

State of CO

# STATE OF COLORADO

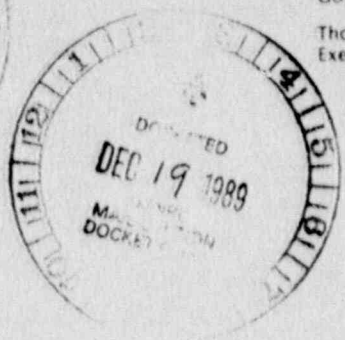
## COLORADO DEPARTMENT OF HEALTH

4210 East 11th Avenue  
Denver, Colorado 80220  
Phone (303) 320-8333

RETURN ORIGINAL TO PDR, HQ



Roy Romer  
Governor  
Thomas M. Verron, M.D.  
Executive Director



December 13, 1989

Mr. Ray Hall, Director  
Uranium Recovery Field Office  
U.S. Nuclear Regulatory Commission  
Box 25325  
Denver, CO 80225

Dear Mr. Hall:

To follow up item II.A. of the Department's September 18, 1989 response to the 1989 review of Colorado's Radiation Control Division, attached is a review of groundwater monitoring at Colorado's five source material mill sites under Title II of the Uranium Mill Tailings Radiation Control Act. This responds to Gary Konwinski's request following the review of our program.

To summarize, monitoring data for the eighteen hazardous constituents of special interest exists as follows:

<u>Mill Site</u>	<u>Background Well</u>	<u>Compliance Well</u>
Cotter Canon City	8	9
Hecla Durita	1	2
Sweeney Boulder	15	15
Umetco Maybell	16	16
Umetco Uravan	5	15

As agreed at our meeting in Arlington, Texas, on September 21st, 1989, your staff has reviewed by way of example the Cotter Canon City program (URFO letter of November 28, 1989). We will be meeting December 19th in Denver with Gary Konwinski and Joel Grimes with respect to implementing more formally and fully the 10 CFR 40 ground water requirements in Colorado.

If you have any questions contact Ken Weaver at 331-8480.

Robert M. Quillin, Director  
Radiation Control Division

RMQ:KLKW:rmcm

DESIGNATED ORIGINAL

Certified By Mary C. Hood

DF02  
1/1

90-0164

9001240319 891213  
PDR STPRG ESGCO  
PDC

GROUND WATER MONITORING STATUS  
State of Colorado

Parameter	Routine Monitoring	Frequency	Non Routine Monitoring	Background Well	Source Liquid Sample
URAVAN					
Tailings Ponds					
Arsenic	No	N/A	Yes	Yes	No
Barium	No	N/A	Yes	No	No
Beryllium	No	N/A	No	"	No
Cadmium	No	N/A	Yes	"	No
Chromium	No	N/A	Yes	"	No
Cyanide	No	N/A	Yes	"	No
Gross Alpha	No	N/A	No	"	No
Lead	No	N/A	Yes	"	No
Mercury	No	N/A	Yes	"	No
Molybdenum	No	N/A	Yes	"	No
Nickel	No	N/A	Yes	"	No
Radium 226&228	Yes	Quarterly	Yes	"	No
Selenium	No	N/A	Yes	"	No
Silver	No	N/A	Yes	"	No
Thorium 230	Yes	Quarterly	Yes	"	No
Uranium	Yes	Quarterly	Yes	"	No
Napthalene	No	N/A	No	"	No
Vanadium	No	N/A	Yes	"	No
CLUB RANCH POND					
Arsenic	No	N/A	Yes	No	N/A
Barium	No	N/A	Yes	No	N/A
Beryllium	No	N/A	No	No	N/A
Cadmium	No	N/A	Yes	No	N/A
Chromium	No	N/A	Yes	No	N/A
Cyanide	No	N/A	Yes	No	N/A
Gross Alpha	No	N/A	Yes	Yes	N/A
Lead	No	N/A	Yes	No	N/A
Mercury	No	N/A	Yes	No	N/A
Molybdenum	No	N/A	Yes	No	N/A
Nickel	No	N/A	Yes	No	N/A
Radium 226&228	Yes	Quarterly	Yes	Yes	N/A
Selenium	Yes	Quarterly	Yes	Yes	N/A
Silver	No	N/A	Yes	No	N/A
Thorium 230	Yes	Quarterly	Yes	Yes	N/A
Uranium	Yes	Quarterly	Yes	Yes	N/A
Napthalene	No	N/A	No	No	No
Vanadium	No	N/A	Yes	No	No
SWEENEY MILL					
Arsenic	No	N/A	No	No	No
Barium	Yes	Quarterly	No	Yes	No
Beryllium	Yes	Quarterly	No	Yes	No
Cadmium	Yes	Quarterly	No	Yes	No
Chromium	Yes	Quarterly	No	Yes	No
Cyanide	Yes	Quarterly	No	Yes	No

GROUND WATER MONITORING STATUS  
State of Colorado

Parameter	Routine Monitoring	Frequency	Non Routine Monitoring	Background Well	Source Liquid Sample
Gross Alpha	Yes	Quarterly	No	Yes	No
Lead	Yes	Quarterly	No	Yes	No
Mercury	Yes	Quarterly	No	Yes	No
Molybdenum	Yes	Quarterly	No	Yes	No
Nickel	Yes	Quarterly	No	Yes	No
Radium 226&228	Yes	Quarterly	No	Yes	No
Selenium	No	N/A	No	No	No
Silver	Yes	Quarterly	No	Yes	No
Thorium (232)	Yes	Quarterly	No	Yes	No
Uranium	Yes	Quarterly	No	Yes	No
Napthalene	No	N/A	No	No	No
Vanadium	Yes	Quarterly	No	Yes	No
DURITA					
Arsenic	No	N/A	No	No	No
Barium	No	N/A	No	No	No
Beryllium	No	N/A	No	No	No
Cadmium	No	N/A	No	No	No
Chromium	No	N/A	No	No	No
Cyanide	No	N/A	No	No	No
Gross Alpha	No	N/A	No	No	No
Lead	No	N/A	No	No	No
Mercury	No	N/A	No	No	No
Nickel	No	N/A	No	No	No
Radium 226&228	Yes	Quarterly	No	Yes	No
Selenium	No	N/A	No	No	No
Silver	No	N/A	No	No	No
Thorium 230	No	N/A	No	No	No
Radium 226&228	Yes	Quarterly	No	No	No
Selenium	No	N/A	No	No	No
Silver	No	N/A	No	No	No
Thorium 230	No	N/A	No	No	No
Uranium	No	Quarterly	No	No	No
Napthalene	No	N/A	No	No	No
Vanadium	No	N/A	No	No	No
MAYBELL					
Arsenic	Yes	Twice/Yr	Yes	Yes	No
Barium	No	N/A	Yes	Yes	No
Beryllium	No	N/A	No	No	No
Cadmium	No	N/A	Yes	Yes	No
Chromium	No	N/A	Yes	Yes	No
Cyanide	No	N/A	Yes	Yes	No
Gross Alpha	Yes	Twice/Yr	Yes	Yes	No
Lead	No	N/A	Yes	Yes	No
Mercury	No	N/A	Yes	Yes	No
Molybdenum	No	N/A	Yes	Yes	No
Nickel	No	N/A	Yes	Yes	No

GROUND WATER MONITORING STATUS  
State of Colorado

Parameter	Routine Monitoring	Frequency	Non Routine Monitoring	Background Well	Source Liquid Sample
Radium 226&228	Yes	Twice/Yr	Yes	Yes	No
Selenium	No	N/A	Yes	Yes	No
Silver	No	N/A	Yes	Yes	No
Thorium 230	Yes	Twice/Yr	Yes	Yes	No
Uranium	Yes	Twice/Yr	Yes	Yes	No
Napthalene	No	N/A	No	No	No
Vanadium	No	N/A	Yes	Yes	No
COTTER CANON CT					
Arsenic	No	N/A	No	Yes	Yes
Barium	No	N/A	No	No	No
Beryllium	No	N/A	No	No	No
Cadmium	Yes	Annually	Yes	Yes	Yes
Chromium	No	N/A	No	No	Yes
Cyanide	No	N/A	No	No	No
Gross Alpha	No	N/A	No	No	Yes
Lead	Yes	Annually	Yes	Yes	Yes
Mercury	No	N/A	No	No	Yes
Molybdenum	Yes	Monthly	Yes	Yes	Yes
Nickel	Yes	Annually	Yes	Yes	Yes
Radium 226&228	No	N/A	Yes	No	Yes
Selenium	No	N/A	Yes	Yes	Yes
Silver	No	N/A	No	No	No
Thorium 230	No	N/A	Yes	No	Yes
Uranium	Yes	Quarterly	Yes	Yes	Yes
Napthalene	No	N/A	No	No	No
Vanadium	Yes	Annually	Yes	Yes	Yes