DISTRICT: Rosebud

DIST_NO: 4010

COUNTY: Pardoning

TITLE: Rosebud - Comments on the Pitard Report

AUTHOR: Claydon R., Allen K., Pitard F.

DATE OF DOC(S): 1998

MULTI_DIST Y / N: Y

Additional Dist_Nos: Sulphur 72

QUAD_NAME: Sulphur 72

P_M_C_NAME: Rosebud Mine; Rosebud Mining Co., LLC

Hecla Mining Co.

COMMODITY: Gold, Silver

NOTES: Correspondence; handwritten notes; receipts

166

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: DP 9/9/08
Initials Date

DB: Initials Date

SCANNED: Initials Date

Revised: 1/22/08
THE ROSEBUD MINING COMPANY, LLC  
Hecla Mining Company, Operator  

MEMORANDUM

TO: Ron Clayton  
FROM: Kurt D. Allen  
DATE: August 23, 1998  

Following are my comments on the "Francis Pitard report dated June 23, 1998". This report contains several statements that are false or misleading:

1) Page 2 "Pinon Mill Metallurgical Balance" – Pitard states that "The primary sampling station for the head of the mill is in perfect working condition, and under no circumstances should this station be responsible for the missing ounces during March, April, and May 1998". If this sampler is in perfect working order, why does samples from it rarely match the actual ounces poured.

2) Page 2 "Laboratory Reliability" – Pitard states the "Mr. Dale R. Dean showed convincing evidence that metallic screen assays performed by American Assay in Reno are not as reliable they should be. Such assays should provide a reference as the best possible assays: it is not the case". I agree that the metallic screen assay results done for Dale were not reliable. Their poor reliability was not due to American Assay Lab's poor precision or accuracy, but rather was due to American Assay Lab personnel following flawed metallic screen assay procedural directions sent to them by Tim Gribbens.

3) Page 4, "Losses During Underground Blasthole Drilling" – I think collection of face drilling slurries is impractical. If this is a problem area for substantial gold losses, why was it not a problem in 1997?

4) Page 5, "Losses During Underground Blasting and Reclaiming" – Again, I think vacuuming or using water guns is impractical. And once again, why is this segregation of gold into airborne fines and dust during a blast a problem during 1998 and not during 1997?

5) Page 7, "Assay Results from Samples Collected in Stope Low Spots" – I would think that collection of 3 samples from the low spots (mud holes) directly below stope 14 (the exact spot Francis said would contain multiple ounces gold per ton) and 22, would show extremely high-gold grades if this was in fact a large contributor to gold loss. We will continue to collect more samples.

6) Page 7, "Loss of Gold and Silver at the Mine Stockpile" – We have retrieved some of the gold from the stockpile areas proving some loss occurs here. We also collected samples down stream from our stockpile area and the sample results show very little gold. I don't think gold washing down-stream is a large problem.
7) Page 7-8 "April 1998 Duplicate Check Assays for Gold" – Pitard states that “The duplicates are on average about 7.67% higher than the original assays. Over 45 pairs, this is a huge difference, and something to worry about. As shown in figure 1, the bias becomes clear and consistent above pair 20, which means the laboratory, is not consistently accurate overtime. We may also have a bias in the other direction at the beginning of the chronology. My opinion is that you have segregation in the sample bags, or the laboratory needs to be checked with Standard Reference Materials on a regular basis.” We have assay standards ran with every batch of 44 assays completed at American Assay Lab and if any are out of limits the entire batch is re-assayed. Pitard’s implication that we don’t check the lab with standards is wrong!

8) Page 13 "Conclusions and Recommendations" – Pitard states that “All these relative plots show major discrepancies that are mostly responsible for the reconciliation problem between the Rosebud Mine and the Pinon Mill”. This would indicate to me that he thinks that bias’s introduced during the sampling of face and ribs is the major cause of the reconciliation problem. If this is the case, why did the bias’s ugly head not show up during 1997.
June 24, 1998

The Rosebud Mining Company, LLC
Hecla Mining Company, Operator
To the attention of Mr. Ron Clayton (General Manager)
P.O. Box 2610
Winnemucca, NV 89446

Phone: (702) 623-6912
Fax: (702) 623-6967

INVOICE #98-06-01

FEIN 84-1284037

REFERENCE: Consulting work performed at the request of Mr. Kurt D. Allen and Mr. Ron Clayton.

- Two consulting days between May 25 and 28, 1998 (1998 fee: $1250/day): $2500.00
- Four working days at FPSC office to study existing data and documents, write a report with observations, conclusions, and recommendations: $5000.00
- Air fare: $1472.00
- Hotel accommodations in Reno: $81.54
- Hotel accommodations in Winnemucca: $198.32
- Car rental: $212.24
- Denver airport parking: $10.00
- Printing and mailing of reports: $45.00

Total: $9519.10

Due and payable on or before July 24, 1998.

PLEASE MAKE YOUR CHECK PAYABLE TO THE ORDER OF FRANCIS PITARD

Thank you,

Francis F. Pitard
President
November 2, 1998

The Rosebud Mining Company, LLC
Hecla Mining Company, Operator
to the attention of Mr. Kurt Allen
P.O. Box 2610
Winnemucca, NV 89446

Phone: (702) 623-6912
Fax: (702) 623-6967

INVOICE #98-11-01  FEIN 84-1284037

REFERENCE: Consulting work performed at the request of Mr. Kurt D. Allen for the
interpretation of a Heterogeneity Test performed on the East Zone ore of the Rosebud project.

- Five working days, including a comprehensive report with observations,
  conclusions, and recommendations: $6250.00
- Printing of reports: $77.29
- Mailing of reports: $43.01

Total: $6370.30

Due and payable on or before December 2, 1998.

PLEASE MAKE YOUR CHECK PAYABLE TO THE ORDER OF FRANCIS PITARD

Thank you,

Francis F. Pitard
President

86-5008-458
Customer: Pitard

Phone:

**INVOICE**

PLEASE PAY FROM THIS INVOICE - NO STATEMENT WILL BE SENT

TERMS: NET 10 DAYS (2% per month will be added to all past due bills)

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**SUB TOTAL:** 71.70
**TAX:** 5.59
**TOTAL:** 77.29

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Customers' Initials: _

Customers' Signature: _

Francis Pittard 5/26/98

- Tentatively send Francis Heterogeneity Data by end of June.

Samples A and B

\[ \frac{A + B}{2} \]

If time on BY grade

UG - Sampling:

DANNE - Always vigorous! use hammer
DANEE - only took sample by hands
   - Always use pick

- From UGNEE get bucket for Sample Collection - then when you have enough in bucket to transfer to bag

 Random Core Sampling OK.
When we move to the East Zone - Need to plan to "use something like the Samp Drill."

- Use battery powered drill.

* TEST

\[
\begin{align*}
\text{Estimates} \\
\{ \text{R.I.P./Face Assays} \Rightarrow \text{An} \} \\
\{ \text{Water down w/ HCl} \\
+ \text{Pump + Decant} \Rightarrow \text{An} \}
\end{align*}
\]

* Need to get square buckets for spraying on ladders. (not round buckets)
American Assay Lab - July - Aug - Sept 3 1997
Metallic Screws  
American Assay Labs Metallic Screws = something very wrong w/ the results.

Need to check American Assay Labs w/ common samples

Now - 19,000 Au ounces short!

Long monthly adjustments not quarterly adjustments.

Sample Pad - I drainage to look for the ounces.

Heterogeneity Study -> American Assay - possibly not doing assays -> Hansen Lab

Do heterogeneity samples here.
Need 140' of Grade Core

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<tr>
<td>1475</td>
<td>A</td>
<td>176-98 ⇒ B 177-98</td>
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<td>1500</td>
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179' 600' 40' 250'

1575
D15-4-97 ⇒ D 15-5-97 : 50' 180'

85-125 = 30'
120-240 = 45'

1450 DHet-1 250' -32.5° N(55°) 95-125 = 30'
1475 DHet-2 100' +25° N55W 120-240 = 45'
1500 DHet-3 200' +45° S55E 110-180 = 70'
1550 DHet-4 220' 0° N55W 140-190 = 50'
1575 DHet-5 200' +9° N415W = 50'

255° MI: 06/24/84 (8840)
Dear Francis,

We would like to have you come back to the Rosebud Mine and review the sampling and grade control procedures currently being used underground as we are noticing some discrepancies between the mine and the mill. This is currently not a crisis situation, however we would like to get you here as soon as your busy schedule allows. Please contact me via the phone or fax with possible available dates you would be able to visit Rosebud.

Best Regards,

Kurt D. Allen

CONFIDENTIAL
Facsimile Cover Sheet

DATE: 4/28/98

TO: Francis Pitard
FROM: Kurt Allen

NUMBER OF PAGES INCLUDING COVER: 2

MESSAGE: I will put the original in the mail to you and look forward to your recommendations for Rosebud's upcoming heterogeneity tests.

IF YOU DO NOT RECEIVE LEGIBLE COPIES OF ALL PAGES, PLEASE CALL BACK AS SOON AS POSSIBLE.
Mr. Francis F. Pitard  
FRANCIS PITTARD SAMPLING CONSULTANTS  
14710 Tejon Street  
Broomfield, Colorado 80020

Dear Francis,

As you may remember, the Rosebud deposit consists of three ore zones, the South (currently being mined), East, and North ore zones. The East ore zone is scheduled to go into production in early 1999, followed by the North ore zone in mid to late 1999. We are currently conducting underground definition drilling in both the East ore zone and North ore zone of the Rosebud deposit.

Mineralization in the East ore zone is significantly different from the South ore zone where the samples for the past heterogeneity study was collected. Gold mineralization in the East ore zone appears to be contained in and confined to massive silica and sulfide flooding and stockwork zones within and in the footwall of the South Ridge fault.

I am planning on doing one heterogeneity study for the East ore zone and probably one for the North ore zone. My plan is to use the same procedure for performing the heterogeneity test as you outlined for Charlie Muerhoff for the South ore zone in your memo to him dated November 1, 1995. Following are questions for you:

- Would you recommend any procedural changes from your memo to Charlie Muerhoff dated November 1, 1995 for performing these new heterogeneity tests?

- I have the opportunity to collect heterogeneity material from core holes designed specifically for the heterogeneity study (cheapest opportunity?) or to drive an access into the ore zone itself and collect a bulk sample. Which would you recommend?

- When the data pertaining to the new heterogeneity studies in the East ore zone and possibly North ore zone have been collected, I would like you to analyze the data and report your conclusions and recommendations.

I know you have a very busy schedule and would appreciate your comments on the above at your earliest convenience.

Best Regards,

[Signature]

Kurt D. Allen  
Chief Geologist  
Rosebud
NTW - Thinwall N = 40 pounds / 10 feet
= 4 pounds / foot = 1.8 kg

For 250 kg, use 140 lb per grade
Core.
Send Pitara a fax
Drill holes vs drift

Maybe 4-5 holes.

Rock types in assay data.
> Have ten. Get into lithology

Have duplicate
Duplicate ribs - By myself.