60001497

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 94-319
AUTHOR	C. Muerhoff; S. Fairclotth; L. Bernard
DATE OF DOC(S)	1994
MULTI_DIST Y / N? Additional Dist_Nos:	
QUAD_NAME	Sulphur 7.5'
P_M_C_NAME (mine, claim & company names)	Rosebud Mine; Rosebud Project; Hecla Mining Co., North Zone
COMMODITY If not obvious	gold silver
NOTES	Drill log; geology; assay; total depth 960' handwritten notes 30p.

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

SS: DD 5/29/08
Initials Date
DB: mah
Initials Date
SCANNED: NV Blue
Initials Date

Revised: 1/22/08

94-319 NORTH ~~EAST~~ ZONE

60001497 4010

Hecla
MINING COMPANY

ROSEBUD PROJECT
DIAMOND DRILL LOG

HOLE NUMBER	94-319	LOCATION	North Zone	REMARKS	
PAGE 1 OF	10	NORTHING	2204169.2	RC to 495	
DATE	12/1	EASTING	482460.7	CORE from 495 to 900	
LOGGED BY	LJD	ELEVATION	5314.3		
SCALE	RC 1"=20' CORE 1"=10'	AZIMUTH	87.5°		
TOTAL DEPTH	900.0'	INCLINATION	-89.5°		

REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		0-75 Tanish chips w/ orange FeOx + clay coatings. Poss clastic texture, (wk)	20, 40, 60			0-75 mod FeOx
		75-85 purple Tuff?	80			purple hem Tuff
		85-115 Tanish Tuff w/ fine white cryst	100			85-115 wk FeOx

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
0	15	15	opt <.001	opt <.02		
15	25	10				
25	35	10				
35	45	10				
45	55	10				
55	65	10				
65	75	10				
75	85	10				
85	95	10				
95	105	10	.002			

HOLE NUMBER 94-319 PAGE 2 OF

REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		115-235 dk-brown maroon hem Tuff	120, 140, 160, 180, 200, 220, 240			115-135 hem Tuff 135-145 mod Fe ox 145-235 hem Tuff

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
105	115	10	<.001	<.002		
115	125	10				
125	135	10				
135	145	10				
145	155	10				
155	165	10				
165	175	10				
175	185	10				
185	195	10				
195	205	10				
205	215	10				
215	225	10				
225	235	10				
235	245	10				

HOLE NUMBER 94-319 PAGE 3 OF 10

FEC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		245-305 lt+med green chlor Ashy-fine grain volcaniclastic text, fine clay coatings	260, 280, 300			245-305 wk-mod chl-illitic v. fine py dissem
		305-335 lt and dk green, fine grain volcanic clastic? poss wk bedding and sorting of clasts	320			305-335 mod chl fine py dissem
		335-375 white/pale green chlor w/ mod py dissem Ashy	340, 360, 380			

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
245	255	10	.001	.03		
255	265	10	.001	.05		
265	275	10	.002	.03		
275	285	10	<.001	<.02		
285	295	10	<.001	.03		
295	305	10	<.001	.03		
305	315	10	.002	.08		
315	325	10	.002	.04		
325	335	10	<.001	<.02		
335	345	10	.002	.04		
345	355	10	.002	.04		
355	365	10	.002	.03		
365	375	10	.005	.04		
375	385	10	.001	.02		

HOLE NUMBER 94-319 PAGE 4 OF 10

REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		375-405 SAS, but purplish color and 10% hematitic brown clastic chips	400			375-405 wk-mod hem + FeOx
		415-435 fine ashy Tuff w/ mod pyrite lt gray	420			415-435 wk sil
		435-475 Mixed lt green chl chips, brown FeOx chips, white chips, purple chips clastic textures Heterolithic volcaniclastic	440, 460			
		475-495 SAS w/ more hem chips 50%	480, 500			
		↓ SEE 1"=10' CORE LOGS	520			

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
385	395	10	<.001	<.02		
395	405	10	<.001	<.02		
405	415	10	.010	.14		
415	425	10	.005	.04		
425	435	10	.003	.03		
435	445	10	.001	.02		
445	455	10	.001	.02		
455	465	10	.003	.06		
465	475	10	.003	.03		
475	485	10	.002	.03		
485	495	10	.001	.02		

HOLE NUMBER 94-319 (Core) LJB 11/1/94 PAGE 5 OF 10

1

REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ag2
495	498	495-531 Heterolithic Volcanicbreccia fine grain 10-30% matrix supported clasts, sub-angular to sub rounded, 1/10-3" in diam, matrix and clast supported gray, white, and polylithic clasts. Hgray matrix, py dissem in matrix + clasts mod-Argillic	500		495-505 .2 frac/ft @ 35	495-531 mod argillic wk-mod qtz-py ± more vnlets, tr white clay Vn @65	495	505	10				
	503				501 3-4" gouge zone white clay @35								
	505		510		505-518 .5 frac/ft @ 50, 20	508-511 silica cemented qtz cemented rubble bx w/ dissem py grains	505	518	13				
	518		520		518-528 .4 frac/ft @ 40		518	531	13				
	528		530		528-538 .3 frac/ft @20	531-546 hem matrix chl + Argillic clasts v. wk py dissem minor white clays of frac	531	538	7				
	538	531-588.7 Heterolithic volcaniclastic, clast supported green, gray, tan, + white clast, sub-angular 1/10" to 6". Matrix is Ashy to fine grain and either hem or chl. w/ v. wk py dissem. Clast w/ variable py dissem	540		538-548 .4 frac/ft @60	546-581 chl matrix chl clast >> Argillic minor white clay on frac	538	548	10				
	548		550		548-558 .6 frac/ft @60		548	558	10				
	558		560				558	568	10				

HOLE NUMBER 94-319 PAGE 6 OF 10

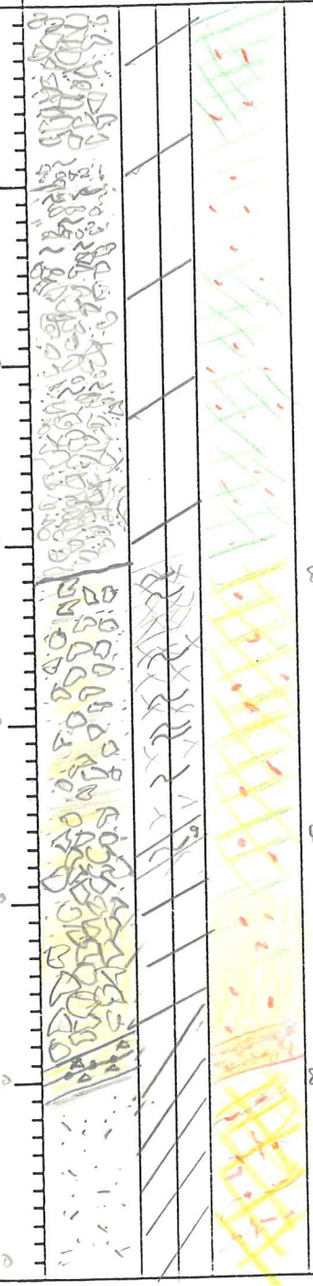
REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ag2
		SEE ABOVE			558-568 .2 frac/ft @ 70								
	568				568-578 .3 frac/ft @ 70		568	578	10				
			570										
	578				578-588 .3 frac/ft @ 40		578	588	10				
		581-588.7 Addition large foliated clasts	580			581-588.7 hem matrix argillic >> chl clasts							
	588				588 1" shear @ 70		588	598	10				
		588.7-635 mottled green Ashy volcaniclastic foliated in places w/ finer clasts, 1/4-1" chl clast matrix clast supported < 10% Argillic clast foliation @ 80 contact shear @ 70	590		590.5 1" shear @ 80 588-598 .5 frac/ft @ 70	588.5-818 str chl							
	598				598-608 .1 frac/ft @ 80		598	608	10				
			600		605.5-606 6" shear zone @ 80								
	608				608-618 .4 frac/ft @ 60		608	618	10				
			610										
	618	increasing Argillic clast 10-15%	620		618-628 .2 frac/ft @ 60		618	628	10				
	628		630			629 3/4" qtz-ba-more @ 50	628	638	10				

HOLE NUMBER 94-319 PAGE 7 OF 10

REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ag2
	635	635-638 SAS bot w/ chl zonal clast 638-642.5 Ashy volcaniclastic w/ 1/10-1/5" clasts. dk chl clasts in a lt green matrix matrix supported	640		628-638 .3 frac/ft @60 634 4" shear @ 70 frg. 634.5-635 6" shear 638-648 .2 frac/ft @30	635-648 wk chl alt. minor py vnlets	638	648	10				
	645	642.5-652 Mixed Ashy and sandy volcaniclastic 1/10-1/5" clast supported bedding @70			645 3" grg @30? 648-658 .5 frac/ft @70	644 1/4 qtz-barite-marc vn @0 vugy	648	658	10				
	658	652-671 dk green Ashy volcaniclastic Contact @70 hetrolithl green chl clasts > white Argillic clasts. Clast to matrix supported 1/5-1/2" clasts, Angular with a Mozaic Text or ribon text in places wk ribbon foliation @70 orientated clasts (@70 orientated)	660		652 w/ shearing @70 1 ft 658-668 .3 frac/ft @ 55	652-671 str chl matrix chl > Argillic clasts fine py dissem	658	668	10				
	668		670		668-678 .2 frac/ft @ 50	671-701 wk chl matrix + clasts minor Argillic clasts discontinuous py vnlets + blebs	668	678	10				
	678	671-701 lt - med green waxy Ashy volcaniclastic matrix + clast supported 1/10-1" clasts wk foliation in matrix @55	680		678-701 ~.4 frac/ft @ 50		678	688	10				
			690				688	698	10				
			700				698	708	10				

REC	RQD	LITHOLOGY	FT.	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ag2
		Contact @ 60 SAb but mod-str chl alt 701-717 lesser matrix - clast supported v. wk foliation @55				701-717 SAb but str chl alt	708 ESO GEOchem	717 for	9 30 ft				
		707 or 717	710				Custom prep						
		Contact @ 45 707-748.3 Ashy white-grey pinkish Tuff, mod argillic wk-str sil 701-732.5 clay, py, and chl alt feldspars 732.5-738.3 hydrobx	720		717-748 .6 fracld @ 50+20+70	717-732.5 mod Argillic wk sil str chl on fracs, minor chl veinlets at high angles minor white clay films	717 722 727	722 727 732	5 5 5				
Approx 100%	.90-.96 RQP		730			732.5-748.3 mod rubble bx w/ qtz ± marc cements and white clay filling Also: vertical qtz, marc, chlorite vn 1/4-1/2" dk sulfide halos around marc str sil	732 737 742	737 742 747	5 5 5				
		Contact @ 85 748.3-802.5 matrix-clast supported volcaniclastics Bands of lt green waxy matrix and dk green matrix clasts sub-angular to sub-rounded 1/16 - 1/4" - 2" heterolithic wk foliation @70 minor siltstone clast (blk/gry bands)	750 760 770		748-802.5 ~ .6 fracld @ 60 768-790 gouge zone (green)	748.5-667 wk-mod chl Alt 667-802 mod-wk chl alt 667-802 mod-wk chl alt bands of wk waxy green	747 RESTART GEOchem 748.5 758 768	748.5 758 768	1.5 9.5 10 10				

HOLE NUMBER 94-319 PAGE 9 OF 10

REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ag2
			780				778	788					
							788	798					
							END	GEO chem					
							custom prep ↓						
			740				798	802.5	4.5				
		contact @80	800				802.5	804	1.2 *				
		802.5 - 828.5 Heterolithic volcaniclastic w/ matrix replaced by either white clay (gouge?) or silica flooding green > white - v. pale gr, > Tan clast clast supported 1/8" - 2" Angular to sub-ang SRF EZ-SZ	810		802.5 - 816 str crushed rock w/ numerous gouge zone on frac	802.5 sil flooded 820 followed by white clay gouge mod qtz vn, minor py veinlets + dissem blebs pre chl alt.	804	808	4				
							808	813	5				
					816-817 white clay gouge @55		813	818	5				
			820			820 str sil flooding w/ coarse blebs of py-marc ± dk fine sulf replacements (minor) minor white clays	818	823	5				
							823	828.5	5.5				
		828.5 - 831 wh, dk gy, bk qtz vn bx contact sharp @70	830		831 4" white gouge	828.5 - 831 dk sil bx vn w/ fine dissem sulf. + py blebs	828.5	831	2.5 *				
		831 - 861 fine-med grain white/gray silica Tuff w/ fine alt feld?? - white clays mod-str sil, wk argillic DT ?			831 - 861 ~ 1.6 frac/ft @35 449 → @60	831 - 861 mod-str sil white clay on frac @30-45 ± py-marc	831	833	3 *				
							833	838	5				
			840				838	843	5				

REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ag2
							843	848	5				
							848	853	5				
			850				853	858	5				
							858	863	5				
		861-900 EOH Ashy to fine grain mod foliated Tuff @70 mixture of fine ashy pumiceous shards and fine grain ash Tan to lt gray-white mod sil, wk argillic	860		860.3 1" wk clay gouge 861-900 @60? ~ 1.2 frac/ft @ 70,40,30 869 4" white clay gouge @25? 878.4 1" lt gray gouge @65	861-900 EOH mod fine (1/20) (ftz) py unleft str clay films on frac (white) ± silica + marc wk argillic/mod sil	863	868	5				
			870				868	873	5				
							873	878	5				
			880				878	883	5				
							883	888	5				
			890				888	893	5				
						896-900 ½ str Argillic Alt	893	896	3 *				
							896	900	4				
			900 EOH										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # 94-319 DATE: 11/2/94 LOGGED BY: LJB PAGE 1 OF ____

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)	
798	808	67	100	.64		R2	.8 fracRk	60	R	white clay chl Rk	800	435.7	170	2.6	
808	816	34	100	.30		R2	\	\	\	\	\	\	\	\	
816	818	75	94	.75		R2	fracRk	—	R	white clay	810	769.9	300	2.6	1
818	828	95	95	.62		R2	1.3	60	R	SAB	820	486.9	200	2.4	2
828	838	62	88	.43		R4	1.6	40	R	SAB	830	639.4	245	VEIN 2.6	3
838	848	72	99	.25		R2	2.1	60	R	SAB	842	668.1	265	2.5	4
848	858	97	101	.72		R3	1.3	60	R	SAB	850	684.7	280	2.4	5
858	868	86	100	.64		R3	1.7	30	R	SAB	862	591.2	240	2.5	6
868	878	91	100	.70		R3	1.0	30	R	SAB	870	537.9	220	2.4	7
878	888	101	102	.70		R3	1.1	30,70	R	SAB	880	695.1	280	2.5	8
888	898	89	95	.52		R3	2.0	30	R	SAB	892	572.5	225	2.5	9
898	900	125	125	1.25		R2	—	—	—						

PROVISIONAL REPORT

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

[illegible] MINING CO.

COPIES TO : CHARLIE MUERHOFF

CLIENT REFERENCE No: 94-319

LABORATORY JOB No : SP031543

SAMPLE TYPE :

RECEIVED : 4 NOV 1994

REPORTED : 15 NOV 1994

No. SAMPLES : 27

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

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 94-319
JOB NUMBER : SP031543
REPORTED : 15 NOV 1994

SAMPLES	Au(OZ)	Au(OZ)	Ag(OZ)
94-319 495-505	0.001		0.04
94-319 505-518	0.002		0.13
94-319 518-531	<0.001		0.02
94-319 531-538	<0.001		<0.02
94-319 538-548	0.002		0.07
94-319 548-558	0.001		0.06
94-319 558-568	0.001	0.001	0.05
94-319 568-578	<0.001		0.03
94-319 578-588	0.002		0.05
94-319 588-598	<0.001		<0.02
94-319 598-608	<0.001		<0.02
94-319 608-618	<0.001		<0.02
94-319 618-628	0.001		0.02
94-319 628-638	0.001		0.03
94-319 638-648	0.002		0.05
94-319 648-658	0.005		0.03
94-319 658-668	0.001		0.05
94-319 668-678	0.010		0.08
94-319 678-688	0.010		0.03
94-319 688-698	0.003		0.03
94-319 698-708	0.003	0.003	0.03
94-319 708-717	0.002		0.30
94-319 748.5-758	0.002		0.03
94-319 758-768	0.008		0.04
94-319 768-778	0.002	0.003	0.05

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 94-319
JOB NUMBER : SP031543
REPORTED : 15 NOV 1994

SAMPLES	Au(OZ)	Ag(OZ)
94-319 778-788	0.002	0.05
94-319 788-798	0.003	0.08

PROVISIONAL REPORT

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

[redacted]

COPIES TO : CHARLIE MUERHOFF

:

:

:

CLIENT REFERENCE No: 94-319 RECEIVED : 4 NOV 1994

LABORATORY JOB No. : SP031544 REPORTED : 15 NOV 1994

SAMPLE TYPE : No. SAMPLES : 30

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au(OZ)	FA60	15%	OPT	0.001
Au(RZ)	FA60	15%	OPT	0.001
Ag(OZ)	DA10	10%	OPT	0.02

[redacted]

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 94-319
JOB NUMBER : SP031544
REPORTED : 15 NOV 1994

SAMPLES	Au(oz)	Au(oz)	Ag(oz)
94-319 717-722	0.009		0.09
94-319 722-727	0.030		0.07
94-319 727-732	0.009		0.10
94-319 732-737	0.012		0.08
94-319 737-742	0.014		0.07
94-319 742-747	0.043	0.038	0.20
94-319 747-748.5	0.008		0.06
94-319 798-802.5	0.004		0.07
94-319 802.5-804	0.005		0.08
94-319 804-808	0.014		0.09
94-319 808-813	0.005		0.20
94-319 813-818	0.018		0.73
94-319 818-823	0.015		0.11
94-319 823-828.5	0.015		7.00
94-319 828.5-831	0.020		0.02
94-319 831-833	0.004		0.08
94-319 833-838	0.003		0.08
94-319 838-843	0.002		0.07
94-319 843-848	0.004	0.004	0.37
94-319 848-853	0.002		0.07
94-319 853-858	0.004		0.11
94-319 858-863	0.003		0.09
94-319 863-868	0.005		0.08
94-319 868-873	0.007		0.06
94-319 873-878	0.013		0.05

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 94-319
JOB NUMBER : SP031544
REPORTED : 15 NOV 1994

94-319 878-883	0.003	0.05
94-319 883-888	0.002	0.07
94-319 888-893	0.014	1.36
94-319 893-896	0.002	0.07
94-319 896-900	0.008	0.25

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: Number of Packages: 18 [ ] Prepaid [ ] Collect

Logged 11/1/94

ANALYSIS REQUIRED

(94-319)	SAMPLE	TYPE	ELEMENTS REQUIRED
495-505	648-658	CORE	Au & Ag 1 AT FA
505-518	658-668		standard prep
518-531	668-678		
531-538			
538-548			* if Au ≥ 1500 ppb
548-558			repeat w/ gmv. finish
558-568			
568-578			
578-588			
588-598			
598-608			
608-618			
618-628			
628-638			
638-648			

COARSE REJECTS (Normally Discarded)

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

PULPS (Normally Stored Free For One Month)

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

RESULTS AND INVOICES TO BE SENT TO:

Please mark invoice person and address [I]

(1)

(2)

(3)

Comments:

Samples ≤ 5 Lb

Low Priority

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: 11/2/94 Number of Packages: 9 [ ] Prepaid [ ] Collect

sampled 11/22/94

ANALYSIS REQUIRED

94-319 SAMPLE	TYPE	ELEMENTS REQUIRED
678-688	CORE	Au & Ag 1 AT FA ppb
688-698		standard prep
698-708		
708-717		* if Au ≥ 1500 ppb
GAP		report w/ grav. finish
~~748.5-758~~		
748.5-758		
758-~~778~~ 768, 768-778		
778-788		
788-~~798~~ 798		

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:

Low Priority

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: Number of Packages: 30 [ ] Prepaid [ ] Collect

ANALYSIS REQUIRED

94-319	SAMPLE	TYPE	ELEMENTS REQUIRED
717-722	828.5-831	CORE	Au & Ag 2 AT FA
722-727	831-833		w/ Hecla-Rosebud custom prep.
727-732	833-838		
732-737	838-843		* if Au ≥ .05 OPT
737-742	843-848		repeat w/ grav finish
742-747	848-853		
747-748.5	853-858		
	858-863		
798-802.5	863-868		
802.5-804	868-873		
804-808	873-878		
808-813	878-883		
813-818	883-888		
818-823	888-893		
823-828.5	893-896 , 896-900		

COARSE REJECTS (Normally Discarded)

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

PULPS (Normally Stored Free For One Month)

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

RESULTS AND INVOICES TO BE SENT TO:

Please mark invoice person and address [I]

(1) Charlie Muerhoff

(2)

(3)

Comments:

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SAMPLE SUBMITTAL FORM

American Assay Laboratories Inc.

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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: 9/9/94 Number of Packages: [ ] Prepaid [ ] Collect

ANALYSIS REQUIRED

SAMPLE	TYPE	ELEMENTS REQUIRED
94-319 0-15	RC	Au ppb 1AT FA
15-25	chips	
25-35		
10 ft		
samples		
445-455		
455-465		
465-475		

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

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

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:

:

CLIENT REFERENCE No: 94-319

LABORATORY JOB No. : SP031240

SAMPLE TYPE :

RECEIVED : 10 OCT 1994

REPORTED : 20 OCT 1994

No. SAMPLES : 49

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 : Sue Faircloth M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 94-319
JOB NUMBER : SP031240
REPORTED : 20 OCT 1994

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
94-319 00-15	<0.001		<0.02
94-319 15-25	<0.001	<0.001	<0.02
94-319 25-35	<0.001		<0.02
94-319 35-45	<0.001		<0.02
94-319 45-55	<0.001		<0.02
94-319 55-65	<0.001		<0.02
94-319 65-75	<0.001		<0.02
94-319 75-85	<0.001		<0.02
94-319 85-95	<0.001		<0.02
94-319 95-105	0.002		<0.02
94-319 105-115	<0.001		<0.02
94-319 115-125	<0.001	<0.001	<0.02
94-319 125-135	<0.001		<0.02
94-319 135-145	<0.001		<0.02
94-319 145-155	<0.001		<0.02
94-319 155-165	<0.001		<0.02
94-319 165-175	<0.001		<0.02
94-319 175-185	<0.001	<0.001	<0.02
94-319 185-195	<0.001		<0.02
94-319 195-205	<0.001		<0.02
94-319 205-215	<0.001		<0.02
94-319 215-225	<0.001		<0.02
94-319 225-235	<0.001		<0.02
94-319 235-245	<0.001		<0.02
94-319 245-255	0.001		0.03

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 94-319
JOB NUMBER : SP031240
REPORTED : 20 OCT 1994

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
94-319 255-265	0.001		0.05
94-319 265-275	0.002		0.03
94-319 275-285	<0.001		<0.02
94-319 285-295	<0.001		0.03
94-319 295-305	<0.001		0.03
94-319 305-315	0.002		0.08
94-319 315-325	0.002		0.04
94-319 325-335	<0.001		<0.02
94-319 335-345	0.002		0.04
94-319 345-355	0.002		0.04
94-319 355-365	0.002		0.03
94-319 365-375	0.005		0.04
94-319 375-385	0.001		0.02
94-319 385-395	<0.001		<0.02
94-319 395-405	<0.001		<0.02
94-319 405-415	0.011		0.14
94-319 415-425	0.005		0.04
94-319 425-435	0.003		0.03
94-319 435-445	0.001		0.02
94-319 445-455	0.001		0.02
94-319 455-465	0.003		0.06
94-319 465-475	0.003	0.002	0.03
94-319 475-485	0.002		0.03
94-319 485-495	0.001		0.02

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.

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CLIENT REFERENCE No: 94-319

LABORATORY JOB No. : SP031543

SAMPLE TYPE :

RECEIVED : 4 NOV 1994

REPORTED : 17 NOV 1994

No. SAMPLES : 27

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 : Sue Faircloth M.S.

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 94-319
JOB NUMBER : SP031543
REPORTED : 17 NOV 1994

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
94-319 495-505	0.001		0.04
94-319 505-518	0.002		0.13
94-319 518-531	<0.001		0.02
94-319 531-538	<0.001		<0.02
94-319 538-548	0.002		0.07
94-319 548-558	0.001		0.06
94-319 558-568	0.001	0.001	0.05
94-319 568-578	<0.001		0.03
94-319 578-588	0.002		0.05
94-319 588-598	<0.001		<0.02
94-319 598-608	<0.001		<0.02
94-319 608-618	<0.001		<0.02
94-319 618-628	0.001		0.02
94-319 628-638	0.001		0.03
94-319 638-648	0.002		0.05
94-319 648-658	0.005		0.03
94-319 658-668	0.001		0.05
94-319 668-678	0.010		0.08
94-319 678-688	0.010		0.03
94-319 688-698	0.003		0.03
94-319 698-708	0.003	0.003	0.03
94-319 708-717	0.002		0.30
94-319 748.5-758	0.002		0.03
94-319 758-768	0.008		0.04
94-319 768-778	0.002	0.003	0.05

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 94-319
JOB NUMBER : SP031543
REPORTED : 17 NOV 1994

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
94-319 778-788	0.002		0.05
94-319 788-798	0.003		0.08

ANALYSIS REPORT

American Assay Laboratories

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Telex:

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CLIENT REFERENCE No: 94-319

LABORATORY JOB No. : SP031544

SAMPLE TYPE :

RECEIVED : 4 NOV 1994

REPORTED : 17 NOV 1994

No. SAMPLES : 30

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

CK to PY
14375 - 477
CM

SIGNATORY : Sue Faircloth M.S.

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 94-319
JOB NUMBER : SP031544
REPORTED : 17 NOV 1994

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
94-319 717-722	0.009		0.09
94-319 722-727	0.030		0.07
94-319 727-732	0.009		0.10
94-319 732-737	0.012		0.08
94-319 737-742	0.014		0.07
94-319 742-747	0.043	0.038	0.20
94-319 747-748.5	0.008		0.06
94-319 798-802.5	0.004		0.07
94-319 802.5-804	0.005		0.08
94-319 804-808	0.014		0.09
94-319 808-813	0.005		0.20
94-319 813-818	0.018		0.73
94-319 818-823	0.015		0.11
94-319 823-828.5	0.015		7.00
94-319 828.5-831	0.020		0.02
94-319 831-833	0.004		0.08
94-319 833-838	0.003		0.08
94-319 838-843	0.002		0.07
94-319 843-848	0.004	0.004	0.37
94-319 848-853	0.002		0.07
94-319 853-858	0.004		0.11
94-319 858-863	0.003		0.09
94-319 863-868	0.005		0.08
94-319 868-873	0.007		0.06
94-319 873-878	0.013		0.05

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 94-319
JOB NUMBER : SP031544
REPORTED : 17 NOV 1994

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
94-319 878-883	0.003		0.05
94-319 883-888	0.002		0.07
94-319 888-893	0.014		1.36
94-319 893-896	0.002		0.07
94-319 896-900	0.008		0.25

Hecla Mining Co
Rossland Project
94-319
1 INCH
DOWN HOLE

Hecla Mining Co
Eastbond Project
94-319
1 INCH
DOWN HOLE
1
618
679
0-1
C-14

Hecla Mining Co.
Rosebud Project
94-319
1 INCH
DOWN
Hole
678

Hecla Mining Co.
Rosebud Project
94-319
1 INCH
DOWN HOLE
858

Hecla Mining Co.
Rossland Project
94-319
1 INCH
DOWN HOLE
319

Hecla Mining Co
Rosebud Project
94-319
1 INCH
DOWN HOLE
638

Hecla Mining Co
Rosebud Project
94-319
1 INCH
DOWN
Hole
618

809
DOWN HOLE
1 INCH
94-319

598
94-319
DOWN
UPHOLE

Hecla Mining Co.
Rosebud Project
94-319
1 INCH
DOWN HOLE

Hecla Mining Co
Rossland Project
94-319
1 INCH
DOWN HOLE
87.5

Hecla Mining Co
Rossland Project
94-319
1 INCH
Down Hole
568

Rosebud Project
94-319
1 INCH
DOWN HOLE

94-319
1 INCH
DOWN HOLE
845

Hecla Mining Co
Rosebud Project
94-319
1 INCH
DOWN HOLE
538

Hecla Mining Co
Rossland Project
94-319
1 MKR
DOWN
528

Rosebud Project
94-319
1 INCH
DOWN HOLE
518

Hecla Mining Co
Rosebud Project
94-319
1 INCH
DOWN
HOLE
505
508

Hecla Mining Co
Rosebud Project
94-319
1 INCH
DOWN HOLE
503
848

DOWN HOLE
INCH
94-319
Rossing Trench

Hecla Mining Co
Rossland Project
94-319
1 INCH
DOWN HOLE
858

Hecla Mining Co.
Rossland Project
94-319
1 INCH
DOWN HOLE
8748

Hecla Mining Co
Rosebud Project
94-319
1 INCH
DOWN Hole
8238

Hecla Mining Co.
Rosebud Project
94-319
1 INCH
DOWN HOLE
B28

Hecla Mining Co.
Rossland Project
94-319
1 INCH
DOWN HOLE
9/8
8/8

Hecla Mining Co
Rossland Project
94-319
1 INCH
DOWN HOLE
808

Hecla Mining Co
Rossland Project
94-319
1 INCH
DOWN HOLE
798

Hecla Mining Co
Rosebud Project
94-319
1 INCH
DOWN HOLE
788

Hecla Mining Co.
Rossland Project
94-319
DOWN HOLE
1 INCH
778

Hecla Mining Co
Rosebud Project
94-319
1 INCH
Down Hole
768

Hecla Mining Co.
Rosebud Project
94-319
DOWN HOLE
1 INCH
857

Hecla Mining Co
Rosebud Project
94-319
1 INCH
DOWN HOLE
748

Hecla Mining Co.
Rastbud Project
94-319'
1 INCH
Down Hole
BCC
73'

Hecla Mining Co
Rosebud Project
94-319
1 INCH
DOWN
Hole
822

Hecla Mining Co
Eastbind Project
94-319
1 inch
2 inch
715
719

Hecla Mining Co
Rosebud Project
94-319
1 INCH
DOWN HOLE
788

Rosebud Project
94-319
1 INCH
DOWN HOLE
369

Hecla Mining Co
Rosebud Project
94-319
1 INCH
DOWN HOLE
888

Hecla Mining Co
Rosebud Project
94-319
1 INCH
DOWN HOLE

Hecla Mining Co
Rosebud Project
94-319
1 INCH
DOWN HOLE

Hecla Mining Co
Rossland Project
94-319
1 INCH
DOWN HOLE
8968
920

888
D-D'
C-D'

Hecla Mining Co
Rosebud Project
94-319
DOWN HOLE
UPHOLE
878

Hecla Mining Co.
Rosebud Project
94-3119
1 INCH
DOWN HOLE
698
898