ATMOS energy

Atmos Gathering Company

Case No: 2009-00417

October 6, 2009

RECEIVED

OCT 09 2009

PUBLIC SERVICE COMMISSION

Mr. Jeff Derouen
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, KY 40601-8294
Office: 502-564-3940 x264
Fax: 502-564-3460

RE: Atmos Gathering Company
Request for Special Permit to Install Reinforced Thermoplastic Pipe (RTP) for Gas Gathering Projects in the Commonwealth of Kentucky

Dear Mr. Derouen:

Please find enclosed our request for special permit to install Reinforced Thermoplastic Pipe. If you have any questions, please contact me, my contact information is as follows:

Mr. Larry Moore
Director
Atmos Energy Corporation
5430 LBJ Freeway
Dallas, Texas 75240
Phone: 972-855-3741
Mobile: 972-342-8017
Email: larry.moore@atmosenergy.com

Respectfully,

Larry Moore

Director
Atmos Energy Corporation

Enclosure

cc: Ron McDowell
Doug Schroeder
Scott Newcomb

ATMOS energy

Atmos Gathering Company

REQUEST FOR SPECIAL PERMIT FOR INSTALLATION OF REINFORCED THERMOPLASTIC PIPE FOR GAS GATHERING PROJECT IN THE COMMONWEALTH OF KENTUCKY

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1 PURPOSE OF SPECIAL PERMIT:

Atmos Gathering Company requests that the Kentucky Public Service Commission and the Office of Pipeline Safety (OPS) grant Atmos Gathering Company a special permit to allow the installation and operation of Reinforced Thermoplastic Pipe (RTP) manufactured by Flexpipe Systems in accordance with the requirements of accepted relevant industry standards and the applicable requirements of USC 49 CFR Part 192 "Transportation of Natural Gas and Other Gas by Pipeline" in regulated Class-2 Locations for gas gathering pipeline operations within the State of Kentucky.

Atmos Gathering Company seeks to partner with Flexpipe Systems Inc., with approval from the KPSC and the OPS, to install this well proven flexible pipe system into regulated high pressure gas gathering service as part of the Shrewsbury/Park City Kentucky project, involving around 23 miles of gas gathering pipelines in 4" size with a maximum allowable operating pressure of 720 psig. Around 90% of the project corresponds to unregulated class 1 gathering areas, with around 10% in regulated class 2 gathering areas. With the special permit approval, the installations would occur based on project requirements in Class-2 locations beginning (targeted) December 2009, allowing the extension of the pipelines being installed in class 1 locations, into class 2 areas as required by the project execution.

2 AFFECTED CODE SECTIONS

Atmos Gathering Company seeks a waiver of certain requirements of Subpart B, Subpart C, Subpart I, Subpart J and Subpart L of 49 CFR 192. The exceptions are in two general categories:

1. Allowing Reinforced Thermoplastic pipe in federally regulated locations (Jurisdictional)
2. Adopting requirements and standards appropriate for RTP.

The following table outlines the main Code citations and the rationale for seeking this waiver:

Section	Section Title	Discussion/Rationale
192.53	General – Materials	Sub-paragraph (c) does not recognize RTP in meeting the requirements of the Subpart.
192.55	Steel Pipe	(a1) There is not presently a listed specification for RTP. (a2) Qualification requirements are specific to rigid steel pipe; do not apply to RTP.
192.105	Design formula for steel pipe	Not applicable for RTP
192.107	Yield strength (S) for steel pipe.	Not applicable for RTP.
192.109	Nominal wall thickness (t) for steel pipe.	Section does not address glass fiber reinforcement used in RTP.
192.111	Design factor (F) for steel pipe	Section does not provide design factors for RTP.
192.113	Longitudinal joint factor (E) for steel pipe.	Section does not apply to RTP. Factors not listed for RTP, joints, or end fittings.
192.221	Subpart E – welding	Butt welding of end connections follows ASME Section IX; material to be welded is carbon steel.
192.455	External corrosion control: Buried	Although cathodic protection systems are not

	or submerged pipelines installed after July 31, 1971	required for RTP as they are isolated from the external environment by an extruded thermoplastic sheath, Atmos Gathering Company intends to install a cathodic protection system for each steel fitting.
Subpart J 192.503b3	Maximum hoop stress	For RTP regression testing establishes the pressure rating of the pipe.
192.619	Maximum allowable operating pressure: Steel or plastic pipelines	Sub-paragraph (a) does not recognize an alternative design formula or method.

49 CFR 192 design requirements are based on classical analysis formulae developed for API 5L type line pipe fabricated from a homogeneous single layered material. This simple model is not appropriate for RTP, which has a multi-layered construction. Thus, Atmos Gathering Company seeks approval to use the design methodology and requirements from ASTM documents specified in API RP 15S, including ASTM D2992. Paragraph 5 below details the Flexpipe Systems design methodology in accordance with API RP 15S.

Flexpipe Systems Inc. has conducted stress and strain analysis supported by extensive qualification testing and successful field experience, demonstrating that the Flexpipe designs are conservative compared to requirements for applicable loads cases.

3 INTRODUCTION OF ATMOS GATHERING COMPANY

Atmos Gathering Company provides midstream services to the natural gas industry. The company has focused its business development efforts in Kentucky, Tennessee and Illinois. building/operating gas gathering systems, compression, storage and processing plants with offices in Owensboro, KY and Rocky Hill, KY. The company provides midstream, and gathering related services to small and medium-sized gas producers. Other services include, interconnect and meter runs, pre-drill/project planning assistance and field information technology solutions such as remote production, measurement and control.

Atmos Gathering Company's parent company is Atmos Energy Corporation (ATO). Atmos Energy Corporation, headquartered in Dallas, is the country's largest natural-gas-only distributor, serving about 3.2 million natural gas distribution customers in more than 1,600 communities in 12 states from the Blue Ridge Mountains in the East to the Rocky Mountains in the West. Atmos Energy also provides natural gas marketing and procurement services to industrial, commercial and municipal customers primarily in the Midwest and Southeast and manages company-owned natural gas pipeline and storage assets, including one of the largest intrastate natural gas pipeline systems.

Additional information can be found at www.atmosenergy.com.

4 INTRODUCTION OF FLEXPIPE SYSTEMS, INC.

Flexpipe Systems, a division of ShawCor Ltd., manufactures and sells a spoolable composite pipeline system used for oil & gas gathering systems, water disposal, CO2 injection pipelines, and other applications where a corrosion resistant, high pressure pipeline is required. Flexpipe Systems' manufacturing facility is located in Calgary, Alberta with additional sales, service and distribution facilities located throughout Western Canada, through the Rocky Mountain Corridor, and into the southern United States.

Flexpipe Systems began as a research and development initiative in 2001 with the intent to design a composite pipeline system which would provide the Oil and Gas industry an alternative to traditionally used steel and stick fiberglass. The innovative team that designed and developed the original pipe and fittings understood what was required by pipelining customers. The result was a composite, corrosion resistant, high pressure, coiled pipe and a reliable joining system that is durable, easy to handle and economically priced. Flexpipe Systems holds patents for its unique pipe and fitting designs.

The company's first commercial sale was in April of 2003. Since then, Flexpipe Systems' tremendous success has garnered the attention of many technological innovators and industry associations. A few accolades include:

- In 2006, Flexpipe Systems won the Regional IRAP Award for New Technology and was named Canada's top innovator at the Canadian Manufacturers and Exporters Sixth Annual Canadian Innovation Awards.
- Also in 2006, Regan Davis, President & CEO of Flexpipe Systems, was chosen from an impressive list of nominees and awarded the Ernst & Young Entrepreneur of the Year Award – Emerging Entrepreneur Prairies Region.
- In January 2007, Flexpipe Systems was recognized as a 'growth champion' and made Alberta Venture's 2007 List of "The Fast 50", ranking #6 in the "Over $20 Million" category.
- In January 2008, Flexpipe Systems made Alberta Venture's 2008 List of "The Fast 50", for the second year in a row ranking #17 in the "Over $20 Million" category.
- In June 2008, Flexpipe Systems won Energy-TV's "Best of the Best" Awards in the "Service and Supply - Pipeline" category.

In May 2008, Flexpipe Systems became a part of the ShawCor Ltd family joining six other ShawCor business units which focus on technology-based products and services for the pipeline and pipe services market. Becoming a member of the ShawCor family has given Flexpipe Systems the resources and support necessary to expand the sale of its products and services to the global market.

Flexpipe Systems is an ISO 9001 Certified Manufacturing Facility, and all procedures and documentation are in accordance with ISO 9001 Quality Standards.

The pipeline regulatory authority in Alberta is the ERCB (Alberta Energy Resources Conservation Board). The ERCB has routinely reviewed the FPLP test results, both from the lab and from the field. These have included the ASTM D2992 test results; field cut-out sample dissection and destructive testing results; and gas leak detection results from over 30 miles of varying pipeline applications and installations.

Flexpipe Systems has also had an internationally recognized, independent, ISO 9001 Certified Testing Laboratory audit Flexpipe's test procedures and test facilities. The conclusion of this audit stated "The results of the assessment indicate that Flexpipe Systems Inc. has in place the required equipment, procedures, and personnel to generate quality data in conformance with the requirements of the sections of the API RP 15S Standard indicated above".

Additional information about Flexpipe Systems Inc. can be found at www.Flexpipesystems.com

5 FLEXPIPE PRODUCT INFORMATION

Flexpipe Systems currently offers three product lines, with ratings of 2,068 kPa (300 psig), 5,171 kPa (750 psig), and 10,342 kPa (1500 psig) in 2", 3", and 4" sizes. The standard line pipe is supplied with a black jacket, which provides a minimum of 20 years protection against exposure to ultraviolet (UV) light. White Flexpipe line pipe is available for surface applications which require low heat absorption, and also provides a minimum of 20 years UV protection.

Codes and Standards

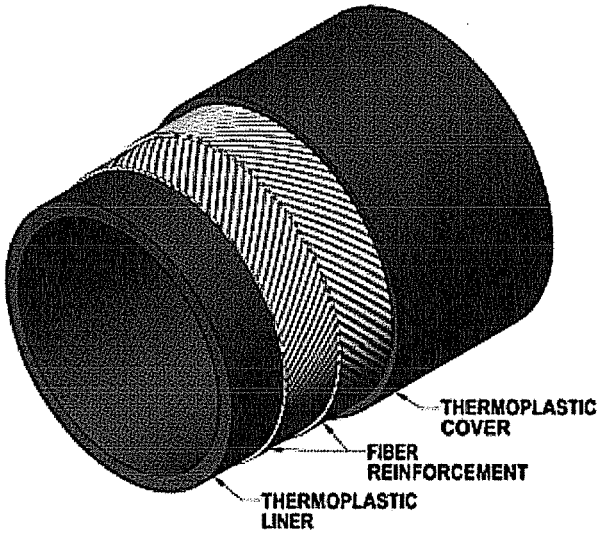
Standards that apply to Flexpipe products are primarily performance-based. This means that they emphasize the demonstration of the product capabilities through testing, rather than relying only on theoretical design calculations. A detailed theoretical design model serves as a starting point for Flexpipe product designs. The designs are validated through extensive testing in accordance with the standards requirements. The design of Flexpipe Systems' products is safe, reliable and complies with the requirements of the below listed standards and regulations:

- API (American Petroleum Institute) - Flexpipe products are designed, qualified, and manufactured in accordance with API RP 15S, "Recommended Practice for the Qualification of Spoolable Reinforced Plastic Line Pipe".
- ASTM International - Flexpipe meets the requirements of the ASTM documents specified in API RP 15S including ASTM D2992, "Standard Practice for Obtaining Hydrostatic or Pressure Design Basis for Fiberglass Pipe and Fittings".
- ASME - Flanges incorporated in Flexpipe Flanged Fittings are compliant with the requirements of ASME B16.5, "Pipe Flanges and Flanged Fittings".
- CSA (Canadian Standards Association) - Flexpipe products meet the requirements of CSA Z662-07, "Oil and Gas Pipeline Systems", which covers the design, construction, operation, and maintenance of oil and gas industry pipeline systems.

An ASTM Work Item to develop a standard for Reinforced Thermoplastic Pipe (RTP) has been initiated under ASTM Work Item Number WK11803 within ASTM Subcommittee F17.11 (Composite Plastic Piping Systems). The draft of the proposed new standard is currently under review by the committee, and is nearing completion.

Product Design

Flexpipe line pipe (FPLP) is manufactured at the state-of-the-art Flexpipe facility in Calgary, Alberta, Canada. FPLP is a fully patented three-layer design constructed from a thermoplastic liner (liner), helically wrapped continuous high-strength fiber reinforcement (fiber) and an external thermoplastic jacket (jacket). The liner acts as a bladder, the fibers provide strength, and the jacket protects the load bearing fibers.

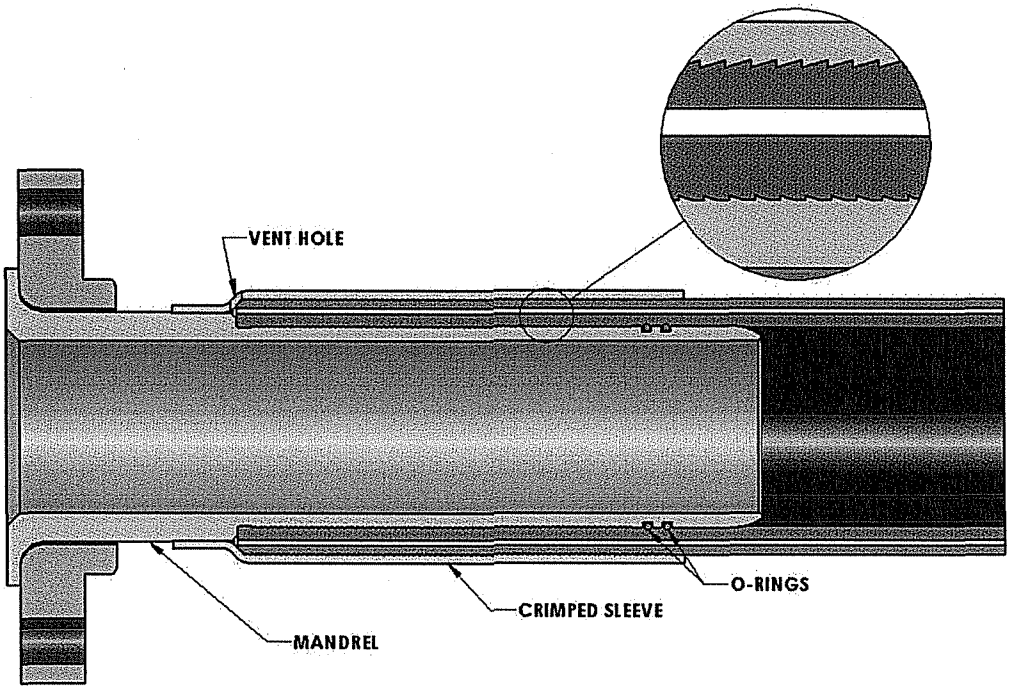


This construction is unique and has the following advantages:

- The fiber reinforcement is not encased in a thermosetting matrix and is therefore flexible, avoiding potential micro-cracking or over-straining of the matrix material.
- FPLP is very durable and easy to handle.
- The simplicity of construction reduces the manufacturing costs.
- The fiber reinforcement enables design for high-pressure applications.
- The liner ensures that the FPLP is immune to corrosion.
- The continuous, long-length FPLP spools facilitate fast and easy installation with fewer connections and less disturbance to impacted parties.
- Environmental impact and soil disturbance can be reduced since FPLP can be trenched with a narrower trench and right of way than steel line pipe, or plowed in without trenching.

Joining System Design

The fitting consists of a mandrel that is inserted into the pipe, and a sleeve that is crimped around the pipe. The mandrel and sleeve are both equipped with uni-directional teeth that securely grip the liner and jacket of the pipe. Crimping the sleeve creates very high permanent clamping pressure, which holds the fiber reinforcement securely in place. The fitting system does not require the application of heat or adhesives in order to bond components together.



Cutaway View of Flexpipe Fitting

The mandrel is sealed to the liner by the clamping pressure. For additional security, the mandrel is equipped with two o-rings that provide an additional seal.

The vent hole in the sleeve allows the annulus of the pipe (the space between the liner and jacket which contains the fiber reinforcement layer) to vent freely at each fitting. This allows any gases that may have permeated through the liner to escape, and prevents any pressure buildup in the annulus.

Flexpipe fittings are installed in a two-step process, using portable installation equipment. In the first step, the mandrel is inserted into the liner. In the second step, the sleeve is crimped to the pipe. The fitting is supplied with the sleeve already welded to the mandrel to hold it in the correct position. Flexpipe fittings can be installed in the field in about 20 to 30 minutes.

Joining System Materials

Standard Flexpipe fittings are manufactured from seamless steel that meets the requirements of NACE MR0175 for sour service. See the table below for a full list of materials used in Flexpipe fittings. Material certificates are reviewed by Flexpipe prior to manufacture of the fittings, and are retained as part of Flexpipe's QC System.

Weld neck fittings are manufactured using the same alloy steel material as flange and coupling fittings, with a short carbon steel pup welded to the end of the mandrel. This pup makes the weld neck fitting suitable for field-welding to standard carbon steel pipe and fittings of various pipe schedules, with no special weld procedures required.

Flexpipe Fitting Material List

Part	Material type	Material Grade(s)
Mandrel	Alloy steel[a]	AISI 4130 or 4140
Sleeve	Carbon steel[a]	ASTM A106, A333, A513, or A519
Flange (flanged fittings only)	Carbon steel[a]	ASTM A105 or ASTM A350 LF2
Weld neck fitting welding end	Carbon steel[a]	ASTM A106 or A333
Flow joints	Carbon steel[a]	ASTM A234 WPB or ASTM A420 WPL6
O-rings	Viton[b]	75 Durometer
Coatings[c]	Electroless Nickel	

[a]Meets requirements of NACE MR0175 for sour service
[b]Special o-rings are available for high-pressure CO_2 service
[c]Weld neck fittings are not coated

Joining System Manufacturing
Flexpipe fittings are manufactured, coated, assembled, and labeled according to Flexpipe specifications by suppliers whose processes have been qualified by Flexpipe. Flexpipe routinely verifies and audits the QC programs of these suppliers.

All welding required for the manufacture of Flexpipe fittings is performed in shop conditions, by suppliers qualified to Flexpipe's weld procedures. These procedures are specific to the materials used, and include appropriate heat treatments and inspections.

Flexpipe fittings are internally coated with an electroless Nickel layer. External corrosion control of installed Flexpipe fittings is achieved by the application of a corrosion resistant tape system. When applied according to the product data sheet supplied with the tape, the system meets AWWA C217. Corrosion control via cathodic protection is also an option. Flexpipe's solution consists of a ribbon anode attached to Flexpipe fittings, taped lengthwise for ease of plowing.

Testing
Flexpipe Systems is committed to ensuring that its products are rugged, reliable, and safe. Flexpipe line pipe is tested together with fittings as a complete system. This system has undergone extensive testing to demonstrate that it meets and exceeds the strict requirements of API 15S.

Flexpipe strongly believes that its products should perform as well under field conditions as in the laboratory. Therefore, Flexpipe has gone beyond the strict requirements of the applicable standards, and has developed its own procedures to test field handling of FPLP and related equipment.

Some of the specific tests in Flexpipe Systems' testing program are listed in the table below. These tests have resulted in a comprehensive base of knowledge about product performance under a wide variety of service conditions.

Flexpipe Pipe and Fitting Tests and Applicable Standards

Test Description	Applicable Standard(s)
Regression pressure testing	ASTM D2992 Procedure B API RP 15S Section 5.1.2.3
Elevated temperature pressure testing	API RP 15S Section 5.2.1
Low temperature pressure testing	ASTM D1599 Procedure A
Minimum bend radius pressure testing	API RP 15S Section 5.3.2
Installation pressure testing – samples retrieved after liner insertion	ASTM D1599 Procedure A
Installation pressure testing – samples retrieved after plowing	ASTM D1599 Procedure A Flexpipe Test Procedure 10-0942
Short term burst pressure testing	ASTM D1599 Procedure A API RP 15S Section 5.1.2.3
Cyclic pressure testing	API RP 15S Section 5.1.5.1 Flexpipe Test Procedure 10-0941
Pressure testing - samples subjected to reverse bending	API RP 15S Section 5.1.2.1
Axial load testing	API RP 15S Section 5.3.3
Vent testing - gases venting from annulus	API RP 15S Section 5.3.1
Impact resistance testing	API RP 15S Section 5.5.2
Thermal expansion & pressure-expansion testing	API RP 15S Sections 5.5.4 and 5.5.5
Kink testing	Flexpipe Test Procedure 10-0940
Fitting gas leak testing	API RP 15S Section 5.3.1
Thermal cycle testing	Flexpipe Test Procedure 10-0945
External load testing	ASTM D2412

Quality Control

Quality control (QC) is critical to the Flexpipe linepipe manufacturing process. Flexpipe Systems is an ISO 9001:2008 certified manufacturing facility. From supplier evaluation and approval to the qualification of every reel of finished FPLP, quality control data is diligently reviewed and evaluated. Flexpipe Systems is committed to using suppliers that provide material-composition data and maintain certification and QC test results for all raw products. Material certification and traceability is critical to Flexpipe Systems' quality assurance program that cohesively links raw materials with production records. As part of the quality control program Flexpipe burst tests two pipe samples, one from the pipe reel beginning, and the other from the pipe reel end, as per ASTM D 1599.

Reliability

In order to satisfy Canadian regulatory requirements, Flexpipe has cut out and tested a number of pipe samples after two years of service to validate the long-term performance of FPLP. In all cases, destructive burst testing results of the cut-out samples exceeded the minimum acceptable levels. In addition, detailed dissections were carried out and none of the samples showed any indications of degradation. The results of the destructive burst testing demonstrate that there is no degradation of pipe performance after two years of service.

In addition, approximately 53 km (174,000 feet) of in-service gas gathering pipelines, including over 140 coupling and end fittings, have been tested for gas leaks by an independent emission detection company. No gas was detected along any of the pipelines and only trace amounts of gas were detected at the surface end fitting vent

holes, as expected. In fact, the only high gas concentrations detected during leak testing were discovered to be leaks in the threaded connections of nearby steel piping.

Flexpipe Track Record

FPLP has a successful track record with over 26-million feet of pipe sold and installed into the oil, water, CO_2, H_2S, & gas gathering markets. FPLP has also been licensed and installed in five gas distribution applications in Canada. These lines have all been successfully operating in ranges between 500 and 1400 psi. Further details and references are available on request.

6 PRODUCT ADVANTAGE

Flexpipe line pipe provides the gas gathering industry opportunities to control corrosion, improve pipeline safety, improve worker safety, and simplify field operations. FPLP may be installed by trenching, plowing, pull-in or horizontal directional drilling. It is suited for both new construction as well as rehabilitation of existing steel pipelines. After careful consideration by Atmos Gathering Company of various pipeline systems, Flexpipe line pipe was deemed the most advantageous choice. The use of Flexpipe provides the following advantages:

- Corrosion Resistance - Flexpipe is a corrosion resistant product with a design life of 50 years. Other pipeline types considered included a 4-inch welded steel pipe. The 4-inch welded steel pipeline does not offer the corrosion resistance afforded by the internal and external extruded thermoplastic sheaths of the Flexpipe Systems pipe.
- Long length - One mile of welded steel pipe will have 133 joints whereas one mile of 4-in Flexpipe pipe will only have 1 (one) joint. This provides a greatly reduced number of potential leak paths versus the welded steel pipe.
- Narrower Right of way - The installation of Flexpipe line pipe requires a narrower right of way and can be installed using horizontal directional drilling equipment. This less intrusive installation method will minimize ground disturbance and be less problematic for the general public.
- Faster Installation - The Flexpipe pipe installation will proceed far more rapidly with fewer personnel required. A three man crew can install a length of Flexpipe in one day versus a six man crew working four days to install a similar length of welded steel pipe.
- Cathodic Protection - The welded steel pipe will require cathodic protection and corrosion inhibitors to mitigate internal and external corrosion. Flexpipe is inherently non-corrosive.

7 INSTALLATION DETAILS

The location for installation of Atmos' proposed Flexpipe line pipe project is from Shrewsbury, KY to the Park City, KY area. See Exhibit A: Map of the Pipelines Proposed to be installed as part of this special permit.

SCADA or similar computerized monitoring of the gathering pipeline will be utilized.
Should this special permit be approved, there would be no increased risk to the general public including locations within 220 yards of the pipeline. Atmos Gathering Company believes that these pipelines will provide an improved safety environment. Also, all applicable tests, inspections, and surveys for operations and maintenance of the jurisdictional (Location Class 2) gathering pipeline would continue to be performed and documented as required by 49 CFR 192.

8 TECHNICAL DETAILS

Design Life
The design life for this installation will be a minimum of 50 years.

Pressure Design Basis and Design Factor
The Pressure Design Basis has been calculated as per the methodology described in ASTM D2992. A Design Factor of 0.4 was chosen as per direction provided from the November 12, 2007 meeting of ASTM Subcommittee F17.11. Confidential test data is available.

Cyclic Pressure Performance
Confidential test data is available.

Pipe Details
The pipe marking will be spaced at intervals of 2 feet. The Flexpipe will be black in color. A 12 gauge tracer wire will be placed on the outside of the Flexpipe.

Fitting Corrosion
Mechanical fittings are internally protected from corrosion by electroless Nickel coating. External corrosion will be mitigated with the use of the Denso Tape anti-corrosion system, which meets AWWA Standard C217, "Cold Applied Tape Coating for the Exterior of Fittings in Buried/Submerged Steel Water Pipelines".

As an additional assurance, cathodic protection using a sacrificial anode kit will be used for every Flexpipe buried metallic fitting. As Flexpipe Line Pipe is electrically non-conductive, cathodic protection via impressed current is not applicable.

Burial Depth and Crossings
The pipeline will be buried to a depth of 30 inches in accordance with 49 CFR 192

Operator Qualification and Installation Oversight
Flexpipe Systems will provide installation services to the installation contractor selected by Atmos Gathering Company. These will include pipe and fitting installation training and certification, communication of the Flexpipe Systems Pipe Installation Guide, and construction oversight during the installation.

Installation Testing
The pipeline will be hydrotested for 8 hours at a minimum of 1.25 x MAOP prior to being placed in service.

Valve Placement and Squeeze-Off
Due to safety considerations of field personnel, Flexpipe Systems does not recommend squeeze-off of Flexpipe products. Valve stations will be placed a maximum of 2 miles apart.

Repair of Damaged Pipeline
In case of a ruptured or leaking pipeline, the damaged section of pipeline will be isolated and depressurized to 0 psi. Flexpipe Systems will have an on-call Regional Service Technician and appropriate joining equipment available and on-site for emergency repairs.

9 OPERATION AND INTEGRITY DETAILS

Atmos Gathering Company will install, operate, and maintain these pipelines in accordance with guidelines set forth by 49 CFR 192 regulations covering plastic pipe.

Atmos Gathering Company current written Operations and Maintenance Plan will be amended to include the Flexpipe Systems pipe criteria as well as procedures for each inspection and test required by 49 CFR 192. The manual is reviewed and updated at no less than once per calendar year, not to exceed 15 months, and will continue to be done in the future, making sure that all aspects of the Flexpipe Systems maintenance procedures/needs are accurately conveyed in the Operations and Maintenance Manual.

For the Atmos Gathering Company Operator Qualification program, any changes to the written plan, required by the use of Flexpipe will be made and documented. Formal training will be received by all employees/personnel conducting required inspections, testing, and maintenance tasks on the Flexpipe. This training will be documented and the records will be retained by Atmos Gathering Company as long as the employee is still performing covered tasks on the pipe, and for 5 years after the employee leaves the service of Atmos Gathering Company. Atmos Gathering Company will utilize Flexpipe Systems and their qualified personnel for any repairs to the pipeline, and will retain the qualification documentation for these Flexpipe Systems personnel, should they be utilized.

Currently, Atmos Gathering Company has in place a formal written Integrity Management Program, as required by 49 CFR 192 Subpart O.

Management of Change

Flexpipe Systems pipe information and specifics will be communicated to all affected personnel and contractors. This Management of Change process will be documented and tracked through the current integrity management program as the written plan requires.

Scheduled Field Cut-Out

The specific requirements for this application will include a scheduled inspection 2 years after installation. This will involve removal of two 10 foot pipe segments for both non-destructive and destructive testing. Non-destructive testing will focus on visual and dimensional inspection. The destructive testing shall include:

- A hydro test to burst pressure.
- Glass reinforcement tensile testing.
- HDPE liner tensile testing.

This information will be used to evaluate the long-term integrity of the pipeline. This evaluation will be shared with the Office of Pipeline Safety and an appropriate inspection path forward will be determined as required, which may include further scheduled pipe segment testing. A test section, or other means, will be installed in order to remove up to 5 samples for testing.

10 FLEXPIPE CUSTOMER LIST

United States Flexpipe customer list, excluding Canadian users. At the completion of year 2008, Flexpipe had been installed on projects amounting to 20,000,000+ feet.

If needed, contact information can be provided for any of the users listed below.

1. Cimarex Energy Co
2. Chesapeake Energy Corporation
3. Antero Resources Corporation
4. Zenergy, Inc.
1. XTO Energy
2. Windsor Energy Resources, LLC.
3. Cumming Company
4. Williams Production RMT Company
5. Branta Production Company, LLC
6. Baron Exploration Co
7. Bridger Pipeline, LLC
8. Clayton Williams Energy, Inc
9. Williams Exploration and Production (Tulsa)
10. Antero Resources Corporation
11. Denbury Resources
12. Williams Exploration and Production
13. BTA Oil Producers
14. The Cumming Company, Inc
15. St. Mary Land & Exploration Co.
16. ChevronTexaco USA
17. ConocoPhillips Company
18. Sheffield Rentals
19. Citation Oil & Gas Corp
20. Samson Investment Company
21. Plains Exploration & Production Co.
22. Chroma Operating, Inc
23. Petrohawk Energy Corporation
24. OXY USA Inc.
25. Occidental Oil and Gas Company
26. Marathon Oil Company
27. GMT Exploration Company
28. Exco -North Coast Energy, Inc.
29. Etoco LP
30. Devon Energy Corporation
31. Enervest Operating, LLC
32. Encore Operating, L.P.
33. EnCana Oil & Gas USA
34. El Paso Field Services
35. El Paso Exploration & Production

11 MATERIAL AND INSTALLATION COMPARISION

Material and Installation cost/benefit analysis were performed in order to comply with Atmos Energy's - Project & Necessity (P&N) expenditure justification. Materials used in the cost comparison were 4" (X-42) carbon steel pipe vs. 4" Flexpipe with an MAOP (Maximum Allowable Operating Pressure) of 750 psi.

MATERIAL COST

Atmos Energy's procurement department accepted pipeline manufactured mill bids for 120,000 feet of 4" (X-42) carbon steel pipe from the two supply companies used throughout Atmos' 12 States service areas. Bids for carbon steel pipe were between 35 to 45 percent higher as compared to Flexpipe.

INSTALLATIONS COST

Installation procedures for carbon steel pipeline projects typical utilize ditching or backhoe type equipment to create the ditch needed to install the pipe. Once the ditch has been created welders connect (weld) 40 or 60 foot sections of pipe together. This is followed by lowering the welded pipe into the ditch using caterpillar type sideboom crawlers. These activities occurr simultaneously along the Right-of-Way (ROW) requiring space for equipment (welding, fuel, supervisor, crew and supply trucks and backhoe, sideboom and ditching machines) to pass one another along the ROW.

Flexpipe can be installed using two processes. Flexpipe 4" is delivered to the project site on 12' dia. X 8' wide spools which are placed on an "A" frame device which allows the 2,000' spool of pipe to be uncoiled/pulled by hand and placed along the ROW. If the project uses backhoe type ditching, once this process is complete, a hydraulic coupling device is used to connect the pipe together every 2,000 feet (less than every ½ mile). The pipe is then lowered into the ditch by hand. Another alternative to using the backhoe process to install Flexpipe is plowing. This process has become very successful by a plowing configuration named "Spiderplow". The system has demonstrated the ability to install 2 miles per day.

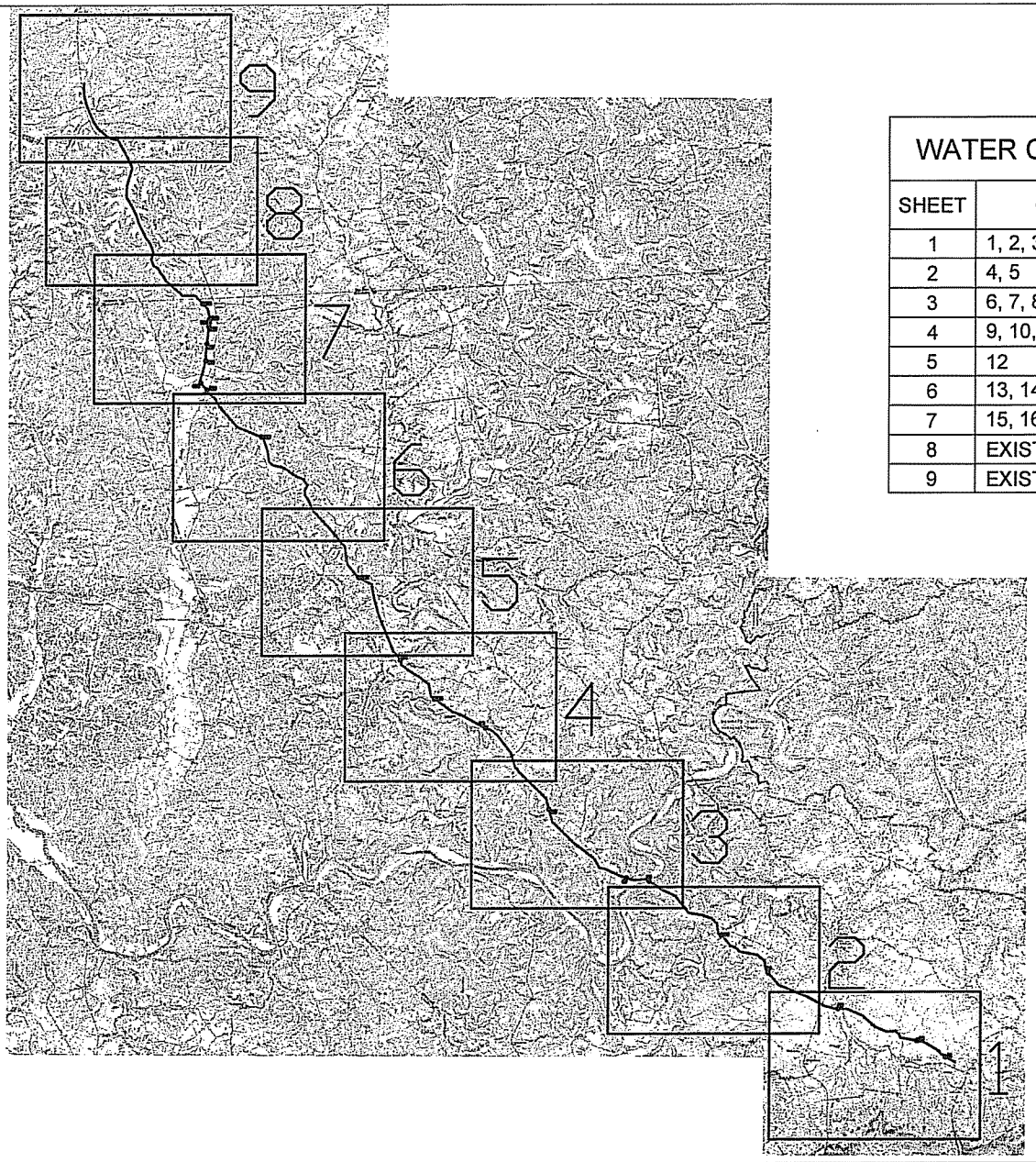
Total cost comparisons take into considerations the following:

1. Coiled Flexpipe pipe (2,000 lengths) reduces the number of connections, as compared to using carbon steel pipe, from 50 (40' sections) or 33 (60' sections) to 2.
2. Plastic pipe removes the need for sideboom equipment to lower pipe into the ditch.
3. ROWs can be smaller due to less equipment needed reducing environmental impact and easement cost.
4. Plastic pipe does not deteriorate over time due to corrosion.

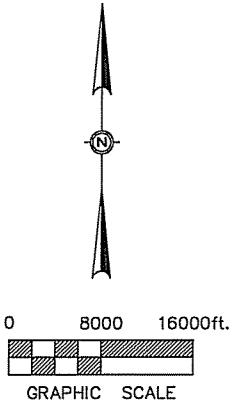
Anticipated cost saving (carbon steel vs. Flexpipe) vary from 27% to as high as 52% depending on the ground conditions (rock) encountered during installation. The savings are achieved by reducing material, horsepower, labor and time requirements. The one unknown that cannot be quantified, but can significantly impact the project cost is (as all project managers know) is weather.

12 CONCLUSION

Flexpipe line pipe is a reliable, proven, and economical alternative to conventional steel line pipe. The pipe is already in use by various operators in the US and Canada, and has a successful track record with more than 6 years in service. Atmos Gathering Company requests a waiver of certain parts 49 CFR Part 192 to permit the installation and operation of Flexpipe line pipe for gas gathering in Class 2 locations within the State of Kentucky. Atmos Gathering Company seeks to partner with Flexpipe Systems to supply line pipe which will improve overall safety, integrity and reliability. Atmos Gathering Company will GPS locate and record all buried Flexpipe line pipe connectors and valves.



WATER CROSSINGS	
SHEET	CROSSING #
1	1, 2, 3
2	4, 5
3	6, 7, 8
4	9, 10, 11
5	12
6	13, 14
7	15, 16, 17, 18, 19, 20, 21
8	EXISTING LINE
9	EXISTING LINE



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ATMOS energy

ATMOS CORPORATE
SHREWSBURRY KY PIPELINE
EDMONSON & GRAYSON CO.
OVERVIEW
TOPOGRAPHY MAP

UPDATE DATE: 8-Sep-09
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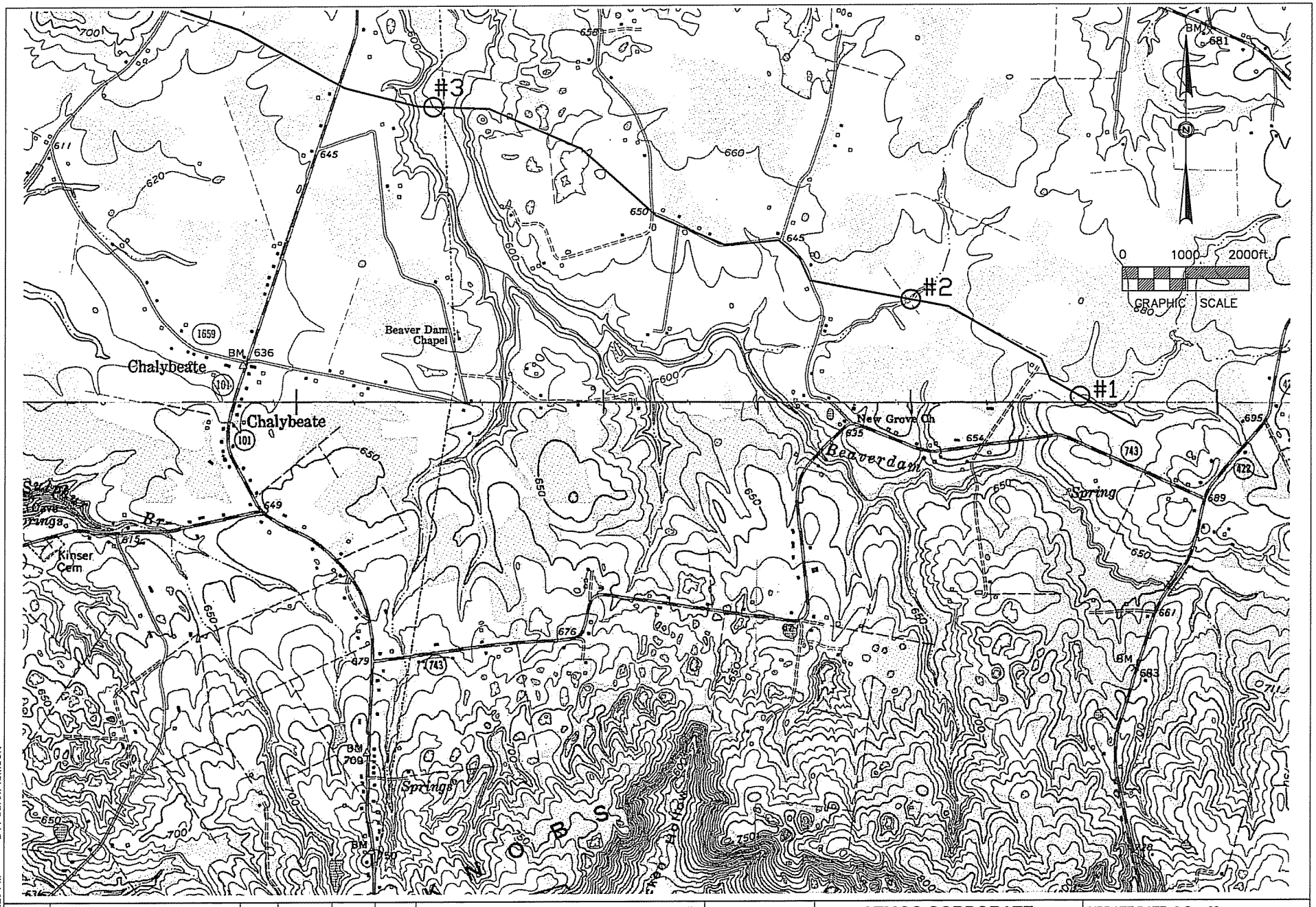
Overview

SHT 01 OF 10



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Sheet1

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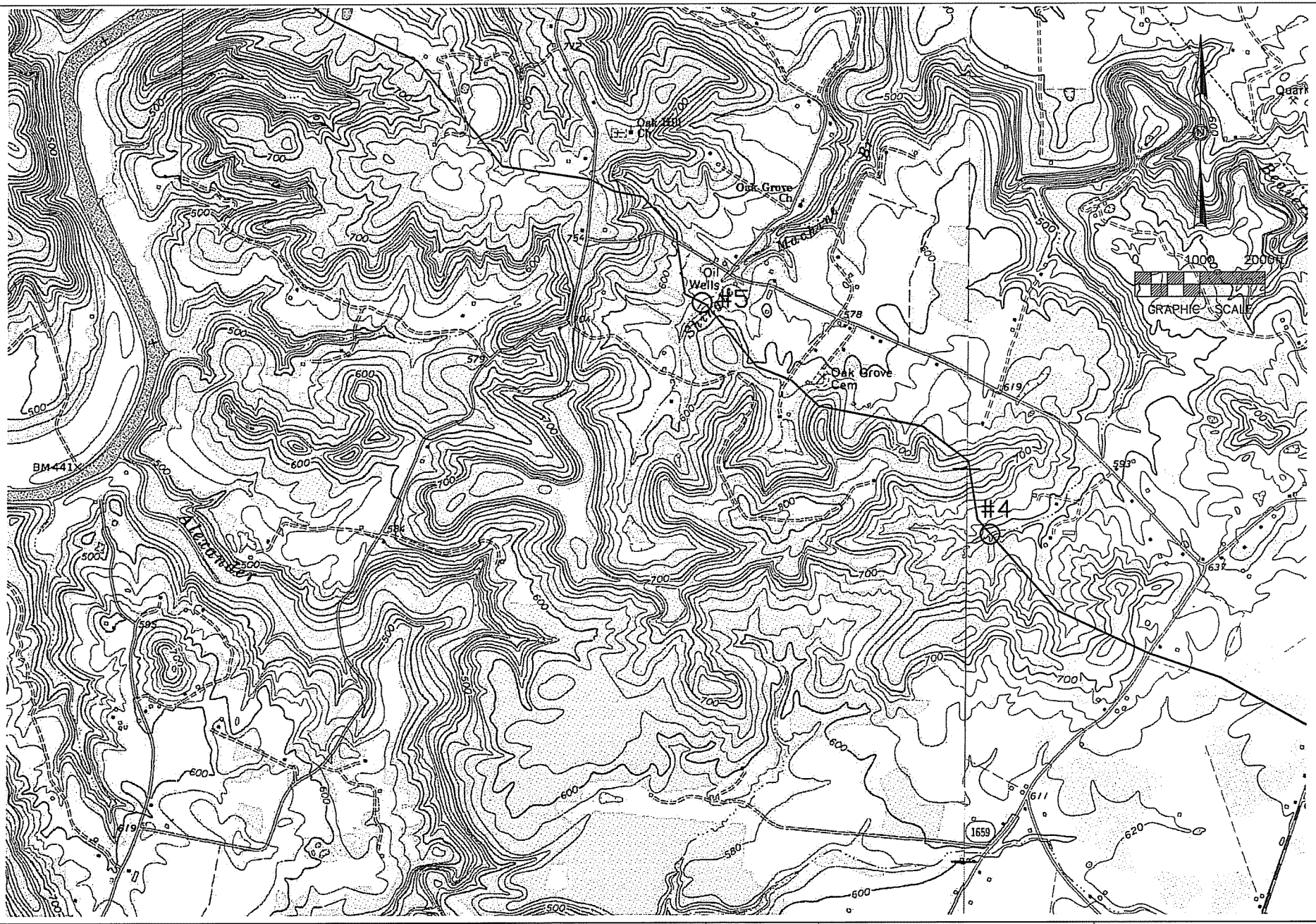

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Sheet2

SHT 03 OF 10

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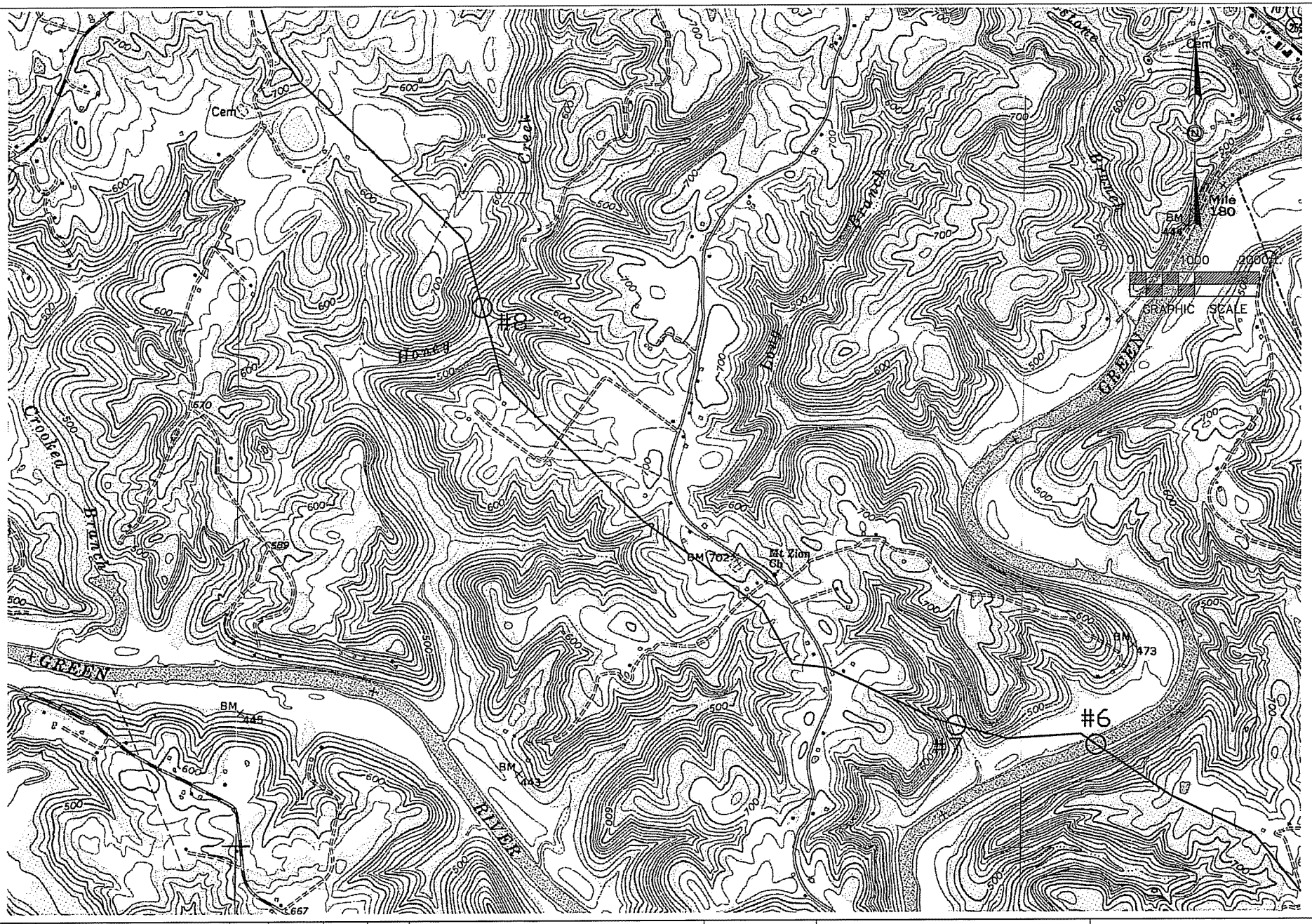

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Sheet3

SHT 01 OF 10

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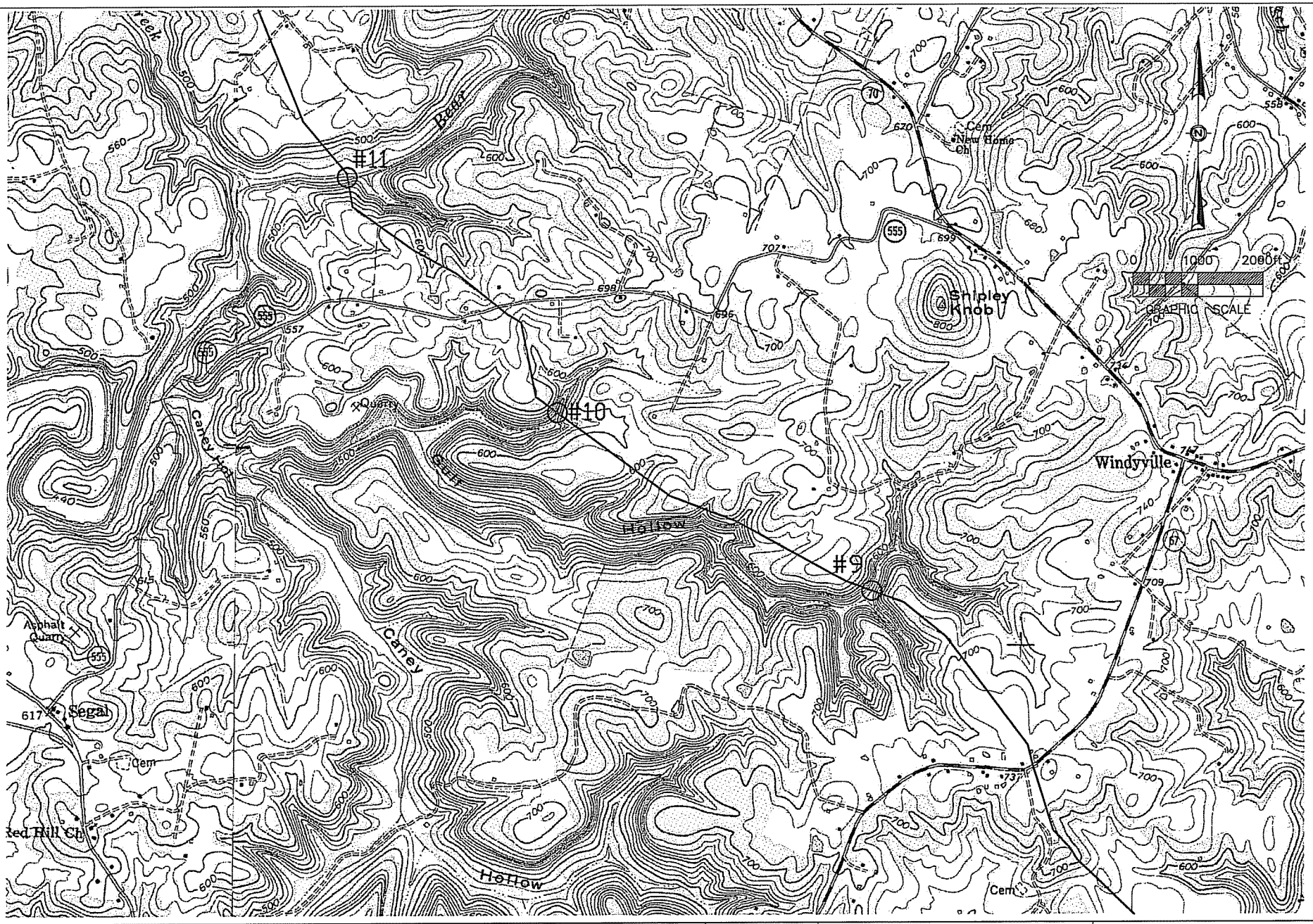

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TOPOGRAPHY MAP

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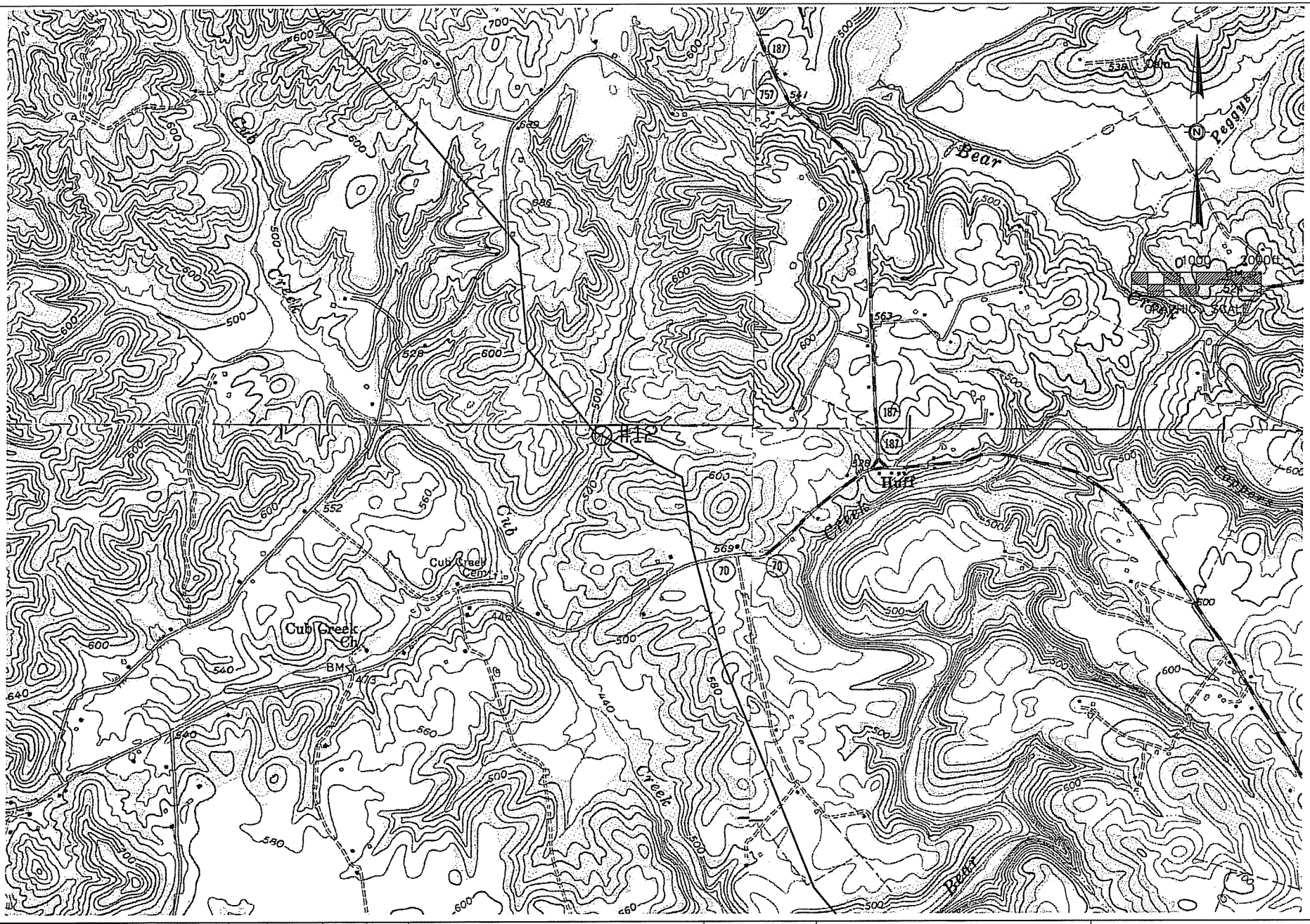

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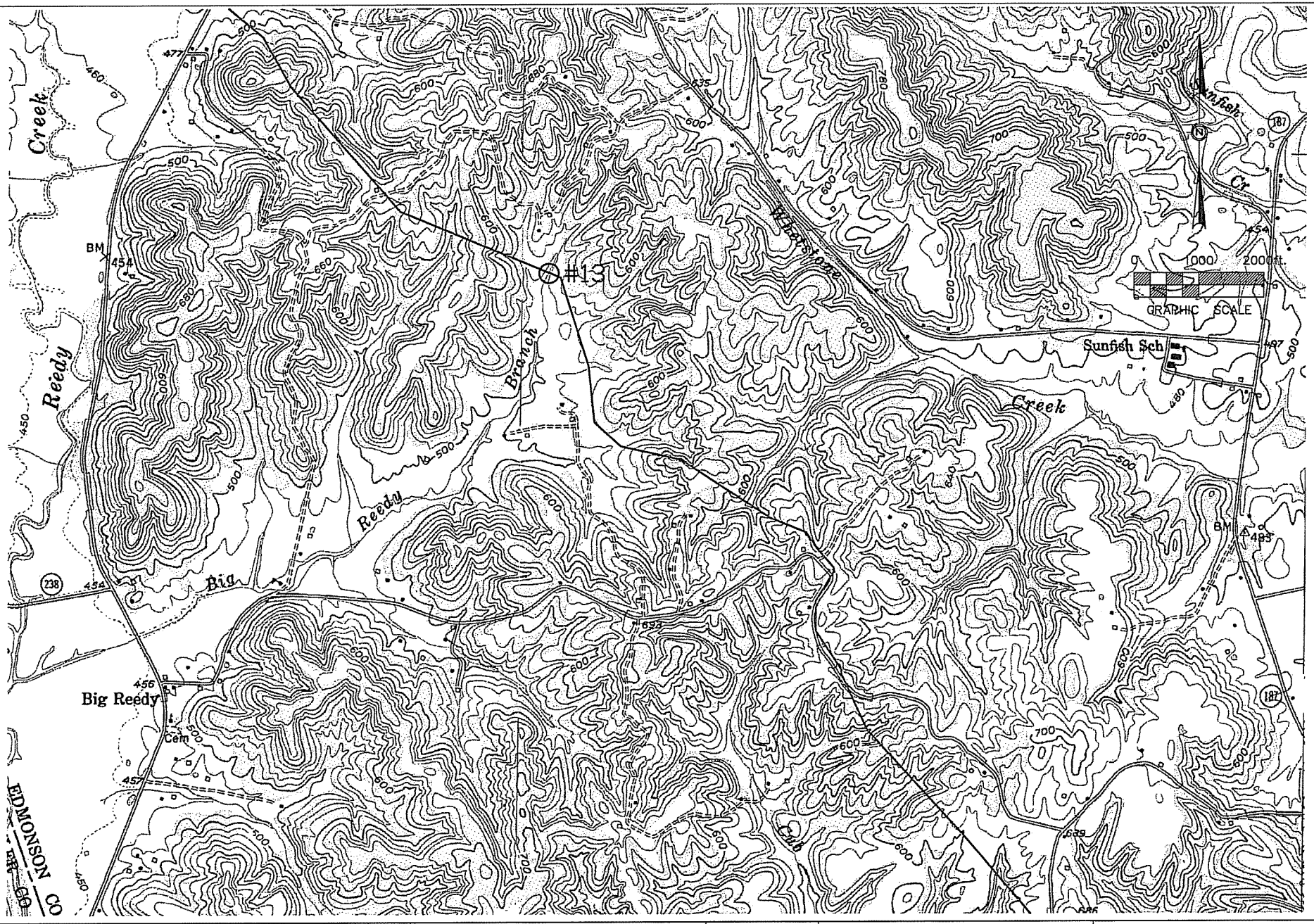

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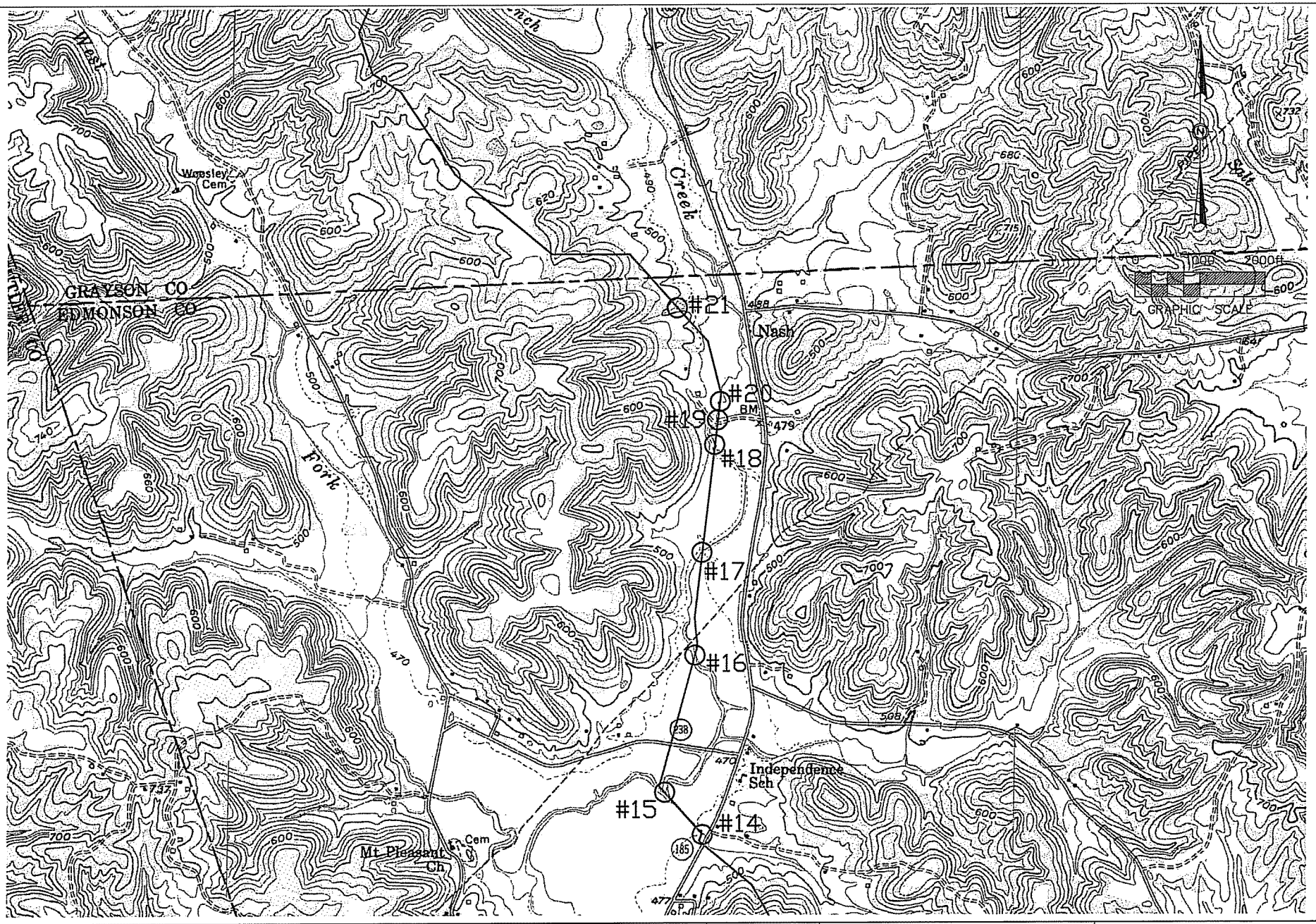

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Sheet7

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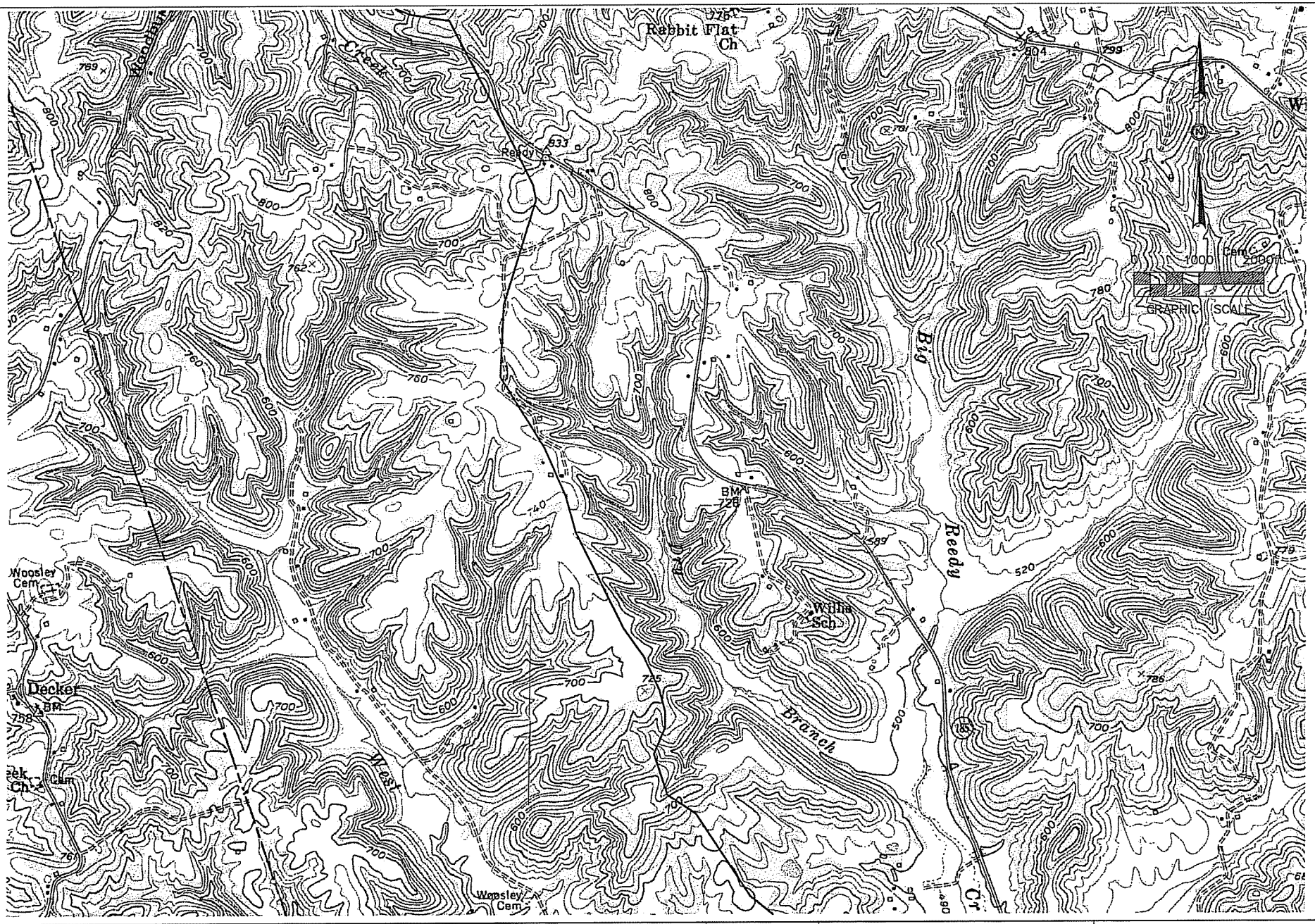

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