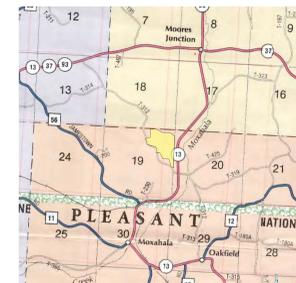


LRH-2014-748-MUS  
Cannon Reserve Surface Mine  
Oxford Mining Company, LLC  
Exhibit No. 1 of 5 - Project  
Location - Perry County, Ohio

USGS QUAD  
DEAVERTOWN  
NEW LEXINGTON

DRAINAGE BASIN  
MOXAHALA CREEK



LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
[Symbol]	HYDROLOGICAL BOUNDARY	(L)	LESSEE
[Symbol]	TOPSOIL STORAGE	(C)	SURFACE OWNER
[Symbol]	DRAINAGE DIKE	(CO)	COAL OWNER
[Symbol]	BUFFER ZONE VARIANCE AREA	(NCM)	NON COAL MINERAL OWNER
[Symbol]	WETLAND AVOIDANCE AREA	[Symbol]	COAL OUTCROP
[Symbol]	WETLAND AREA	[Symbol]	PREVIOUSLY MINED AREA
[Symbol]	PUBLIC ROAD	[Symbol]	EXISTING HIGHWALL
[Symbol]	PROPOSED SEDIMENT POND	[Symbol]	PROPOSED FINAL HIGHWALL
[Symbol]	EXISTING SEDIMENT POND	[Symbol]	BEGIN MINING
[Symbol]	EXISTING IMPOUNDMENT	[Symbol]	END MINING
[Symbol]	UNDERGROUND MINES (O/SEAM)	[Symbol]	NO. # MOD. KITTINGING/EL. #796
[Symbol]	DRILLED WELL	[Symbol]	NO. # LOWER KITTINGING/EL. #771
[Symbol]	DRILLED WELL WITH LOG	[Symbol]	NO. # NAME/ELEV.
[Symbol]	DUG WELL	[Symbol]	TEST HOLE @ELEV.
[Symbol]	DEVELOPED SPRING	[Symbol]	SIGN
[Symbol]	UPSTREAM SAMPLING SITE	[Symbol]	OCCUPIED DWELLING
[Symbol]	DOWNSTREAM SAMPLING SITE	[Symbol]	UNOCCUPIED DWELLING
[Symbol]	BACKGROUND SAMPLING SITE	[Symbol]	COMMERCIAL BUILDING
[Symbol]	WATER TREATMENT FACILITY	[Symbol]	HUNTING CABIN
[Symbol]	SUMP	[Symbol]	INSTITUTIONAL BUILDING
[Symbol]	GOB PILE	[Symbol]	CHURCH
[Symbol]	BACKFILLED HIGHWALL	[Symbol]	SCHOOL
[Symbol]	GAS LINE	[Symbol]	PERENNIAL STREAM
[Symbol]	OIL LINE	[Symbol]	INTERMITTENT STREAM
[Symbol]	OVERHEAD ELECTRIC	[Symbol]	EPHEMERAL STREAM
[Symbol]	OVERHEAD TELEPHONE	[Symbol]	DIVERSION DITCH
[Symbol]	UNDERGROUND TELEPHONE	[Symbol]	SLOPE MEASUREMENT
[Symbol]	PUBLIC WATER LINE	[Symbol]	PROPERTY LINE
[Symbol]	PRIVATE WATER	[Symbol]	RIGHT OF WAY
[Symbol]	FENCE LINE	[Symbol]	RADIO TOWER
[Symbol]	HIGH VOLTAGE LINE	[Symbol]	HIGH VOLTAGE TOWER
[Symbol]	TRAIL	[Symbol]	SEASONAL STRUCTURES - UNLESS INDICATED
[Symbol]	HAUL ROAD	[Symbol]	HUNTING CABIN
[Symbol]	SEEPING ENTRY	[Symbol]	CAMP
[Symbol]	UNDERGROUND ENTRY	[Symbol]	RECREATIONAL VEHICLE
[Symbol]	SEEP	[Symbol]	HOUSE TRAILER
[Symbol]	EXISTING MONITORING STATION	[Symbol]	PROPOSED WELL
[Symbol]	PROPOSED MONITORING STATION	[Symbol]	TANK
[Symbol]		[Symbol]	HISTORICAL - NOT FOUND IN FIELD
[Symbol]		[Symbol]	GAS COMPRESSOR STATION

SITE	MAP SYMBOL	AREA (AC.)
PROPOSED PERMIT AREA	[Symbol]	74.2
WETLAND MITIGATION AREA	[Symbol]	0.33
AUGER/HIGHWALL MINING	[Symbol]	35.9
S.A.D.E. AREA	[Symbol]	0.0
NO SURFACE DISTURBANCE	[Symbol]	19.6
PRIME FARMLAND UNIT ZbB	[Symbol]	6.9
STEEP SLOPE AREA	[Symbol]	0.0

WETLAND SUMMARY			
ID	AREA (AC.)	JURISDICTIONAL	AVOIDED
B	0.22	YES	NO
C	0.08	YES	NO

COAL REMOVAL ACREAGES			
COAL SEAM	AUGER/HIGHWALL (AC.)	STRIP (AC.)	
#5	35.3	38.4	
#6	35.3	38.4	

STRIKE & DIP TABLE			
SEAM	STRIKE	DIP	
#5	N 69° W	147/mi NW	
#6	S 79° E	247/mi NE	

ID#	LANDOWNER TABLE	(S,C,NCM)
3	AMY JO VANBIBBER	(S,C,NCM)
85	THOMAS GOSSMAN	(S,C,NCM)
86	NANCY MCCABE	(S,C,NCM)
87	WANDA GLASS	(S,C,NCM)
88	TODD R. FULK	(S,C,NCM)
89	BRAIN HINKLE	(S,C,NCM)
90	VICKI MATTHEWS, DANIEL PARKER, JOHN PARKER	(S,C,NCM)
91	RICHARD BIGHAM	(S,C,NCM)
92	TIMOTHY & DEBRA FULK SR	(S,C,NCM)
93	BRUCE & SHERI STARNER	(S,C,NCM)
94	RUTH STARNER	(S,C,NCM)
95	LARRY DINUNZIO	(S,NCM), OMC (C)
96	RICHARD SLACK	(S,NCM), OMC (C)
97	RICHARD & DOROTHY BARLOW	(S,NCM), OMC (C)
108	PENNY GLASS	(S,C,NCM)

NOTES:  
 1. THIS MAP WAS PREPARED USING GIS DATA, USGS QUADS, TAX MAPS AND DEEDS.  
 2. PROPERTY LINES ARE ASSUMED CORRECT, BUT HAVE NOT BEEN SURVEYED.  
 3. OIL/GAS WELLS NOT FINALED/PLUGGED ARE ASSUMED ACTIVE. EXPIRED PERMITS ARE NOT SHOWN.  
 4. EXPLOSIVES WILL NOT BE STORED ON SITE.  
 5. THE PROPER AUTHORITIES OF ANY UTILITY (OIL, GAS, ELECTRIC, PHONE, ETC.) WILL BE NOTIFIED PRIOR TO MINING, IF SUCH UTILITY WILL BE AFFECTED.  
 6. FOR HALF MILE BLASTING STRUCTURES, REFER TO ADDENDUM TO PART 3, C(3) AND C(4).  
 7. OMC DENOTES OXFORD MINING COMPANY, LLC.

CERTIFICATION OF THIS MAP DOES NOT APPLY TO FEATURES BEYOND THE HYDROLOGIC BOUNDARY AS SUCH FEATURES ARE NOT COVERED BY SECTION 1513 OF THE REVISED CODE AND RULES OF THE BOARD OF SURVEYORS.

"I, THE UNDERSIGNED, HEREBY CERTIFY THAT THESE MAPS ARE CORRECT AND SHOWS TO THE BEST OF MY KNOWLEDGE AND BELIEF ALL INFORMATION REQUIRED BY CHAPTER 1513 OF THE REVISED CODE AND RULES ADOPTED THEREUNDER."

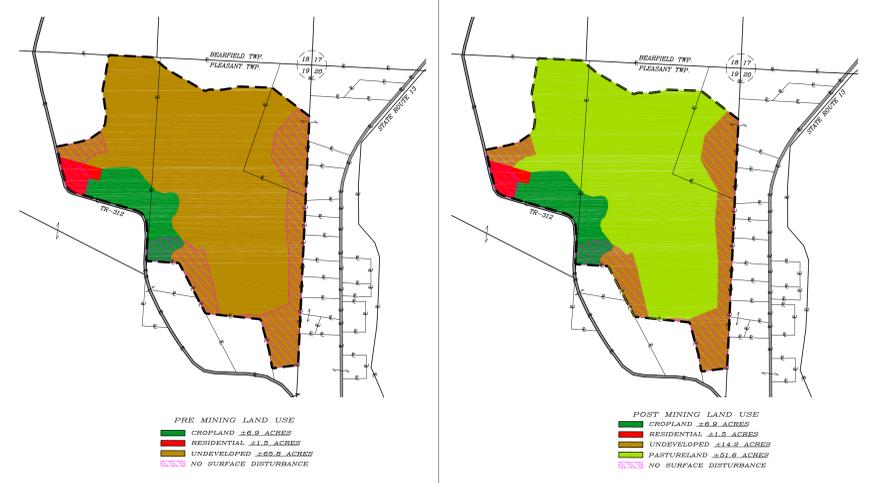
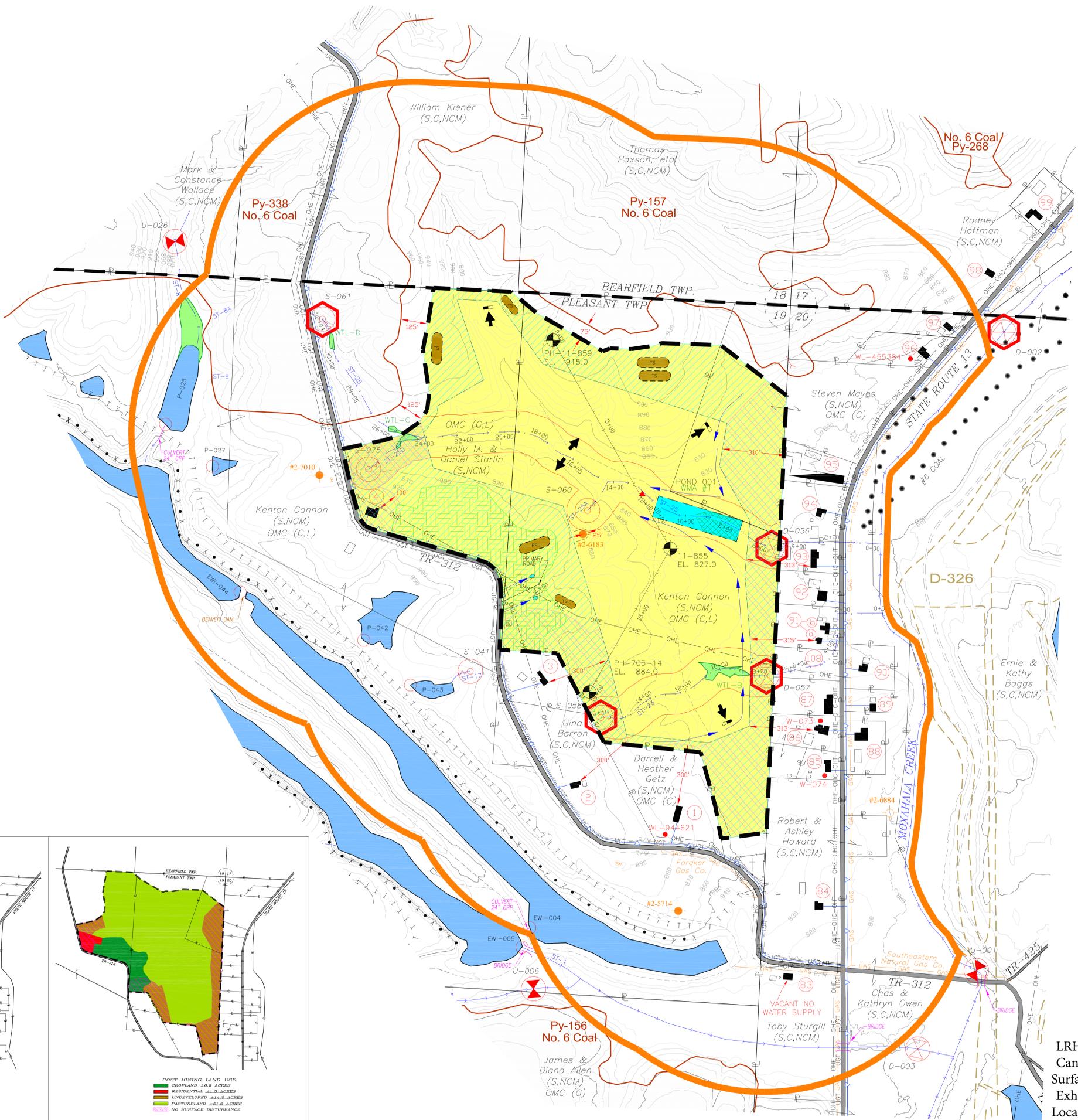
ACKNOWLEDGE BEFORE ME A NOTARY PUBLIC, ON THIS 30th DAY OF August, 2016  
 TARA C. WILSON  
 Notary Public, State of Ohio  
 My Commission Expires April 22, 2018

**Linn Engineering, Inc.**  
 534 Market Street Zanesville, Ohio P.O. Box 2086 (740) 452-7434

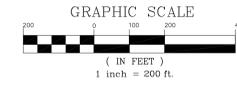
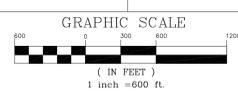
OXFORD MINING COMPANY, LLC  
 P.O. BOX 427 COSHOCTON, OHIO 43812

TYPE OF MAP	
<input checked="" type="checkbox"/>	APPLICATION MAP
<input checked="" type="checkbox"/>	HYDROLOGIC MAP
<input type="checkbox"/>	APPLICATION TO REVISE
<input type="checkbox"/>	ANNUAL MAP, YEAR _____
<input type="checkbox"/>	ADJACENT AREA MAP
<input type="checkbox"/>	INCIDENTAL BOUNDARY REVISION

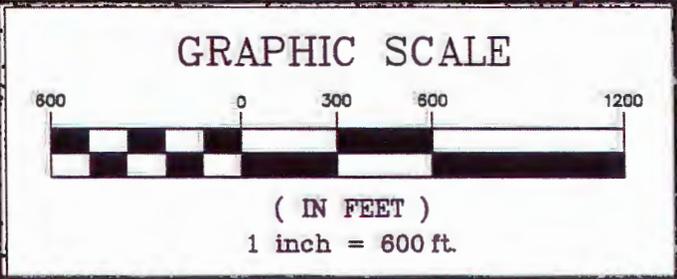
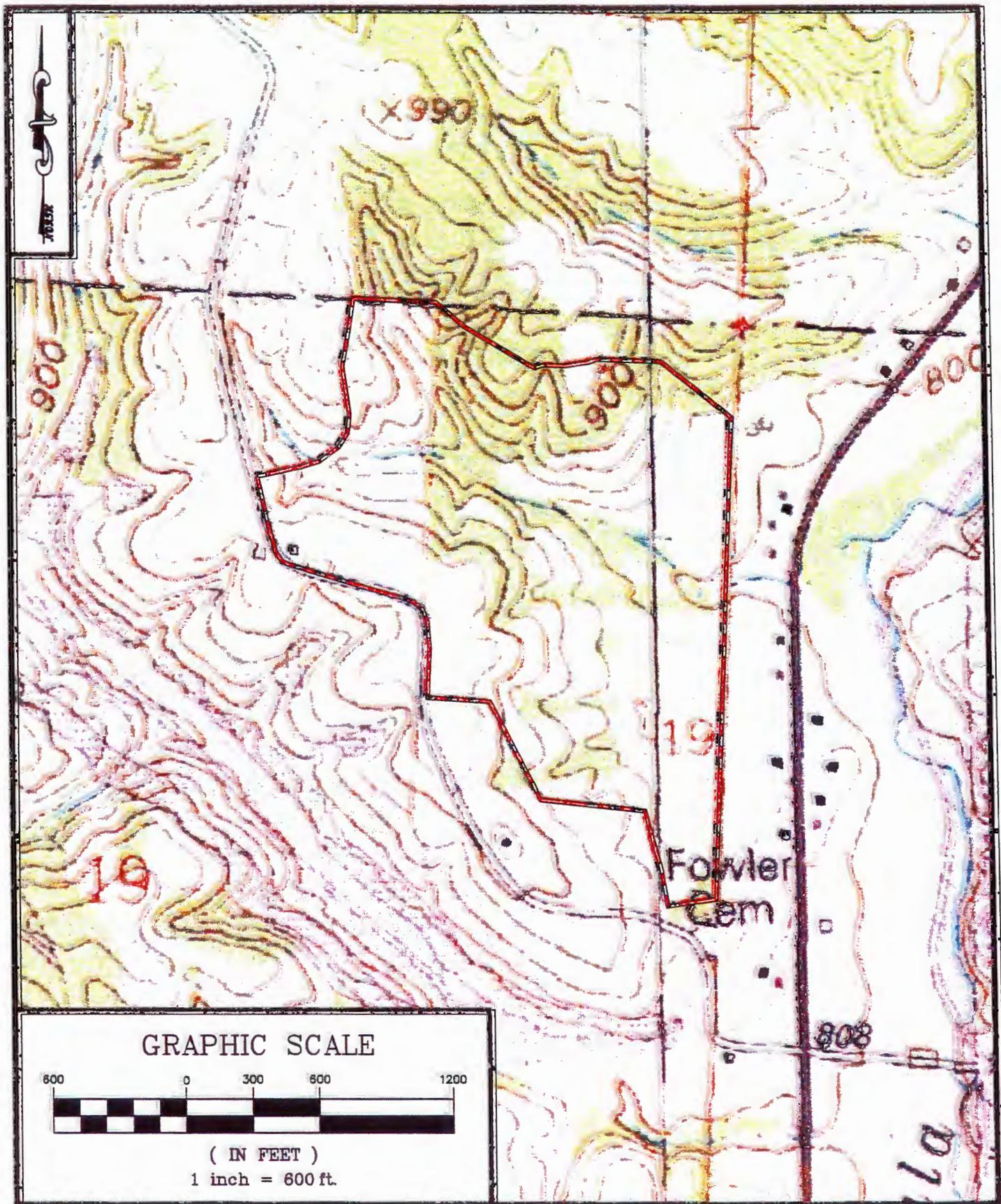
STRIP MINE LOCATION			
SECTION	19	T-13-N	R-14-W
TOWNSHIP	PLEASANT	COUNTY	PERRY
MINE	CANNON RESERVE	STATE OF OHIO	
PERMIT	APPLIC.	SCALE	CONTOUR
		1"=200'	10'
			DATE
			8/16
			REVISED



PRE MINING LAND USE		POST MINING LAND USE	
[Green]	CROPLAND 26.9 ACRES	[Green]	CROPLAND 26.9 ACRES
[Red]	RESIDENTIAL 11.8 ACRES	[Red]	RESIDENTIAL 11.8 ACRES
[Blue]	UNDEVELOPED 202.8 ACRES	[Blue]	UNDEVELOPED 114.8 ACRES
[Pink]	PASTURELAND 251.6 ACRES	[Pink]	PASTURELAND 251.6 ACRES
[White]	NO SURFACE DISTURBANCE	[White]	NO SURFACE DISTURBANCE



LRH-2014-746-MUS  
 Cannon Reserve  
 Surface Mine (10546)  
 Exhibit No. 2 of 5 -  
 Location Map



LAT: 39° 41' 00"N    LONG: 82° 07' 36"W  
 Source: USGS 7.5 minute Deavertown and New Lexington quadrangle

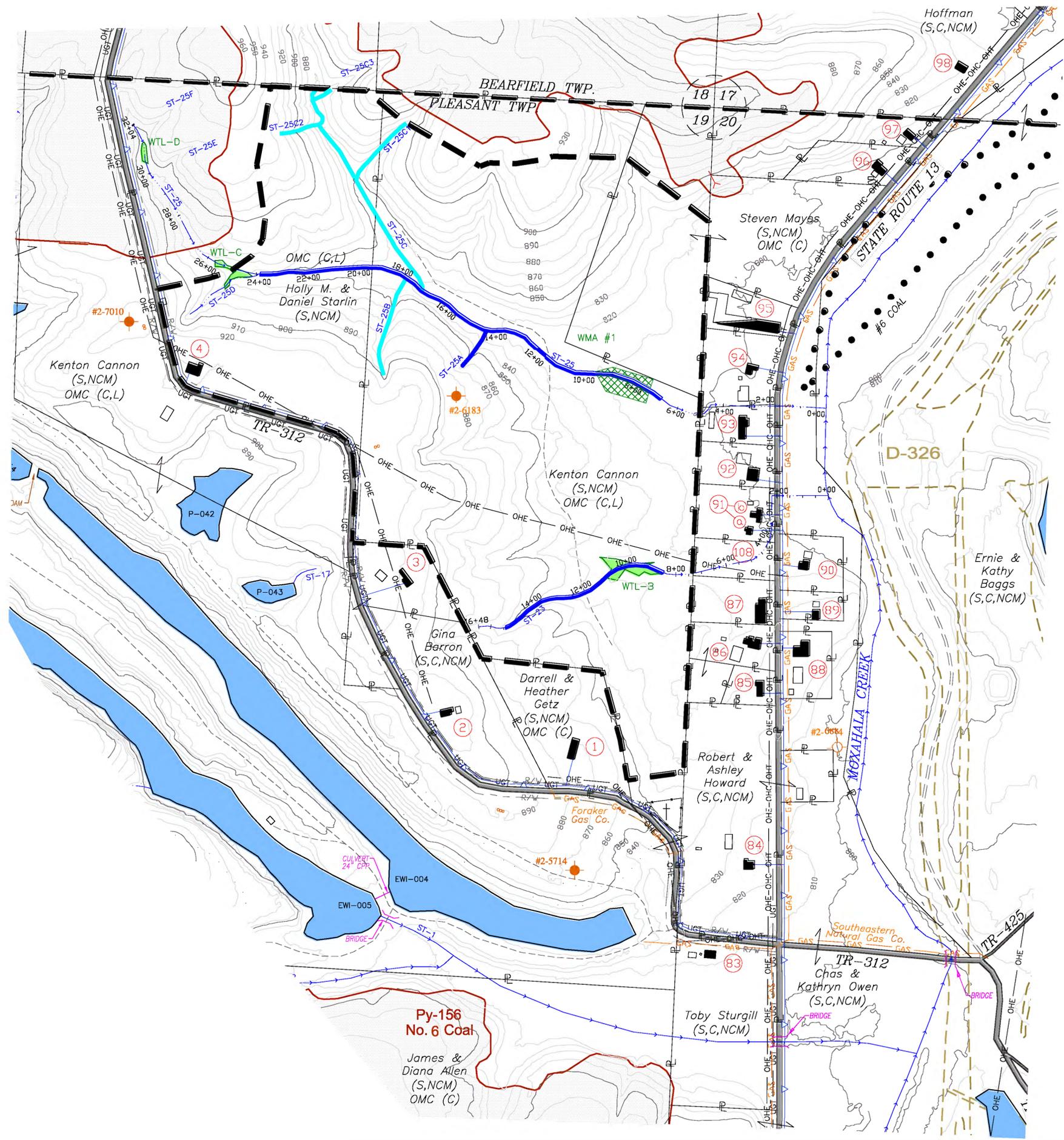
PROPOSED PERMIT AREA, 74.2 acres

Figure 1: SITE LOCATION MAP  
 OXFORD COAL COMPANY, LLC  
 PERRY COUNTY, OHIO  
 7/22/16

SCALE: 1" = 600'

**Linn Engineering, Inc.**    740-452-7434  
 Civil Engineering Consultants  
 P.O. Box 2086    Zanesville, Ohio 43702-2086

By	THL	JAP	THL	THL
Designed	Drawn	Checked	Approved	
Project No.	CANNON			
Sheet No.	1	Of	1	



**LEGEND**

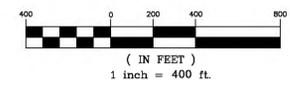
- CANNON RESERVE PROPOSED PERMIT AREA
- WETLAND MITIGATION AREA
- RECONSTRUCTED INTERMITTENT STREAM
- RECONSTRUCTED EPHEMERAL STREAM

**NOTES:**  
1. REFER TO THE STREAM STATIONING AND IMPACT TABLES THAT ARE SUBMITTED AS APPENDIX B FOR THE LENGTH OF RECONSTRUCTED STREAM.

STREAM SUMMARY		
STREAM #	IMPACTED LENGTH	RECONSTRUCTED LENGTH
STREAM 23	694'	694'
STREAM 25	1714'	1714'
STREAM 25A	174'	174'
STREAM 25B	396'	396'
STREAM 25C	927'	927'
STREAM 25C1	298'	298'
STREAM 25C2	161'	161'
STREAM 25C3	84'	84'
<b>TOTAL</b>	<b>4448'</b>	<b>4448'</b>

WETLAND SUMMARY			
WETLAND ID	IMPACTED AREA (ac)	MITIGATION FACTOR	MITIGATION AREA (ac)
B	0.22	1.5	0.33
<b>TOTAL</b>	<b>0.22</b>		<b>0.33</b>

LRH-2014-746-MUS  
Cannon Reserve Surface Mine  
Exhibit No. 4 of 5 -  
Compensatory Mitigation Plan



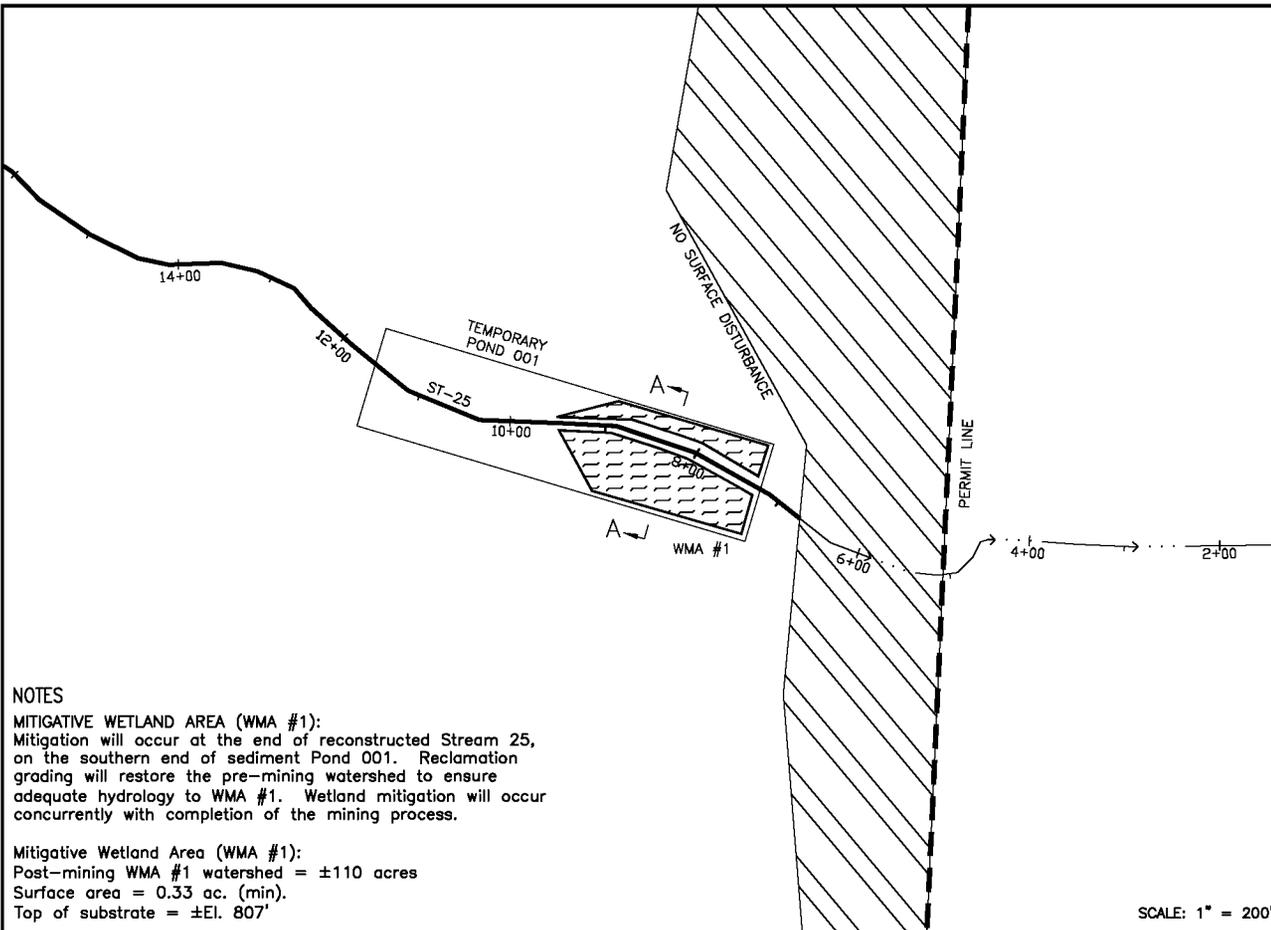
**OXFORD MINING COMPANY, LLC  
CANNON RESERVE MINE SITE  
SECTION 401 AND 404 AUTHORIZATION**

**LEGEND**

	PROPOSED PERMIT LINE
	NO SURFACE DISTURBANCE
	PROPOSED POND
	WETLAND MITIGATION
	RECONSTRUCTED STREAM

**KEYNOTES**

- ① Substrate: Substrate shall be either on-site hydric soil or consist of organic rich loam and silt loam soils or a combination thereof. Soils shall have adequate texture and organic matter to retain moisture, allow diffusion of oxygen and carbon dioxide, and retain nutrients for absorption through the plant roots.  
  
Place and spread substrate to a total thickness of 9". Do not compact.  
  
The hydric soils will be removed and stockpiled prior to their disturbance. Soils will be protected from erosion until they are re-distributed.
- ② Liner: Material used to construct the liner shall be non-toxic, non-acidic clay or shale material obtained on-site.  
  
Liner material shall be placed in 6" max. loose lifts and compacted by repetitious passes of heavy earthmoving equipment. Total thickness shall not be less than 6".
- ③ Planting: The planting plan is specified in the permit application.



**NOTES**  
 MITIGATIVE WETLAND AREA (WMA #1):  
 Mitigation will occur at the end of reconstructed Stream 25, on the southern end of sediment Pond 001. Reclamation grading will restore the pre-mining watershed to ensure adequate hydrology to WMA #1. Wetland mitigation will occur concurrently with completion of the mining process.  
  
 Mitigative Wetland Area (WMA #1):  
 Post-mining WMA #1 watershed = ±110 acres  
 Surface area = 0.33 ac. (min).  
 Top of substrate = ±El. 807'

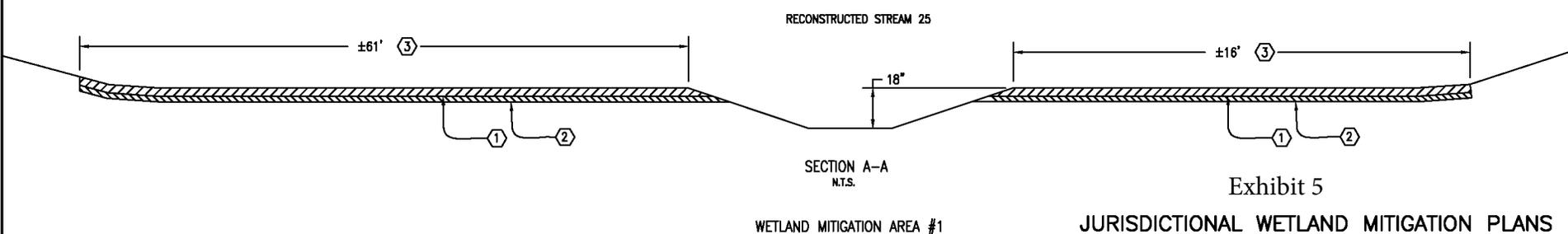


Exhibit 5

**JURISDICTIONAL WETLAND MITIGATION PLANS**



**Linn Engineering, Inc.** 740-452-7434  
 Civil Engineering Consultants  
 P.O. Box 2086 Zanesville, Ohio 43702-2086