94-336 EAST ZONE

4010 0050

Hecla MINING COMPANY

ROSEBUD PROJECT
DIAMOND DRILL LOG

HOLE NUMBER	94-336	LOCATION	East Zone	REMARKS	RC pre col to 475'
PAGE 1 OF		NORTHING	2,204,109.9		
DATE	8/4/94	EASTING	482,961.9		
LOGGED BY	L.JB/	ELEVATION	5321.4		
SCALE	RC= 1:20	AZIMUTH	45.0°		
TOTAL DEPTH	800'	INCLINATION	-89.0°		

%REC	RQD	LITHOLOGY			FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ag2
		mod soft-hard	brown/ yellow	dk brown FeOx chips w/ wk br clay coatings Andesite	0			brown FeOx clays Yellow lim 3-5%	0	15	15'	6ppb			
									15	25	10'	12			
					20				25	35	10'	<5			
									35	45	10'	<5			
					40				45	55	10'	8			
		mod hard	green + yellow	fine grain Todd				5% limonite chips wk clay int	55	65	10'	10			
					60				65	75	10'	<5			
		mod hard	lt gr/gy	SAB w/no FeOx				1% dissem py white clay coatings	75	85	10'	32		40	
					80			py vn (75-85)	85	95	10'	32			
									95	105	10'	80			
					100										
					105										

HOLE NUMBER 94-336 PAGE 2 OF

%REC	RQD	LITHOLOGY			FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		Mod hard	lt green/ gray	fine grain celedonite alt tuff tuff	105 – 125			partialy ox py dissem calcareous
		mod hard	gray brown	gray fine grain Andesite w/ hem coatings Peppery texture of FeOx dissem py	145 – 165 – 185 – 205 – 225 – 245			mod hemitization fracture coatings FeOx after py strongly calcareous

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
105	115	10'	44		46	
115	125	10'	68			
125	135	10'	20			
135	145	10'	<5			
145	155	10'	<5			
155	165	10'	<5			
165	175	10'	6			
175	185	10'	<5			
185	195	10'	<5		<5	
195	205	10'	<5			
205	215	10'	<5			
215	225	10'	<5			
225	235	10'	8			
235	245	10'	<5			

HOLE NUMBER 94-336 PAGE 3 OF

%REC	RQD	LITHOLOGY			FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ag2
		Mod hard	lt gray/ green	MIXED Brown + lt gray chips fine grain celedonite Alt. Tuff	245			tr-1% dissem py wk calc	245	255	10'	6 ppb			
									255	265	10'	20			
					265				265	275	10'	7			
		Mod hard	gray/ brown	fine grain Tuff with hem on fractures				calcite + hem coated frac.	275	285	10'	5			
					285				285	295	10'	<5			
									295	305	10'	5			
				poss. microbx	305				305	315	10'	<5			
									315	325	10'	<5			
					325				325	335	10'	<5			
									335	345	10'	<5			
					345				345	355	10'	<5			
				possible larger clasts mixed clasts microbx ??					355	365	10'	<5		<5	
					365				365	375	10'	<5			
									375	385	10'	<5			
					385			tr py dissem							

HOLE NUMBER 94-336 PAGE 4 OF

%REC	RQD	LITHOLOGY			FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ag2
			gray/ brown	fine grain hemitite Andesite	385			hemitite after py	385	395	10'	<5 ppb			
				Clay Rich Zone	405			SAb w/mod brown clays (10-15%?) strong calcareous	395	405	10'	<5			
									405	415	10'	<5			
					425				415	425	10'	<5			
									425	435	10'	<5			
					445				435	445	10'	<5			
								str calcareous hemititic chips calcite veinlets	445	455	10'	6		<5	
					465				455	465	10'	<5			
									465	475	10'	<5			
					RC T.D. 475										

HOLE NUMBER 94-336 PAGE _____ OF _____

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ag2
		475-489 med brown hem aph tuff w/5% hem alt mica as hexagonal cryst or elongated packets, tors hornblende, wk calc + numerous calcite vn	480	RC	475-495 .2 frac/ft @ 70	475-489 mod hem alt very fine hairline ?? stringers @ 0-15 mod sil calcite vnlets 489-447 wk FeOx (hem) poss v. wk chl mod sil, calcite vnlets	475	485	10	<5			
							485	495	10	<5			
		489-547.5 lt brown/grey-green mottled tuff wk foliation, aph w/ alt & bxy textures (AH)	490		495 3" brown gouge + gravel	495 hem gouge	495	505	10	<5			
			500		495-523 .9 frac/ft @ 30 slicks @30	v. fine py vnlets @ 30, 10, ⊥ 40 v. weak crackle bx wk chl or frac	505	515	10	<5			
		wk foliation @ 65	510				515	525	10	<5			
			520		523-539 1.5 frac/ft @ 70, 30, 10		525	535	10	<5			
			530				535	545	10	<5			
			540										

HOLE NUMBER 94-336 PAGE ____ OF ____

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		545 wk foliation @ 45 447.5-455 mod foliated aph glassy tuff @ 45 mod hem v. bx at bottom 455-585 wk foliated glassy tuff w/ sericitic <5% feldspar or ferromags (white ser) wk hem alt., wk sil? 448 wk foliation @ 60 568.5 wk foliation @ 60 581 wk foliation @ 70-80 585-613.5 Aph Tuff with sort clasts and blocky glass-like textures <1% sericite after mics?	550 560 570 580 590 600 610		539-563 .6 frac/ft @ 70, 40 563-583 1.2 frac/ft @ 70, 10 583-613 1.5 frac/ft @ 50-60	447.5-455 mod hem + mod-wk sil 455-564 wk hem, mod sil? calcite veinlets rare blocks of py 564-585 no calcite veinlets wk calc., blocks of py controled by frac, v. minor py veinlet on frac 570 1/2" bx seam w/ py veinlets at rk contact w/ white clay + py-marc cement 585-598 undulated 1/10" py veinlets @ 80 >20/ft sheared zone 598-619 sab w/ high angle py veinlets, vuggy in places

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
545	555	10	<5			
555	565	10	18			
565	575	10	89		91	
575	585	10	15			
END GEO CHEM						
Hecla custom prep.						
585	590	5	.006	.38		
590	595	5	.003	.07		
595	600	5				
600	605	5	.003	.15	.004	
605	610	5	.001	<.02		
610	615	5	.153	.05	.236 (2)	

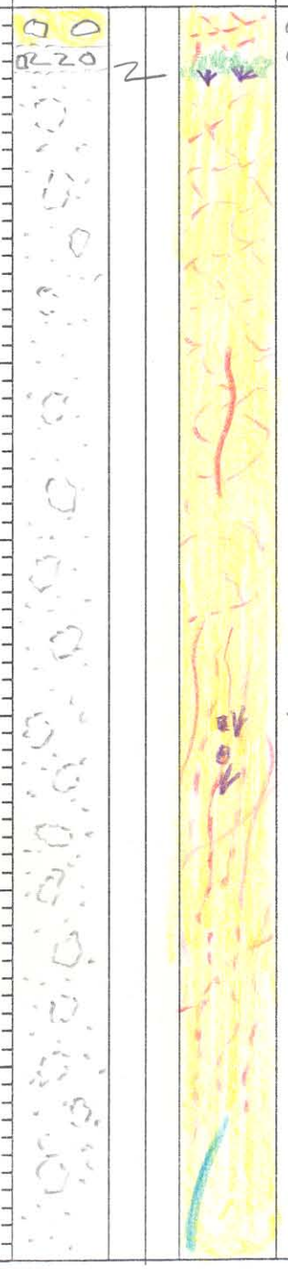
HOLE NUMBER 94-336 PAGE ____ OF ____

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		613.5-653 gray med-course grain aph. tuff w/ 1% sericitic alt feldspars or pyroxenes? ferromgs fine sulfide dissem 1-2%, rounded blocches of dissem py. after clasts?? and along fractures	620 630 640 650		613-643 1.8 frac/ft @ 70, 30	619-640 clay filled frac w/ py selvages @60, 10-15, 70 etc. wk sil
		653-667 Volcanic bx or tectonic bx? chl clasts in a green chl matrix sub-rounded to rounded grain supported	660	? ?	643-673 1.2 frac/ft @ 40, 60 653-667 poss tectonic bx zone? 659 poss fracture zone	640-653 fine py cem wk crackle bx mod sil 653-667 str chl + clay alt Tr py on white clay on frac.
		667-673 sil, altered glassy tuff w/ glassy clasts 1/8-1/2"	670			673 - stibnite 667-673 str sil, 1/10" py-marc unlets, wk hem. matrix
		673-675 v str sil tuff as above w/ clast 1/8-3" rounded			673-683 0.2 frac/ft @70	673 bk 1" qtz vn w/ fine sulf. 60% @ 40+?
		675-679 breccia vn X-cutting dk sulf-qtz vn fragments 1/8-4"	680		678-680 Ruby silver w/ white clay, marc →	677-679 str sil bx vein, x-cutting qtz-sulf vn 60, vn frags Tuff frags, bk, gy, + wh qtz.

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
615	620	5	.006	.12		
620	625	5	.001	.02		
625	630	5	.003	.07		
630	635	5	.001	.05		
635	640	5	.001	.03		
640	645	5	.004	.14		
645	650	5	.002	.05		
650	655	5	.001	.07		
655	660	5	.002	.07	.002	
660	665	5	.004	.11		
665	673	3	.007	.31		
673	678	5	.009	2.25		
678	682	4	.035	88.00		

* MET SAMPLES 670.5-671, 677-677.5

HOLE NUMBER 94-336 PAGE _____ OF _____

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		679-682 sil floated volcanic clastic, py vn 682-683.5 clay alt ± chlorite, apple green alt sheared + py vn 683.5 ~ 754 Volcaniclastic tuff w/ soft clasts	690 700 710 720 730 740 750		682-683 sheared rk chl 683-720 0.9 frac/ft @ 60 720-772 0.7 frac/ft @ 70-80 730-740 @ 50 + 70	679-682 silica floating py veinlets 682-683.5 py veinlets rk subject to clay chl alt, stibnite 683.5-715 wk developed py stockwork hard veinlets 10-20, 1/4" qtz-marc-py vn @ bottom chl on fractures 3-4 vn/ft (qtz) 715-734 sil vlc 1-qtz-sulf vn/ft - high angle wk sil floated 720.5 qtz-barite vn w/ stibnite 734-746 wk py stock high angle 1-2 veinlet/ft 746-750 1/4" calcite vn ± py-marc, w/ steel gray striated cryst with brown streak - Tetrahedrite? floating in clay

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
682	684	stibnite 2	.024	7.39		
684	689	5	.009	1.36		
689	694	5	.076	.09	.077 (g)	
694	699	5	.176	.09	.188 (g)	
699	704	5	.020	.06		
704	709	5	.113	.05	.128 (g)	
709	714	5	.013	.03		
714	719	5	.004	.04		
719	724	5	.003	.03	.002	
724	729	5	.016	.05		
729	734	5	.003	.14		
734	739	5	.004	.04		
739	744	5	.004	.07		
744	750	6	.071	87.82	.052 (g)	
750	755	5	.008	.27		

HOLE NUMBER 94-336 PAGE _____ OF _____

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		754-800 fine grain volcaniclastic tuff matrix supported, rwk, hem str sil, rwk chl	760 770 780 790 800 EOH		SAB 772-783 0 frac/ft 783-792 .4 frac/ft @ 5-15 792-800 .7 frac/ft @ 70	750-772 minor py-marc veinlets + calcite veinlets 1 veinlet/ft @ high angle mod-str sil ↓ EOH 772-782.5 SAB 2 py veinlets/ft @ 30, 70 782.5-792.5 barite filled frac @ 10-15 (tr stibnite @ 782.5) 792.5-794.5 hydro rubble by w qtz barite cement ± marc-py 794.5-800 minor py-marc veinlets

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
755	760	5	.002	.03		
760	765	5	.002	.05		
765	770	5	.008	.04		
770	775	5	.002	.06		
775	780	5	.019	.04		
780	785	5	.013	.04		
785	790	5	.003	.10		
790	795	5	.005	.24		
795	800	5	.110	.06	.102 (g)	

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT

American Assay Laboratories Inc.

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 94-336
JOB NUMBER : SP030248
REPORTED : 9/08/94

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb
94-336 00-15	6	
94-336 15-25	12	
94-336 25-35	<5	
94-336 35-45	<5	
94-336 45-55	8	
94-336 55-65	10	
94-336 65-75	<5	
94-336 75-85	32	40
94-336 85-95	32	
94-336 95-105	80	
94-336 105-115	44	46
94-336 115-125	68	
94-336 125-135	20	
94-336 135-145	<5	
94-336 145-155	<5	
94-336 155-165	<5	
94-336 165-175	6	
94-336 175-185	<5	
94-336 185-195	<5	<5
94-336 195-205	<5	
94-336 205-215	<5	
94-336 215-225	<5	
94-336 225-235	8	
94-336 235-245	<5	
94-336 245-255	6	

AMERICAN ASSAY LABORATORIES
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American Assay Laboratories Inc.

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 94-336
JOB NUMBER : SP030248
REPORTED : 9/08/94

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb
94-336 255-265	20	
94-336 265-275	7	
94-336 275-285	5	
94-336 285-295	<5	
94-336 295-305	5	
94-336 305-315	<5	
94-336 315-325	<5	
94-336 325-335	<5	
94-336 335-345	<5	
94-336 345-355	<5	
94-336 355-365	<5	<5
94-336 365-375	<5	
94-336 375-385	<5	
94-336 385-395	<5	
94-336 395-405	<5	
94-336 405-415	<5	
94-336 415-425	<5	
94-336 425-435	<5	
94-336 435-445	<5	
94-336 445-455	6	<5
94-336 455-465	<5	
94-336 465-475	<5	

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 94-336
JOB NUMBER : SP031042
REPORTED : 6 OCT 1994

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb
94-336 475-485	<5	
94-336 485-495	<5	
94-336 495-505	<5	
94-336 505-515	<5	
94-336 515-525	<5	
94-336 525-535	<5	
94-336 535-545	<5	
94-336 545-555	<5	
94-336 555-565	18	
94-336 565-575	89	91
94-336 575-585	15	

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT

American Assay Laboratories Inc.

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 94-336
JOB NUMBER : SP031057
REPORTED : 20 OCT 1994

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
94-336 585-590	0.006			0.38
94-336 590-595	0.003			0.07
94-336 600-605	0.003	0.004		0.15
94-336 605-610	0.001			<0.02
94-336 610-615	0.153		0.236	0.05
94-336 615-620	0.006			0.12
94-336 620-625	0.001			0.02
94-336 625-630	0.003			0.07
94-336 630-635	0.001			0.05
94-336 635-640	0.001			0.03
94-336 640-645	0.004			0.14
94-336 645-650	0.002			0.05
94-336 650-655	0.001			0.07
94-336 655-660	0.002	0.002		0.07
94-336 660-665	0.004			0.11
94-336 665-673	0.007			0.31
94-336 673-678	0.009			2.25
94-336 678-682	0.035			88.00
94-336 682-684	0.024			7.39
94-336 684-689	0.009			1.36
94-336 689-694	0.076		0.077	0.09
94-336 694-699	0.176		0.188	0.09
94-336 699-704	0.020			0.06
94-336 704-709	0.113		0.120	0.05
94-336 709-714	0.013			0.03

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT

American Assay Laboratories Inc.

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 94-336
JOB NUMBER : SP031057
REPORTED : 20 OCT 1994

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
94-336 714-719	0.004			0.04
94-336 719-724	0.003	0.002		0.03
94-336 724-729	0.016			0.05
94-336 729-734	0.003			0.14
94-336 734-739	0.004			0.04
94-336 739-744	0.004			0.07
94-336 744-750	0.071		0.052	87.82
94-336 750-755	0.008			0.27
94-336 755-760	0.002			0.03
94-336 760-765	0.002			0.05
94-336 765-770	0.008			0.04
94-336 770-775	0.002			0.06
94-336 775-780	0.019			0.04
94-336 780-785	0.013			0.04
94-336 785-790	0.003			0.10
94-336 790-795	0.005			0.24
94-336 795-800	0.110		0.102	0.06

American Assay Laboratories

INVOICE

Remit To: P.O. Box 71060
Reno, NV 89570
Phone No.: 702-356-0606
Fax No.: 702-356-1413

AMERICAN ASSAY LABORATORIES
1500 GLENDALE AVE.
SPARKS, NV 89431

(702) 356-0606

INVOICE NO.: SP-0031067-IN
INVOICE DATE: 10/25/94

INVOICE TO:
HECLA MINING COMPANY
1225 UPPER VALLEY ROAD
P. O. BOX 1861
LOVELOCK NV 89419

HECLA MINING COMPANY
1225 UPPER VALLEY ROAD
P. O. BOX 1861
LOVELOCK NV 89419

CUSTOMER P.O.	PROJECT	TERMS
C. MUERHOFF	ROSEBUD 94-336	NET 30

QUANTITY	DESCRIPTION	PRICE	AMOUNT
42	SAMPLES RECEIVED	.00	.00
42	JAW CRUSHING CHARGE	2.40	100.80
42	COARSE MILLING CHARGE	8.00	336.00
42	SPLITTING CHARGE	2.00	84.00
42	KEEGOR MILLING CHARGE	2.00	84.00
42	BLENDING CHARGE	1.00	42.00
42	RING MILLING CHARGE	1.50	63.00
42	Au (2 A.T. FIRE ASSAY)	9.50	399.00
6	Au ANALYSES/GRAVIMETRIC	10.00	60.00
42	HYDROCHLORIC/NITRIC DIGESTION	2.00	84.00
42	Ag ANALYSES	.80	33.60
1	Ag (ore grade) ANALYSES	5.00	20.00

NET INVOICE:	1,306.40
LESS DISCOUNT:	391.92
FREIGHT:	.00
INVOICE TOTAL:	914.48

OK to pay
140195 - 477
Charles V. Muerhoff

ANALYSIS REPORT

American Assay Laboratories Inc.

P.O. BOX 71060
RENO, NV,,U.S.A.,
Ph.1-702-356-0606, Fax.1-702-356-1413
Telex:

HECLA MINING CO.

COPIES TO : CHARLIE MUERHOFF
:
:
:

CLIENT REFERENCE No: 94-336
LABORATORY JOB No. : SP031057
SAMPLE TYPE :

RECEIVED : 27 SEP 1994
REPORTED : 20 OCT 1994
No. SAMPLES : 42

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au(OZ)	FA60	15%	OPT	0.001
Au(RZ)	FA60	15%	OPT	0.001
AuGRAV	GRAV	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Sue Faircloth M.S.

ANALYSIS REPORT

American Assay Laboratories Inc.

P.O. BOX 71060
RENO, NV,,U.S.A.,
Ph.1-702-356-0606, Fax.1-702-356-1413
Telex:

HECLA MINING CO.

COPIES TO : CHARLIE MUERHOFF

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CLIENT REFERENCE No: 94-336

LABORATORY JOB No. : SP031057

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ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au(OZ)	FA60	15%	OPT	0.001
Au(RZ)	FA60	15%	OPT	0.001
AuGRAV	GRAV	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Sue Faircloth M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT

American Assay Laboratories Inc.

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 94-336
JOB NUMBER : SP031057
REPORTED : 20 OCT 1994

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
94-336 585-590	0.006			0.38
94-336 590-595	0.003			0.07
94-336 600-605	0.003	0.004		0.15
94-336 605-610	0.001			<0.02
94-336 610-615	0.153		0.236	0.05
94-336 615-620	0.006			0.12
94-336 620-625	0.001			0.02
94-336 625-630	0.003			0.07
94-336 630-635	0.001			0.05
94-336 635-640	0.001			0.03
94-336 640-645	0.004			0.14
94-336 645-650	0.002			0.05
94-336 650-655	0.001			0.07
94-336 655-660	0.002	0.002		0.07
94-336 660-665	0.004			0.11
94-336 665-673	0.007			0.31
94-336 673-678	0.009			2.25
94-336 678-682	0.035			88.00
94-336 682-684	0.024			7.39
94-336 684-689	0.009			1.36
94-336 689-694	0.076		0.077	0.09
94-336 694-699	0.176		0.188	0.09
94-336 699-704	0.020			0.06
94-336 704-709	0.113		0.120	0.05
94-336 709-714	0.013			0.03

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT

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PROJECT : ROSEBUD
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JOB NUMBER : SP031057
REPORTED : 20 OCT 1994

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
94-336 714-719	0.004			0.04
94-336 719-724	0.003	0.002		0.03
94-336 724-729	0.016			0.05
94-336 729-734	0.003			0.14
94-336 734-739	0.004			0.04
94-336 739-744	0.004			0.07
94-336 744-750	0.071		0.052	87.82
94-336 750-755	0.008			0.27
94-336 755-760	0.002			0.03
94-336 760-765	0.002			0.05
94-336 765-770	0.008			0.04
94-336 770-775	0.002			0.06
94-336 775-780	0.019			0.04
94-336 780-785	0.013			0.04
94-336 785-790	0.003			0.10
94-336 790-795	0.005			0.24
94-336 795-800	0.110		0.102	0.06

American Assay Laboratories

INVOICE

Remit To: P.O. Box 71060
Reno, NV 89570
Phone No.: 702-356-0606
Fax No.: 702-356-1413

AMERICAN ASSAY LABORATORIES
1500 GLENDALE AVE.
SPARKS, NV 89431

(702) 356-0606

INVOICE NO: SP 0031012-IN
INVOICE DATE: 10/06/94

INVOICE TO:
HECLA MINING COMPANY
1225 UPPER VALLEY ROAD
P. O. BOX 1861
LOVELOCK NV 89419

HECLA MINING COMPANY
1225 UPPER VALLEY ROAD
P. O. BOX 1861
LOVELOCK NV 89419

CUSTOMER P.O.	PROJECT	TERMS
C. MUERHOFF	ROSEBUD 94-336	NET 30

QUANTITY	DESCRIPTION	PRICE	AMOUNT
11	SAMPLES RECEIVED	.00	.00
11	JAW CRUSHING CHARGE	1.20	13.20
11	SPLITTING CHARGE	.50	5.50
11	KEEGOR MILLING CHARGE	2.00	22.00
11	Au (1 A.T. FIRE ASSAY)	7.25	79.75

OK to pay
140195 - 477
Charles K. Muerhoff

NET INVOICE:	120.45
LESS DISCOUNT:	36.14
FREIGHT:	.00
INVOICE TOTAL:	84.31

ANALYSIS REPORT

American Assay Laboratories

P.O. BOX 71060
RENO, NV,,U.S.A.,
Ph.1-702-356-0606, Fax.1-702-356-1413
Telex:

HECLA MINING CO.

COPIES TO : CHARLIE MUERHOFF

:

:

:

CLIENT REFERENCE No: 94-336

LABORATORY JOB No. : SP031042

SAMPLE TYPE :

RECEIVED : 27 SEP 1994

REPORTED : 6 OCT 1994

No. SAMPLES : 11

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au	FA30	15%	ppb	5
Au(R)	FA30	15%	ppb	5

SIGNATORY : Sue Faircloth M.S.

ANALYSIS REPORT

American Assay Laboratories

P.O. BOX 71060
RENO, NV,,U.S.A.,
Ph.1-702-356-0606, Fax.1-702-356-1413
Telex:

HECLA MINING CO.

COPIES TO : CHARLIE MUERHOFF
:
:
:

CLIENT REFERENCE No: 94-336
LABORATORY JOB No. : SP031042
SAMPLE TYPE :

RECEIVED : 27 SEP 1994
REPORTED : 6 OCT 1994
No. SAMPLES : 11

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au	FA30	15%	ppb	5
Au(R)	FA30	15%	ppb	5

SIGNATORY : Sue Faircloth M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 94-336
JOB NUMBER : SP031042
REPORTED : 6 OCT 1994

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb
94-336 475-485	<5	
94-336 485-495	<5	
94-336 495-505	<5	
94-336 505-515	<5	
94-336 515-525	<5	
94-336 525-535	<5	
94-336 535-545	<5	
94-336 545-555	<5	
94-336 555-565	18	
94-336 565-575	89	91
94-336 575-585	15	

American Assay Laboratories

INVOICE

Remit To: P.O. Box 71060
Reno, NV 89570
Phone No.: 702-356-0606
Fax No.: 702-356-1413

AMERICAN ASSAY LABORATORIES
1500 GLENDALE AVE.
SPARKS, NV 89431

(702) 356-0606

INVOICE NO: SP 0030248-IN
INVOICE DATE: 08/10/94

94-336

INVOICE TO:
HECLA MINING COMPANY
1225 UPPER VALLEY ROAD
P. O. BOX 1861
LOVELOCK NV 89419

HECLA MINING COMPANY
1225 UPPER VALLEY ROAD
P. O. BOX 1861
LOVELOCK NV 89419

CUSTOMER P.O.	PROJECT	TERMS
	ROSEBUD	NET 30

QUANTITY	DESCRIPTION	PRICE	AMOUNT
47	SAMPLES RECEIVED	.00	.00
47	JAW CRUSHING CHARGE	1.20	56.40
47	SPLITTING CHARGE	1.00	47.00
47	KEEGOR MILLING CHARGE	2.00	94.00
47	Au (1 A.T. FIRE ASSAY)	7.25	340.75

OK to pay
P.O. # 400004, line 2
Charles R. Muerhoff

NET INVOICE:	538.15
LESS DISCOUNT:	161.45
FREIGHT:	.00
INVOICE TOTAL:	376.70

ANALYSIS REPORT

American Assay Laboratories Inc.

P.O. BOX 71060
RENO, NV,,U.S.A.,
Ph.1-702-356-0606, Fax.1-702-356-1413
Telex:

posted

HECLA MINING CO.

COPIES TO : CHARLIE MUERHOFF
:
:
:

CLIENT REFERENCE No: 94-336
LABORATORY JOB No. : SP030248
SAMPLE TYPE :

RECEIVED : 2/08/94
REPORTED : 9/08/94
No. SAMPLES : 47

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au	FA30	15%	ppb	5
Au(R)	FA30	15%	ppb	5

SIGNATORY : Sue Faircloth M.S.

ANALYSIS REPORT

American Assay Laboratories Inc.

P.O. BOX 71060
RENO, NV,,U.S.A.,
Ph.1-702-356-0606, Fax.1-702-356-1413
Telex:

Posted

94-336

HECLA MINING CO.

COPIES TO : CHARLIE MUERHOFF
:
:
:

CLIENT REFERENCE No: 94-336
LABORATORY JOB No. : SP030248
SAMPLE TYPE :

RECEIVED : 2/08/94
REPORTED : 9/08/94
No. SAMPLES : 47

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au	FA30	15%	ppb	5
Au(R)	FA30	15%	ppb	5

SIGNATORY : Sue Faircloth M.S.

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT

American Assay Laboratories Inc.

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 94-336
JOB NUMBER : SP030248
REPORTED : 9/08/94

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb
94-336 00-15	6	
94-336 15-25	12	
94-336 25-35	<5	
94-336 35-45	<5	
94-336 45-55	8	
94-336 55-65	10	
94-336 65-75	<5	
94-336 75-85	32	40
94-336 85-95	32	
94-336 95-105	80	
94-336 105-115	44	46
94-336 115-125	68	
94-336 125-135	20	
94-336 135-145	<5	
94-336 145-155	<5	
94-336 155-165	<5	
94-336 165-175	6	
94-336 175-185	<5	
94-336 185-195	<5	<5
94-336 195-205	<5	
94-336 205-215	<5	
94-336 215-225	<5	
94-336 225-235	8	
94-336 235-245	<5	
94-336 245-255	6	

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT

American Assay Laboratories Inc.

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 94-336
JOB NUMBER : SP030248
REPORTED : 9/08/94

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb
94-336 255-265	20	
94-336 265-275	7	
94-336 275-285	5	
94-336 285-295	<5	
94-336 295-305	5	
94-336 305-315	<5	
94-336 315-325	<5	
94-336 325-335	<5	
94-336 335-345	<5	
94-336 345-355	<5	
94-336 355-365	<5	<5
94-336 365-375	<5	
94-336 375-385	<5	
94-336 385-395	<5	
94-336 395-405	<5	
94-336 405-415	<5	
94-336 415-425	<5	
94-336 425-435	<5	
94-336 435-445	<5	
94-336 445-455	6	<5
94-336 455-465	<5	
94-336 465-475	<5	

800
-475
325

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 94-336 DATE: 9/17/94 LOGGED BY: LJB PAGE 1 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)
475	483	100	100	1.0		R4	.2	70	R	nil	479	381.5	155	2.46
483	493	100	100	.91		R4	.2	70, 90	S	nil	488	328	135	2.43
493	503	97	100	.92		R4	1.1	30	R	nil	498	531.5	220	2.42
503	513	100	100	1.0		R4	.9	30	R	chl fills ca vn 1/10	508	348	145	2.40
513	523	100	100	.93		R4	.6	70, 30	R	nil	518	574.5	240	2.39
523	533	100	100	.64		R4	1.7	70, 30, 10	R	nil	528	565.5	235	2.41
533	543	100	100	.79		R4	1.5	70, 30, 10	R	nil	538	321.5	135	2.38
543	553	100	100	1.0		R3	.6	70, 30	R	nil	548	438	180	2.43
553	563	100	100	.95		R3	.6	70, 40	R	nil	558	546	230	2.37
563	573	100	100	.80		R3	1.2	70, 10	R	clay fills, py	568	442.5	190	2.33
573	583	100	100	.92		R3	1.2	70, 10	R	clay fills + py	578	569.5	235	2.42

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 94-336 DATE: 9/18/94 LOGGED BY: LTB

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)
583	593	100	100	.72		R3	1.7	50-60	R	clay PY films	588	397	165	2.41
593	603	98	100	.79		R3	1.5	50	R	SAS	598	471.5	200	2.36
603	613	93	93	.73		R3	1.2	60	R	clay film	608	648.5	270	2.40
613	623	96	98	.61		R3	1.4	70, 40	R	SAS	618	665	275	2.42
623	633	98	100	.70		R3	1.9	70	R	clay-chl film	628	576	235	2.45
633	643	97	100	.65		R3	1.9	70, 30	R	clay film	638	673	275	2.45
643	653	97	97	.79		R3	1.5	40	R	clay, film	648	536.5	220	2.44
653	663	57	80	.45	(655-667) 656	S5	.7	60	VR	clay Alt RK	658	491.5	205	2.40
663	673	84	92	.72	665	S5	1.1	40	VR	clay Alt RK	668	715.5	295	2.43
673	677.5	106	106	1.06		R3	↓	↓	↓	↓	675	455	190	2.37
677.5	678	104	104	0		R3	.2	70	R	minor clay				

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 94-336 DATE: 9/18/94 LOGGED BY: LJB 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)
678	683	99	100	.88		R3	.1	70	R	minor clay	680	520	215	2.42
683	689.5	93	95	.38		R3	1.4	30, 60 80	R	clay film	686	490.5	200	2.45
689.5	699.5	102	102	.89		R2	.8	60	R	clay film	694	736.5	295	2.49
699.5	709.5	100	100	.95		R2	.9	60	R	clay	704	544	230	2.45
709.5	720	95	95	.80		R2	.9	60	R	minor clay + M	714	523	220	2.38
720	730	100	100	.95		R2	.8	70-80	R	chl film	725	502	210	2.39
730	740.5	98	98	.97		R2	.3	50, 70	R	minor clay	736	654	275	2.38
740.5	750.5	103	103	10.3		R3	.9	80	R	minor clay	745	619	255	2.43
750.5	761	99	99	.97		R3	.7	80	R	nil / minor clay	755	780	320	2.44
761	771.5	98	98	.91		R3	.8	70-80	R	SAB	765	628	260	2.42
771.5	781.5	100	100	.97		R3	0	—	—	—	778	420	175	2.40

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 94-336 DATE: LOGGED BY: LJB PAGE 4 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)
791.5	791.5	100	100	.87		R3	.4	5	R	qtz/ clay/ barite	786	480	200	2.4
791.5	800 EOH	100	100	.93		R3	.7	70	R	qtz/ barite	795	500	205	2.43

SAMPLE SUBMITTAL FORM

American Assay Laboratories Inc.

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

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

Company: Hecla Mining Co

Address:

Telephone Number: ( ) Fax Number: ( )

Project Name: Rosebud Purchase Order Number:

Transport Company: Waybill Number:

Date Shipped: 9/23/94 Number of Packages: 11 [ ] Prepaid [ ] Collect

Sampled 9/17/94

ANALYSIS REQUIRED

SAMPLE	TYPE	ELEMENTS REQUIRED
94-336 475-485	CORE	Au only 1 AT FA ppb
485-495		
495-505		
505-515		if Au > 1500 ppb
515-525		repeat w/ grav. finish
525-535		
535-545		
545-555		
555-565		
565-575		
575-585		

COARSE REJECTS (Normally Discarded)

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

PULPS (Normally Stored Free For One Month)

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

RESULTS AND INVOICES TO BE SENT TO:

Please mark invoice person and address [I]

(1) Charlie Muerhoff.

(2)

(3)

Comments:

CLIENT FILE COPY

SAMPLE SUBMITTAL FORM

American Assay Laboratories Inc.

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

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

Company: Hecla Mining Co

Address:

Telephone Number: ( ) Fax Number: ( )

Project Name: Rosebud Purchase Order Number:

Transport Company: Waybill Number:

Date Shipped: 5/23/94 Number of Packages: 43 [ ] Prepaid [ ] Collect

Sample 9/19

ANALYSIS REQUIRED

94-336: SAMPLE			TYPE	ELEMENTS REQUIRED
585-590	660-665	734-739	CORE	Au & Ag 2AT FA
590-595	665-673	739-744		
595-600	673-678	744-750		w/ Hecla-Rosebud
600-605	678-682	750-755		Custom Prep.
605-610	682-684	755-760		
610-615	684-689	760-765		* if Au ≥ .05 OPT
615-620	689-694	765-770		repeat with grav. finish
620-625	694-699	770-775		
625-630	699-704	775-780		
630-635	704-709	780-785		
635-640	709-714	785-790		
640-645	714-719	790-795		
645-650	719-724	795-800		
650-655	724-729			
655-660	729-734			

COARSE REJECTS (Normally Discarded)

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

PULPS (Normally Stored Free For One Month)

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

RESULTS AND INVOICES TO BE SENT TO:

Please mark invoice person and address [I]

(1) Charlie Muerhoff

(2)

(3)

Comments:

CLIENT FILE COPY