40-8681

## **Umetco Minerals Corporation**



WHITE MESA MILL \* PD. BOX 669 \* BLANDING, UTAH 84511 \$ (801) 678-2221 RETURN ORIGINAL TO PDR, HQ.

March 9, 1989

Mr. R. Dale Smith, Director U. S. Nuclear Regulatory Commission Region IV Uranium Field Recovery Office Box 25325 Denver, CO 80225



Re: Umetco Minerals Corporation SUA-1358: Docket No. 40-8681 White Mesa Mill, Utah License Condition 50

Dear Mr. Smith:

Attached are the annual financial surety estimates for the reclamation of the Velvet Mine IX column and associated facilities.

If I can answer any questions that you may have, please feel free to contact me.

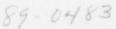
Sincerely yours,

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John S. Hamrick Site Environmental Coordinator



DESIGNATED ORIGINAL Certified By Zhang C. Hord



## Velvet Mine Reclamation and Decommissioning

The Ion exchange (IX) column and related facilities are located in San Juan County, Utah Range 25 East, Township 31 South, Sections 4 (mine portal) and 3 (IX column and facilities). See Figure 1 for a plan view of the facilities area. Mine water is pumped to the facility area where coagulant is added. The water flows into Pond 1 where suspended solids can settle. The water is pumped from Pond 1 to the IX resin column and from there to a mix tank where barium chloride is added to remove radium-226. The water flows to Pond 2 where precipitated radium settles. Water from Pond 2 then over flows into the nearby wash, a local drainage area of South Three Step Hill.

The reclamation of the facilities includes decontamination of the IX column and building and removal of contaminated material to a disposal facility. The site would then be released for use by the general public.

The reclamation sequence would involve radiological surveys to determine any contamination present. Contaminated process equipment would be removed and transferred to a licensed facility for use or disposal, as appropriate. Contaminated soil and pond materials would be excavated and shipped to the proper facility for disposal. It will be assumed that, in this case, that facility will be the White Mesa Mill located in Blanding, Utah, 65 miles by road from the Velvet Mine and facilities.

The radiological surveys and sampling will take two people three days, with 15 chemical assays for radium-226 and thorium-230. Dismantling equipment will take two people five days. Excavation of the ponds to a depth of 1.5 feet will generate a maximum of 828 yards<sup>3</sup>, 394 yds<sup>3</sup> from Pond 1 and 434 from Pond 2 (Pond 1 area is 7,100 ft<sup>2</sup> and Pond 2 area is 7,800 ft<sup>2</sup>). Three 35 yd<sup>3</sup> trucks will transport the material in three days.

Table 1 summarizes the unit and total costs expected for complete reclamation. Note that because economies of scale are not available due to the size of this project, unit costs are high.

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			Quantity	Cost per	Cost
1.	Labor				
	1.1.	Mechanical	80 hours	2500	\$2,000
	1.2.	Technical	48 hours	3500	1,680
	1.3.	Equipment			
		Operators	98 hours	2000	1,960
	1.4.	Analysis	15 samples	3700	550
2. Material					
	2.1.	Tools	1 lot		500
	2.2.	Loader	30 hours	4500	1,350
	2.3.	Dump Truck	90 hours	4500	4,050
	2.4.	Dozer	8 hours	4500	360
				Total	\$12,450

Table 1