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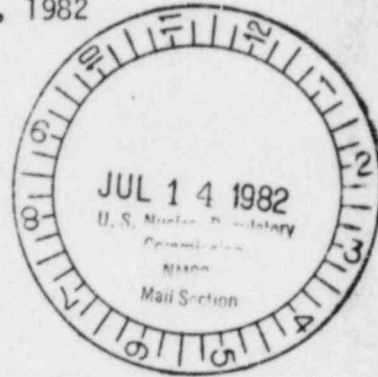
EXXON MINERALS COMPANY

POST OFFICE BOX 3020 • CASPER, WYOMING 82602

Highland Uranium Operations

July 9, 1982

Mr. T.E. Flemming
U.S. Nuclear Regulatory Commission
Willste Building
7915 Eastern Avenue
Silver Springs, Maryland 20910



Dear Tom:

This letter documents the telephone discussion you had with our Technical Superintendent, Steve Morzenti, on July 2. A summary breakdown of tailings basin reclamation volumes and costs, the mill decommissioning cost, and the solution mine restoration cost are included hereunder. As Steve explained to you, these are Exxon's best current estimates of the costs and volumes for stated activities. Continuing engineering studies focusing on cut-fill volumes and more cost-effective material handling may achieve a similar reclamation plan at lower costs.

Attachment I summarizes the estimated reclamation costs and volumes. I believe these volumes and unit costs will help you in your analysis. If you require clarification of any individual points, please contact Steve Morzenti at (307)265-7600.

Sincerely,

A handwritten signature in cursive script that reads "J.B. Shannon by JPM".

J.B. Shannon
Mine Manager

JBS/ksk

attachment

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EXXON MINERALS COMPANY
 HIGHLAND URANIUM OPERATIONS
 ATTACHMENT I
RECLAMATION COST AND VOLUME ESTIMATE SUMMARY - JULY 1982

1. Tailings Basin Reclamation Cost Estimate

1.1	Equipment - Scrapers (30-40 yd) and dozers (D-9) Caterpillar 651 Fleet for dirt placement D-9 dozers for dam work		1982 <u>k\$</u>
1.2	Initial fill to achieve northerly gradient		
1.2.1	Basin perimeter - 625 kBCY x \$1.09/BCY		680
1.2.2	Drainage diversion - 185 kBCY x \$1.30/BCY		240
1.2.3	Dump 6 borrow - 110 kBCY x \$1.82/BCY		<u>200</u>
	920 kBCY		
1.3	Reduce dam face to 5:1		
1.3.1	Cut top of dam - 250 kBCY x \$1.68/BCY		420
1.3.2	Drainage diversion - 210 kBCY x \$1.67/BCY		350
	460 kBCY		
1.4	Fill northern reservoir - 35 kBCY x \$0.86/BCY		30
1.5	Reduce southern slope by cut-fill - 20 kBCY x \$0.50/BCY		10
1.6	10 foot zoned cap		
1.6.1	Dump 6 borrow 3180 kBCY x \$1.79/BCY		4700
1.6.2	Topsoil 170 kBCY x \$1.65/BCY		280
	3350 kBCY		
1.7	Additional Work		
1.7.1	Seed and mulch 207 acres x \$435/ac		90
1.7.2	Topsoil, seed, mulch diversion areas 70 kBCY x \$2.00/BCY		140
1.7.3	Recontour Dump 6 - 175 kBCY x \$0.40/BCY		70
			<u>\$8210 k</u>

2. Mill Decommissioning Cost Estimate

2.1 Based on Ray Point (Felder), South Texas actual cost of \$500 k in \$1979

2.2 Exponential scale-up with 6/10 Rule

$$\frac{\text{Highland 3000 t/day}}{\text{Felder 500 t/day}}^{0.6} = 2.93$$

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2.3 $2.93 \times \$500 \text{ k} = \$1465 \text{ in } 1979 \text{ \$}$

2.4 $\$1465 (1979 \text{ \$}) = \$2200 (1982 \text{ \$}) \text{ using WPI escalators}$

3. Solution Mine Reclamation Cost Estimate

3.1 Based on 24 month restoration and 6 month monitoring

3.2 Restoration

3.2.1 Labor

3.2.2 Chemicals and Materials

3.2.3 Plug and Abandonment of 45 wells

3.2.4 Technical Support

1982
k\$

500*

100

200

50

850 k

3.3 Monitoring

150 k

\$1000 k

* Actual cost has been lower than this September 1981 estimate.

SPM/ksk
7/9/82

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