COAL MINING AND RECLAMATION PERMIT

Issued To: AMERICAN ENERGY CORP
43521 Mayhugh Hill Rd.
Beallsville, OH 43716

Telephone: (740) 926-9152

Permit Number: D-425
Application Number: D-0425-2
Acreage: 154.4

Effective: 12/17/2002
Expires: 10/21/2004

Type of Operation: Coal Waste

LOCATION OF PERMIT

NAME OF LANDOWNERS	T	R	SECTION	LOTS	TOWNSHIP	COUNTY
American Energy Corporation	6	5	4		WAYNE	BELMONT
	6	5	3		WAYNE	BELMONT

The issuance of this permit means only that the application to conduct a coal mining operation meets the requirements of Chapter 1513 of the Revised Code, and as such DOES NOT RELIEVE the operator of any obligation to meet other federal, state or local requirements.

This permit is issued in accordance with and subject to the provisions, conditions, and limitations of Chapter 1513 of the Revised Code and Chapters 1501:13-1, 1501:13-3 through 1501:13-14 of the Administrative Code.

The water monitoring plan for this permit shall be:

Quality: Refer to application page 26, F(3) and the Hydrogeologic Investigation Report Section 6.0
Quantity: Refer to application page 26, F(3) and the Hydrogeologic Investigation Report Section 6.0

Note: These monitoring requirements are separate from NPDES monitoring

Signature: Michael V. Sponsler by [illegible] **Date:** 12/17/2002
Chief, Mineral Resources Management

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PERMIT SUMMARY SHEET
Division of Mineral Resources Management

Permit Number: D-425

Application Number: D-0425-2

See permit cover sheet for specific conditions and hydrologic monitoring requirements.

Inspector's Note:
This summary is designed only to advise you of important provisions of a permit that require your attention and monitoring. Your familiarity with requirements and permitted activities will insure that mining and reclamation occurs as was intended and approved at the time of permit issuance. Please take the time to review relevant provisions of the permit carefully and thoroughly. Should you have questions about this or any permit, please do not hesitate to contact the application manager within the Permitting Section.

Items marked are applicable to this permit:

- ☐ Auger Mining (attachment 18)
- ☐ Alternate Resoiling Material (attachment 19)
- ☐ Blasting Plans
- ☑ Buffer Zone Variance Request (BZVR)
- ☑ Coal Waste Disposal (attachment 28)
- ☐ Delay in Contemporaneous Reclamation
- ☐ Excess Spoil Disposal
- ☐ Experimental Mining Practices
- ☐ Federal Lands
- ☐ Mountain Top Removal
- ☐ MSHA Impoundment
- ☐ AML No-Cost Area
- ☐ Prime Farmlands (attachment 15)
- ☐ Remining (attachment 33)
- ☐ Remining (Modified effluent)
- ☐ Special handling of acid-forming/toxic material
- ☐ Beneficial Use of CCB's (Att. 34)
- ☐ Public Road Permit (attachment 9)
- ☑ Small Area Drainage Exemption (SADE)
- ☐ Steep Slope Mining
- ☐ Slurry Impoundment
- ☐ Test Hole Variance
- ☐ Variance from AOC
- ☑ Wetlands Affectment/Avoidance
- ☐ Within 500' of active UG mine
- ☑ Within 500' of abandoned UG mine
- ☐ Within 100' of a cemetery
- ☐ Within 300' of occupied dwelling (attachment 10)
- ☐ Within 300' of public building, church, school, community or institutional building or public
- ☐ Within 1000' of wild, scenic or recreational river
- ☑ OEPA 401/COE 404 permits needed for wetlands or stream affectment and/or reconstruction
- ☐ Tree Planting in Reclamation Plans

Application Manager: Scott Stiteler, Application Manager **Date:** 12-17-02

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F103 Rev: 07/01/2001

D0425-2

APPROVED SURFACE
COAL MINING PERMIT APPLICATION

Applicant:

Name: AMERICAN ENERGY CORP
Address: 43521 Mayhugh Hill Rd.
TWP. HIGHWAY 88
Beallsville, OH 43716

Application D-0425-2
Number of acres to be 154.4
Number of acres to be affected first mining 5.0
The quarterly water monitoring plan for this permit

Quality: Refer to application page 26, F(3) and the Hydrogeologic Investigation Report Section 6.0
Quantity: Refer to application page 26, F(3) and the Hydrogeologic Investigation Report Section 6.0

Note These monitoring requirements are separate from NPDES monitoring

This application is APPROVED since it demonstrates and the Division has found that the criteria in paragraph (E) of rule 1501: 13-5-01 of the Administrative Code have been met.

Signature: Michael G Sponsler by R Vaks Date: 10/2/02

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F51 Rev: 07/01/2001

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12/00

OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Mineral Resources Management

Written Findings

Applicant: AMERICAN ENERGY CORP

Application Number: D-0425-2

The Division of Mineral Resources Management completed a regulatory review of this application on 10/07/2002. As required in provisions of 1501:13-5-01(E) of the Ohio Administrative Code (OAC), the Division's comprehensive review of this application resulted in finding the following:

1. The permit area is not within an area designated as unsuitable for mining pursuant to 1501:13-3-07 of the Ohio Administrative Code. As of this date, three areas within the state have been designated as unsuitable: Guernsey County, Valley Township Sections 7 & 8 (for all coal mining operations); Carroll County, Harrison Township Sections 4 and 5, Center Township Sections 27 and 33, Washington Township Sections 28, 29, 30, 34, 35, and 36 (for full coal recovery underground mining operations); and Belmont County, Smith Township Sections 27, 28, 33, 34 (for surface operations), and Sections 27, 33, 34 (for underground operations above the Meigs Creek No. 9 coal seam).

2. The permit area is not within an area under study for designation as unsuitable for mining. This finding was determined following a review of lands unsuitable petitions on file with the Division as of 10/07/2002.

3. The permit area is not within one hundred feet of a cemetery or a pre-historic burial mound. This finding was determined following a field review conducted by the Division's Field Environmental Specialist and/or the Division's Archaeologist on 07/16/2002 and subsequent map review of the application area and review of Part 1, D(9) of the permit application.

4. The Division's Field Environmental Specialist determined from a field review conducted on 05/31/2002 and from a map review that the permit area is within one hundred feet of the outside right-of-way of the following public roads: TR-87 and TR-74However, we determined the applicant has VER in accordance with 1501:13-1-02. This was confirmed following our review of the following documents included in the permit application under Part 1, D(6): See documents contained in IBR-0425-1 that cover the VER claim

5. The permit area is not within three hundred feet of an occupied dwelling. This was determined from a field review conducted by the Division's Field Environmental Specialist on 05/31/2002 and from our map review of the application area and Part 1, D(7) of the permit application.

6. The proposed mining operation will not adversely affect publicly owned parks or places included or eligible for listing on the National Register of Historic Places. We determined this following reviews by the Division Archaeologist, the State Historic Preservation Office (SHPO), a field review conducted by the Division's Field Environmental Specialist, and map reviews conducted by the Division. Correspondence in the administrative file from the Division's Archaeologist and the SHPO dated 07/16/2002 support this finding.

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7 The permit area is not within three hundred feet of a public building, school, church, community or institutional building, or public park. This finding was determined following a field review conducted by the Division's Field Environmental Specialist on 05/31/2002, the Division's subsequent map reviews, and a review of Part 1, D(8) of the permit application.

8 The permit area does not include any lands within the boundaries of the National Park System, The National Wildlife Refuge System, The National System of Trails, The National Wilderness Preservation System, The Wild and Scenic Rivers System, including study rivers designated under Section 5(a) of the Wild and Scenic Rivers Act (16 U.S.C. 1276 (a)), or study rivers or study river corridors as established in any guidelines pursuant to that Act, National Recreation Areas designated by Acts of Congress, or any nature preserve dedicated pursuant to Chapter 1517, of the Revised Code. This finding is based upon reviews by the U.S. Department of Interior dated 02/11/2002; the Ohio Department of Natural Resources, Division of Natural Areas and Preserves dated 02/21/2002; a field and map review by our Division Environmental Specialists on 05/31/2002; and our review of Part 1, D(1) and D(3) of the permit application.

9 The permit does not include any federal lands within the boundaries of any National Forest. This finding is based upon reviews by the U.S.D.A Forest Service dated 02/11/2002 , a field review conducted by the Division's Field Environmental Specialist on 05/31/2002 , and map reviews conducted by the Division.

10 The permit area is not located within one thousand feet of the waterlines of any wild, scenic, or recreational river dedicated pursuant to Chapter 1501 of the Ohio Revised Code. This finding is based upon a field review conducted by the Division's Field Environmental Specialist on 05/31/2002 , map reviews, and a review completed by the Ohio Department of Natural Resources, Division of Natural Areas & Preserves dated 02/21/2002 . Also see Part 1, D(2) of the permit application.

11 Coal mining operations proposed in this permit application will not affect the continued existence of threatened or endangered species or result in the destruction or adverse modification of their critical habitat as determined under the Endangered Species Act of 1973 (16 U.S.C. 1513 et seq.). There are several species on the federal list that are found in the coal mining region of Ohio. Sightings of Indiana Bat have been recorded in Belmont County. Review of the permit application; consultation with the U.S. Department of the Interior, Fish and Wildlife Service dated 02/11/2002; and information dated 02/21/2002 provided by the Natural Heritage Program administered by the Division of Natural Areas & Preserves; and/or consideration of the endangered and threatened species from the U.S. Fish & Wildlife Service (12/00) offer no indication of listed species having been sighted or critical habitat on or in the vicinity of the application area.

12 The private mineral estate has been severed from the private surface estate on the surface properties owned by American Energy Corporation. This finding is based upon a review of the following documents submitted under Part 1, C(9) of the permit application. We have determined that these documents allow for the extraction of coal by the mining method(s) identified in the application: See transfer permit for proper deed information.

13 The applicant and/or any affiliated company has corrected or is in the process of correcting, to the satisfaction of the issuing agencies, all notices of violations/IHCO's and has no unpaid final demand(s) for civil penalty assessments. This finding is based on verification of Division-issued NOV's, IHCO's, and CPA's and review of information through the AVS on 10/07/2002. See attached documentation verifying this information. This finding is also based on a records search by Dave Clark from the district office on 10/07/2002.

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14 The applicant is required to submit the acreage fees prior to issuance of the permit. Receipt for payment is part of the permit file. The applicant is not delinquent in payment of the Federal reclamation fee required by Section 402 of Public Law 95-87 based on review of the AVS on 10/07/2002 . See attached AVS printout.

15 The applicant is required to submit performance bond prior to issuance of the permit. The receipt for payment of bond is part of the permit file.

16 The applicant (and the operator, if applicable) does not control and has not controlled mining operations with a demonstrated pattern of willful violations of Chapter 1513. of the Revised Code and rules adopted thereunder of such nature, duration, and with such resulting irreparable damage to the environment as to indicate an intent not to comply with such provisions. This finding is based on a records search by Dave Clark from the district office on 10/07/2002

17 The Division has reviewed and the chief has approved each of the following items pursuant to 1501:13-01 through 1501:13-14 of the Ohio Administrative Code:

X	Buffer Zone Variance Request:	Date of Approval	10-7-02
☐	Test Hole Variance Request:	Date of Approval	
X	Small Area Drainage Exemption:	Date of Approval	10-7-02
☐	Road Permit:	Date of Approval	
☐	Alternative Resoiling Material:	Date of Approval	
☐	Benefical use of CCP's	Date of Approval	
X	Other permits necessary to operate are issued or applied for including: NPDES, 404, 401, or the permit is conditioned appropriately.	Date of Approval	401 - 9-13-02 404 - 11-29-02 NPDES - 12-3-02 PTI - 12-11-02

Refer to the administrative file for documentationof any other specific approval required.

18a We determined that the postmining land uses are the same as the premining land uses based on review of Part 2, H(1), H(6) and H(12) of the permit application.

18b The postmining land uses are proposed to be different from the premining land uses. We determined that the proposed alternative postmining land use(s) are in accordance with 1501:13-9-17(D) of the Ohio Administrative Code based on our review of Part 2, H(1), H(6), and H(12) of the permit application.

19c Our review of the permit application, appropriate maps, and information maintained and provided by the Natural Resources Conservation Service determined that the permit area includes soils identified as Prime Farmland. However, in accordance with 1501:13-4-12(F)(1) of the Ohio Administrative Code, we determined that the PFL grandfather exemption is applicable. This finding is based upon the following: See Valid Existing rights contained in IBR-0425-1.

20 Coal mining and reclamation to be performed under this permit will be consistent with other operations to be performed during the same permit term in areas adjacent to the permit area. This finding is based upon the Division's review of the permit application and adjacent proposed or existing permit areas, including See attachment 5 & 23 contained in the permit application.

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21 Based on our hydrologist's review of Part 2, Items B, C, D, E, F and Part 3, Items A(7), D(9), E, F, H of the permit application as documented in the Cumulative Hydrologic Impact Assessment (CHIA), we find that the proposed operations have been designed to prevent damage to the hydrologic balance outside the permit area.

22 The probable cumulative hydrologic impact for this mining operation area and adjacent areas on the hydrologic regime and water availability is See attached CHIA. This finding is based upon the Division's hydrologist's a comprehensive review of the permit application, Attachment 14, analysis of existing ground water data maintained by the Division of Water, and other available hydrological and geological data which is part of the permit application. These findings are summarized in the (CHIA) completed by the Division's hydrologist on 09/12/2002.

23 Based upon the Division's review of the permit application; use of reasonable mining and reclamation practices proposed in the application; technical review by the Division's engineers, hydrologists, soil scientists, and other technical experts; consultation with other agencies; and the Division's previous experience with the applicant (if applicable), the chief of the Division has found that the mining and reclamation plans contained in Parts 2, 3, and 4 of the application can be feasibly and responsibly accomplished.

24 The permit application does not propose to use an existing structure in connection with or to facilitate the proposed coal mining and reclamation operation. This finding is based upon a field review conducted by the Division's Field Environmental Specialist on 05/31/2002 , map reviews, and Part 3, B(1) of the permit application.

25b Based upon a comprehensive review of the permit application, a field review conducted by the Division's Field Environmental Specialist, and a review of Part 4 of the permit application, the permit includes the following special categories of mining and has satisfactorily met the regulatory requirements (1501:13-4-12 of the Ohio Administrative Code) governing special mining categories :

The following letters correspond with the appropriate paragraph in the rule.

- ☐ (B) Experimental Mining Practice
- ☐ (C) Mountaintop Removal
- ☐ (D) Steep Slope Mining
- ☐ (E) Variance from Approximate Original Contour (AOC)
- ☐ (F) Prime Farmland
- ☐ (G) Variance from delay in contemporaneous reclamation in combined surface and underground mining operations
- ☐ (H) Auger Mining
- ☐ (I) Coal prep plants not located within the permit area of a specified mine
- ☐ (K) Variance from AOC for remining operations
- ☐ (L) Lands Eligible of Remining

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25a Based upon a comprehensive review of the permit application, a field review conducted by the Division's Field Environmental Specialist on 05/31/2002 , and our review of Part 4 of the permit application, the permit does not include provision for any special categories of mining such as experimental practices, mountaintop removal, steep slope mining, and other special categories of mining.

26 To protect against possible adverse effects of the proposed mining operations on properties listed or eligible for listing on the National Register of Historic Places, the Chief of the Division has implemented one of the following three actions after considering information provided by the Division Archaeologist and the SHPO dated 07/16/2002

- ☐ The permit is conditionally approved with strict limitations on mining activities in and around the historic resources. Please refer to the permit approval document that includes special conditions designed to protect historic resources that are applicable to this permit.
- ☐ Prior to application approval, the Chief requested specific revisions to the proposed mining and reclamation plan so that impacts to the historic resources on the permit area are eliminated and/or minimized. Submitted revisions are reflected in the permit application.
- ☐ Following review by the Division's Archaeologist and representatives of the State Historic Preservation Office (SHPO), the Chief determined in a written finding that no additional protective measures are needed to protect the historic resource(s) found on the permit area.

27 Following review of the permit application, map reviews, field reviews conducted by the Division's Field Environmental Specialists and a review of Part 3, D(4) of the application, we determined that the application DOES NOT include lands eligible for remining

28 The Division of Mineral Resources Management has determined that permit application number D-0425-2 submitted on 02/11/2002 , is accurate, complete, and complies with the requirements of Chapter 1513 of the Ohio Revised Code and all rules adopted thereunder.

- ☐ There are no special conditions on this permit.
- ☑ Check items 13, 17, 19e and 26 for the special conditions that may apply to this permit.

10-07-02

Application Manager — Date

10-7-02

Chief Division of Mineral Resources Management — Date

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Cumulative Hydrologic Impact Assessment
American Energy Corporation
Adjacent Area Coal Mining Application D-0425-2
Coal Refuse Disposal
Mike Dillman – September 12, 2002

Refer to the attached document entitled, "REPORT ON THE PERMIT TO INSTALL APPLICATION AND DETAILED PLANS FOR EXPANSION OF THE EXISTING COAL REFUSE DISPOSAL AREA AT AMERICAN ENERGY CORPORATION'S CENTURY MINE, SECTIONS 3 AND 4, WAYNE TOWNSHIP, BELMONT COUNTY PTI APPLICATION NUMBER 06-6937" written by the Ohio Department of Natural Resources, Division of Mineral Resources Management for the Ohio Environmental Protection Agency, Southeast District Office, Logan, Ohio on September 12, 2002. Material damage will be prevented. Approval is recommended.

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REPORT ON THE PERMIT TO INSTALL APPLICATION AND DETAILED PLANS FOR EXPANSION OF THE EXISTING COAL REFUSE DISPOSAL AREA AT AMERICAN ENERGY CORPORATION'S CENTURY MINE, SECTIONS 3 AND 4, WAYNE TOWNSHIP, BELMONT COUNTY PTI APPLICATION NUMBER 06-6937

Ohio Department of Natural Resources, Division of Mineral Resources Management
for the
Ohio Environmental Protection Agency, Southeast District Office, Logan, Ohio
September 12, 2002

On December 13, 2001, an application for Permit to Install (PTI) No. 06-6937 was received in the Columbus Office of the Ohio Department of Natural Resources, Division of Mineral Resources Management (ODNR, DMRM) on behalf of American Energy Corporation. The PTI was included within an adjacent area coal mining permit application for coal refuse disposal. The package included the adjacent area coal mining permit application, detailed drawings, an application for permit to install, an engineering report, a hydrogeologic investigation report, and other forms and documents. Subsequently, on May 2, 2002, a first annual ground water statistical evaluation was received. The above documents were received from Jack A. Hamilton & Associates, Inc. and from William J. Siplivy, P.E., Inc., consultants for American Energy Corporation. Forms A and B5 of the PTI application were later forwarded by ODNR, DMRM to the Ohio Environmental Protection Agency, Southeast District Office (OEPA, SEDO) for assignment of the PTI application number. These forms were received in that office on June 18, 2002. PTI fees were forwarded by American Energy Corporation to the OEPA, SEDO and received on June 18, 2002. The PTI application bearing an application number was returned to ODNR, DMRM on June 26, 2002. Revisions to the coal mining application and PTI were received by ODNR, DMRM on July 12, 2002, August 13, 2002, September 6, 2002, and September 11, 2002. Meetings were held with the applicant's consultants on several occasions, including March 27, 2001, and December 13, 2001. In addition, a site review with the consultants was conducted on April 10, 2001.

Owner:
American Energy Corporation
43521 Mayhugh Hill Road
Beallsville, OH 43716
Robert D. Moore, President; Melanie Homan, Engineer (740) 926-9152

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Designer:
Bill Siplivy, P.E., Project Engineer
50 Munroe Falls Avenue
Munroe Falls, OH 44262
Phone: (330) 686-8911 and (740) 926-1351; fax (330) 686-8911 and (740) 926-1615

Additional Consultant:
Jack A. Hamilton & Associates, Inc.
342 High Street; Box 471
Flushing, Ohio 43977
Phone: (740) 968-4947; fax (740) 968-4225

Location Description:
The refuse disposal site is located on Piney Creek, a tributary of Captina Creek, in Sections 3 and 4 of Wayne Township, Belmont County.

General/Background Information:
Youghiogheny and Ohio Coal Co originally opened this underground mine as the Allison Mine in 1967. The Allison Mine operated continuously until it closed in 1978. The American Energy Corporation acquired the mine in 1994. In 2001, the underground mine was re-opened as the Century Mine, which produces the #8 Coal by the underground mining method.

Raw coal from the Allison Mine was cleaned in the preparation plant and the waste was placed in a disposal area, on native ground, just west of the plant. Leachate from the refuse surface and sediment from disturbed areas were directed to Ponds 008A, 008B, and 008C for treatment, if necessary, before discharge to Piney Creek.

It appears that the first record of a discharge permit for the Allison Mine was on May 13, 1970, by the Ohio Department of Health, Water Pollution Control Board. The site included a coal preparation plant with clarifier and emergency pond, a refuse disposal area, and an office/bath house with a sewage treatment plant. A PTI was issued on September 4, 1969, for a 7500 gallon-per-day package plant. A PTI was approved April 13, 1976, for a 15,000 gallon-per-day package plant. On August 16, 1978, a 2000 gallon-per-day package plant was approved for the change house and office addition. Originally, there was to be no discharge from the coal processing system, as the water was recycled into the preparation plant. However, by the time NPDES permit L091*AX was issued on July 10, 1978, there were 3 outfalls: the preparation plant (001), water pumped from the mine (002), and the sanitary sewage treatment (003). NPDES permit L091*BD was issued on May 23, 1979, which added a new sanitary outfall (004). On June 1, 1982, the OEPA approved PTI 06-016-W for runoff control plans for the reclamation of the coal refuse areas. Pond 008 was included to treat the

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runoff from a drainage area of 127 acres, 25 of which are disturbed. Discharge was to Piney Creek through the original outfall 001. On November 22, 1985, PTI 01-1196 (later corrected to 06-1196) was approved for existing ponds 002 and 011. Pond 011 has a 13 acre disturbed watershed from the storage yard and crusher area. Pond 002, with a maximum discharge estimated at 14,000 gallons per day, was constructed to receive water from the underground mining operation. Both ponds discharge to Piney Creek.

On February 1, 1994 the NPDES permit was renewed under Wyoming Pocahontas Land Co. It contained 2 outfalls for the reclaimed mine site, 008 and 011. On January 1, 1995, the permit was transferred from Wyoming Pocahontas Land Co. to Bennoc, Inc. On November 21, 2001, OEPA approved PTI 06-6555 for a package plant for American Energy Corp.'s Century Mine, located at the old Allison Mine site.

Summary of New Facilities:

The proposed Century Mine coal refuse disposal site, a valley-fill structure, will be an upstream expansion of the original refuse disposal area used by the Allison Mine. The Allison site is approximately 100 feet high, as measured from the elevation of the toe of the structure (970 feet mean sea level), to the top plateau at elevation 1070 feet mean sea level. The proposed site will begin on the downstream face of the Allison refuse area at an elevation of 1060 feet mean sea level and progressively rise upstream to an elevation of 1288.6 feet mean sea level. The new site will be raised in 50-foot vertical intervals separated by 20-foot wide benches. The thickness of the fill under the maximum elevation will be approximately 134 feet, while the overall maximum thickness will be approximately 220 feet. Coal refuse will be placed in horizontal, two-foot maximum lifts.

The Century Mine is scheduled to produce over 7 million raw tons of coal annually. The raw coal will be processed in a plant in order to separate waste rock from the clean coal product, thereby generating a projected 2.45 million tons of coarse coal refuse each year, at a clean coal recovery rate of 65 percent. About five percent (125,000 tons) of the coal waste will consist of fine refuse from the filter presses. The annual disposal volume, based on projected compaction densities of 100 to 120 pounds per cubic foot, will be approximately 1.5 to 1.8 million cubic yards.

The proposed disposal site covers 112.2 acres and will be developed in three phases. Initial development in Phase 1 will be immediately west of the preparation plant, in the head of the hollow of the eastern fork of the unnamed tributary of Piney Creek. Phase 1 will be developed to a plateau elevation of approximately 1210 feet mean sea level. Phase 2 will involve filling the area in the western fork of the valley. Initial disposal will be made at the head of the hollow. This area will be filled to design elevations during the early stages of the phase in order to accommodate timely reclamation. Phase 2 will then be filled progressively downstream from the head of the hollow. This phase will also be developed to a design elevation of approximately 1210 feet mean sea level. Initial

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development of Phase 3 will be in the northern halves of Phases 1 and 2. Final grades will be achieved in the northern half first. Phase 3 will then progress downstream. In Phase 3, where applicable, the re-soiled Allison refuse pile will be stripped to the refuse surface. The soil will be removed and either used elsewhere on the project for cover or stockpiled in designated areas for future cover needs. New refuse construction in Phase 3 will be keyed into the Allison refuse surface. The maximum elevation will be 1288.6 feet mean sea level. Maps and designs have been included for each of the phases.

Total permitted area, including ponds, topsoil storage areas, and spoil storage areas, will be 154.4 acres. The ultimate height of the refuse disposal area will be approximately 324 feet, as measured from the toe of the existing refuse disposal area (elevation 965 feet mean sea level) to the maximum crest elevation of 1,288.6 feet mean sea level. The maximum fill thickness is projected to be 220 feet in the middle of the structure.

The proposed operation includes the addition of five runoff treatment ponds associated with the new coarse refuse disposal area. The runoff ponds, outfalls 012, 013, 014, 015, and 016, will be constructed as needed. The pond at outfall 016 will be constructed first.

The southeast corner of the project area is underlain by Allison Mine Pittsburgh #8 Coal room and pillar workings. A subsidence evaluation was performed Bill Siplivy for these old workings and for possible development mining (50 percent or less extraction rates) for the Century Mine beneath the proposed refuse areas. The analysis indicates that, "surface subsidence is not expected as a result of this project, either over old workings of the Allison mine, or in the future, where mining is conducted according [sic] the design recommendations cited above."

Borrow areas for clay and unclassified fill are available from the middle ridge separating Phases 1 and 2, and from the western ridge of the permit area.

Coarse Refuse Disposal Area:

Liner: All new areas will have a re-compacted clay liner beneath the refuse. The liner will consist of 3 feet of clay compacted to provide permeability of less than or equal to 1×10^{-7} cm/sec. Compaction effort will not be less than 95 percent standard proctor density at 0 to 4 percent wet of optimum moisture. The liner material will be spread in 9-inch loose lifts, which will be graded and then compacted with a one-ton minimum padfoot or sheepsfoot compactor. Field tests for moisture and density will be taken at a rate of five tests per acre-lift. Field testing indicates that sufficient clay is present in the project area for liner and cap construction. Clay used for the liner will be obtained from approved borrow areas within the permit area where the clay has been sampled and tested from excavated test pits. The clays were tested for permeability, Atterberg Limits, Standard Proctor

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moisture/density, and grain size distribution. The clay liner system will not be installed over the existing Allison refuse pile.

Cap: The cap will consist of 2 feet of re-compacted clay placed over the refuse, followed by 1.5 feet of inert, unclassified earthen material and 0.5 feet of soil suitable for establishing vegetation. The soil cover will be spread as a single layer to form a smooth, uniform surface suitable for planting. The four-foot thick cap will require about 450 acre-feet of clay and soil. Geotechnical tests were performed on clays from several test pits. Results indicate that these clays will achieve a permeability of less than 1×10^{-7} cm/sec when re-compacted, making them suitable for both liner and cap construction.

Foundation Drains: The refuse disposal area will have foundation drains to collect and transport ground water flow from existing seeps and springs beneath the clay liner. These drains will be placed in the valley bottoms. Tributary drains will collect water from springs and seeps along valley walls. The foundation drains will collect natural, unaffected ground water that normally forms stream flow in the valley. The foundation drains will consist of a six-inch diameter perforated pipe encased in ¾" (No. 57) washed river gravel. Nonwoven geotextile filter cloth will completely surround the foundation drain trenches. These drains will outlet so that the discharge will not be intercepted by the treatment ponds, but will instead be conveyed directly to Piney Creek.

Leachate Control: In the refuse disposal area, the liner will be graded to drain leachate percolating through the refuse into a collection system. The leachate collection system will be installed above the clay liner. It will discharge to the treatment ponds. The leachate collection pipes will be six inches in diameter and perforated, and will be encased in clean, washed ¾" (No. 57) river gravel. Non-woven geotextile filter cloth will wrap the gravel. Any visible leachate from the Allison refuse pile will be conveyed to the leachate collector trunk line via rock filled finger drains. All drainage from the leachate collection system will pass through a pond for treatment.

The ground water controlled by the foundation drains will not be commingled with the leachate in the leachate collection system. The groundwater collection system is designed to intersect visible seeps in the proposed refuse disposal area north and west of the existing Allison refuse disposal site. The 3 feet of re-compacted clay liner that will protect the ground water collection system will not tie into the existing Allison coarse coal refuse site. A gravel-filled trench and pipe leachate collection system is designed on top of the clay liner. This system will collect leachate percolating into and through the new refuse area as well as any leachate emerging from the Allison refuse site. Leachate collected in this system will be conveyed to ponds for any necessary treatment before discharging into Piney Creek.

There will be no slurry impoundment on this site.

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Treatment Ponds:

Pond 012: will be constructed during phase 3 of the refuse disposal plan. It has a watershed of 7.69 acres with a disturbed area of 3.2 acres from refuse disposal and reclamation. The pond will have a surface area of 0.48 acres with a depth of 3.5 feet and will provide 1.47 acre-feet of storage volume below the primary spillway. There will be no pipe spillway, but will have an excavated spillway, 12 feet wide with a flow depth of 0.3 feet and 1.7 feet of freeboard, which will be capable of passing the peak flow from the runoff from a 25 year 24 hour rainfall event. The calculated runoff volume from the 10 year, 24 hour storm is 1.3 acre feet. Based on this, the pond will contain more than 100% of the runoff generated by a 10 year 24 hour storm below the spillway. The pond is proposed as temporary. The spillway discharges to an unnamed tributary to Piney Creek (tributary to Captina Creek, exceptional warmwater habitat). This pond will be assigned a discharge point, outfall 0IL00091 012.

Pond 013: will be constructed during phase 3 of the refuse disposal plan. It has a watershed of 47.9 acres and will receive leachate and drainage from 40.4 acres of refuse disposal and reclamation. The pond has a surface area of 1.33 acres at a depth of 10.7 feet which provides a volume of 11.31 acre feet below the open channel primary spillway. A dewatering pipe, 6" in diameter, will be placed so that the invert is 3.7 feet below the channel spillway elevation. The open channel primary spillway is 12 feet wide and is designed to pass the 25 year 24 hour storm event at a flow depth of 1.7 feet with 1.7 feet of freeboard. The calculated runoff volume from the 10 year, 24 hour storm is 9.0 acre feet. Based on this, the pond will contain more than 100% of the runoff generated by a 10 year 24 hour storm below the spillway. The pond is proposed as temporary. The spillway discharges to an unnamed tributary to Piney Creek (tributary to Captina Creek, exceptional warmwater habitat). This pond will be assigned a discharge point, outfall 0IL00091 013.

Pond 014: will be constructed during phase 3 of the refuse disposal plan. It has a watershed of 65.95 acres and will receive leachate and drainage from 61.54 acres of refuse disposal and reclamation. The pond has a surface area of 4.06 acres at a depth of 3.5 feet which provides a volume of 13.44 acre feet below the open channel primary spillway. A dewatering pipe, 6" in diameter, will be placed so that the invert is 1 foot below the channel spillway elevation. The open channel primary spillway is 40 feet wide and is designed to pass the 25 year 24 hour storm event at a flow depth of 1.2 feet with 1.7 feet of freeboard. The calculated runoff volume from the 10 year, 24 hour storm is 12.9 acre feet. Based on this, the pond will contain more than 100% of

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the runoff generated by a 10 year 24 hour storm below the pipe spillway. The pond is proposed as temporary. The spillway discharges to an unnamed tributary to Piney Creek (tributary to Captina Creek, exceptional warmwater habitat). This pond will be assigned a discharge point, outfall 0IL00091 014.

Pond 015: will be constructed during phase 2 of the refuse disposal plan. It has a watershed of 6.9 acres and will receive drainage from 4.6 acres of refuse disposal and reclamation. The pond has a surface area of 0.29 acres at a depth of 9.8 feet which provides a volume of 1.62 acre feet below the 12 inch diameter pipe principal spillway. The pond's 12 foot wide open channel spillway is designed to pass the 25 year 24 hour storm event at a flow depth of 0.7 feet with 2.2 feet of freeboard. The calculated runoff volume from the 10 year, 24 hour storm is 1.2 acre feet. Based on this, the pond will contain more than 100% of the runoff generated by a 10 year 24 hour storm. The pond is proposed as temporary. The spillway discharges to an unnamed tributary to Captina Creek (exceptional warmwater habitat). This pond will be assigned a discharge point, outfall 0IL00091 015.

Pond 016: will be constructed during phase 1 of the refuse disposal plan. It has a watershed of 90.5 acres and will receive leachate and drainage from 66.5 acres of refuse disposal and reclamation. The pond has a surface area of 1.79 acres at a depth of 11 feet which provides a volume of 16.5 acre feet below the open channel spillway. The pond's 40 foot wide open channel spillway is designed to pass the 25 year 24 hour storm event at a flow depth of 1.6 feet with 1.8 feet of freeboard. The calculated runoff volume from the 10 year, 24 hour storm is 15.5 acre feet. Based on this, the pond will contain more than 100% of the runoff generated by a 10 year 24 hour storm. The pond is proposed as temporary. The spillway discharges to an unnamed tributary to Piney Creek (tributary to Captina Creek, exceptional warmwater habitat). This pond will be assigned a discharge point, outfall 0IL00091 016.

Liner: All ponds will have a clay liner. The liner will consist of 3 feet of clay compacted to provide permeability of less than or equal to 1×10^{-7} cm/sec. The ponds will be cleaned out when the sediment level reaches 60% of the pond capacity.

Chemical Adjustment:

Soda ash and sulfuric acid may be used for pH adjustment and Nalco 7883 polymer based flocculent for solids control.

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Outfall Locations: (latitude, longitude):

012: 39°53'42", 81°01'29"
013: 39°53'46", 81°01'40"
014: 39°53'59", 81°01'55"
015: 39°54'14", 81°01'55"
016: 39°53'59", 81°01'32"

Antidegradation:

Hearing Held? Yes, no public comments received.
Issues Considered? No issues, therefore no responsiveness summary. However, see social economic justification.

NPDES Permit:

Application Submitted? NPDES permit 0IL00091*FD was renewed on June 21, 2002. Applicant has applied for a modification to the permit to include new outfalls 012 through 016. A draft modification is being processed.

Effluent Limits:

1. Up to and including a 1 year 24 hour rainfall:

Parameter	30-Day (mg/l)	Daily (mg/l)
Iron, Total	3.5**	7**
Manganese, Total	2**	4**
Suspended Solids	35**	70**
pH	6.5 - 9.0 S.U.*	

2. Greater than a 1 year 24 rainfall up to and including a 10 year 24 hour rainfall:

Parameter	30-Day (mg/l)	Daily (mg/l)
Settleable Solids	0.5 maximum not to be exceeded**	
pH	6.5 - 9.0 S.U.*	

3. Greater than a 10 year 24 rainfall:

Parameter	Daily Maximum
pH	6.5 - 9.0 S.U.*

* Limit is based on the Water Quality Standard.
**Limit is based on the Federal Effluent Guideline, 40 CFR 434.

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Ground Water Monitoring Plan:

Ground water and surface water will be sampled and analyzed prior to refuse disposal. In addition, quality and quantity information will be obtained for the life of the operation and reported quarterly to the Division of Mineral Resources Management from surface water sites CMU-1, CMD-1, CMU-2A, CMD-2, CMD-2A, CMU-2, and CMD-6; and from monitoring wells CG-01-3A, CG-01-3B, CG-01-3C, CG-01-4A, CG-01-4B, CG-01-5B, CG-01-5C, CG-01-6B, CG-01-5A, CG-01-1A, CG-01-2A, CG-01-4C, and CG-01-6C.

The first continuous zone of saturation underlying the facility is the interval containing the Morningview Sandstone, the Arnoldsburg Limestone, and the Gilboy Sandstone, and is designated as Zone A. The first significant zone of saturation is the Washington #12 Coal and overlying strata. It is designated as Zone B. The highest identified zone is Zone C, which occurs in an upper ridge position. The monitoring wells have been designed and located to monitor these zones, and the well designations correspond to the zone being monitored.

The ground water monitoring plan complies with OEPA Policy Number GD0303.010, including requirements for monitoring intervals and monitoring parameters. In addition, a Sampling and Analysis Plan has been submitted and conforms to the requirements of OEPA Policy Numbers 2.05 and GD0303.010.

The isolation distance between the bottom of the disposal facility and the uppermost aquifer system (the first continuous zone of saturation) is greater than 5 feet.

Estimated Cost: $526,212 for wastewater aspects of the project. The total cost of the project is estimated to be $958,000.

Special PTI Conditions:

1. The use of ammonia for treatment is prohibited unless a modification to the NPDES permit is approved.
2. OEPA will re-evaluate the effectiveness of the acid mine drainage treatment system if the site becomes inactive. Revisions to the treatment system may be required at that time.
3. Resoiling for any area will begin within 60 days of that area being filled to final design elevations. Resoiling will consist of two feet of re-compacted clay, eighteen inches of inert earthen material, and six inches of soil suitable for establishing vegetation. Resoiling will be completed prior to the next appropriate planting season, or within 180 days, for areas filled to final design elevation. Planting will be completed on each area filled to final design capacity, following resoiling, during the first appropriate period for favorable planting conditions after final preparation.

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4. The ground water must be monitored in accordance with the approved Ground Water Monitoring Plan.

Conclusion:

The detailed plans for the expansion of the refuse disposal area at the Century Mine have been reviewed, appear to be satisfactory, and are recommended for approval.

Mike Dillman (with input from Abbot Stevenson)
Geologist 3
Ohio Department of Natural Resources,
Division of Mineral Resources Management

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AEC 17914

Addendum to Part 3, Page 27, Item G(5), American Energy Corporation

Chief
ODNR, Division of Mineral Resources Management
1855 Fountain Square Court
Columbus, Ohio 43224

Re: D-0425-2, Small Area Drainage Exemption

Dear Chief:

American Energy Corporation is hereby requesting Two Small Area Drainage Exemptions containing 6.3 acres at this proposed 154.4 acre refuse site. The S.A.D.E. areas are small relative to the total disturbed area of the proposed permit.

S.A.D.E. #1 is located along the west side of the permit and contains 4.0 acres. S.A.D.E. #2 is located near the center of the south side of the permit and contains 2.3 acres. The only activity to be conducted on the S.A.D.E. areas will be topsoil storage as shown on the enclosed Adjacent Area Permit Application Map. Once the topsoil piles are constructed they will immediately be seeded and mulched so vegetation can be established as soon as possible. The topsoil piles will remain in place and will not be disturbed until reclamation of the refuse site begins. Straw/Hay bales and/or silt fence will be placed near the toe of the topsoil piles to control runoff and trap sediment. A minimum 10' buffer will be maintained between the toe of the topsoil piles and the bales and/or silt fence to enhance the sediment-trapping efficiency. The straw/hay bales and silt fence will be visually monitored on a weekly basis and during inclement weather conditions until vegetation is established. The bales and/or silt fence will be maintained as necessary to assure that they are functioning properly to meet effluent limitations. Maintenance will consist of replacing or reconstructing the bales and/or fence.

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Silt fence is one of the recommended practices for small drainage areas of this type. (See Rainwater and Land Development, Ohio's Standards for Stormwater Management Land Development & Urban Stream Protection, Second Edition, 1996, prepared by Dan Mecklenburg, ODNR, Division of Soil & Water Conservation). The construction of the alternate drainage control device will cause less disturbance and take up less space. Based on the slope of the land, the slope length, and the minimal time of actual disturbance, this method of drainage control will meet the appropriate effluent limitations.

Yours truly,

Cathy M Bihlman

APPROVED ☑
DISAPPROVED ☐
DATE: 10-7-02
SIGNED Michael Y Sponsler
by [illegible]

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Chief,
Ohio Department of Natural Resources
Division of Mineral Resources Management
1855 Fountain Square Court
Columbus, Ohio 43224

RE: **Stream Buffer Zone Variance Request**

Dear Chief:

In accordance with O.A.C. Section 1501:13-9-04 (A)(1) and Hydrology/Permitting PPD #98-1, American Energy Corporation is hereby requesting a variance to conduct refuse disposal operations within the buffer zones of Streams "A", "B", "C", "D", "L", "M", "N", "Q", "S", ***"Y" and Piney Creek*** as shown on the enclosed permit application map and described below.

Specific Activities:

Unnamed Stream "A"

Activities to be conducted within the buffer zone of Stream "A" consists of diversion ditch construction, pond construction and the installation of a foundation drain (See Engineers Report, Section 2.4) in the existing stream channels and a coal refuse fill above the foundation drain as shown on the enclosed Adjacent Area Application Map. The entire lengths of these streams will be effected from the head of hollow to the point of discharge, except for streams "A" and "S". The coarse coal refuse fill will remain permanent. ***The area that will be eliminated by the refuse disposal will be between Stations 6+40 and Station 15+00. The portion of the stream that will be disturbed, but not eliminated will be between Station 1+50 and Station 6+40.***

For purposes of this description, the beginning point of Stream "A" is located at the intersection of Streams "A", "B" and "C". Stream"A" flows in a southeasterly direction and discharges into existing Pond 008A. Stream "A" intersects the eastern permit limit approximately 300 feet west of Pond 008B. This intersection is designated as Station 0+00 for Stream "A". Approximately 1500 feet of the stream is located within the permit area. There are no major suspected sources of impacts on this stream except for the limited water shed. ***Stream "A" has been impacted by construction of the existing coal waste disposal and previous mining.***

Pond 012 will be installed ***during Phase 3 of the*** refuse ***disposal operation*** and will take approximately two weeks to construct. Approximately 0.1 acre of this pond encroaches on the buffer zone between Station 0+80 and Station 1+70. Pond 016 will be installed prior to Pond 012 and will take approximately two weeks to construct. Approximately 0.1 acre of this pond encroaches on the buffer zone approximately 100 feet northwest of the intersection of Streams "A", "B" and "C". To protect the downstream portion of Stream "A", construction of the ponds will be conducted during favorable weather conditions. Only that area necessary for pond construction will be affected. Construction will be done in a timely manner, stabilization by seeding and planting will be done as soon as possible after construction is complete and where possible , runoff from offsite areas will be prevented from flowing across disturbed areas. Silt fences and/or straw bales, and if necessary, sumps will be utilized to trap sediment during pond construction. ***Pond 016 will be removed prior to Phase 3 and*** Pond 012 will be removed following completion of the refuse disposal. Removal, grading and seeding will be done in the first appropriate season after successful vegetation has been established for at least two years to prevent post-mining affects on Stream "A". If removal occurs earlier than Division approval would first be sought and obtained.

Diversion Ditch DD-18 enters the south side of the buffer zone at Station 8+60, 100 feet south of the stream channel and will flow easterly south of the stream to DD-19. The entire diversion ditch encroaches within the buffer zone. Diversion Ditch DD-19 begins at Station 6+60 south of the stream channel and will flow in a easterly direction south of the stream. Diversion Ditch DD-19 will affect the stream channel from Station 2+20 to Station 5+80. The entire diversion ditch is located within the buffer zone. ***Diversion Ditch DD-22 enters the north side of the buffer zone at Station 6+40, 100 feet north of the stream channel and will flow southerly and discharges into Stream "A". Approximately 100 feet of the diversion ditch encroaches within the buffer zone. Coal removal and backfilling will***

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not occur during the refuse d[illegible]tion. The diversion ditches will be constructed [illegible]***ng Phase 3 of the*** refuse ***disposal operation*** and will remain in [illegible]e until all coal removal, backfilling, grading [illegible]oiling and revegetation has been completed. Removal, grading and seeding of the diversion ditches will be done in a timely manner in the first appropriate season after successful vegetation has been established for at least two years to prevent post-mining effects on Stream "A". If removal occurs earlier, then Division approval would first by sought and obtained. The stream channel will not be disturbed by the construction of Diversion Ditch DD-18.

Existing instream physical habitat conditions consist of substrates of boulder and bedrock originating from shale and coal fines with heavy silt and extensive embeddedness. The instream cover is sparse, consisting of undercut banks, overhanging vegetation, shallows and boulders. There is not riparian width and the flood plain consists of forest, swamp and mining/construction, with moderate bank erosion. Maximum depth is <0.2 meter. Pool width is greater than riffle width with slow, intermittent and interstitial velocities. Riffle run substrates are stable cobble and/or boulders with extensive embeddedness. The channel morphology was indicated by moderate to low sinuosity, good to fair development, no channelization recovery and high stability. Modifications such as snagging, relocation and bank shaping have occurred.

Two wetlands were delineated within the buffer zone of Stream "A" from Station 7+50 up through the upper reaches of said stream.

<u>Unnamed Stream "B"</u>

Activities to be conducted within the buffer zone of Stream "B" consists of pond construction and the installation of a foundation drain (See Engineers Report, Section 2.4) in the existing stream channels and a coal refuse fill above the foundation drain as shown on the enclosed Adjacent Area Application Map. The entire length of this stream will be effected from the head of hollow to the point of discharge into Stream "A". The coarse coal refuse fill will remain permanent. ***The entire stream will be eliminated by the refuse disposal operation.***

For purposes of this description, the beginning point of Stream "B" is at the head of hollow in the western portion of the permit area. Stream "B" flows in a southeasterly direction and discharges into Stream "A" approximately 540 feet north of the southern permit limit. This discharge point is designated as Station 0+00 for Stream "B". The entire stream is within the permit area. This stream has been affected by previous mining.

Pond 016 will be installed prior to Pond 012 and will take approximately two weeks to construct. Approximately 1.4 acres of this pond encroach on the buffer zone approximately 100 feet northwest of the intersection of Streams "A", "B" and "C". To protect the downstream portion of Stream "B", construction of the pond will be conducted during favorable weather conditions. Only that area necessary for pond construction will be affected. Construction will be done in a timely manner, stabilization by seeding and planting will be done as soon as possible after construction is complete and where possible , runoff from offsite areas will be prevented from flowing across disturbed areas. Silt fence and/or straw bales, and if necessary, sumps will be utilized to trap sediment during pond construction. Pond 016 will be removed ***prior to Phase 3 of the refuse disposal operation.*** Removal, grading and seeding will be done in the first appropriate season after successful vegetation has been established for at least two years to prevent post-mining affects on Stream "B". If removal occurs earlier than Division approval would first be sought and obtained.

Existing instream physical habitat conditions consist of substrates of boulder and gravel originating from hardpan and shale, with moderate silt and normal embeddedness. The instream cover may be functional consisting of undercut banks, overhanging vegetation and boulders. The riparian width is wide consisting of forest/swamp with moderate bank erosion. Maximum depth is 0.2-0.4 meter. Pool width is equal to riffle width with slow to moderate and interstitial to intermittent velocities. Riffle run substrates are moderately stable large gravel with low embeddedness. The channel morphology of the stream is indicated by having low sinuosity, good development, no channelization recovery and moderate stability. Stream modifications consist of canopy removal.

Two wetlands were delineated within the buffer zone of Stream "B" from between Station 0+00 and Station 9+80

<u>Unnamed Stream "C"</u>

Activities to be conducted within the buffer zone of Stream "C" consists of pond construction and the installation of a foundation drain (See Engineers Report, Section 2.4) in the existing stream channels and a coal refuse fill above the foundation drain as shown on the enclosed Adjacent Area Application Map. The entire length of this stream will be effected from the head of hollow to the point of discharge into Stream "A". The coarse coal refuse fill will remain permanent. ***The entire stream will be eliminated by the refuse disposal operation.***

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For purposes of this descriptic e beginning point of Stream "C" is at the head ollow located approximately 290 feet south of T.R. 74. Stream "C" flows in a southerly direction and discharges into Stream "A". This discharge point is designated as Station 0+00 for Stream "C". The entire stream is within the permit area. Portions of this stream have been affected by previous mining.

Approximately 0.8 acres of Pond 016 encroach in the buffer zone in the lower reaches of the stream between Stations 0+00 and 3+25. Pond 016 will be installed prior to Pond 012 and will take approximately two weeks to construct. To protect the downstream portion of Stream "C", construction of the pond will be conducted during favorable weather conditions. Only that area necessary for pond construction will be affected. Construction will be done in a timely manner, stabilization by seeding and planting will be done as soon as possible after construction is complete and where possible , runoff from offsite areas will be prevented from flowing across disturbed areas. Silt fence and/or straw bales, and if necessary, sumps will be utilized to trap sediment during pond construction. Pond 016 will be removed following completion of the refuse disposal. Removal, grading and seeding will be done in the first appropriate season after successful vegetation has been established for at least two years to prevent post-mining affects on Stream "C". If removal occurs earlier than Division approval would first be sought and obtained.

Existing instream physical habitat conditions consist of substrates of cobble and sand originating from hardpan with normal silt and embeddedness. The instream cover is not functional and nearly absent. The riparian width is wide with flood plain consisting of fenced pasture and forest/swamp, with none to little bank erosion. Maximum depth is <0.2 meter. Pool width is greater than riffle width, with slow interstitial and intermittent velocities. The channel morphology of the stream is indicated by moderate sinuosity, good development, and no channelization recovery with high stability.

Four wetlands were delineated within the buffer zone of Stream "C" between approximate stations 4+00 to 14+00.

<u>Unnamed Stream "D"</u>

Activities to be conducted within the buffer zone of Stream "D" consists of the installation of a foundation drain (See Engineers Report, Section 2.4) in the existing stream channel and a coal refuse fill above the foundation drain as shown on the enclosed Adjacent Area Application Map. The entire length of this stream will be effected from the head of hollow to the point of discharge into Stream "C". The coarse coal refuse fill will remain permanent. ***The entire stream will be eliminated by the refuse disposal operation.***

For purposes of this description, the beginning point of Stream "D" is at the head of hollow located approximately 175 feet south of Township Road 74. Stream "D" flows in a southwesterly direction and discharges into Stream "C". Thus, this discharge point is designated as Station 0+00 for Stream "D". The entire stream is within the permit area. This stream may have been impacted by previous mining or silviculture.

Existing instream physical habitat conditions consist of substrates of boulder and silt originating from hardpan with moderate silt and embeddedness. The instream cover is nearly absent but functional, consisting of undercut banks, overhanging vegetation, rootmats and rootwads. The riparian width is wide consisting of forest/swamp and fenced pasture, with none to little bank erosion. Maximum depth is < 0.2 meters. Pool width is equal to riffle width, with slow and interstitial/intermittent velocity. The channel morphology of the stream is indicated by low sinuosity, excellent development, and no channelization recovery with high stability.

One wetland was delineated within the buffer zone of Stream "D", located at the head of hollow.

<u>Unnamed Stream "L"</u>

Activities to be conducted within the buffer zone of Stream "L" consists of the installation of a foundation drain (See Engineers Report, Section 2.4) in the existing stream channel and a coal refuse fill above the foundation drain as shown on the enclosed Adjacent Area Application Map. The entire length of this stream will be effected from the head of hollow to the point of discharge into Stream "B". The coarse coal refuse fill will remain permanent. ***The entire stream will be eliminated by the refuse disposal operation.***

For purposes of this description, the beginning point of Stream "L" is at the head of hollow located approximately 580 feet east of the western most permit limit. Stream "L" flows in a easterly direction and discharges into Stream "B". Thus, this discharge point is designated as Station 0+00 for Stream "L". The entire stream is within the permit area. This stream may have been impacted by canopy removal and agriculture.

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Existing instream physical ha conditions consist of substrates of hardpan a t originating from hardpan with normal silt and embeddedness. The instream cover is nearly absent and not functional. The riparian width is wide on the left bank and narrow on the right bank consisting of fenced pasture, with moderate bank erosion. Maximum depth is <0.2 meter. Pool width is less than riffle width, with intermittent velocity. Riffle/run substrates are unstable fine gravel and sand with low embeddedness. The channel morphology of the stream is indicated by low/moderate sinuosity, poor development, and no channelization recovery with moderate stability. Modifications such as canopy removal have occurred.

No wetlands were delineated within the buffer zone of Stream "L".

Unnamed Stream "M"

Activities to be conducted within the buffer zone of Stream "M" consists of the installation of a foundation drain (See Engineers Report, Section 2.4) in the existing stream channel and a coal refuse fill above the foundation drain as shown on the enclosed Adjacent Area Application Map. The entire length of this stream will be effected from the head of hollow to the point of discharge into Stream "B". The coarse coal refuse fill will remain permanent. ***The entire stream will be eliminated by the refuse disposal operation.***

For purposes of this description, the beginning point of Stream "M" is at the head of hollow located approximately 1140 feet east of the westernmost permit limit. Stream "M" flows in a southwesterly direction and discharges into Stream "B". This discharge point is designated as Station 0+00 for Stream "M". The entire stream is within the permit area. This stream has not been affected by previous mining.

Existing instream physical habitat conditions consist of substrates of cobble and hardpan originating from hardpan with normal silt and no embeddedness. The instream cover is nearly absent and not functional. The riparian width is wide consisting of forest/swamp and shrub or old field, with none to little bank erosion. Maximum depth is <0.2 meter. Pool width equals riffle width, with moderate and intermittent velocities. Riffle/run substrates are moderately stable large gravel with no embeddedness. The channel morphology of the stream is indicated by low sinuosity, fair development, and no channelization recovery with moderate stability. Modifications such as canopy removal have occurred.

One wetland was delineated within the buffer zone at the head of hollow.

Unnamed Stream "N"

Activities to be conducted within the buffer zone of Stream "N" consist of the installation of a foundation drain (See Engineers Report, Section 2.4) in the existing stream channel and a coal refuse fill above the foundation drain as shown on the enclosed Adjacent Area Application Map. The entire length of this stream will be effected from the head of hollow to the point of discharge into Stream "B". The coarse coal refuse fill will remain permanent. ***The entire stream will be eliminated by the refuse disposal operation.***

For purposes of this description, the beginning point of Stream "N" is at the head of hollow located approximately 750 feet east of the western permit limit. Stream "N" flows in a northeasterly direction and discharges into Stream "B". This discharge point is designated as Station 0+00 for Stream "N". The entire stream is located within the permit area. Stream "N" has not been affected by previous mining.

Existing instream physical habitat conditions consist of substrates of hardpan originating from hardpan with normal silt and embeddedness. The instream cover is nearly absent and not functional. The riparian width is moderate consisting of forest/swamp and fenced pasture, with none/little bank erosion. Maximum depth is <0.2 meter. Pool width is less than riffle width, with moderate and intermittent velocities. Riffle/run substrates are unstable fine gravel and sand with low embeddedness. The channel morphology of the stream is indicated by low sinuosity, poor development, and no channelization recovery with moderate stability. Modifications such as canopy removal have occurred.

One wetland was delineated within the buffer zone of Stream "N".

Unnamed Stream "Q"

Activities to be conducted within the buffer zone of Stream "Q" consists of the installation of a foundation drain (See Engineers Report, Section 2.4) in the existing stream channel and a coal refuse fill above the foundation drain as shown

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on the enclosed Adjacent Are plication Map. The entire length of this stre ill be effected from the head of hollow to the point of discharge into Stream "B". The coarse coal refuse fill will remain permanent. ***The entire stream will be eliminated by the refuse disposal operation.***

For purposes of this description, the beginning point of Stream "Q" is at the head of hollow approximately 380 feet north the southern permit limits. Stream "Q" flows in a northeast direction and discharges into Stream "B". This discharge point is designated as Station 0+00. This stream has not been affected by previous mining.

Existing instream physical habitat conditions consist of a substrate of gravel and detritus, originating from shale with normal silt and embeddedness. The instream cover is nearly absent, and not functional. The riparian width is wide to moderate, consisting of some forest/swamp and fenced pasture, with none to little bank erosion. Maximum depth is <0.2 meter. Pool width is less than riffle width with intermittent velocities. Riffle run substrates are moderately stable large gravel with low embeddedness. The channel morphology of the stream is indicated by low sinuosity, poor development, no channelization , and moderate stability. Modifications such as canopy removal have occurred.

One wetland was delineated within the buffer zone of Stream "Q" at Station 0+00..

<u>Unnamed Stream "S"</u>

No mining or refuse activities are to be conducted within the buffer zone of Stream "S".

For purposes of this description, the beginning point of Stream "S" is at the head of hollow located approximately 280 feet north of the southern permit. Stream "S" flows in a southeasterly direction, intersects the permit limit and discharges into Piney Creek. This intersect point is designated as Station 0+00. Approximately 300 feet of Stream "S" is located within the permit area. This stream may have been affected by canopy removal.

Existing instream physical habitat conditions consist of substrates of cobble and gravel, originating from shale with moderate silt and normal embeddedness. The instream cover is moderate, with undercut banks, overhanging vegetation, rootmats, rootwads, boulders, and logs or woody debris. The riparian width is wide, consisting of forest/swamp, shrub/old field and fenced pasture with none to little bank erosion. Maximum depth is 0.2-0.4 meter. Pool width is greater than riffle width with slow, interstitial and intermittent velocities. Riffle run substrates are moderately stable large gravel with low embeddedness. The channel morphology of the stream is indicated by moderate sinuosity, fair development, no channelization recovery, and high stability. Modifications such as canopy removal have occurred.

The were no wetlands delineated within the buffer zone of this stream.

<u>Unnamed Stream "Y"</u>

No mining or refuse activities are to be conducted within the buffer zone of Stream "Y".

For purposes of this description, the beginning point of Stream "Y" is at the head of hollow located approximately 50 feet south of the southern permit line. Stream "Y" flows in a southeasterly direction and discharges into Stream "S". The entire stream is outside of the permit area. Only the upper most part of the buffer zone encrouches on the permit area. This stream may have been affected by canopy removal.

Existing instream physical habitat conditions consist of substrates of silt and gravel, originating from shale with normal silt and embeddedness. The instream cover is nearly absent, and not functional. The riparian width is wide, consisting of forest/swamp, with none to little bank erosion. Maximum depth is <0.2 meter. Pool width is lesser than riffle width with slow, interstitial and intermittent velocities. Riffle run substrates are moderately stable large gravel with low embeddedness. The channel morphology of the stream is indicated by low sinuosity, poor development, no channelization recovery, and moderate stability. Modifications such as canopy removal may have occurred.

One wetland was delineated within the buffer zone of this stream.

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Piney Creek

Activities to be conducted within the buffer zone of Piney Creek consist of construction of a spillway for Pond 012. No other mining or refuse activities are to be conducted within the buffer zone of Piney Creek. The stream channel will not be disturbed.

For purposes of this description, the beginning point of Piney Creek is just south of the southern most permit limit and just north of Pond 011. The buffer zone of Pine Creek encroaches on the permit for a distance of approximately 320 feet. Piney Creek flows in a northeasterly direction and is not located within the permit area. This stream may have been affected by previous mining.

Pond 012 will be installed during Phase 3 of the refuse disposal operation and will take approximately two weeks to construct. Only the exit channel will be located withing the buffer zone. Construction of the ponds will be conducted during favorable weather conditions. Only that area necessary for pond construction will be affected. Construction will be done in a timely manner, stabilization by seeding and planting will be done as soon as possible after construction is complete and where possible , runoff from offsite areas will be prevented from flowing across disturbed areas. Silt fences and/or straw bales, and if necessary, sumps will be utilized to trap sediment during pond construction. Pond 012 will be removed following completion of the refuse disposal. Removal, grading and seeding will be done in the first appropriate season after successful vegetation has been established for at least two years to prevent post-mining affects on Piney Creek. If removal occurs earlier than Division approval would first be sought and obtained.

Existing instream physical habitat conditions consist of substrates of gravel and bedrock, originating from sandstone with normal silt and extensive embeddedness. The instream cover is moderate, and consist of overhanging vegetation, undercut banks, shallows, rootmats, pools and logs or woody debris. The riparian width is wide, consisting of forest on the left bank and narrow, with mining/construction on the right bank, with moderate bank erosion. Maximum depth is 0.4-0.7 meter. Pool width is greater than riffle width with fast to intermittent velocities. Riffle run substrates are moderately stable large gravel with moderate embeddedness. The channel morphology of the stream is indicated by moderate sinuosity, good development, recovered channelization, and moderate stability. Modifications such as bank shaping have occurred. Previous mining activities have impacted stream conditions.

The were no wetlands delineated within the buffer zone of this stream.

Necessity of Activities

American Energy Corporation cleans coal for use by the electric utility industry. Coal refuse is produced at the annual rate of approximately 2.5 million tons. Currently, there are no economically viable ways to dispose of coal refuse. Mountain top disposal areas have been investigated as have refuse piles in flat land areas. These alternatives do not present any environmental advantages and hold a potential for more unsightly conditions after reclamation.

Other disposal sites were considered on areas owned by the American Energy Corporation remote form the existing disposal area. These sites were eliminated form consideration for several reasons. They would require haulage of refuse along township or county roads. This would create the potential for pollution of streams away from the permit as well as refuse dropping from the haulage vehicles onto the public roads. The construction of the disposal area would require an entirely new and separate system of pollution controls whereas the main pollution controls for the proposed site are in existence already.

Water Quality/Quantity and Environmental Resources

Water quality in Stream "A" is fair. Water analysis conducted prior to permit submission at CMD-6 show elevated specific conductance and sulfates. Stream "A" is an intermittent stream and originates at the intersection of Streams "A", "B" and "C". Stream quantities range from 0.004 cfs to 0.1 cfs during low and intermediate flow periods. Riparian vegetation within the buffer zone of this stream consist of typical plant life, grasses, shrubs and trees.

Water quality in Stream "B" is good. Water analysis conducted prior to permit submission at CMU-6C show all parameters well within effluent limitations. Stream "B" is a small intermittent stream originating from head of hollow. Stream quantities range from dry to 0.0005 cfs during low and intermediate flow periods. Riparian vegetation within the buffer zone of this stream consist of typical plant life, grasses, shrubs and trees.

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Water quality in Stream "C" is good. Water analysis conducted prior to permit submission at CMU-6A show all parameters well within effluent limitations. Stream "C" is an intermittent stream originating from head of hollow. Stream quantities range from dry to 0.001 cfs during low and intermediate flow periods. Riparian vegetation within the buffer zone of this stream consist of typical plant life, grasses, shrubs and trees.

Water quality in Stream "D" is good. Water analysis conducted prior to permit submission at CMU-6 show all parameters well within effluent limitations. Stream "D" is a small intermittent stream originating from head of hollow. Stream quantities range from dry to 0.004 cfs during low and intermediate flow periods. Riparian vegetation within the buffer zone of this stream consist of typical plant life, grasses, shrubs and trees.

Water quality in Stream "L" is good. Water analysis conducted prior to permit submission at CMS-10 show all parameters well within effluent limitations. Stream "L" is a small intermittent stream originating from head of hollow. Stream quantities range from dry to 0.38 GPM during low and intermediate flow periods. Riparian vegetation within the buffer zone of this stream consist of typical plant life, grasses, shrubs and trees.

Water quality in Stream "M" is good. Water analysis conducted prior to permit submission at CMU-6B show all parameters well within effluent limitations. Stream "M" is a small intermittent stream originating from head of hollow. Stream quantities range from dry to 0.38 cfs during low and intermediate flow periods. Riparian vegetation within the buffer zone of this stream consist of typical plant life, grasses, shrubs and trees.

Water quality in Stream "N" is fair. Water analysis conducted prior to permit submission at CMS-9 show slightly elevated acid. Stream "N" is a small intermittent stream originating from head of hollow. Stream quantities range from dry to 0.29 g.p.m. during low and intermediate flow periods. Riparian vegetation within the buffer zone of this stream consist of typical plant life, grasses, shrubs and trees.

Water quality in Stream "Q" is fair. Water analysis conducted prior to permit submission at CMS-8 show slightly elevated acid. Stream "Q" is a small intermittent stream originating from head of hollow. Stream quantities range from 0.065 g.p.m. to 0.22 g.p.m. during low and intermediate flow periods. Riparian vegetation within the buffer zone of this stream consist of typical plant life, grasses, shrubs and trees.

Water quality in Stream "S" is fair. Water analysis conducted prior to permit submission at CMU-5 show slightly elevated specific conductance and sulfates. Stream "S" is a small intermittent stream originating from head of hollow. Stream quantities range from dry to 0.0007 cfs during low and intermediate flow periods. Riparian vegetation within the buffer zone of this stream consist of typical plant life, grasses, shrubs and trees.

Water quality in Stream "Y" is fair. Water analysis conducted prior to permit submission at CMS-5 show slightly elevated specific conductance and sulfates. Stream "Y" is a small intermittent stream originating from a wetland. Stream quantities range from 0.75 GPM to 3.0 GPM during high, low and intermediate flow periods. Riparian vegetation within the buffer zone of this stream consist of typical plant life, grasses, shrubs and trees.

Water quality in Piney Creek is good. Water analysis conducted prior to permit submission shows all parameters within effluent limitations. Piney Creek is a perennial stream, originating from springs to the south and southeast. Stream quantity ranges from 7.4 cfs during low flow conditions to 47 cfs during high flow conditions. Riparian vegetation within the buffer zone of this stream consist of typical plant life, grasses, shrubs and trees.

Riparian vegetation will be disturbed within the entire buffer zones of Streams "B", "C", "D", "L", "M", "N", and "Q" ***and will not be restored.*** Riparian vegetation will be disturbed and will be restored within the buffer zone of Stream "A" between Stations 6+45 and 15+00.

<u>Sequencing of Operations</u>

The total life of this mining activity is projected to be approximately 10 years. The sequence of proposed activities is as follows: Construction of sediment ponds and diversion ditches, topsoil removal and stock piling, construction of ground water collection drain, fill area clay liner, construction of leachate collection system, and refuse placement, seal/cap, and revegetation.

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AEC 17923

Stream Reconstruction, Diversion or Relocation

No stream reconstructions or relocations are planned for this project. All stream and buffer zone affects as well as sequencing of operations, are discussed in the previous sections of this document. Restoration of habitat and environmental conditions to those that existed prior to mining is addressed in the individual stream descriptions in the previous sections of this document. See engineers report for more details.

The Ohio EPA and the Army Corp of Engineers have conducted site inspections of the proposed area, and discussed what will be required for mitigation of wetlands and streams in this area. ***A mitigation plan for the portions of the streams that will be eliminated by the proposed refuse disposal operation will occur along Long Run and Piney Creek. Approval of the plan is pending.*** The 401 certification application has been submitted to the EPA. Upon receipt of an approved 401 certification and approval of the disposal permit by ODNR, the 404 permit application will be submitted. An Ohio EPA approved mitigation plan will be submitted to ODNR via A.R.P. when obtained.

Revegetation

The following species and amounts of vegetation and/or tree and shrubs will be planted a minimum of two and ½ times the channel bottom width where disturbance within the buffer zone has occurred.

Species	Amount/Rate (lbs./Ac.)
Grasses and Legumes	
Perennial Ryegrass	5 lbs./Ac.
Foxtail Millet	5 lbs./Ac.
Red Top	3 lbs./Ac.
Birdsfoot Trefoil	5 lbs./Ac.
Appalow Lespedeza	15 lbs./Ac.

Trees and Shrubs	
Green Ash	8' o/c
Sycamore	8' o/c
Button Bush	8' o/c

Trees and shrubs will be planted by hand on approximate eight foot centers. Areas planted with riparian vegetation will not be cut or mowed in order to encourage the development of volunteer vegetation. Species of trees, shrubs, grasses and legumes which appear naturally will not be removed, but will remain in order to enhance the wildlife environment along the streams.

Care will be taken to disturb only that part of the buffer zone necessary to accomplish the objectives of the permit. All work within the buffer zone will be performed in a timely and workmanlike manner to prohibit as best can be accomplished, detrimental effects on the stream.

Yours truly,

Suzie Utter

Suzie Utter, Permitting

APPROVED ☑

DISAPPROVED ☐

DATE: 10-7-02

SIGNED: Michael J. Bonsher
for Rich Boltz

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D0425-2

AEC 17924

9/88

OH DEPARTMENT OF NATURAL RE RCES
DIVISION OF RECLAMATION
ADJACENT AREA COAL MINING PERMIT
APPLICATION

1. Applicant AMERICAN ENERGY CORPORATION
   Address 43521 MAYHUGH HILL ROAD, TWP. HIGHWAY 88
   City BEALLSVILLE State OHIO Zip 43716
   Telephone No. (740) 926-9152

2. Original Permit No. D-0425

3. Date Original Permit Issued OCTOBER 22, 1984

4. Number of adjacent area applications for the D-permit which were previously:

   a. Submitted 1 b. Issued 1

5. Number of acres in this permit application. 154.4 Acres

6. Number of acres in this permit application that are to be affected during the balance of the current mining year of the original permit identified in item 2. above. 5.0

7. I, the undersigned, a responsible official of the applicant do, hereby verify the information in the complete permit application as true and correct to the best of my information and belief.

   Printed Name Robert D. Moore ; Date _____

   Signature _____ ; Title PRESIDENT

   Sworn before me and subscribed in my presence this 27th day of December, 20 01.

   BARBARA L. RUSH
   NOTARY PUBLIC, STATE OF OHIO
   MY COMMISSION EXPIRES 9-01-04

   Barbara L Rush
   Notary Public

8. For Revision Review Only. This item is to be completed after revisions, if any, have been made to the permit application.

   I, the undersigned official of the applicant, do hereby verify and acknowledge the revisions made during the permit review process as true and correct to the best of my information and belief.

   Printed Name Robert D. Moore ; Date 07-10-02

   Signature _____ ; Title President

   Sworn before me and subscribed in my presence this 10th day of July, 20 02.

   KATHY J. ROE
   NOTARY PUBLIC, STATE OF OHIO
   MY COMMISSION EXPIRES 12-15-04

   Kathy J Roe
   Notary Public

ORIGINAL

00425-2

AEC 17925

8. For Revision Review Only. This item is to be completed after revisions, if any, have been made to the permit application.

I, the undersigned official of the applicant, do hereby verify and acknowledge the revisions made during the permit review process as true and correct to the best of my information and belief.

Printed Name Robert D. Moore ; Date _____

Signature _____ ; Title President

Sworn before me and subscribed in my presence this 9th day of August, 20 02.

Barbara L. Rush
Notary Public

SARBARA L. RUSH
NOTARY PUBLIC, STATE OF OHIO
MY COMMISSION EXPIRES 9-01-06

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Page 1B

F. For Revision Review Only. This item is to be completed after revisions, if any, have been made to the permit application.

I, the undersigned, a responsible official of the applicant, do hereby verify and acknowledge the revisions made during the permit review process as true and correct to the best of my information and belief.

Printed Name Robert D. Moore Title President

Signature [illegible] Date 9-11-02

Sworn before me and subscribed in my presence this

11th day of September 2002.

Barbara L. Rush
Notary Public

BARBARA L. RUSH
NOTARY PUBLIC, STATE OF OHIO
MY COMMISSION EXPIRES 9-01-06

ORIGINAL

00425-2

9. Did a person other than an employee of the applicant prepare this application? X Yes, _____ No. If "yes" provide:

Preparer's Name JACK A. HAMILTON & ASSOCIATES, INC.
Address P.O. BOX 471, 342 HIGH STREET
City FLUSHING State OHIO Zip 43977
Telephone No. (740) 968-4947

10. Provide the following information for all surface and subsurface owners of record within this proposed permit area indicating the type of ownership and permit area location information.

Name AMERICAN ENERGY CORPORATION
Address 43521 MAYHUGH HILL ROAD, TWP. HIGHWAY 88
City BEALLSVILLE State OHIO Zip 43716
Surface X, Coal X #11 & #12), Non Coal X
County BELMONT Township WAYNE
Section 3 & 4 LOT _____, T- 6 R- 5

Name CONSOLIDATED LAND COMPANY
Address BOX 509, 34208 AURORA ROAD
City SOLON State OHIO Zip 44139
Surface _____, Coal X (#8), Non Coal _____
County BELMONT Township WAYNE
Section 3 & 4 LOT _____, T- 6 R- 5

Name _____
Address _____
City _____ State _____ Zip _____
Surface _____, Coal _____, Non Coal _____
County _____ Township _____
Section _____ LOT _____, T- _____ R- _____

Name _____
Address _____
City _____ State _____ Zip _____
Surface _____, Coal _____, Non Coal _____
County _____ Township _____
Section _____ LOT _____, T- _____ R- _____

Name _____
Address _____
City _____ State _____ Zip _____
Surface _____, Coal _____, Non Coal _____
County _____ Township _____
Section _____ LOT _____, T- _____ R- _____

(If more space is required, submit an addendum identifying owners in the same format)

00423-2

11. Submit any required right of entry documentation unless previously submitted and filed with the division and valid for this adjacent area application.

SEE PREVIOUSLY APPROVED PERMIT TRANSFER AND ADDENDA

12. In the space below, provide the name and address of the public office where a complete copy of this adjacent area permit application and the approved application for the original permit are to be filed. (Note: if previous adjacent area permits have been issued, they must also be on file.)

RECORDER'S OFFICE
BELMONT COUNTY COURTHOUSE
ST. CLAIRSVILLE, OHIO 43950

13. In the space below, list the complete name and address of the newspaper and provide the text of the advertisement that is to be published in a newspaper of general circulation in the locality of the proposed permit area once a week for four (4) consecutive weeks. The advertisement is to provide the information required by rule 1501: 13-5-01 (A)(1) of the Administrative Code.

THE TIMES LEADER
200 SOUTH FOURTH STREET
MARTINS FERRY, OHIO 43938

PROOF OF PUBLICATION

The State of Ohio
County of Belmont, ss:

MAR 12 2002

The undersigned, being sworn, says that he or she is an employee of Eastern Ohio Newspapers, Inc., A Corporation, publisher of the Times Leader a newspaper published in Martins Ferry, Belmont County, Ohio, each day of the week except Saturday and of general circulation in said city and county; that it is a newspaper meeting the requirements of sections 7.12 and 5721.01 Ohio Revised Code as amended effective September 24, 1957; that affiant has custody of the records and files of said newspaper; and that the advertisement of which the annexed is a true copy, was published in said newspaper on each of the days in the month and year stated, as follows:

Feb 15 22,
Mar 1, 8 2002
Audrey Blanco

Subscribed by Affiant and sworn to before me, this 8th day of Mar, A.D. 2002.

Rebecca L Anderson
Notary Public

NOTARIAL SEAL STATE OF OHIO

REBECCA L. ANDERSON
Notary Public, State of Ohio
My Commission Expires Nov. 25, 2006

PUBLIC NOTICE

American Energy Corporation, 43521 Mayhugh Hill Road, Two Highway 68, Bealisville, Ohio 43716 has submitted a Coal Mining and Reclamation Permit Application numbered D-0429-8 to the Ohio Department of Natural Resources, Division of Mineral Resources Management. The proposed mining and reclamation operation will be in Sections 3 and 4, Township 8, Range 5, Wayne Township, Belmont County, Ohio. The proposed permit area encompasses 154.4 acres and is located on the Hunter 7 1/2 Minute USGS Quadrangle Map approximately 3.2 miles north of Bealisville, Ohio and south of Township Road 74 and east of Township Road 87. The activity planned for the proposed application will consist of a coal refuse disposal facility.

This application is on file at the Belmont County Courthouse, Recorder's Office, St. Clairsville, Ohio 43950. Written comments or requests for an informal conference may be sent to: Chief, Ohio Department of Natural Resources, Division of Mineral Resources Management, 1855 Fountain Square Court, Columbus, Ohio 43224, within (30) thirty days of the last date of publication of this notice.

TL - ADV. - FEB. 15, 22, MARCH 1, 8 - 4 FRI.

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JUN 12 2002

I hereby certify that this is a true copy of the original.

Ellen M. Greer

Printer's Fee $ 200.20

Notary's Fee $ _____

The Times Leader
Martins Ferry, Ohio

2006

00429-8

AEC 17930

14. Address any additional information that must be included in this adjacent area application when all items from the approved permit application have been considered. Application items must be addressed when following situations are applicable:

    a "no" response in the approved permit application becomes a "yes" when applied to the adjacent area and/or

    additional information is required to make a response complete when applied to the adjacent area.

    Provide the required information submitting either of the following:

    * a) the appropriate page of the permit application identifying the application items that must be included in this adjacent area application after all items from the issued permit application have been considered or

    b) an addendum specifically identifying by application page and item number any additional information that must be included in this adjacent area application after all items from the issued permit application have been considered.

    Submit the revised response and any required Attachments, documents, or addenda.

*SUBMITTING ONLY THE PERMIT APPLICATION PAGES RELEVANT TO THE PROPOSED ADJACENT AREA APPLICATION. ITEMS LEFT BLANK ON SUBMITTED PERMIT PAGES WERE EITHER COVERED IN THE ORIGINAL PERMIT, SUBSEQUENT APPROVED A.R.P.'S, OR ARE NOT APPLICABLE TO THIS APPLICATION.

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION
UNDERGROUND COAL MINING AND RECLAMATION
PERMIT APPLICATION

Applicant: AMERICAN ENERGY CORPORATION

A. Type of Operation (check, appropriate space(s)):*

_____ Shaft, _____ Slope, _____ Drift,
_____ Room and Pillar, _____ Pillar Extraction,
_____ Longwall, _____ Combined Surface and Underground

B. Type of Application (check appropriate space (s)):*

(1) _____ New
(2) _____ Initial Underground Workings to Existing Permit
(3) _____ Additional Underground Workings

***ADDITIONAL SURFACE AREA FOR COAL REFUSE DISPOSAL**

C. Address the following if applicable:

(1) Permit Number D-0425
(2) Date Issued 10-22-84

D. Did a person other than an employee of the applicant prepare this application? X Yes, _____ No. If "yes," provide:

Preparer's Name JACK A. HAMILTON & ASSOCIATES, INC.

Address P.O. BOX 471, 342 HIGH STREET

City FLUSHING State OHIO Zip 43977

Telephone 740 - 968 - 4947

E. I, the undersigned a responsible official of the applicant do hereby verify the information in the complete permit application as true and correct to the best of my information and belief.

Printed Name Robert D. Moore Date _____

Signature _____ Title President

Sworn before me and subscribed in my presence this 27th day of December, 2001.

BARBARA L. RUSH
NOTARY PUBLIC, STATE OF OHIO
MY COMMISSION EXPIRES 9-01-04

Barbara L. Rush
Notary Public

ORIGINAL

D0425-2

F. For Revision Review Only. This item is to be completed after revisions, if any, have been made to the permit application.

I, the undersigned, a responsible official of the applicant, do hereby verify and acknowledge the revisions made during the permit review process as true and correct to the best of my information and belief.

Printed Name Robert D. Moore Title President

Signature _____ Date 07-10-02

Sworn before me and subscribed in my presence this 10th day of July, 20 02.

KATHY J. ROE
NOTARY PUBLIC, STATE OF OHIO
MY COMMISSION EXPIRES 12-15-02

Kathy J. Roe
Notary Public

PART 1 LEGAL, FINANCIAL, COMPLIANCE, AND RELATED INFORMATION

A. IDENTIFICATION OF INTERESTS

(1) Applicant's Name AMERICAN ENERGY CORPORATION

Address 43521 MAYHUGH HILL ROAD, TWP. HIGHWAY 88

City BEALLSVILLE State OHIO Zip 43716

Telephone 740 - 926 - 9152

Employer Identification No. (EIN) _____ or

Social Security No. (SSN), _____

(2) Indicate business structure of entity and additional information:

_____ Single Proprietorship,
_____ Partnership (registration no. and date obtained) _____,
X Corporation (charter no. and date incorporated) 00842695 4-12-1993,
_____ Association, _____ Other, specify _____

(3) If the entity is a single proprietorship, provide the following:

Owner's Name _____

Address _____

City _____ State _____ Zip _____

Telephone _____ - _____ - _____

EIN _____, or SSN _____

Beginning date of ownership _____

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F. For Revision Review Only. This item is to be completed after revisions, if any, have been made to the permit application.

I, the undersigned, a responsible official of the applicant, do hereby verify and acknowledge the revisions made during the permit review process as true and correct to the best of my information and belief.

Printed Name Robert D. Moore Title President

Signature _____ Date 8-09-02

Sworn before me and subscribed in my presence this

9th day of August, 20 02.

Barbara L. Rush
Notary Public

BARBARA L. RUSH
NOTARY PUBLIC, STATE OF OHIO
MY COMMISSION EXPIRES 9-01-04

ORIGINAL

F. For Revision Review Only. This item is to be completed after revisions, if any, have been made to the permit application.

I, the undersigned, a responsible official of the applicant, do hereby verify and acknowledge the revisions made during the permit review process as true and correct to the best of my information and belief.

Printed Name Robert D. Moore Title President

Signature _____ Date 9-11-02

Sworn before me and subscribed in my presence this

11th day of September, 20 02 .

Barbara L. Rush
Notary Public

BARBARA L. RUSH
NOTARY PUBLIC, STATE OF OHIO
MY COMMISSION EXPIRES 9-01-06

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A. (4) If the applicant is a business entity other than a single proprietorship, provide the following for the applicant's statutory agent and submit Attachment 1.

Agent's Name AMERICAN ENERGY CORPORATION

Address 43521 MAYHUGH HILL ROAD, TWP. HIGHWAY 88

City BEALLSVILLE State OHIO Zip 43716

Telephone (740) - 926 - 9152

(5) Is the operator of the mine to be a person different from the applicant? _____ Yes, _____ No. If "Yes," provide the operator's name and submit Attachment 17. (Note: if more than one operator, indicate operator's name and submit a separate attachment for each).

Operator's Name _____

(6) Provide the following for the person who will pay the abandoned mine land reclamation fee for the applicant.

Name AMERICAN ENERGY CORPORATION

Address 43521 MAYHUGH HILL ROAD, TWP. HIGHWAY 88

City BEALLSVILLE State OHIO Zip 43716

Telephone (740) 926 - 9152

EIN _____, or SSN (optional) _____

(7) Provide the following for all persons having the authority or ability to commit the financial, real property assets, or working resources of the applicant who are not otherwise identified as officers, directors, or owners of the applicant. If none, check box: [X]. If any person listed is a business entity and not an individual, also complete Attachment 1 for that person.

Name _____

Address _____

City _____ State _____ Zip _____

Telephone _____ - _____ - _____

EIN _____, or SSN (optional) _____

Date O & C relationship began/ended (if applicable)

_____

Submit and identify additional pages necessary to complete response.

(8) Provide the following for all persons owning or controlling the coal to be mined by another person under a lease, sublease, or other contract and (a) having the right to receive the coal after mining, or (b) having the authority to determine the manner in which another person conducts coal mining operations. If none, check box: [✓]. If any person listed is a business entity and not an individual, also complete Attachment 1 for that person.

Name _____

Address _____

City _____ State _____ Zip _____

Telephone _____ - _____ - _____

EIN _____ , or SSN _____

O & C relationship to entity _____

Date O & C relationship began/ended (if applicable)

_____ / _____

Submit and identify additional pages necessary to complete response.

(9) List below the person or persons primarily responsible for ensuring that the applicant will comply with Chapter 1513. of the Revised Code and the rules adopted pursuant thereto while mining and reclaiming the area for which this permit is requested.

ROBERT D. MOORE

(10) Has the applicant, any person listed under items A(3), (7), and (8), or any person listed on Attachment 1 who "owned or controlled" or "owns or controls" as defined in 1501: 13-4-03(A), held a coal mining permit in the United States within the five years preceding the date of the application? __X__ Yes, _____ No. If "yes," submit Attachment 5. **SEE ATTACHMENT 5'S**

(11) Does the applicant, any person listed under items A(3), (7), and (8), or any person listed on Attachment 1 have a pending coal mining application in any state of the United States? __X__ Yes, _____ No. Is "yes," submit Attachment 23. **SEE ATTACHMENT 23'S**

(12) Indicate name of mine _____

(13) List below the MSHA identification numbers for the mine and for all mine-associated structures requiring MSHA approval on the proposed permit area.

33-61070

(14) Submit Attachment 22, Certificate of Liability Insurance.

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B. COMPLIANCE INFORMATION

(1) Has the applicant, any subsidiary, affiliate, or persons controlled by or under common control with the applicant:

(a) Had a federal or state coal mining permit suspended or revoked in the five years preceding the date of submission of this application? _____ Yes, __X__ No. If "yes," submit Attachment 6.

(b) Forfeited a mining bond or similar security deposited in lieu of bond? _____ Yes, __X__ No. If "yes," submit Attachment 6.

(2) Has the applicant been issued a notice of violation (NOV) in connection with any coal mining and reclamation operation during the three years preceding the date of submission of this application for violations of Chapter 1513. of the Revised Code or these rules, or of any federal or state law, rule, or regulation pertaining to air or water environmental protection? _____ Yes, __X__ No. If "yes," submit Attachment 7A.

(3) Have any unabated federal or state cessation orders (COs) and unabated air and water quality notices of violation (NOV's) been received prior to the submission date of this application by any coal mining and reclamation operation owned or controlled by either the applicant or by any person who owns or controls the applicant? _____ Yes, __X__ No. If "yes," submit Attachment 7B.

C. RIGHT OF ENTRY INFORMATION

(1)(a) Provide the following information for every legal or equitable owner of record, surface and mineral, of the property to be mined on the permit area (i.e. areas affected by surface operations and facilities), indicating whether the ownership is of surface, coal, or noncoal mineral.

Name AMERICAN ENERGY CORPORATION

Address 43521 MAYHUGH HILL ROAD, TWP. HIGHWAY 88

City BEALLSVILLE State OHIO Zip 43716

Surface X , Coal X (#11&12) , Noncoal X

Deed Parcel No. 2-5-44, 2-13-41, 2-13-63, 2-13-64

Name CONSOLIDATED LAND COMPANY

Address BOX 505, 34208 AURORA ROAD

City SOLON State OHIO Zip 44139

Surface , Coal X (#8) , Noncoal

Deed Parcel No. 2-5-44, 2-13-41, 2-13-63, 2-13-64

Name

Address

City State Zip

Surface , Coal , Noncoal

Deed Parcel No.

Name

Address

City State Zip

Surface , Coal , Noncoal

Deed Parcel No.

ORIGINAL

C. (2) Provide the following information for the holders of record of any leasehold interest in the coal to be mined or property to be affected by surface operations or facilities, indicating whether the held interest is of surface, coal, or noncoal rights. **N/A**

Name _____

Address _____

City _____ State _____ Zip _____

Surface _____ , Coal _____ , Noncoal _____

Name _____

Address _____

City _____ State _____ Zip _____

Surface _____ , Coal _____ , Noncoal _____

Submit and identify additional pages necessary to complete response.

(3) Are there purchasers of record under a real estate contract of the coal to be mined or property to be affected by surface operations and facilities?
_____ Yes, _____ No. If "yes," submit Attachment 2.

(4) Is any owner, holder, or purchaser listed in items C(1) (a and b), (2), or (3) respectively, a business entity other than a single proprietorship?
__X__ Yes, _____ No. If "yes," submit Attachment 3.

SEE ATTACHMENT 3'S

(5) Is any part of the proposed permit area adjacent to any lands which are not owned by those persons identified in item C(1)(a)? __X__ Yes, _____ No. If "yes," submit Attachment 4.

(6) Does the applicant hold lands, interests in lands, options, or pending bids on interests in lands which are contiguous to the property to be mined?
_____ Yes, __X__ No. If "yes," provide a description of the lands.

(7) Is it anticipated that individual mining permits will be sought for any of those lands described in item C(6) above? _____ Yes, __X__ No. If "yes," submit as an addendum and identify those lands to include the size, sequence, and timing of future mining permits, utilizing a map pursuant to 1501:13-4-13(J)(29), Ohio Administrative Code.

C. (8)(a) Provide either of the following to allow for coal mining operations on the permit area.

(i) A copy of the documents, or
(ii) An affidavit wherein the documents are described.

See approved Permit D-0425 Transfer, Page 6, Item 20 and approved A.R.P. R-0425-5.

AFFIDAVIT

State of Ohio, _____ County, ss. _____ being first duly sworn, says that the following described documents convey to the applicant the legal right explained below and is a subject of litigation as shown below.

Type of document _____

Execution Date _____

Expiration Date _____

Parties: From _____ To _____

Description of land: No. Acres _____

County _____ Township _____

Sections _____ Lots _____

Parcel # _____

Explanation of legal rights claimed _____

_____

_____

Pending litigation _____ Yes, _____ No.

_____ _____
Signature of Affiant Date

_____
Position

Sworn to before me and subscribed in my presence this

_____ day of _____ , 20 _____.

_____
Notary Public

00425-2

C. (9)(a) List below the following information for each surface owner of land within the proposed permit area.

OWNER NAME	COUNTY	TOWNSHIP	SEC./LOT	T- ,R-
American Energy Corp.	Belmont	Wayne	3 & 4	6 , 5

00429-2

D. AREAS WHERE MINING IS PROHIBITED OR LIMITED Permit Area

(1) Does the permit area included in this permit application include any area dedicated as a nature preserve pursuant to Chapter 1517., Ohio Revised Code? _____ Yes, __X__ No. If "yes," submit proof of valid existing right.

(2) Does the permit area included in this permit application include any area within one-thousand feet of the waterlines of any wild, scenic, or recreational river dedicated pursuant to Chapter 1501., Ohio Revised Code? _____ Yes, __X__ No. If "yes," submit proof of valid existing right.

(3) Does the permit area included in this permit application include any area within the boundaries of the following systems: national park, national wildlife refuge, national trails, national wilderness preservation, national recreational areas, or wild and scenic rivers or river corridors, including those rivers under study? _____ Yes, __X__ No. If "yes," submit proof of valid existing right.

(4) Does the permit area included in this permit application include any federal lands within the boundaries of any national forest? _____ Yes, __X__ No. If "yes," submit approval of U.S. Secretary of Interior or proof of valid existing right.

(5) Will operations in the permit area conducted under this permit adversely affect any publicly owned park or places listed on the National Register of Historic Places? _____ Yes, __X__ No. If "yes," submit joint approval from the chief and the federal, state, or local agency with jurisdiction over the park or places or proof of valid existing right.

(6) Will operations in the permit area conducted under this permit affect land within one hundred feet of the outside right-of-way of a public highway? __X__ Yes, _____ No. If "yes," list the highway(s) in the space below and submit Attachment 9 or proof of valid existing right.

SEE APPROVED 12.0 AC. I.B.R. FOR PROOF OF VALID EXISTING RIGHT

ORIGINAL 30425-2

D. (7) Will operations in the permit area conducted under this permit affect land within three hundred feet of any occupied dwelling? _____ Yes, __X__ No. If "yes," list the name of the owner(s) in the space below and submit Attachment 10 or proof of valid existing right.

(8) Will operations in the permit area conducted under this permit, affect land within three hundred feet of any public building, school, church, community or institutional building, or public park? _____ Yes, __X__ No. If "yes," submit proof of valid existing right.

(9) Will operations in the permit area conducted under this permit, affect land within one hundred feet of a cemetery? _____ Yes, __X__ No. If "yes," submit proof of valid existing right or appropriate authorization to relocate the cemetery.

N/A (10) Will operations conducted during this permit result in the extension of any part of the pit within fifty feet of horizontal distance to any adjacent land or water in which the applicant does not own either the surface or mineral rights? _____ Yes, _____ No. If "yes," list below the names of the adjacent owners and submit Attachment 11.

E. <u>Areas Where Mining is Prohibited or Limited-**Permit And Shadow Area**</u>

Are there areas within the proposed permit area, shadow area, or adjacent areas designated unsuitable for coal mining operations under rule 1501:13-3-07 of the Administrative Code or under study for designation in an administrative proceeding under this rule?
_____ Yes, __X__ No.

(1) If "yes" to the item above, did the applicant make substantial legal and financial commitments in the proposed areas prior to January 4, 1977?
_____ Yes, _____ No.

(2) If "yes" to item (1) above, submit as an addendum to the permit application information supporting the assertions that the commitments were made prior to January 4, 1977.

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F. PERMIT TERM AND EXTENT-Permit and Underground Workings

(1) Anticipated/actual date for:

(a) Starting mining operations UPON PERMIT ISSUANCE
(b) Terminating mining operations TO EXHAUSTION OF COAL RESERVES

(2) Does the applicant propose a permit term in excess of five (5) years? _____ Yes, X No. If "yes," submit an addendum with the information required by 1501:13-4-03 (E) (3), Ohio Administrative Code.

(3) Indicate the following acreage figures:

(a) Total Acres 154.4 (Permit Area)
(b) Total Acres 0* (Underground Workings)

(4) Horizontal extent of underground workings over life of permit in acres:

(a) Full Coal Recovery N/A*
(b) Room and Pillar N/A*

G. PUBLIC NOTICE-Permit and Shadow Area

(1) In the space below, provide the name and address of the public office where a complete copy of this permit application is to be filed.

SEE PAGE 3 OF ADJACENT AREA APPLICATION ITEM 12

(2) In the space below, list the name and address of the newspaper and submit an addendum providing the text of the advertisement that is to be published in a newspaper of general circulation in the locality of the proposed operation. Note: the advertisement is to provide the information required by paragraph (A) of rule 1501:13-5-01 of the Administrative Code.

SEE PAGE 3 OF ADJACENT AREA APPLICATION ITEM 13

***N/A, SURFACE DISTURBANCE FOR REFUSE DISPOSAL ONLY**

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00425-8

PROOF OF PUBLICATION

The State of Ohio
County of Belmont, ss:

MAR 12 2002

The undersigned, being sworn, says that he or she is an employee of Eastern Ohio Newspapers, Inc., A Corporation, publisher of the Times Leader a newspaper published in Martins Ferry, Belmont County, Ohio, each day of the week except Saturday and of general circulation in said city and county; that it is a newspaper meeting the requirements of sections 7.12 and 5721.01 Ohio Revised Code as amended effective September 24, 1957; that affiant has custody of the records and files of said newspaper; and that the advertisement of which the annexed is a true copy, was published in said newspaper on each of the days in the month and year stated, as follows:

Feb. 15, 22,
Mar 1, 8 2002
Audrey Blanco

Subscribed by Affiant and sworn to before me, this 8th day of Mar, A.D. 2002.

Rebecca L Anderson
Notary Public

NOTARIAL SEAL STATE OF OHIO

REBECCA L. ANDERSON
Notary Public, State of Ohio
My Commission Expires Nov. 25, 2006

PUBLIC NOTICE

American Energy Corporation, 43521 Mayhugh Hill Road, Twp. Highway 88, Beallsville, Ohio 43716 has submitted a Coal Mining and Reclamation Permit Application numbered D-0425-2 to the Ohio Department of Natural Resources, Division of Mineral Resources Management. The proposed mining and reclamation operation will be in Sections 3 and 4, Township 8 Range 5, Wayne Township, Belmont County, Ohio. The proposed permit area encompasses 154.4 acres and is located on the Hutner 7 1/2 Minute USGS Quadrangle Map approximately 3.2 miles north of Beallsville, Ohio, and south of Township Road 74 and east of Township Road 87. The activity planned for the proposed application will consist of a coal refuse disposal facility.

This application is on file at the Belmont County Courthouse, Recorder's Office, St. Clairsville, Ohio 43950. Written comments or requests for an informal conference may be sent to: Chief, Ohio Department of Natural Resources, Division of Mineral Resources Management, 1855 Fountain Square Court, Columbus, Ohio 43224, within (30) thirty days of the last date of publication of this notice.

TL - ADV. - FEB. 15, 22, MARCH 1, 8 - 4 FRI.

I hereby certify that this is a true copy of the original.

Ellen M. Greer
ELLEN M. GREER, Notary Public
State of Ohio
My Commission Expires September 22, 2006

Printer's Fee $ 200.20

Notary's Fee $

The Times Leader
Martins Ferry, Ohio

D0425-2

AEC 17946

PART 2 ENVIRONMENTAL RESOURCES INFORMATION

A. CULTURAL, HISTORIC, AND ARCHEOLOGICAL INFORMATION-**Permit and Planned Subsidence Area**

(1) Are there any cultural or historic resources or structures listed or eligible for listing on the National Register of Historic Places within the proposed permit or planned subsidence area? _____ Yes, __X__ No. If "yes," submit an addendum describing the resources and structures including the location and submit Attachment 27 or 27A as appropriate.

SEE ATTACHMENT 27

(2) Are there any known archeological sites within the proposed permit or planned subsidence area? _____ Yes, __X__ No. If "yes," submit an addendum describing the site including the location and submit Attachment 27 or 27A as appropriate.

(3) If applicable, based upon the review of the proposed planned subsidence areas and the completed Attachment 27A for the initial six months of projected mining, have any properties listed or eligible for listing on the National Register of Historic Places been identified? _____ Yes, _____ No. If "yes," submit an addendum listing each property identified. **N/A**

(4) Submit an addendum indicating the method to be used to identify historic properties on planned subsidence areas as mining progresses. **N/A**

B. GEOLOGY DESCRIPTION-**Permit and Shadow Area**

(1) Submit an addendum describing the geology within the proposed permit area and shadow area down to and including the first stratum below the lowest coal seam to be mined or any aquifer below the lowest coal seam to be mined which may be adversely affected by mining. The description shall also include information on the areal and structural geology of the permit and shadow area and any other geologic parameters which may influence the probable hydrologic consequences and protection of the hydrologic balance from material damage outside of the permit area.

SEE ORIGINAL PERMIT D-0425 AND PA25 ADDENDUM, AND HYDROGEOLOGIC INVESTIGATION REPORT, SECTION 2.4 & 5.1

(2) Submit an addendum describing how the areal and structural geology may affect the occurrence, availability, movement, quantity, and quality of potentially affected surface and ground waters per paragraph (C) of rule 1501:13-4-13 of the Administrative Code.

SEE ORIGINAL PERMIT D-0425 AND PA25 ADDENDUM, AND HYDROGEOLOGIC INVESTIGATION REPORT, SECTION 2.4 & 5.1

B. (3) For those areas to be affected by underground mining surface operations where removal of the overburden down to the level of the coal seam will occur, submit Attachment 12(s) as required by paragraphs (C)(2)(a) and (c) of rule 1501:13-4-13 of the Administrative Code. **N/A**

(4) For those areas within the shadow area where the stratum above the coal seam to be mined will not be removed, submit Attachment 13(s) as required by paragraphs (C)(2)(d) and (e) of rule 1501:13-4-13 of the Administrative Code. **N/A**

C. GROUND WATER INFORMATION-**Permit, Shadow Area, and Adjacent Area**

(1) Submit an Attachment 14B which describes the ground water hydrology of the proposed permit area, shadow area, and adjacent area. The Attachment 14B is to include information on each waterbearing stratum or zone as required by paragraph (D) of rule 1501:13-4-13 of the Administrative Code, including the first waterbearing stratum below the coal to be mined.

SEE HYDROGEOLOGIC INVESTIGATION REPORT, SECTION 2.7, 3.0, & 5.2, ATTACHMENT 14B, AND ADDENDA TO PART 2, ITEM C(1).

(2) Are there any wells on the proposed permit area, shadow area, and adjacent areas? __X__ Yes, _____ No. If "yes," submit Attachment 14C.

(3) Are there any springs on the proposed permit area, or developed springs on the shadow area and adjacent area? __X__ Yes, _____ No. If "yes," submit Attachment 14C.

(4) Are there any public water supply sources on the proposed permit area, shadow area, and adjacent area? _____ Yes, __X__ No. If "yes," submit Attachment 14A, Attachment 14D, and show location on the hydrology map.

(5) Submit Attachment 14A for representative wells and developed springs as required by paragraph (D)(4) of rule 1501:13-4-13. Based on this data identify the seasonal variations of ground water quality and quantity.

D. SURFACE WATER INFORMATION-**Permit, Shadow Area, and Adjacent Area**

(1) List the name of the watershed that will receive water discharges from the proposed permit, shadow, and adjacent areas as listed in the "Gazetteer of Ohio Streams" published by the Ohio Department of Natural Resources.

CAPTINA CREEK

(2) Are there any perennial or intermittent streams or other surface water bodies on the proposed permit, shadow area, and adjacent area? __X__ Yes, _____ No. If "yes," submit Attachment 14A and Attachment 14D and show location on application and hydrology map.

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ADDENDUM TO PART 2, ATTACHMENTS 14A, 14C, AND 14D
AMERICAN ENERGY CORPORATION

SAMPLE SITE	STATE PLANE COORDINATES Y	X
CMS-1	639,673	2,412,018
CMS-2	695,211	2,411,424
CMS-3	695,689	2,411,189
CMS-4	694,623	2,413,299
CMS-5	694,630	2,413,543
CMS-6	696,760	2,414,890
CMS-7	695,772	2,413,694
CMS-8	696,047	2,412,901
CMS-9	695,641	2,412,485
CMS-10	695,975	2,412,245
CMS-11	696,536	2,410,921
CMS-12	697,089	2,411,578
CMS-13	697,541	2,414,334
CMDS-1	694,984	2,411,941
CMW-2	696,132	2,410,878
CMD-1	698,122	2,414,571
CMD-2	695,578	2,415,600
CMD-2A	693,133	2,413,806
CMD-4	694,004	2,411,597
CMD-5	693,882	2,414,253
CMD-6	694,927	2,414,928
CMD-7	695,606	2,415,315
CMU-1	697,669	2,411,114
CMU-2	693,612	2,411,555
CMU-2A	693,342	2,413,875
CMU-5	694,662	2,412,807
CMU-6	696,934	2,413,478

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ADDENDUM TO PART 2, ATTACHMENTS 14A, 14C, AND 14D
AMERICAN ENERGY CORPORATION

SAMPLE SITE	STATE PLANE COORDINATES Y	X
CMU-6A	696,992	2,413,152
CMU-6B	696,194	2,412,576
CMU-6C	696,273	2,412,331
CMU-7	696,876	2,414,501
CMWI-1	696,018	2,411,180

NOTES: X - Y coordinates for CMWI-1 was determined using a point near the center of the impoundment as shown by the sample designation (triangle in a circle) on the permit application map.

X-Y coordinates for all monitoring wells are listed in the Hydrogeologic Investigation Report, Appendix 1, Table 1.

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AEC 17950

Ohio Department of Natural Resources

BOB TAFT, GOVERNOR SAMUEL W. SPECK, DIRECTOR

Date: June 27, 2001

ANALYSIS OF EXISTING GROUND WATER FILE DATA

Prepared By: Bill Haiker, Hydrogeologist

Operator: American Energy Corporation

County: Belmont

Township: Wayne and Washington

Section(s): 3, 4 and 33, 34

Number of water well logs within 2,000 foot radius of site (copies attached) 2: Field located: 0

General description of local hydrology:

Ground water is obtained from interbedded shale, sandstone and limestone bedrock. Well depths are generally less than 150 feet with yields of less than two gallons per minute.

Areas of Particular concern:

Proposed coal refuse disposal facility.

WELL LOG AND DRILLING REPORT

OUTSIDE 1000' AREA

602687

NO CARBON PAPER NECESSARY - SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Fountain Square
Columbus, Ohio 43224

COUNTY BELMONT TOWNSHIP WAYNE SECTION OF TOWNSHIP

OWNER KEN ROBERTS ADDRESS 42561 WILLIAMSON RD

LOCATION OF PROPERTY TWP RD 74 OFF CO RD 93 BEALLSVILLE, OHIO 43716

CONSTRUCTION DETAILS

Casing diameter 8" Length of casing 71'

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

Date of completion 5/13/88

BAILING OR PUMPING TEST

(specify one by circling)

Test rate 1 gpm Duration of test 8 hrs

Drawdown ft Date 5/14/88

Static level (depth to water) 27' ft

Quality (clear, cloudy, taste, odor) CLEAR

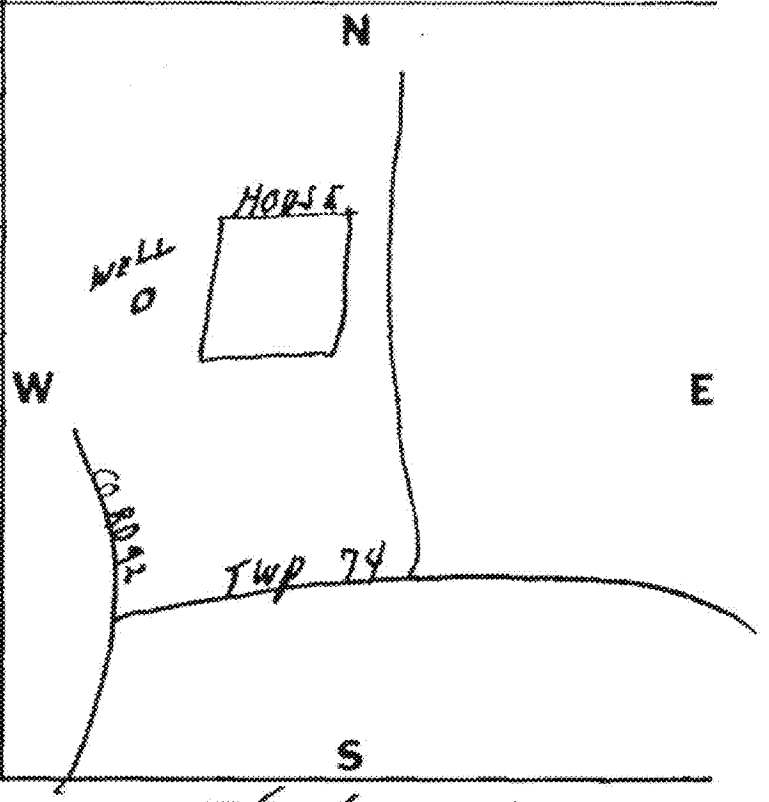
Pump installed by OWNER

WELL LOG*

Formations: sandstone, shale, limestone, gravel, clay	From	To
TOP	0 ft	3 ft
SANDSTONE	3	35
SHALE	35	40
LIME	40	60
SHALE	60	69
LIME	69	70TD
WATER 34 - 45		

SKETCH SHOWING LOCATION

Locate in reference to numbered state highways, street intersections, county roads, etc.



DRILLING FIRM VESS DRILLING DATE 5/13/88

ADDRESS BOX 13 WARNER, OHIO SIGNED [signature]

*If additional space is needed to complete well log, use next consecutive numbered form

ORIGINAL COPY - ODNR, DIVISION OF WATER, FOUNTAIN SQ., COLS., OHIO 43224

Title: 602687

D0425-2

WELL LOG AND DRILLING REPORT

ORIGINAL

NO CARBON PAPER NECESSARY— SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
65 S. Front St., Rm. 815 Phone (614) 469-2646
Columbus, Ohio 43215

OUTSIDE 1000' AREA
No. 413061

County BELMONT Township ~~BROWN~~ Wayne Section of Township 26

Owner GEORGE FINCH Address BARNESVILLE, OHIO

Location of property ON ST RT 148

CONSTRUCTION DETAILS

Casing diameter 8 Length of casing 17

Type of screen _____ Length of screen _____

Type of pump _____

Capacity of pump _____

Depth of pump setting _____

Date of completion 10-9-70

BAILING OR PUMPING TEST
(Specify one by circling)

Test Rate 1 G.P.M. Duration of test _____ hrs.

Drawdown _____ ft. Date _____

Static level-depth to water 13 ft.

Quality (clear, cloudy, taste, odor) _____

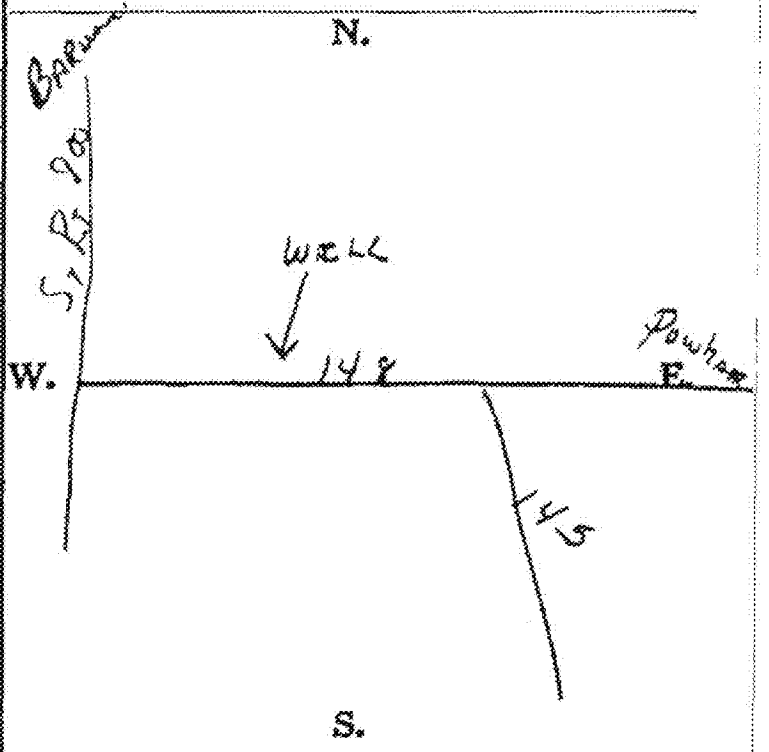
Pump installed by _____

WELL LOG*

Formations Sandstone, shale, limestone, gravel and clay	From	To
SOIL	0 Feet	11 Ft.
GRAVEL	11	12
SANDSTONE	12	16
LIMESTONE	16	51
GRAY SHALE	51	75
WATER 51		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



Drilling Firm BILLMAN DRILLING Date 10-9-70

Address WOODSFIELD Signed H. H. Billman

*If additional space is needed to complete well log, use next consecutive numbered form.

Title: 413061

AEC 17953

D. (3) Based on the data listed on Attachment 14A, and other information submitted with this application, identify the seasonal variations in water quality and quantity for the streams identified in Part 2, D(2).

SEE ATTACHMENT 14A

E. HYDROLOGIC DETERMINATION-**Permit, Shadow Area, and Adjacent Area**

Based on the information submitted in response to items B, C, and D in this part of the permit application, submit an addendum describing the probable hydrologic consequences of this proposed underground mining operation on the hydrologic regime of the proposed permit area, shadow area, and adjacent area. The description shall include findings on each of the following items:

(1) The consequences of the proposed operation on the contents of total suspended and dissolved solids, total iron, total manganese, acidity, and pH.

(2) Whether adverse impacts may occur to the hydrologic balance;

(3) The impact the proposed operation will have on:

(a) sediment yield from the disturbed area,

(b) flooding and stream flow alteration or diminution,

(c) ground water and surface water availability.

SEE HYDROGEOLOGIC INVESTIGATION REPORT, SECTION 5.3, POND ANALYSIS SUMITTED WITH APPROVED ARP R-0425-5, ORIGINAL PERMIT D-0425, AND ADDENDUM TO THIS ITEM.

F. ALTERNATIVE WATER SUPPLY INFORMATION-**Permit, Shadow Area and Adjacent Area**

(1) Based on the response in Part 2, item E, submit an addendum identifying the extent to which the proposed coal mining activities may proximately result in contamination, diminution, or interruption of an underground or surface source of water within the proposed permit area, shadow area, and adjacent area that is used for domestic, agricultural, industrial, or other legitimate use.

SEE ADDENDUM TO PART 2, F(1&2) IN APPROVED ARP R-0425-5

(2) If contamination, diminution, or interruption may result, submit an addendum identifying the alternative sources of water supply that could be developed to replace the existing sources including information on water availability and suitability of alternative sources for existing pre-mining uses and postmining land uses.

SEE ADDENDUM TO PART 2, F(1&2) IN APPROVED ARP R-0425-5

ORIGINAL RECEIVED JUN 12 2001 00425-8

ADDENDUM TO PART 2, PAGE 18, ITEM E.
AMERICAN ENERGY CORPORATION

The probable hydrologic consequences of constructing an additional refuse disposal area on top of an existing reclaimed refuse disposal area should be negligible. Please note that the existing refuse disposal area has been reclaimed and vegetated for some time. Surface water sample analyses conducted for Permit D-1159 and A.R.P. R-1159-4, which include three separate sites, D-8, D-8A, and D-10, are included in this application to illustrate the absence of hydrologic impacts due to the existing refuse disposal area. A location map has been included to show the sample sites in relation to the existing disposal area. According to these analyses, surface water has not been affected by previous refuse disposal at this site. Monitoring well sample analyses are included in the "First Annual Report Groundwater Statistical Evaluation" submitted in May, 2002. No additional information, other than what has been addressed in the Hydrogeological Investigation, can be assessed from this report. The above referenced report is the basis for background data on groundwater at this site

Spring CMS-7 discharges intermittently from the existing refuse disposal area. Any flow originating from the existing refuse disposal area will be collected and handled by the leachate collection system. All water from the leachate collection system will flow to Pond 012 where it can be treated, if necessary, before it is released to the stream system. No water discharge from within the existing or proposed refuse disposal areas will be commingled with the flow in the ground water collection system.

The probable hydrologic consequences of not extending the additional refuse disposal area completely over the existing refuse will be negligible. The existing refuse disposal area is reclaimed and revegetated. Infiltration of water into and out of the existing refuse disposal area will not be affected by the proposed refuse disposal area covering the site due to the proposed leachate collection system. This refuse disposal operation should have no impact on the hydrologic balance.

The proposed refuse disposal area should have no impact on the abandoned gas well. According to Division of Oil and Gas records, this well was dry, and plugged when abandoned. No excavation will take place near the well. No evidence of the well can be found in the field.

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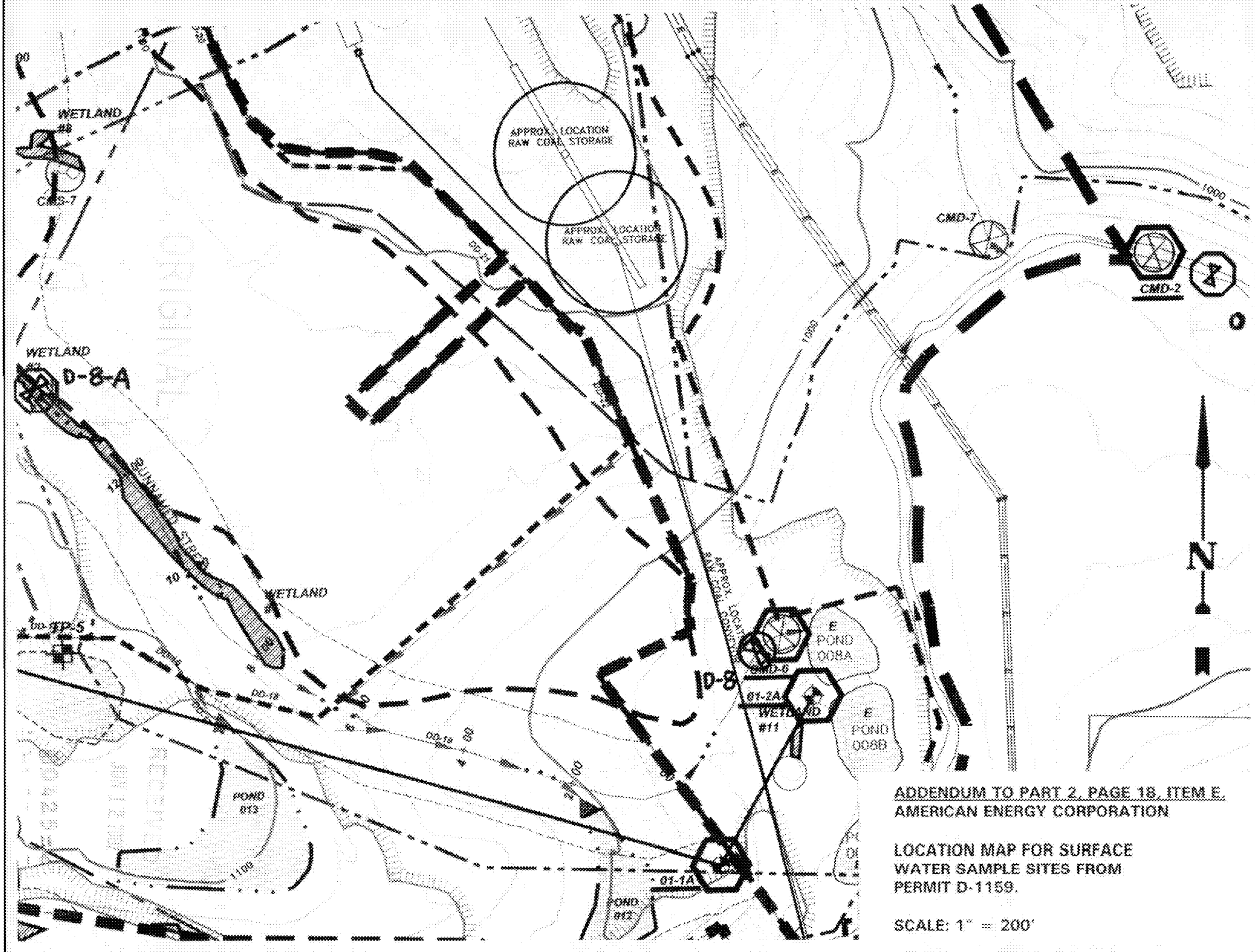


ADDENDUM TO PART 2, PAGE 18, ITEM E.
AMERICAN ENERGY CORPORATION

LOCATION MAP FOR SURFACE WATER SAMPLE SITES FROM PERMIT D-1159.

SCALE: 1" = 200'

G. LAND USE INFORMATION-Permit Area

(1) Describe the uses of the land within the proposed permit area existing at the time of the filing of this permit application and provide a map which delineates the area of each land use.

THE PROPOSED PERMIT AREA IS COMPOSED OF 72% UNDEVELOPED LAND AND 28% **PASTURELAND.** SEE ADDENDUM TO PART 2, PAGE 19, ITEM G(1), PRE-MINING LAND USE MAP.

(2) Was the land use described in item G(1) above changed within five years before the anticipated date of beginning this proposed mining operation? _____ Yes, __X__ No. If "yes," submit and addendum describing the historic use of the land.

(3) Analyze the capability of the land within the proposed permit area before any mining to support a variety of uses, giving consideration to soil and foundation characteristics, topography, vegetative cover, and hydrology of the proposed permit area.

AFTER GIVING CONSIDERATION TO SOIL AND FOUNDATION CHARACTERISTICS, TOPOGRAPHY, VEGETATIVE COVER AND HYDROLOGY OF THE PROPOSED PERMIT AREA, THE LAND COULD SUPPORT USES SUCH AS UNDEVELOPED, RECRRATIONAL, PASTURELAND AND WILDLIFE HABITAT. EXAMPLES ARE PASTURELAND USED FOR LIVESTOCK GRAZING AND WILDLIFE HABITAT DUE TO THE VEGETATIVE COVER.

(4) Analyze the productivity of the land within the proposed permit area before any mining to include average yields obtained under high level of management.

SEE ADDENDUM TO PART 2, PAGE 19, ITEM G(4)

(5) Is any land within the proposed permit area classified as prime farmland? __X__ Yes, _____ No.

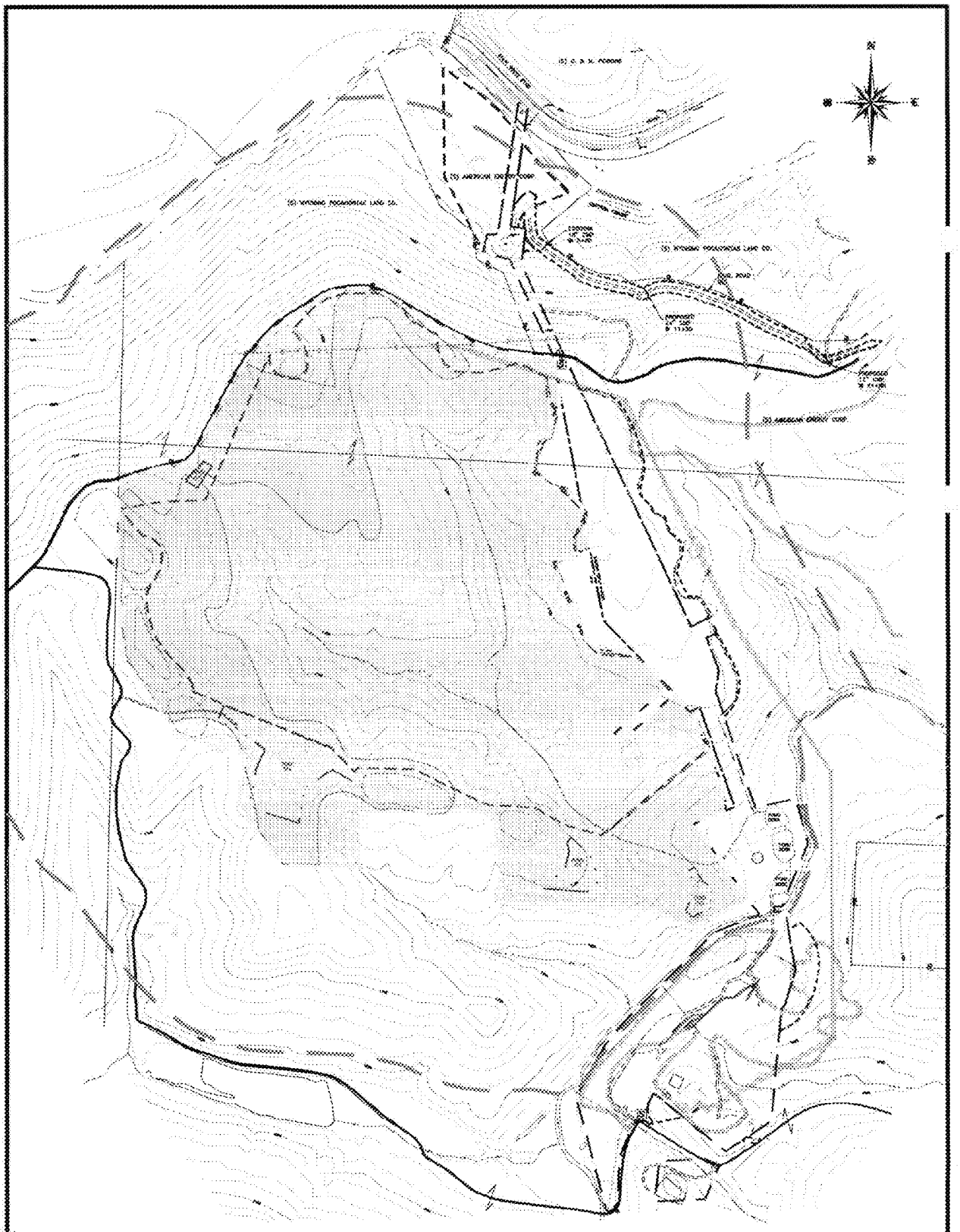
(6) Submit an addendum describing the use of the land within the permit area, including the creation of permanent water impoundments, that is proposed to be made of the land following reclamation, including information regarding the utility and capacity of the reclaimed land to support a variety of alternative uses.

SEE ADDENDA TO PART 2, PAGE 19, ITEM G(6)

(7) Are there existing land use classifications under local law of the proposed permit area? _____ Yes, __X__ No. If "yes," describe the land use classification and submit as an addendum to the permit application, the comments of the governmental agency which would have to initiate, implement, approve or authorize the proposed use of the land following reclamation. If "no," describe the sources of information on which the determination was made.

FRED BENNETT, BELMONT COUNTY ENGINEER

00429-2



DENOTES PROPOSED PERMIT LIMITS

DENOTES PASTURELAND

DENOTES UNDEVELOPED LAND

NOTE: THE PREMINING LAND USE WILL REMAIN ON ALL AREAS WHERE THE SURFACE IS NOT DISTURBED.

ADDENDUM TO PART 2, PAGE 19, ITEM G(1)	
AMERICAN ENERGY CORPORATION	
PRE-MINING LAND USE MAP	
SECTIONS: 3 & 4	
TOWNSHIP: 6 RANGE: 5	
TOWNSHIP: WAYNE	
COUNTY: BELMONT	CONTOUR INTERVAL: 20'
SCALE: 1" = 500'	COMM. #01008 PRE-MINING.DWG
DATE PREPARED: NOVEMBER 5, 2001	
JACK A. HAMILTON & ASSOCIATES INC. FLUSHING, OHIO	DATE REVISED: 6-29-02
DRAWN BY: SSU	DATE REVISED:

TABLE 5.--YIELDS PER ACRE OF CROPS AND PASTURE

[Yields are those that can be expected under a high level of management. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil]

Soil name and map symbol	Corn	Winter wheat	Oats	Grass-legume hay	Alfalfa hay	Pasture
	Bu	Bu	Bu	Ton	Ton	AUM*
AeC---------- Allegheny Variant	105	40	65	3.5	---	5.5
As---------- Ashton	125	50	70	4.5	5.0	7.0
BaB, BaD, BaF---------- Barkcamp	---	---	---	---	---	---
BcB---------- Barkcamp	---	---	---	---	---	3.0
BcD---------- Barkcamp	---	---	---	---	---	2.0
BeB---------- Bethesda	---	20	40	2.0	---	3.3
BeD---------- Bethesda	---	15	35	1.5	---	3.0
BhB, BhD---------- Bethesda	---	---	---	---	---	2.0
BhE, BhF---------- Bethesda	---	---	---	---	---	---
BsC---------- Brookside	100	40	60	4.5	---	7.0
BsD---------- Brookside	90	35	55	4.0	---	7.0
BsE---------- Brookside	---	---	---	---	---	---
BuB---------- Brookside-Urban land	---	---	---	---	---	---
BuD---------- Brookside-Urban land	---	---	---	---	---	---
Cg---------- Chagrin	125	45	65	4.5	5.0	7.0
ChB---------- Chili	85	34	70	4.2	---	6.6
CmB---------- Chili-Urban land	---	---	---	---	---	---
CuB---------- Culleoka	100	32	65	4.0	---	6.0
CuC---------- Culleoka	90	28	60	3.5	---	5.5
DkB---------- Dekalb	80	30	55	3.5	---	5.5
DkC---------- Dekalb	70	25	50	3.3	---	5.0
DkD---------- Dekalb	70	25	50	3.0	---	4.5

See footnote at end of table.

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TABLE 5.--YIELDS PER ACRE OF CROPS AND PASTURE--Continued

Soil name and map symbol	Corn	Winter wheat	Oats	Grass-legume hay	Alfalfa hay	Pasture
	Bu	Bu	Bu	Ton	Ton	AUM*
DkE---------- Dekalb	---	---	---	---	---	4.0
DmF---------- Dekalb	---	---	---	---	---	---
Dp, Ds. Dumps						
DuB---------- Duncannon-Urban land	---	---	---	---	---	---
EbB---------- Elba	100	45	60	4.5	4.7	7.0
EbC---------- Elba	95	40	55	4.0	4.5	6.0
EbD---------- Elba	85	35	50	3.8	4.2	5.8
EbE---------- Elba	---	---	---	---	---	4.0
ElB---------- Elkinsville	120	48	70	4.0	4.5	6.0
ElC---------- Elkinsville	110	44	65	3.6	4.3	5.8
ElD---------- Elkinsville	90	36	60	3.0	4.0	4.5
FbB, FbD---------- Fairpoint	---	---	---	---	---	3.0
FcB---------- Fairpoint	---	25	45	2.5	---	4.0
FcD---------- Fairpoint	---	20	40	2.0	---	3.0
FtA---------- Fitchville	110	38	60	4.3	---	6.5
He---------- Hartshorn	100	40	60	4.0	---	6.0
LeB---------- Lowell	110	40	65	4.0	5.0	6.0
LeC---------- Lowell	100	35	60	3.7	4.8	5.8
LeD---------- Lowell	90	30	55	3.5	4.5	5.5
LeE---------- Lowell	---	---	---	---	---	4.0
LeF---------- Lowell	---	---	---	---	---	---
LoB---------- Lowell-Westmoreland	110	38	70	3.8	4.6	5.8
LoC---------- Lowell-Westmoreland	100	35	63	3.4	4.4	5.5
LoD---------- Lowell-Westmoreland	90	30	58	3.3	4.3	5.0

See footnote at end of table.

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TABLE 5.--YIELDS PER ACRE OF CROPS AND PASTURE--Continued

Soil name and map symbol	Corn	Winter wheat	Oats	Grass-legume hay	Alfalfa hay	Pasture
	Bu	Bu	Bu	Ton	Ton	AUM*
LoE---------- Lowell-Westmoreland	---	---	---	---	---	4.0
LoF, LpF---------- Lowell-Westmoreland	---	---	---	---	---	---
MnB---------- Morristown	---	30	50	3.0	---	4.5
MnD---------- Morristown	---	28	45	2.5	---	4.0
MnE---------- Morristown	---	---	---	---	---	2.0
MoB, MoD---------- Morristown	---	---	---	---	---	3.0
MoE, MoF---------- Morristown	---	---	---	---	---	---
Na---------- Newark	100	---	---	4.5	---	7.0
Nw---------- Newark	---	---	---	---	---	---
Nn---------- Newark Variant	90	---	---	4.0	---	6.0
No---------- Nolin Variant	135	45	65	4.5	4.5	7.0
Nu---------- Nolin Variant-Urban land	---	---	---	---	---	---
OtB---------- Otwell	105	47	65	3.5	---	5.0
OtC---------- Otwell	75	38	60	3.0	---	5.0
RcC---------- Richland	120	40	70	3.5	---	5.0
RcD---------- Richland	110	35	60	3.0	---	4.5
RcE---------- Richland	---	---	---	---	---	4.0
RhB---------- Richland	125	45	75	4.0	---	6.0
Uc---------- Udorthents-Pits	---	---	---	---	---	---
Ud---------- Udorthents-Urban land	---	---	---	---	---	---
WhB---------- Wellston	105	40	70	4.0	4.5	6.0
WhC---------- Wellston	100	35	65	4.0	4.5	6.0
WkB---------- Westmore	110	40	70	4.5	5.0	7.0

See footnote at end of table.

TABLE 5.--YIELDS PER ACRE OF CROPS AND PASTURE--Continued

Soil name and map symbol	Corn	Winter wheat	Oats	Grass-legume hay	Alfalfa hay	Pasture
	Bu	Bu	Bu	Ton	Ton	AUM*
WkC---------- Westmore	105	35	70	4.3	5.8	6.6
WkD---------- Westmore	100	32	65	4.0	4.5	6.0
WmB---------- Westmoreland	110	35	70	3.5	4.5	5.8
WmC---------- Westmoreland	100	35	65	3.0	4.0	4.5
WmD---------- Westmoreland	70	30	60	3.0	4.0	4.5
WmE---------- Westmoreland	---	---	---	---	---	4.0
WmF---------- Westmoreland	---	---	---	---	---	---
WoC---------- Westmoreland-Upshur	96	30	65	3.0	4.0	4.5
WoD---------- Westmoreland-Upshur	85	30	60	2.8	3.5	4.2
---------- Zanesville	95	35	60	3.5	---	5.8
ZnC---------- Zanesville	85	35	55	3.5	---	5.8

* Animal-unit-month: The amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or five goats) for 30 days.

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Addendum to Part 2, Page 19, Item G (6)
American Energy Corporation

The use of the land following reclamation will be pastureland. See Addendum to Part 2, Page 19, Item G(6), Post-Mining Land Use Map. The post-mining land use for this area will be aesthetically appropriate and corresponds with adjacent land uses. Grasses and legumes will be used as a cover crop. Following reclamation, the capability and productivity of the land will be greater than that at the present time. The reclaimed land could sustain other agricultural or recreational uses.

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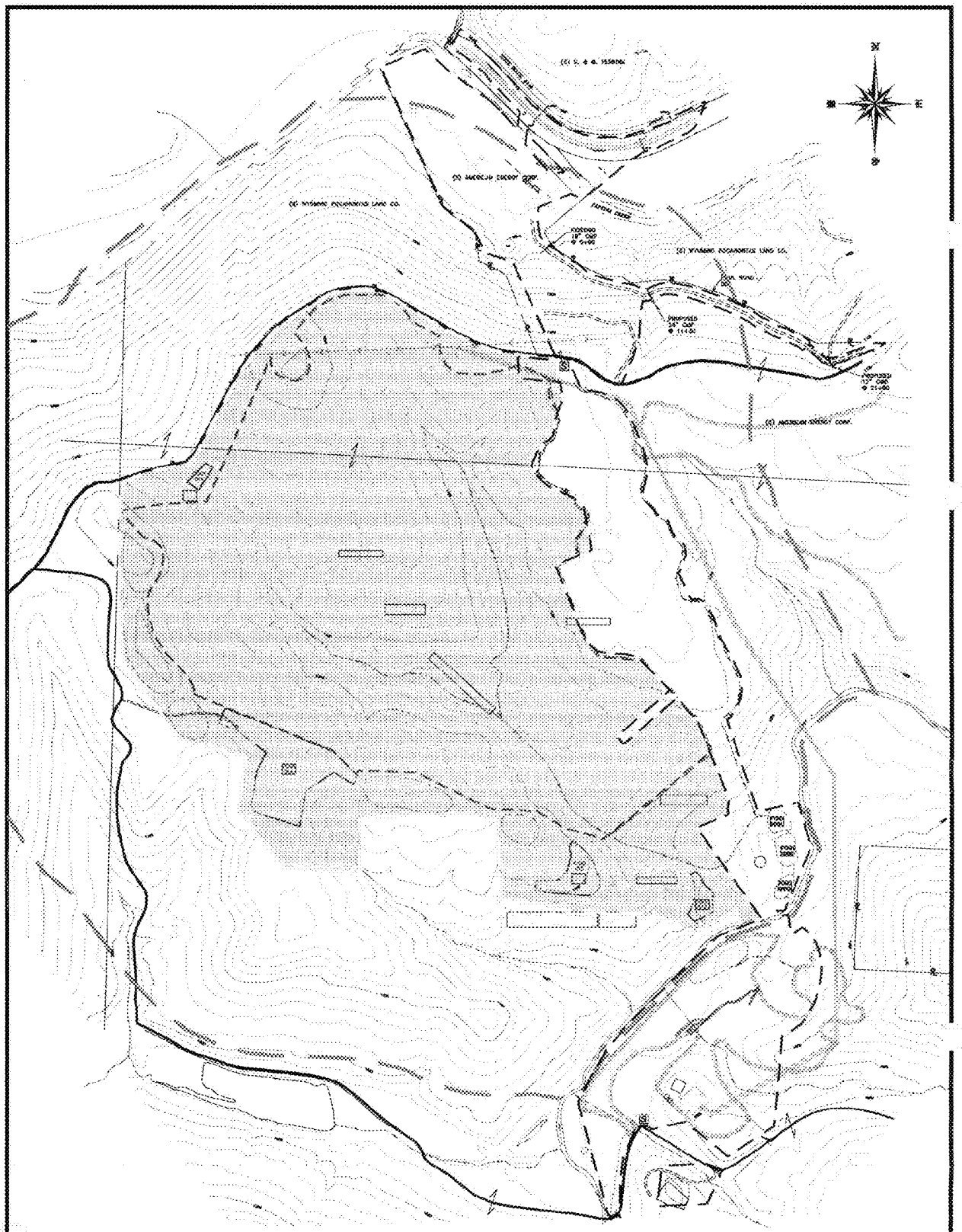

DENOTES PROPOSED PERMIT LIMITS

DENOTES PASTURELAND

NOTE: THE PREMINING LAND USE WILL REMAIN ON ALL AREAS WHERE THE SURFACE IS NOT DISTURBED.

ADDENDUM TO PART 2, PAGE 19, ITEM G(6)	
AMERICAN ENERGY CORPORATION	
POST-MINING LAND USE MAP	
SECTIONS 3 & 4	
TOWNSHIP: 6 RANGE: 5	
TOWNSHIP: WAYNE	
COUNTY : BELMONT	CONTOUR INTERVAL: 20'
SCALE: 1" = 500'	COMM. #01008 POST-MINING.DWG
DATE PREPARED: NOVEMBER 5, 2001	
JACK A. HAMILTON & ASSOCIATES, INC. FLUSHING, OHIO DRAWN BY: BSU	DATE REVISED: 8-29-02 DATE REVISED:

G. (8) Submit as an addendum a copy of the comments from the legal or equitable owner of record of the surface of the proposed permit area concerning the proposed land use.

SEE ADDENDUM TO PART 2, PAGE 20, ITEM G(8), LAND OWNER COMMENTS

(9) Describe the consideration which has been given to making all of the proposed coal mining activities consistent with surface owner plans and applicable state and local land use plans and programs.

NO STATE OR LOCAL LAND USE PLANS EXIST FOR THIS AREA. ALL OF THE PROPOSED COAL MINING ACTIVITIES EXPLAINED IN THIS APPLICATION ARE CONSISTENT WITH THE SURFACE OWNERS PLANS.

(10) Describe how the proposed land use is to be achieved and the necessary support activities that may be needed to achieve the proposed land use.

THE PROPOSED LAND USE WILL BE ACHIEVED BY FOLLOWING THE PROPOSED RECLAMATION PLAN DESCRIBED IN PART 3 OF THIS APPLICATION.

(11) Is the postmining land use to be different from the premining land use? __X__ Yes, _____ No. If "yes," submit as an addendum to the permit application, the plans and findings required by paragraph (D) of rule 1501:13-9-17 of the Administrative Code.

SEE ADDENDA TO PART 2, PAGE 20, ITEM G(11)

(12) Has the proposed permit area been previously mined? __X__ Yes, _____ No. If "yes," provide the following information, if available.

(a) Type of mining method UNDERGROUND
(b) Coal seam mined #8
(c) Non coal mineral mined N/A
(d) Extent of mining (acres) 34.8
(e) Approximate dates 1978
(f) Land use preceding mining N/A

(a) Type of mining method SURFACE FACILITY FOR UNDERGROUND MINE
(b) Coal seam mined N/A
(c) Non coal mineral mined N/A
(d) Extent of mining (acres) 39.3
(e) Approximate dates 1984
(f) Land use preceding mining UNDEVELOPED

H. PRIME FARMLAND INVESTIGATION-**Permit Area**

(1) Does the proposed permit area include any land that is prime farmland, taking into consideration the negative determinations listed in paragraph (L)(2) of rule 1501:13-4-13 of the Administrative Code?
_____ Yes, __X__ No.

(2) If the response to item H.(1) is "yes," submit Attachment 15.

(3) If the response to item H.(1) is "no," submit Attachment 16.

Addendum to P[illegible] 2, Page 20, Item G(8), American E[illegible]gy Corporation

TO: American Energy Corporation

FROM: American Energy Corporation

Location of Proposed Permit Area:

County/Twp. Belmont / Wayne	Lot/Section 3 & 4

The proposed postmining land use (s) for your property is/are checked below:

X	Cropland		Residential Land Use
X	Pasture Land		Forest
	Grazing Land		Undeveloped Land Use
	Industrial Land Use		Fish & Wildlife
	Commercial Land Use		Recreation land Use
	Developed Water Resources		

Pursuant to Ohio Department of Natural Resources, Division of Mines and Reclamation, Ohio Coal Mining and Reclamation Rule 1501:13-4-05(G)(2) of the Ohio Administrative Code, surface owner comments concerning the proposed postmining land use(s) for the proposed permit area are required. Please check the appropriate box below.

X	I concur with the proposed postmining land uses identified by the mine operator.
	I DO NOT concur with the proposed postmining land uses.

COMMENTS:

[illegible] 11-30-01

SIGNATURE OF SURFACE OWNER DATE

SIGNATURE OF SURFACE OWNER DATE

Please check each (if any) of the following listed wildlife enhancements that you would be interested in having on your property. **PLEASE NOTE:** Checking a box does not require the operator to provide any or all of selected enhancements. This form is a tool to help landowners better understand options that may be available through the coal company.

	Tree/Shrub Planting		Small Depressions
	Ponds/Wetlands		Perching/Nesting Structures
	Brushpiles		Other:
	Rockpiles		Other:

WAIVER STATEMENT (Optional for Surface Owner): I, the above named surface owner, waive my right to comment on any revision to the permit application during the application review process that results in a change in the postmining land use(s) from those shown above. (NOTE: I DO NOT WAIVE MY RIGHT TO COMMENT ON ANY PROPOSED POSTMINING LAND USE CHANGE AFTER PERMIT ISSUANCE.)

[illegible] 11-30-01

SIGNATURE OF SURFACE OWNER DATE

SIGNATURE OF SURFACE OWNER DATE

ORIGINAL

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AI[illegible]DUM TO PART 2, PAGE 20, ITE[illegible](11)
AMERICAN ENERGY CORPORATION

NOTIFICATION OF LAND USE CHANGE

TO: U.S. Fish and Wildlife
Division of Ecological Services
6950-H Americana Parkway
Reynoldsburg, Ohio 43068

Division of Wildlife
Building C-4
Fountain Square
Columbus, Ohio 43224

Note: This form is to be completed only if a land use change is to occur.

1. Is a copy of the coal mine permit application currently on file with the Division of Reclamation? X Yes, ____ No.

2. Coal mine permit application no. D-0425-2

3. Application to revise permit no. N/A

4. Other: permit no. N/A address the status of this permit:

5. Applicant AMERICAN ENERGY CORPORATION
Address 43521 MAYHUGH HILL ROAD
City BEALLSVILLE State OHIO Zip 43716

6. Application Location

County BELMONT Township WAYNE
Section 3 & 4 Lot ____ Acres 154.4
Township 6 Range 5 Quadrangle HUNTER

7. Pre-mining Land Use

UNDEVELOPED

8. Post-mining Land Use

PASTURELAND

9. Revegetation Plan (SPECIES AND AMOUNTS)

8 LBS/AC. ORCHARD GRASS 10 LBS/AC. RED CLOVER

7 LBS/AC. BIRDSFOOT TREFOIL 4 LBS/AC. TIMOTHY

10. Stream Variance Request X Yes, ____ No. If yes, enclose

A) Copy of Stream Variance Request
B) Percentage of tree cover within 100' buffer zone

Enclose a location map and a copy of the quadrangle map with the mine site highlighted in yellow.

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PRE-MINING LAND USE: UNDEVELOPED

POST MINING LAND USE: PASTURELAND

RULE 1501:13-9-17(D)(1-6)

1. THIS PROPOSED LAND USE IS COMPATIBLE WITH THE ADJACENT LAND USES WHICH PRIMARILY CONSIST OF PASTURELAND AND UNDEVELOPED LAND. THERE ARE NO EXISTING LOCAL, STATE OR FEDERAL LAND USE POLICIES OR PLANS FOR THE AREA. A NOTIFICATION OF THE LAND USE CHANGE HAS BEEN MAILED TO U.S. FISH & WILDLIFE AND TO THE DIVISION OF WILDLIFE. NO ZONING OR OTHER CHANGES WILL BE REQUIRED FOR THIS LAND USE CHANGE.

2. BASED ON SOIL TYPES IN THE AREA, THE PLAN IS FEASIBLE. FOR A SCHEDULE SHOWING HOW THE PROPOSED USE WILL BE DEVELOPED AND ACHIEVED WITHIN A REASONABLE TIME SEE PLANTING SCHEDULE IN PART 3 OF THIS PERMIT APPLICATION.

3. THERE ARE NO PUBLIC FACILITIES REQUIRED FOR THIS PROPOSED LAND USE.

4. THIS PROPOSED LAND USE WILL NEITHER PRESENT ACTUAL OR PROBABLE HAZARD TO PUBLIC HEALTH OR SAFETY, NOR WILL IT POSE ANY ACTUAL OR PROBABLE THREAT OF WATER FLOW DIMINUTION OR POLLUTION.

5. THIS PROPOSED LAND USE WILL NOT CHANGE THE RECLAMATION SCHEDULE FOR THIS PERMIT APPLICATION.

6. THIS PROPOSED LAND USE SHOULD NOT HAVE ANY ADVERSE EFFECTS ON FISH AND WILDLIFE. AN OPPORTUNITY TO COMMENT HAS BEEN PROVIDED TO THE APPROPRIATE STATE AND FEDERAL FISH AND WILDLIFE MANAGEMENT AGENCIES. THE NOTIFICATION OF LAND USE CHANGE WAS MAILED TO THE U.S. FISH AND WILDLIFE AND THE DIVISION OF WILDLIFE.

NOTE: THE PRE-MINING LAND USE WILL REMAIN ON ALL AREAS IN WHICH THE SURFACE HAS NOT BEEN DISTURBED.

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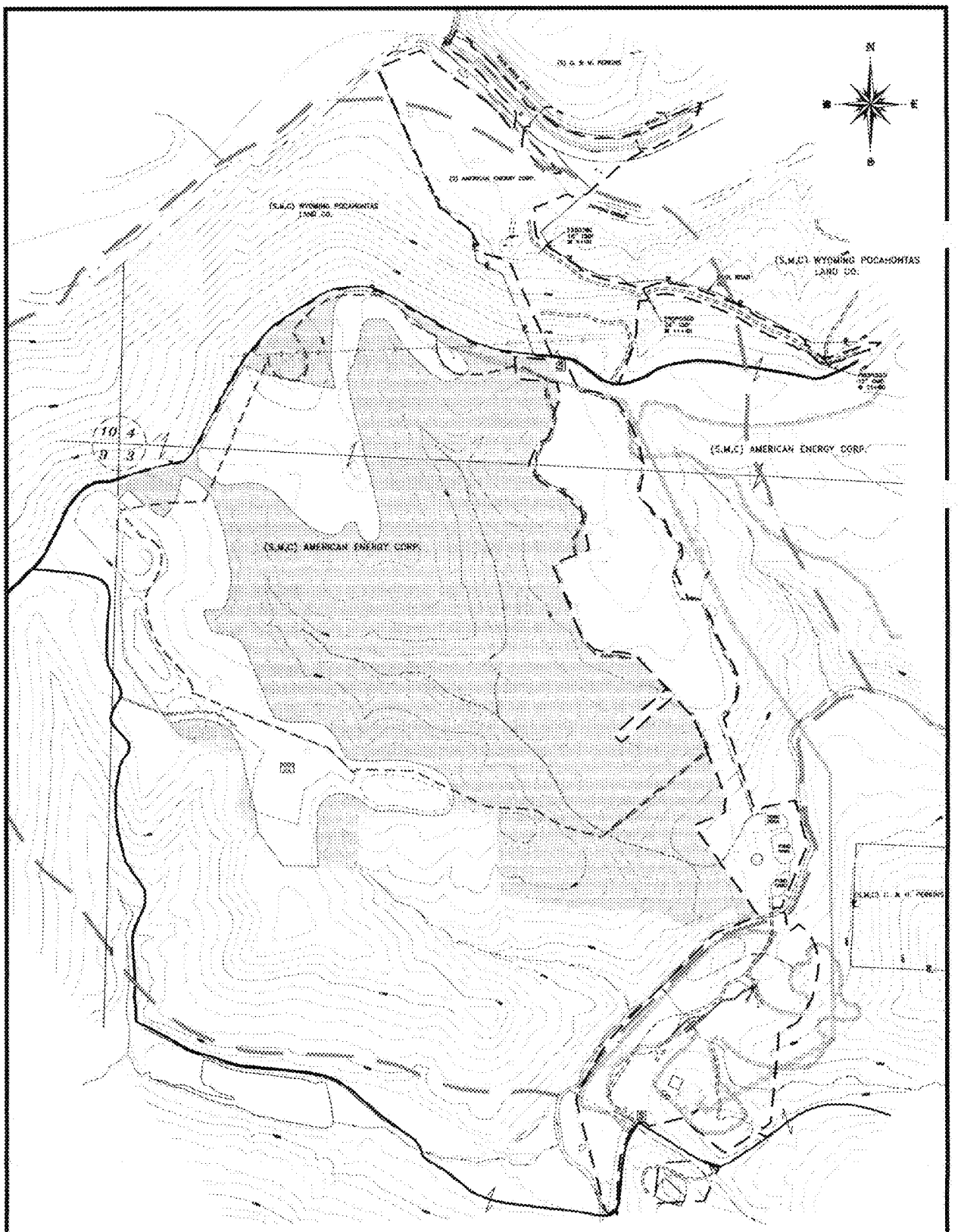


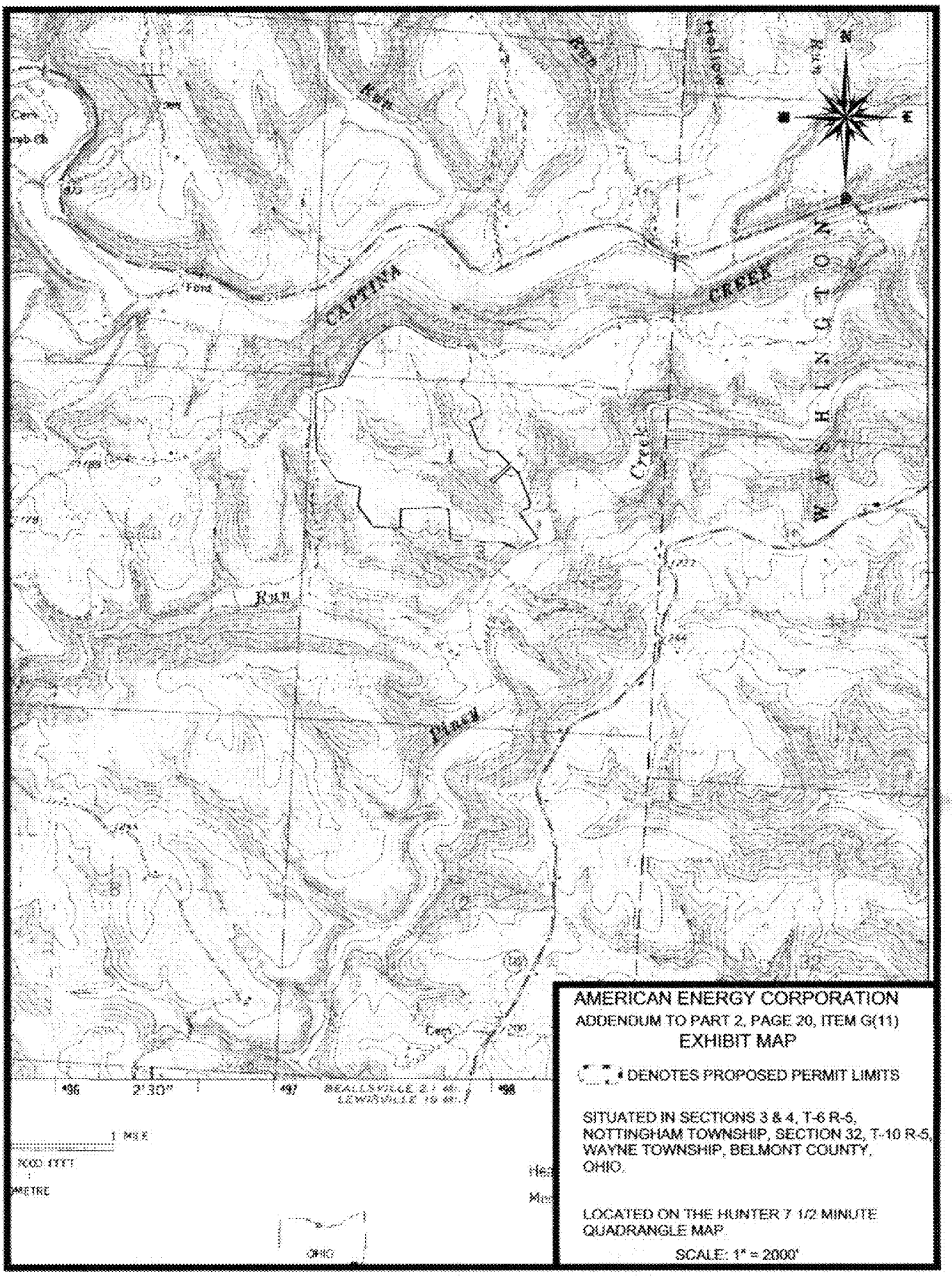
DENOTES PROPOSED PERMIT LIMITS

DENOTES AREA WHERE LAND USE CHANGE IS BEING REQUESTED FROM UNDEVELOPED TO PASTURELAND

NOTE: THE PREMINING LAND USE WILL REMAIN ON ALL AREAS WHERE THE SURFACE IS NOT DISTURBED.

ADDENDUM TO PART 2, PAGE 20, ITEM G(11)	
AMERICAN ENERGY CORPORATION	
LAND USE CHANGE MAP	
SECTIONS 3 & 4	
TOWNSHIP: 6 RANGE: 5	
TOWNSHIP: WAYNE	
COUNTY : BELMONT	CONTOUR INTERVAL: 20'
SCALE: 1" = 500'	COMM. #01008 LANDUSECHNGE.DWG
DATE PREPARED: NOVEMBER 6, 2001	
JACK A. HAMILTON & ASSOCIATES, INC. FLUSHING, OHIO DRAWN BY: SSU	DATE REVISED: 7-10-02 DATE REVISED: 9-12-02 DATE REVISED: 8-29-02

AEC 17969



AMERICAN ENERGY CORPORATION

ADDENDUM TO PART 2, PAGE 20, ITEM G(11)

EXHIBIT MAP

DENOTES PROPOSED PERMIT LIMITS

SITUATED IN SECTIONS 3 & 4, T-6 R-5, NOTTINGHAM TOWNSHIP, SECTION 32, T-10 R-5, WAYNE TOWNSHIP, BELMONT COUNTY, OHIO.

LOCATED ON THE HUNTER 7 1/2 MINUTE QUADRANGLE MAP.

SCALE: 1" = 2000'

ORIGINAL B0425-2

PART 3 RECLAMATION AND OPERATIONS PLANS

A. GENERAL REQUIREMENTS-**Permit Area (Item A. (1) and A. (2)- Permit and Underground Workings)**

(1) Submit an addendum describing the type and method of coal mining procedures for this application. Explain how these procedures will maximize the use and conservation of the coal resources.

THE PROPOSED ADJACENT AREA WILL BE UTILIZED FOR COAL REFUSE DISPOSAL. SINCE THE MAJORITY OF THE COAL MUST BE CLEANED PRIOR TO BURNING BY AN ELECTRIC POWER PLANT FACILITY, THIS PROCEDURE WILL MAXIMIZE THE USE OF COAL RESOURCES BY PROVIDING DISPOSAL AREA FOR REFUSE FROM THE PREPARATION PLANT. THIS OPERATION DOES NOT APPLY TO CONSERVATION OF THE COAL RESOURCES. ALSO, SEE ADDENDUM TO PART 3, PAGE 21, ITEM A(1).

N/A(2) Indicate the anticipated annual and total production of coal from this proposed operation.

Annual _____ Total _____

N/A(3) Will this operation be combined with surface coal mining activities to the extent that contemporaneous reclamation of areas disturbed by surface mining will be delayed or such that the underground workings will be within 500 feet of the surface mining activities? _____ Yes, _____ No. If "yes," submit Attachment 30.

N/A(4) Are experimental mining practices to be employed in the proposed mining operations? _____ Yes, _____ No. If "yes," submit as an addendum to the permit application, the description, maps, and plans required by paragraph (B) of rule 1501:13-4-12 of the Administrative Code.

N/A(5) Are mountaintop removal mining practices to be employed in the proposed mining operations? _____ Yes, _____ No. If "yes," submit as an addendum to the permit application the information required by paragraph (C) of rule 1501:13-4-12 of the Administrative Code.

N/A(6) Are the natural pre-mining slopes within the permit area in excess of twenty (20) degrees? _____ Yes, _____ No. If "yes," submit an addendum demonstrating compliance with the steep slope mining provisions of paragraph (D) of rule 1501:13-4-12 and 1501:13-13-05 of the Administrative Code.

N/A(7) Is augering proposed within the permit area? _____ Yes, _____ No. If "yes," submit Attachment 18.

N/A(8) Are variances from approximate original contour to be employed for the proposed underground mining surface operations? _____ Yes, _____ No. If "yes," submit an addendum to the permit application demonstrating compliance with paragraph (E) and/or (K) of rule 1501:13-4-12 of the Administrative Code.

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AEC 17971

ADDENDUM TO PART 3, PAGE 21, ITEM A(1)
AMERICAN ENERGY CORPORATION

Project development is as follows:

1. Prior to construction, a sedimentation pond will be constructed downstream of all proposed earthmoving activities. Erosion and sediment will be controlled by placement of haybales or silt fence as appropriate to earthmoving tasks. Diversion ditches will be constructed to direct surface water from the construction area. Fresh water will be diverted away from the site. Ditches within the disturbed area will be directed to sediment ponds. Diversion channels will be seeded or lined with durable riprap as shown in attached plans.

2. The proposed fill site will be cleared and grubbed after the erosion and sedimentation controls have been installed. Vegetation will be chipped or burned. Hardwood trees greater than 14 inches in diameter will be salvaged. An OEPA permit to burn will be obtained by the contractor prior to any burning.

3. Topsoil will be removed from the project area and stockpiled as shown on the Application map. Other soils in the project area, unsuitable for the refuse fill foundation will be removed and either stockpiled or used to construct berms.

4. Groundwater collection drains will be installed in the valley bottom and to point seeps. Details are shown on drawing 11 of attached plans.

5. The projected fill area will be lined with three feet of recompacted clay. Specifications are contained in Appendix IV of the Engineering Report. Installation details are shown on drawing 12 of the attached plans.

6. A leachate collection system will be constructed on the clay liner. Details are shown on drawing 12 of attached plans. All leachate will be directed to Pond 016 for phase 1 development, and later for phase 2 leachate will be directed to Pond 015 and Pond 016. For the remaining phases, Ponds 012, 013 and 014 will be constructed and Pond 016 will be eliminated.

7. Coarse coal refuse will be placed on the clay lined surface. Refuse will be placed in horizontal lifts, two feet thick maximum. Each lift will be compacted by a padfoot compactor, sheepsfoot, or from controlling site traffic, loaded rock trucks (Cat 777's payload 85 tons).

8. The site will be capped upon reaching final fill elevations. Details are shown on drawing 12 of attached plans. Reclamation plans are contained in Section 8 of the Engineering Report.

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A. **N/A** (9) Will access to the underground workings be gained through a drift entry? ____ Yes, _____ No. If "yes," provide as an addendum sufficient information to determine the location of the entry relative to the highest elevation of the coal reserve. Is the drift entry located so as to eliminate the potential for a gravity discharge? _____ Yes, _____ No. If "no," the applicant must demonstrate that the coal seam is not acid or iron producing. Provide an analysis of the strata immediately above and below the coal, and the coal seam itself, sufficient to demonstrate that the water quality from the entry will meet effluent limitations without treatment.

N/A (10) For entries to underground workings other than drift entries, provide as an addendum sufficient information to determine the location of the entry relative to the coal reserve. Are the entries located so as to eliminate the potential for a gravity discharge? _____ Yes, _____ No. If "no," provide the following demonstration:

(a) the gravity discharge will meet effluent limitations without treatment, or

(b) the water will be treated to meet effluent limitations and provisions will be made for consistent maintenance of the treatment facility throughout the anticipated period of gravity discharge.

N/A (11) Will the permanent entry seals be designed to withstand the maximum anticipated hydraulic head when the operations are abandoned? _____ Yes, _____ No. If "yes," submit the appropriate information demonstrating that this will be accomplished. If "no," provide a typical plan for the seals to be used to close the mine entries pursuant to applicable state and federal regulations.

(12) Submit an addendum describing the construction, modification, maintenance, and removal (unless to be retained for postmining land use), including the proposed engineering techniques and major equipment to be used, of the following facilities:

(a) dams, embankments, and other impoundments. Do any of the plans for water, sediment, or slurry impoundments meet the requirements of 30 CFR 77.216? _____ Yes, __X__ No. If "Yes," submit as an addendum a plan that addresses each of the requirements in 30 CFR 77.216-2.

(b) overburden and topsoil handling and storage areas and structures.

SEE ADDENDUM TO PART 3, PAGE 22, ITEM A(12)(a)

ALSO SEE ATTACHMENT 28 FOR HANDLING OF MATERIALS TO BE USED FOR THE LINER AND FINAL COVER

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ADDENDUM TO PART 3, PAGE 22, ITEM A(12)(a)

AMERICAN ENERGY CORPORATION

(a) The sediment ponds will be constructed in accordance with the Attachment 20's contained in this permit application using current and prudent engineering practices and shall be certified as such. If the need for field adjustments should arise during construction an "as built" Attachment 20 will be submitted with the certification. Foundation areas will be cleared of all vegetative and organic materials. A core trench will be installed to ensure stability of the embankment. Immediately after construction has been completed the embankment will be seeded and mulched. The sediment ponds will be inspected at least quarterly and maintenance provided when needed. The sediment ponds will be cleaned out when sediment accumulation reaches 60% of design capacity. The sediment ponds will be removed at the appropriate times after revegetation of the affected area. The pond areas will be reclaimed in accordance with procedures outlined in the Addendum to Part 3, Page 24, Item D.

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A. (12) (c) coal removal, handling, storage, cleaning, and transportation areas and structures; including, but not limited to, preparation plants, beltlines, tipples, rail sidings, and primary roads. For roads, conveyors and rail systems, submit an addendum describing the information required pursuant to paragraph (L) of rule 1501:13-4-14 and 1501:13-10-01 of the Administrative Code.

(d) spoil removal, handling, storage, transportation, and disposal areas and structures, including underground development waste or excess spoil disposal sites. If underground development waste or excess spoil is to be generated, submit an addendum describing the information required by paragraphs (O) and (P) of rule 1501:13-4-14 and 1501:13-9-07 of the Administrative Code.

(e) mine facilities such as portal/shaft development, boreholes, de-gas holes, vents, office or shop buildings and maintenance facilities.

(f) water and air pollution control facilities.

(13) Provide an estimate of the cost per acre to reclaim the permit area. $2500

(14) Will the proposed operation include any of the following:

(a) disposal of coal mine waste from a wash plant, tipple or other source? X Yes, _____ No. If "yes," submit Attachment 28 and, if applicable, the information required by paragraph (H) of rule 1501:13-4-14 of the Administrative Code.
SEE ATTACHMENT 28 IN ENGINEERS REPORT

(b) disposal of fly ash or other noncoal wastes? _____ Yes, X No. If "yes," submit an addendum which addresses the disposal material and a detailed disposal plan, pursuant to paragraph (S) of rule 1501:13-9-09 of the Administrative Code.

(c) return of slurry or other mine waste or material into the abandoned underground workings? _____ Yes, X No. If "yes," comply with provisions contained in paragraph (N) of rule 1501:13-4-14 and paragraph (Q) of 1501:13-9-04 of the Administrative Code, and submit copies of the required MSHA approvals as an addendum.

B. EXISTING STRUCTURES-**Permit Area**

(1) Are any existing structures proposed to be used in connection with or to facilitate the coal mining and reclamation operation? _____ Yes, X No. If "yes," submit as an addendum to the permit application a description of each structure. The description shall include the information required by paragraph (B)(1) of rule 1501:13-4-14 of the Administrative Code.

B. (2) Are any existing structures proposed to be modified or reconstructed for use in connection with or to facilitate the coal mining and reclamation operation? _____ Yes, _____ No. If "yes," submit as an addendum to the permit application, a compliance plan for each structure. The plan shall include the information required by paragraph (B) (2) of rule 1501:13-4-14 of the Administrative Code.

C. BLASTING-**Permit Area**

Will blasting occur within 25 feet of the surface during shaft and portal development or other on-site development? _____ Yes, _____ No. If "yes," submit Attachment 29.

D. RECLAMATION PLAN - GENERAL REQUIREMENTS-**Permit Area** (Item D.12)-**Permit, Shadow, and Adjacent Area)**

(1) Provide a detailed timetable for the completion of backfilling and grading for each mining year.

SEE ADDENDUM TO PART 3, PAGE 24, ITEM D(1 - 6a)

(2) Provide a detailed timetable for the completion of resoiling for each mining year.

SEE ADDENDUM TO PART 3, PAGE 24, ITEM D(1 - 6a)

(3) Provide a detailed timetable for the completion of planting for each mining year.

SEE ADDENDUM TO PART 3, PAGE 24, ITEM D(1 - 6a)

(4) Describe the plan for backfilling, compacting and grading of the disturbed permit area, including the disposal of all mine generated debris.

SEE ADDENDUM TO PART 3, PAGE 24, ITEM D(1 - 6a) AND DRAWING 6

(5) Submit an addendum describing the plan for the removal, storage, redistribution and stabilization of topsoil, subsoil, or approved alternative resoiling material to meet the requirements of rule 1501:13-9-03 of the Administrative Code. If an alternative resoiling material is to be used, submit Attachment 19.

SEE ADDENDUM TO PART 3, PAGE 24, ITEM D(1 - 6a)

(6) Provide the following information for the revegetation plan:

(a) Schedule for revegetation to include planting of temporary vegetation.

SEE ADDENDUM TO PART 3, PAGE 24, ITEM D(1 - 6a)

D(1) This is a proposed coal refuse disposal site. Grading will be done contemporaneously with raising the fill structure. This facility is designed to accommodate coarse coal refuse through the year 2016, possibly longer. Coarse coal refuse will be placed in horizontal lifts, two feet thick maximum. Each lift will be compacted. The site will be constructed in stages to elevations and grades shown in the Engineering Report, Section 7. Each stage takes an average of two years to complete. The site design capacity is 15 million cubic yards. Site life is 10 to 15 years depending on actual material density.

D(2) Resoiling will begin as soon as possible, or within 60 days, for areas filled to final design elevations. The resoiling operation, in ascending order over the refuse surface, consists of two feet of re-compacted clay, eighteen inches in inert earthen fill, and six inches of soil suitable for supporting vegetative growth. These operations are consistent with good agricultural practice for soil handling and favorable planting conditions. Resoiling will be completed prior to the next appropriate planting season, or within 180 days, for areas filled to final design elevation. Also see Engineers Report, Section 7.

D(3) Planting will be completed on each area filled to final design capacity, following resoiling, during the first appropriate period for favorable planting conditions after final preparation. Planting on each area will be done in a timely manner after resoiling is completed, considering weather conditions. See Engineers Report, Section 7.

NOTE: An exact timetable for a project of this type is extremely hard to detail, and therefore, not actually appropriate.

D(4) Coarse coal refuse will be placed in horizontal lifts, two feet thick maximum. Each lift will be compacted using a padfoot or sheepsfoot compactor, or from controlling traffic of on-site loaded trucks and other equipment. The site will be constructed to elevations and grades as shown on the attached engineering plan. The maximum grade of side slopes will be 33% (3H:1V). The top or plateau section will be crowned with a 2% slope to promote surface drainage. See Drawing 5.

Soil stabilization will be accomplished through grade control, proper drainage and prompt revegetation.

The site will be used only for the disposal of coarse coal refuse. This includes earthen materials or waste rock from mining operations such as claystone, shale, sandstone, limestone, and carbonaceous strata. Materials subject to decay or rust such as organics and metals shall not be placed in the fill.

D(5) Topsoil and subsoil in the proposed fill site will be removed, stockpiled, seeded and mulched. Stockpile areas will be located within the permit area. These areas will not be affected by excessive water, wind erosion, unnecessary compaction, or contamination. Wind and water erosion will be mitigated by use of a quick growing annual or perennial vegetation. Seeding will be done in a timely manner when weather conditions are favorable.

All topsoil will be redistributed. This will be achieved by hauling or pushing it from the storage areas. A uniform thickness of six inches will be distributed. Excessive compaction will be prevented by not redistributing excessively wet soils, and limiting equipment tracking.

D(6)a) Temporary vegetation will be planted immediately after resoiling and permanent vegetation will be planted no later than the next appropriate planting season following resoiling.

D. (6) (b) List the species and amounts per acre of seeds and seedlings to be used.

(c) Describe the methods to be used in planting and seeding.

(d) Describe the mulching techniques.

SEE ADDENDUM TO PART 3, PAGE 25, ITEM D(6b - 7)

(7) Describe the soil testing plan for evaluation of the results of topsoil handling and reclamation procedures related to revegetation.

SEE ADDENDUM TO PART 3, PAGE 25, ITEM D(6b - 7)

(8) Submit an addendum describing the measures to be employed to handle and place acid or toxic-forming materials in accordance with paragraph (J) of rule 1501:13-9-04, and paragraph(J) of rule 1501:13-9-14 of the Administrative Code.

HANDLING AND PLACEMENT OF ACID OR TOXIC FORMING MATERIALS WILL TAKE PLACE WITHIN THE PROPOSED REFUSE DISPOSAL SITE.

(9) Describe the measures, including appropriate cross-sections and maps, to be used to plug, case or manage mine openings or bore holes other than those entries utilized to gain access to the underground workings, pursuant to rule 1501:13-9-02 of the Administrative Code. **SEE HYDROGEOLOGIC INVESTIGATION, PAGE 19, ITEM 6.1.1.4 FOR CLOSURE OF MONITORING WELLS. ANY EXPLORATION HOLES, BORE HOLES, AND OTHER OPENINGS ENCOUNTERED WILL BE SEALED WITH IMPERIOUS MATERIAL.**

(10) Is the reclamation plan consistent with local physical, environmental, and climatological conditions?
__X__ Yes, _____ No.

(11) Identify any other applicable air and water quality laws and regulations and health and safety standards and describe the steps to be taken to comply with each.

APPROPRIATE STEPS HAVE BEEN TAKEN TO COMPLY WITH MSHA, CHAPTER 1521 O.R.C., AND STATE AND FEDERAL EPA REGULATIONS. ISSUANCE OF THE MODIFIED N.P.D.E.S. PERMIT IS PENDING. PER OEPA ON 8-9-02, ISSUANCE OF THE 401 CERTIFICATION IS ALSO PENDING.

(12) Submit an addendum describing the plan for minimizing to the extent possible and using the best technology currently available disturbances and adverse impacts of the operation on fish and wildlife and related environmental values and achieving enhancement of such resources where practical for the permit, shadow, and adjacent areas.
SEE ADDENDUM TO PART 3, PAGE 25, ITEM D(12)

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ADDENDUM TO PART 3, PAGE 25, ITEM D(6b-7)
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D(6)b) Temporary cover will consists of a combination mixture of rye/oats and/or wheat at an application rate of two bushels per acre.

Permanent Vegetation will consists of the following:

8 pounds/acre Orchard Grass
7 pounds/acre Birdsfoot Trefoil
4 pounds/acre Timothy
10 pounds/acre Red Clover

D(6)c) Upon resoiling, the area will be disced, swept, rocks removed, redisced and grain drilled.

D(6)d) Areas will be mulched with hay or straw at the rate of 2 tons per acre with a mulching machine or manually.

D(7) The soil testing plan consists of collecting representative samples by probing the resoiled area to achieve composite samples and thickness. Soil samples will be tested by an approved lab to determine lime and fertilizer recommendations for grass-legume establishment.

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ADDENDUM TO PART 2, PAGE 25, ITEM D(12)
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D(12) The adverse impacts from the proposed refuse operation on wildlife and related environmental values should be minimized by disturbing the smallest area practical in advance of fill placement, and by minimizing the time between removal of vegetative cover and replanting of the reclaimed area. Fish do not exist within the proposed fill area because of intermittent flows.

The construction of sediment ponds and the creation of temporary brush piles throughout the refuse fill process will provide temporary habitat for wildlife and aquatic life. The portion of Piney Creek downstream of the project will continue to provide a natural habitat for wildlife while the fill site is operational. Tree lines along the undisturbed sections of the permit area will provide travel lanes and cover for wildlife. Upon final reclamation, the seeded areas will provide a suitable mixture of open areas for food and the natural woods and brushlands for cover to promote the successful return of wildlife to the area. A wetland delineation was performed by Enviro Science, Inc. during June 2001. See attached delineation report.

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WILLIAM J. SIPLIVY, P.E., INC.

Geotechnical Engineer

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DIVISION OF MINERAL RESOURCES MANAGEMENT

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22 September 2001

Ms. Amy Holtshouse
Ohio Environmental Protection Agency
Division of Surface Water, 401 Wetlands Section
122 South Front Street
Columbus, Ohio 43216-1049

Re: Preliminary Considerations for Century Mine Wetlands Mitigation Plan

Dear Ms. Holtshouse:

Thank you for taking the time last Tuesday to review mitigation requirements associated with the proposed Century mine coarse coal refuse disposal facility, located in Sections 3 and 4, Wayne Township, Belmont County, Ohio.

Attached please find a copy of the Wetlands Verification Report issued by Mr. Scott Hans of the U. S. Army Corps of Engineers, Pittsburgh District. This Report verifies the two target areas in our Wetlands Delineation Investigation contain 1.837 acres of wetlands, in eleven separate areas, and 11,678 lineal feet of intermittent streams and 2,176 lineal feet of ephemeral streams.

Since this initial investigation, area 2, the western-most ravine, is no longer being considered. The following are therefore removed from the project: wetland areas 9, 10 and 11; and stream segments S, T, V, W, X, Y, Z and 1,154 lineal feet (down-gradient section) of stream segment A.

The current project area will affect wetland areas 1 through 8, containing a combined 1.774 acres; and stream segments A through R, containing 7,161 lineal feet of intermittent streams, and 2,002 lineal feet of ephemeral streams. These are summarized on attached Table 1. The Mitigation Plan for an OEPA Section 401 Certification will be based on this acreage and stream length.

Please feel free to call if there any questions.

Sincerely,

William J. Siplivy, P.E., Inc.

William J. Siplivy, P.E., C.P.G.
President

cc: R. Desko

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50 Munroe Falls Avenue • Munroe Falls, Ohio 44262 • 330-686-8911 • wjsiplivy@aol.com

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TABLE 1
AFFECTED WETLANDS & STREAMS
COARSE COAL REFUSE DISPOSAL FACILITY
CENTURY MINE
WAYNE TOWNSHIP, BELMONT COUNTY, OHIO
21 SEPTEMBER 2001

WETLANDS

Area	Category	Acres
1	Modified 2	0.353
2	Modified 2	0.539
3	Modified 2	0.502
4	2	0.043
5	2	0.014
6	Modified 2	0.046
7	Modified 2	0.206
8	1	0.071
Total		1.774

STREAMS

Segment	OHVWM Width (ft.)	Type	Length (ft.)	Acres
A	6	Intermittent	980	0.135
B	4	Intermittent	1,972	0.181
C	4	Intermittent	2,350	0.216
D	3	Intermittent	488	0.034
L	3	Intermittent	295	0.020
M	3	Intermittent	475	0.033
N	3	Intermittent	246	0.017
Q	3	Intermittent	355	0.024
Total			7,161	0.660
E	2	Ephemeral	128	0.006
F	3	Ephemeral	413	0.028
G	3	Ephemeral	136	0.009
H	3	Ephemeral	287	0.020
I	2	Ephemeral	178	0.008
J	2	Ephemeral	180	0.009
K	2	Ephemeral	385	0.017
P	3	Ephemeral	194	0.013
R	2	Ephemeral	121	0.006
Total			2,002	0.112

SUMMARY

	Acres	Stream Length (ft.)
1. Wetlands	1.774	
2. Streams		
A. Intermittent		7,161
B. Ephemeral		2,002
Total	1.774	9,163

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Date: 9-7-01

Regulatory Report Form

U.S. Army Corps of Engineers, Pittsburgh District
1000 Liberty Avenue
Pittsburgh, PA 15222

Project Name: Century Mine Valley Fill RAMS ID# _____

Applicant: Century Mine Organization: _____
Address: c/o William J. Sepelley P.E.
50 Munroe Falls Ave. Munroe, OH 44262
Agent: (Wetland) Enviro Science, Inc.

Site Info: Township: Warne County: Belmont State: OH
Property Size: 150 Acres
Property Location: South of S.R. 148 + Captina Creek
Waterway: Unnamed Tribs to Piney Creek Mile: _____ Bank: _____

Authority:

☐ Section 10 of the Rivers and Harbors Act of 1899 regulates structures and/or work affecting Navigable Waters.

☒ Section 404 of the Clean Water Act regulates the discharge of dredge and/or fill material into all waters of the United States, including wetlands.

Corps Action:

☐ **Jurisdictional Determination.** Wetlands and/or other waters are present on the described property. It is recommended that these areas be accurately delineated and compared to development plans prior to any earth disturbances.

☐ **No Jurisdictional Wetlands** or other waters are present on the described property.

☒ **Final Jurisdictional Determination.** The wetland delineation prepared by Enviro Science, dated 21 June 2001, with drawings ~~dated~~ attached, is acceptable and accurately depicts existing conditions on the property. (Optional, This report indicates 11 wetland areas totaling 1.857 Acres, Ephemeral Channel - 2,176 ft. Intermittent Channel - 11,678 ft. Stream Average 1.295 Acres

☐ **Unauthorized fills** exist on this property. This office should be contacted immediately to resolve this matter.

Project Description: Propose site preparation fills for construction of a coal refuse disposal area.

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Basis For Jurisdictional Determination:

☐ Portions of the project area are located below the ordinary high water mark of waters currently defined as navigable waters of the United States.

☑ The property contains open water areas such as stream channels, man made conveyances, lakes, ponds, rivers etc., defined by ordinary high water marks, and with a connection to navigable or interstate waters.

☑ Wetland conditions were determined by the presence of hydrophytic vegetation, hydric soils, and wetland hydrology, as per methods outlined in the Corps of Engineers wetland delineation manual. Such areas are adjacent to or have a connection to navigable or interstate waters.

☐ Wetlands or other waters have been identified which do not have a direct connection to navigable or interstate waters, however these areas could affect interstate or foreign commerce, through recreational use, industrial usage, migratory birds, and natural resources.

Projected Permit Requirements based on preliminary proposal:

☐ The project will likely require an individual Department of the Army Permit. Application required to the Corps.

☐ No permit is required based on drawings dated_____.

☑ The project may qualify for Federal authorization under a Nationwide or Regional General Permit. An Application should be submitted to the Corps for the proposed activity.

☐ The project may qualify for Federal authorization under the PA State Programmatic General Permit. Appropriate application should be made to the County Conservation District or Regional office of Department of Environmental Protection.

Date of Site Visit: 8-17-01 Inspector: Scott Ayers

Signature: Scott A. Ayers Date: 9-7-01

This determination will remain valid for five years from this date unless new information warrants a revised determination.

Contact Phone No. 412-395-7154

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Century Mine	File Number: [illegible]	Date: [illegible]
Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
✓	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://usace.army.mil/inet/functions/cw/cecwo/reg or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

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SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:	If you only have questions regarding the appeal process you may also contact:

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.	Date:	Telephone number:

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E. RECLAMATION PLAN - PROTECTION OF HYDROLOGIC BALANCE-**Permit and Adjacent Area**

Submit an addendum describing the measures to be taken during and after the proposed mining operations to:

(1) Minimize disturbance to the hydrologic balance, including quality and quantity, within the permit and adjacent areas and to prevent material damage outside the permit area;

(2) protect the rights of present users of surface and ground water;

(3) avoid acid or toxic drainage.

SEE ADDENDUM TO PART 3, PAGE 26, E(1-3)

F. GROUND WATER AND SURFACE WATER MONITORING PLAN-**Permit and Shadow Area**

Based upon the probable hydrologic consequences determination and analysis of all baseline hydrologic, geologic, and other information submitted in this application, address the following items in accordance with paragraph (F) of rule 1501:13-4-14 and paragraph (N) of rule 1501:13-9-04 of the Administrative Code.

(1) In addition to the quality and quantity parameters required for quarterly monitoring and NPDES monitoring, will any other parameters be monitored?
_____ Yes, __X__ No. If "yes," indicate the parameter(s) and the site(s) where such monitoring will occur.

(2) Do you propose or anticipate the need for a variation in the required monitoring frequency for ground and surface water sites and monthly monitoring for NPDES?
_____ Yes, __X__ No. If "yes," describe the variation in frequency and the monitoring sites to be affected.

(3) Describe the plan for collection, recording, and reporting of all surface and ground water quality and quantity monitoring data, including data collected for the NPDES program.

Ground and surface water will be monitored prior to refuse disposal. Quality and quantity information will be obtained from CMU-1, CMD-1, CMU-2A, CMD-2, CMD-2A, CMU-2, and CMD-6, and monitoring wells CG-01-3A, CG-01-3B, CG-01-3C, CG-01-4A, CG-01-4B, CG-01-5B, CG-01-5C, CG-01-6B, CG-01-5A, CG-01-1A, CG-01-2A, CG-01-4C, and CG-01-6C for the life of the operation, and reported quarterly to the Division of Mineral Resources Management. Surface water will be monitored in accordance with NPDES requirements. The ponds will be monitored daily for flow, weekly for pH, all of factors, every two weeks when flowing for T.S.S., iron, and manganese. Analytical results and flow data will be reported monthly to the EPA. The Ohio EPA will receive the white copy, all other copies will be sent to ODNR, Division of Mineral Resources Management, appropriate district office. Quarterly monitoring reports will be submitted for approved monitoring sites (copy attached) to the Division of Mineral Resources Management, appropriate district office. Ohio EPA reports will be submitted for monthly pond monitoring (copy attached) to the Division of Mineral Resources Management, appropriate district office. Also see Hydrogeologic Investigation Report, Section 6.0, for detailed monitoring plan.

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ADDENDUM TO PART 3, PAGE 26, ITEM E(1-3)
AMERICAN ENERGY CORPORATION

E(1). Disturbance to the hydrologic balance will be minimized through the use of the following: clay liner, underdrain system to convey groundwater beneath the refuse fill from the project, a three-foot thick minimum clay liner to separate the existing ground surface from the coal refuse, a leachate collection system to isolate and convey leachate to ponds, diversion ditches lined with riprap or grass, and final clay cap, two-feet thick minimum, and cover system.

Temporary erosion and sediment control measures used during construction will include hay bales, silt fence and seeding.

Permanent erosion and control facilities include drainage ditches and sedimentation ponds. These structures will be maintained throughout the life of the facility to insure they function properly.

All drainage from disturbed areas will be controlled and directed to sedimentation ponds at all times during operations. Waters from the site will be treated as required prior to discharge.

E(2). Rights of present groundwater users will be respected and protected by the measures described in Items E 1 and E 3. Should any contamination, diminution, or interruption occur an alternate source will be provided.

E(3). Prior to refuse placement, a three-foot thick re-compacted clay liner will be installed to protect the groundwater. During the operations phase, acid drainage will be avoided by prompt and careful reclamation to minimize oxidation of toxic strata or fill. The active refuse fill surface will be graded to shed storm waters and prevent accumulation. Leachate from the refuse surface and that percolating through the refused fill will be kept isolated from surrounding waters. The leachate will be collected in ditches or trenches and flow by gravity to ponds. These waters will be treated if necessary prior to discharge. Upon completion, the site will be covered with two-feet of re-compacted clay, eighteen inches of inert earthen material and six-inches of soil suitable for vegetation growth. The completed site will be graded for proper surface drainage to inhibit infiltration and therefore the possible formation of acid waters. Elimination of the existing streams, which will be beneath the proposed refuse disposal area, should not greatly impact the hydrologic balance. These streams have been impacted in-part by previous mining activities and refuse placement. Numerous intermittent and perennial streams exist in close proximity to the proposed site which will provide aquatic habitat and wildlife watering sources.

Acid drainage is not expected to be a problem at this site with proper construction and maintenance of the facilities as planned.

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ADDENDUM TO PART 3, ITEM F(

AMERICAN ENERGY CORPORATION

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

Quarterly Monitoring Report Sheet
(Submit in Quadruplicate)

Permittee _____, Permit Number _____

____ 1st Qtr., ____ 2nd Qtr., ____ 3rd Qtr., ____ 4th Qtr., (✓ appropriate bla

____ Pre-mining, ____ Mining, ____ Postmining, (✓ appropriate blank for mine stat

Monitoring Site ID No. (e.g. S-1, W-3)					
State Plane X-Y Coordinates	X ____ Y ____	X ____ Y ____	X ____ Y ____	X ____ Y ____	X ____ Y ____
Surface Elevation of Monitoring Site					
Indicate Whether Site was Monitored for Quality, Quantity, or Both					
Depth of Well Below Land Surface (feet)					
Static Water Level of Well Below Land Surface (feet)					
Stream or Spring Discharge (cfs or gpm)					
Date Measured					
pH (Standard Units)					
Total Acidity (mg/l $CaCO_3$)					
Total Alkalinity (mg/l $CaCO_3$)					
Total Iron (mg/l)					
Total Manganese (mg/l)					
Total Suspended Solids (mg/l)					
Total Hardness (mg/l $CaCO_3$)					
Total Sulfates (mg/l)					
Specific Conductance (at 25° C in µmhos/cm)					

ermittee's Signature | Date

Laboratory Name

Analyst's Signature | Date

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ODNR

ADDENDUM TO PART 3, ITEM F(3),
AMERICAN ENERGY CORPORATION

MONTHLY REPORT FORM

OhioEPA

OHIO DEPARTMENT OF NATURAL RESOURCES

Ohio Environmental Protection Age

COMPANY NAME			DATE (Mo Yr)	Page of Pag
MINE LOCATION	COUNTY	TOWNSHIP	OEPA PERMIT NO.	IP
SECTION	PIT IDENTIFICATION (IF ANY)		ODNR PERMIT NO.	

REPORTING LAB | ANALYST

OUTFALL	DAY	FLOW RATE GALLONS PER DAY REPORTING CODE 00056	pH STANDARD UNITS REPORTING CODE 00400	TOTAL SUSPENDED SOLIDS MG/L REPORTING CODE 00530	IRON TOTAL MG/L REPORTING CODE 74010	MANGANESE TOTAL MG/L REPORTING CODE 74013	SPECIFIC CONDUCTANCE MICROMHOS REPORTING CODE 00095	RAINFALL 24 HR. TOTAL INCHES REPORTING CODE 00045	REPORTING CODE	REPORTING C
001										

NOTE: NUMBER OUTFALL AS NEEDED.
ADDITIONAL REMARKS

ALL REPORTING CODES MUST BE EXPLAINED
THIS FORM MUST BE TYPED

Discharge of pollutants to waters of the State without an effective permit is prohibited pursuant to 6111.04 and 6111.07 Ohio Revised Code.

DATE REPORT COMPLETED | SIGNATURE OF REPORTER | TITLE OF REPORTER

ORIGINAL

00425

AEC 17990

G. DIVERSIONS AND DRAINAGE CONTROLS-**Permit Area**

(1) Will the proposed coal mining activities result in diversions of overland flow away from the disturbed areas? _____ Yes, __X__ No. If "yes," describe, including maps and cross sections, the diversion to be constructed to achieve compliance with paragraph (I) of rule 1501:13-4-14 of the Administrative Code.

(2) Will the proposed coal mining activities result in the diversion of intermittent or perennial streams within the proposed permit area? _____ Yes, __X__ No. If "yes," describe, including maps and cross sections, the diversions to be constructed to achieve compliance with paragraph (I) of rule 1501:13-4-14 of the Administrative Code.

(3) Will the proposed coal mining activities result in construction of diversions to direct runoff through a sediment pond or a series of sediment ponds? __X__ Yes, _____ No. If "yes," submit an addendum to describe, including maps and cross sections, the diversions to be constructed to achieve compliance with paragraph (I) of rule 1501:13-4-14 of the Administrative Code.

(4) Indicate which of the following are proposed to be constructed within the proposed permit area and submit as an addendum the detailed design plans for each structure in accordance with paragraph (H) of rule 1501:13-4-14 and 1501:13-9-04 of the Administrative Code.

__X__ sedimentation pond(s) (submit Attachment 20)

_____ water impoundment(s) (submit Attachment 20)

_____ Other (specify) _____

(5) Submit an addendum describing the plan for the control of water drainage into, through, and out of the proposed permit area. If applicable, submit as an addendum any request for variances pursuant to paragraphs (B) and (E) of rule 1501:13-9-04 of the Administrative Code.

SEE ENGINEERS REPORT, SECTION 2, AND ADDENDUM TO PART 3, PAGE 27, ITEM G(5), S.A.D.E. AND BZVR.

(6) Describe the treatment, when required, of ground and surface water drainage from the area to be disturbed by the proposed coal mining activities.

ALL WATER DISCHARGING FROM THE PERMIT WILL MEET THE EFFLUENT LIMITATIONS AS OUTLINED ON THE ADDENDUM. SEE ADDENDUM TO PART 3, PAGE 27, ITEM G(6). TREATMENT CHEMICALS USED ARE SODA ASH, SULPHURIC ACID FOR pH ADJUSTMENT, AND NALCO 7883 POLYMER BASED FLOXULANT. SEE HYDROLOGIC INVESTIGATION REPORT FOR THE LIST OF MONITORING WELLS INCLUDED IN THE MONITORING PROGRAM.

ORIGINAL

004252

AEC 17991

ADDENDUM TO PART 3, PAGE 27, ITEM G(5)
AMERICAN ENERGY CORPORATION

The proposed refuse site will be developed in three phases in an unnamed tributary of Piney Creek. Sediment Pond 016 will be used to control runoff for the first phase of the disposal operation. Phase 2 will require Pond 016 at the toe and Pond 015 in the head of the hollow. Sediment Ponds 012, 013 and 014 will then be constructed to control runoff from Phase 3. Runoff will be directed to these ponds by diversion ditches as shown on Phase Construction drawings, numbers 6, 7 and 8.

Underdrains will collect natural, unaffected ground water that normally forms stream flow in the valley, and are located beneath a three foot thick, compacted clay liner and do not come in contact with the coal refuse material. A Small Area Drainage Exemption (S.A.D.E.) is not applicable to this ground water as the footprint of the S.A.D.E. would be beneath the entire proposed refuse disposal area. Since this subsurface drainage is unaffected by the mining activities, it will not pass through any of the sediment ponds, but will instead become surface drainage discharging into Piney Creek via a diversion channel, upon exiting from beneath the clay liner. Piney Creek flows directly to Captina Creek. See Drawing 11 of the plans. When Phases 1 and 2 are completed, sediment Pond 016 will be backfilled with compacted earthen material and lined with three feet of clay. The ground water collection system will be extended through the Pond 016 site as per plans.

All drainage from the leachate collection system will pass through Pond 008A. Leachate consists of all water that comes in contact with the coal refuse. The leachate collection system is located above the three-foot thick clay liner. See Drawing number 12.

Coal refuse will be placed on a three-foot thick (minimum) re-compacted clay liner. Leachate collected here and runoff from all disturbed surface will pass through Ponds 012, 013, 014, and 016 for treatment, if necessary, before discharge into Piney Creek, as shown on the plans. Pond 015 will discharge northward through a road culvert into a natural drainage channel directed to Captina Creek.

Groundwater drains are to be located beneath the three-foot thick clay liner, as shown on engineering plans drawing number 11. Steady-state seepage collected here is to be discharged at the toe of Phase 3 into a collector trench for discharge into Piney Creek. This drain system can be installed rapidly, with minimal disturbance. During construction, sediment will be contained at the source through use of hay-bales (double row) and/or silt fences. In addition there will be an instream silt retention structure, downstream of the project, in the tributary.

When capping and sealing of the proposed disposal area begins, capping materials will be distributed over the site beginning near the head of hollow in Phases 1 and 2.

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ADDENDUM TO PART 3, ITEM G

N.S.P.S.

(NEW SOURCE PERFORMANCE STANDARDS)

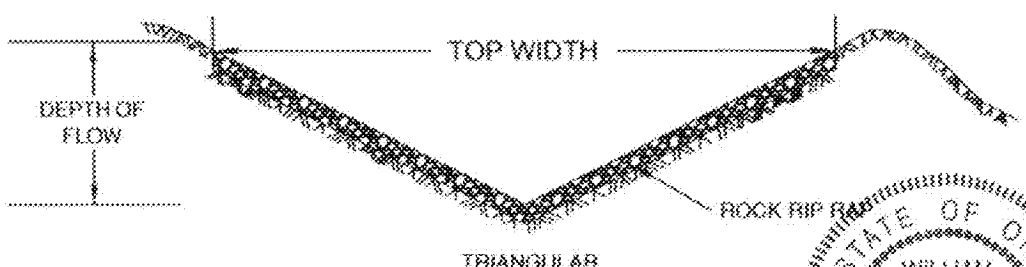
FINAL EFFLUENT LIMITATIONS
EFFECTIVE AFTER JUNE 3, 1997

	pH	T.S.S. in mg/l 30 Day/Daily	Fe in mg/l 30 Day/Daily	Mn in mg/l 30 Day/Daily	S.S. in ml/l
1. Discharge from underground workings of underground mines - not commingled	6.5-9.0	35.0 / 70.0	1.4 / 6.0	2.0 / 4.0	
2. Discharge from underground workings of underground mines - commingled					
a) less than or equal to 10 Yr/24 Hr	6.5-9.0	35.0 / 70.0	1.4 / 6.0	2.0 / 4.0	
b) greater than 10 Yr/24 Hr	6.5-9.0				
3. Controlled surface mine drainage					
a) less than or equal to 10 Yr/24 Hr	6.5-9.0	35.0 / 70.0	1.4 / 6.0	2.0 / 4.0	
b) greater than 10 Yr/24 Hr	6.5-9.0				
4. Non-controlled surface mine drainage (except steep slope and mountaintop removal)					
a) no precipitation 24 Hr.	6.5-9.0	35.0 / 70.0	1.4 / 6.0	2.0 / 4.0	
b) less than 2 Yr/24 Hr	6.5-9.0		1.4 / 7.0		0.5
c) greater than 2 Yr/24 Hr less than or equal to 10 Yr/24 Hr	6.5-9.0		1.4 /		0.5
d) greater than 10 Yr/24 Hr	6.5-9.0				
5. Discharge from coal refuse disposal piles					
a) less than or equal to 1 Yr/24 Hr	6.5-9.0	35.0 / 70.0	1.4 / 6.0	2.0 / 4.0	
b) greater than 1 Yr/24 Hr less than or equal to 10 Yr/24 Hr	6.5-9.0				0.5
c) greater than 10 Yr/24 Hr	6.5-9.0				
6. Discharge from steep slope and mountaintop removal area					
a) no precipitation 24 Hr.	6.5-9.0	35.0 / 70.0	1.4 / 6.0	2.0 / 4.0	
b) less than 10 Yr/24 Hr	6.5-9.0		1.4 /		0.5
c) greater than 10 Yr/24 Hr	6.5-9.0				
7. Discharges from preparation plant associated areas (excluding coal refuse piles) and preparation plants					
a) no precipitation 24 Hr.	6.5-9.0	35.0 / 70.0	1.4 / 6.0	2.0 / 4.0	
b) less than 10 Yr/24 Hr	6.5-9.0				0.5
c) greater than 10 Yr/24 Hr	6.5-9.0				
8. Discharges from Reclamation Areas					
a) less than 10 Yr/24 Hr	6.5-9.0				0.5
b) greater than 10 Yr/24 Hr	6.5-9.0				

D0429-2

RIPRAP CHANNEL DESIGN

DIVERSION DITCH #	DIVERSION DITCH LENGTH	DRAINAGE AREA (ACRES)	STORM DESIGN	DESIGN cfs	SLOPE	SIDE SLOPES	DEPTH OF FLOW (MAXIMUM)	TOP WIDTH	VELOCITY ft/sec (MAXIMUM)
DD-3	839'	3.0	10YR/24HR	6.8	8.1%	2:1	1.1'	4.4'	5.3
DD-4	461'	1.9	10YR/24HR	4.5	10.3%	2:1	1.0'	3.8'	5.2
DD-4A	82'	4.9	10YR/24HR	11.4	2.6%	2:1	1.4'	5.7'	4.6
DD-10	150'	61.1	10YR/24HR	90.5	12%	2:1	2.4'	9.7'	10.1
DD-11	110'	56.4	10YR/24HR	85.3	12%	2:1	2.4'	9.5'	10.0
DD-12	110'	33.4	10YR/24HR	59.9	26%	2:1	1.9'	7.7'	11.5
DD-15	250'	16.1	10YR/24HR	31.1	17.6%	2:1	1.6'	6.4'	9.1
DD-16	250'	37.6	10YR/24HR	58.0	16%	2:1	2.0'	7.9'	10.3
DD-17	100'	44.5	10YR/24HR	73.7	0.5%	2:1	3.2'	12.7'	4.5
DD-18	230'	3.4	10YR/24HR	7.9	14%	2:1	1.1'	4.3'	6.6
DD-19	503'	7.7	10YR/24HR	15.8	11%	2:1	1.4'	5.6'	6.5



NOTE:

COMPUTER PROGRAM USED: SEDCAD 4.0
CURVE NUMBER USED: VARIOUS (SEE RUN SHEETS)

STATE OF OHIO
WILLIAM J. SIPLIVY
E-51015
REGISTERED PROFESSIONAL ENGINEER

ADDENDUM TO PART 3, PAGE 27, ITEM G(3)
AMERICAN ENERGY CORPORATION

DIVERSION DITCH DESIGN COMPUTATION SHEET

SECTIONS: 3 & 4	TOWNSHIP: 6	RANGE: 5
TOWNSHIP: WAYNE	COUNTY: BELMONT	

William J. Siplivy

28 Nov 2001
DATE:

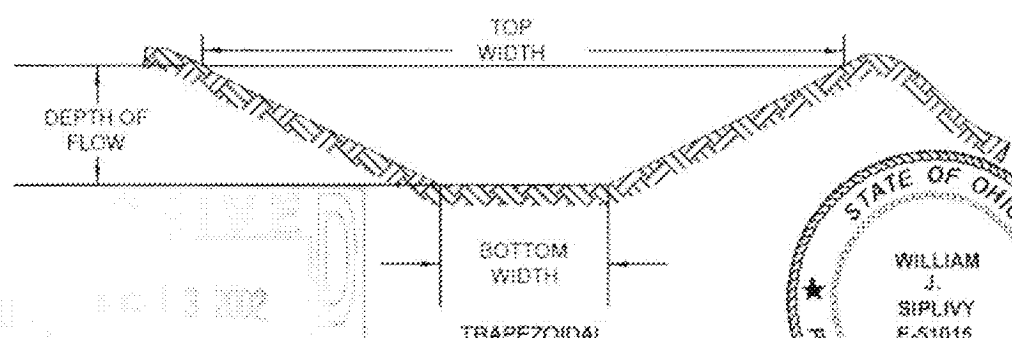
SHEET 1 OF 2 DIV-DIT.DWG COM. #01-008

AEC 17994

00425-2

VEGETATED CHANNEL DESIGN

Diversion Ditch	Length (feet)	Area (acres)	Design Storm	Design (cfs)	Slope (%)	Sideslope	Flow Depth (feet)	Bottom Width (feet)	Top Width (feet)	Velocity (f/s)
B1	754.0	3.0	10y / 24h	7.1	0.5	2:1	2.0	2.0	11.2	0.6
B2	914.0	6.9	10y / 24h	15.7	0.5	2:1	2.5	2.0	13.1	0.9
B3a	480.0	13.6	10y / 24h	18.7	2.8	2:1	1.6	2.0	9.6	2.3
B3b	1850.0	21.3	10y / 24h	30.2	1.8	2:1	2.1	2.0	11.4	2.4
B4a	850.0	3.2	10y / 24h	7.6	2.8	2:1	1.3	2.0	8.2	1.4
B4b	820.0	6.2	10y / 24h	14.3	0.6	2:1	1.3	2.0	12.3	1.0
B4c	1889.0	12.9	10y / 24h	24.9	2.2	2:1	1.9	2.0	10.6	2.4
B5a 1	2599.0	9.7	10y / 24h	13.7	0.5	2:1	2.4	2.0	12.7	0.9
B5a 2	193.0	10.1	10y / 24h	13.8	2.3	2:1	1.6	2.0	9.4	1.7
B5a 3	1614.0	16.2	10y / 24h	18.9	0.3	2:1	3.0	2.0	15.0	0.8
B5b	1775.0	6.8	10y / 24h	13.4	1.3	2:1	1.8	2.0	10.5	1.3
B6a 1	69.0	9.5	10y / 24h	22.2	0.6	2:1	2.6	2.0	13.4	1.2
B6a 2	3509.0	23.0	10y / 24h	44.2	0.8	2:1	2.8	2.0	14.5	2.0
B6b 1	1143.0	6.9	10y / 24h	10.2	1.2	2:1	1.7	2.0	10.1	1.1
B6b 2	386.0	10.4	10y / 24h	15.8	2.2	2:1	1.6	2.0	9.7	1.8



TRAPEZOIDAL

NOTE:

COMPUTER PROGRAM USED: SEDCAD 4.0
CURVE NUMBER USED: VARIOUS (SEE RUN SHEETS)

STATE OF OHIO
WILLIAM J. SIPLIVY
E-51015
REGISTERED
PROFESSIONAL ENGINEER

ADDENDUM TO PART 3, PAGE 27, ITEM G(3)
AMERICAN ENERGY CORPORATION

DIVERSION DITCH DESIGN COMPUTATION SHEET

SECTIONS: 3 & 4	TOWNSHIP: 6	RANGE: 5
TOWNSHIP: WAYNE	COUNTY: BELMONT	

William J. Siplivy 13 AUG 02
DATE:

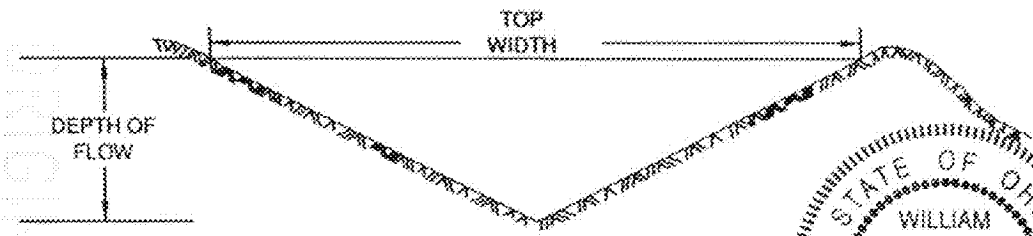
SHEET 1 OF 2 DIV-DIT.DWG REVISED: 8/9/02 COM: #01-008

00425-2

AEC 17995

VEGETATED CHANNEL DESIGN

DIVERSION DITCH #	DIVERSION DITCH LENGTH	DRAINAGE AREA (ACRES)	STORM DESIGN	DESIGN cfs	SLOPE	SIDE SLOPES	DEPTH OF FLOW (MAXIMUM)	TOP WIDTH	VELOCITY ft/sec (MAXIMUM)
DD-1A	504'	1.8	10YR/24HR	3.9	12.5%	2:1	1.3'	5.3'	4.4
DD-1	2016'	11.9	10YR/24HR	16.5	0.4%	2:1	3.4'	13.7'	1.9
DD-2	494'	0.9	10YR/24HR	2.2	5.3%	2:1	1.4'	5.6'	2.4
DD-5	64'	0.2	10YR/24HR	0.4	1.8%	2:1	1.2'	4.9'	0.7
DD-6	156'	0.3	10YR/24HR	0.6	0.5%	2:1	1.7'	6.9'	0.5
DD-7	58'	0.2	10YR/24HR	0.4	0.6%	2:1	1.6'	6.3'	0.5
DD-8	186'	0.3	10YR/24HR	0.5	0.5%	2:1	1.7'	6.7'	0.5
DD-9	425'	4.1	10YR/24HR	8.7	0.6 - 1.7%	2:1	2.8'	11.0'	1.7
DD-13	323'	1.6	10YR/24HR	3.7	6.3%	2:1	1.5'	5.9'	3.2
DD-14	417'	2.6	10YR/24HR	6.0	6.8%	2:1	1.1'	4.3'	4.8
DD-20	764'	2.8	10YR/24HR	6.6	1.3%	2:1	2.2'	8.9'	2.1
DD-21	420'	4.0	10YR/24HR	9.2	4.6%	2:1	1.9'	7.4'	4.1
DD-22	158'	0.1	10YR/24HR	0.2	2.5%	2:1	0.8'	3.0'	1.8



NOTE:

COMPUTER PROGRAM USED: SEDCAD 4.0
CURVE NUMBER USED: VARIOUS (SEE RUN SHEETS)

STATE OF OHIO
WILLIAM J. SIPLIVY
E-51015
REGISTERED PROFESSIONAL ENGINEER

ADDENDUM TO PART 3, PAGE 27, ITEM 6 (3)
AMERICAN ENERGY CORPORATION

DIVERSION DITCH DESIGN COMPUTATION SHEET

SECTIONS: 3 & 4	TOWNSHIP: 6	RANGE: 5
TOWNSHIP: WAYNE	COUNTY: BELMONT	

28 Nov 2001
DATE:

SHEET 1 OF 2 DIV-DIT.DWG COM. #01-008

AEC 17996

	Stability Class D w/o Freeboard	Stability Class D w/ Freeboard	Capacity Class B w/o Freeboard	Capacity Class B w/ Freeboard
Design Discharge:	6.57 cfs		6.57 cfs	
Depth:	1.26 ft	1.56 ft	1.93 ft	2.23 ft
Top Width:	5.03 ft	6.23 ft	7.72 ft	8.92 ft
Velocity:	2.08 fps		0.88 fps	
X-Section Area:	3.16 sq ft		7.45 sq ft	
Hydraulic Radius:	0.562		0.863	
Froude Number:	0.46		0.16	
Roughness Coefficient:	0.0556		0.1745	

Structure #14 (Vegetated Channel)

DD 21

Triangular Vegetated Channel Inputs:

Material: Grass mixture

Left Sideslope Ratio	Right Sideslope Ratio	Slope (%)	Retardance Classes	Freeboard Depth (ft)	Freeboard % of Depth	Freeboard Mult. x (VxD)	Limiting Velocity (fps)
2.0:1	2.0:1	4.6	D, B	0.30			5.0

Vegetated Channel Results:

	Stability Class D w/o Freeboard	Stability Class D w/ Freeboard	Capacity Class B w/o Freeboard	Capacity Class B w/ Freeboard
Design Discharge:	9.24 cfs		9.24 cfs	
Depth:	1.06 ft	1.36 ft	1.55 ft	1.85 ft
Top Width:	4.25 ft	5.45 ft	6.20 ft	7.40 ft
Velocity:	4.09 fps		1.93 fps	
X-Section Area:	2.26 sq ft		4.80 sq ft	
Hydraulic Radius:	0.475		0.693	
Froude Number:	0.99		0.39	
Roughness Coefficient:	0.0476		0.1289	

Structure #15 (Vegetated Channel)

B2

Trapezoidal Vegetated Channel Inputs:

Material: Grass mixture

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AEC 17997

Bottom Width (ft)	Left Sideslope Ratio	Right Sideslope Ratio	Slope (%)	Retardance Classes	Freeboard Depth (ft)	Freeboard % of Depth	Freeboard Mult. x (VxD)	Limiting Velocity (fps)
2.00	2.0:1	2.0:1	0.5	D, B	0.30			5.0

Vegetated Channel Results:

	Stability Class D w/o Freeboard	Stability Class D w/ Freeboard	Capacity Class B w/o Freeboard	Capacity Class B w/ Freeboard
Design Discharge:	15.70 cfs		15.70 cfs	
Depth:	1.55 ft	1.85 ft	2.46 ft	2.76 ft
Top Width:	8.22 ft	9.42 ft	11.85 ft	13.05 ft
Velocity:	1.98 fps		0.92 fps	
X-Section Area:	7.94 sq ft		17.05 sq ft	
Hydraulic Radius:	0.887		1.310	
Froude Number:	0.35		0.14	
Roughness Coefficient:	0.0481		0.1369	

Structure #7 (Vegetated Channel)

DD 1a

Triangular Vegetated Channel Inputs:

Material: Grass mixture

Left Sideslope Ratio	Right Sideslope Ratio	Slope (%)	Retardance Classes	Freeboard Depth (ft)	Freeboard % of Depth	Freeboard Mult. x (VxD)	Limiting Velocity (fps)
2.0:1	2.0:1	12.5	D, B	0.30			5.0

Vegetated Channel Results:

	Stability Class D w/o Freeboard	Stability Class D w/ Freeboard	Capacity Class B w/o Freeboard	Capacity Class B w/ Freeboard
Design Discharge:	3.89 cfs		3.89 cfs	
Depth:	0.67 ft	0.97 ft	1.01 ft	1.31 ft
Top Width:	2.67 ft	3.87 ft	4.05 ft	5.25 ft
Velocity:	4.37 fps		1.39 fps	
X-Section Area:	0.89 sq ft		2.66 sq ft	
Hydraulic Radius:	0.298		0.453	
Froude Number:	1.33		0.47	
Roughness Coefficient:	0.0538		0.1638	

Structure #8 (Vegetated Channel)

DD 1

ORIGINAL
00425-2
AEC 17998

H. PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES-**Permit and Planned Subsidence Area**

Will the proposed coal mining activities adversely affect any public park and places listed on the National Register of Historic Places? _____ Yes, __X__ No. If "yes," submit an addendum describing the measures to minimize or prevent these impacts.

I. MINING NEAR OR THROUGH A PUBLIC ROAD-**Permit Area**

If the response to Part 1, item D (6) of the permit application is "yes", submit an addendum describing the measures to be used to ensure that the interests of the public and landowners are protected.

1. BOND WILL BE POSTED ON THE PERMITTED AREA.
2. EARTH BARRICADES WILL BE CONSTRUCTED WHERE NECESSARY TO PROHIBIT ENTRY OR ACT AS SAFETY BARRIERS.
3. SIGNS HAVE BEEN ERECTED NEAR THE MINE TO PROVIDE INFORMATION FOR THE PUBLIC.

J. SUBSIDENCE CONTROL SURVEY-**Shadow Area N/A**

(1) Is this a full coal recovery operation?
_____ Yes, _____ No. If "yes," complete Attachment 31, Subsidence Control Survey, and following items J(2) and (3).

(2) Does the shadow area contain any of the structures or facilities listed in 1501:13-12-03(J)(1-3)?
_____ Yes, _____ No. If "yes," complete Attachment 32, Protection of Specific Structures, and specifically identify the structures or facilities on the application map.

(3) Are any aquifers or bodies of water that serve as a significant water source for any public water supply system present in the shadow area?
_____ Yes, _____ No. If "yes," complete Attachment 32, Protection of Specific Structures, and specifically identify the areas on the application map.

K. SUBSIDENCE CONTROL PLAN-**Shadow Area N/A**

(1) Submit an addendum which describes the method of coal removal, and indicates the size, sequence, and timing of the development of the underground workings.

(2) Utilizing the application map, specifically indicate areas where planned subsidence mining methods (i.e. longwall or pillar extraction) will be used.

(3) Utilizing the application map, specifically indicate room-and-pillar mining areas where subsidence will be prevented or minimized.

RECEIVED
JUN 12 2002
00425-2

PART 4 FORMAT AND CONTENT

A. FILING OF ADDENDA **

If an addendum is needed to present the information required by the items in the permit application, the addendum is to be submitted with the permit application and each page, map, plan or other document in the addendum should include the application's name and indicate to what item the addendum applies. For example, "Addendum to Part 3, Item K(2) Zebco Coal Company."

B. Provide the information requested below for all technical data submitted in the application.

Identification of Technical Data (1)	Person/Organization that Collected Data and Date	Methodology for Collecting Data	Person/Organization that Analyzed Data and Date	Methodology Used to Analyze Data
Part 2, Item C	D. Rucker, Quality environmental Services, Inc. 3/99, 7/01, 10/01	Grab Samples	I.B.Maniar, Industrial Lab Analysis 3/99, 7/01, 10/01	Analyze as necessary for parameters
Attachment 28	Wm. Siplivy, P.E. 10/01	Grab Samples	S. Duke, TraDet, Inc. 11/01	Analyze as necessary for parameters

(1) The technical data is to be identified by referencing the particular item in the application for which the data was used in preparing the response (e.g. Part 2, B(1); Attachment 14; Part 4, A).

C. Provide the name, address, and position of officials of each private or academic research organization or governmental agency contacted in the preparation of the application for information on land uses, soils, geology, vegetation, fish and wildlife, water quality, air quality, and archeological, cultural, and historic features.

Name and Address of Official	Position of Official	Name of Agency/ Organization	Type of information (e.g. Geology)
Bill Haiker Fountain Square Court Bldg. E, Columbus, Ohio 43224	Hydrogeologist	Division of Water	Hydrology
James Forshey 1119 East Main St. Barnesville, Ohio 43713	District Conservationist	Natural Resources Conservation Service	Soils/P.F.L
I.B. Maniar 2340 Williamsburg Dr. Glen Dale, WV 26038	Analyst	Industrial Lab Analysis	Hydrology
Sharon Duke PO Box 2019 Battle Run Road Wheeling, WV 26003	Analyst	TraDet, Inc.	Attachment 28

ORIGINAL

D. APPLICATION FOR ABANDONED MINED LAND DIRECT NEGOTIATED CONTRACT (IF APPLICABLE) **N/A**

In accordance with Section 1513.27 of the Ohio Revised Code, the chief of the Division of Reclamation has been granted the authority to enter into contracts with licensed operators for reclamation of abandoned mined lands affected by coal mining prior to April 10, 1972 and located adjacent to a permit area. To be eligible for reclamation funding, the abandoned mined land must be causing offsite environmental problems, will not be affected by the operator during the normal course of mining, and is not likely to be mined in the foreseeable future. If such lands exist adjacent to your permit area and you are interested in contracting for reclamation of the lands, complete this application, detach and send directly to:

Robert S. Baker, Manager
Mined Land Reclamation
Division of Reclamation
Fountain Square, H-2
Columbus, Ohio 43224

Upon receipt, a representative from the Mined Land Reclamation section will contact you.

Applicant: _____

Address: _____

City: _____ State _____ Zip _____

Business Telephone: _____

Contact Person: _____

Description of Abandoned Mined Land:

County: _____
Township: _____
Section/Lot: _____
Approximate Acreage: _____

Environmental problems associated with site:

_____

_____

_____

_____

11/92

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION
ATTACHMENT 1
(OWNERS AND CONTROLLERS)

Applicant's Name AMERICAN ENERGY CORPORATION

This attachment is to be completed and submitted with the permit application if the applicant is other than a single proprietorship. Provide the following for all partners, officers, directors, stockholders owning ten percent or more of any class of voting stock or other instruments of ownership, and any other person performing a function similar to a director. If any person listed is a business entity and not an individual, also complete an Attachment 1 for that person.

Name of business entity American Energy Corporation

Name Robert D. Moore
Street address 43521 Mayhugh Hill Road
City Beallsville State OH Zip 43716
EIN _____, or SSN _____
Title of position within entity President & Treasurer
Date position assumed/ended (if applicable) 6-25-01 /
Percent of ownership 0% Date of ownership N/A
Location in organizational structure President & Treasurer

Name Bruce Hill
Street address 43521 Mayhugh Hill Road
City Beallsville State OH Zip 43716
EIN _____, or SSN _____
Title of position within entity Director
Date position assumed/ended (if applicable) 7-02-01 /
Percent of ownership 0% Date of ownership N/A
Location in organizational structure Director

Name Michael O. McKown
Street address 43521 Mayhugh Hill Road
City Beallsville State OH Zip 43716
EIN _____, or SSN _____
Title of position within entity Secretary
Date position assumed/ended (if applicable) 11-01-99 /
Percent of ownership 0% Date of ownership N/A
Location in organizational structure Secretary

Submit and identify additional pages necessary to complete response.

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O DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION
ATTACHMENT 1
(OWNERS AND CONTROLLERS)

Applicant's Name AMERICAN ENERGY CORPORATION

This attachment is to be completed and submitted with the permit application if the applicant is other than a single proprietorship. Provide the following for all partners, officers, directors, stockholders owning ten percent or more of any class of voting stock or other instruments of ownership, and any other person performing a function similar to a director. If any person listed is a business entity and not an individual, also complete an Attachment 1 for that person.

Name of business entity American Energy Corporation

Name Clyde Borrell
Street address 43521 Mayhugh Hill Road
City Beallsville State OH Zip 43716
EIN _____, or SSN _____
Title of position within entity Director
Date position assumed/ended (if applicable) 11-01-99 / 7-02-01
Percent of ownership 0% Date of ownership N/A
Location in organizational structure N/A

Name Coal Resources Inc.
Street address 29325 Chagrin Blvd.
City Pepper Pike State OH Zip 44122
EIN _____, or SSN _____
Title of position within entity Sole Shareholder
Date position assumed/ended (if applicable) 11-1-99 / 2-23-01
Percent of ownership 100% Date of ownership N/A
Location in organizational structure N/A

Name Murray Energy Corporation
Street address 29325 Chagrin Blvd., Suite 300
City Pepper Pike State OH Zip 44122
EIN _____, or SSN _____
Title of position within entity Sole Shareholder
Date position assumed/ended (if applicable) N/A /
Percent of ownership 100% Date of ownership 2-23-01
Location in organizational structure Sole Shareholder

Submit and identify additional pages necessary to complete response.

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION
ATTACHMENT 1
(OWNERS AND CONTROLLERS)

Applicant's Name AMERICAN ENERGY CORPORATION

This attachment is to be completed and submitted with the permit application if the applicant is other than a single proprietorship. Provide the following for all partners, officers, directors, stockholders owning ten percent or more of any class of voting stock or other instruments of ownership, and any other person performing a function similar to a director. If any person listed is a business entity and not an individual, also complete an Attachment 1 for that person.

Name of business entity Murray Energy Corporation

Name Robert E. Murray
Street address 29325 Chagrin Blvd., Suit 300
City Pepper Pike State OH Zip 44122
EIN _____, or SSN _____
Title of position within entity President, CEO, Shareholder
Date position assumed/ended (if applicable) N/A /
Percent of ownership 100% Date of ownership 2-23-01
Location in organizational structure President, CEO, Shareholder

Name Michael D. Loiacono
Street address 29325 Chagrin Blvd., Suite 300
City Pepper Pike State OH Zip 44122
EIN _____, or SSN _____
Title of position within entity Treasurer
Date position assumed/ended (if applicable) 2-23-01 /
Percent of ownership 0% Date of ownership N/A
Location in organizational structure Treasurer

Name Michael O. McKown
Street address 29325 Chagrin Blvd., Suite 300
City Pepper Pike State OH Zip 44122
EIN _____, or SSN _____
Title of position within entity Secretary
Date position assumed/ended (if applicable) 2-23-01 /
Percent of ownership 0% Date of ownership N/A
Location in organizational structure Secretary

Submit and identify additional pages necessary to complete response.

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

ATTACHMENT 3
(IDENTIFICATION OF OTHER BUSINESS ENTITIES)

Applicant's Name AMERICAN ENERGY CORPORATION

This attachment is to be completed and submitted with the permit application if the response to item C.(4) in Part 1 of the permit application is "yes." A separate attachment is to be submitted for each business entity.

Name of business entity American Energy Corporation

Statutory agent American Energy Corporation

Street Address 43521 Mayhugh Hill Road

City Beallsville State Ohio Zip 43716

Person's Name Robert D. Moore Position PRES./ TREAS.

Street Address 43521 Mayhugh Hill Road

City Beallsville State Ohio Zip 43716

Person's Name Michael O. McKown Position Secretary

Street Address 43521 Mayhugh Hill Road

City Beallsville State Ohio Zip 43716

Person's Name Bruce Hill Position Director

Street Address 43521 Mayhugh Hill Road

City Beallsville State Ohio Zip 43716

Person's Name _____ Position _____

Street Address _____

City _____ State _____ Zip _____

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

ATTACHMENT 3
(IDENTIFICATION OF OTHER BUSINESS ENTITIES)

Applicant's Name AMERICAN ENERGY CORPORATION

This attachment is to be completed and submitted with the permit application if the response to item C.(4) in Part 1 of the permit application is "yes." A separate attachment is to be submitted for each business entity.

Name of business entity Murray Energy Corporation

Statutory agent Murray Energy Corporation

Street Address 29325 Chagrin Blvd., Suite 300

City Pepper Pike State Ohio Zip 44122

Person's Name Robert E. Murray Position PRES., CEO, Shareholder

Street Address 29325 Chagrin Blvd., Suite 300

City Pepper Pike State Ohio Zip 44122

Person's Name Michael D. Loiacono Position Treasurer

Street Address 29325 Chagrin Blvd., Suite 300

City Pepper Pike State Ohio Zip 44122

Person's Name Michael O. McKown Position Secretary

Street Address 29325 Chagrin Blvd., Suite 300

City Pepper Pike State Ohio Zip 44122

Person's Name _____ Position _____

Street Address _____

City _____ State _____ Zip _____

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AEC 18007

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION
ATTACHMENT 3
(IDENTIFICATION OF OTHER BUSINESS ENTITIES)

Applicant's Name AMERICAN ENERGY CORPORATION

This attachment is to be completed and submitted with the permit application if the response to item C. (4) in Part 1 of the permit application is "yes." A separate attachment is to be submitted for each business entity.

Name of business entity CONSOLIDATED LAND COMPANY

Statutory agent A.H. STATUTORY SERVICE CORP. #842696

Street Address 925 EUCLID AVENUE, SUITE 1100

City CLEVELAND State OHIO Zip 44115

Person's Name PETER VULJANIC Position PRESIDENT

Street Address BOX 505, 34208 AURORA ROAD

City SOLON State OHIO Zip 44139

Person's Name DOMINIC M. DAMORE Position SECRETARY

Street Address BOX 505, 34208 AURORA ROAD

City SOLON State OHIO Zip 44139

Person's Name PETER VULJANIC Position TREASURER

Street Address BOX 505, 34208 AURORA ROAD

City SOLON State OHIO Zip 44139

Person's Name _____ Position _____

Street Address _____

City _____ State _____ Zip _____

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 4
(ADJACENT OWNERS)

Applicant's Name AMERICAN ENERGY CORPORATION

This attachment is to be completed and submitted with the permit application if the response to item C.(5) in Part 1 of the permit application is "yes".

Name of owner Wyoming Pocahontas Land Company

Address 39 Robin Place

City Beckley State West Virginia Zip 25810

X Surface, X Mineral

Name of owner D.F. White, et al

Address 39795 Old State Route 147

City Bethesda State Ohio Zip 43719

X Surface, X Mineral

Name of owner _____

Address _____

City _____ State _____ Zip _____

_____ Surface, _____ Mineral

Name _____

Address _____

City _____ State _____ Zip _____

_____ Surface, _____ Mineral

Name _____

Address _____

City _____ State _____ Zip _____

_____ Surface, _____ Mineral

11/92

OH DEPARTMENT OF NATURAL RES RCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

ATTACHMENT 5
(PERMIT LISTING)

Applicant's Name AMERICAN ENERGY CORPORATION

Submit the following information for each coal mining operation owned or controlled by either the applicant or by any person who owns or controls the applicant.

Name of Business Entity American Energy Corporation
Address 43521 Mayhugh Hill Road
City Beallsville State Ohio Zip 43716
Telephone 740 - 926 - 9152
EIN _____ or SSN _____

Permit No.	State	Regulatory Authority	MSHA No. and Date Issued	
D-0425	OHIO	ODNR, DMR	33-61070	10-22-84
D-1159	OHIO	ODNR, DMR	33-02122	01-26-98

If not previously provided, indicate the ownership or control relationship of the business entity with the applicant, including percent of ownership and location in organizational structure:

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OH DEPARTMENT OF NATURAL RE RCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

ATTACHMENT 5
(PERMIT LISTING)

Applicant's Name AMERICAN ENERGY CORPORATION

Submit the following information for each coal mining operation owned or controlled by either the applicant or by any person who owns or controls the applicant.

Name of Business Entity Belmont Coal Company
Address P.O. Box 146
City Powhatan Point State Ohio Zip 43942
Telephone 714 - 795 - 5200
EIN ___ or SSN ___

Permit No.	State	Regulatory Authority	MSHA No. and Date Issued	
D-1020	OHIO	ODNR, DMRM	33-04397	07-31-97
D-0241	OHIO	ODNR, DMRM	33-03048	07-02-93

If not previously provided, indicate the ownership or control relationship of the business entity with the applicant, including percent of ownership and location in organizational structure:

Robert E. Murray, Shareholder, 100%

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AEC 18011

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OI DEPARTMENT OF NATURAL RE RCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

ATTACHMENT 5
(PERMIT LISTING)

Applicant's Name AMERICAN ENERGY CORPORATION

Submit the following information for each coal mining operation owned or controlled by either the applicant or by any person who owns or controls the applicant.

Name of Business Entity Maple Creek Mining Company
Address 981 Route 917
City Bentleyville State PA Zip 15314
Telephone 724 - 258 - 2056
EIN _____ or SSN _____

Permit No.	State	Regulatory Authority	MSHA No. and Date Issued	
63841302	PA	DEP	36-00970	06-30-95
63733706	PA	DEP	36-00970	06-30-95
63723707	PA	DEP	36-00970	06-30-95

If not previously provided, indicate the ownership or control relationship of the business entity with the applicant, including percent of ownership and location in organizational structure:

Robert E. Murray - Director

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AEC 18012

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OH DEPARTMENT OF NATURAL RE RCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

ATTACHMENT 5
(PERMIT LISTING)

Applicant's Name AMERICAN ENERGY CORPORATION

Submit the following information for each coal mining operation owned or controlled by either the applicant or by any person who owns or controls the applicant.

Name of Business Entity Mon Valley Transportation Center, Inc.
Address P.O. Box 135 - 1060 Ohio Ave.
City Glassport State PA Zip 15045
Telephone 412 - 673 - 1500
EIN ___ or SSN ___

Permit No.	State	Regulatory Authority	MSHA No. and Date Issued
02851602	PA	DEP	36-08678 06-08-95

If not previously provided, indicate the ownership or control relationship of the business entity with the applicant, including percent of ownership and location in organizational structure:

Robert E. Murray - Director

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AEC 18013

11/92

OH DEPARTMENT OF NATURAL RE RCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

ATTACHMENT 5
(PERMIT LISTING)

Applicant's Name AMERICAN ENERGY CORPORATION

Submit the following information for each coal mining operation owned or controlled by either the applicant or by any person who owns or controls the applicant.

Name of Business Entity The Oklahoma Coal Company
Address 29325 Chagrin Blvd., Suite 300
City Pepper Pike State OH Zip 44122
Telephone 216 - 765 - 1240
EIN _____ or SSN _____

Permit No.	State	Regulatory Authority	MSHA No. and Date Issued
D-0230	OH	DMRM	No MSHA number

If not previously provided, indicate the ownership or control relationship of the business entity with the applicant, including percent of ownership and location in organizational structure:

Robert E. Murray - Director

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AEC 18014

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OI DEPARTMENT OF NATURAL RE RCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

ATTACHMENT 5
(PERMIT LISTING)

Applicant's Name AMERICAN ENERGY CORPORATION

Submit the following information for each coal mining operation owned or controlled by either the applicant or by any person who owns or controls the applicant.

Name of Business Entity The Ohio Valley Coal Company
Address 56854 Pleasant Ridge Road
City Alledonia State OH Zip 43902
Telephone 740 - 926 - 1351
EIN ___ or SSN ___

Permit No.	State	Regulatory Authority	MSHA No. and Date Issued
D-0360	OH	DMRM	33-01159 05-25-88

If not previously provided, indicate the ownership or control relationship of the business entity with the applicant, including percent of ownership and location in organizational structure:

Robert E. Murray - Director

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JUN 12 2001
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AEC 18015

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OI DEPARTMENT OF NATURAL RE RCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

ATTACHMENT 5
(PERMIT LISTING)

Applicant's Name AMERICAN ENERGY CORPORATION

Submit the following information for each coal mining operation owned or controlled by either the applicant or by any person who owns or controls the applicant.

Name of Business Entity UMCO Energy, Inc.
Address 981 Route 917
City Bentleyville State PA Zip 15314
Telephone 724 - 258 - 2056
EIN ___ or SSN ___

Permit No.	State	Regulatory Authority	MSHA No. and Date Issued
63921301	PA	DEP	36-08375 06-08-94

If not previously provided, indicate the ownership or control relationship of the business entity with the applicant, including percent of ownership and location in organizational structure:

Robert E. Murray - Director

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AEC 18016

11/92

OH DEPARTMENT OF NATURAL RE RCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

ATTACHMENT 5
(PERMIT LISTING)

Applicant's Name AMERICAN ENERGY CORPORATION

Submit the following information for each coal mining operation owned or controlled by either the applicant or by any person who owns or controls the applicant.

Name of Business Entity UtahAmerican Energy, Inc.
Address P.O. Box 187
City St.Clairsville State OH Zip 43950
Telephone 435 - 613 - 0393
EIN _____ or SSN _____

Permit No.	State	Regulatory Authority	MSHA No. and Date Issued
ACT/007/013	UT	DOGM	Horse Canyon Mine 42-00100 12/24/78, Lila Canyon Mine 42-02241 4/15/99

If not previously provided, indicate the ownership or control relationship of the business entity with the applicant, including percent of ownership and location in organizational structure:

Robert E. Murray - Director

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JUN 18 2002

AEC 18017

OI DEPARTMENT OF NATURAL RES RCES
DIVISION OF RECLAMATION

ATTACHMENT 14A
(HYDROLOGIC MEASUREMENTS AND ANALYSES)

APPLICANT AMERICAN ENERGY CORPORATION (REFUSE FACILITY)

1	Identification No. of Sampling Station from Hydrology Map	CMS-1	CMS-2	CMS-3	CMS-4	CMS-5	CMS-6
2	Identification Number	01-07-414	01-07-415	01-07-416	01-07-417	01-07-418	01-07-419
3	High (H)/Low (L) Intermediate (I) Designation (if applicable)	I	I	I	I	I	I
4	Surface Elevation for Sampling Station (msl)	995	1095	1095	1095	1095	1096
5	Depth of Well Below Land Surface (feet)	--	--	--	--	--	--
6	Static Water Level of Well Below Land Surface (feet)	--	--	--	--	--	--
7	Flow for Spring and Stream (gpm or cfs)	.69 GPM	.23 GPM	1.6 GPM	.72 GPM	1.7 GPM	.35 GPM
8	Date Above Measurements Made	7-7-01	7-7-01	7-7-01	7-7-01	7-7-01	7-7-01
9	Aquifer/Zone Identification For Well/Spring	A	B	B	B	B	B
10	pH (Standard Units)	7.86	8.06	7.58	7.57	7.98	6.60
11	Total Acidity (mg/l CaCO3)	6.80	7.80	6.20	16.20	10.20	55.40
12	Total Alkalinity (mg/l CaCO3)	149.00	254.00	106.40	261.40	290.80	191.60
13	Specific Conductivity (umhos/cm at 25° C)	772.00	633.00	245.00	585.00	951.00	1470.00
14	Total Dissolved Solids (mg/l)	---	---	---	---	---	---
15	Total Manganese (mg/l)	0.24	0.06	0.13	0.04	0.03	8.20
16	Total Sulfates (mg/l)	235.00	57.00	<10.00	29.00	201.00	548.00
17	Total Iron (mg/l)	0.15	0.21	0.20	0.08	0.11	0.05
18	Total Suspended Solids (mg/l)	17	58	53	34	26	9
19	Total Hardness (mg/l as CaCO3)	396.00	320.00	116.00	300.00	400.00	800.00
20	Nitrates		---	---	---	---	---
21	Date Sampled for Analysis	7-7-01	7-7-01	7-7-01	7-7-01	7-7-01	7-7-01
22	Date Last Precipitation Event Occurred	7-5-01	7-5-01	7-5-01	7-5-01	7-5-01	7-5-01

Laboratory Name INDUSTRIAL LAB ANALYSIS, INC.
Address 2240 WILLIAMSBURG DRIVE City GLEN DALE
State WEST VIRGINIA Zip 26038

NOTE: If information required by items 5, 6, and 9 is unobtainable, submit as an addendum to Attachment 14A a statement giving the reasons why the information is unobtainable.
NOTE: For each sample provide data for either item 13 or 14.

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O DEPARTMENT OF NATURAL RES RCES
DIVISION OF RECLAMATION

ATTACHMENT 14A
(HYDROLOGIC MEASUREMENTS AND ANALYSES)

APPLICANT AMERICAN ENERGY CORPORATION (REFUSE FACILITY)

1	Identification No. of Sampling Station from Hydrology Map	CMS-7	CMS-8	CMS-9	CMS-10	CMS-11	CMS-12
2	Identification Number	01-07-498	01-07-499	01-07-500	01-07-501	01-07-502	01-07-503
3	High (H)/Low (L) Intermediate (I) Designation (if applicable)	I	I	I	I	I	I
4	Surface Elevation for Sampling Station (msl)	1070	1130	1130	1132	1080	1080
5	Depth of Well Below Land Surface (feet)	--	--	--	--	--	--
6	Static Water Level of Well Below Land Surface (feet)	--	--	--	--	--	--
7	Flow for Spring and Stream (gpm or cfs)	.19 GPM	.22 GPM	.29 GPM	.38 GPM	.19 GPM	.34 GPM
8	Date Above Measurements Made	7-11-01	7-11-01	7-11-01	7-11-01	7-11-01	7-11-01
9	Aquifer/Zone Identification For Well/Spring	B	C	C	C	B	B
10	pH (Standard Units)	3.20	7.98	7.54	7.98	8.23	8.09
11	Total Acidity (mg/l CaCO3)	112.00	5.80	7.40	4.20	3.40	6.20
12	Total Alkalinity (mg/l CaCO3)	0.00	220.80	112.00	123.00	224.00	207.80
13	Specific Conductivity (umhos/cm at 25° C)	1559.00	1215.00	279.00	292.00	527.00	667.00
14	Total Dissolved Solids (mg/l)	---	---	---	---	---	---
15	Total Manganese (mg/l)	10.60	0.07	<0.02	<0.02	<0.02	<0.02
16	Total Sulfates (mg/l)	660.00	51.00	17.00	18.00	42.00	94.00
17	Total Iron (mg/l)	12.40	0.10	0.24	<0.04	0.05	0.04
18	Total Suspended Solids (mg/l)	22	10	11	4	3	3
19	Total Hardness (mg/l as CaCO3)	660.00	228.00	124.00	136.00	276.00	320.00
20	Nitrates	---	---	---	---	---	---
21	Date Sampled for Analysis	7-11-01	7-11-01	7-11-01	7-11-01	7-11-01	7-11-01
22	Date Last Precipitation Event Occurred	7-8-01	7-8-01	7-8-01	7-8-01	7-8-01	7-8-01

Laboratory Name INDUSTRIAL LAB ANALYSIS, INC.
Address 2240 WILLIAMSBURG DRIVE City GLEN DALE
State WEST VIRGINIA Zip 26038

NOTE: If information required by items 5, 6, and 9 is unobtainable, submit as an addendum to Attachment 14A a statement giving the reasons why the information is unobtainable.
NOTE: For each sample provide data for either item 13 or 14.

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O DEPARTMENT OF NATURAL RES RCES
DIVISION OF RECLAMATION

ATTACHMENT 14A
(HYDROLOGIC MEASUREMENTS AND ANALYSES)

APPLICANT AMERICAN ENERGY CORPORATION (REFUSE FACILITY)

1	Identification No. of Sampling Station from Hydrology Map	CMS-13	CMDS-1	CMW-2	CMW-2	CMW-2	CMD-1
2	Identification Number	01-07-504	01-07-413	00-03268	01-07-373	--	01-07-371
3	High (H)/Low (L) Intermediate (I) Designation (if applicable)	I	I	H	I	L	I
4	Surface Elevation for Sampling Station (msl)	1060	1080	1190	1190	1190	850
5	Depth of Well Below Land Surface (feet)	--	--	21'	21'	21'	--
6	Static Water Level of Well Below Land Surface (feet)	--	--	12'	16'	DRY	--
7	Flow for Spring and Stream (gpm or cfs)	.13 GPM	1.8 GPM	--	--	--	28.6 CFS
8	Date Above Measurements Made	7-11-01	7-7-01	3-19-99	7-6-01	10-19-01	7-6-01
9	Aquifer/Zone Identification For Well/Spring	B	B	C	C	C	--
10	pH (Standard Units)	8.25	8.26	6.70	7.33		8.33
11	Total Acidity (mg/l CaCO3)	2.20	5.00	7.10	5.00		0.00
12	Total Alkalinity (mg/l CaCO3)	227.00	212.60	22.0	57.80		132.80
13	Specific Conductivity (umhos/cm at 25° C)	653.00	459.00	160.00	137.00		426.00
14	Total Dissolved Solids (mg/l)	---	---	---	---		---
15	Total Manganese (mg/l)	0.02	0.10	<0.02	<0.02		<0.02
16	Total Sulfates (mg/l)	106.00	20.00	42.00	<10.00		48.00
17	Total Iron (mg/l)	0.41	0.10	0.23	0.42		0.09
18	Total Suspended Solids (mg/l)	4	60	<1	9		7
19	Total Hardness (mg/l as CaCO3)	324.00	228.00	60.00	64.00		188.00
20	Nitrates	---	---	0.09	---		----
21	Date Sampled for Analysis	7-11-01	7-7-01	3-19-99	7-6-01		7-6-01
22	Date Last Precipitation Event Occurred	7-8-01	7-5-01	3-14-99	7-5-01	10-16-01	7-5-01

Laboratory Name INDUSTRIAL LAB ANALYSIS, INC.
Address 2240 WILLIAMSBURG DRIVE City GLEN DALE
State WEST VIRGINIA Zip 26038

NOTE: If information required by items 5, 6, and 9 is unobtainable, submit as an addendum to Attachment 14A a statement giving the reasons why the information is unobtainable.
NOTE: For each sample provide data for either item 13 or 14.

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DIVISION OF RECLAMATION

ATTACHMENT 14A
(HYDROLOGIC MEASUREMENTS AND ANALYSES)

APPLICANT AMERICAN ENERGY CORPORATION (REFUSE FACILITY)

1	Identification No. of Sampling Station from Hydrology Map	CMD-2	CMD2-A	CMD-4	CMD-5	CMD-6	
2	Identification Number	01-07-400	01-07-401	01-07-403	01-07-404	01-07-505	
3	High (H)/Low (L) Intermediate (I) Designation (if applicable)	I	I	I	I	I	
4	Surface Elevation for Sampling Station (msl)	930	930	985	935	938	
5	Depth of Well Below Land Surface (feet)	---	---	--	---	---	
6	Static Water Level of Well Below Land Surface (feet)	---	--	---	--	--	
7	Flow for Spring and Stream (gpm or cfs)	5.25 CFS	.69 CFS	.03 CFS	.01 CFS	.01 CFS	
8	Date Above Measurements Made	7-7-01	7-7-01	7-7-01	7-7-01	7-7-01	
9	Aquifer/Zone Identification For Well/Spring	--	--	---	--	--	
10	pH (Standard Units)	8.34	7.95	8.20	8.33	7.93	
	Total Acidity (mg/l CaCO3)	0.00	3.20	4.00	0.00	4.20	
12	Total Alkalinity (mg/l CaCO3)	51.20	105.80	172.20	194.60	102.00	
13	Specific Conductivity (umhos/cm at 25° C)	384.00	278.00	463.00	650.00	847.00	
14	Total Dissolved Solids (mg/l)	---	---	---	---	---	
15	Total Manganese (mg/l)	0.07	0.08	0.03	0.04	0.07	
16	Total Sulfates (mg/l)	54.00	21.00	54.00	117.00	283.00	
17	Total Iron (mg/l)	0.20	0.34	0.15	0.05	0.10	
18	Total Suspended Solids (mg/l)	3	4	2	6	3	
19	Total Hardness (mg/l as CaCO3)	160.00	124.00	224.00	260.00	326.00	
20	Nitrates	---	---	---	---	---	
21	Date Sampled for Analysis	7-7-01	7-7-01	7-7-01	7-7-01	7-7-01	
22	Date Last Precipitation Event Occurred	7-5-01	7-5-01	7-5-01	7-5-01	7-5-01	

Laboratory Name INDUSTRIAL LAB ANALYSIS, INC.
Address 2240 WILLIAMSBURG DRIVE City GLEN DALE
State WEST VIRGINIA Zip 26038

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OF DEPARTMENT OF NATURAL RES CES
DIVISION OF RECLAMATION

ATTACHMENT 14A
(HYDROLOGIC MEASUREMENTS AND ANALYSES)

APPLICANT AMERICAN ENERGY CORPORATION (REFUSE FACILITY)

1	Identification No. of Sampling Station from Hydrology Map	CMD-7	CMU-1	CMU-2	CMU-2A	CMU-5	CMU-6
2	Identification Number	01-07-405	01-07-372	01-07-407	01-07-408	01-07-410	01-07-494
3	High (H)/Low (L) Intermediate (I) Designation (if applicable)	I	I	I	I	I	I
4	Surface Elevation for Sampling Station (msl)	938	855	959	938	1135	1138
5	Depth of Well Below Land Surface (feet)	--	--	--	--	--	--
6	Static Water Level of Well Below Land Surface (feet)	--	--	--	--	--	--
7	Flow for Spring and Stream (gpm or cfs)	.01 CFS	25.8 CFS	.64 CFS	1.93 CFS	.0007 CFS	.004 CFS
8	Date Above Measurements Made	7-7-01	7-6-01	7-7-01	7-7-01	7-7-01	7-11-01
9	Aquifer/Zone Identification For Well/Spring	--	--	--	--	--	--
10	pH (Standard Units)	8.12	8.28	7.81	7.91	7.53	7.99
	Total Acidity (mg/l CaCO3)	6.40	5.60	4.80	4.00	8.00	5.00
12	Total Alkalinity (mg/l CaCO3)	191.00	129.80	114.00	86.60	116.80	140.80
13	Specific Conductivity (umhos/cm at 25° C)	798.00	449.00	309.00	266.00	284.00	346.00
14	Total Dissolved Solids (mg/l)	---	---	---	---	---	---
15	Total Manganese (mg/l)	0.06	<0.02	0.10	0.07	0.04	<0.02
16	Total Sulfates (mg/l)	197.00	54.00	23.00	19.00	15.00	22.00
17	Total Iron (mg/l)	0.59	0.04	0.08	0.04	0.10	0.27
18	Total Suspended Solids (mg/l)	3	2	2	<2	72	4
19	Total Hardness (mg/l as CaCO3)	310.00	188.00	140.00	112.00	132.00	152.00
20	Nitrates	---	---	---	---	---	---
21	Date Sampled for Analysis	7-7-01	7-6-01	7-7-01	7-7-01	7-7-01	7-11-01
22	Date Last Precipitation Event Occurred	7-5-01	7-5-01	7-5-01	7-5-01	7-5-01	7-8-01

Laboratory Name INDUSTRIAL LAB ANALYSIS, INC.
Address 2240 WILLIAMSBURG DRIVE City GLEN DALE
State WEST VIRGINIA Zip 26038

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 14A
(HYDROLOGIC MEASUREMENTS AND ANALYSES)

APPLICANT AMERICAN ENERGY CORPORATION (REFUSE FACILITY)

1	Identification No. of Sampling Station from Hydrology Map	CMU-6A	CMU-6B	CMU-6C	CMU-7	CMWI-1	
2	Identification Number	01-07-495	01-07-496	01-07-497	01-07-411	01-07-373	
3	High (H)/Low (L) Intermediate (I) Designation (if applicable)	I	I	I	I	SUPPLE.	
4	Surface Elevation for Sampling Station (msl)	1138	1140	1120	1098	1155	
5	Depth of Well Below Land Surface (feet)	--	--	--	--	--	
6	Static Water Level of Well Below Land Surface (feet)	--	--	--	--	--	
7	Flow for Spring and Stream (gpm or cfs)	.001 CFS	.38 CFS	.001 CFS	.005 CFS	--	
8	Date Above Measurements Made	7-11-01	7-11-01	7-11-01	7-7-01	7-6-01	
9	Aquifer/Zone Identification For Well/Spring	--	--	--	--	--	
10	pH (Standard Units)	7.09	7.97	7.72	6.44	7.33	
	Total Acidity (mg/l CaCO3)	11.20	8.20	6.80	31.20	5.00	
12	Total Alkalinity (mg/l CaCO3)	91.60	174.40	114.80	70.40	57.80	
13	Specific Conductivity (umhos/cm at 25° C)	258.00	395.00	291.00	973.00	137.00	
14	Total Dissolved Solids (mg/l)	---	---	---	---	---	
15	Total Manganese (mg/l)	<0.02	0.02	0.02	1.11	<0.02	
16	Total Sulfates (mg/l)	27.00	20.00	21.00	425.00	<10.0	
17	Total Iron (mg/l)	0.10	0.10	0.07	0.29	0.42	
18	Total Suspended Solids (mg/l)	2	4	6	5	9	
19	Total Hardness (mg/l as CaCO3)	116.00	180.00	124.00	500.00	64.00	
20	Nitrates	---	---	---	---	---	
21	Date Sampled for Analysis	7-11-01	7-11-01	7-11-01	7-7-01	7-6-01	
22	Date Last Precipitation Event Occurred	7-8-01	7-8-01	7-8-01	7-5-01	7-5-01	

Laboratory Name INDUSTRIAL LAB ANALYSIS, INC.
Address 2240 WILLIAMSBURG DRIVE City GLEN DALE
State WEST VIRGINIA Zip 26038

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ATTACHMENT 14A
(HYDROLOGIC MEASUREMENTS AND ANALYSES)

APPLICANT AMERICAN ENERGY CORPORATION (REFUSE FACILITY)

1	Identification No. of Sampling Station from Hydrology Map	CMS-1	CMS-2	CMS-3	CMS-4	CMS-5	CMS-6
2	Identification Number	01-10-705		01-10-709		01-10-713	01-10-696
3	High (H) Low (L) Intermediate (I) Designation (if applicable)	L	L	L	L	L	L
4	Surface Elevation for Sampling Station (msl)	995	1095	1095	1095	1095	1096
5	Depth of Well Below Land Surface (feet)	--	--	--	--	--	--
6	Static Water Level of Well Below Land Surface (feet)	--	--	--	--	--	--
7	Flow for Spring and Stream (gpm or cfs)	.02 GPM	DRY	.09 GPM	DRY	.75 GPM	.05 GPM
8	Date Above Measurements Made	10-19-01	10-19-01	10-19-01	10-19-01	10-19-01	10-19-01
9	Aquifer/Zone Identification For Well/Spring	A	B	B	B	B	B
10	pH (Standard Units)	7.37		7.80		7.14	7.33
11	Total Acidity (mg/l CaCO3)	10.80		13.60		14.00	40.20
12	Total Alkalinity (mg/l CaCO3)	18.60		207.80		273.80	356.20
13	Specific Conductivity (umhos/cm at 25° C)	1259		450.00		945.00	1320.00
14	Total Dissolved Solids (mg/l)	----		----		---	---
15	Total Manganese (mg/l)	2.66		0.02		<0.02	0.09
16	Total Sulfates (mg/l)	526.00		17.00		188.00	261.00
17	Total Iron (mg/l)	0.65		0.11		<0.04	0.44
18	Total Suspended Solids (mg/l)	60		92		3	9
19	Total Hardness (mg/l as CaCO3)	640.00		220.00		400.00	440.00
20	Nitrates	---		---		---	---
21	Date Sampled for Analysis	10-19-01		10-19-01		10-19-01	10-19-01
22	Date Last Precipitation Event Occurred	10-16-01	10-16-01	10-16-01	10-16-01	10-16-01	10-16-01

Laboratory Name INDUSTRIAL LAB ANALYSIS, INC.
Address 2240 WILLIAMSBURG DRIVE City GLEN DALE
State WEST VIRGINIA Zip 26038

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ATTACHMENT 14A
(HYDROLOGIC MEASUREMENTS AND ANALYSES)

APPLICANT AMERICAN ENERGY CORPORATION (REFUSE FACILITY)

1	Identification No. of Sampling Station from Hydrology Map	CMS-7	CMS-8	CMS-9	CMS-10	CMS-11	CMS-12
2	Identification Number		01-10-697				01-10-722
3	High (H)/Low (L) Intermediate (I) Designation (if applicable)	L	L	L	L	L	L
4	Surface Elevation for Sampling Station (msl)	1070	1130	1130	1132	1080	1080
5	Depth of Well Below Land Surface (feet)	--	--	--	--	--	--
6	Static Water Level of Well Below Land Surface (feet)	--	--	--	--	--	--
7	Flow for Spring and Stream (gpm or cfs)	DRY	.05 GPM	DRY	DRY	DRY	.05 GPM
8	Date Above Measurements Made	10-19-01	10-19-01	10-19-01	10-19-01	10-19-01	10-19-01
9	Aquifer/Zone Identification For Well/Spring	B	C	C	C	B	B
10	pH (Standard Units)		7.53				8.12
11	Total Acidity (mg/l CaCO3)		8.40				13.40
12	Total Alkalinity (mg/l CaCO3)		57.20				240.40
13	Specific Conductivity (umhos/cm at 25° C)		1176				756
14	Total Dissolved Solids (mg/l)		---				---
15	Total Manganese (mg/l)		2.16				<0.02
16	Total Sulfates (mg/l)		529.0				122.00
17	Total Iron (mg/l)		0.05				0.33
18	Total Suspended Solids (mg/l)		<2.0				4
19	Total Hardness (mg/l as CaCO3)		560				370.00
20	Nitrates		---				---
21	Date Sampled for Analysis		10-19-01				10-19-01
22	Date Last Precipitation Event Occurred	10-16-01	10-16-01	10-16-01	10-16-01	10-16-01	10-16-01

Laboratory Name INDUSTRIAL LAB ANALYSIS, INC.
Address 2240 WILLIAMSBURG DRIVE City GLEN DALE
State WEST VIRGINIA Zip 26038

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ATTACHMENT 14A
(HYDROLOGIC MEASUREMENTS AND ANALYSES)

APPLICANT AMERICAN ENERGY CORPORATION (REFUSE FACILITY)

1	Identification No. of Sampling Station from Hydrology Map	CMS-13	CMDS-1	CMD-1	CMD-2	CMD2-A	CMD-4
2	Identification Number	--	01-10-708	01-10-701	01-10-714	01-10-704	01-10-706
3	High (H)/Low (L) Intermediate (I) Designation (if applicable)	L	L	L	L	L	L
4	Surface Elevation for Sampling Station (msl)	1060	1080	850	930	930	985
5	Depth of Well Below Land Surface (feet)	--	--	--	--	--	--
6	Static Water Level of Well Below Land Surface (feet)	--	--	--	--	--	--
7	Flow for Spring and Stream (gpm or cfs)	DRY	0.52 GPM	9.1 CFS	2.93 CFS	.39 CFS	.002 CFS
8	Date Above Measurements Made	10-19-01	10-19-01	10-19-01	10-19-01	10-19-01	10-19-01
9	Aquifer/Zone Identification For Well/Spring	B	B	--	--	--	--
10	pH (Standard Units)		7.97	8.27	8.05	7.90	7.97
	Total Acidity (mg/l CaCO3)		12.40	6.00	6.60	7.60	12.00
12	Total Alkalinity (mg/l CaCO3)		219.80	152.80	118.40	113.20	223.00
13	Specific Conductivity (umhos/cm at 25° C)		488	511	430.00	320.00	651.00
14	Total Dissolved Solids (mg/l)		---	---	---	---	---
15	Total Manganese (mg/l)		<0.02	<0.02	<0.02	<0.02	0.04
16	Total Sulfates (mg/l)		19.00	42.00	56.00	23.00	89.00
17	Total Iron (mg/l)		<0.04	<0.04	0.07	0.07	0.23
18	Total Suspended Solids (mg/l)		13	<2.0	2	2	5
19	Total Hardness (mg/l as CaCO3)		236.00	204.00	164.00	136.00	312.00
20	Nitrates		---	---	---	---	---
21	Date Sampled for Analysis		10-19-01	10-19-01	10-19-01	10-19-01	10-19-01
22	Date Last Precipitation Event Occurred	10-16-01	10-16-01	10-16-01	10-16-01	10-16-01	10-16-01

Laboratory Name INDUSTRIAL LAB ANALYSIS, INC.
Address 2240 WILLIAMSBURG DRIVE City GLEN DALE
State WEST VIRGINIA Zip 26038

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OF DEPARTMENT OF NATURAL RES ICES
DIVISION OF RECLAMATION

ATTACHMENT 14A
(HYDROLOGIC MEASUREMENTS AND ANALYSES)

APPLICANT AMERICAN ENERGY CORPORATION (REFUSE FACILITY)

1	Identification No. of Sampling Station from Hydrology Map	CMD-5	CMD-6	CMD-7	CMU-1	CMU-2	CMU-2A
2	Identification Number	01-10-712	01-10-682	01-10-716	01-10-700	01-10-707	01-10-702
3	High (H)/Low (L) Intermediate (I) Designation (if applicable)	L	L	L	L	L	L
4	Surface Elevation for Sampling Station (msl)	935	938	938	855	959	938
5	Depth of Well Below Land Surface (feet)	--	--	--	--	--	--
6	Static Water Level of Well Below Land Surface (feet)	--	--	--	--	--	--
7	Flow for Spring and Stream (gpm or cfs)	.002 CFS	.002 CFS	.004 CFS	9.0 CFS	.35 CFS	1.21 CFS
8	Date Above Measurements Made	10-19-01	10-19-01	10-19-01	10-19-01	10-19-01	10-19-01
9	Aquifer/Zone Identification For Well/Spring	--	--	--	--	--	--
10	pH (Standard Units)	7.91	7.70	8.16	8.21	7.64	7.79
	Total Acidity (mg/l CaCO3)	14.40	7.00	10.40	8.00	8.80	7.20
12	Total Alkalinity (mg/l CaCO3)	234.80	67.80	234.40	149.00	123.60	97.40
13	Specific Conductivity (umhos/cm at 25° C)	843.00	1192.00	919.00	512.00	363.00	303.00
14	Total Dissolved Solids (mg/l)	---	---	---	---	---	---
15	Total Manganese (mg/l)	<0.02	0.22	0.02	<0.02	0.04	<0.02
16	Total Sulfates (mg/l)	158.00	429.00	192.00	46.00	35.00	17.00
17	Total Iron (mg/l)	<2.0	0.53	0.27	<0.04	<0.04	<0.04
18	Total Suspended Solids (mg/l)	<2.0	15	4	2	<2	3
19	Total Hardness (mg/l as CaCO3)	300.00	300.00	310.00	200.00	156.00	120.00
20	Nitrates	---	---	---	---	---	---
21	Date Sampled for Analysis	10-19-01	10-19-01	10-19-01	10-19-01	10-19-01	10-19-01
22	Date Last Precipitation Event Occurred	10-16-01	10-16-01	10-16-01	10-16-01	10-16-01	10-16-01

Laboratory Name INDUSTRIAL LAB ANALYSIS, INC.
Address 2240 WILLIAMSBURG DRIVE City GLEN DALE
State WEST VIRGINIA Zip 26038

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 14A
(HYDROLOGIC MEASUREMENTS AND ANALYSES)

APPLICANT AMERICAN ENERGY CORPORATION (REFUSE FACILITY)

1	Identification No. of Sampling Station from Hydrology Map	CMU-5	CMU-6	CMU-6A	CMU-6B	CMU-6C	CMU-7
2	Identification Number	--	--	--	--	--	01-10-695
3	High (H) Low (L) Intermediate (I) Designation (if applicable)	L	L	L	L	L	L
4	Surface Elevation for Sampling Station (msl)	1135	1138	1138	1140	1120	1098
5	Depth of Well Below Land Surface (feet)	--	--	--	--	--	--
6	Static Water Level of Well Below Land Surface (feet)	--	--	--	--	--	--
7	Flow for Spring and Stream (gpm or cfs)	DRY	DRY	DRY	DRY	DRY	.0002 CFS
8	Date Above Measurements Made	10-19-01	10-19-01	10-19-01	10-19-01	10-19-01	10-19-01
9	Aquifer/Zone Identification For Well/Spring	--	--	--	--	--	--
10	pH (Standard Units)						7.68
	Total Acidity (mg/l CaCO3)						19.20
12	Total Alkalinity (mg/l CaCO3)						255.40
13	Specific Conductivity (umhos/cm at 25° C)						888
14	Total Dissolved Solids (mg/l)						---
15	Total Manganese (mg/l)						0.03
16	Total Sulfates (mg/l)						162.0
17	Total Iron (mg/l)						0.34
18	Total Suspended Solids (mg/l)						4
19	Total Hardness (mg/l as CaCO3)						355.00
20	Nitrates						---
21	Date Sampled for Analysis						10-19-01
22	Date Last Precipitation Event Occurred	10-16-01	10-16-01	10-16-01	10-16-01	10-16-01	10-16-01

Laboratory Name INDUSTRIAL LAB ANALYSIS, INC.
Address 2240 WILLIAMSBURG DRIVE City GLEN DALE
State WEST VIRGINIA Zip 26038

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DIVISION OF RECLAMATION

ATTACHMENT 14A
(HYDROLOGIC MEASUREMENTS AND ANALYSES)

APPLICANT AMERICAN ENERGY CORPORATION (REFUSE FACILITY)

1	Identification No. of Sampling Station from Hydrology Map	CMS-1	CMS-2	CMS-3	CMS-5	CMS-6	CMS-8
2	Identification Number	02-02-833	02-02-846	02-02-837	02-02-838	02-02-852	02-02-841
3	High (H)/Low (L) Intermediate (I) Designation (if applicable)	H	H	H	H	H	H
4	Surface Elevation for Sampling Station (msl)	995	1095	1095	1095	1096	1130
5	Depth of Well Below Land Surface (feet)	--	--	--	--	--	--
6	Static Water Level of Well Below Land Surface (feet)	--	--	--	--	--	--
7	Flow for Spring and Stream (gpm or cfs)	1.1 GPM	9.1 GPM	1.9 GPM	3 GPM	.37 GPM	.63 GPM
8	Date Above Measurements Made	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02
9	Aquifer/Zone Identification For Well/Spring	A	B	B	B	B	C
10	pH (Standard Units)	7.84	7.97	7.59	8.26	6.77	7.87
11	Total Acidity (mg/l CaCO3)	6.20	1.80	4.60	1.20	64.00	5.20
12	Total Alkalinity (mg/l CaCO3)	116.00	108.20	97.20	312.80	201.80	176.40
13	Specific Conductivity (umhos/cm at 25° C)	837	341	278	1042	1592	453
14	Total Dissolved Solids (mg/l)	---	---	---	---	---	---
15	Total Manganese (mg/l)	0.51	0.02	0.08	<0.02	0.95	<0.02
16	Total Sulfates (mg/l)	297.0	43.00	29.00	220.0	692.0	38.0
17	Total Iron (mg/l)	0.17	0.19	0.54	<0.04	0.59	0.05
18	Total Suspended Solids (mg/l)	2	<2	53	4	42	6
19	Total Hardness (mg/l as CaCO3)	388.00	148.00	124.00	470.00	860.00	208.00
20	Nitrates	---	---	---	---	---	---
21	Date Sampled for Analysis	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02
22	Date Last Precipitation Event Occurred	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02

Laboratory Name INDUSTRIAL LAB ANALYSIS, INC.
Address 2240 WILLIAMSBURG DRIVE City GLEN DALE
State WEST VIRGINIA Zip 26038

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ATTACHMENT 14A
(HYDROLOGIC MEASUREMENTS AND ANALYSES)

APPLICANT AMERICAN ENERGY CORPORATION (REFUSE FACILITY)

1	Identification No. of Sampling Station from Hydrology Map	CMS-9	CMS-10	CMS-12	CMW-2	CMDS-1	CMD-1
2	Identification Number	02-02-857	02-02-842	02-02-849	02-02-831	02-02-836	02-02-828
3	High (H) Low (L) Intermediate (I) Designation (if applicable)	H	H	H	H	H	H
4	Surface Elevation for Sampling Station (msl)	1130	1132	1080	1190	1080	850
5	Depth of Well Below Land Surface (feet)	--	--	--	21'	--	--
6	Static Water Level of Well Below Land Surface (feet)	--	--	--	16.5'	--	--
7	Flow for Spring and Stream (gpm or cfs)	1.9 GPM	3.9 GPM	1.8 GPM	----	6 GPM	74 CFS
8	Date Above Measurements Made	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02
9	Aquifer/Zone Identification For Well/Spring	C	C	B	C	B	---
10	pH (Standard Units)	7.31	7.71	8.18	8.93	7.72	8.13
11	Total Acidity (mg/l CaCO3)	18.60	2.60	3.20	0.00	7.80	2.20
12	Total Alkalinity (mg/l CaCO3)	101.00	71.00	147.60	277.80	219.00	116.40
13	Specific Conductivity (umhos/cm at 25° C)	895	207	485	715	507	421
14	Total Dissolved Solids (mg/l)	---	---	---	---	---	---
15	Total Manganese (mg/l)	<0.02	<0.02	0.04	<0.02	<0.02	0.02
16	Total Sulfates (mg/l)	350.0	21.00	82.00	25.0	24.0	55.0
17	Total Iron (mg/l)	0.06	0.05	1.20	1.43	<0.04	0.06
18	Total Suspended Solids (mg/l)	<2	5	34	4	<2	<2
19	Total Hardness (mg/l as CaCO3)	428.00	84.00	220.00	<10.00	240.00	172.00
20	Nitrates	---	---	---	---	---	---
21	Date Sampled for Analysis	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02
22	Date Last Precipitation Event Occurred	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02

Laboratory Name INDUSTRIAL LAB ANALYSIS, INC.
Address 2240 WILLIAMSBURG DRIVE City GLEN DALE
State WEST VIRGINIA Zip 26038

NOTE: If information required by items 5, 6, and 9 is unobtainable, submit as an addendum to Attachment 14A a statement giving the reasons why the information is unobtainable.
NOTE: For each sample provide data for either item 13 or 14.

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ATTACHMENT 14A
(HYDROLOGIC MEASUREMENTS AND ANALYSES)

APPLICANT AMERICAN ENERGY CORPORATION (REFUSE FACILITY)

1	Identification No. of Sampling Station from Hydrology Map	CMD-2	CMD-2A	CMD-4	CMD-5	CMD-6	CMD-7
2	Identification Number	02-02-856	02-02-832	02-02-834	02-02-839	02-02-829	02-02-854
3	High (H)/Low (L) Intermediate (I) Designation (if applicable)	H	H	H	H	H	H
4	Surface Elevation for Sampling Station (msl)	930	930	985	935	938	938
5	Depth of Well Below Land Surface (feet)	--	--	--	--	--	--
6	Static Water Level of Well Below Land Surface (feet)	--	--	--	--	--	--
7	Flow for Spring and Stream (gpm or cfs)	8.3 CFS	1.44 CFS	.12 CFS	.09 CFS	.05 CFS	.02 CFS
8	Date Above Measurements Made	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02
9	Aquifer/Zone Identification For Well/Spring	---	---	---	---	---	---
10	pH (Standard Units)	8.48	8.13	8.30	8.35	8.10	8.40
11	Total Acidity (mg/l CaCO3)	0.00	3.00	0.00	0.00	4.60	0.00
12	Total Alkalinity (mg/l CaCO3)	78.00	93.00	128.60	163.60	102.00	187.80
13	Specific Conductivity (umhos/cm at 25° C)	307	291	398	539	959	814
14	Total Dissolved Solids (mg/l)	---	---	---	---	---	---
15	Total Manganese (mg/l)	0.04	0.07	0.02	<0.02	0.32	0.03
16	Total Sulfates (mg/l)	47.0	35.00	55.00	99.0	332.0	205.0
17	Total Iron (mg/l)	0.18	0.21	0.21	<0.04	0.33	0.13
18	Total Suspended Solids (mg/l)	3	2	<2	<2	<2	2
19	Total Hardness (mg/l as CaCO3)	120.00	120.00	176.00	224.00	360.00	300.00
20	Nitrates	---	---	---	---	---	---
21	Date Sampled for Analysis	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02
22	Date Last Precipitation Event Occurred	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02

Laboratory Name INDUSTRIAL LAB ANALYSIS, INC.
Address 2240 WILLIAMSBURG DRIVE City GLEN DALE
State WEST VIRGINIA Zip 26038

NOTE: If information required by items 5, 6, and 9 is unobtainable, submit as an addendum to Attachment 14A a statement giving the reasons why the information is unobtainable.
NOTE: For each sample provide data for either item 13 or 14.

O DEPARTMENT OF NATURAL RES RCES
DIVISION OF RECLAMATION

ATTACHMENT 14A
(HYDROLOGIC MEASUREMENTS AND ANALYSES)

APPLICANT AMERICAN ENERGY CORPORATION (REFUSE FACILITY)

1	Identification No. of Sampling Station from Hydrology Map	CMU-1	CMU-2	CMU-2A	CMU-5	CMU-6	CMD-6A
2	Identification Number	02-02-827	02-02-835	02-02-830	02-02-840	02-02-850	02-02-851
3	High (H) Low (L) Intermediate (I) Designation (if applicable)	H	H	H	H	H	H
4	Surface Elevation for Sampling Station (msl)	930	930	985	935	938	938
5	Depth of Well Below Land Surface (feet)	--	--	--	--	--	--
6	Static Water Level of Well Below Land Surface (feet)	--	--	--	--	--	--
7	Flow for Spring and Stream (gpm or cfs)	73 CFS	1.25 CFS	6.47 CFS	.006 CFS	.006 CFS	.0002 CFS
8	Date Above Measurements Made	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02
9	Aquifer/Zone Identification For Well/Spring	---	---	---	---	---	---
10	pH (Standard Units)	8.17	8.08	8.06	7.80	8.25	7.73
11	Total Acidity (mg/l CaCO3)	2.00	1.80	3.20	2.00	0.80	2.40
12	Total Alkalinity (mg/l CaCO3)	117.40	85.80	66.60	87.40	115.00	70.20
13	Specific Conductivity (umhos/cm at 25° C)	417	279	239	237	321	224
14	Total Dissolved Solids (mg/l)	---	---	---	---	---	---
15	Total Manganese (mg/l)	0.02	<0.02	0.02	<0.02	<0.02	<0.02
16	Total Sulfates (mg/l)	56.0	33.00	26.00	22.0	31.0	28.00
17	Total Iron (mg/l)	0.06	0.06	0.09	0.05	0.15	0.17
18	Total Suspended Solids (mg/l)	<2	<2	2	<2	<2	2
19	Total Hardness (mg/l as CaCO3)	172.00	116.00	96.00	96.00	144.00	92.00
20	Nitrates	---	---	---	---	---	---
21	Date Sampled for Analysis	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02
22	Date Last Precipitation Event Occurred	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02	02-27-02

Laboratory Name INDUSTRIAL LAB ANALYSIS, INC.
Address 2240 WILLIAMSBURG DRIVE City GLEN DALE
State WEST VIRGINIA Zip 26038

NOTE: If information required by items 5, 6, and 9 is unobtainable, submit as an addendum to Attachment 14A a statement giving the reasons why the information is unobtainable.
NOTE: For each sample provide data for either item 13 or 14.

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DIVISION OF RECLAMATION

ATTACHMENT 14A
(HYDROLOGIC MEASUREMENTS AND ANALYSES)

APPLICANT AMERICAN ENERGY CORPORATION (REFUSE FACILITY)

1	Identification No. of Sampling Station from Hydrology Map	CMU-6B	CMU-6C	CMU-7			
2	Identification Number	02-02-843	02-02-844	02-02-853			
3	High (H)/Low (L) Intermediate (I) Designation (if applicable)	H	H	H			
4	Surface Elevation for Sampling Station (msl)	1140	1120	1098			
5	Depth of Well Below Land Surface (feet)	--	--	--			
6	Static Water Level of Well Below Land Surface (feet)	--	--	--			
7	Flow for Spring and Stream (gpm or cfs)	.006 CFS	.007 CFS	.01 CFS			
8	Date Above Measurements Made	02-27-02	02-27-02	02-27-02			
9	Aquifer/Zone Identification For Well/Spring	----	----	----			
10	pH (Standard Units)	7.86	7.54	7.62			
11	Total Acidity (mg/l CaCO3)	4.20	3.00	9.20			
12	Total Alkalinity (mg/l CaCO3)	94.20	70.60	173.60			
13	Specific Conductivity (umhos/cm at 25° C)	257	215	824			
14	Total Dissolved Solids (mg/l)	---	---	---			
15	Total Manganese (mg/l)	<0.02	<0.02	0.44			
16	Total Sulfates (mg/l)	23.0	24.00	218.0			
17	Total Iron (mg/l)	<0.04	0.04	0.16			
18	Total Suspended Solids (mg/l)	<2	<2	<2			
19	Total Hardness (mg/l as CaCO3)	112.00	92.00	324.00			
20	Nitrates	---	---	---			
21	Date Sampled for Analysis	02-27-02	02-27-02	02-27-02			
22	Date Last Precipitation Event Occurred	02-27-02	02-27-02	02-27-02			

Laboratory Name INDUSTRIAL LAB ANALYSIS, INC.
Address 2240 WILLIAMSBURG DRIVE City GLEN DALE
State WEST VIRGINIA Zip 26038

NOTE: If information required by items 5, 6, and 9 is unobtainable, submit as an addendum to Attachment 14A a statement giving the reasons why the information is unobtainable.
NOTE: For each sample provide data for either item 13 or 14.

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ADDENDUM TO PART 2, PAGE 18, ITEM E. AMERICAN ENERGY CORP.

ATTACHMENT 14A
(HYDROLOGIC MEASUREMENTS AND ANALYSES)

APPLICANT BENNOC, INC. (D-1159-1)

1	Identification No. of Sampling Station from Hydrology Map	D-2	D-3	D-6	D-8	D-9	D-30
2	Identification Number	279406	279407	279426	279427	279428	279430
3	High (H)/Low (L) Designation (if applicable)	SUPPLE MENTAL	SUPPLE MENTAL	SUPPLE MENTAL	SUPPLE MENTAL	SUPPLE MENTAL	H
4	Surface Elevation for Sampling Station (msl)	960	935	940	940	940	920
5	Depth of Well Below Land Surface (feet)	--	--	--	--	--	--
6	Static Water Level of Well Below Land Surface (feet)	--	--	--	--	--	--
7	Flow for Spring and Stream (gpm or cfs)	1.08 CFS	35 CFS	0.2 CFS	1.19 CFS	5 GPM	27 GPM
8	Date Above Measurements Made	4-9-99	4-9-99	4-9-99	4-9-99	4-9-99	4-9-99
9	Aquifer/Zone Identification For Well/Spring	--	--	--	--	--	--
10	pH (Standard Units)	7.87	7.65	7.56	7.54	7.33	7.74
1	Total Acidity (mg/l CaCO3)	8.00	8.00	12.00	6.00	12.00	8.00
12	Total Alkalinity (mg/l CaCO3)	70.00	60.00	232.00	70.00	122.00	114.00
13	Specific Conductivity (umhos/cm at 25° C)	255.00	179.00	433.00	503.00	423.00	308.00
14	Total Dissolved Solids (mg/l)	--	--	--	--	--	--
15	Total Manganese (mg/l)	0.023	0.017	<0.008	0.295	<0.008	<0.008
16	Total Sulfates (mg/l)	44.45	37.87	98.78	171.23	100.43	62.56
17	Total Iron (mg/l)	2.12	1.33	0.099	0.148	0.221	0.287
18	Total Suspended Solids (mg/l)	47.00	30.00	10.00	7.00	21.00	43.00
19	Total Hardness (mg/l as CaCO3)	85.83	70.20	253.21	229.99	173.64	149.52
20	Nitrates	---	---	---	---	---	---
21	Date Sampled for Analysis	4-9-99	4-9-99	4-9-99	4-9-99	4-9-99	4-9-99
22	Date Last Precipitation Event Occurred	4-9-99	4-9-99	4-9-99	4-9-99	4-9-99	4-9-99

Laboratory Name Ream & Haager Laboratories, Inc.
Address 1226 Kaderly Street NW City New Philadelphia
State Ohio Zip 44663

NOTE: If information required by items 5, 6, and 9 is unobtainable, submit as an addendum to Attachment 14A a statement giving the reasons why the information is unobtainable.
NOTE: For each sample provide data for either item 13 or 14.

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ADDENUM TO P. 2, PAGE 18, ITEM E., AMERICAN RGY CORP.

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 14A
(HYDROLOGIC MEASUREMENTS AND ANALYSES)

APPLICANT BENNOC, INC. (ALLISON)

1.	Identification No. of sampling Station from Hydrology Map	D-3	D-4	D-5	D-6	D-7	D-8
2.	Lab Identification Number 94-	03-464	03-463	03-466	03-467	03-468	03-469
3.	High (H) / Low (L) Designation (if applicable)	H	H	H	H	H	H
4.	Surface Elevation for Sampling Station (msl)	935	940	940	940	938	940
5.	Depth of Well Below Land Surface (feet)	--	--	--	--	--	--
6.	Static Water Level of Well Below Land Surface (feet)	--	--	--	--	--	--
7.	Flow for Spring and Stream (gpm or cfs)	12.3 CFS	.13 CFS	.12 CFS	.26 CFS	.26 CFS	1.08 CFS
8.	Date Above Measurements Made	3-9-94	3-9-94	3-9-94	3-9-94	3-9-94	3-9-94
9.	Aquifer/Zone Identification for Well/Spring	--	--	--	--	--	--
10.	pH (Standard Units)	7.90	7.88	7.92	8.16	8.09	8.04
11.	Total Acidity (mg/1 $CaCO_3$)	8.40	7.80	9.20	4.40	3.60	4.60
12.	Total Alkalinity (mg/1 $CaCO_3$)	97.60	86.60	119.60	198.20	172.00	124.20
13.	Specific Conductivity (umho/cm at 25,)	200	170	290	392	519	700
14.	Total Dissolved Solids (mg/1)	--	--	--	--	--	--
15.	Total Manganese (mg/1)	0.04	< 0.02	< 0.02	< 0.02	0.10	0.36
16.	Total Sulfates (mg/1)	30.0	34.0	34.0	78.0	103.0	270.0
17.	Total Iron (mg/1)	0.18	0.21	0.12	0.13	0.21	0.83
18.	Total Suspended Solids (mg/1)	6.0	4.0	2.0	5.0	3.0	9.0
19.	Total Hardness (mg/1 as $CaCO_3$)	124.0	124.0	120.0	168.0	249.0	259.0
20.	Date Sampled for Analysis	3-9-94	3-9-94	3-9-94	3-9-94	3-9-94	3-9-94
21.	Date Last Precipitation Event	3-7-94	3-7-94	3-7-94	3-7-94	3-7-94	3-7-94

Laboratory Name Industrial Lab Analysis, Inc.
Address 2240 Williamsburg Drive City Glen Dale
State West Virginia Zip 26083

NOTE: If information required by items 5, 6, and 9 is unobtainable, submit as an addendum to Attachment 14A a statement giving the reasons why the information is unobtainable

NOTE: For each sample provide data for either item 13 or item 14.

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ADDENDUM TO 2, PAGE 18, ITEM E., AMERICAN ENERGY CORP.

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 14A
(HYDROLOGIC MEASUREMENTS AND ANALYSES)

APPLICANT BENNOC, INC. (ALLISON)

1.	Identification No. of sampling Station from Hydrology Map	D-3	D-4	D-5	D-6	D-7	D-8
2.	Lab Identification Number 93-	12-1117	12-1118	12-1119	12-1120	12-1121	12-1122
3.	High (H) / Low (L) Designation (if applicable)	L	L	L	L	L	L
4.	Surface Elevation for Sampling Station (msl)	935	940	940	940	938	940
5.	Depth of Well Below Land Surface (feet)	--	--	--	--	--	--
6.	Static Water Level of Well Below Land Surface (feet)	--	--	--	--	--	--
7.	Flow for Spring and Stream (gpm or cfs)	3.4 CFS	.05 CFS	.03 CFS	.1 CFS	.07 CFS	.25 CFS
8.	Date Above Measurements Made	12-29-93	12-29-93	12-29-93	12-29-93	12-29-93	12-29-93
9.	Aquifer/Zone Identification for Well/Spring	--	--	--	--	--	--
10.	pH (Standard Units)	7.93	7.82	7.83	7.97	7.98	7.50
1.	Total Acidity (mg/l CaCO3)	6.60	8.00	7.60	6.40	6.60	14.00
12.	Total Alkalinity (mg/l CaCO3)	113.60	83.00	134.80	199.60	190.00	171.00
13.	Specific Conductivity (umho/cm at 25,)	273	222	333	589	621	963
14.	Total Dissolved Solids (mg/l)	--	--	--	--	--	--
15.	Total Manganese (mg/l)	0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.73
16.	Total Sulfates (mg/l)	33.0	39.0	47.0	120.0	104.0	404.0
17.	Total Iron (mg/l)	0.05	< 0.04	< 0.04	0.04	0.07	0.73
18.	Total Suspended Solids (mg/l)	4.0	7.0	6.0	3.0	2.0	5.0
19.	Total Hardness (mg/l as CaCO3)	143.0	121.0	173.0	256.0	301.0	462.0
20.	Date Sampled for Analysis	12-29-93	12-29-93	12-29-93	12-29-93	12-29-93	12-29-93
21.	Date Last Precipitation Event	12-25-93	12-25-93	12-25-93	12-25-93	12-29-93	12-29-93

Laboratory Name Industrial Lab Analysis, Inc.
Address 3240 Williamsburg Drive City Glen Dale
State West Virginia Zip 26083

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NOTE: For each sample provide data for either item 13 or item 14.

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ADDENDUM T ART 2, PAGE 18, ITEM E., AMERIC ENERGY CORP.

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

Quarterly Monitoring Report Sheet
(Submit in Quadruplicate)

Permitee: American Energy Corp. Permit Number: D-1159

____ 1st Qtr. __X__ 2nd Qtr. _____ 3rd Qtr. _____ 4th Qtr.

(X appropriate blank for mine status)

_____ Pre-Mining, __X__ Mining, _____, Post mining

Monitoring Site Id No. (e.g. S-1 , W-3)	S-23	D-10	D-8A	W-2	W-3
State Plane X-Y Coordinates	X2,411,937 Y 696,728	X 2,417,484 Y 696,454	X 2,413,624 Y 695,395	X 2,416,692 Y 684,256	X 2,416,577 Y 692,385
Surface Elevation of Monitoring Site	1125	898	1080	1235	1260
Indicate Whether Site was Monitored for Quality , Quantity , or Both	BOTH	BOTH	BOTH	BOTH	BOTH
Depth of Well Below Water Surface (Feet)	--	--	--	103'	115'
Static Water Level of Well Below Land Surface (feet)	--	--	--	53'	21'
Stream or spring Discharge (CFS or GPM)	6.4 gpm	1.7 cfs	0.1 cfs	--	--
Date Measured	05-16-02	05-16-02	05-16-02	05-16-02	05-16-02
pH Standard Units	7.61	7.49	7.90	7.41	7.62
Total Acidity mg/l as CaCO3	1.60	3.80	2.80	7.20	4.80
Total Alkalinity mg/l as CaCO3	27.20	60.00	71.40	275.20	232.00
Total Iron mg/l	0.28	0.30	1.42	<0.04	0.05
Total Manganese mg/l	0.03	<0.02	0.44	<0.02	0.02
Total Suspended Solids mg/l	3.0	8.0	6.0	<2.0	<2.0
Total Hardness mg/l	56.0	72.0	220.0	390.0	300.0
Total Sulfate mg/l	24.0	19.0	111.0	73.0	70.0
Specific Conductance @25 °C umho/cm	131	170	552	852	7.03

Permitee's Signature: Date: June 25, 2002

Laboratory Name: Industrial Lab Analysis

Analyst's Signature: [signature] Date: 6-5-02

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

Quarterly Monitoring Report Sheet
(Submit in Quadruplicate)

Permittee AMERICAN ENERGY CORPORATION Permit Number Allison D-1159

X 1st Qtr., ____ 2nd Qtr., ____ 3rd Qtr., ____ 4th Qtr., (X appropriate blank)

____ Pre-mining, X Mining, ____ Postmining, (X appropriate blank for mine status)

Monitoring Site ID No. (e.g. S-1, W-3)	★ D - 10	U - 3	U - 10	W - 2	W - 3
State Plane XY Coordinates	X 2,417,484 Y 696,454	X 2,411,287 Y 693,468	X 2,413,435 Y 691,110	X 2,416,692 Y 684,256	X 2,416,577 Y 692,385
Surface Elevation of Monitoring Site	898	960	942	1235	1260
Indicate Whether Site was Monitored for Quality, Quantity, or Both	BOTH	BOTH	BOTH	BOTH	BOTH
Depth of Well Below Land Surface (feet)	--	--	--	103'	115'
Static Water Level of Well Below Land Surface (feet)	--	--	--	52'	20.1'
Stream or Spring Discharge (cfs or gpm)	4.9 cfs	2 cfs	3 cfs	--	--
Date Measured	2/15/02	2/15/02	2/15/02	2/15/02	2/15/02
pH (Standard Units)	7.62	7.63	7.49	7.37	7.59
Total Acidity (mg/l CaCo3)	4.00	2.00	2.00	8.00	6.00
Total Alkalinity (mg/l CaCo3)	84.00	84.00	70.00	380.00	240.00
Total Iron (mg/l)	0.057	0.064	0.051	0.031	0.035
Total Manganese (mg/l)	< 0.01	0.014	< 0.01	< 0.01	< 0.01
Total Suspended Solids (mg/l)	< 1.0	< 1.0	< 1.0	9	< 1.0
Total Hardness (mg/l CaCo3)	119.33	107.65	85.20	188.30	206.44
Total Sulfates (mg/l)	46.09	128.41	101.25	186.04	112.77
Specific Conductance (at 25° C in µmhos/cm)	303.00	287.00	230.00	1,010.00	709.00

Permittee's Signature	Date March 22, 2002

Laboratory Name	Ream & Haager Laboratories, Inc.
Analyst's Signature	Date February 27, 2002

Ream & Haager Lab. #'s 322286 thru 322290
Hamilton & Associates
1 of 2

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

Quarterly Monitoring Report Sheet
(Submit in Quadruplicate)

Permittee Bennoc, Inc. Permit Number Allison D-1159

____ 1st Qtr., ____ 2nd Qtr., ____ 3rd Qtr., X 4th Qtr., (X appropriate blank)

____ Pre-mining, X Mining, ____ Postmining, (X appropriate blank for mine status)

Monitoring Site ID No. (e.g. S-1, W-3)	D - 10 ★	U - 3	U - 10	W - 2	W - 3
State Plane XY Coordinates	X 2,417,484 Y 696,454	X 2,411,287 Y 693,468	X 2,413,435 Y 691,110	X 2,416,692 Y 684,256	X 2,416,577 Y 692,385
Surface Elevation of Monitoring Site	898	960	942	1235	1260
Indicate Whether Site was Monitored for Quality, Quantity, or Both	BOTH	BOTH	BOTH	BOTH	BOTH
Depth of Well Below Land Surface (feet)	--	--	--	103'	115'
Static Water Level of Well Below Land Surface (feet)	--	--	--	56'	25'
Stream or Spring Discharge (cfs or gpm)	1.85 cfs	0.22 cfs	0.8 cfs	--	--
Date Measured	11/15/01	11/15/01	11/15/01	11/15/01	11/15/01
pH (Standard Units)	7.16	7.30	7.02	6.98	7.31
Total Acidity (mg/l CaCo3)	8.00	8.00	4.00	14.00	12.00
Total Alkalinity (mg/l CaCo3)	126.00	120.00	106.00	294.00	262.00
Total Iron (mg/l)	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Total Manganese (mg/l)	< 0.01	< 0.01	0.036	< 0.01	0.013
Total Suspended Solids (mg/l)	14	8	< 1.0	8	4
Total Hardness (mg/l CaCo3)	276.15	273.52	312.87	161.59	280.37
Total Sulfates (mg/l)	79.02	34.57	14.81	115.24	58.44
Specific Conductance (at 25°C in µmhos/cm)	547.00	434.00	637.00	3,190.00	2,830.00

Permittee's Signature	Date December 4, 2001

Laboratory Name	Ream & Haager Laboratories, Inc.
Analyst's Signature	Date November 26, 2001

Ream & Haager Lab. #'s 317699 thru 317703
Hamilton & Associates
1 of 2

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ADDEND TO PART 2, PAGE 18, ITEM E., AM CAN ENERGY CORP.

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

Quarterly Monitoring Report Sheet
(Submit in Quadruplicate)

Permittee Bennoc, Inc. Permit Number Allison D-1159

____ 1st Qtr., ____ 2nd Qtr., X 3rd Qtr., ____ 4th Qtr., (X appropriate blank)

____ Pre-mining, X Mining, ____ Postmining, (X appropriate blank for mine status)

Monitoring Site ID No. (e.g. S-1, W-3)	D - 10 ★	U - 3	U - 10	W - 2	W - 3
State Plane X-Y Coordinates	X 2,417,484 Y 696,454	X 2,411,287 Y 693,468	X 2,413,435 Y 691,110	X 2,416,692 Y 684,256	X 2,416,577 Y 692,385
Surface Elevation of Monitoring Site	898	960	942	1235	1260
Indicate Whether Site was Monitored for Quality, Quantity, or Both	BOTH	BOTH	BOTH	BOTH	BOTH
Depth of Well Below Land Surface (feet)	--	--	--	103'	115'
Static Water Level of Well Below Land Surface (feet)	--	--	--	55.8'	23.4'
Stream or Spring Discharge (cfs or gpm)	19 cfs	0.3 cfs	17.5 cfs	--	--
Date Measured	8/30/01	8/30/01	8/30/01	8/30/01	8/30/01
pH (Standard Units)	7.79	7.58	7.63	7.45	7.52
Total Acidity (mg/l CaCo3)	4.00	8.00	4.00	14.00	12.00
Total Alkalinity (mg/l CaCo3)	102.00	120.00	80.00	304.00	230.00
Total Iron (mg/l)	0.173	0.130	0.075	0.055	0.065
Total Manganese (mg/l)	0.011	0.279	0.012	< 0.01	0.014
Total Suspended Solids (mg/l)	1	1	< 1.0	< 1.0	1
Total Hardness (mg/l CaCo3)	154.42	174.87	110.54	241.54	161.59
Total Sulfates (mg/l)	23.04	37.04	41.16	102.90	54.33
Specific Conductance (at 25° C in µmhos/cm)	357.00	356.00	265.00	1,050.00	864.00

Permittee's Signature	Date September 18, 2001

Laboratory Name	Ream & Haager Laboratories, Inc.
Analyst's Signature	Date September 12, 2001

Ream & Haager Lab. #'s 313686 thru 313690
Hamilton & Associates
1 of 2

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OHIO DEPARTMENT OF NATURAL R..OURCES
DIVISION OF RECLAMATION

Quarterly Monitoring Report Sheet
(Submit in Quadruplicate)

Permittee Bennoc, Inc. Permit Number Allison D-1159

____ 1st Qtr., X 2nd Qtr., ____ 3rd Qtr., ____ 4th Qtr., (X appropriate blank)

____ Pre-mining, X Mining, ____ Postmining, (X appropriate blank for mine status)

Monitoring Site ID No. (e.g. S-1, W-3)	D - 10 ★	U - 3	U - 10	W - 2	W - 3
State Plane X/Y Coordinates	X 2,417,484 Y 696,454	X 2,411,787 Y 693,468	X 2,413,435 Y 691,110	X 2,416,692 Y 694,256	X 2,416,577 Y 692,385
Surface Elevation of Monitoring Site	898	960	942	1235	1260
Indicate Whether Site was Monitored for Quality, Quantity, or Both	BOTH	BOTH	BOTH	BOTH	BOTH
Depth of Well Below Land Surface (feet)	--	--	--	103'	115'
Static Water Level of Well Below Land Surface (feet)	--	--	--	55.7'	16'
Stream or Spring Discharge (cfs or gpm)	33 cfs	20.3 cfs	31.6 cfs	--	--
Date Measured	5/22/01	5/22/01	5/22/01	5/22/01	5/22/01
pH (Standard Units)	7.96	7.78	7.73	7.36	7.60
Total Acidity (mg/l CaCo3)	14.00	10.00	14.00	40.00	28.00
Total Alkalinity (mg/l CaCo3)	120.00	80.00	100.00	394.00	264.00
Total Iron (mg/l)	0.048	0.268	0.923	0.152	< 0.03
Total Manganese (mg/l)	< 0.01	< 0.01	0.011	< 0.01	< 0.01
Total Suspended Solids (mg/l)	65	145	33	9	4
Total Hardness (mg/l CaCo3)	724.04	183.25	120.54	122.42	299.48
Total Sulfates (mg/l)	146.17	97.13	46.09	93.64	121.83
Specific Conductance (at 25° C in µmhos/cm)	342.00	199.00	231.00	1,050.00	730.00

Permittee's Signature	Date June 29, 2001

Laboratory Name Ream & Haager Laboratories, Inc.	
Analyst's Signature	Date June 7, 2001

Ream & Haager Lab. #'s 309109 thru 309113
Hamilton & Associates
1 of 2

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ADDENDUM 'ART 2, PAGE 18, ITEM E., AMERI ENERGY CORP.

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

Quarterly Monitoring Report Sheet
(Submit in Quadruplicate)

Permittee Bennoc, Inc. Permit Number D-1159

X 1st Qtr., ____ 2nd Qtr., ____ 3rd Qtr., ____ 4th Qtr., (X appropriate blank)

____ Pre-mining, X Mining, ____ Postmining, (X appropriate blank for mine status)

Monitoring Site ID No. (e.g. S-1, W-3)	D-10 ★	U-10	W-2	U-3	W-3
State Plane XY Coordinates	X 2,417,484 Y 696,454	X 2,413,435 Y 691,110	X 2,416,692 Y 694,256	X 2,411,287 Y 693,468	X 2,416,577 Y 692,385
Surface Elevation of Monitoring Site	898	942	1235	960	1260
Indicate Whether Site was Monitored for Quality, Quantity, or Both	BOTH	BOTH	BOTH	BOTH	BOTH
Depth of Well Below Land Surface (feet)	--	--	103'	--	115'
Static Water Level of Well Below Land Surface (feet)	--	--	54.4'	--	22'
Stream or Spring Discharge (cfs or gpm)	43.2 cfs	34.3 cfs	--	9.24 cfs	--
Date Measured	2/1/01	2/1/01	2/1/01	2/1/01	2/1/01
pH (Standard Units)	7.04	7.15	7.32	7.98	7.17
Total Acidity (mg/l CaCo3)	8.00	8.00	28.00	8.00	32.00
Total Alkalinity (mg/l CaCo3)	54.00	38.00	256.00	52.00	225.00
Total Iron (mg/l)	0.339	0.179	< 0.03	0.191	< 0.03
Total Manganese (mg/l)	0.067	< 0.01	< 0.01	< 0.1	< 0.01
Total Suspended Solids (mg/l)	14	3	< 1.0	< 1.0	< 1.0
Total Hardness (mg/l CaCo3)	106.62	85.73	209.99	77.42	172.93
Total Sulfates (mg/l)	39.51	23.04	80.67	39.51	99.87
Specific Conductance (at 25° C in µmhos/cm)	255.00	181.00	900.00	200.00	1,060.00

Permittee's Signature	Date April 10, 2001

Laboratory Name	Ream & Haager Laboratories, Inc.
Analyst's Signature	Date February 13, 2001

Ream & Haager Lab. #'s 303491 thru 303495
Hamilton & Associates
1 of 2

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ADDENDUM TO PART 2, PAGE 18, ITEM E., AMERICAN ENERGY CORP.

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

Quarterly Monitoring Report Sheet
(Submit in Quadruplicate)

Permittee Bennoc, Inc. Permit Number D-1139 (Allison)

____ 1st Qtr., ____ 2nd Qtr., ____ 3rd Qtr., X 4th Qtr., (X appropriate blank)

____ Pre-mining, X Mining, ____ Postmining, (X appropriate blank for mine status)

Monitoring Site ID No. (e.g. S-1, W-3)	D-10 ★	W-2	W-3	W-7	U-3
State Plane XY Coordinates	X2,417,484 Y 696,454	X2,416,692 Y 594,256	X2,416,577 Y 692,370	X2,417,692 Y 697,385	X2,411,287 Y 693,468
Surface Elevation of Monitoring Site	898	1235	1260	1062	960
Indicate Whether Site was Monitored for Quality, Quantity, or Both	BOTH	BOTH	BOTH	BOTH	BOTH
Depth of Well Below Land Surface (feet)	--	103'	115'	UNKNOWN	--
Static Water Level of Well Below Land Surface (feet)	--	59.2'	26.8'	64.3'	--
Stream or Spring Discharge (cfs or gpm)	6 cfs	--	--	--	2 cfs
Date Measured	11/10/00	11/10/00	11/10/00	11/10/00	11/10/00
pH (Standard Units)	8.67	7.44	7.81	8.17	7.75
Total Acidity (mg/l CaCo3)	8.00	30.00	24.00	12.00	12.00
Total Alkalinity (mg/l CaCo3)	142.00	346.00	296.00	430.00	146.00
Total Iron (mg/l)	0.119	< 0.05	0.080	< 0.05	0.077
Total Manganese (mg/l)	< 0.008	< 0.008	0.011	< 0.008	0.010
Total Suspended Solids (mg/l)	2	1	< 1.0	< 1.0	< 1.0
Total Hardness (mg/l CaCo3)	170.07	522.46	464.64	70.32	161.94
Total Sulfates (mg/l)	47.74	82.32	74.08	153.93	54.33
Specific Conductance (at 25° C (µmhos/cm)	423.00	1,240.00	1,080.00	1,010.00	378.00

Permittee's Signature	Date

Laboratory Name	Ream & Haager Laboratories, Inc.
Analyst's Signature	Date November 24, 2000

Ream & Haager Lab. #'s 300555 thru 300559
Hamilton & Associates
1 of 2

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

Quarterly Monitoring Report Sheet
(Submit in Quadruplicate)

Permittee Bennoc, Inc. Permit Number Allison - D-1159

____ 1st Qtr., ____ 2nd Qtr., X 3rd Qtr., ____ 4th Qtr., (X appropriate blank)

____ Pre-mining, X Mining, ____ Postmining, (X appropriate blank for mine status)

Monitoring Site ID No. (e.g. S-1, W-3)	D-10 ★	U-10	U-3	W-2	W-3
State Plane XY Coordinates	X 2,417,484 Y 696,454	X 2,413,435 Y 691,110	X 2,411,287 Y 693,468	X 2,416,692 Y 594,256	X 2,416,577 Y 692,370
Surface Elevation of Monitoring Site	898	942	960	1235	1260
Indicate Whether Site was Monitored for Quality, Quantity, or Both	BOTH	BOTH	BOTH	BOTH	BOTH
Depth of Well Below Land Surface (feet)	--	--	--	103'	115'
Static Water Level of Well Below Land Surface (feet)	--	--	--	Access Denied	Inaccess-ible
Stream or Spring Discharge (cfs or gpm)	1.44 cfs	0.45 cfs	0,08 cfs	--	--
Date Measured	8/14/00	8/14/00	8/14/00	8/14/00	8/14/00
pH (Standard Units)	8.14	7.94	7.85	7.42	7.80
Total Acidity (mg/l CaCo3)	4.00	18.00	4.00	6.00	4.00
Total Alkalinity (mg/l CaCo3)	130.00	104.00	130.00	270.00	224.00
Total Iron (mg/l)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Manganese (mg/l)	< 0.008	< 0.008	<0.008	<0.008	< 0.008
Total Suspended Solids (mg/l)	1.0	1.0	5.0	1.0	1.0
Total Hardness (mg/l CaCo3)	209.06	130.27	154.09	536.43	368.16
Total Sulfates (mg/l)	446.17	35.40	172.05	244.49	211.56
Specific Conductance (at 25° C in µmhos/cm)	470.00	297.00	362.00	1,360.00	1,040.00

Permittee's Signature	Date

Laboratory Name	Ream & Haager Laboratories, Inc.	
Analyst's Signature	[signature]	Date August 30, 2000

Ream & Haager Lab. #'s 296788 thru 296792
Hamilton & Associates
1 of 2

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

Quarterly Monitoring Report Sheet
(Submit in Quadruplicate)

Permittee Bennoc, Inc. Permit Number Allison D-1159

____ 1st Qtr., X 2nd Qtr., ____ 3rd Qtr., ____ 4th Qtr., (X appropriate blank)

____ Pre-mining, X Mining, ____ Postmining, (X appropriate blank for mine status)

Monitoring Site ID No. (e.g. S-1, W-3)	D-10	U-3	U-10	W-2	W-3
State Plane X-Y Coordinates	X2,417,484 Y 696,454	X2,411,287 Y 693,468	X2,413,435 Y 691,110	X2,416,692 Y 594,256	X2,416,577 Y 692,370
Surface Elevation of Monitoring Site	898	960	942	1235	1260
Indicate Whether Site was Monitored for Quality, Quantity, or Both	BOTH	BOTH	BOTH	BOTH	BOTH
Depth of Well Below Land Surface (feet)	--	--	--	103'	115'
Static Water Level of Well Below Land Surface (feet)	--	--	--	Access Denied	Inaccessible
Stream or Spring Discharge (cfs or gpm)	4.8 cfs	0.78 cfs	0.9 cfs	--	--
Date Measured	5/15/00	5/15/00	5/15/00	5/15/00	5/15/00
pH (Standard Units)	8.42	8.25	8.21	8.16	8.31
Total Acidity (mg/l CaCo3)	14.00	22.00	18.00	42.00	34.00
Total Alkalinity (mg/l CaCo3)	108.00	110.00	92.00	294.00	242.00
Total Iron (mg/l)	0.157	<0.05	<0.05	<0.05	<0.05
Total Manganese (mg/l)	<0.008	<0.008	0.009	<0.008	<0.008
Total Suspended Solids (mg/l)	1.00	1.00	1.00	1.00	1.00
Total Hardness (mg/l CaCo3)	188.19	163.05	134.08	226.25	332.52
Total Sulfates (mg/l)	90.55	116.07	80.67	125.80	141.59
Specific Conductance (at 25° C in µmhos/cm)	396.00	333.00	287.00	1,080.00	987.00

Permittee's Signature	Date

Laboratory Name	Ream & Haager Laboratories, Inc.
Analyst's Signature	Date May 23, 2000

Ream & Haager Lab. #'s 293271 thru 293275
Hamilton & Assoc.
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ADDENDUM PART 2, PAGE 18, ITEM E., AMERICAN ENERGY CORP.

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

Quarterly Monitoring Report Sheet
(Submit in Quadruplicate)

Permittee Bennoc, Inc. Permit Number D-1159

X 1st Qtr., ____ 2nd Qtr., ____ 3rd Qtr., ____ 4th Qtr., (X appropriate blank)

____ Pre-mining, X Mining, ____ Postmining, (X appropriate blank for mine status)

Monitoring Site ID No. (e.g. S-1, W-3)	D-10 ★	W-2	W-7	U-3	U-10
State Plane X-Y Coordinates	X 2,417,484 Y 696,454	X 2,416,692 Y 694,256	X 2,417,692 Y 697,385	X 2,411,287 Y 693,468	X 2,413,435 Y 691,110
Surface Elevation of Monitoring Site	898	1235	1062	960	942
Indicate Whether Site was Monitored for Quality, Quantity, or Both	BOTH	BOTH	BOTH	BOTH	BOTH
Depth of Well Below Land Surface (feet)	--	103'	Unknown	--	--
Static Water Level of Well Below Land Surface (feet)	--	Access Denied	53.3'	--	--
Stream or Spring Discharge (cfs or gpm)	8.4 cfs	--	--	2.4 cfs	6.1 cfs
Date Measured	2/9/00	2/9/00	2/9/00	2/9/00	2/9/00
pH (Standard Units)	7.66	7.26	7.96	7.51	7.57
Total Acidity (mg/l CaCo3)	10.00	52.00	36.00	20.00	14.00
Total Alkalinity (mg/l CaCo3)	94.00	274.00	254.00	92.00	84.00
Total Iron (mg/l)	0.085	<0.05	<0.05	<0.05	<0.05
Total Manganese (mg/l)	0.076	<0.008	<0.008	<0.008	<0.008
Total Suspended Solids (mg/l)	2.00	1.00	3.00	1.00	1.00
Total Hardness (mg/l CaCo3)	179.16	254.25	166.98	141.72	114.46
Total Sulfates (mg/l)	98.78	118.54	142.41	79.85	65.03
Specific Conductance (at 25° C in µmhos/cm)	301.00	1,029.00	638.00	273.00	218.00

Resident @ W-3 not home, Could not collect sample

Permittee's Signature	Date February 25, 2000

Laboratory Name	Ream & Haager Laboratories, Inc.
Analyst's Signature [signature]	Date February 18, 2000

Ream & Haager Lab. #'s 289846 thru 289850
Hamilton & Assoc.
Page 1 of 1

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AEC 18046

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

Quarterly Monitoring Report Sheet
(Submit in Quadruplicate)

Permittee Bennoc, Inc. Permit Number D-1159

____ 1st Qtr., ____ 2nd Qtr., ____ 3rd Qtr., ____ 4th Qtr., (X appropriate blank)

____ Pre-mining, X Mining, ____ Postmining, (X appropriate blank for mine status)

Monitoring Site ID No. (e.g. S-1, W-3)	D-10 ★	U-3	U-10	W-2	W-3
State Plane X-Y Coordinates	X 2,417,484 Y 696,454	X 2,411,287 Y 693,468	X 2,413,435 Y 691,110	X 2,416,692 Y 594,256	X 2,416,577 Y 692,370
Surface Elevation of Monitoring Site	898	960	942	1235	1260
Indicate Whether Site was Monitored for Quality, Quantity, or Both	BOTH	BOTH	BOTH	BOTH	BOTH
Depth of Well Below Land Surface (feet)	--	--	--	103'	115'
Static Water Level of Well Below Land Surface (feet)	--	--	--	Access Denied	Access Denied
Stream or Spring Discharge (cfs or gpm)	2.6 cfs	1.9 cfs	0.54 cfs	--	--
Date Measured	12/7/99	12/7/99	12/7/99	12/7/99	12/7/99
pH (Standard Units)	7.75	7.49	7.46	7.44	7.59
Total Acidity (mg/l CaCo3)	12.00	8.00	10.00	28.00	28.00
Total Alkalinity (mg/l CaCo3)	98.00	102.00	76.00	278.00	192.00
Total Iron (mg/l)	0.119	<0.05	0.053	<0.05	<0.05
Total Manganese (mg/l)	<0.008	<0.008	<0.008	<0.008	<0.008
Total Suspended Solids (mg/l)	1.00	1.00	1.00	2.00	2.00
Total Hardness (mg/l CaCo3)	186.69	155.02	121.52	526.19	434.89
Total Sulfates (mg/l)	78.20	74.08	46.92	147.35	91.38
Specific Conductance (at 25° C in µmhos/cm)	323.00	273.00	259.00	987.00	846.00

Permittee's Signature	Date January 4, 2000

Laboratory Name	Ream & Haager Laboratories, Inc.
Analyst's Signature	Date December 21, 1999

Ream & Haager Lab. #'s 287902 thru 287906
Hamilton & Assoc.
Page 1 of 2

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 14B
(GROUND WATER HYDROLOGY DESCRIPTION)

Applicant's Name AMERICAN ENERGY CORPORATION (D-0425-2)

Aquifer/Zone Identification	Aquifer/Zone Lithology	Aquifer/Zone Thickness	Aquifer/Zone Elev. (msl)	Aquifer/Zone Horizontal Extent	Aquifer/Zone Known Uses	Approx. Rate of Discharge/Usage of Aquifer/Zone (gpm or cfs)
C	SANDSTONE, SHALE	58'	1180' TO 1122'	UPPER RIDGE OUTCROP TO OUTCROP	NONE, DRILLED WELL, UNDEVELOPED SPRINGS	NONE, UP TO 0.38 GPM
B	SHALE, #12 COAL	36'	1096' TO 1060'	MID-RIDGE OUTCROP TO OUTCROP	NONE (1) DEVELOPED AND UNDEVELOPED SPRINGS	NONE, UP TO 1.7 GPM
A	SANDSTONE, LIMESTONE, SHALE, #11 COAL (WHERE PRESENT)	118'	995' TO 877'	LOWER RIDGE OUTCROP TO OUTCROP	NONE, UNDEVELOPED SPRING	NONE, .69 GPM

Please note that Zones C and A are reversed in order as compared to the original permit D-0425 and Permit D-1159. This attachment is site specific to Application D-0425-2. Inconsistencies regarding Zone A are due to the Hyrogeologic Investigation Report Zone A being based on specifics of the new monitoring wells, while the revised 14B includes a broader range and/or greater vertical extent to include undeveloped springs and the #11 coal seam within the proposed permit area.

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 14C
(WELL/SPRING INVENTORY)

Applicant's Name AMERICAN ENERGY CORPORATION (D-0425-2)

Well/Spring Identification Number	Name of Owner of Well/Spring	Surface Elevation of Well/Spring	Depth of Well in Feet Below Land Surface	Static Water Level of Well in Feet Below Land Surface	Lithology of Supplying Aquifer/ Waterbearing Zone	Known Uses of Well/Spring (if spring give discharge rate)
CMS-1	AMERICAN ENERGY CORP.	995	N/A	N/A	A	NONE, .69 GPM
CMS-2	D.F. WHITE	1095	N/A	N/A	B	NONE, .23 GPM
CMS-3	AMERICAN ENERGY CORP.	1095	N/A	N/A	B	NONE, 1.6 GPM
CMS-4	AMERICAN ENERGY CORP.	1095	N/A	N/A	B	NONE, .72 GPM
CMS-5	AMERICAN ENERGY CORP.	1095	N/A	N/A	B	NONE, 1.7 GPM
CMS-6	AMERICAN ENERGY CORP.	1096	N/A	N/A	B	NONE, .35 GPM
CMS-7	AMERICAN ENERGY CORP.	1070	N/A	N/A	B	NONE, .19 GPM
CMS-8	AMERICAN ENERGY CORP.	1130	N/A	N/A	C	NONE, .22 GPM
CMS-9	AMERICAN ENERGY CORP.	1130	N/A	N/A	C	NONE, .29 GPM
CMS-10	AMERICAN ENERGY CORP.	1132	N/A	N/A	C	NONE, .38 GPM

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 14C
(WELL/SPRING INVENTORY)

Applicant's Name AMERICAN ENERGY CORPORATION (D-0425-2)

Well/Spring Identification Number	Name of Owner of Well/Spring	Surface Elevation of Well/Spring	Depth of Well in Feet Below Land Surface	Static Water Level of Well in Feet Below Land Surface	Lithology of Supplying Aquifer/ Waterbearing Zone	Known Uses of Well/Spring (if spring give discharge rate)
CMS-11	AMERICAN ENERGY CORP.	1080	N/A	N/A	B	NONE, .19 GPM
CMS-12	WYOMING POCAHONTAS LAND CO	1080	N/A	N/A	B	NONE, .34 GPM
CMS-13	AMERICAN ENERGY CORP.	1080	N/A	N/A	B	NONE, .13 GPM
CMDS-1	AMERICAN ENERGY CORP.	1080	N/A	N/A	B	NONE, .13 GPM
CMW-2	D.F. WHITE	1190	21'	12' TO 16'	C	NONE
CG-01-1A	AMERICAN ENERGY CORP.	*974.92	**50'	**46.55' to 49'	A	MONITORING WELL
CG-01-2A	AMERICAN ENERGY CORP.	*940.33	**25.03'	**13.28' to 16'	A	MONITORING WELL
CG-01-3A	AMERICAN ENERGY CORP.	*1163.04	**285.95'	**150' to 209.68'	A	MONITORING WELL
CG-01-3B	AMERICAN ENERGY CORP.	*1163.22	**90.3'	**84.5' to 86'	B	MONITORING WELL
CG-01-3C	AMERICAN ENERGY CORP.	*1162.35	**27.2'	**20.15' to 21'	C	MONITORING WELL

* Top of well casing elevation. ** Measured from top of casing.

r4W11

D0425-2

AEC 18050

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 14C
(WELL/SPRING INVENTORY)

Applicant's Name AMERICAN ENERGY CORPORATION (D-0425-2)

Well/Spring Identification Number	Name of Owner of Well/Spring	Surface Elevation of Well/Spring	Depth of Well in Feet Below Land Surface	Static Water Level of Well in Feet Below Land Surface	Lithology of Supplying Aquifer/ Waterbearing Zone	Known Uses of Well/Spring (if spring giv discharge rate
CG-01-4A	AMERICAN ENERGY CORP.	*1154.06	**259.0'	**121' to 258'	A	MONITORING WELL
CG-01-4B	AMERICAN ENERGY CORP.	*1153.58	**58.60'	**53' to 57.5'	B	MONITORING WELL
CG-01-4C	AMERICAN ENERGY CORP.	*1153.26	**25.8'	**5.65' to 9.5'	C	MONITORING WELL
CG-01-5A	AMERICAN ENERGY CORP.	*1161.07	**267.0'	**51.5' to 208'	A	MONITORING WELL
CG-01-5B	AMERICAN ENERGY CORP.	*1160.16	**84.86'	**77.0' to 77.5'	B	MONITORING WELL
CG-01-5C	AMERICAN ENERGY CORP.	*1160.86	**25.66'	**7.24' to 7.5'	C	MONITORING WELL
CG-01-6B	AMERICAN ENERGY CORP.	*1166.70	**81.22'	**74.64' to 77.5'	B	MONITORING WELL
CG-01-6C	AMERICAN ENERGY CORP.	*1167.01	**44.83'	**27.0' to 40'	C	MONITORING WELL

Note: State Plane Coordinates for all monitoring wells are shown on the Monitoring Well Installation Logs in the Hydrogeologic Investigation Report.
* Top of well casing elevation. ** Measured from top of casing.

D0425-2

AEC 18051

OHIO DEPARTMENT OF NATURAL RESOURCES
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ATTACHMENT 14D
(SURFACE WATER BODIES/PUBLIC WATER SUPPLIES)

Applicant's Name AMERICAN ENERGY CORPORATION (D-0425-2)

Surface Water/ Public Supply Identification #	Type of Surface Water/Public Supply	Name of Owner of Surface Water/ Public Supply	Known Uses of Surface Water/ Public Supply
CMU-1 TO CMD-1 CAPTINA CREEK	PERENNIAL STREAM	SEE MAP	NONE
CMU-2A TO CMD-2 PINEY CREEK	PERENNIAL STREAM	SEE MAP	NONE
CMU-2 TO CMD2A LONG RUN	PERENNIAL STREAM	SEE MAP	NONE
CMS-3 TO CMD-4	INTERMITTENT STREAM	SEE MAP	NONE
CMU-5 TO CMD-5 UNNAMED STREAM "S"	INTERMITTENT STREAM	SEE MAP	NONE
CMU-6, STREAM "D"	INTERMITTENT STRM	SEE MAP	NONE
CMU-6A, STREAM "C"	INTERMITTENT STRM.	SEE MAP	NONE
CMU-6B, STREAM "M"	INTERMITTENT STRM	SEE MAP	NONE
CMU-6C, STREAM "B"	INTERMITTENT STRM	SEE MAP	NONE
CMS-8, STREAM "Q"	INTERMITTENT STRM	SEE MAP	NONE
CMS-9, STREAM "N"	INTERMITTENT STRM	SEE MAP	NONE
CMS-10 TO CMD-6 STR. "L", & STR. "A"	INTERMITTENT STREAM	SEE MAP	NONE
CMU-7 TO CMD-7	INTERMITTENT STREAM	SEE MAP	NONE
CMWI-1	IMPOUNDMENT	SEE MAP	NONE
UNNAMED STREAM "Y"	INTERMITTENT STRM	SEE MAP	NONE
CMS-4 STREAM	EPHEMERAL	SEE MAP	NONE
1ST UNNAMMED TRIB TO STREAM. "S"	EPHEMERAL	SEE MAP	NONE

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AEC 18052

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 16
(NEGATIVE DETERMINATION OF PRIME FARMLAND)

Applicant's Name AMERICAN ENERGY CORPORATION

This attachment is to be completed and submitted with the permit application if the applicant is demonstrating that the permit area or a portion of the permit area is not prime farmland. Check ( ) the appropriate item numbers and attach the documents used to make the demonstration.

SEE VALID EXISTING RIGHTS STATEMENT DESCRIBED BELOW

_____ 1. Lands within the proposed permit area have not been historically used for cropland.

_____ 2. The slope of the land within the proposed area is greater than eight percent.

_____ 3. On the basis of a second order soil survey meeting the standards of the National Cooperative Soil Survey, there are no soil map units within the proposed permit area that have been designated prime farmland by the U.S. Soil Conservation Service.

_____ 4. On the basis of a first order soil survey commissioned by the applicant and meeting the standard of the National Cooperative Soil Survey, there were found to be no prime farmland map units as designated by the S.C.S. within the proposed permit area (See Attachment 15, item 2 for 1st order survey criteria).

Attached form OH-CPA-65 completed by James Forshey, District conservationist for Belmont County Natural Resources Conservation Service has found this area to contain a prime farmland soil unit. As previously stated in the approved 12 Ac. IBR for D-0425, American energy Corporation claims valid existing rights based on deeds executed in 1966 and 1967, which include mining and surface rights. Therefore, American Energy Corporation, under Section 1501:13-4-12 (F)(1) of the Ohio Revised Code, is exempt from the Prime Farmland regulation. See approved 12 Acre IBR for deed and mining rights for parcels No 70 (2-5-44), No. 27 5th tract (2-13-41), No. 27 1st & 2nd tracts (2-13-63 & 2-13-64).

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U.S. Department of Agriculture
Natural Resources Conservation Service

OH-CPA-65
Rev. 9/94

NOV 28 2001

Certification of Prime/Nonprime Farmland

Name of Mine Operator American Energy Corporation

Location of Permit Application Area Sections 3, 4, 9, T-6, R-5 Wayne Twp.

Size of Permit Area (Acres) 160 ac

Check Appropriate Block:

1. ☐ I have determined that this permit application DOES NOT contain prime farmland in accordance with the edition of the current county Prime Farmland Map Unit List found in the county Field Office Technical Guide.

2. ☒ I have found that this permit application CONTAINS prime farmland in accordance with the edition of the Prime Farmland Map Units for Ohio and/or the current county Prime Farmland Map Unit List, whichever is more current.

A soil map has been attached and prime units are as follows:

Soil Map Symbol	Map Unit Name
WhB	Wellston silt loam 3 to 8% slopes
WkB	Westmore silt loam 3 to 8% slopes
WmB	Westmoreland silt loam 3 to 8% slopes

Signature James W. Forsley 11/5/01

Jim Forsley, Natural Resources Conservation Service
1119 East Main St., Barnesville, OH 43713, (614) 425-1100

00425-2

AEC 18054

AEC 18055

GELMONT COUNTY, OHIO NO. 67

PRIME FARMLAND DESCRIPTION
(Original undisturbed soil profile)

WhB -- Wellston silt loam, 3 to 8 percent slopes.

This soil has a brown friable silt loam surface layer (A Horizon) about 7 inches thick. The subsoil (B Horizon) is about 40 inches thick. The upper 20 inches is brown, friable silt loam. The lower 20 inches is yellowish brown and strong brown firm loam. Weathered siltstone bedrock is about 59 inches.

Hay Yield 4.3 T/Ac

PRIME FARMLAND DESCRIPTION
(Original undisturbed soil profile)

WkB -- Westmore silt loam, 3 to 8 percent slopes.

This soil has brown, friable silt loam surface layer (A Horizon) about 8 inches thick. The subsoil (B Horizon) is about 33 inches thick. The upper 17 inches is yellowish brown, friable silt loam and silty clay loam. The lower 16 inches is olive brown, mottled, firm clay. Weathered shale bedrock is at about 50 inches.

Hay Yield 4.9 T/Ac

PRIME FARMLAND DESCRIPTION
(Original undisturbed soil profile)

WmB-- Westmoreland silt loam, 3 to 8 percent slopes.

This soil has a brown, friable silt loam surface layer (A Horizon) about 8 inches thick. The subsoil (B Horizon) is about 27 inches thick. The upper 20 inches is brown and dark yellowish brown, friable silt loam and firm clay loam. The lower 7 inches is yellowish brown, firm channery clay loam.

Hay Yield 4.2 T/Ac

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 22
(CERTIFICATE OF LIABILITY INSURANCE)

Name of Insured American Energy Corporation

This is to certify that the policy of insurance listed below has been issued to the above named insured and is in force at this time. The policy provides bodily injury and property damage insurance for all coal mining and reclamation operations of the insured in the State of Ohio as required by paragraph (B) of rule 1501:13-7-07 of the Administrative Code stated below.

Name of Insurer Federal Insurance Company
Policy Number 37104410
Policy Period 6/1/02 to 6/1/03
Name of Underwriting Agent Karen Williams
Address of Underwriting Agent % Reschini Agency, Inc. 922 Phil St., Indiana, PA 1
Telephone Number of Underwriting Agent (800) 828 - 5040

In the event of cancellation or non-renewal of this policy, including non-payment of policy premiums, the insurer agrees to promptly notify:

The Division of Reclamation
Foundation Square
Columbus, OH 43224

6-17-02
Date

K Williams
Signature of Underwriting Agent

This certificate is issued as a matter of information only and confers no rights upon the Division of Reclamation. This certificate does not amend, extend, or alter the coverage afforded by the policy listed above.

1501:13-7-07(B) The Public Liability Insurance Policy shall:

1.) Be in effect during the term of the permit or any renewal, inluding the length of all reclamation operations;

2.) Provide for personal injury and property damage protection in amounts adequate to compensate any persons injured or property damaged as a result of coal mining and reclamation operations, including the use of explosives. The minimum insurance coverage for bodily injury and property damage shall be three hundred thousand dollars for each occurrence and five hundred thousand dollars in the aggregate; and

3.) Include a rider requiring that the insurer notify the Chief whenever substantive changes are made in the policy, including any termination or failure to renew.

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 23
(PENDING PERMIT APPLICATIONS)

Applicant's Name AMERICAN ENERGY CORPORATION

Provide the following information for each pending coal mining application for either the applicant or any person who owns or controls the applicant.

Indicate the business entity for which this listing has been completed AMERICAN ENERGY CORPORATION

Application No.	Name of Regulatory Authority	State
D-0425-2	O.D.N.R., DMRM	OHIO
D-0425-3	O.D.N.R., DMRM	OHIO
D-0425-4	O.D.N.R., DMRM	OHIO

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 23
(PENDING PERMIT APPLICATIONS)

Applicant's Name AMERICAN ENERGY CORPORATION

Provide the following information for each pending coal mining application for either the applicant or any person who owns or controls the applicant.

Indicate the business entity for which this listing has been completed BELMONT COAL COMPANY, INC.

Application No.	Name of Regulatory Authority	State
10168	O.D.N.R., DMRM	OHIO
1473	O.D.N.R., DMRM	OHIO

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AEC 18059

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 23
(PENDING PERMIT APPLICATIONS)

Applicant's Name AMERICAN ENERGY CORPORATION

Provide the following information for each pending coal mining application for either the applicant or any person who owns or controls the applicant.

Indicate the business entity for which this listing has been completed UMCO ENERGY, INC.

Application No.	Name of Regulatory Authority	State
63921301	PA DEP	PA

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D0425-2

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 23
(PENDING PERMIT APPLICATIONS)

Applicant's Name AMERICAN ENERGY CORPORATION

Provide the following information for each pending coal mining application for either the applicant or any person who owns or controls the applicant.

Indicate the business entity for which this listing has been completed THE OHIO VALLEY COAL COMPANY

Application No.	Name of Regulatory Authority	State
D-0360-12	ODNR, DMRM	OH
D-0360-13	ODNR, DMRM	OH

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

SURFACE MINING OPERATIONS
ATTACHMENT 27
(HISTORIC AND PREHISTORIC PROPERTIES)

1. Applicant's Name: AMERICAN ENERGY CORP.

   Address 43521 MAYHUGH HILL ROAD, TWP. HIGHWAY 88

   City BEALLSVILLE State OHIO Zip 43716

2. Contact Person JACK A. HAMILTON Phone 740-968-4947
   P.O. BOX 471, 342 HIGH STREET, FLUSHING, OHIO 43977

3. Location and Acreage Information

   County BELMONT Township WAYNE

   Section(s) 3 & 4 T- 6 R- 5

   USGS Quadrangle HUNTER Acreage 154.4

4. Application Map Attached: (area described in 3. above is to be outlined on the map)

5. Previous Disturbance:

   X present; _____ absent within permit area only
   (Note: previous disturbance is any type of natural or human made disturbance to the topsoil and subsoil in the permit area prior to permit application. Examples include but are not limited to, slides, severe erosion, previous mining activities, clear cut logging, recreational activities, etc., but not agricultural plowing and disking.)

   If previous disturbance is present, list below and clearly delineate the extent of each type of disturbance on the application map to be sent to the SHPO by the Division. Attach addendum, if necessary.

Type of Disturbance	Date Occurred	Percent of Permit Area	Map Symbol
SURFACE FACILITIES	1984	26%	[illegible]
FOR UG MINE OPERATIONS			

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AEC 18062

6. Current Land Use: (describe land use and percent of land in that use)

Agricultural: 28% (CROPLAND)

Residential: 0%

Mining: 26% (DISTURBED BY UNDERGROUND MINE SURFACE FACILITIES)

Pasture: 0%

Secondary Forest Growth:

Has area been clear cut logged? Yes _____, No __X__.
If "yes", indicate approximate date(s) of logging _____.

Other: UNDEVELOPED - 46%

7. Historic and Prehistoric Structures:

Definitions

A historic or prehistoric structure is a work made up of interdependent and interrelated parts in a definite pattern of organization. Constructed by humans, and 50 years or older, it is usually an engineering project.

Types

Historic structures include, but are not limited to dwellings, buildings, barns, farmstead outbuildings, bridges, culverts, churches, schools, halls, iron furnaces (and associated buildings), canals, forts, abandoned coal mine buildings, mine entrances, tipples and related structures, etc.

Prehistoric structures include, but are not limited to, earthworks, mounds, rockshelters, etc.

List all known historic and prehistoric structures below and locate each one on the application map to be sent to the SHPO including corresponding labeled black and white, front and rear photographs of each structure. Attach addendum, if necessary.

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00429-3

Structure Type	Construction Date	Map Reference	Photo # Front	Photo # Rear
NONE				

8. Previous Historic and/or Archeological Surveys: (describe any surveys known to applicant on the permit or adjacent areas)

   Permit area: D-1159-1

   Adjacent areas: NONE

9. SHPO please send this form to:

   Dr. Jeffrey C. Reichwein
   Division of Reclamation
   Fountain Square, B-3
   Columbus, Ohio 43224

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A. (check the appropriate space)

   _____ This is a recommendation for an archeological survey of the proposed permit area based on the following reasons (attach addendum, if necessary):

A SHPO review of the area shown on the application map has provided a listing below of all known historic and prehistoric properties listed and eligible for listing on the " National Register of Historic Places" and known historic and prehistoric sites on the permit and adjacent areas (in a 1.5 mile radius). The listing includes, when appropriate, those historic and prehistoric structures identified by the applicant in items 7. and 8. above.

Listed and Eligible National Register Sites

Site Name (#)	Type	Proposed Area	Adjacent Area

Known Historic and Prehistoric Sites

Site Name (#)	Type	Proposed Area	Adjacent Area

B. _____A SHPO review of the area shown on the application map and information contained in this attachment finds that the proposed mining does not have a reasonable probability of affecting any properties listed or eligible for listing on the "National Register of Historic Places." Therefore, no further coordination will be necessary with this office unless the scope of the proposed application area changes.

State Historic Preservation Officer _____

SHPO # _____

Date _____

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