6000 0952

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.
AUTHOR	D. Macherrone; B. Morris; K Allen; L. Mackedon
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; Rosebud Project; Rosebud Mining Co. LLC Hecla Mining Co.; Saint Louis
COMMODITY If not obvious	gold; silver
NOTES	Drill log; geology; assay; [redacted]; total depth 610' receipt; handwritten notes; downhole camera images photographs 68p. 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:	DD	5/12/08
DB:	mah	
SCANNED:		

Revised: 1/22/08

SL -D392-00

6600 0952 4010

6000 0952

Hecla MINING COMPANY

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

Intensity ... -- —

ROSEBUD PROJECT
DIAMOND DRILL LOG

HOLE NUMBER	SL-D392-00	LOCATION	St. Louis 4346 Muckboy
PAGE	1 OF 9	NORTHING	
DATE	3-22-00	EASTING	
LOGGED BY	D.G. MacHerra	ELEVATION	
SCALE	1" = 10'	AZIMUTH	S 15E
TOTAL DEPTH		INCLINATION	-36

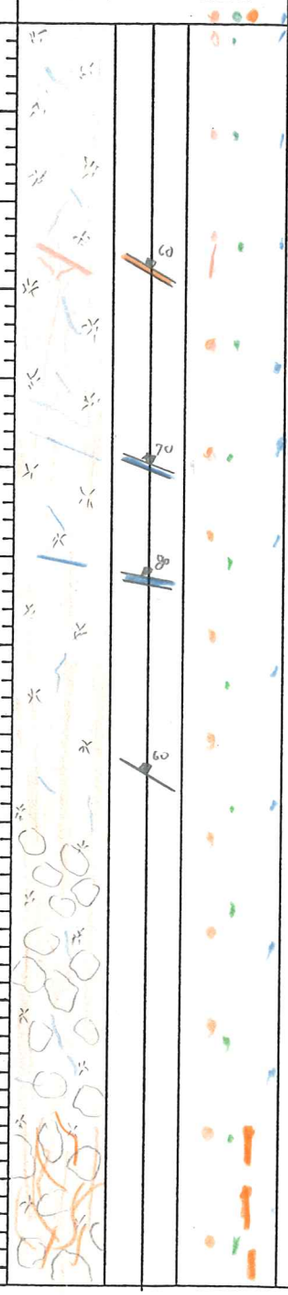
REMARKS

ITH	OX/RE	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
Td		0-543 DOZER Hematite stained fine grained rhyolite flow Reddish brown in color Flow laminated or auto brecciated texture 47 Gradual bleach of hematite begins Core become pale green gray	10 20 30 40 50	60 60 60 60	0-5 Auto breccia texture	43.5-44.5 Highly Carcureous and Hematite Flow

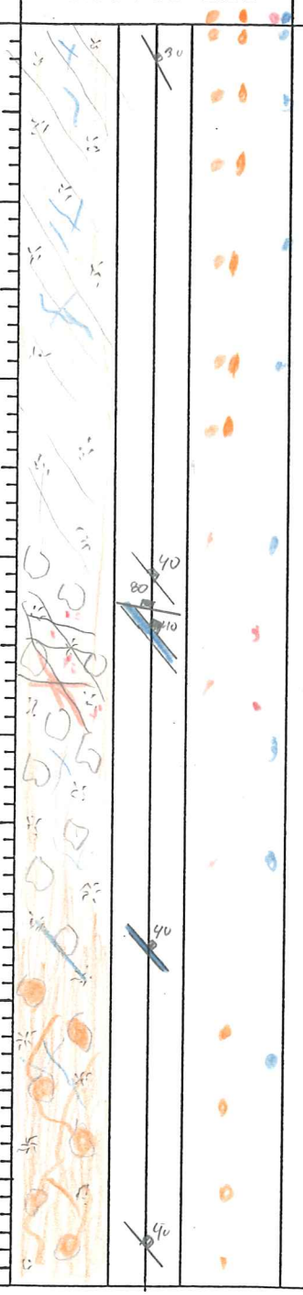
ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ac

HOLE NUMBER SL-D392-00 PAGE 2 OF 9

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
Td		0-543 DOZER Rhyolite flows continued 92-97 Gradational change to auto breccia texture 112-122 Hematite increases on fractures	50 60 70 80 90 100 110 120			SS Low % of Pyrite on fracture 62-67 60° to a fractures with white clay						

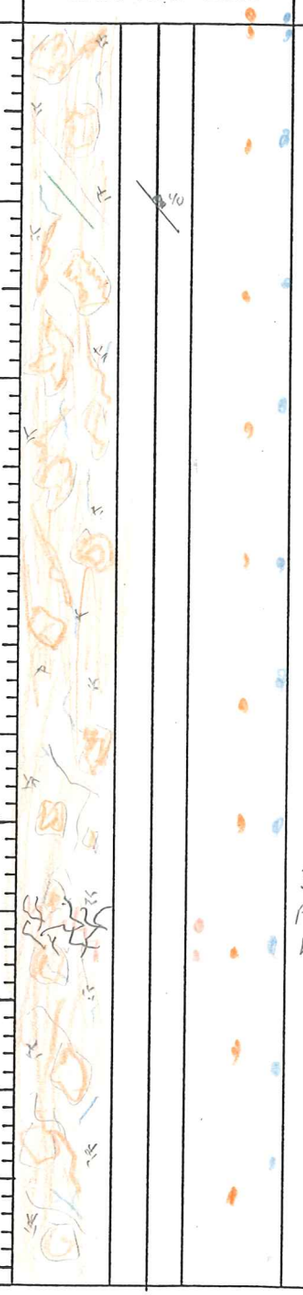
HOLE NUMBER SL-D362-00 PAGE 3 OF 9

ITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
Td		0-543 DOZER Fine grained to aphanitic rhyolite flow Core is pale green gray in color 177 Hematite content increases and core become mottled in appearance	120 130 140 150 160 170 180 190		160 Autobreccia texture gradually increasing 153.5-157 Fracture zone	Very weak argillization continues to bleach out hematite to 150 Calcite present on micro fractures 153-157 mottled core surfaced from fine sulfide accumulations Pyrite ≤.5 157 white clay on fracture.						

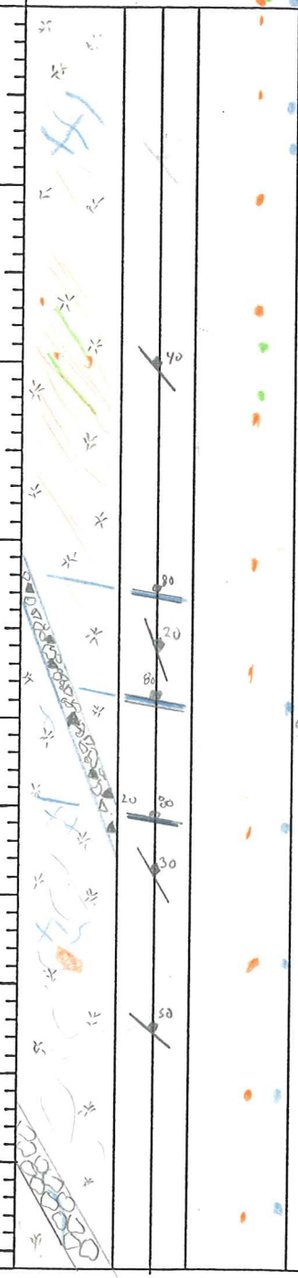
HOLE NUMBER SL-D362-00 PAGE 4 OF 9

ITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
Td		0 - 543 DOZER Fine grained to aphantic rhyolite flow. Autobrecciated texture with hematite stained clast, fractures and minimal pyrite content 247-272 Hematite stained Possible vesicles	190 200 210 220 230 240 250 260	40 80 40 20 40 20 31 50		251 pyrite crystals on fracture surface 257-260 Circular hematite banding						

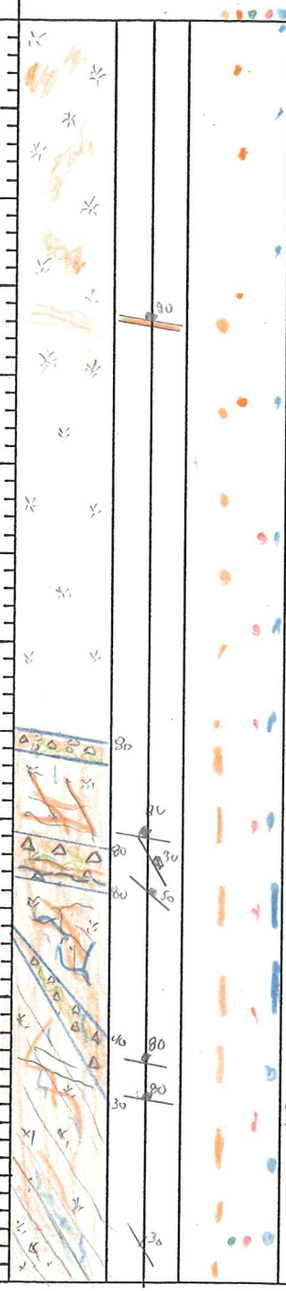
HOLE NUMBER SL-D 392-00 PAGE 5 OF 9

ITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
Td		0 - 543 DOZER Hematite stained rhyolite continues Minimal fractures with frequency of 1-2. Trace argillization locally bleaches hematite. Fracture contain calcite Chloride also found on fracture. Core has a wet mottled look from hematite staining when not autobrecciated	260 270 280 290 300 310 320 330		309 - 312 Fracture healed by calcite	309-312 Traces levels of bleaching around fracture						

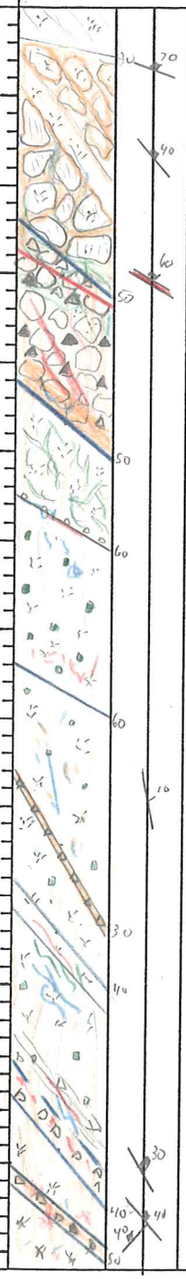
HOLE NUMBER SL-D392-00 PAGE 6 OF 9

ITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
Td		0-543 DOZER Fine grained rhyolite flow with auto brecciated or massive tex ture. Pale greenish gray with mottled hematite staining 396 -399.6 Autobreccia texture	330 340 350 360 370 380 390 400		367-369.5 High angle mosaic breccia. Clast to poorly matrix supported 20° tca	345 calcite veinlets 352-353- Traces of chloride on fx surface 384 Hematite is found as microscopic specularite and fracture coatings						

HOLE NUMBER SL-D392-00 PAGE 7 OF 9

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
TJ		0-543 DOZER Fine grained rhyolite with mottled surface Core is decreasing in hematitic alteration and increasing bleaching and argillization 440-457 Fracture / fault zone with hydrothermally altered clay supporting local mosaic breccia. Altered clay is greenish gray with a yellow green tint at 441-445 From 467 Aphanitic tectore with faint flow banding Pyrite at 1%. Calcite veining. Faint chloritic alteration	400 410 420 430 440 450 460 470		440-441.5 low angle 80° tco mosaic 8xo 446-449.8 Fracture zone with local crackle breccia with low angle (80°tco) fx orientation there is also a 20-30° high angle fracture 472 Fracture expansion with clay filling	418.3 Hydrothermally altered white clay veinlet. 422 Hematite grade out from argillic alteration. 429 pyrite crystal at ≈ 1% begin to be found 441.5-445 pale yellow green clays waxy feeling to clay. moist clay appear as illite	440 441.5 446 449.8 454.2 455.7 462 467 472	441.5 446 449.8 454.2 455.7 462 467 472				

HOLE NUMBER SL-D392-00 PAGE 8 OF 9

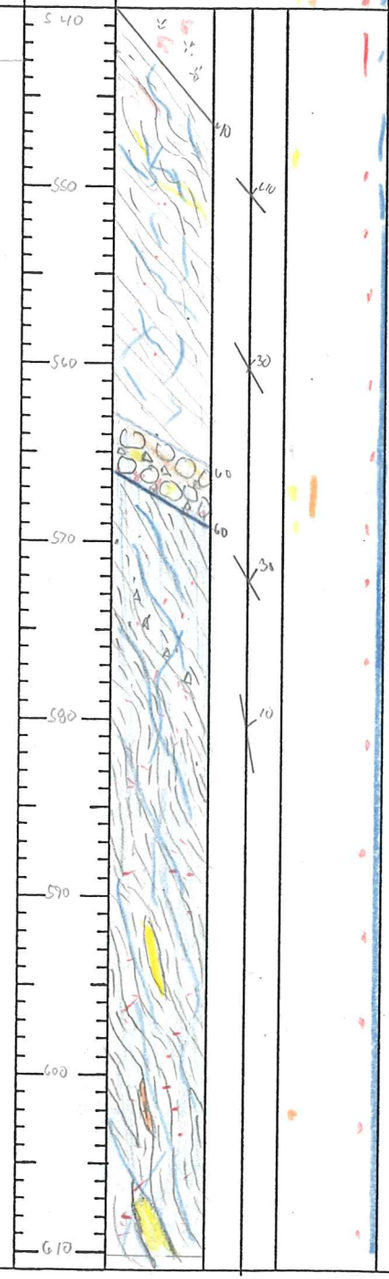
LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
Td		0-543 DOZER 472.4-477 70° tca fractures at 4" in frequency greenish gray illite clay 477-484 clay expansion increase with no rotation of clast at 484 50° tca fracture surface with expansion and moderate rotation 485 ¼ Pyrite vein at base of clay expanded breccia 485 - 493.5 milled breccia zone 493.5 - 498.9 498.9 contact with vesicular or porphoritic flow contact is brecciated at 60° tca vesicule density and size decrease at 508.4 along 60° fracture 532 - 534.3 Fault with heavy shearing with upper contact lost and 40° footwall 534.3 Aphanitic Dozer below fault 537.4 - 539.4 shear zone	470 480 490 500 510 520 530 540		472.4 80° tca Fracture surface that begins the hanging wall expansion 477 Fracturing begins to increase and clay expansion increase 484-493.5 Fault Zone milled breccias with Dark sulfide in matrix from 490-493 493.5 - 498.9 weak crackle breccia in footwall 514 10° tca Fracture with calcite 517-517.4 Narrow breccia zone with clay matrix 30° tca 517.4 - 522 Increasing fracturing to crackle breccia 521.3 - 524.9 moderate breccia to 523 Folding in intensity in footwall	minimal argillization of the rock but clay 484-485 Increased chlorite in clay matrix 485.3 ¼" Dark pyrite vein at 60° tca 490-493.5 Dark Pyrite is oriented on a 30° tca shear calcite also on micro fractures through the breccia 492.2 Traces of silica in breccia 495-527 white clay traces on fracture white clay and calcite are together 532-537 moderate pyrite as dark fracture filling 537-542 Large pyrite agglomeration

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
472	477				
477	482				
482	484				
484	485.3				
485.3	490				
490	493.5				
493.5	497				
497	498.9				
498.9	502				
502	507				
507	512				
512	517				
517	521.3				
521.3	524.9				
524.9	528.7				
528.7	532				
532	534.3				
534.3	537				
537	539.7				

HOLE NUMBER SL-D392-00 PAGE 9 OF

ITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		0 - 543 DOZER				
TJ	R	543 - 610 A.L.S Sharp depositional contact at at 40° ten. There is only 2" of fracture in the Dozer above contact ALS. black phillitic shale with thin traces of mafic intrusive Calcite veining stockwork Graphitic coating on fracture and bedding parting Graphitic partings has variable slikenside orientations 600-602 fragments of intrusive				543 Calcareous shale with moderate calcite vein 544 minor bedded pyrite Calcite veining is heavy throughout the als 592.5 - 593 Meta morphic gtz mass



552 - 558
Crushed bedded zone

Narrow bedding breccia

ANALYTICAL DATA					
FROM	TO	W	Au	Ag	Au2
539.7	543				
543	547				
547	552				
552	555				
555	560				

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-D392-00 DATE: 3-15-00 LOGGED BY: D.G. Mackerrow 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	5	100	80	40										
5	10	100	104	70										
10	12	100	100	100										
12	17	100	94	100										
17	22	100	100	100										
22	27	100	104	100										
27	32	100	100	100										
32	37	100	94	80										
37	42	100	100	92										
42	47	100	96	94										
47	52	100	100	100										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SC-D392-00 DATE: 3-15-00 LOGGED BY: D.C. Muckerrow 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)
52	57	100	96	100										
57	62	100	92	56										
62	67	100	100	12										
67	72	100	96	90										
72	77	96	96	76										
77	82	100	104	99										
82	87	100	102	94										
87	92	100	102	86										
92	97	100	100	100										
97	102	100	102	100										
102	107	100	100	100										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-12392-00 DATE: 3-15-00 LOGGED BY: D.G. Muckerroy 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)
107	112	100	96	100										
112	117	100	101	80										
117	122	100	100	100										
122	127	100	102	100										
127	132	100	98	86										
132	137	100	104	86										
137	142	100	100	74										
142	147	100	98	76										
147	152	100	100	100										
152	157	88	96	24										
157	162	100	100	76										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-D 392-00 DATE: 3-16-00 LOGGED BY: D. G. MacKerron PAGE 4 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)
162	167	100	100	100										
167	172	100	106	100										
172	177	100	92	100										
177	182	100	108	84										
182	187	100	100	100										
187	192	100	104	88										
192	197	100	98	90										
197	202	100	100	100										
202	207	100	90	82										
207	212	76	106	70										
212	217	100	100	100										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-D392-00 DATE: 3-16-00 LOGGED BY: D.G. Mackerrow PAGE 5 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)
217	222	100	102	96										
222	227	100	100	96										
227	232	100	104	94										
232	237	100	92	70										
237	242	100	104	64										
242	246	72	110	12										
246	251	100	100	100										
251	252	100	130	100										
252	257	100	104	96										
257	262	100	98	81										
262	267	100	100	100										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-D392-00 DATE: 3-16-00 LOGGED BY: D.G. MacKerron PAGE 6 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)
267	272	100	102	100										
272	277	100	100	100										
277	282	100	100	100										
282	287	100	100	100										
287	292	100	102	100										
292	297	100	102	61										
297	302	100	102	88										
302	307	100	96	92										
307	312	100	100	90										
312	317	100	100	92										
317	322	100	100	78										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-D 391-00 DATE: 3-16-00 LOGGED BY: D. MacKerrow PAGE 7 OF 11

DRILL RUN		SOLID CORE	TOTAL CORE	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO	RECOVERY (%)	RECOVERY (%)		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)
322	327	100	100	92										
327	332	100	100	100										
332	337	100	102	92										
337	342	100	100	100										
342	347	100	102	80										
347	352	100	102	84										
352	357	100	100	68										
357	362	100	100	60										
362	367	100	92	88										
367	372	100	100	58										
372	372	100	102	62										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-D392-00 DATE: 3-21-00 LOGGED BY: D. G. Mackerrow PAGE 8 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)
372	377	100	100	86										
377	382	100	100	84										
382	387	100	100	64										
387	392	100	100	82										
392	397	100	100	54										
397	402	100	102	60										
402	407	100	100	92										
407	412	100	100	100										
412	417	100	100	100										
417	422	100	100	100										
422	427	100	100	100										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SLD 392-00 DATE: 3-21-00 LOGGED BY: D.G. MacKerrow 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)
427	432	100	100	62										
432	437	99	100	66										
437	442	74	100	56										
442	447	92	100	10										
447	452	76	100	12										
452	457	96	100	64										
457	462	100	98	84										
462	467	68	100	70										
		See	Page	10										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-D 392-00 DATE: 2-23-00 LOGGED BY: D.G. Mackerrow PAGE 10 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)
467	472	100	100	72										
472	477	100	104	24										
477	482	100	100	40										
482	487	98	100	40										
487	492	100	102	0										
492	497	100	96	52										
497	502	100	104	40										
502	507	100	102	78										
507	512	100	102	62										
512	517	100	100	92										
517	522	100	96	60										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-0392-00 DATE: 2-23-00 LOGGED BY: D.G. McKerrow PAGE 11 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)
522	527	100	100	62										
527	532	100	94	36										
532	537	100	100	52										
537	542	100	100	28"										
542	547	80	100	28										
547	552	96	98	0										
552	555	0	66	0										
555	560	82	100	24										

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP056846

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-D392-00 RECEIVED : 3 APR 2000

No. SAMPLES : 8 REPORTED : 7 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 SP056846

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SL-D392-00

REPORTED : 7 APR 2000

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
SL-D392-00 440.0-441.5	<0.001		<0.02
SL-D392-00 441.5-446.0	<0.001		<0.02
SL-D392-00 446.0-449.8	<0.001		<0.02
SL-D392-00 449.8-454.2	0.002		0.02
SL-D392-00 454.2-455.7	<0.001		0.03
SL-D392-00 455.7-462.0	<0.001		<0.02
SL-D392-00 462-467	0.001		<0.02
89623	0.157		1.64

xAMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP056846

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HECLA MINING COMPANY

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: KURT ALLEN

:

:

CLIENT REFERENCE No: SL-D392-00 RECEIVED : 3 APR 2000

No. SAMPLES : 8 REPORTED : 7 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 SP056846

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SL-D392-00

REPORTED : 7 APR 2000

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
SL-D392-00 440.0-441.5	<0.001		<0.02
SL-D392-00 441.5-446.0	<0.001		<0.02
SL-D392-00 446.0-449.8	<0.001		<0.02
SL-D392-00 449.8-454.2	0.002		0.02
SL-D392-00 454.2-455.7	<0.001		0.03
SL-D392-00 455.7-462.0	<0.001		<0.02
SL-D392-00 462-467	0.001		<0.02
89623	0.157		1.64

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 0056846-IN
INVOICE DATE: 04/09/00

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-D392-00	KURT ALLEN	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
8	SAMPLES RECEIVED	.00	.00
1	NO PREPARATION REQUIRED	.00	.00
7	DRY/JAW CRUSH ENTIRE SAMPLE	3.60	25.20
7	COARSE MILLING CHARGE	8.00	56.00
7	"JONES" RIFFLE SPLIT	3.00	21.00
7	RING/PUCK MILL	2.00	14.00
8	Au (1 A.T. FIRE ASSAY)	8.00	64.00
8	HYDROCHLORIC/NITRIC DIGESTION	2.00	16.00
8	Ag ANALYSES	1.00	8.00

86-3010-477
KAA

NET INVOICE:	204.20
LESS DISCOUNT:	61.26
FREIGHT:	.00
INVOICE TOTAL:	142.94

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP056846

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-D392-00 RECEIVED : 3 APR 2000

No. SAMPLES : 8 REPORTED : 7 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 SP056846

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SL-D392-00

REPORTED : 7 APR 2000

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)
SL-D392-00 440.0-441.5	<0.001		<0.02
SL-D392-00 441.5-446.0	<0.001		<0.02
SL-D392-00 446.0-449.8	<0.001		<0.02
SL-D392-00 449.8-454.2	0.002		0.02
SL-D392-00 454.2-455.7	<0.001		0.03
SL-D392-00 455.7-462.0	<0.001		<0.02
SL-D392-00 462-467	0.001		<0.02
89623	0.157		1.64

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP056509

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: SLD-392-00 RECEIVED : 8 MAR 2000

No. SAMPLES : 26 REPORTED : 24 MAR 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 SP056509

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SLD-392-00

REPORTED : 24 MAR 2000

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
SLD-392-00 467-472	<0.001		<0.02
SLD-392-00 472-477	<0.001		0.02
SLD-392-00 477-482	<0.001		0.02
SLD-392-00 482-484	<0.001		<0.02
SLD-392-00 484.0-485.3	<0.001		<0.02
SLD-392-00 485.3-490.0	0.002	0.001	0.02
SLD-392-00 490.0-493.5	0.001		0.03
SLD-392-00 493.5-497.0	<0.001		0.03
SLD-392-00 497.0-498.9	<0.001		0.03
SLD-392-00 498.9-502.0	<0.001		0.02
SLD-392-00 502-507	<0.001		0.03
SLD-392-00 507-512	0.001		0.02
SLD-392-00 512-517	0.001	0.001	0.03
SLD-392-00 517.0-521.3	<0.001		0.02
SLD-392-00 521.3-524.9	<0.001		<0.02
SLD-392-00 524.9-528.7	0.002		0.03
SLD-392-00 528.7-532.0	0.001		0.02
SLD-392-00 532.0-534.3	0.002		0.05
SLD-392-00 534.3-537.0	0.001		0.03
SLD-392-00 537.0-539.7	<0.001		0.02
SLD-392-00 539.7-543.0	<0.001		<0.02
SLD-392-00 543-547	<0.001		0.04
SLD-392-00 547-552	<0.001	0.001	0.05
SLD-392-00 552-555	<0.001		0.04
SLD-392-00 555-560	<0.001		0.08

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP056509

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SLD-392-00

REPORTED : 24 MAR 2000

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
76046	0.057		1.15

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ANALYSIS REPORT SP056509

American Assay Laboratories

PO BOX 11550
RENO NV,USA
Ph.(775) 356-0606, Fax.(775) 356-1413

HECLA MINING COMPANY

COPIES TO : BRIAN MORRIS

: KURT ALLEN

:

:

CLIENT REFERENCE No: SLD-392-00 RECEIVED : 8 MAR 2000

No. SAMPLES : 26 REPORTED : 24 MAR 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

Rb-3010-477

KDA

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP056509

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SLD-392-00

REPORTED : 24 MAR 2000

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
SLD-392-00 467-472	<0.001		<0.02
SLD-392-00 472-477	<0.001		0.02
SLD-392-00 477-482	<0.001		0.02
SLD-392-00 482-484	<0.001		<0.02
SLD-392-00 484.0-485.3	<0.001		<0.02
SLD-392-00 485.3-490.0	0.002	0.001	0.02
SLD-392-00 490.0-493.5	0.001		0.03
SLD-392-00 493.5-497.0	<0.001		0.03
SLD-392-00 497.0-498.9	<0.001		0.03
SLD-392-00 498.9-502.0	<0.001		0.02
SLD-392-00 502-507	<0.001		0.03
SLD-392-00 507-512	0.001		0.02
SLD-392-00 512-517	0.001	0.001	0.03
SLD-392-00 517.0-521.3	<0.001		0.02
SLD-392-00 521.3-524.9	<0.001		<0.02
SLD-392-00 524.9-528.7	0.002		0.03
SLD-392-00 528.7-532.0	0.001		0.02
SLD-392-00 532.0-534.3	0.002		0.05
SLD-392-00 534.3-537.0	0.001		0.03
SLD-392-00 537.0-539.7	<0.001		0.02
SLD-392-00 539.7-543.0	<0.001		<0.02
SLD-392-00 543-547	<0.001		0.04
SLD-392-00 547-552	<0.001	0.001	0.05
SLD-392-00 552-555	<0.001		0.04
SLD-392-00 555-560	<0.001		0.08

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP056509

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SLD-392-00

REPORTED : 24 MAR 2000

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
76046	0.057		1.15

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 0056509-IN
INVOICE DATE: 03/23/00

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
SLD-392-00	KURT ALLEN	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
26	SAMPLES RECEIVED	.00	.00
1	NO PREPARATION REQUIRED	.00	.00
25	DRY/JAW CRUSH ENTIRE SAMPLE	2.30	57.50
25	COARSE MILLING CHARGE	6.00	150.00
25	ROTARY SPLIT	2.40	60.00
25	RING/PUCK MILL	2.00	50.00
26	Au (1 A.T. FIRE ASSAY)	8.00	208.00
26	HYDROCHLORIC/NITRIC DIGESTION	2.00	52.00
26	Ag ANALYSES	1.00	26.00

86-3010-477

KDA

NET INVOICE:	603.50
LESS DISCOUNT:	181.05
FREIGHT:	.00
INVOICE TOTAL:	422.45

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP056509

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: SLD-392-00 RECEIVED : 8 MAR 2000

No. SAMPLES : 26 REPORTED : 24 MAR 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 SP056509

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SLD-392-00

REPORTED : 24 MAR 2000

SAMPLES		Au(OZ)	Au(RZ)	Ag(OZ)
SLD-392-00	467-472	<0.001		<0.02
SLD-392-00	472-477	<0.001		0.02
SLD-392-00	477-482	<0.001		0.02
SLD-392-00	482-484	<0.001		<0.02
SLD-392-00	484.0-485.3	<0.001		<0.02
SLD-392-00	485.3-490.0	0.002	0.001	0.02
SLD-392-00	490.0-493.5	0.001		0.03
SLD-392-00	493.5-497.0	<0.001		0.03
SLD-392-00	497.0-498.9	<0.001		0.03
SLD-392-00	498.9-502.0	<0.001		0.02
SLD-392-00	502-507	<0.001		0.03
SLD-392-00	507-512	0.001		0.02
SLD-392-00	512-517	0.001	0.001	0.03
SLD-392-00	517.0-521.3	<0.001		0.02
SLD-392-00	521.3-524.9	<0.001		<0.02
SLD-392-00	524.9-528.7	0.002		0.03
SLD-392-00	528.7-532.0	0.001		0.02
SLD-392-00	532.0-534.3	0.002		0.05
SLD-392-00	534.3-537.0	0.001		0.03
SLD-392-00	537.0-539.7	<0.001		0.02
SLD-392-00	539.7-543.0	<0.001		<0.02
SLD-392-00	543-547	<0.001		0.04
SLD-392-00	547-552	<0.001	0.001	0.05
SLD-392-00	552-555	<0.001		0.04
SLD-392-00	555-560	<0.001		0.08

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP056509

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SLD-392-00

REPORTED : 24 MAR 2000

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)
78046	0.057		1.15

SL-D392-00

Depth					Sample
From	To	Interval	Au	Ag	Number
440	441.5	1.5	x	x	1
441.5	446	4.5	x	x	2
446	449.8	3.8	x	x	3
449.8	454.2	4.4	x	x	4
454.2	455.7	1.5	x	x	5
455.7	462	6.3	x	x	6
462	467	5	x	x	7

SL-D392-00

1 440 - 441.5

2 441.5 - 446

3 446 - 449.8

4 449.8 - 454.2

5 454.2 - 455.7

6 455.7 - 462

7 462 - 467

8 467 - 472

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

Zacatecas Office
Telephone/Fax
011-52-49-234530

Other Offices
Lima, Peru
Santiago, Chile
Mendoza, Argentina

Company: Hecla Mining Comp.

Address: POB 2610

City: Winnemucca State: NV. Zip: 89446

Telephone Number: (775) 623-6912 Fax Number: (775) 623-1917

Project Name: Rosebud Purchase Order Number:

Date Submitted: 3-7-00 Number of Samples: 25

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

SLD-392 00 SAMPLE IDENTIFICATION		TYPE	ELEMENTS REQUIRED
467 - 472	524.9 - 528.7	Core	Au, Ag with Rosebud Core
472 - 477	528.7 - 532		Sample Protocol
477 - 482	532. - 534.3		
482 - 484	534.3 - 537		
484 - 485.3	537 - 539.7		
485.3 - 490	539.7 - 543		
490. - 493.5	543 - 547		
493.5 - 497	547 - 552		
497 - 498.9	552 - 555		
498.9 - 502	555 - 560		
502 - 507			
507 - 512			
512 - 517			
517 - 521.3			
521.3 - 524.9			

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
S.A.A.

Results to: Kurt Allen
S.A.A.

Comments:

CLIENT FILE COPY

SP

SUBMITTAL FORM

American Assay Laboratories

Geochemical • Environmental • Metallurgical

Sparks Office
1500 Glendale Ave.
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Box 11530
Reno, NV 89510
Telephone
(702) 356-0606
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Box 2908
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Telephone
(702) 738-9100
Fax
(702) 738-2594

Zacatecas Office
Telephone/Fax
011-52-49-234530

Other Offices
Lima, Peru
Santiago, Chile
Mendoza, Argentina

Company: RoseBud Hecla

Address: P.O. Box 2610

City WNMCA State NV Zip 89446

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

Project Name: _____ Purchase Order Number: _____

Date Submitted: 3-16-00 Number of Samples: 1

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

SAMPLE IDENTIFICATION	TYPE	ELEMENTS REQUIRED
SL-D391-00		
113-118	core	Au Ag
		RoseBud Mine Development
		Protocol

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

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP056509

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: SLD-392-00 RECEIVED : 8 MAR 2000

No. SAMPLES : 26 REPORTED : 16 MAR 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 SP056509

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SLD-392-00

REPORTED : 16 MAR 2000

SAMPLES		Au(OZ)	Au(RZ)	Ag(OZ)
SLD-392-00	467-472	<0.001		
SLD-392-00	472-477	<0.001		
SLD-392-00	477-482	<0.001		
SLD-392-00	482-484	<0.001		
SLD-392-00	484.0-485.3	<0.001		
SLD-392-00	485.3-490.0	0.002	0.001	
SLD-392-00	490.0-493.5	0.001		
SLD-392-00	493.5-497.0	<0.001		
SLD-392-00	497.0-498.9	<0.001		
SLD-392-00	498.9-502.0	<0.001		
SLD-392-00	502-507	<0.001		
SLD-392-00	507-512	0.001		
SLD-392-00	512-517	0.001	0.001	
SLD-392-00	517.0-521.3	<0.001		
SLD-392-00	521.3-524.9	<0.001		
SLD-392-00	524.9-528.7	0.002		
SLD-392-00	528.7-532.0	0.001		
SLD-392-00	532.0-534.3	0.002		
SLD-392-00	534.3-537.0	0.001		
SLD-392-00	537.0-539.7	<0.001		
SLD-392-00	539.7-543.0	<0.001		
SLD-392-00	543-547	<0.001		
SLD-392-00	547-552	<0.001	0.001	
SLD-392-00	552-555	<0.001		
SLD-392-00	555-560	<0.001		

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP056509

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SLD-392-00

REPORTED : 16 MAR 2000

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)
76046	0.057		

SP

SUBMITTAL FORM

An Assay Laboratory

Geochemical • Environmental • Metallurgical

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1500 Glendale Ave.
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Telephone
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Tucson Office
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Tucson, AZ 85706
Telephone
(520) 294-8078
Fax
(520) 294-6352

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

Zacatecas Office
Telephone/Fax
011-52-49-234530

Other Offices
Lima, Peru
Santiago, Chile
Mendoza, Argentina

Company: Rosebud Mining L.L.C.

Address: P.O. Box 2610

City Winnemucca State NV Zip 89446

Telephone Number: (775) 623-6112 Fax Number: (775) 623-6467

Project Name: _____ Purchase Order Number: _____

Date Submitted: _____ Number of Samples: 87

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

SAMPLE IDENTIFICATION	TYPE	ELEMENTS REQUIRED
SL-D 392-00	Core	Au Ag. Use Rosebud Mine development protocol
See attached sheet for		
sample intervals		
1 Rosebud Production stockpile	Pulp	
lot number 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

Drill hole # SL-D392-00

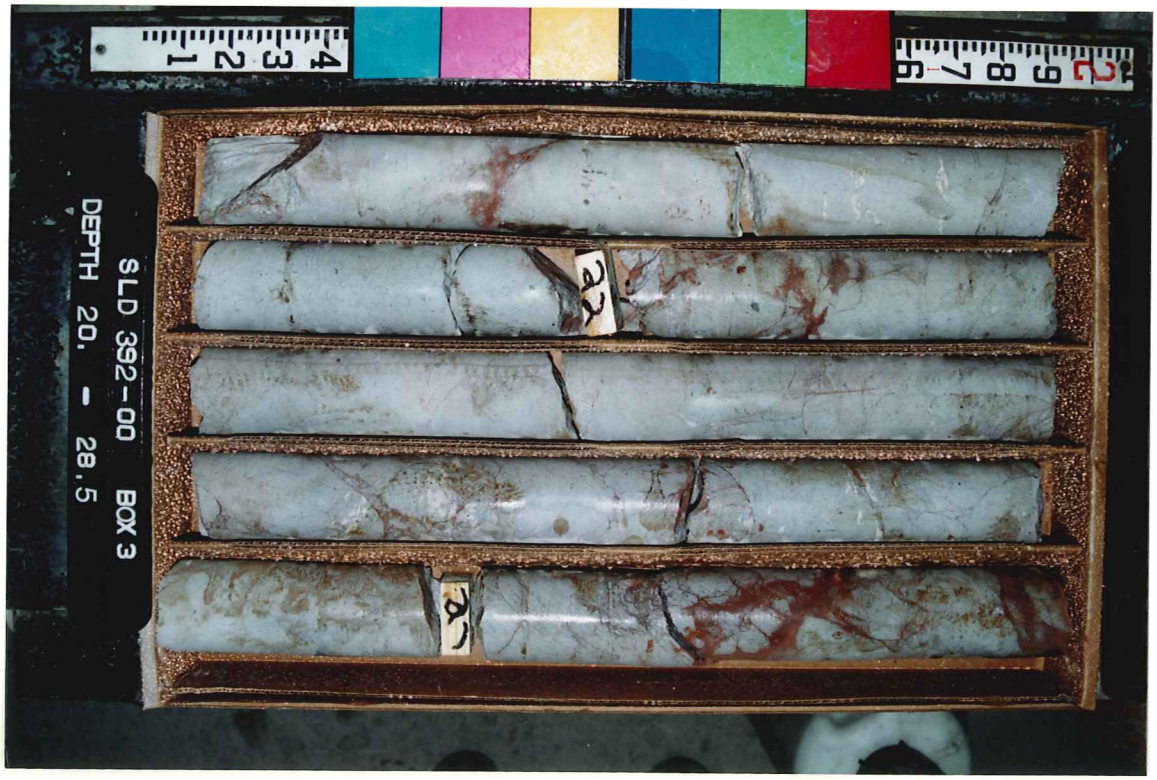
Down hole depth		Measured Bearing	Corrected Azimuth	Measured Inclination	Corrected Dip
	Quadrant:	SE			
57		32.5	163.12	54.5	-35.5
252		32	163.62	53.5	-36.5
450		32	163.62	55	-35
582		31.5	164.12	57.5	-32.5

TD Depth 610

2000 Declination 15.62

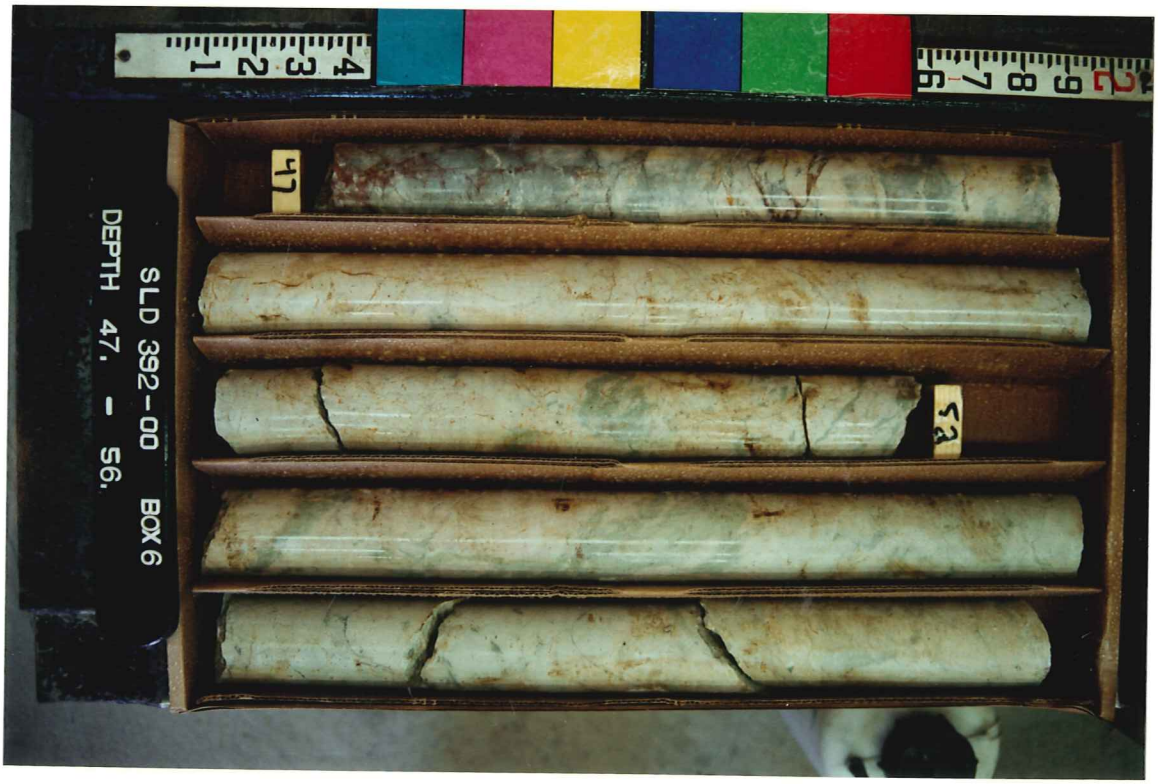
SLD 392-00 BOX 2
DEPTH 9. - 20.

SLD 392-00 BOX 1
DEPTH 0. - 9.


SLD 392-00 BOX 3
DEPTH 20. - 28.5

42
SLD 392-00 BOX 5
DEPTH 38. - 47.

37
32
SLD 392-00 BOX 4
DEPTH 28.5 - 38.


47
52
SLD 392-00 BOX 6
DEPTH 47. - 56.

72
67
SLD 392-00 BOX 8
DEPTH 65. - 74.

57
67
SLD 392-00 BOX 7
DEPTH 56. - 65.

77
83
SLD 392-00 BOX 9
DEPTH 74. - 83.

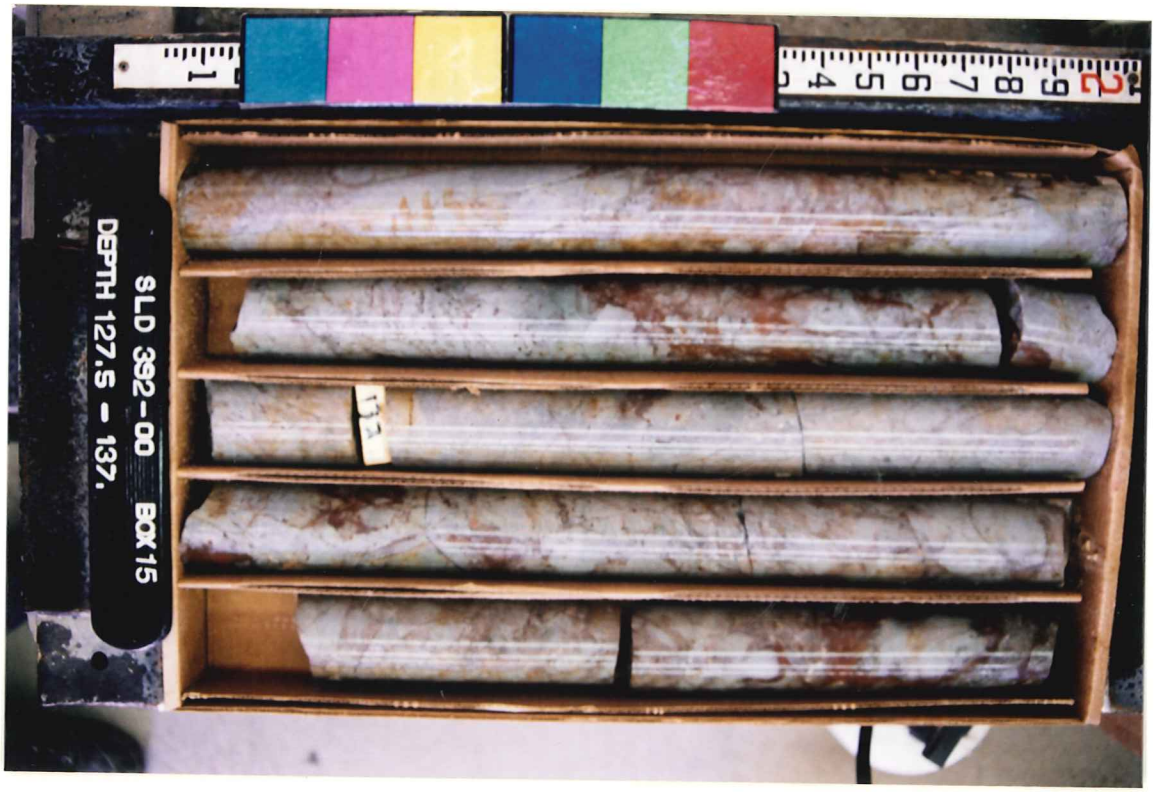
97
93
SLD 392-00 BOX 11
DEPTH 96.5 - 101.

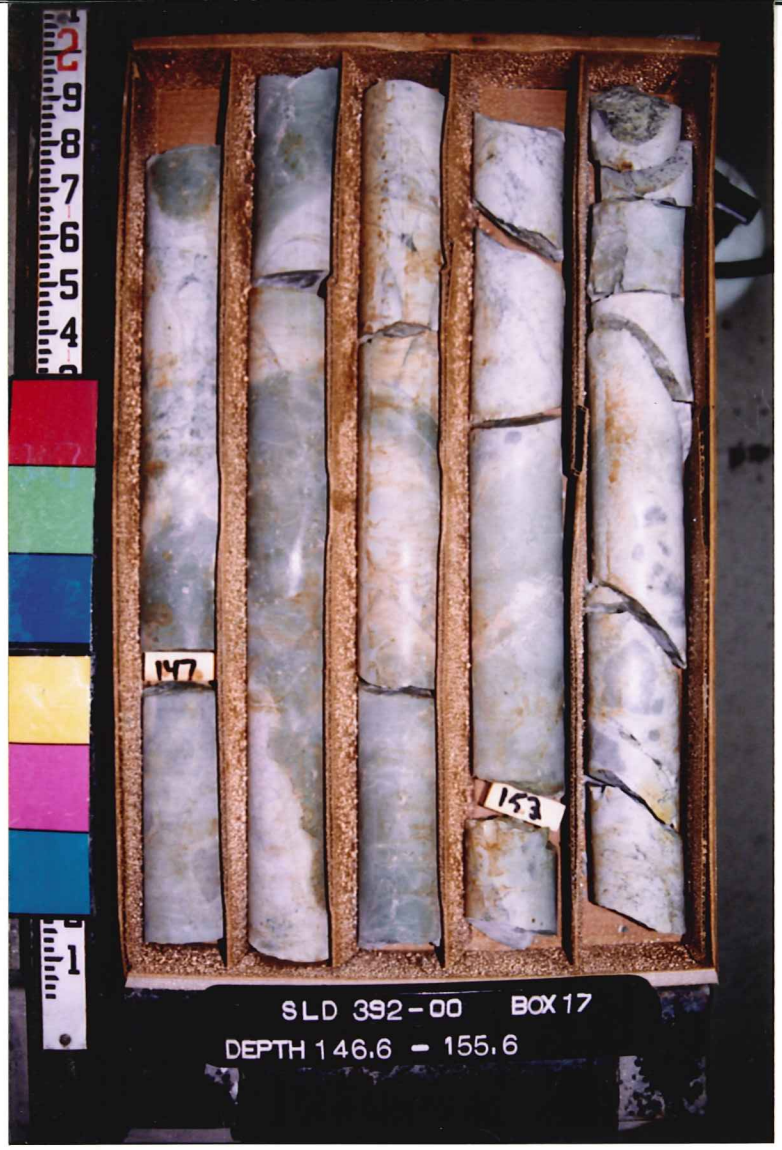
87
SLD 392-00 BOX 10
DEPTH 83. - 96.5

102
107
SLD 392-00 BOX 12
DEPTH 101. - 109.1

SLD 392-00 BOX 14
DEPTH 118.5 - 127.5

SLD 392-00 BOX 13
DEPTH 107.1 - 118.5


SLD 392-00 BOX 15
DEPTH 127.5 - 137.


147
153
SLD 392-00 BOX 17
DEPTH 146.6 - 155.6

137
142
SLD 392-00 BOX 16
DEPTH 137. - 146.6

5/5
163
SLD 392-00 BOX 18
DEPTH 155.6 - 164.3

177
182
SLD 392-00 BOX 20
DEPTH 173. - 182.5

167
172
SLD 392-00 BOX 19
DEPTH 164.3 - 173.

187
SLD 392-00 BOX 20-A
DEPTH 182.5 - 192.

SLD 392-00 BOX 21-A
DEPTH 201. - 210.4

SLD 392-00 BOX 21
DEPTH 192. - 201.

SLD 392-00 BOX 22
DEPTH 210.4 - 219.

SLD 392-00 BOX 24
DEPTH 227.5 -237.

SLD 392-00 BOX 23
DEPTH 219. -227.5

SLD 392-00 BOX 25

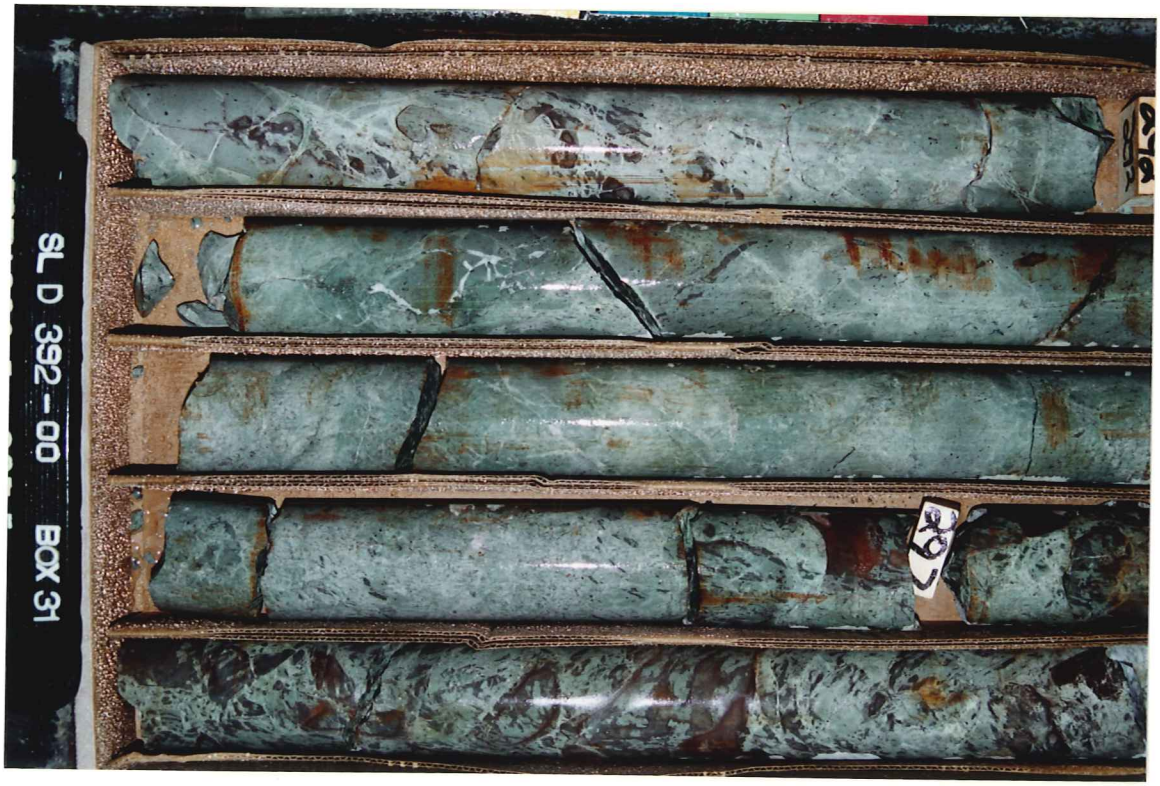
357
262
SLD 392-00 BOX 27

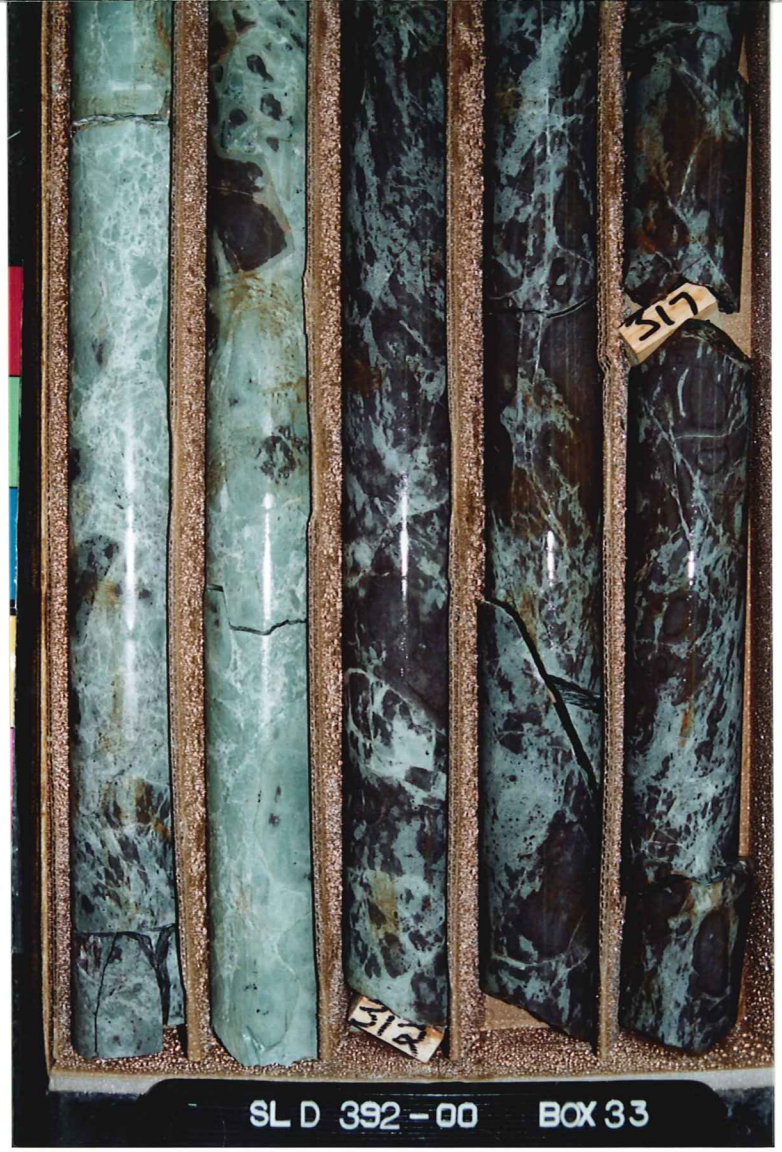
246
251
SLD 392-00 BOX 26

SLD 392-00 BOX 28
273

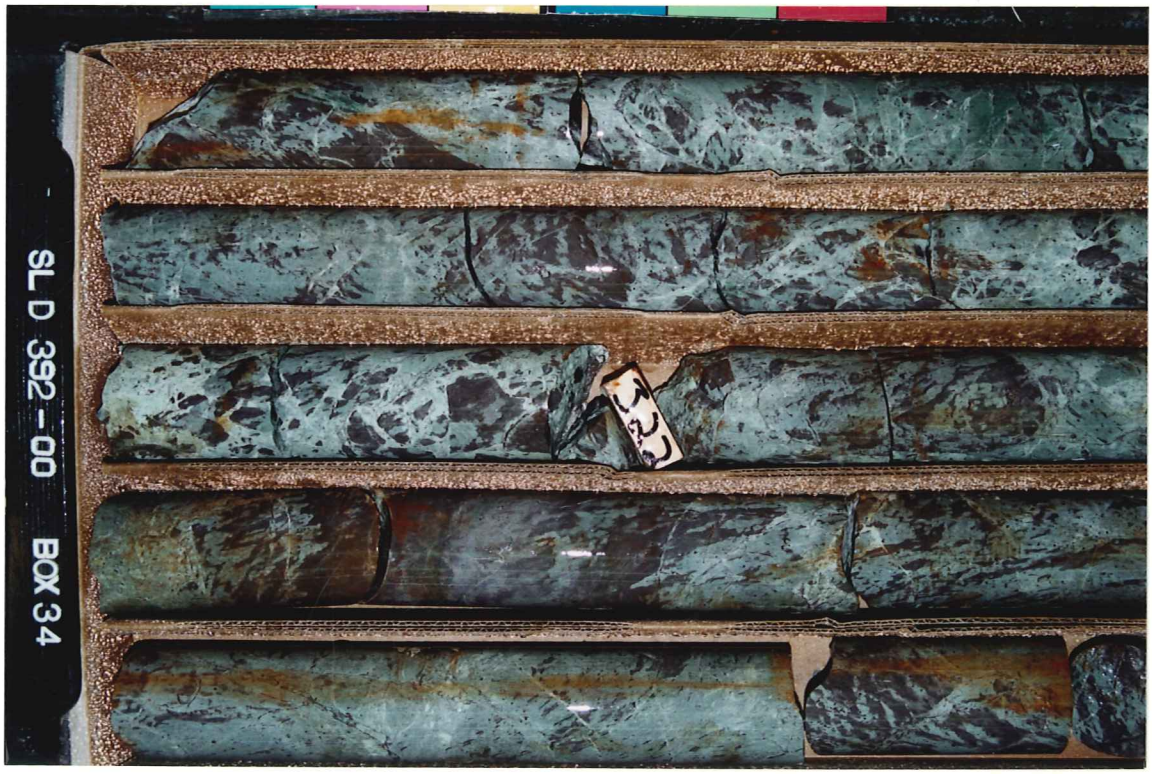
282
287
SLD 392-00 BOX 30

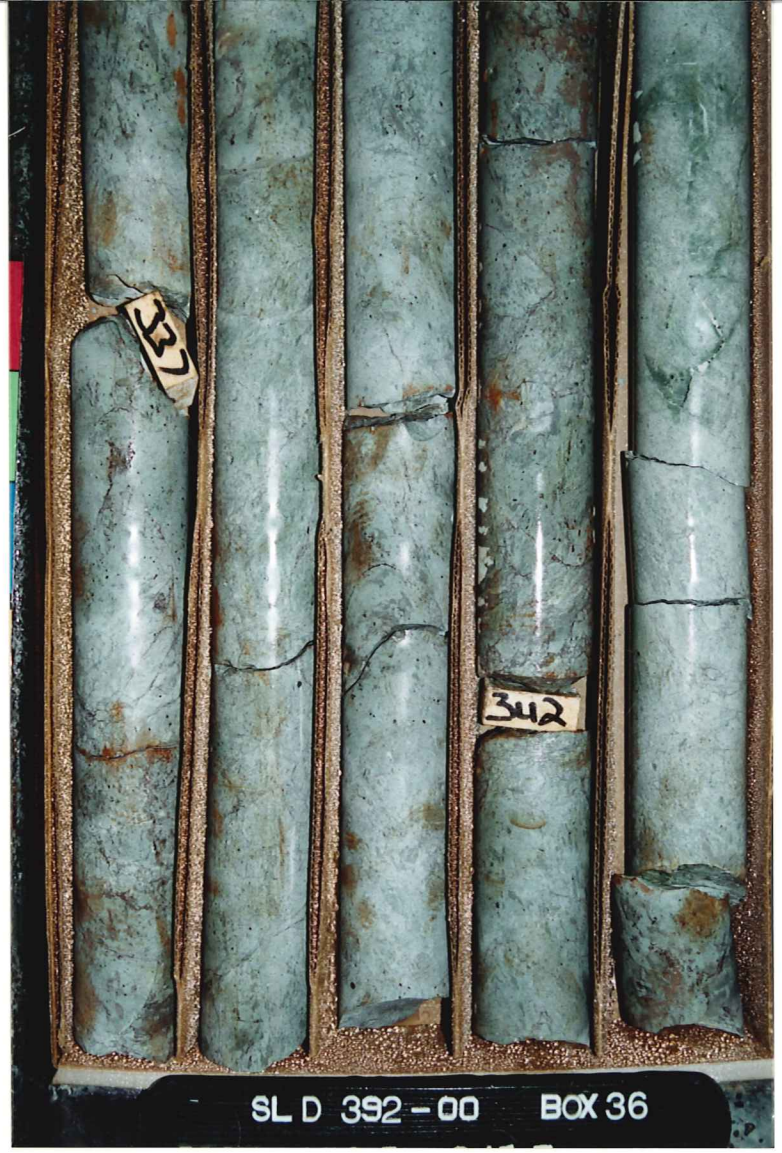
277
SLD 392-00 BOX 29


292
297
SLD 392-00 BOX 31

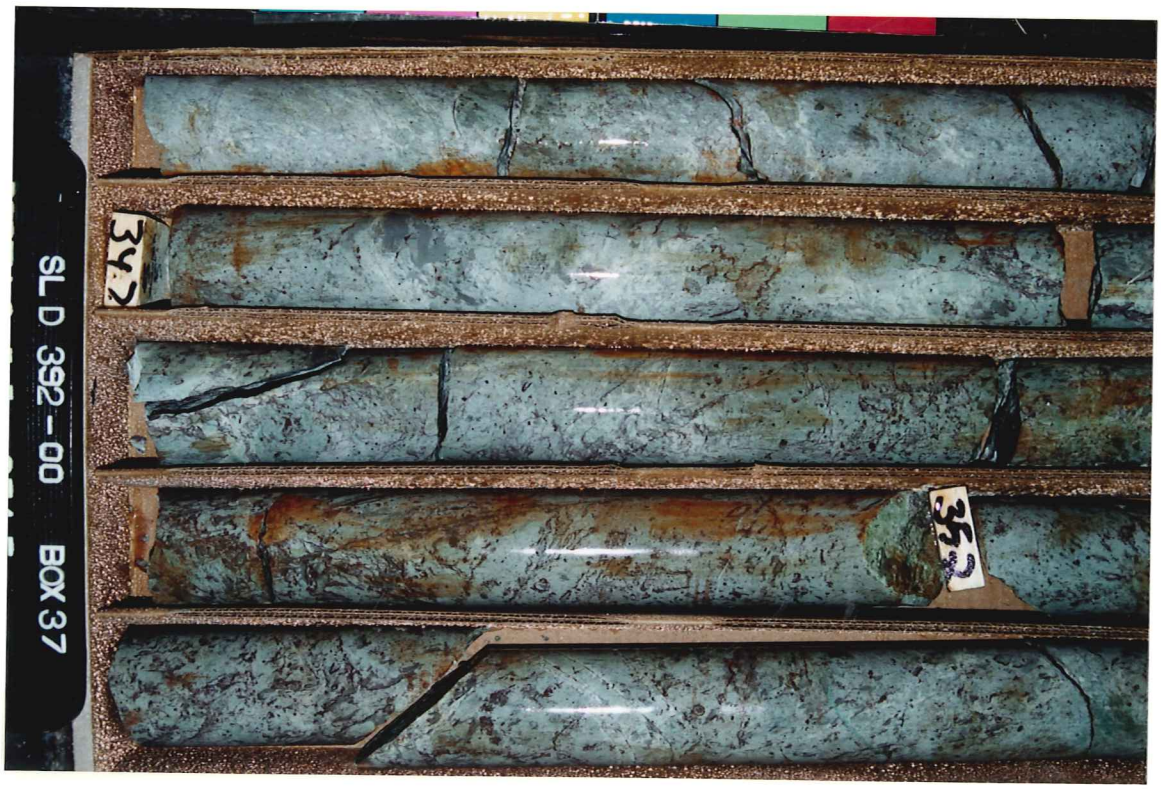

317
312
SL D 392-00 BOX 33

302
307
SL D 392-00 BOX 32


SL D 392-00 BOX 34


337
342
SL D 392-00 BOX 36

332
327
SL D 392-00 BOX 35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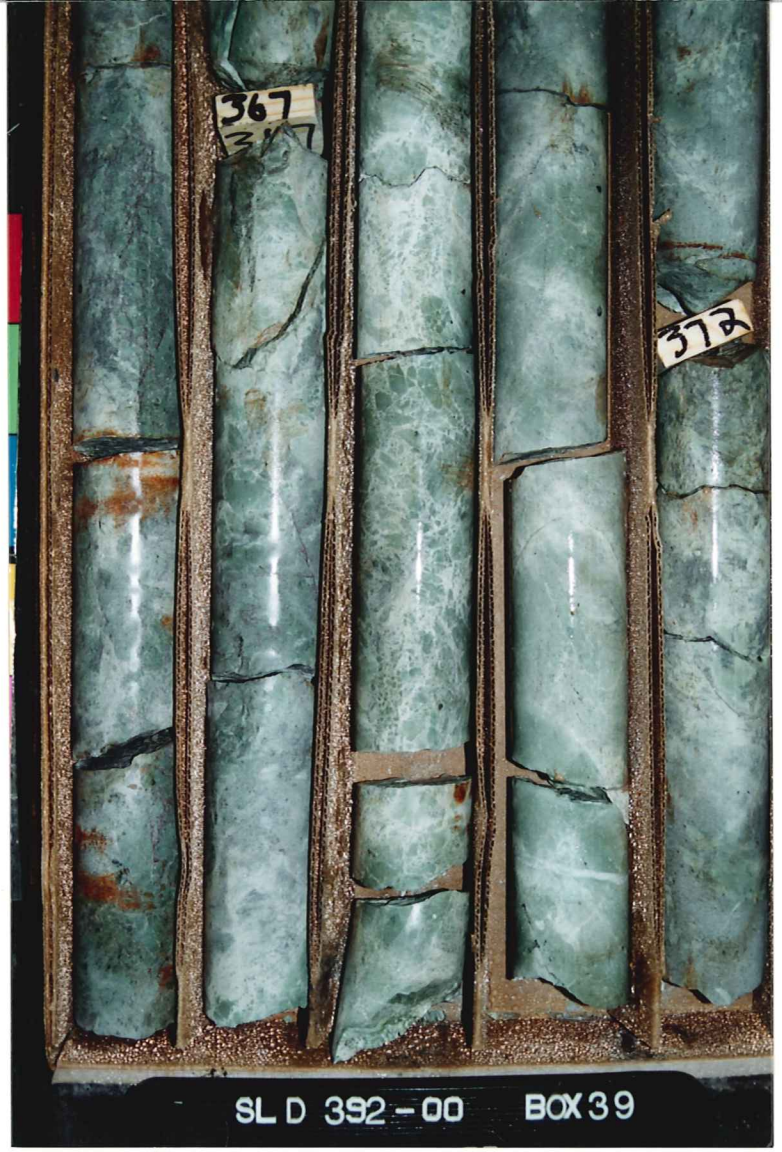
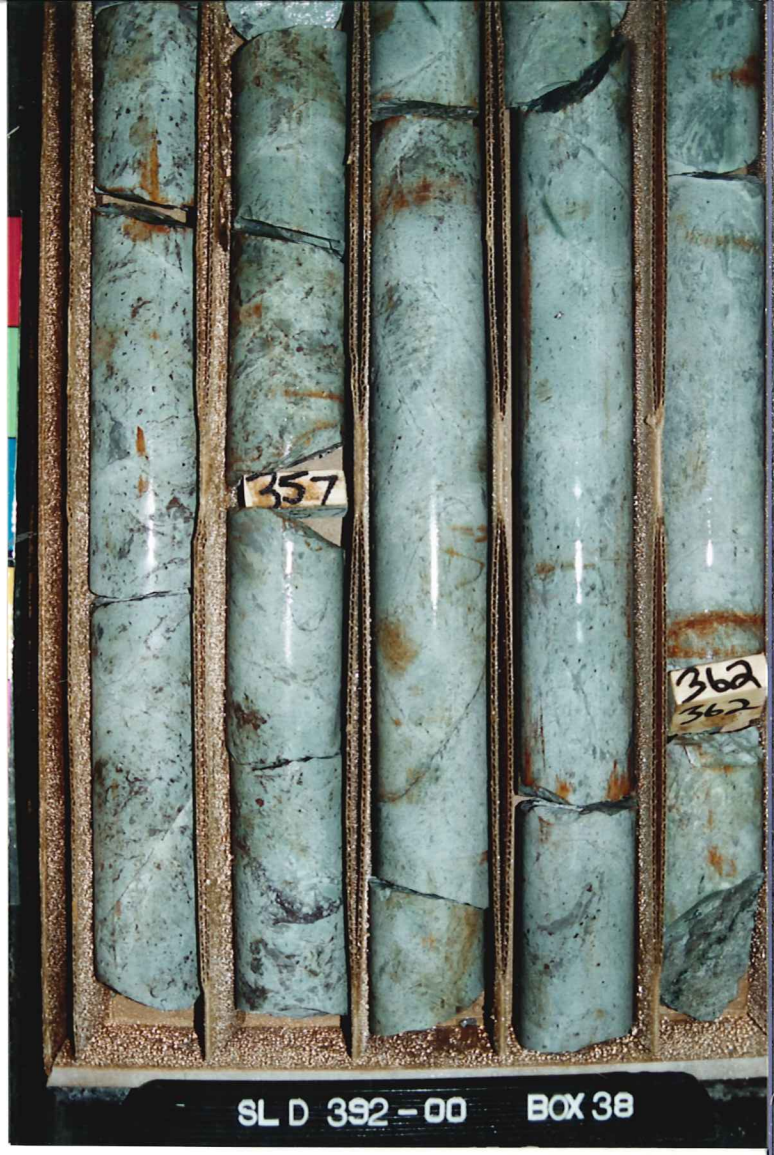
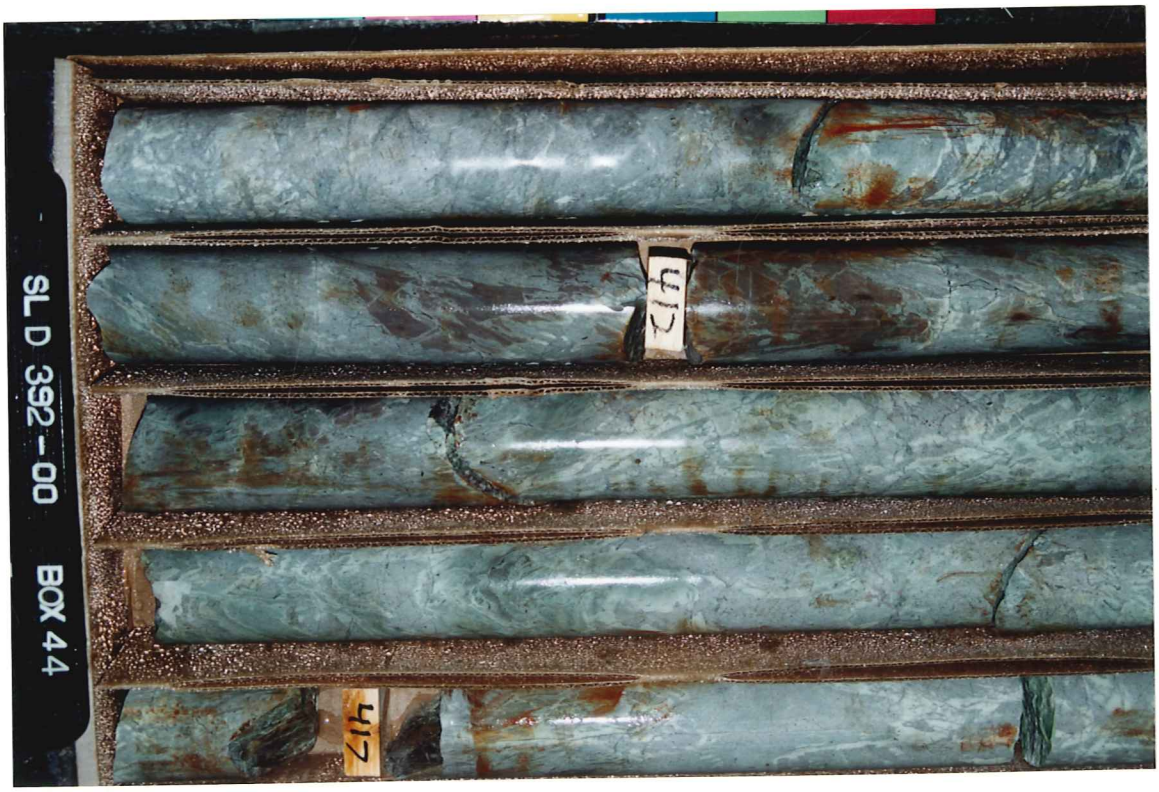
352
SL D 392-00 BOX 37

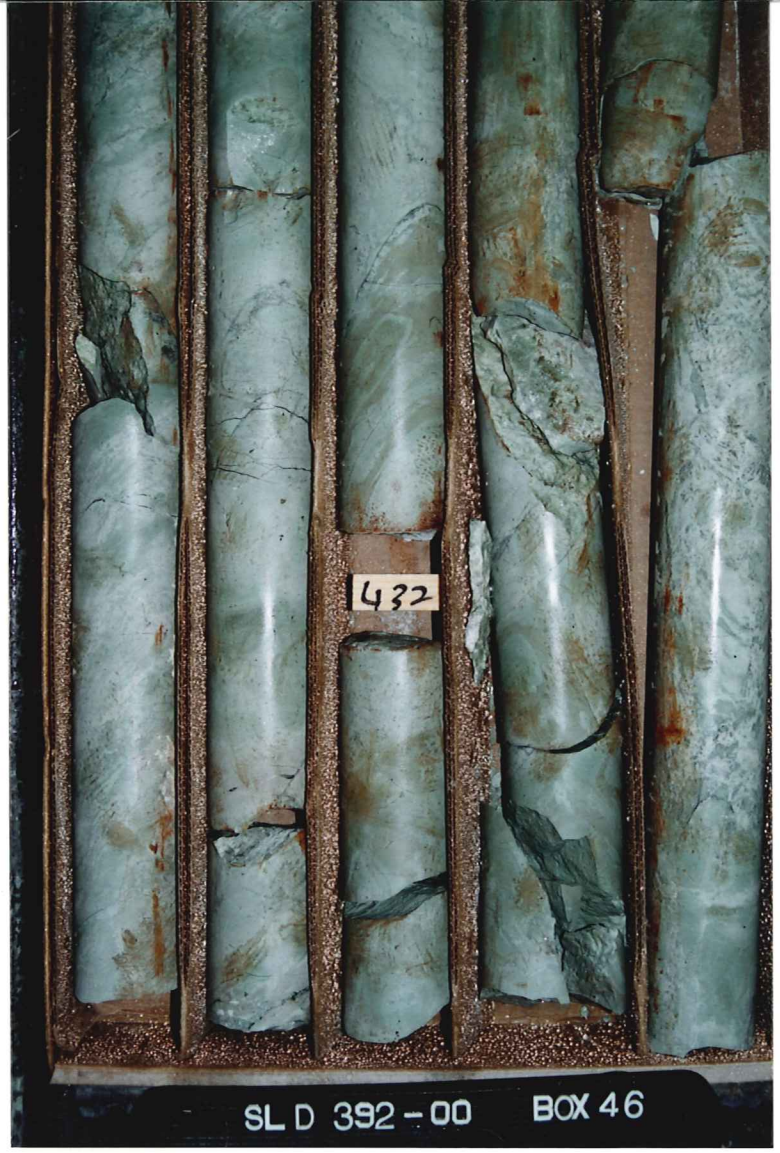

367
372
SL D 392-00 BOX 39

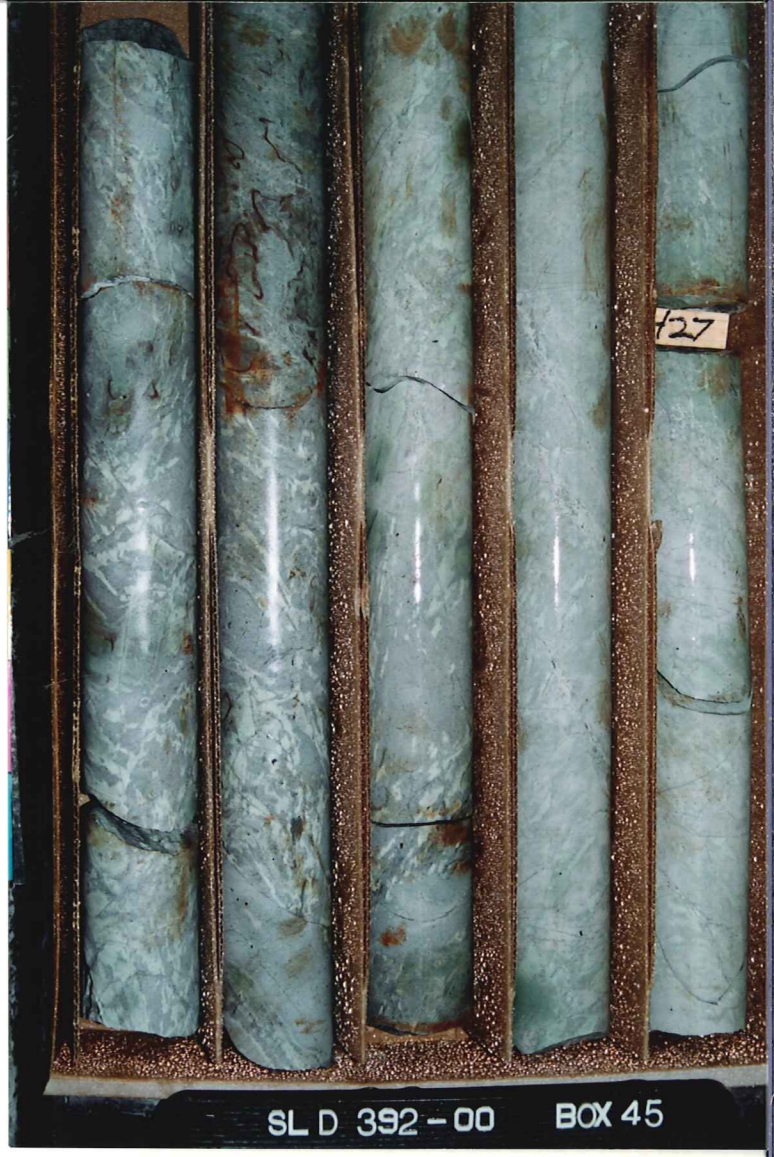

357
362
SL D 392-00 BOX 38

377
SL D 392-00 BOX 40

Boxes 41, 42, 59 missing



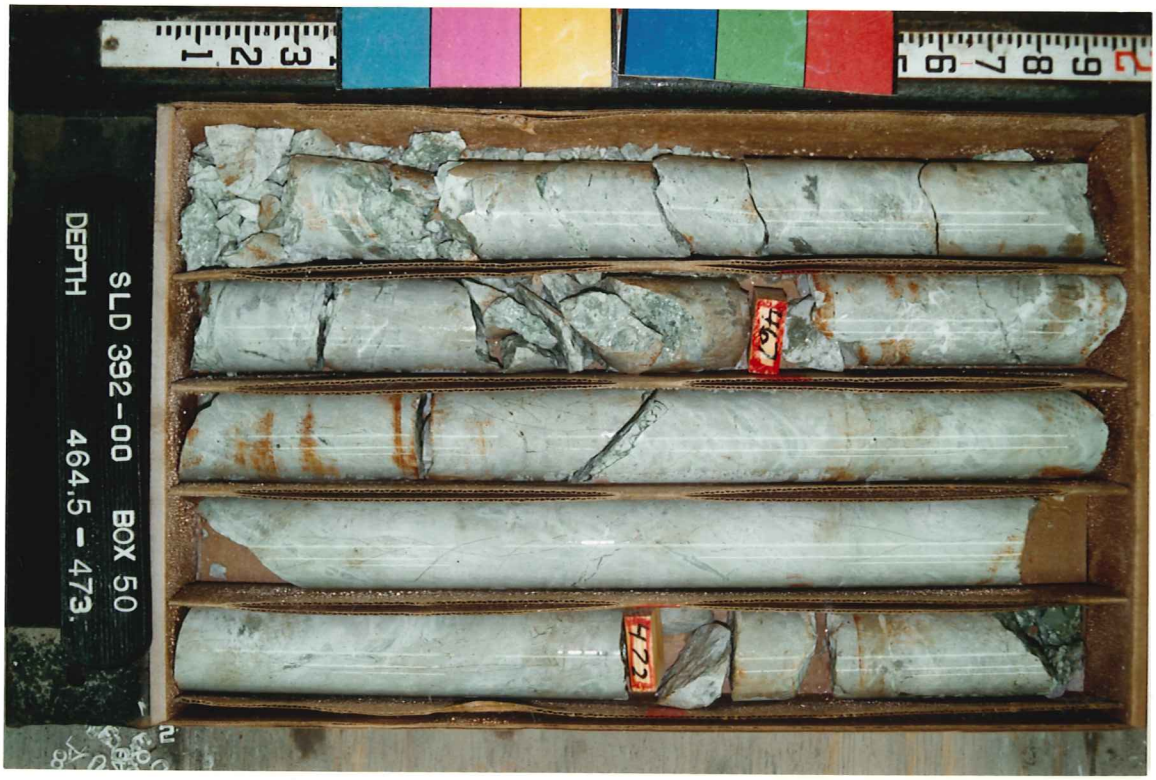

432
SL D 392-00 BOX 46


427
SL D 392-00 BOX 45

437
SL D 392-00 BOX 47
DEPTH 437. - 446.

455.7
457
462
SLD 392-00 BOX 49
DEPTH 455. - 464.5

447
446
449.6
452
454.2
SLD 392-00 BOX 48
DEPTH 446. - 455.


SLD 392-00 BOX 50
DEPTH 464.5 - 473.
467
472

484
487
485.3
490
482
SLD 392-00 BOX 52
DEPTH 482. - 491.5

473
SLD 392-00 BOX 51
DEPTH 473. - 482.

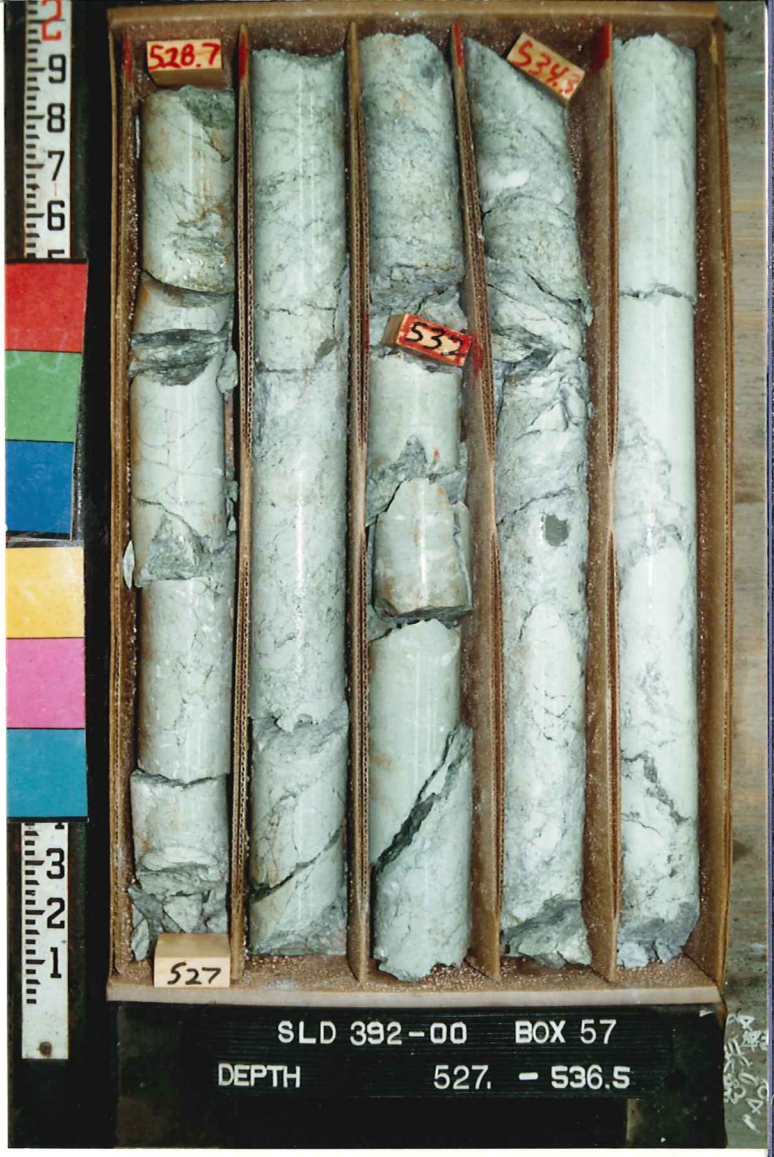
492
495
497
498.5
SLD 392-00 BOX 53
DEPTH 491.5 - 501.

SLD 392-00 BOX 55
DEPTH 509.5 - 518.

SLD 392-00 BOX 54
DEPTH 501. - 509.5

SLD 392-00 BOX 56
DEPTH 518. - 527.

537
543
542
539.7
SLD 392-00 BOX 58
DEPTH 536.5 - 545.5


528.7
534.3
532
527
SLD 392-00 BOX 57
DEPTH 527. - 536.5

SLD 392-00 BOX 60
DEPTH 545.5 - 555.

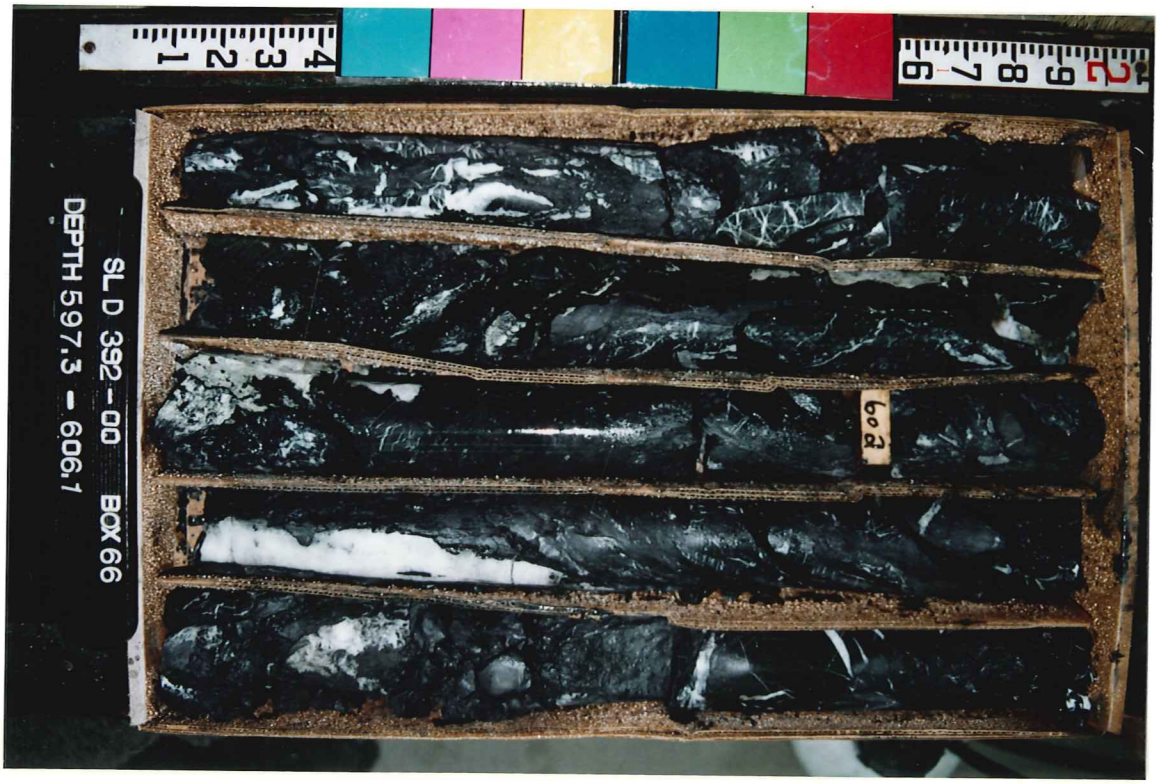
570
SLD 392-00 BOX 62
DEPTH 564.5 -572.3

560
SLD 392-00 BOX 61
DEPTH 555. - 564.5

572
577
SLD 392-00 BOX 63
DEPTH 572.3 -581.

597
SL D 392-00 BOX 65
DEPTH 589. - 597.3

585
587
SL D 392-00 BOX 64
DEPTH 581. - 589.


SL D 392-00 BOX 66
DEPTH 597.3 - 606.1

SL D 392-00 BOX 67
DEPTH 606.1 - 610. TD

WELL 52-D-392

DEPTH 57'

PICTURE NO. 1

INCLINATION -36°

OBS. DIR.

COR. DIR.

TOOL FACE

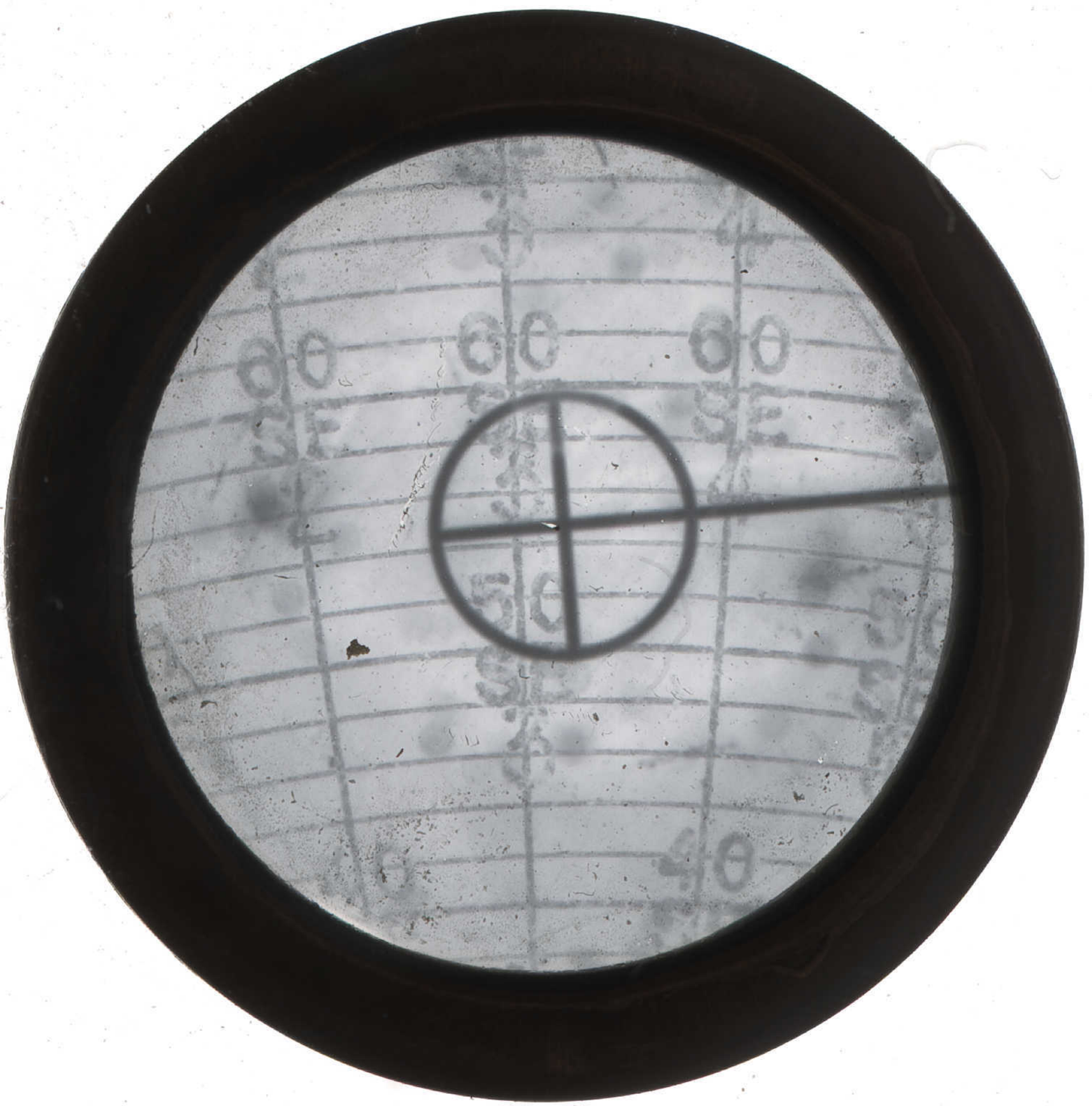
RUN BY CJ

DATE 2-19-00

CHECKED BY

sperry-sun

DRILLING SERVICES


60
60
60
SE
SE
50
40

WELL SL-D-392

DEPTH 252

PICTURE NO. 2

INCLINATION -36°

OBS. DIR.

COR. DIR.

TOOL FACE

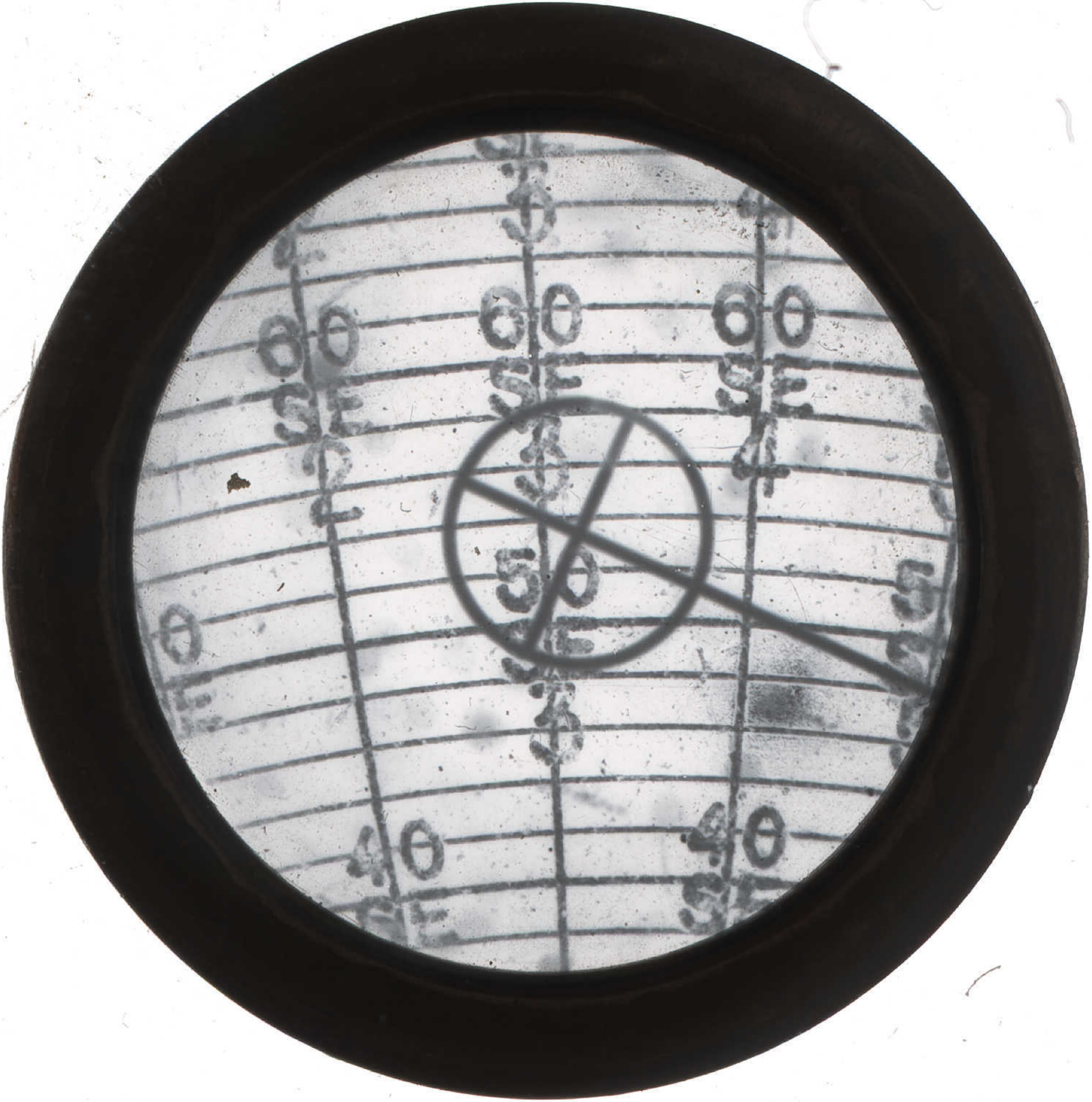
RUN BY CA

DATE 2-18-00

CHECKED BY

sperry-sun

DRILLING SERVICES



WELL SLD-392

DEPTH 450'

PICTURE NO.

INCLINATION -36

OBS. DIR.

COR. DIR.

TOOL FACE

RUN BY G. GADDIE

DATE 2-22-00

CHECKED BY

sperry-sun

DRILLING SERVICES

WELL SL-D-392

DEPTH 582'

PICTURE NO. 3

INCLINATION -36°

OBS. DIR.

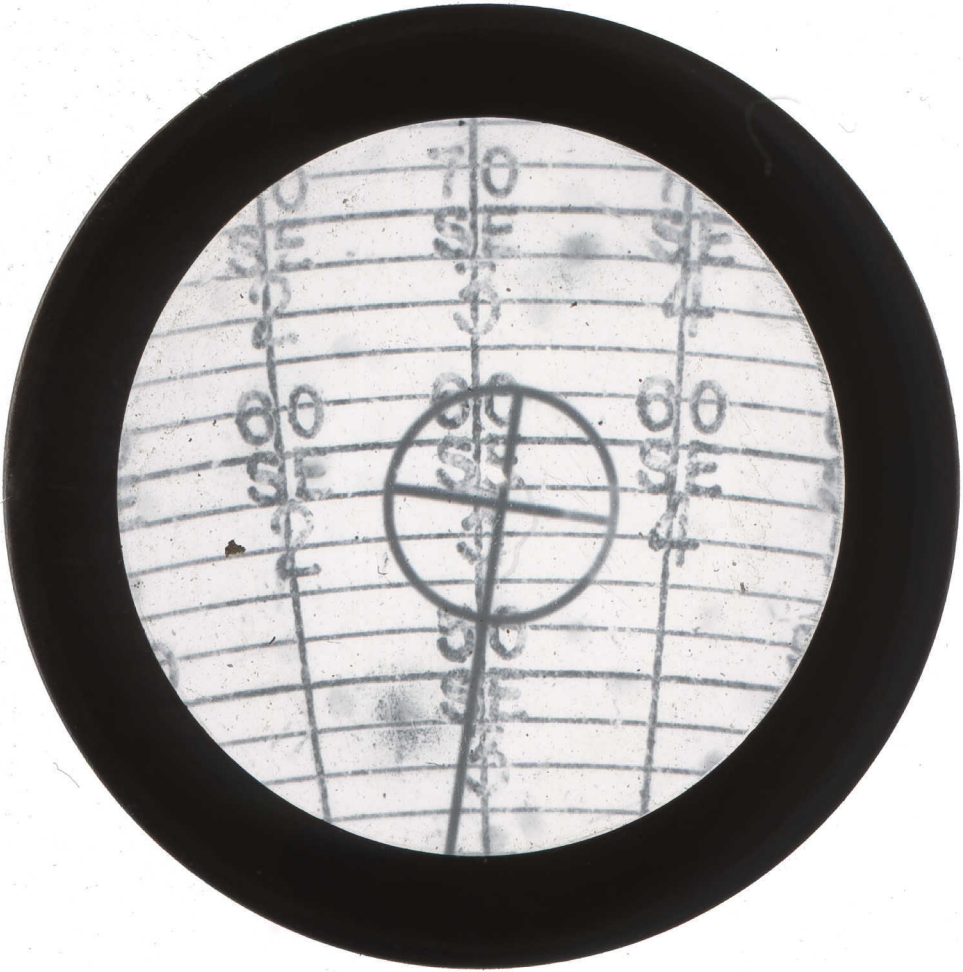
COR. DIR.

TOOL FACE

RUN BY CD.

DATE 2-21-00

CHECKED BY

sperry-sun

DRILLING SERVICES