60001635

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. RL-257
AUTHOR	R. Stocker; T. Kuhl; K. Kennel; V. Peterson P Grafft
DATE OF DOC(S)	1992
MULTI_DIST Y / (N?) Additional Dist_Nos:	
QUAD_NAME	Sulphur 7.5'
P_M_C_NAME (mine, claim & company names)	Rosebud Mine; Rosebud Project; Dreamland; Lac Minerals (USA) Inc; Stevens Drilling; Barringer Laboratories Inc.
COMMODITY If not obvious	gold silver
NOTES	Drill log; geology; assay; total depth 800' handwritten notes; directional survey ~~22~~ p. 24

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 6/3/08
Initials Date
DB: mah
Initials Date
SCANNED: N Blue
Initials Date

Revised: 1/22/08

Drill Log RL-257
Rosebud Dreamland

60001635 4010

60001635

LAC MINERALS (U.S.A.) INC.

DRILL LOG SUMMARY SHEET

PROJECT Rosebud

HOLE NUMBER RL 257 TOTAL DEPTH 800 LOGGED BY RKS

Date started 3/7/92

Date completed 3/10/92

Initial bearing -

Initial inclination -90°

Elevation

Collar coordinates:

N

E

Contractor: Stevens

Drill Type: R.C

Hole Size: 5¼

Drilling Conditions: Good

Footage: Wet / Dry 0-245 dry

245-800 wet

Comments: Observed Barite in a zone Below SRF2: Produced alot of H_2O: Good alteration

DOWN HOLE SURVEY INFORMATION

FROM	TO	SURVEY POINT	INCLI-NATION	BEARING	X (Northing)	Y (Easting)	Z (Elevation)

LAC MINERALS (U.S.A.) INC.
ROSEBUD PROJECT

DRILL HOLE RL-257

Page 1 of 8

FINE-GRAINED TUFF
BEDDED BUD LLT
VOLCANICLASTIC
PORPHYRITIC TUFF
FLOW BANDED TUFF

VEIN TYPES

DRUZY QUARTZ
Xc CHALCEDONIC
XK STOCKWORK
Ca CALCITE
HYDROTHERMAL BRECCIA VNS
Ba BARITE

LOGGED BY RKS

FT.	LITHO	FRACTS FAULTS	VEIN TYPES	BLEACH W	BLEACH M	BLEACH S	CLAY W	CLAY M	CLAY S	SILIC W	SILIC M	SILIC S	COLOR	% FeOx W	% FeOx M	% FeOx S	% SULF.	Time Start 9:30 am COMMENTS	ROD CONN.	Ag	Au	✓
													Brn org pnk				0	OB		.01	.001	.001
05													↓				0	↓ I think we may be in Bedrock but also of contamination from blow-by		.03	.003	
10	Ct												H Grn org Yllw					Ct(?) Protolith cannot be determined +000 → Blasted		.08	.003	
15													H Grn H Org Yllw Org					(clay alt incr.)		.14	.005	
20													↓					↓	X	.10	.005	
25													Grey Yllw Org							.21	.012	
30													↓							.20	.011	
35													↓							.12	.004	
40													H Grey Yllw Org						X	.13	.004	.005
45													H Grn H Grey Yllw Org							.15	.005	
50			XK															minor Qtz vn		.12	.007	
55			XK										Flesh					trace Qtz (minor slfd)		.10	.004	
60													Org Yllw				✓	Strg FeOx	X	.15	.008	
65			↓										Org Yllw Grey				.1	ox Redox surf 1st sign of sulf.		.17	.005	
70													↓				.1	Inter clay alt		.10	.004	
75													H Green Flesh Grey				1	↓ (Strg clay alt & sulf)		.08	.001	
80																	1		X	.30	.002	
85		Δ	XK										wht Org				.5	minor Bx & FeOx		.54	.004	.004
90			XK										H Grey Grey wht H Grn				.5	Slight incr sulf		.18	.004	
95			XK															Pyroclastic Rt change w/ slicks		.09	.002	
100																						

LAC MINERALS (U.S.A.) INC.
ROSEBUD PROJECT

DRILL HOLE RL-257

Page 2 of 8

FINE-GRAINED TUFF
BEDDED BUD LLT
VOLCANICLASTIC
PORPHYRITIC TUFF
FLOW BANDED TUFF

VEIN TYPES

DRUZY QUARTZ
Xc CHALCEDONIC
XK STOCKWORK
Ca CALCITE
HYDROTHERMAL BRECCIA VNS
Ba BARITE

LOGGED BY _____

FT.	LITHO	FRACTS FAULTS	VEIN TYPES	BLEACH W	BLEACH M	BLEACH S	CLAY W	CLAY M	CLAY S	SILIC W	SILIC M	SILIC S	COLOR	% FeOx W	% FeOx M	% FeOx S	% SULF.	COMMENTS	RQD CONN.	Ag	Au	✓
			xk										Flesh-red Grey Wht				.5	SAA Pyroclastic – (Trace Qtz vn & Gran clay vn)	X	.10	.004	
105																	.5			.10	.002	
110			xk																	.29	.006	
115																				.18	.006	
120																	1	(Incr org alt & sulf & Qtz trace Wht Kaolin)	X	.13	.020	
125																	1			.08	.002	.002
130																	.5	(w/ micro Qtz vns & slfd)		.09	.007	
135																	.5	(Incr clay decr. slfd)		.05	.002	
140																	1	(Incr. slfd & sulf.) (sulf are micro fine, dissem)	X	.09	.003	
145																	1	(trace wht Kaolin)		.10	.003	
150																	.5			.10	.005	
155																	1	Slight incr. Qtz		.11	.003	
160																	.5	~35% Qtz trace FeOx	X	.12	.003	
165													Green Wht Yllw Grey							.07	.002	
170													Green Wht					maybe a Rx change Fine Grain tuff		.09	.005	.003
175																				.05	.002	
180																		(trace Druzy Qtz)	X	.05	.002	
185													Green							.06	.002	
190																		(Slight incr sulf & Qtz)		.08	.004	
195													Grey Green							.09	.002	
200																						

LAC MINERALS (U.S.A.) INC.
ROSEBUD PROJECT

DRILL HOLE RL-257

Page 3 of 8

FINE-GRAINED TUFF
BEDDED BUD LLT
VOLCANICLASTIC
PORPHYRITIC TUFF
FLOW BANDED TUFF

VEIN TYPES

DRUZY QUARTZ
Xc CHALCEDONIC
XK STOCKWORK
Ca CALCITE
HYDROTHERMAL BRECCIA VNS
Ba BARITE

LOGGED BY

FT.	LITHO	FRACTS FAULTS	VEIN TYPES	BLEACH W	BLEACH M	BLEACH S	CLAY W	CLAY M	CLAY S	SILIC W	SILIC M	SILIC S	COLOR	% FeOx W	% FeOx M	% FeOx S	% SULF.	COMMENTS	ROD CONN.	Ag	Au	✓
		minor Fract	XK										Gry Grn				.5	SAA. Fine Grain tuff - (Slfd; w/kaolin)	X	.15	.003	
205																				.22	.003	
210													Green H Grn					(minor Bx)		.82	.004	.004
215													H Grn Flesh Wht					(mod Bx) (Δ color of Rx - ∴ may be a Rx change too?)		1.09	.005	
220																			X	.72	.005	
225													Flesh H Grey							.13	.003	
230																				.14	.005	
235													H Grey Wht					Over 50% Qtz; Fault zone - Brecciated		.08	.003	
240		fault											H Grey H Grn				1	may be a rck change	X	.08	.004	
245																	1	Still Fine Grain to fine grain tuff ≥ no phenos observed		.23	.003	
250													H Grey Wht				1	(w/ Botr. sulf)		.56	.007	
255		fract															1			.14	.003	.003
260																	1	Grad decr. in silica pbod	X	.07	.002	
265																	1			.08	.003	
270													H Grey Flesh Wht							.07	.003	
275																				.07	.004	
280																			X	.08	.003	
285																				.09	.003	
290																				.06	.003	
295																	2	Gry ~10% Qtz Gry sulf; Py, Mc		.06	.004	.004
300																						

H_2O ~30 GPM

~40 GPM

LAC MINERALS (U.S.A.) INC.
ROSEBUD PROJECT

DRILL HOLE RL-257

Page 4 of 8

FINE-GRAINED TUFF
BEDDED BUD LLT
VOLCANICLASTIC
PORPHYRITIC TUFF
FLOW BANDED TUFF

VEIN TYPES

DRUZY QUARTZ
Xc CHALCEDONIC
XK STOCKWORK
Ca CALCITE
HYDROTHERMAL BRECCIA VNS
Ba BARITE

LOGGED BY

FT.	LITHO	FRACTS FAULTS	VEIN TYPES	BLEACH W	BLEACH M	BLEACH S	CLAY W	CLAY M	CLAY S	SILIC W	SILIC M	SILIC S	COLOR	% FeOx W	% FeOx M	% FeOx S	% SULF.	COMMENTS	ROD CONN.	Ag	Au	✓
			XK										lt Grey Flesh Wht				2	SAA F.G. Tuff strg sulf & stockwk Qtz	X	.016	.004	
305													lt Grey lt Flesh lt Grn Wht				1	(micro fine dissem sulf.)		.016	.003	
310																	1			.04	.002	
315																	1			.08	.003	
320													Grey Grn				3	strg sulf; Δ color	X	.13	.003	
325													Grn Wht lt Grn				1	Δcolor (w/ wht Kaolin & micro dissem sulf)		.11	.003	
330													flesh				1			.08	.003	
335																	1			.25	.003	
340																	1	(slight incr sulf.; strg incr arg alt)	X	.15	.003	.003
345													Green Wht				.5	LLT? (trace Qtz)		.10	.002	
350																				.05	.001	
355			XK										Pale Green Wht Grn					Δcolor Incr sulf; slfd strg Bleach		.29	.006	
360													Green Wht Flesh						X	.23	.003	
365			XK																	.23	.003	
370																				.20	.003	
375													lt Grn					(slightly bleached & slfd)		.21	.003	
380																			X	.09	.004	.003
385																				.09	.002	
390																		Incr Qtz		.16	.003	
395																		Incr. Qtz		.16	.002	
400																						

LAC MINERALS (U.S.A.) INC.
ROSEBUD PROJECT

DRILL HOLE RL-257

Page 5 of 8

LOGGED BY _____

VEIN TYPES

- FINE-GRAINED TUFF
- BEDDED BUD LLT
- VOLCANICLASTIC
- PORPHYRITIC TUFF
- FLOW BANDED TUFF
- DRUZY QUARTZ
- Xc CHALCEDONIC
- Xk STOCKWORK
- Ca CALCITE
- HYDROTHERMAL BRECCIA VNS
- Ba BARITE

FT.	LITHO	FRACTS FAULTS	VEIN TYPES	BLEACH W	BLEACH M	BLEACH S	CLAY W	CLAY M	CLAY S	SILIC W	SILIC M	SILIC S	COLOR	% FeOx W	% FeOx M	% FeOx S	% SULF.	COMMENTS	ROD CONN.	Ag	Au	✓
													Green Wht H Gry Flesh				.5	SAA-LLT Strg Qtz	X	.08	.007	
405			XK																			
													Green Wht							.13	.008	.008
410																						
													Green Wht H Grn							.10	.003	
415																		Grad incr silica flood				
																				.12	.006	
420																						
																			X	.06	.003	
425																						
																				.10	.003	.002
430													Grey Wht H Grn				3	Qtz & Fault Bx Strg Qtz V. Strg Sulf mega BX		.16/.15	.017	.015
SRZ 60+ GPM			XK																			
435													Wht Grey Pale Grn				2	Fine to very Fine Grain tuff (trace kaolin)		.27/.26	.021	.022
440	Dt		XK																			
																	1	(w/ wht kaolin)	X	3.48/3.12	.403	.402/.399
445			XK																			
																	1			.97/.92	.107	.104/.106
450			XK																			
																	1			.66/.78	.076	.082
455																						
																	1	(Drk grey Qtz may be concam from SRFZ ?)		.62/.58	.060	.061
460																						
																	.5	(Incr. wht Kaolin; Decr sulf)	X	.34/.29	.022	.028
465																						
																				.36/.37	.031	.033/.030
470																						
																				.20/.20	.019	.020/.20
475																						
													Pale Green H Grey							.19/.18	.026	.027
480																		trace Qtz				
																		(slight incr. sulf.)	X	.13/.13	.022	.023
485																						
																				.18/.13	.016	.021
490																						
																	1	(Incr wht Kaolin & sulf.)		.06	.007	
495																						
																	.5			.08	.007	
500																						

LAC MINERALS (U.S.A.) INC.
ROSEBUD PROJECT

DRILL HOLE RL-257

Page 6 of 8

tri-cone bit # 71597

VEIN TYPES

- FINE-GRAINED TUFF
- BEDDED BUD LLT
- VOLCANICLASTIC
- PORPHYRITIC TUFF
- FLOW BANDED TUFF
- DRUZY QUARTZ
- Xc CHALCEDONIC
- Xk STOCKWORK
- Ca CALCITE
- HYDROTHERMAL BRECCIA VNS
- Ba BARITE

LOGGED BY _____

FT.	LITHO	FRACTS FAULTS	VEIN TYPES	BLEACH W	BLEACH M	BLEACH S	CLAY W	CLAY M	CLAY S	SILIC W	SILIC M	SILIC S	COLOR	% FeOx W	% FeOx M	% FeOx S	% SULF.	COMMENTS	ROD CONN.	Ag	Au	✓
	Dt		Ba XK										Pale Grn & Grey				1	SAA FG Tuff Bleached Dt w/ Barite (trace) & wht Kaolin 5:00 pm 5/7 5/8	X	.13	.010	
505																	1	(w/ trace Kaolin)		.15	.015	
510			XK														1			.13	.011	.011
515																	1			.11	.007	
520																		Grad incr. Qtz & sulf	X	.08	.005	
525																				.09	.007	
530													wht					stronger Bleach & > Qtz		.04	.003	
535													wht Pale Grn Grey				2	(w/ Dk Grey sulf Qtz & Clear Qtz)		.07	.006	
540													Flesh				2		X	.09	.008	
545													Pale Grn wht				1			.06	.006	
550																	1			.08	.010	.010
555																	.5	trace Qtz		.19	.021	
560																	.5		X	.18	.015	
565													Pale Grn							.08	.006	
570																				.14	.013	
575													Wht lt Grn					(trace Qtz & Kaolin) (Larrys trying to drill faster causing mega contam from fault zone in this sample)		.24	.025	
580																			X	.13	.013	
585																		(trip for 3 cone bit 1:00 pm)		.06	.005	
590																		micro-sulf 3:30 pm disseminated Bleached wkly sltd Dt		.11	.010	
595																			X	.15	.015	.015
600																		3/8 3/9 Start at 9:45am				

LAC MINERALS (U.S.A.) INC.
ROSEBUD PROJECT

DRILL HOLE RL-257

Page 7 of 8

FINE-GRAINED TUFF
BEDDED BUD LLT
VOLCANICLASTIC
PORPHYRITIC TUFF
FLOW BANDED TUFF

VEIN TYPES

DRUZY QUARTZ
Xc CHALCEDONIC
XK STOCKWORK
Ca CALCITE
HYDROTHERMAL BRECCIA VNS
Ba BARITE

LOGGED BY _____

FT.	LITHO	FRACTS FAULTS	VEIN TYPES	BLEACH W	BLEACH M	BLEACH S	CLAY W	CLAY M	CLAY S	SILIC W	SILIC M	SILIC S	COLOR	% FeOx W	% FeOx M	% FeOx S	% SULF.	COMMENTS	RDD CONN.	Ag	Au	✓
605			XK										Lt Green Vnt				.5	Dt trace XK - micro Qtz w/ micro dissem sulf		.12	.009	
610																				.14	.013	
615																				.09	.008	
620																			X	.06	.005	
625																				.03	.002	
630																				.02	.002	
635																				.04	.002	
640																			X	.04	.003	.003
645																				.02	.002	
650													flsh							.02	.001	
655													flsh							.02	.002	
660													flsh						X	.02	.002	
665																				.03	.002	
670																				.03	.002	
675																				.04	.004	
680																		3/9 5:30 pm 3/10	X	.03	.002	
685																				.03	.002	.002
690																				.03	.002	
695													pnk Green					(w/ stry chlorite?)		.03	.002	
700																				.03	.003	

LAC MINERALS (U.S.A.) INC.
ROSEBUD PROJECT

DRILL HOLE RL-257

Page 8 of 8

FINE-GRAINED TUFF
BEDDED BUD LLT
VOLCANICLASTIC
PORPHYRITIC TUFF
FLOW BANDED TUFF

VEIN TYPES

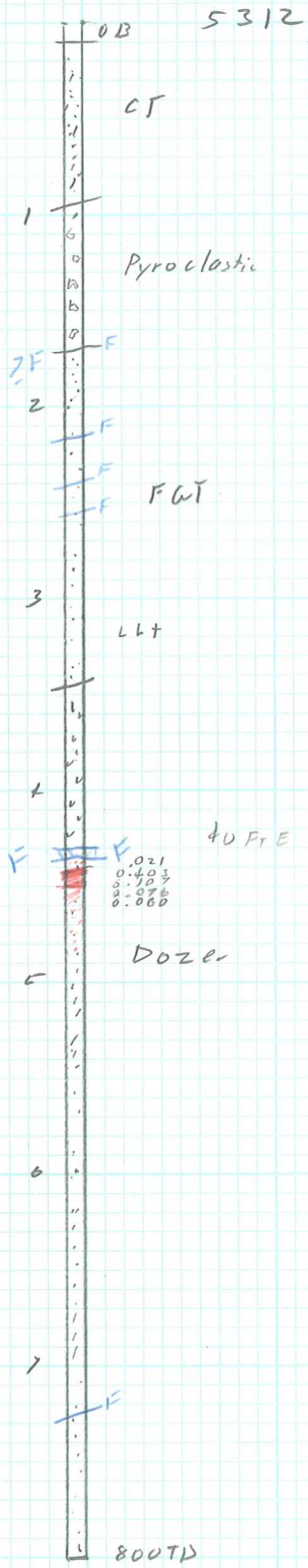
DRUZY QUARTZ
Xc CHALCEDONIC
XK STOCKWORK
Ca CALCITE
HYDROTHERMAL BRECCIA VNS
Ba BARITE

LOGGED BY

FT.	LITHO	FRACTS FAULTS	VEIN TYPES	BLEACH W H S	CLAY W H S	SILIC W H S	COLOR	% FeOx W H S	% SULF.	COMMENTS	ROD CONN.	Ag	Au	✓
							Wht Flesh Lt Grn		.5	SAA Dt		.13	.012	
705							Lt Grn Wht		.5			.06	.006	
710							Pale Grn Wht		.5	(Slight inter sulf) (trace Qtz)		.05	.004	
715			XK							trace Qtz & Calc. inter Silica Flood				
			Ca XK				Wht		1	(Strg Inter dissem sulf: Strg Bleach)		.03	.003	.003
720			Ca XK						1	(Slight inter Calc. and Wht Kaolin) (W/Grey Clay gouge)		.06	.006	
725			Ca XK				Wht Pale Grn		.5	(trace Calc & Qtz)		.04	.004	
730			XK				Pale Grn Flesh Wht					.03	.002	
735			XK									.04	.003	
740			XK									.04	.004	
745												.05	.050	.046
750							Pale Grn Wht					.06	.011	
755							Pale Grn					.10	.008	
760												.04	.003	.004
765												.01	.001	
770												.02	.002	
775							Pink Green Lt Grn			(Wker alt may be getting out of alteration)		.01	.001	
780							Lav Banded Lt Grn		.1	Sharp 4 color and alteration Good rod to TD On.		.02	.002	
785												.02	.001	
790												.02	.002	
795												.03	.003	
800														

T.D. at 5: 3/10

2,203,430 N
482,177 E



Rosebud
RL-257
1" = 100'

BARRINGER LABORATORIES INC.

15000 W. 6TH AVE., SUITE 300
GOLDEN, COLORADO 80401
PHONE: (303) 277-1687

5301 LONGLEY LANE
BUILDING E, SUITE 178
RENO, NEVADA 89511
PHONE: (702) 828-1158

18-Mar-92

LAC Minerals
P.O. Box 21390
Reno, Nv. 89515

Page: 7
Copy: 1 of 3
Set : 2

Attn: Tim Kuhl
Project: Rosebud

Received: 12-Mar-92 15:48

PO #:

Job: 92344R

Status: Final

Abbreviations:

Parameters:

Au	: Gold
Ag	: Silver

Methods:

FA/AA/AAS	: Fire Assay/AA Finish
FA/AA	: Fire Assay with AA finish
AA	: Atomic Absorption

Units:

oz/ton	: ounces per ton

Quality codes:

<	: less than
NA	: Not Analyzed

Job approved by:

Signed: Vern Peterson mw
Vernon K. Peterson
Laboratory Manager

cc: Kristen Kenner, LAC Minerals

File

BARRINGER LABORATORIES INC.

15000 W. 6TH AVE., SUITE 300
GOLDEN, COLORADO 80401
PHONE: (303) 277-1687

5301 LONGLEY LANE
BUILDING E, SUITE 178
RENO, NEVADA 89511
PHONE: (702) 828-1158

18-Mar-92

LAC Minerals
P.O. Box 21390
Reno, Nv. 89515

Page: 1
Copy: 1 of 3
Set : 1

Attn: Tim Kuhl
Project: Rosebud

PO #:

Received: 12-Mar-92 15:48

Job: 92344R

Status: Final

Cutting

Sample Id	Au FA/AA/AAS oz/ton	Au FA/AA oz/ton	Ag AA oz/ton
RL257 0 5	0.0006	0.0006	0.009
BL- 002	~~0.0545~~	~~NA~~	~~NA~~
RL257 5 10	0.0027	NA	0.026
RL257 10 15	0.0030	NA	0.082
RL257 15 20	0.0050	NA	0.140
RL257 20 25	0.0048	NA	0.178
RL257 25 30	0.0121	NA	0.213
RL257 30 35	0.0110	NA	0.196
RL257 35 40	0.0043	NA	0.123
RL257 40 45	0.0044	0.0045	0.126
RL257 45 50	0.0053	NA	0.149
RL257 50 55	0.0068	NA	0.117
RL257 55 60	0.0041	NA	0.096
RL257 60 65	0.0081	NA	0.146
RL257 65 70	0.0051	NA	0.172
RL257 70 75	0.0041	NA	0.164
RL257 75 80	0.0014	NA	0.082
RL257 80 85	0.0021	NA	0.301
RL257 85 90	0.0038	0.0042	0.537
BL- 003	~~0.0147~~	~~NA~~	~~NA~~
RL257 90 95	0.0040	NA	0.184
RL257 95 100	0.0021	NA	0.088
RL257 100 105	0.0040	NA	0.099
RL257 105 110	0.0024	NA	0.099
RL257 110 115	0.0060	NA	0.292
RL257 115 120	0.0064	NA	0.175
RL257 120 125	0.0197	NA	0.134
RL257 125 130	0.0024	0.0023	0.082
RL257 130 135	0.0065	NA	0.091
RL257 135 140	0.0021	NA	0.091

BARRINGER LABORATORIES INC.

15000 W. 6TH AVE., SUITE 300
GOLDEN, COLORADO 80401
PHONE: (303) 277-1687

5301 LONGLEY LANE
BUILDING E, SUITE 178
RENO, NEVADA 89511
PHONE: (702) 828-1158

18-Mar-92

LAC Minerals
P.O. Box 21390
Reno, Nv. 89515

Attn: Tim Kuhl
Project: Rosebud

PO #:

Received: 12-Mar-92 15:48

Job: 92344R

Status: Final

Cutting

Sample Id	Au FA/AA/AAS oz/ton	Au FA/AA oz/ton	Ag AA oz/ton
RL257 140 145	0.0027	NA	0.093
RL257 145 150	0.0027	NA	0.099
RL257 150 155	0.0051	NA	0.096
RL257 155 160	0.0030	NA	0.108
RL257 160 165	0.0031	NA	0.120
RL257 165 170	0.0023	NA	0.067
RL257 170 175	0.0046	0.0034	0.088
BL- 004	<0.0001	NA	NA
RL257 175 180	0.0022	NA	0.050
RL257 180 185	0.0018	NA	0.053
RL257 185 190	0.0021	NA	0.061
RL257 190 195	0.0040	NA	0.079
RL257 195 200	0.0018	NA	0.088
RL257 200 205	0.0031	NA	0.146
RL257 205 210	0.0033	NA	0.222
RL257 210 215	0.0036	0.0039	0.818
RL257 215 220	0.0045	NA	1.089
RL257 220 225	0.0049	NA	0.724
RL257 225 230	0.0029	NA	0.128
RL257 230 235	0.0049	NA	0.137
RL257 235 240	0.0026	NA	0.082
RL257 240 245	0.0044	NA	0.079
RL257 245 250	0.0033	NA	0.225
RL257 250 255	0.0068	NA	0.555
RL257 255 260	0.0031	0.0031	0.137
BL- 005	0.0157	NA	NA
RL257 260 265	0.0020	NA	0.070
RL257 265 270	0.0025	NA	0.082
RL257 270 275	0.0027	NA	0.067
RL257 275 280	0.0041	NA	0.073

BARRINGER LABORATORIES INC.

15000 W. 6TH AVE., SUITE 300
GOLDEN, COLORADO 80401
PHONE: (303) 277-1687

5301 LONGLEY LANE
BUILDING E, SUITE 178
RENO, NEVADA 89511
PHONE: (702) 828-1158

18-Mar-92

LAC Minerals
P.O. Box 21390
Reno, Nv. 89515

Attn: Tim Kuhl
Project: Rosebud
PO #:

Received: 12-Mar-92 15:48

Job: 92344R

Status: Final

Cutting

Sample Id	Au FA/AA/AAS oz/ton	Au FA/AA oz/ton	Ag AA oz/ton
RL257 280 285	0.0032	NA	0.076
RL257 285 290	0.0031	NA	0.091
RL257 290 295	0.0027	NA	0.061
RL257 295 300	0.0042	0.0036	0.064
RL257 300 305	0.0043	NA	0.058
RL257 305 310	0.0032	NA	0.064
RL257 310 315	0.0022	NA	0.041
RL257 315 320	0.0027	NA	0.082
RL257 320 325	0.0031	NA	0.134
RL257 325 330	0.0026	NA	0.114
RL257 330 335	0.0025	NA	0.082
RL257 335 340	0.0033	NA	0.245
RL257 340 345	0.0033	0.0029	0.152
BL- 006	~~<0.0001~~	~~NA~~	~~NA~~
RL257 345 350	0.0015	NA	0.096
RL257 350 355	0.0011	NA	0.050
RL257 355 360	0.0064	NA	0.286
RL257 360 365	0.0030	NA	0.228
RL257 365 370	0.0032	NA	0.225
RL257 370 375	0.0029	NA	0.204
RL257 375 380	0.0030	NA	0.213
RL257 380 385	0.0036	0.0034	0.093
RL257 385 390	0.0019	NA	0.085
RL257 390 395	0.0036	NA	0.161
RL257 395 400	0.0022	NA	0.161
RL257 400 405	0.0068	NA	0.079
RL257 405 410	0.0079	0.0080	0.131
RL257 410 415	0.0025	NA	0.096
RL257 415 420	0.0064	NA	0.117
RL257 420 425	0.0025	NA	0.058

BARRINGER LABORATORIES INC.

15000 W. 6TH AVE., SUITE 300
GOLDEN, COLORADO 80401
PHONE: (303) 277-1687

5301 LONGLEY LANE
BUILDING E, SUITE 178
RENO, NEVADA 89511
PHONE: (702) 828-1158

18-Mar-92

LAC Minerals
P.O. Box 21390
Reno, Nv. 89515

Attn: Tim Kuhl
Project: Rosebud
PO #:

Received: 12-Mar-92 15:48

Job: 92344R

Status: Final

Cutting

Sample Id	Au FA/AA/AAS oz/ton	Au FA/AA oz/ton	Ag AA oz/ton
RL257 425 430	0.0028	0.0020	0.099
BL- 007	~~0.0514~~	~~NA~~	~~NA~~
RL257 430 435	0.0167	NA	0.161
RL257 435 440	0.0213	NA	0.263
RL257 440 445	0.4027	0.3990	3.475
RL257 445 450	0.1072	0.1040	0.969
RL257 450 455	0.0760	NA	0.660
RL257 455 460	0.0595	NA	0.584
RL257 460 465	0.0217	NA	0.292
RL257 465 470	0.0310	0.0303	0.374
RL257 470 475	0.0191	NA	0.199
RL257 475 480	0.0262	NA	0.187
RL257 480 485	0.0218	NA	0.131
RL257 485 490	0.0158	NA	0.131
RL257 490 495	0.0068	NA	0.058
RL257 495 500	0.0069	NA	0.079
RL257 500 505	0.0096	NA	0.126
RL257 505 510	0.0154	NA	0.149
RL257 510 515	0.0106	0.0110	0.126
BL- 008	~~0.0296~~	~~NA~~	~~NA~~
RL257 515 520	0.0070	NA	0.111
RL257 520 525	0.0054	NA	0.076
RL257 525 530	0.0068	NA	0.088
RL257 530 535	0.0031	NA	0.041
RL257 535 540	0.0063	NA	0.073
RL257 540 545	0.0077	NA	0.093
RL257 545 550	0.0061	NA	0.058
RL257 550 555	0.0098	0.0094	0.076
RL257 555 560	0.0206	NA	0.190
RL257 560 565	0.0152	NA	0.184

BARRINGER LABORATORIES INC.

15000 W. 6TH AVE., SUITE 300
GOLDEN, COLORADO 80401
PHONE: (303) 277-1687

5301 LONGLEY LANE
BUILDING E, SUITE 178
RENO, NEVADA 89511
PHONE: (702) 828-1158

18-Mar-92

LAC Minerals
P.O. Box 21390
Reno, Nv. 89515

Attn: Tim Kuhl
Project: Rosebud

PO #:

Received: 12-Mar-92 15:48

Job: 92344R

Status: Final

Cutting

Sample Id	Au FA/AA/AAS oz/ton	Au FA/AA oz/ton	Ag AA oz/ton
RL257 565 570	0.0055	NA	0.076
RL257 570 575	0.0132	NA	0.140
RL257 575 580	0.0254	NA	0.242
RL257 580 585	0.0129	NA	0.134
RL257 585 590	0.0051	NA	0.064
RL257 590 595	0.0101	NA	0.108
RL257 595 600	0.0153	0.0147	0.149
BL- 009	<0.0001	NA	NA
RL257 600 605	0.0093	NA	0.120
RL257 605 610	0.0133	NA	0.140
RL257 610 615	0.0080	NA	0.093
RL257 615 620	0.0048	NA	0.058
RL257 620 625	0.0020	NA	0.026
RL257 625 630	0.0018	NA	0.023
RL257 630 635	0.0022	NA	0.038
RL257 635 640	0.0032	0.0031	0.038
RL257 640 645	0.0020	NA	0.023
RL257 645 650	0.0011	NA	0.018
RL257 650 655	0.0016	NA	0.020
RL257 655 660	0.0017	NA	0.023
RL257 660 665	0.0024	NA	0.032
RL257 665 670	0.0020	NA	0.026
RL257 670 675	0.0044	NA	0.038
RL257 675 680	0.0023	NA	0.026
RL257 680 685	0.0018	0.0018	0.026
BL- 010	0.0511	NA	NA
RL257 685 690	0.0024	NA	0.032
BL- 011	0.0219	NA	NA
RL257 690 695	0.0019	NA	0.029
RL257 695 700	0.0025	NA	0.026

BARRINGER LABORATORIES INC.

15000 W. 6TH AVE., SUITE 300
GOLDEN, COLORADO 80401
PHONE: (303) 277-1687

5301 LONGLEY LANE
BUILDING E, SUITE 178
RENO, NEVADA 89511
PHONE: (702) 828-1158

18-Mar-92

LAC Minerals
P.O. Box 21390
Reno, Nv. 89515

Attn: Tim Kuhl
Project: Rosebud

Received: 12-Mar-92 15:48

PO #:

Job: 92344R

Status: Final

Cutting

Sample Id	Au FA/AA/AAS oz/ton	Au FA/AA oz/ton	Ag AA oz/ton
RL257 700 705	0.0121	NA	0.126
RL257 705 710	0.0062	NA	0.064
RL257 710 715	0.0042	NA	0.047
RL257 715 720	0.0026	0.0025	0.032
RL257 720 725	0.0056	NA	0.061
RL257 725 730	0.0043	NA	0.044
RL257 730 735	0.0022	NA	0.029
RL257 735 740	0.0034	NA	0.035
RL257 740 745	0.0039	NA	0.035
RL257 745 750	0.0500	0.0463	0.047
RL257 750 755	0.0112	NA	0.061
RL257 755 760	0.0079	NA	0.099
RL257 760 765	0.0033	0.0039	0.041
RL257 765 770	0.0014	NA	0.009
RL257 770 775	0.0018	NA	0.015
BL- 012	~~0.0215~~	~~NA~~	~~NA~~
RL257 775 780	0.0009	NA	0.009
RL257 780 785	0.0015	NA	0.018
RL257 785 790	0.0013	NA	0.018
RL257 790 795	0.0023	NA	0.023
RL257 795 800	0.0025	NA	0.029

BARRINGER LABORATORIES INC.

15000 W. 6TH AVE., SUITE 300
GOLDEN, COLORADO 80401
PHONE: (303) 277-1687

5301 LONGLEY LANE
BUILDING E, SUITE 178
RENO, NEVADA 89511
PHONE: (702) 828-1158

30-Mar-92

LAC Minerals
P.O. Box 21390
Reno, Nv. 89515

Page: 1
Copy: 1 of 3
Set : 1

Attn: Tim Kuhl
Project:

Received: 25-Mar-92 09:30

PO #:

Job: 92418R

Status: Final

Reject

Sample Id	Au FA/AA/AAS oz/ton	Au FA/AA oz/ton	Ag AA oz/ton
RL250 380 385	0.0108	0.0112	0.055
RL250 385 390	0.0062	NA	0.073
RL250 390 395	0.0077	NA	0.055
RL250 395 400	0.0088	NA	0.050
RL253 170 175	0.0022	NA	0.085
RL253 175 180	0.0067	NA	0.242
RL253 180 185	0.0010	0.0013	0.009
RL253 185 190	<0.0001	NA	0.012
RL253 190 195	<0.0001	NA	0.006
RL253 195 200	<0.0001	<0.0001	0.006
RL253 200 205	<0.0001	NA	0.003
RL253 205 210	0.0224	NA	0.496
RL253 210 215	<0.0001	NA	0.009
RL253 215 220	<0.0001	NA	0.003
RL254 260 265	0.0052	NA	0.047
RL254 265 270	0.0088	NA	0.856
RL254 270 275	0.0067	NA	0.131
RL254 275 280	0.0223	NA	0.091
RL254 280 285	0.0082	0.0074	0.114
RL254 285 290	0.0604	0.0601	0.175
RL254 290 295	0.0038	NA	0.038
RL254 295 300	0.0035	NA	0.053
RL254 300 305	0.0027	NA	0.012
RL254 305 310	0.0144	0.0187	0.044
RL254 310 315	0.0063	NA	0.035
RL254 315 320	0.0100	0.0077	0.067
RL254 320 325	0.0015	NA	0.038
RL254 325 330	0.0077	NA	0.023
RL257 430 435	0.0147	NA	0.152
RL257 435 440	0.0215	NA	0.274

BARRINGER LABORATORIES INC.

15000 W. 6TH AVE., SUITE 300
GOLDEN, COLORADO 80401
PHONE: (303) 277-1687

5301 LONGLEY LANE
BUILDING E, SUITE 178
RENO, NEVADA 89511
PHONE: (702) 828-1158

30-Mar-92

LAC Minerals
P.O. Box 21390
Reno, Nv. 89515

Attn: Tim Kuhl
Project:

Received: 25-Mar-92 09:30

PO #:

Job: 92418R

Status: Final

Reject

Sample Id	Au FA/AA/AAS oz/ton	Au FA/AA oz/ton	Ag AA oz/ton
RL257 440 445	0.4024	NA	3.124
RL257 445 450	0.1060	NA	0.920
RL257 450 455	0.0824	NA	0.777
RL257 455 460	0.0610	NA	0.625
RL257 460 465	0.0281	NA	0.339
RL257 465 470	0.0326	NA	0.356
RL257 470 475	0.0204	0.0201	0.204
RL257 475 480	0.0274	NA	0.181
RL257 480 485	0.0227	NA	0.134
RL257 485 490	0.0212	NA	0.175

Rejects to Keep
RL-257

LAC Minerals 356–8058
Rosebud

SAMPLE		SAVE	CHECK
0	5		
5	10		
10	15		
15	20		
20	25	X	
25	30	X	
30	35	X	
35	40	X	
40	45	X	
45	50	X	
50	55	X	
55	60		
60	65		
65	70		
70	75		
75	80		
80	85		
85	90		
90	95		
95	100		
100	105		
105	110		
110	115	X	
115	120	X	
120	125	X	
125	130	X	
130	135	X	
135	140		
140	145		
145	150		
150	155		
155	160		
160	165		
165	170		
170	175		
175	180		
180	185		
185	190		
190	195		
195	200		
200	205		
205	210		
210	215		
215	220		
220	225		
225	230		
230	235		
235	240		
240	245		
245	250		
250	255		
255	260		
260	265		
265	270		
270	275		
275	280		
280	285		
285	290		
290	295		
295	300		

SAMPLE		SAVE	CHECK
300	305		
305	310		
310	315		
315	320		
320	325		
325	330		
330	335		
335	340		
340	345		
345	350		
350	355		
355	360		
360	365		
365	370		
370	375		
375	380		
380	385		
385	390		
390	395		
395	400		
400	405	X	
405	410	X	
410	415	X	
415	420	X	
420	425	X	
425	430	X	
430	435	X	
435	440	X	
440	445	X	
445	450	X	
450	455	X	
455	460	X	
460	465	X	
465	470	X	
470	475	X	
475	480	X	
480	485	X	
485	490	X	
490	495	X	
495	500	X	
500	505	X	
505	510	X	
510	515	X	
515	520	X	
520	525	X	
525	530	X	
530	535	X	
535	540	X	
540	545	X	
545	550	X	
550	555	X	
555	560	X	
560	565	X	
565	570	X	
570	575	X	
575	580	X	
580	585	X	
585	590	X	
590	595	X	
595	600	X	

SAMPLE		SAVE	CHECK
600	605	X	
605	610	X	
610	615	X	
615	620		
620	625		
625	630		
630	635		
635	640		
640	645		
645	650		
650	655		
655	660		
660	665		
665	670		
670	675		
675	680		
680	685		
685	690		
690	695		
695	700	X	
700	705	X	
705	710	X	
710	715		
715	720		
720	725		
725	730		
730	735		
735	740		
740	745		
745	750	X	
750	755	X	
755	760	X	
760	765		
765	770		
770	775		
775	780		
780	785		
785	790		
790	795		
795	800		
800	805		
805	810		
810	815		
815	820		
820	825		
825	830		
830	835		
835	840		
840	845		
845	850		
850	855		
855	860		
860	865		
865	870		
870	875		
875	880		
880	885		
885	890		
890	895		
895	900		

BOYLES-WELNAV
ELKO,NEVADA

GYROSCOPIC DIRECTIONAL SURVEY
BY MINIMUM CURVATURE

FOR

****
* LAC MINERALS *
****

JOB NUMBER: 029-0313-12CCGY

WELL NAME: RL-257

LOCATION: ROSEBUD PROPERTY

SURVEY DATE: 05-27-1992

SURVEY ENGINEER: PHIL GRAFFT

GYRO REFERENCE BEARING: 247.00

********** DEPTH MEASURED IN FEET *******
****

COMMENTS: 600 FT. PROJECTED
FROM 510 FT.

****
****
*** THIS DIRECTIONAL SURVEY REPORT IS ****
** CORRECT TO THE BEST OF MY KNOWLEDGE ***
* AND IS SUPPORTED BY ACTUAL FIELD DATA! *
**
**
**
**
COMPANY REPRESENTATIVE
**
**
**
**
****
****

BOYLES-WELNAV
ELKO,NEVADA

JOB NUMBER: 029-0313-12CCGY

WELL NAME: RL-257

INRUN SURVEY
BY MINIMUM CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	L/R CLOS.	INCL	BEARING AZIMUTH	COORDINATES LATITUDE	COORDINATES DEPARTURE	D-LEG /100	D-LEG /CL	STATION DISP.	DISPLACEMENT DIRECTION
50.0	50.00	0.08	0.005	-89.81	310.58	0.05 N	0.06 W	0.38	0.19	0.08	AT 310.58
100.0	100.00	0.15	-0.016	-89.93	185.38	0.08 N	0.13 W	0.47	0.24	0.15	AT 301.02
150.0	150.00	0.63	-0.014	-88.85	310.33	0.37 N	0.51 W	2.38	1.19	0.63	AT 305.87
200.0	199.98	1.93	0.233	-88.11	322.58	1.35 N	1.40 W	1.61	0.80	1.94	AT 314.04
250.0	249.96	3.35	0.596	-88.52	320.05	2.50 N	2.31 W	0.83	0.42	3.41	AT 317.24
300.0	299.93	5:11	0.689	-87.41	304.55	3.64 N	3.66 W	2.46	1.23	5.16	AT 314.83
350.0	349.86	7.61	0.417	-86.82	298.00	4.93 N	5.81 W	1.35	0.67	7.62	AT 310.29
400.0	399.77	10.52	-0.211	-86.35	292.37	6.19 N	8.51 W	1.15	0.58	10.52	AT 306.01
450.0	449.68	13.44	-0.830	-86.80	298.38	7.45 N	11.21 W	1.15	0.58	13.46	AT 303.63
500.0	499.57	16.74	-0.807	-85.56	314.15	9.47 N	13.83 W	3.23	1.61	16.76	AT 304.40
550.0	549.42	20.60	-0.371	-85.53	313.08	12.15 N	16.64 W	0.18	0.09	20.60	AT 306.13
600.0	599.27	24.45	0.002	-85.58	312.27	14.77 N	19.49 W	0.16	0.08	24.45	AT 307.16

```
*********************************************************
*                        ********                       *
*     THE HORIZONTAL DISPLACEMENT AT THE DEPTH OF       *
*                        ********                       *
*   600.0 FEET EQUALS    24.45   FEET AT  307.16        *
*                        ********                       *
*********************************************************
```