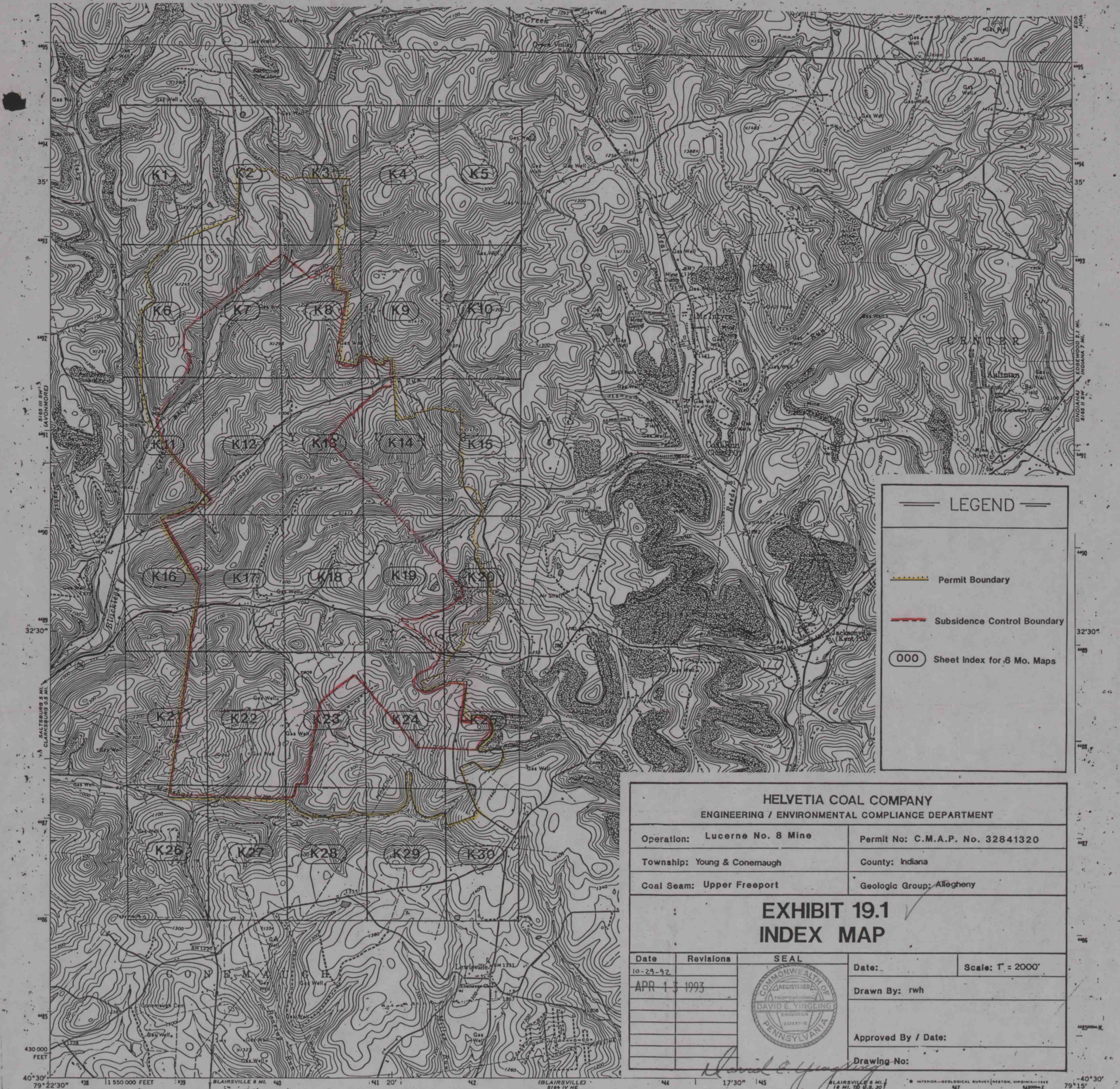


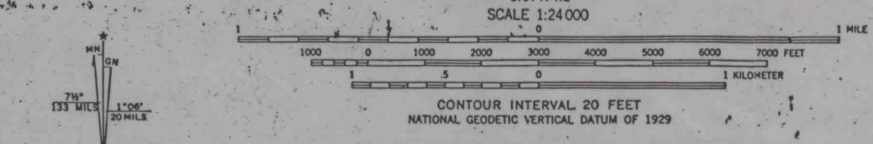


LEGEND

- Permit Boundary
- Subsidence Control Boundary
- 000 Sheet Index for 6 Mo. Maps

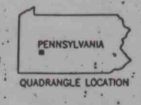
HELVETIA COAL COMPANY ENGINEERING / ENVIRONMENTAL COMPLIANCE DEPARTMENT			
Operation: Lucerne No. 8 Mine		Permit No: C.M.A.P. No. 32841320	
Township: Young & Conemaugh		County: Indiana	
Coal Seam: Upper Freeport		Geologic Group: Allegheny	
EXHIBIT 19.1 INDEX MAP			
Date	Revisions	SEAL	Date
10-29-92			Scale: 1" = 2000'
APR 13 1993			Drawn By: rwh
			Approved By / Date:
			Drawing No:

Mapped, edited, and published by the Geological Survey
Control by USGS, NOS/NOAA, and USCE
Topography by photogrammetric methods from aerial
photographs taken 1962 and 1963. Field checked 1964
Polyconic projection. 10,000-foot grid ticks based on Pennsylvania
coordinate system, south zone. 1000-meter Universal Transverse
Mercator grid ticks, zone 17, shown in blue. 1927 North American
Datum. To place on the predicted North American Datum 1983 move the
projection lines 4 meters south and 20 meters west as shown by
dashed corner ticks
Fine red dashed lines indicate selected fence and field lines where
generally visible on aerial photographs. This information is unchecked
Area covered by dashed light-blue pattern is subject to controlled
inundation to 975 feet by Conemaugh Dam
There may be private inholdings within the boundaries of
the National or State reservations shown on this map



THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

Revisions shown in purple and woodland compiled in cooperation with
Commonwealth of Pennsylvania agencies from aerial photographs taken 1977
and other sources. This information not field checked. Map edited 1981



ROAD CLASSIFICATION
Heavy-duty _____ Light-duty _____
Medium-duty _____ Unimproved dirt _____
○ State Route

MCINTYRE, PA.
N4030-W7915/7.5

1964
PHOTOREVISED 1981
DMA 5165 III SE-SERIES V631
APR 15 1993
Dept. of Environmental Resources
McMurray District Office