH- 161.5 - 171.0
165
170

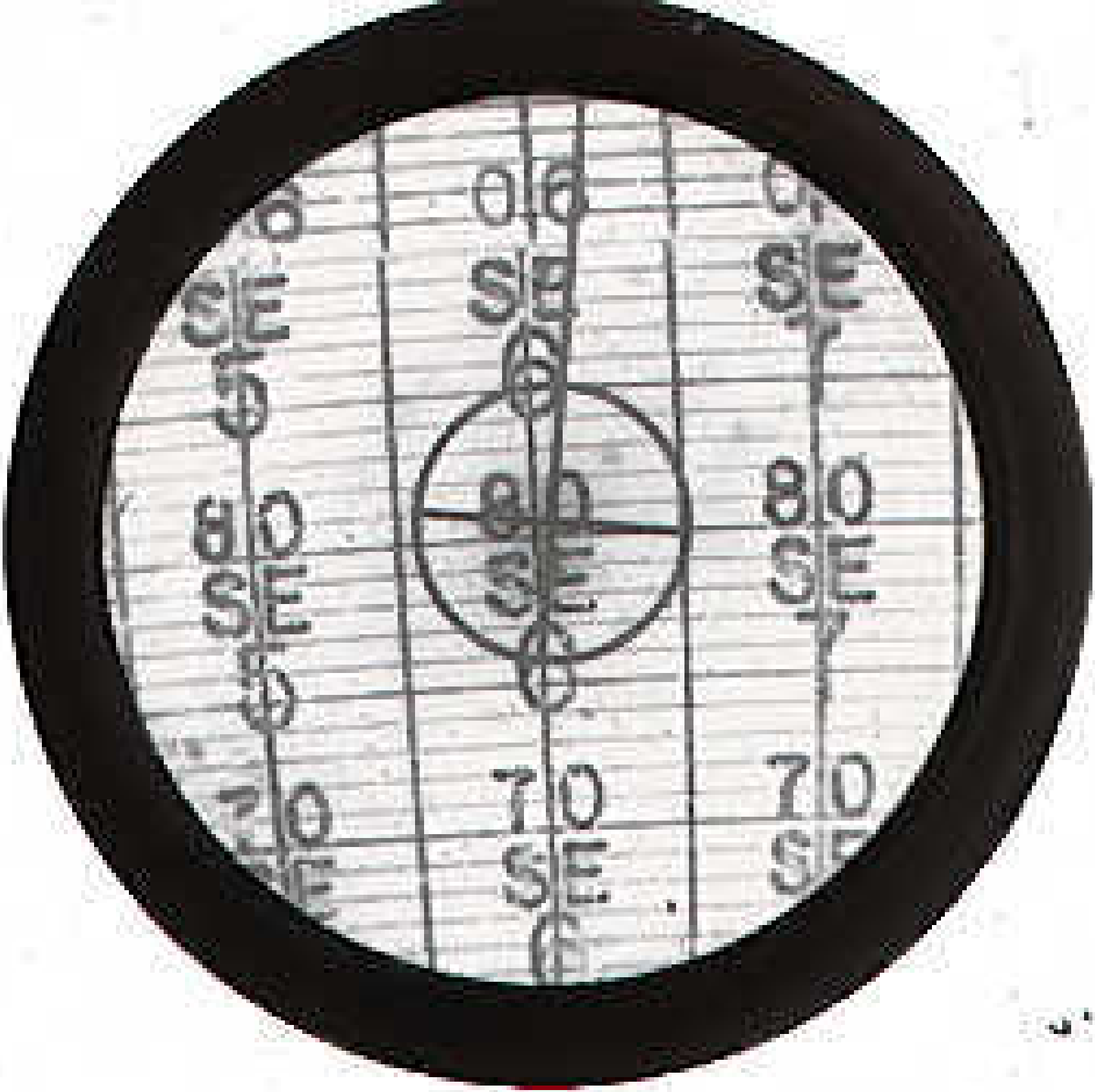
190'
185
DHET-262A -98 BOX NO20
DEPTH- 180.0 - 190.0

175
DHET-262A -98 BOX NO 19
DEPTH- 171.0 - 180.0


DHET-262A -98 BOX NO21
DEPTH- 190.0 -200.0
195
200

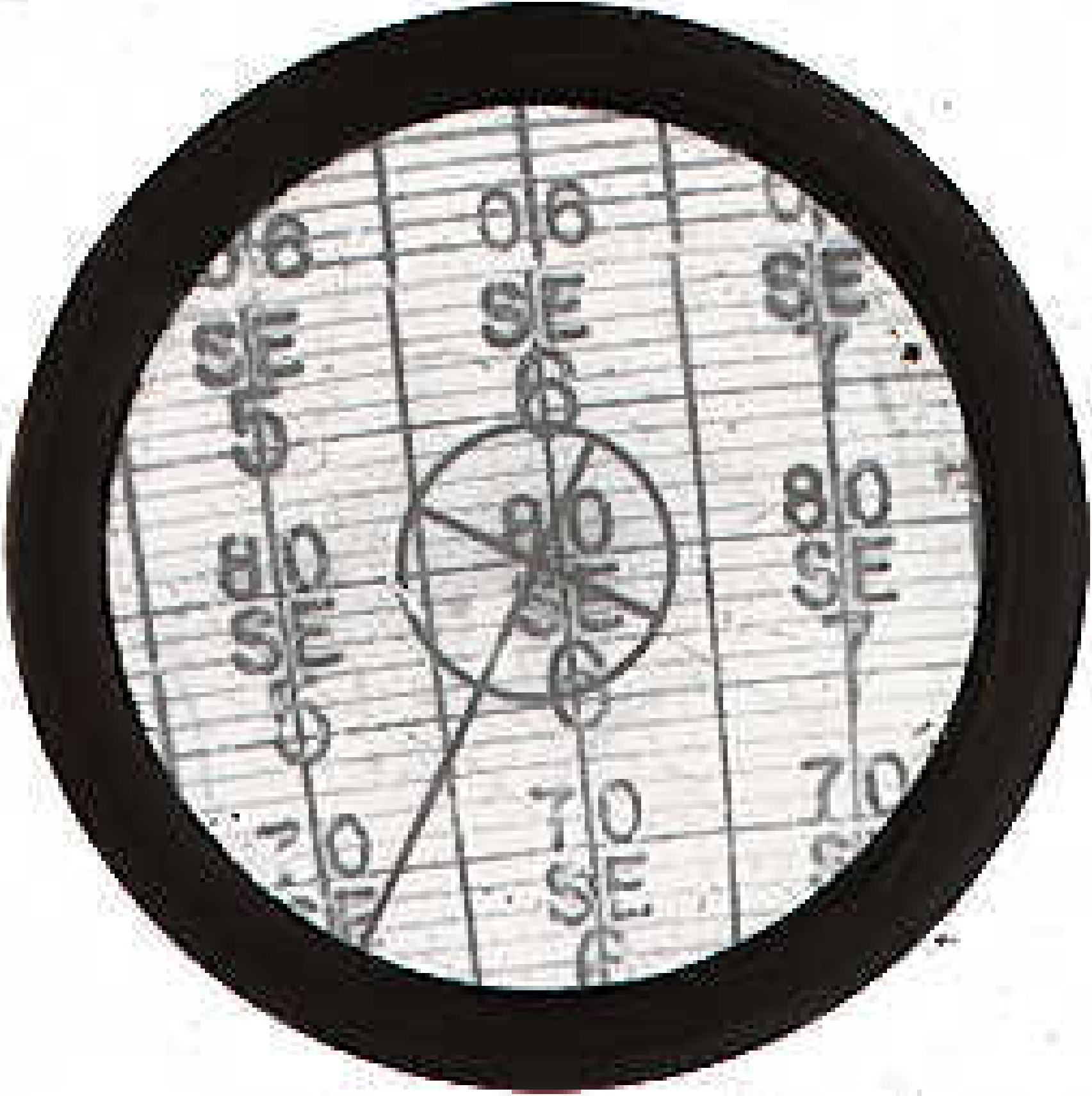
SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecla
WELL NAME OHEI262A-98
LEASE
TAKEN BY Hunter
DEPTH Collar
DATE 5-21-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO. 1
HI-1408


SE
80
SE
70
SE

SINGLE SHOT
PHOTO DISC RECORD

COMPANY Heela
WELL NAME DHET 262-98
LEASE
TAKEN BY Hunter
DEPTH Collar
DATE 5-20-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO. 1
HI-1408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SE
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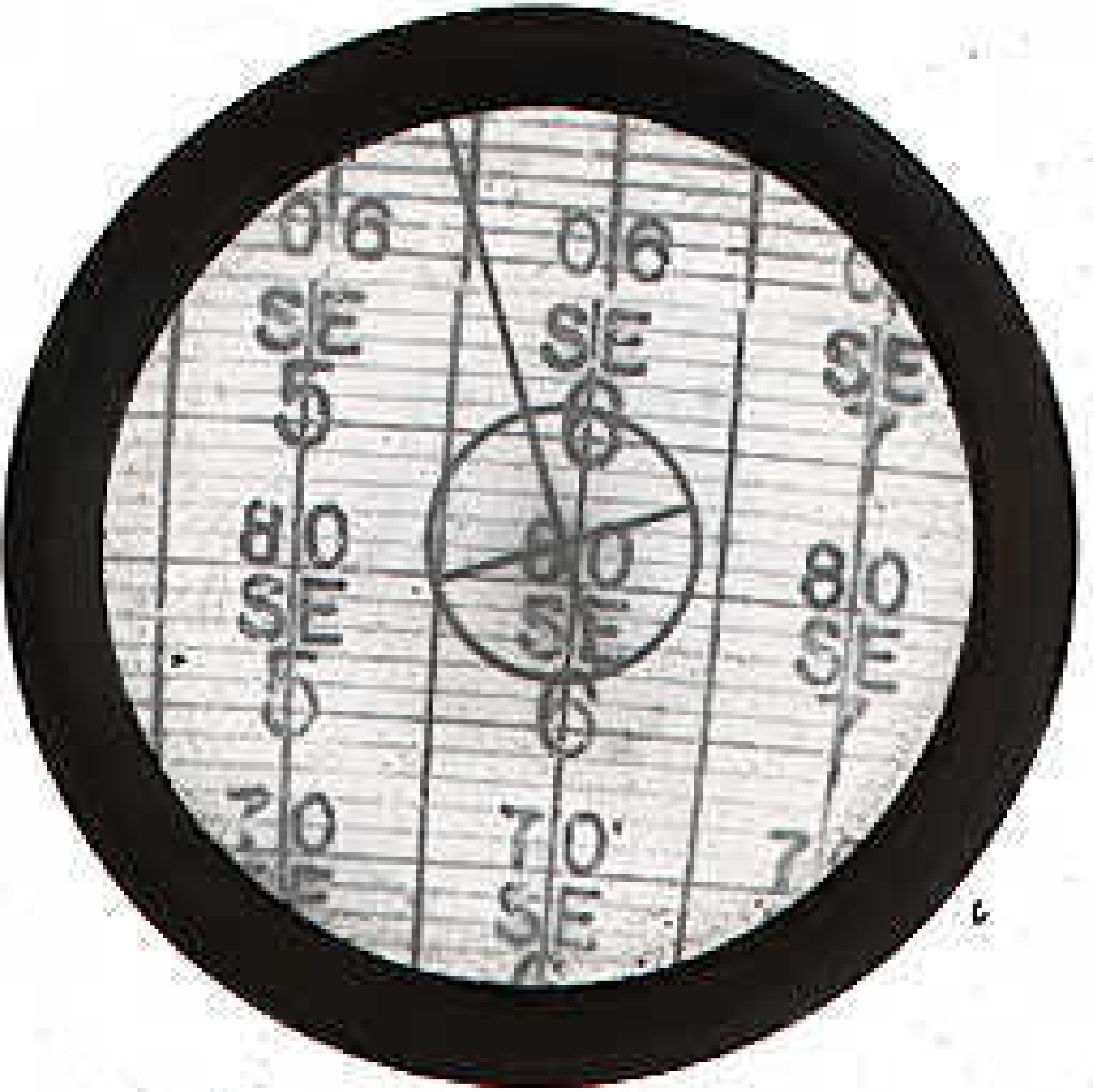
SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecla
WELL NAME DHET262A98
LEASE
TAKEN BY Hunter
DEPTH 200
DATE 5-24-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO. 1
HI-1408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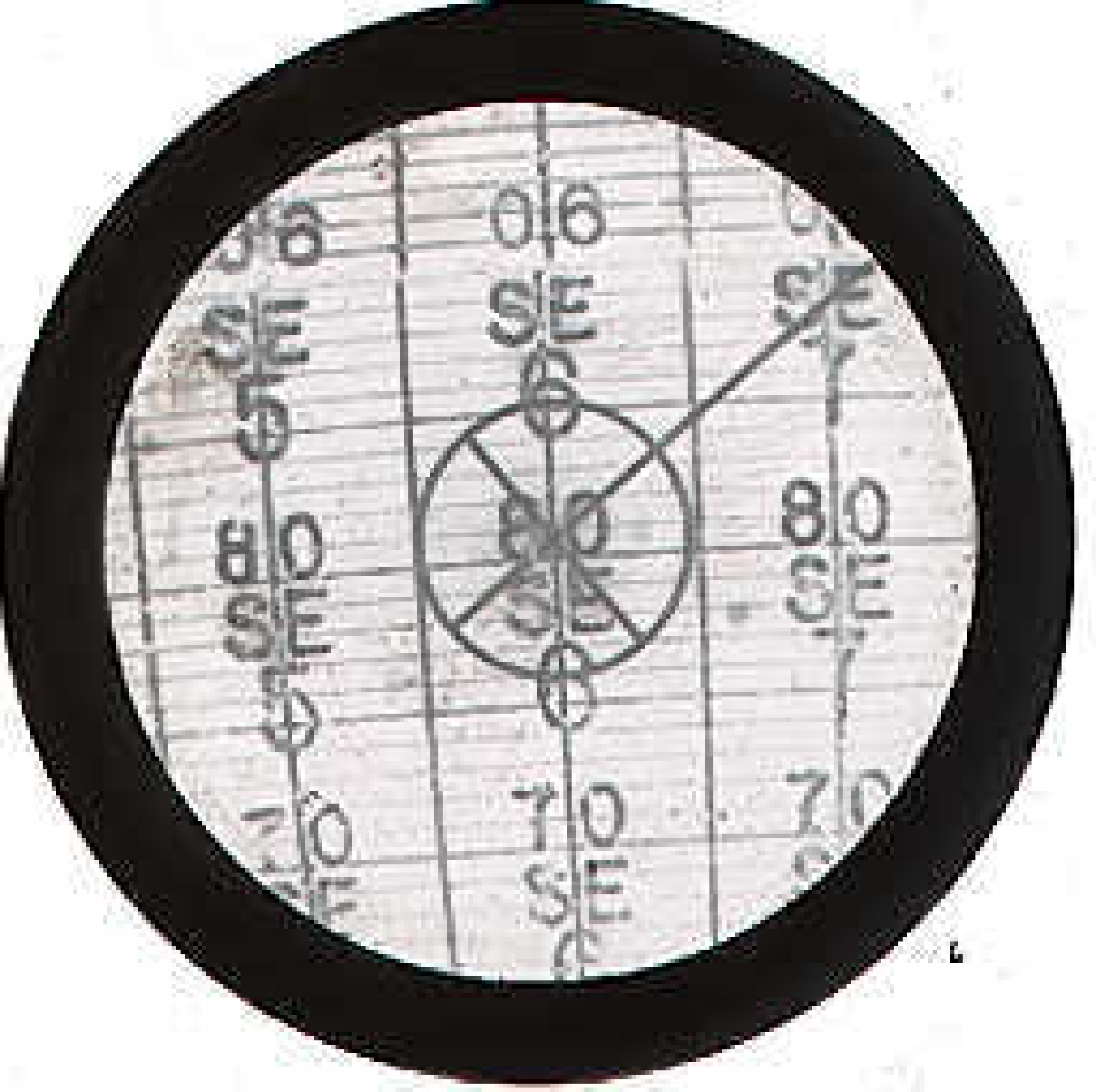
SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecla
WELL NAME OHET262A-98
LEASE
TAKEN BY Hunter
DEPTH 100
DATE 5-24-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO. 1
HI-1408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