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March 9 1995

95 RF 02436

Kurt Muenchow
Environmental Restoration Division
DOE RFFO

OPERABLE UNIT 5 WOMAN CREEK PRIORITY DRAINAGE MINING SCENARIO EVALUATION
CAB 027 95

Action Forward the following information to the Environmental Protection Agency (EPA)
and the Colorado Department of Public Health and Environment (CDPHE)

This letter provides and evaluation summary of subsurface materials present in Individual
Substance Sites (IHSS) which comprise OU 5 to support the decision not to evaluate the
mining scenario in the RFI/RI process This information will be documented in the
Exposure Assessment Technical memorandum # 12

Please forward the attached information to the EPA and the CDPHE If I can provide any
additional information, please call me at 966 9100



Carol A Bicher
Operable Unit No 5 Closure
Environmental Restoration Program Division

CAB cb

Orig and 1 cc K Muenchow

Attachment
As Stated

CORRES CONTROL
OUTGOING LTR NO

DE ORDER# 4700.1

15 RF 02436

DIST		Exc
MARAL ME		
MURLINGAME A F		
USBY WS		
RANCH DB		
ARNIVAL G J		
AVIS J G		
ERRERA DW		
RAY RE		
LEIS JA		
LOVER WS		
SOLAN PM		
IANNI BJ		
ARMAN LK		
HEALY TJ		
HEDAHL T		
HILBIG J G		
HUTCHINS NM		
JACKSON DT		
KELL RE		
KUESTER AW		
MARX GE		
MCDONALD MM		
MCKENNA FG		
MONTROSE JK		
MORGAN RV		
POTTER GL		
PIZZUTO VM		
RISING TL		
SANDLIN NB		
SCHWARTZ JK		
SETLOCK GH		
STEWART DL		
STIGER SG		
TOBIN PM		
VOORHEIS GM		
WILSON JM		
W.A. Blicher	/	/
M. R. Wood	/	/
CORRES CONTROL	X	X
ADMN RECORD/080	/	/
TRAFFIC		
PATS/T130G		

CLASSIFICATION

UCNI		/
UNCLASSIFIED	/	
CONFIDENTIAL		
SECRET		

AUTHORIZED CLASSIFIER

DOCUMENT CLASSIFICATION

REVIEWED PER

DATE

IN REPLY TO RFP CC NO

11A

ACTION ITEM STATUS

3 PARTIAL/OPEN

3 CLOSED

LTR APPROVALS

ORIG & TYPIST INITIALS

CAB/GB

ADMIN RECCRD
A-0005-000632

MINING SCENARIO EVALUATION

This evaluation is a summary of subsurface materials present in Individual Substance Sites (IHSS) which comprise OU5 to support the decision not to evaluate the mining scenario in the RFI/RI process

The Mining Exposure Scenario for Baseline Risk Assessments at the Rocky Flats Environmental Technology Site dated August 9 1994 concluded that the potential of a mining scenario at OU 5 is low because it contains less than ten feet thick of continuous Rocky Flats Alluvium. The following is a description of the subsurface materials encountered within each IHSS in OU5 as determined from available boring logs

IHSS 115/196

Based on the available boring logs, the subsurface lithology is summarized as follows from north to south. Zero to 30 feet maximum is Rocky Flats Alluvium (primarily sandy clay with gravel to clayey sand with gravel), zero to 15 feet maximum is of waste/fill material and zero to 15 feet is of colluvial and alluvial material (primarily clay). Claystone bedrock underlies the above materials

IHSS 133.1

Based on the available boring logs the subsurface lithology is summarized as follows. Six to seven feet maximum is of colluvial and alluvial material (primarily sandy gravel). Claystone bedrock underlies the colluvial and alluvial material

IHSS 133.2

Based on the available boring logs the subsurface lithology is summarized as follows. Ten to 27 feet maximum is of colluvial and alluvial material (primarily sandy gravel and sandy clay). Claystone bedrock underlies the colluvial and alluvial material

IHSS 133.3

Based on the available boring logs the subsurface lithology is summarized as follows. Approximately six feet of colluvial and alluvial material (primarily gravelly sand) exists with claystone bedrock underlying the colluvial and alluvial material

IHSS 133.4

Based on the available boring logs, the subsurface lithology is summarized as follows. Four to 23 feet maximum is of colluvial and alluvial material (primarily silty clay and sandy gravel). Claystone bedrock underlies the colluvial and alluvial material

IHSS 133.5

Based on the available boring logs the subsurface lithology is summarized as follows. Approximately 24 feet of Rocky Flats Alluvium (primarily silty sand, sand, and gravelly sand) exists with claystone bedrock underlying the alluvium. This IHSS is at the edge of the Rocky Flats Alluvium pediment surface

IHSS 133.6

Based on the available boring logs, the subsurface lithology is summarized as follows
Approximately nine feet of colluvial and alluvial material (primarily gravelly and, silty sand, and silty clay) exist with claystone bedrock underlying the above materials

IHSS 209

Based on the available boring logs, the subsurface lithology is summarized as follows
Approximately 31 feet is of colluvial and alluvial material (primarily gravelly sand, silty sand and silty clay) Claystone bedrock underlies the colluvial and alluvial material

Surface Disturbance West of IHSS 209

Based on the available boring logs, the subsurface lithology is summarized as claystone bedrock subcropping at the surface

Surface Disturbance South of IHSS 133

Based on the available boring logs, the subsurface lithology is summarized as follows
Approximately 26 feet is of colluvial and alluvial material (primarily gravelly sand, silty sand, and clayey sand) Claystone bedrock underlies the colluvial and alluvial material

Summary

At Operable Unit 5, minable sand and gravel deposits that are greater than 20 feet in thickness exist along the northern edge of IHSS 115, 133.5 and 209 and the surface disturbance south of IHSS 133. However, the areal extent of these IHSSs is limited because they are on the edge of the Rocky Flats Alluvium pediment surface. Based on the limited volume of minable material available, these locations would not be amenable to mining.