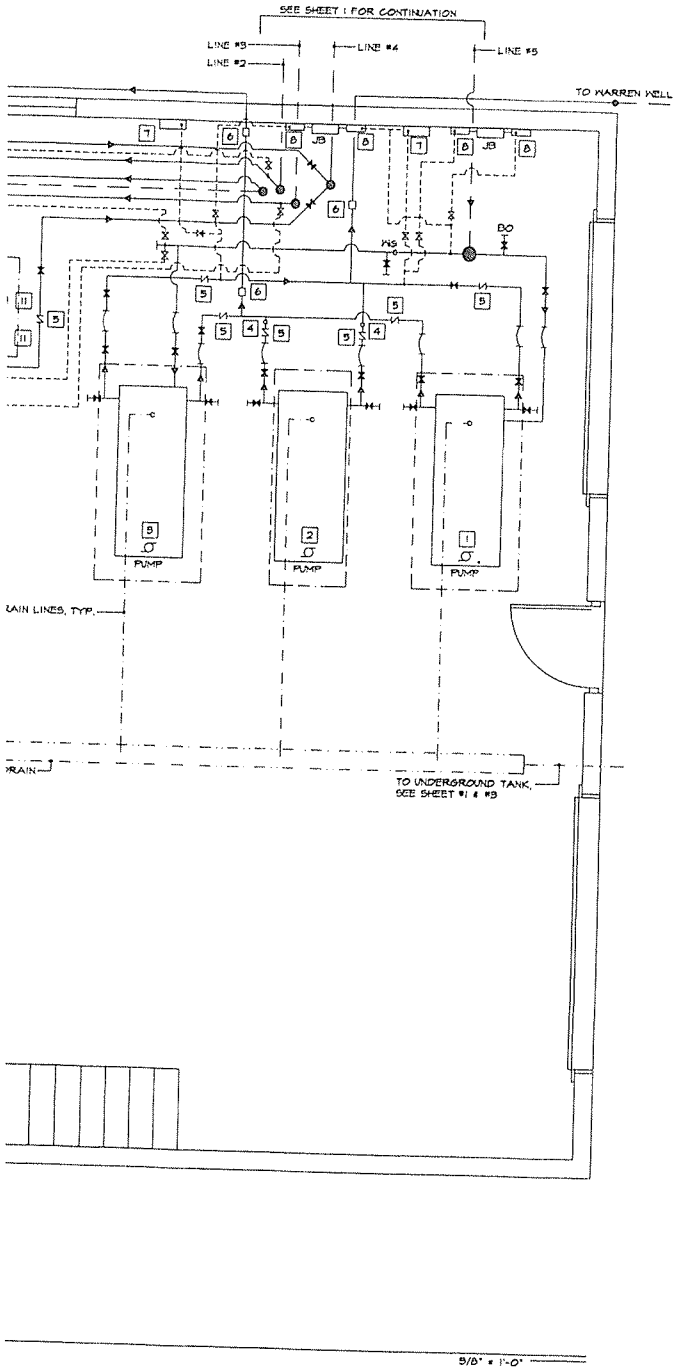


PUMP HOUSE PLAN
SCALE



MARK	DESCRIPTION	MODEL	ELECTRICAL	REMARKS
1	PUMP WORLDWIDE ELECTRONIC CORP	MO. WWH-TS-12-MOST HIGH TORQUE DESIGN C	75HP 280/460V, 3-PH 109.9/41.6A	
2	PUMP BALDOR-RELIANCE	MO. PB6C3425	60HP 240/460V, 3-PH 136/60A	
3	PUMP BALDOR-RELIANCE	MO. PB6C3425	75HP 280/460V, 3-PH 125/66.7A	
4	PROBE			
5	CHECK VALVE WHITTLE-NEHER SYSTEMS, INC.	2160 A216 INCB		
6	FLOW METER BLANGETT SLAB MOUNT	32800 SERIES		
7	METER ITT BARTON			
8	METER FN MURPHY W.C. PRESSURE	MO. OPLHADPS-20	RATING: 126 VAC TYPE BR	
9	PUMP PEERLESS PUMP CO.	MO. D190 STP		
10	MOTOR BALDOR INDUSTRIAL MOTOR	MO. M2294T	15HP 208-230/430V, 3-PH 37.5-34/17A	
11	FILTER			
12	PUMP PEERLESS PUMP CO.	MO. D190 S		
13	MOTOR BALDOR INDUSTRIAL MOTOR	MO. M2294T	15HP 208-230/430V, 3-PH 37.5-34/17A	
14	MOTOR FMC TECHNOLOGIES ENDRESS-HAUSER	PROMASS P CLASS I DIV. I		
15	LOAD RACK CONTROL TOFTECH SYSTEMS MULTI-LOAD II	MO. 5K-P DND		

- LEGEND**
- X GATE VALVE
 - S CHECK VALVE
 - RIGID IN-LINE
 - - - RIGID OUT-LINE
 - - - INSTRUMENT LINE
 - - - STORM LINE
 - - - CHEMICAL DRAIN LINE
 - - - UNDERGROUND LINE
 - - - DRAIN LINE
 - FLEXIBLE CONNECTION
 - PIPE PASSING THROUGH FLOOR
 - BRANCH LINE
 - PIPE PASSING THROUGH FLOOR W/ GATE VALVE
 - FLOW DIRECTION
 - (FE) FIRE EXTINGUISHER
 - (JB) ELECTRICAL JUNCTION BOX
 - (BO) BLEED-OFF VALVE
 - (WS) WATER GAUGE

PROJECT
1106

PLOT SCALE
36" x 24"
3/8" = 1'-0"

REVISIONS

PUMP HOUSE
TRIAD HUNTER DISPOSAL FACILITY
STATE ROUTE 801
DEXTER CITY, OHIO

Michael H. Scott, P.E.
A. R. C. H. I. T. E. C. T.
4000 Coleridge Drive
Troy, Ohio 45326-2500
760-371-0200

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3/8" = 1'-0"

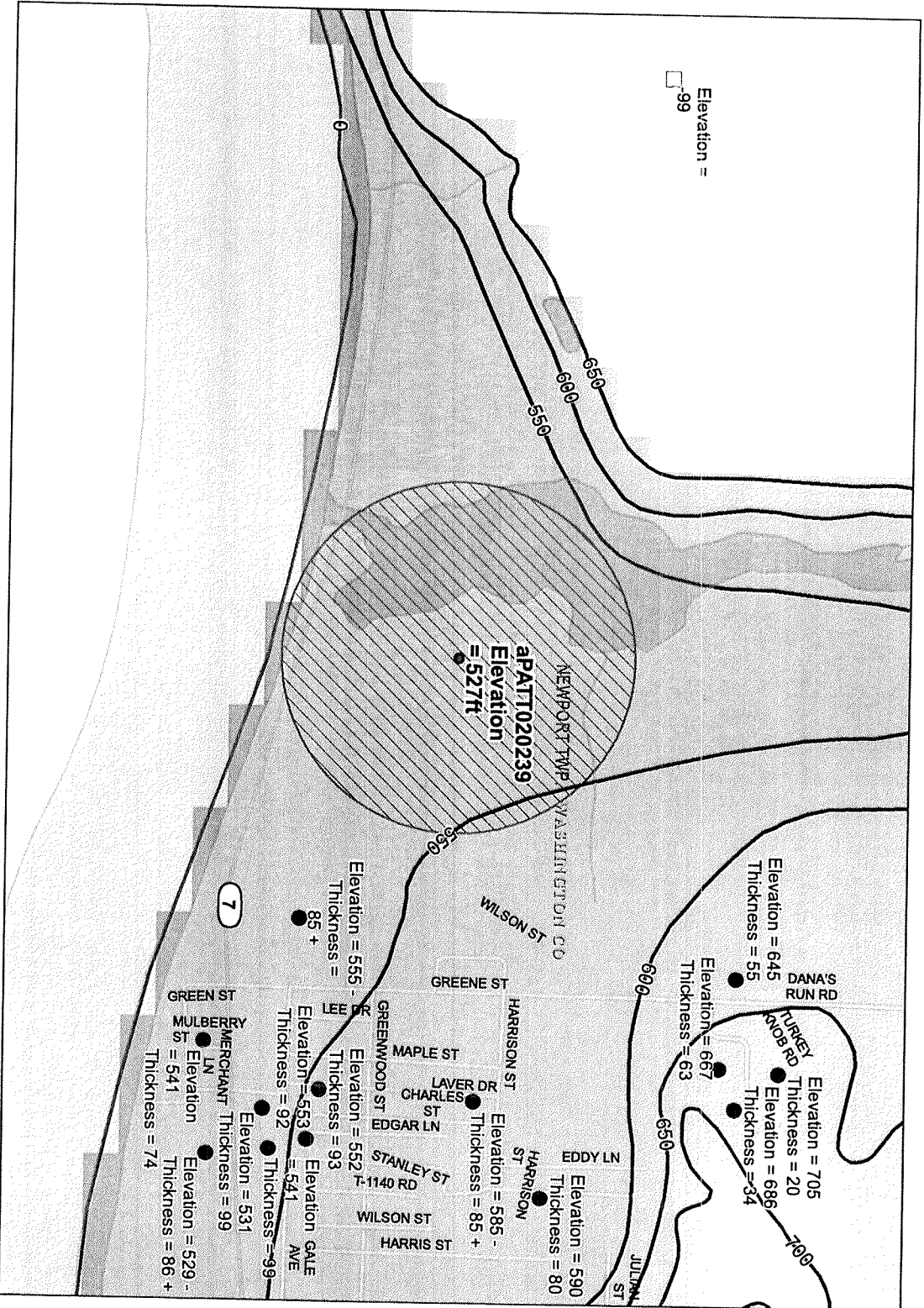
Ohio Division of Geological Survey, 2003, Structure map of the Upper Freeport coal, unpublished digital (GIS) map.

Patchen, D.G., Hickman, J.B., Harris, D.C., Drahovzal, J.A., Lake, P.D., Smith, L.B., Nyahay, Richard, Schulze, Rose, Riley, R.A., Baranoski, M.T., Wickstrom, L.H., Laughrey, C.D., Kostelnik, Jaime, Harper, J.A., Avary, K.L., Bocan, John, Hohn, M.E., and McDowell, Ronald, 2006, A Geologic Play Book for Trenton-Black River Appalachian Basin Exploration: Final report prepared for U.S. Department of Energy, contract no. DE-FC26-03NT41856, 601 p.

Slucher, E. R., compiler, Swinford, E. M., Larsen, G. E., Schumacher, G. A., Shrake, D. L., Rice, C. L., Caudill, M. R., and Rea, R. G., 2006, Bedrock geologic map of Ohio: Ohio Division of Geological Survey Map BG-1, scale 1:500,000.

Bedrock Topography Layers

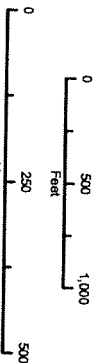
Well APPNO - aPAT1020239



Basemaps

- Retired
- Local Road
- State Route
- U.S. Highway
- Interstate
- Hydrography Line
- Hydrography Polygon
- Hydrography Polygon Intersect
- City
- Township
- County

Overview



Date Created: 11/20/2011

Data Source: Bedrock Topography Layers, Division of Geological Survey (DGS)

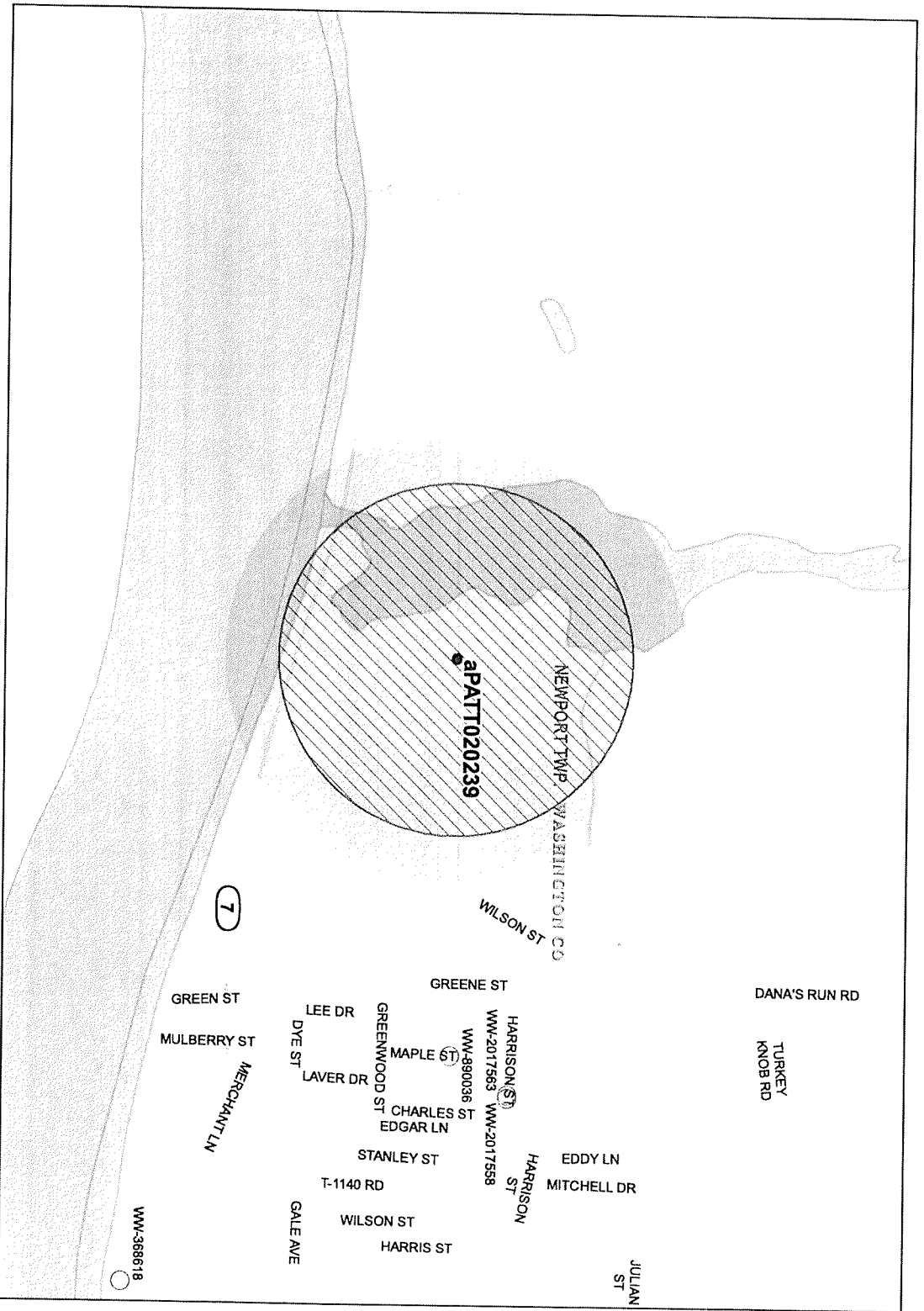


- Geographic Survey point well
- Water well, data from Ohio Division of Water
- Well Center
- Bedrock Topography 500K
- Value
- Map: 1: 100
- Layer: 37

- Geographic Survey point well
- Water well, data from Ohio Division of Water
- Well Center
- Bedrock Topography 500K
- Value
- Map: 1: 100
- Layer: 37

Water Well Layer

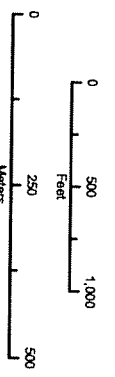
Well APPNO - aPATT020239



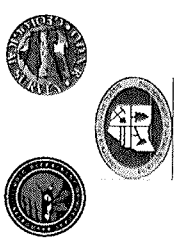
Basemaps

- Railroad
- Local Road
- State Route
- U.S. Highway
- Interstate
- Hydrography Line
- Hydrography Polygon
- Hydrography Intersect
- City
- Township
- County

Overview



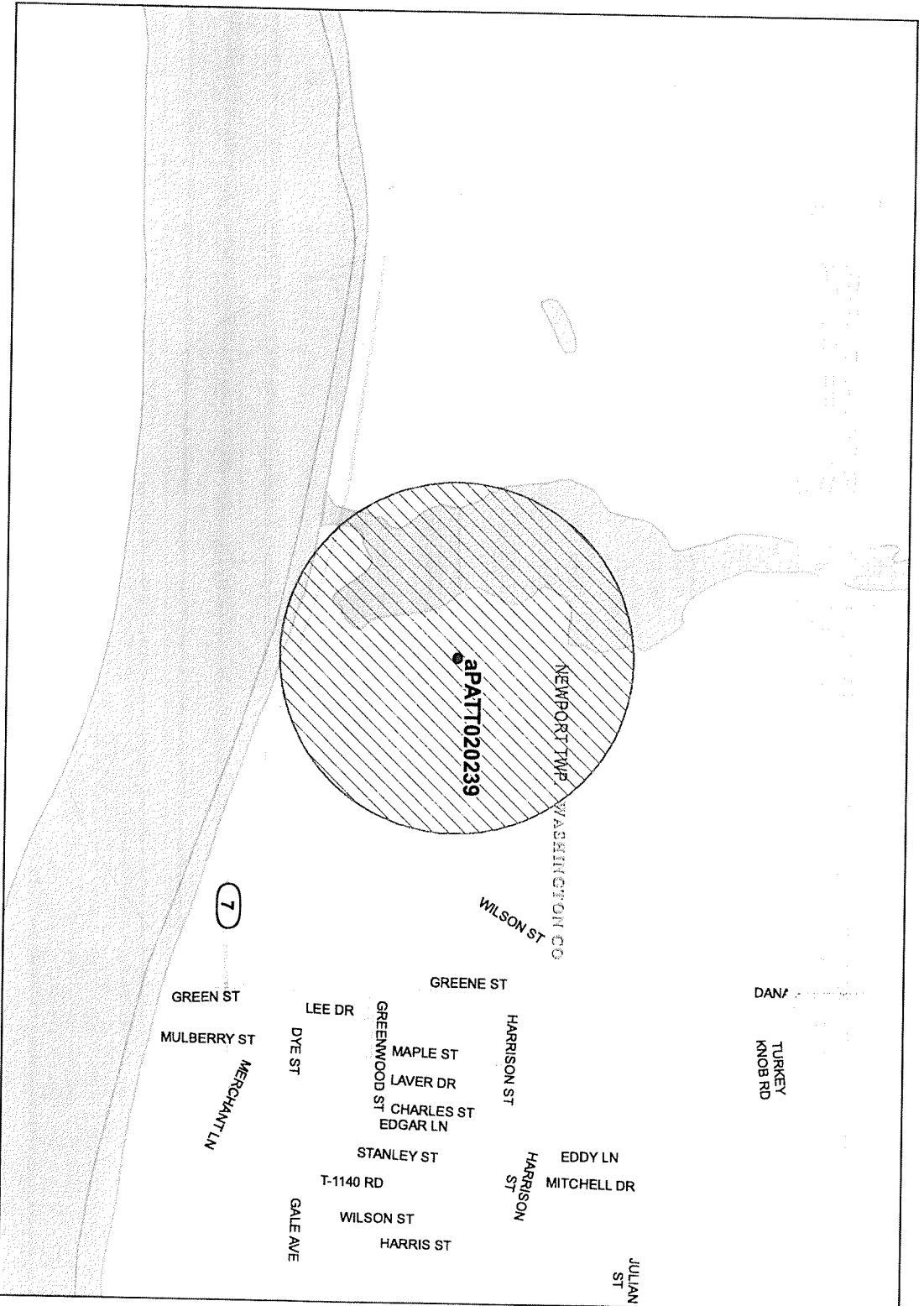
Date Created: 11/30/2011
Data Source: Water Well Layer; Division of Soil and Water Resources (DSWR)



- Well Name
- Well ID
- Well Type
- Well Status
- Well Construction
- Well Location

Underground Coal Mine Layers

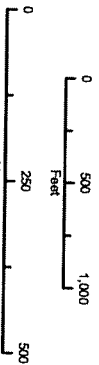
Well APPNO - aPATT020239



Basemaps

- Railroad
- Local Road
- State Route
- U.S. Highway
- Interstate
- Hydrography Line
- Hydrography Polygon
- Hydrography Intersect
- City
- Township
- County

Overview



Date Created: 11/30/2011

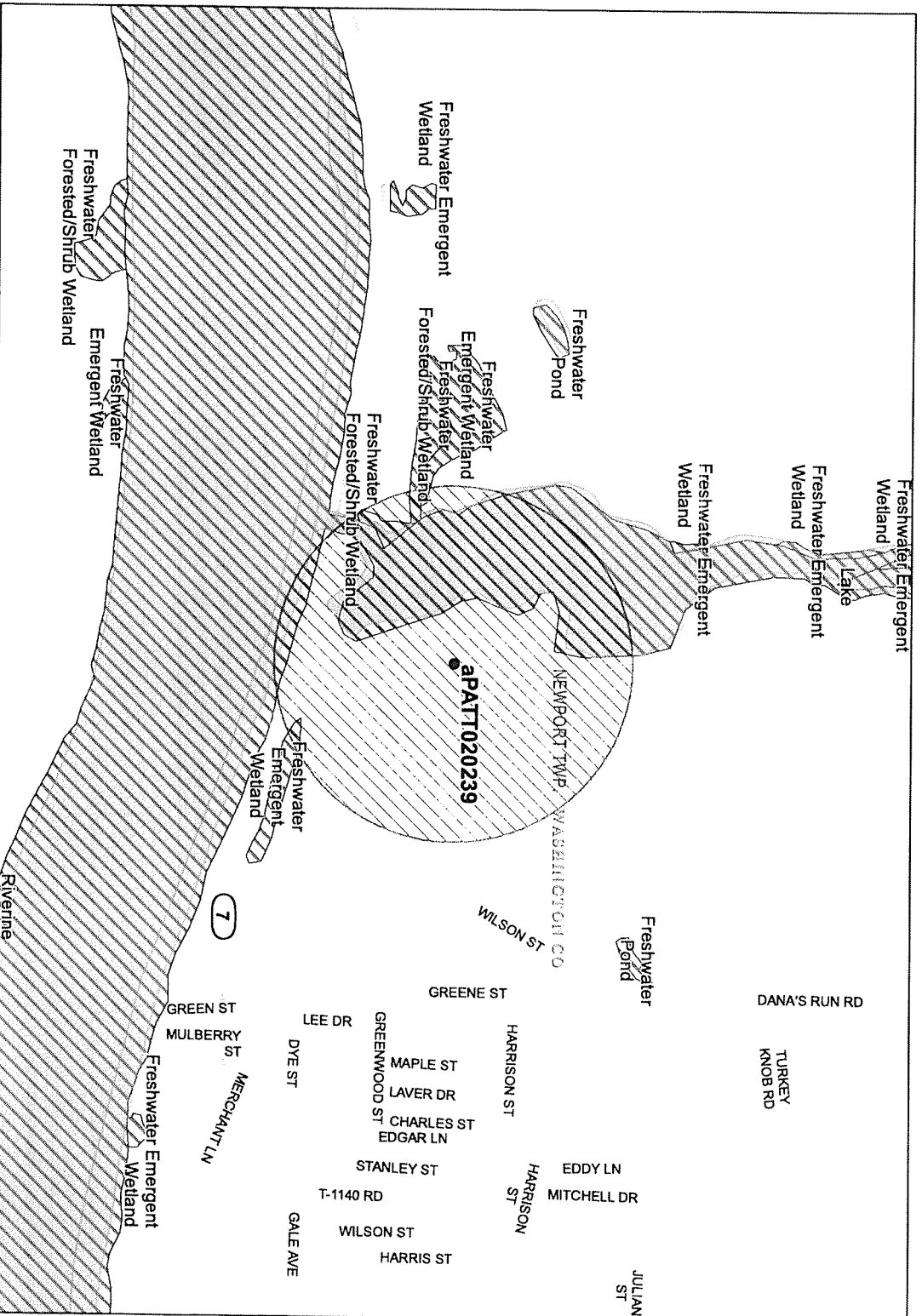
Data Source: Underground Coal Mine Layers, Division of Geological Survey (DGS) and (DMRM)



- Coal Mine Well
 - Division Line
 - Well Feature Type
 - DR
 - Closed Mine Ground
 - Exact Mine Ground
 - Non Exact Mine Ground
 - Mine
 - Open - 2008 At Report
 - Active Opening
 - Entry Code
 - On Entry
 - Abandoned Opening
 - Entry Code
 - On Entry
 - Exact Mine Shaft
 - Approximate Mine Shaft
 - Exact Mine Shaft
 - Approximate Mine Shaft
- TYPE_CODE
- On Entry
- Legend:
- Approved Coal
 - Approved Coal Property Unknown
 - Approved Coal Unknown
- Approved Coal Developer
Advis. Mine 1/4 State Rule

Surface Water Layers

Well APPNO - aPATTO20239

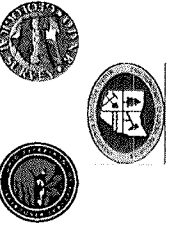
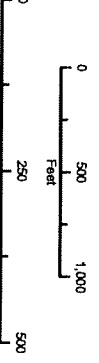


- Basemaps**
- Railroad
 - Local Road
 - State Route
 - US Highway
 - Interstate
 - Hydrography Line
 - Hydrography Polygon
 - Hydrography Polygon Identifier
 - City
 - Township
 - County



Data Sources: Surface Water Layers, Federal Emergency Management Agency (FEMA), and Division of Watercraft (DWC)

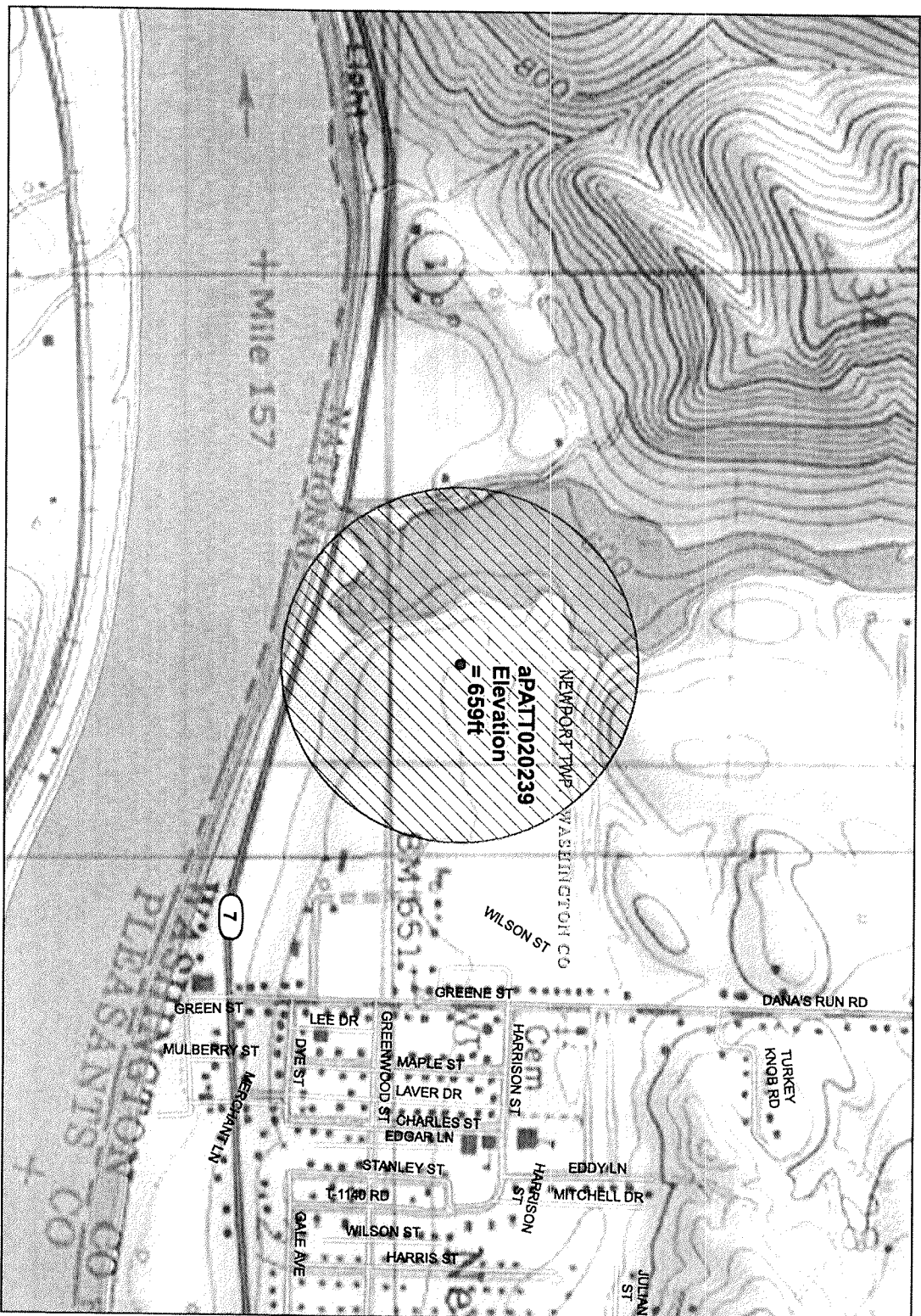
Date Created: 11/30/2011



- Wetland Boundary
- Wetland Line
- Wetland Type
- DW
- Wetland Boundary
- Wetland Boundary
- Wetland Boundary
- Wetland Boundary
- Wetland Boundary
- Wetland Boundary

Surface Topography Layers

Well APPNO - aPATT020239



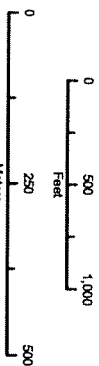
Basemaps

- Railroad
- Local Road
- State Route
- US Highway
- Interstate
- Hydrography Line
- Hydrography Polygon
- Hydrography Polygon Symbol
- City
- Township
- County

Overview



Data Source: Surface Topography Layers, Division of Geological Survey (DGS) and Environmental Science Research Institute (ERSI)



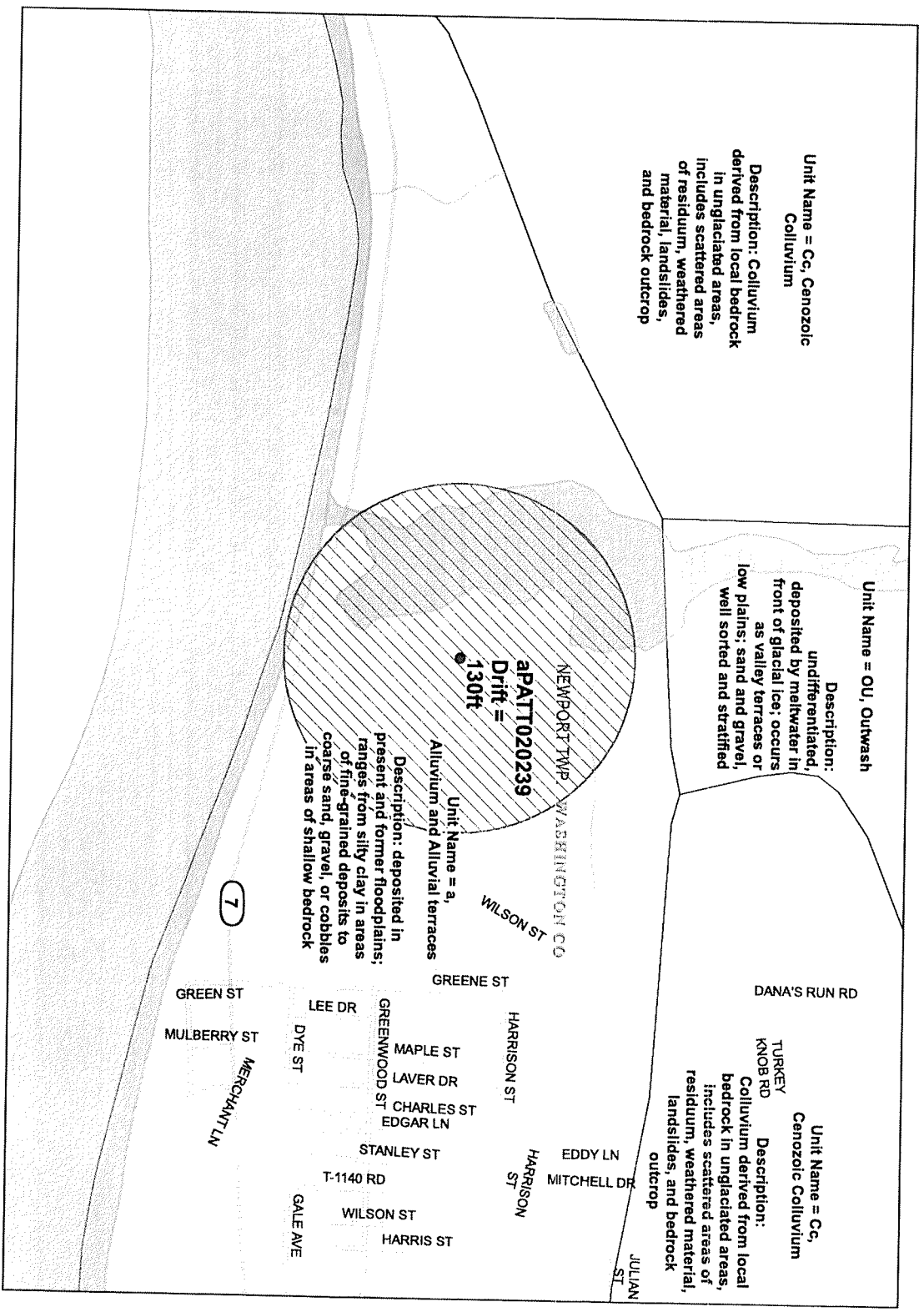
Date Created: 11/30/2011



- Data Point Mark
- Thematic Line
- Real Feature Type
- Data Point Mark
- Thematic Line
- Real Feature Type

Quaternary Geology Layers

Well APPNO - aPATT020239



Basemaps

- Railroad
- Local Road
- State Route
- U.S. Highway
- Highway
- Hydrography Line
- Hydrography Polygon
- Hydrography Polygon Intersect
- City
- Township
- County

Overview

Date Created: 11/30/2011

Date Source: Quaternary Geology Layers, Division of Geological Survey (DGS)

0 500 1,000
 Feet

0 250 500
 Meters

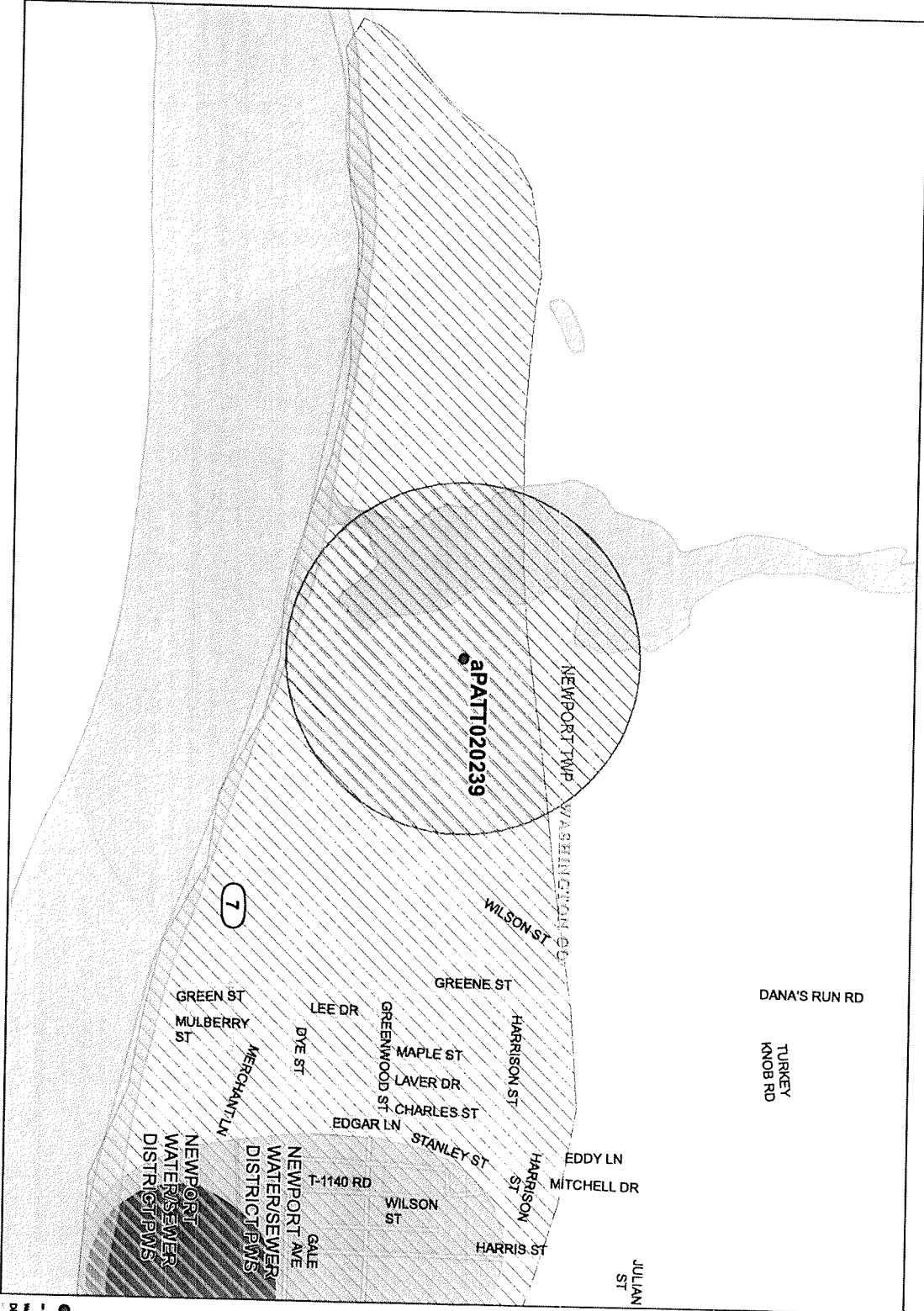
North Arrow

Legend

- Orange Line: Old Power Line
- Blue Line: Water
- Green Line: Wetlands
- Red Line: Other
- Blue Area: Other Water
- Green Area: Other Wetlands
- Red Area: Other

Groundwater - Source Water Protection Area Layers

Well APPNO - aPATT020239



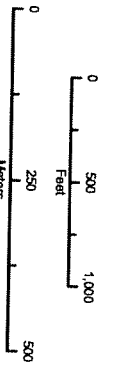
Basemaps

- Railroad
- Local Road
- State Route
- U.S. Highway
- Interstate
- Hydrography Line
- Hydrography Polygon
- Stream
- City
- Township
- County

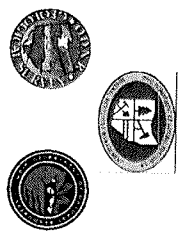
Overview



Data Source: Groundwater - Source Water Protection Areas Layers, Ohio Environmental Protection Agency (OEPA)



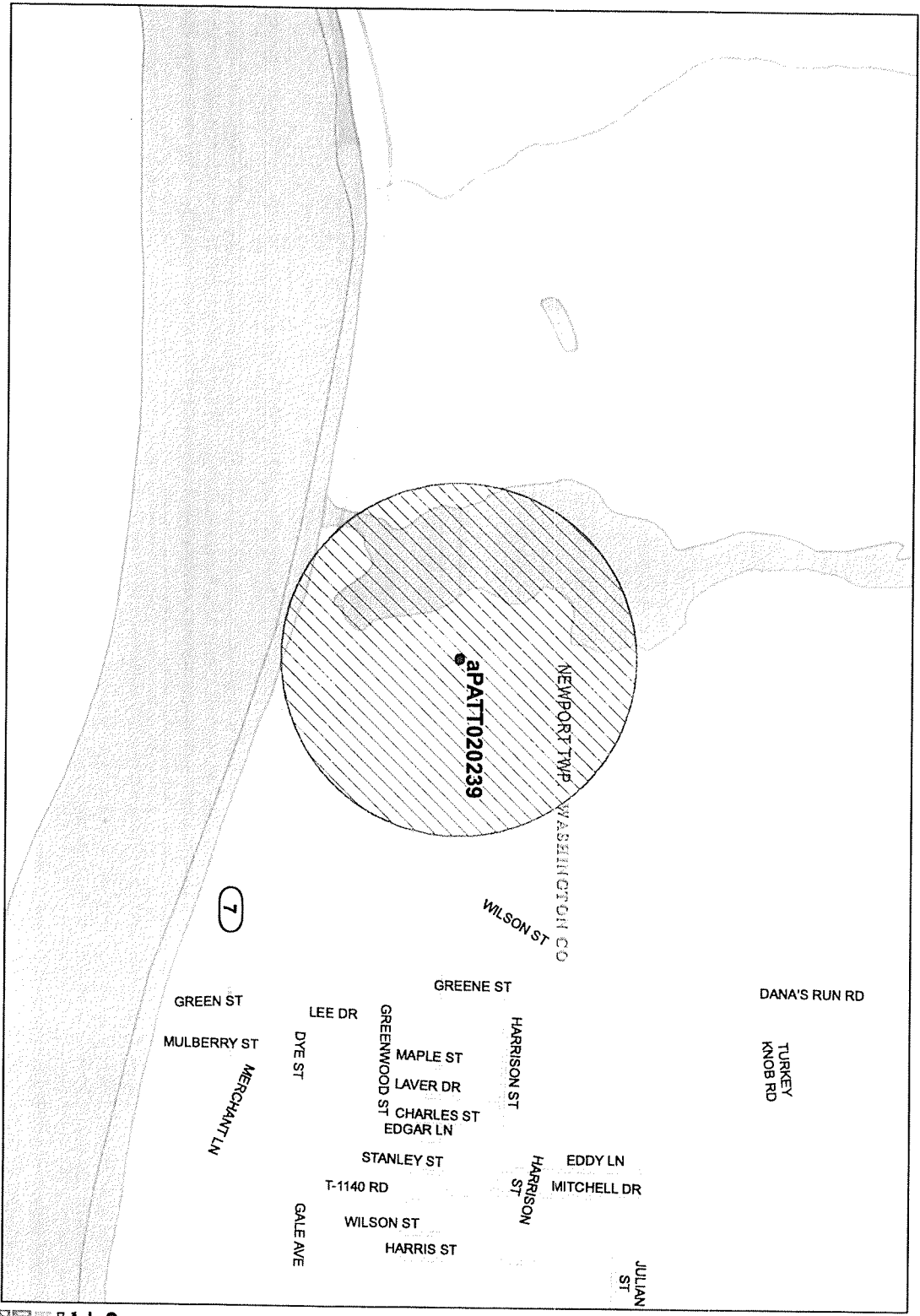
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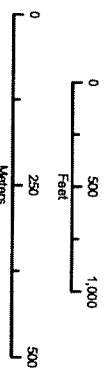
Well Name: aPATT020239
 Protection Area: 151 (151)
 District: Newport Water/Sewer District
 Map Type: Groundwater - Source Water Protection Areas Layers
 SWM Type: 151 (151)
 Source: Water Protection Areas - 151 (151)
 Production: 1/11/2011 10:11 AM

Groundwater - Pollution Potential Layers

Well APPNO - aPAT020239



- Basemaps**
- Railroad
 - Local Road
 - State Route
 - US Highway
 - Interstate
 - Hydrography Line
 - Hydrography Polygon
 - Hydrography Intersect
 - City
 - Township
 - County



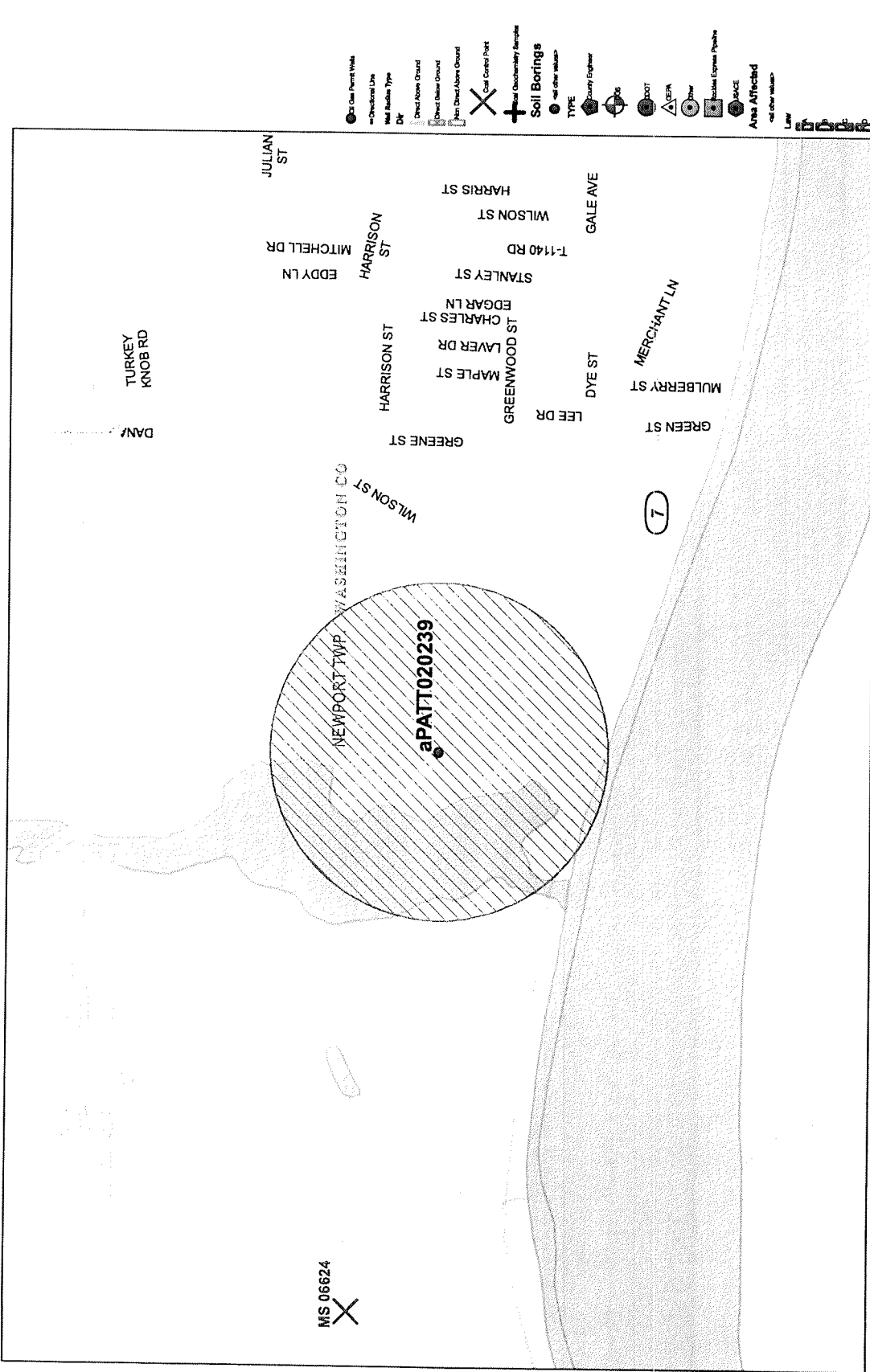
Date Created: 11/30/2011
 Data Source: Groundwater - Pollution Potential Layers, Division of Geological Survey (DGS)



- Open Point Well
 - Disposal Line
 - Well Status Type
 - DR
 - Check Above Ground
 - Check Below Ground
 - Non-Dist Above Ground
- DRASTIC - AUM and Strip Mines**
- Dynamic AUM and Strip Mines
 - Annualized Underground Mine
 - Strip Mine
 - DRASTIC Below Value
 - DRASTIC Rating
 - Low
 - Intermediate
 - High

Coal Layers

Well APPNO - aPATT020239



MS 06624

Basemaps
 Railroad
 Local Road
 State Route
 U.S. Highway
 Interstate

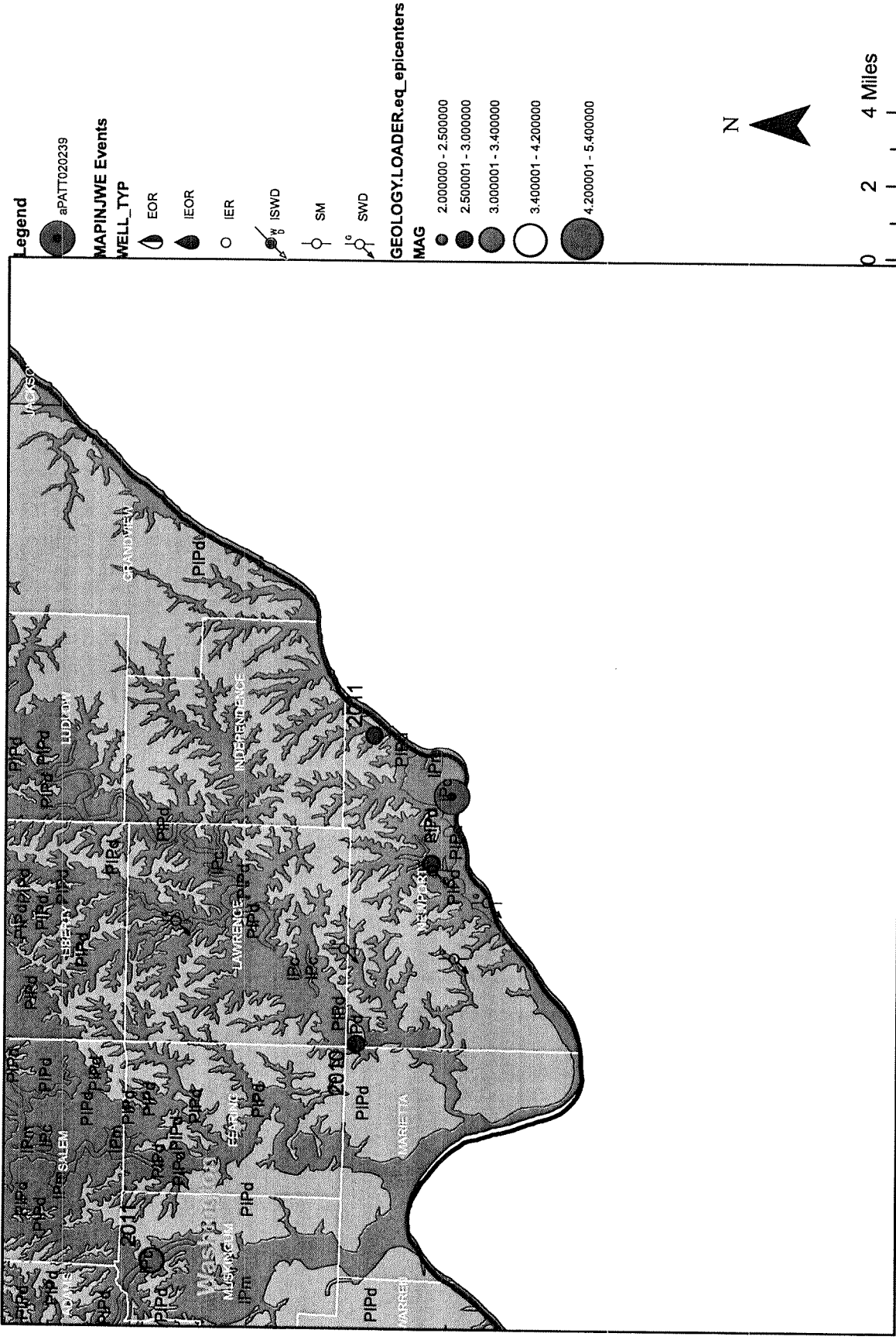
Hydrography Line
 Hydrography Polygon
 Hydrography Polygon
 Interstream
 City
 Township
 County



Date Created: 11/30/2011
 Data Source: Coal Layers, Division of Geological Survey (DGS)

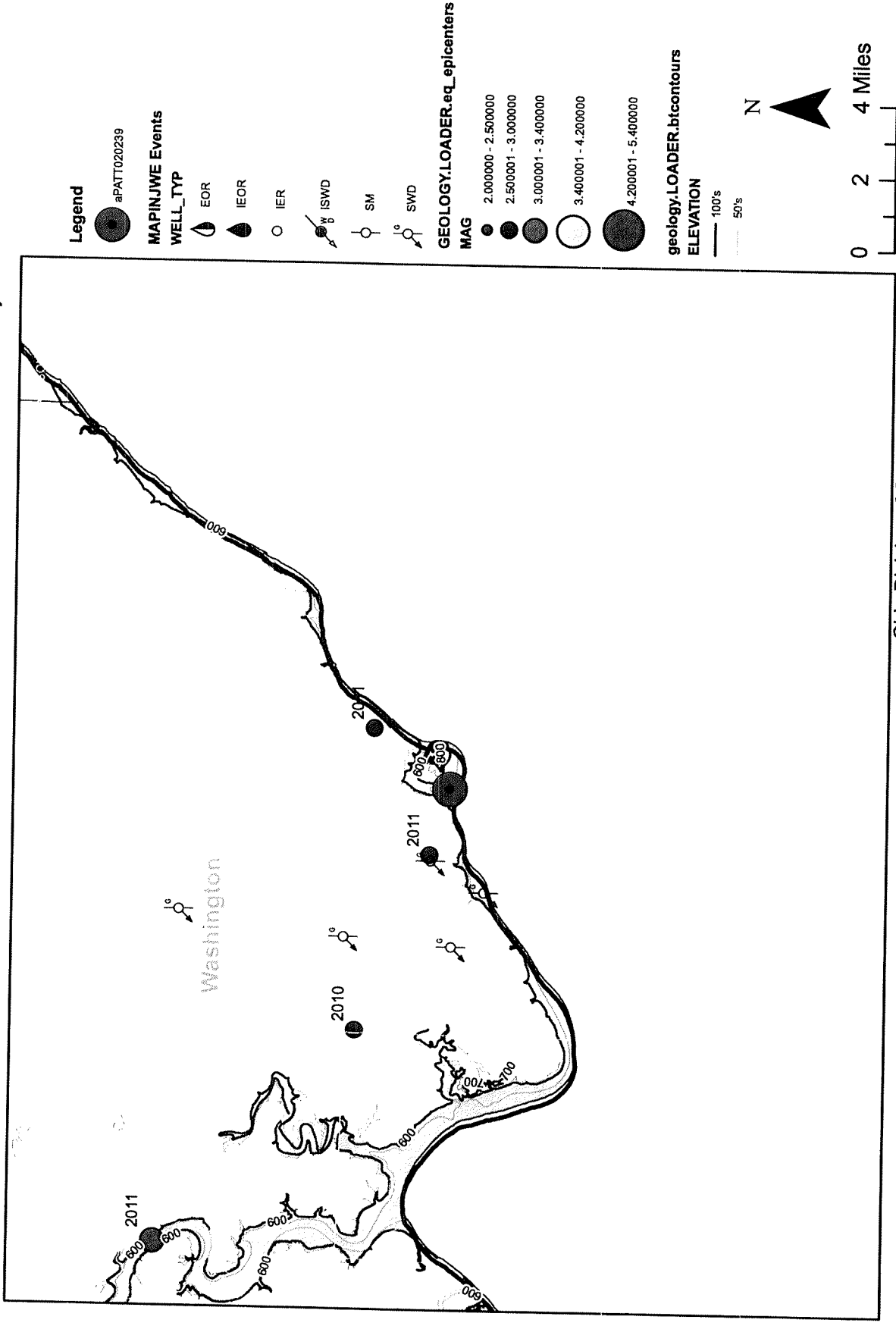
- Coal Permit Wells
- Directional Logs
- Well Number Type
- D/E
- Direct Above Ground
- Direct Below Ground
- Non-Direct Above Ground
- Non-Direct Below Ground
- Coal Control Point
- Non-Diagnostic Sample
- Soil Borings
- TYPE
- Other values
- Quantity Engineer
- DOT
- CEP
- Other
- Control Express Pipeline
- SPACE
- Area Affected
- Other values
- Area Permitted
- Other values
- DEM Surface Area from AMLIS
- DEM Surface Area from Historical CPO

Bedrock Geology



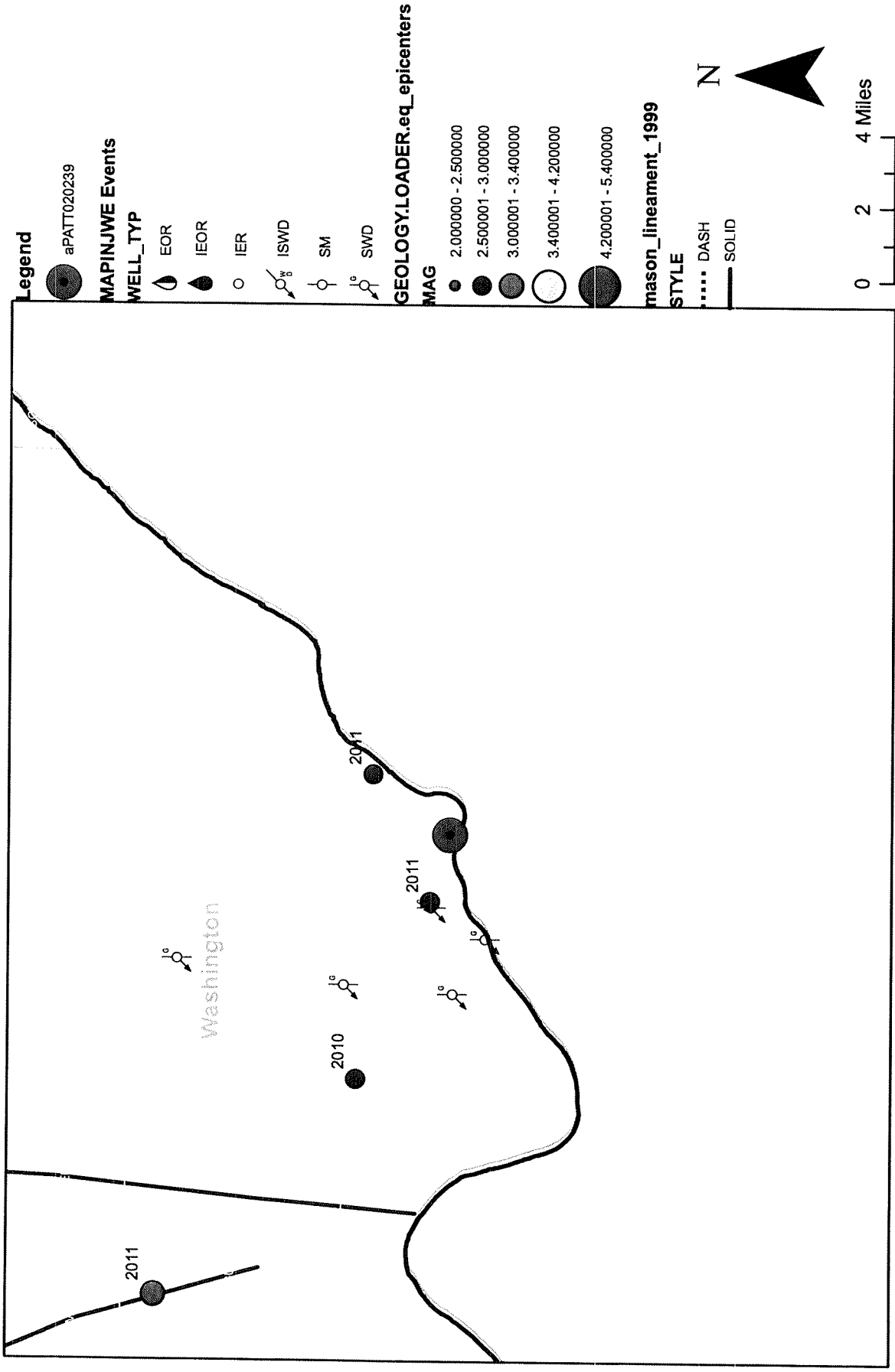
Slucher, E. R., compiler, Swinford, E. M., Larsen, G. E., Schumacher, G. A., Shrake, D. L., Rice, C. L., Caudill, M. R., and Rea, R. G., 2006

Bedrock Topography (C.I. = 50 feet)

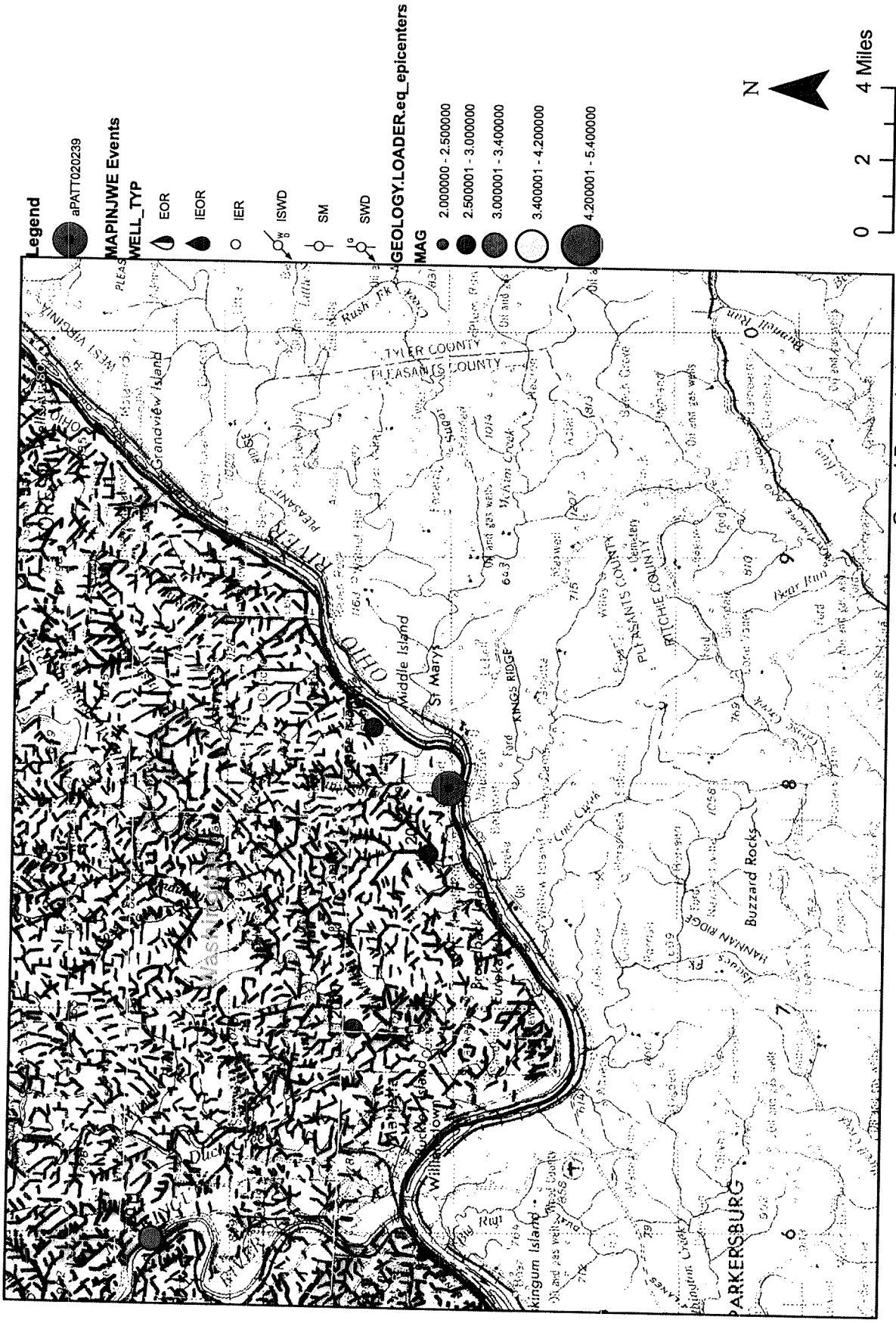


Ohio Division of Geological Survey, 2003

Mason Lineament Map

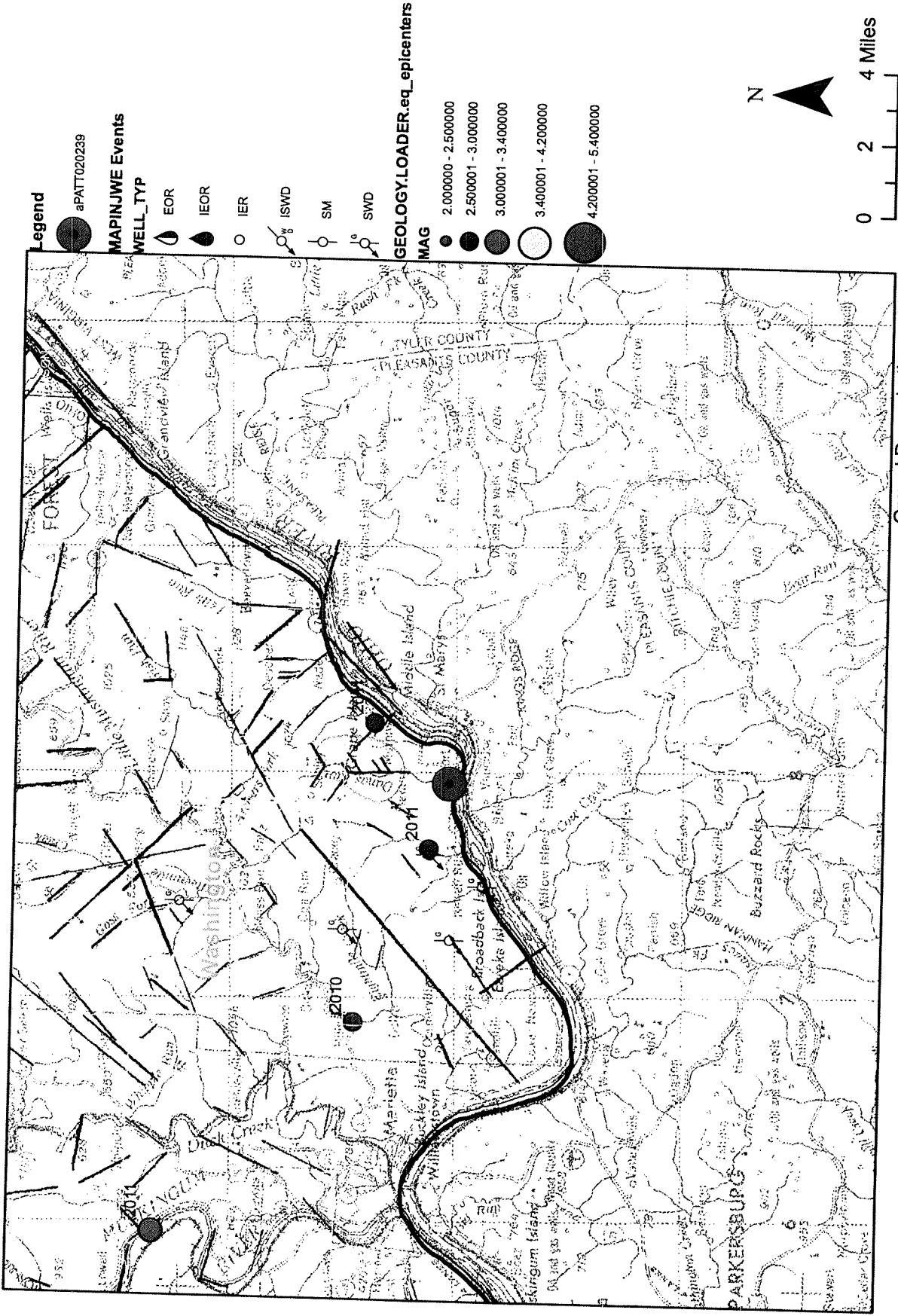


EGSP Aerial Photo Lineament



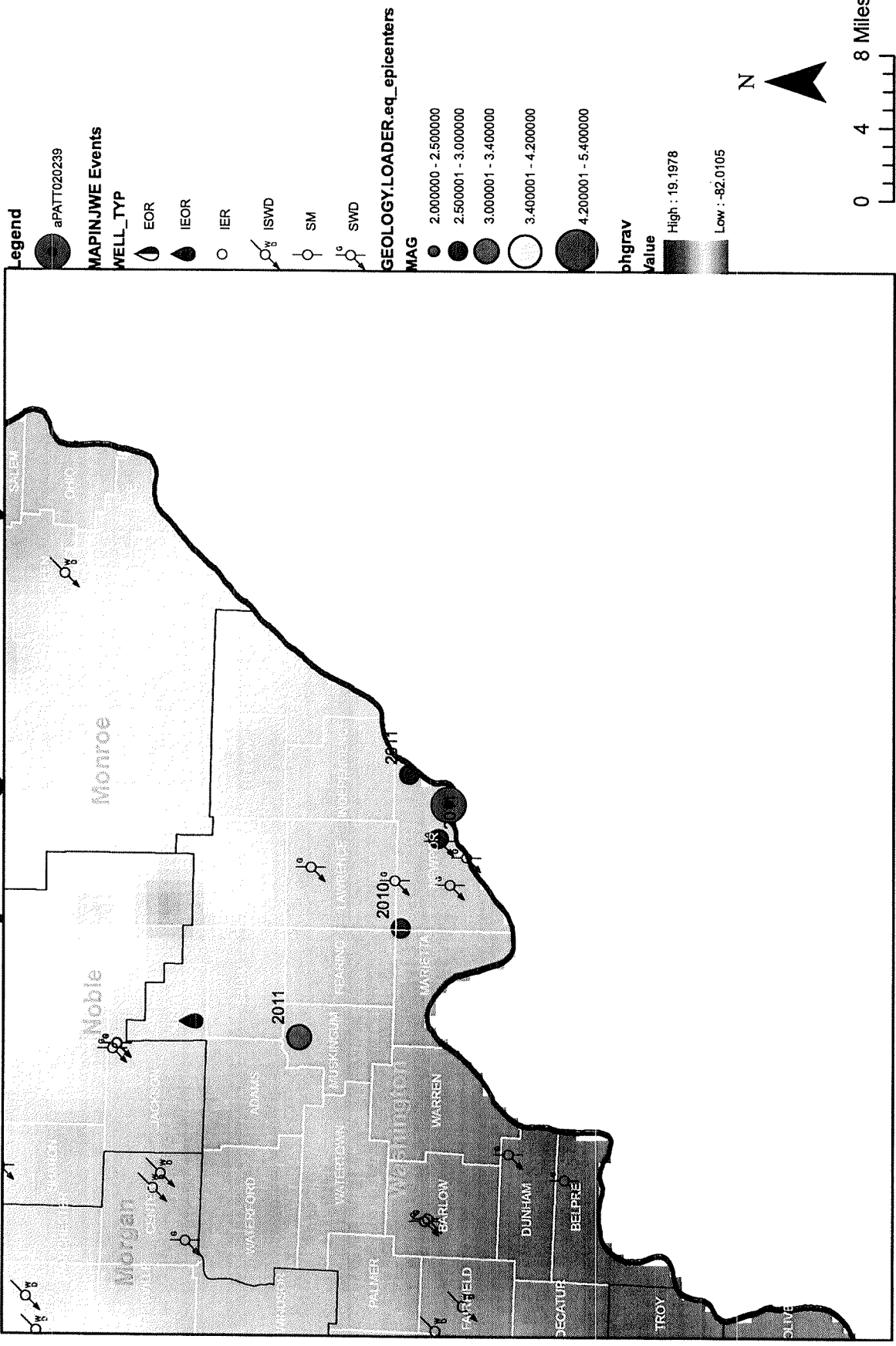
Gray, J.D., and others, 1982

EGSP LANDSAT Lineament



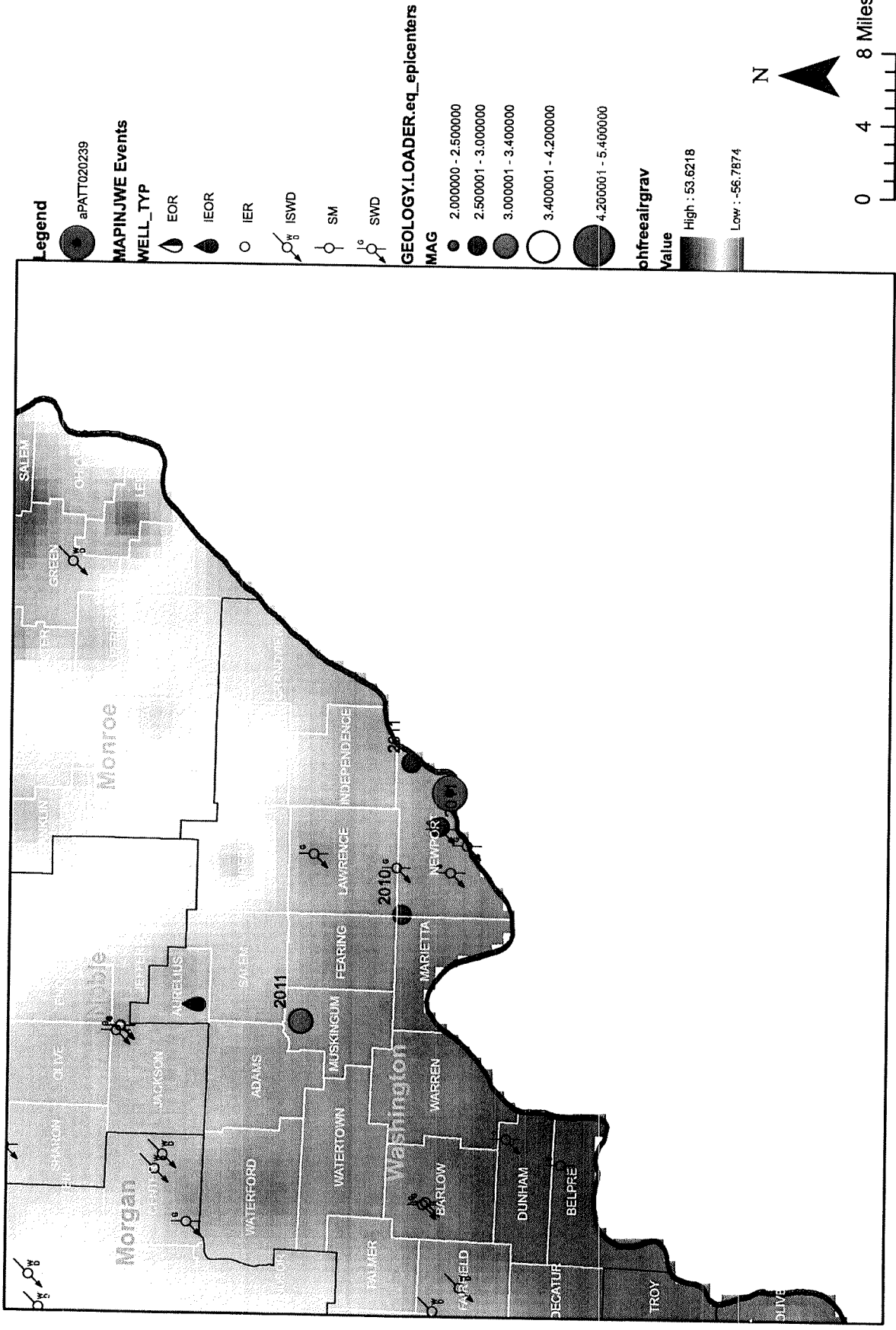
Gray, J.D., and others, 1982

Gravity Bouguer Anomaly



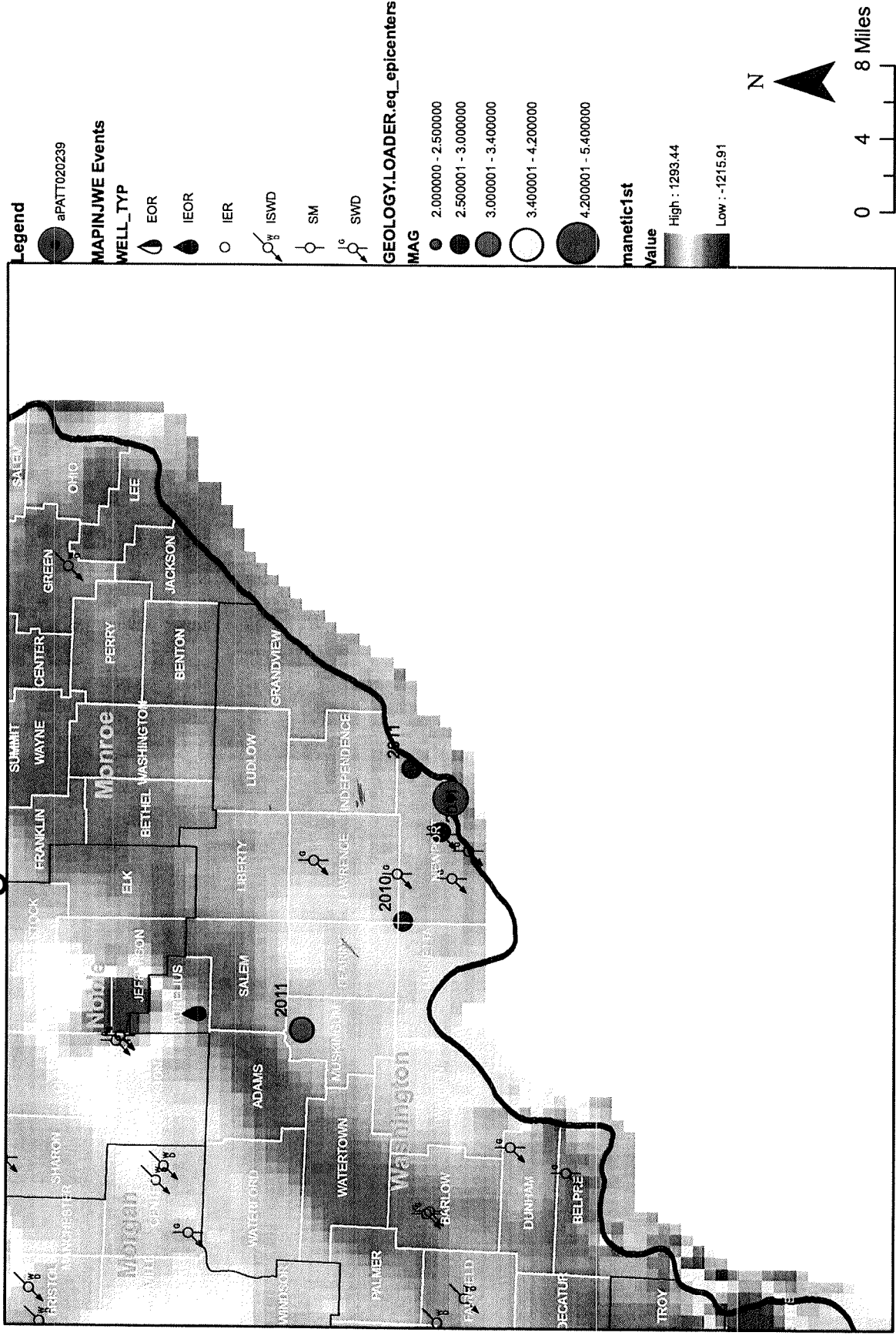
Hildenbrand, T.G. and Kucks, R.P., 1984b

Gravity Free Air



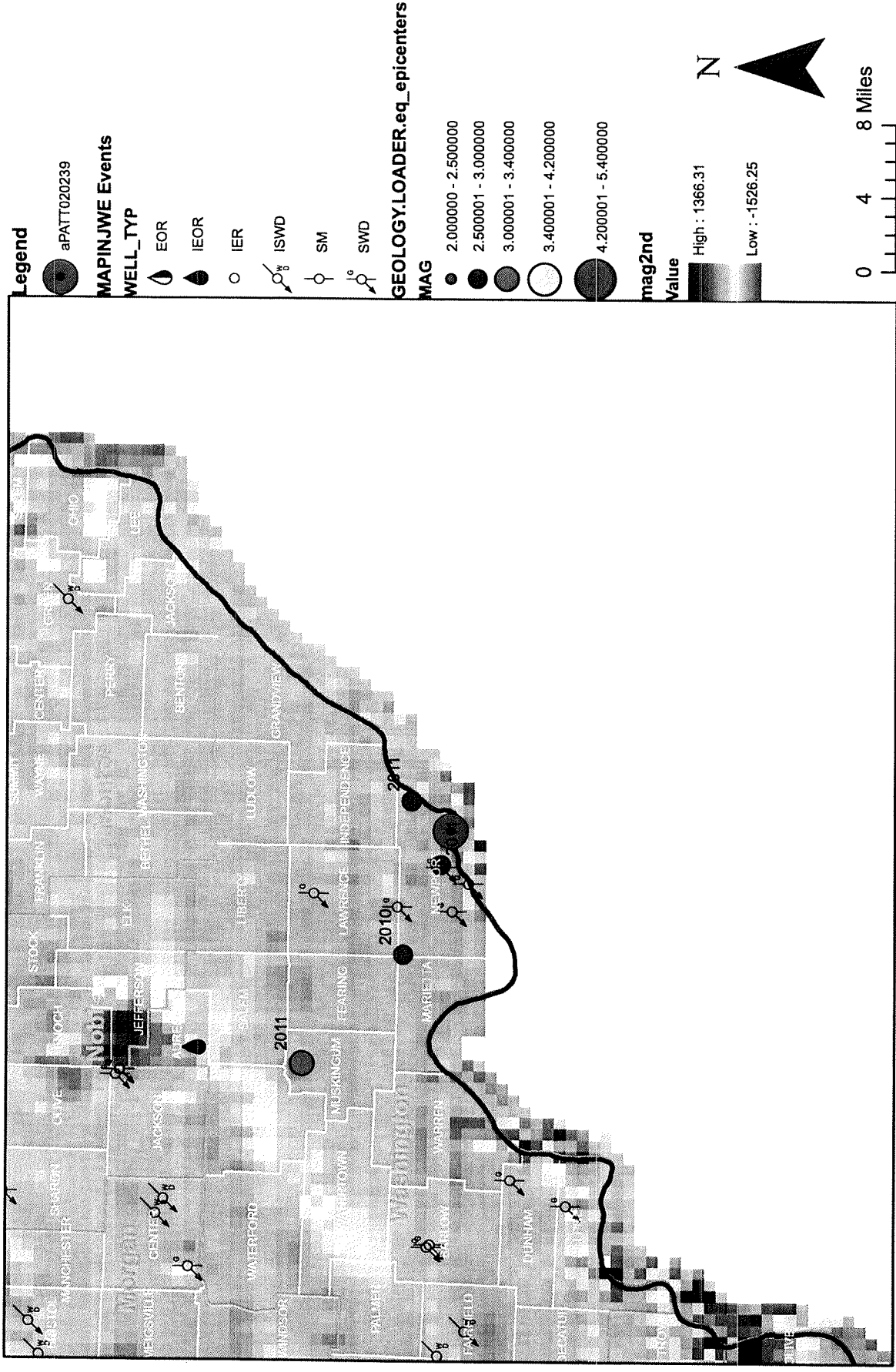
Hildenbrand, T.G., 1986

Mag First Derivative



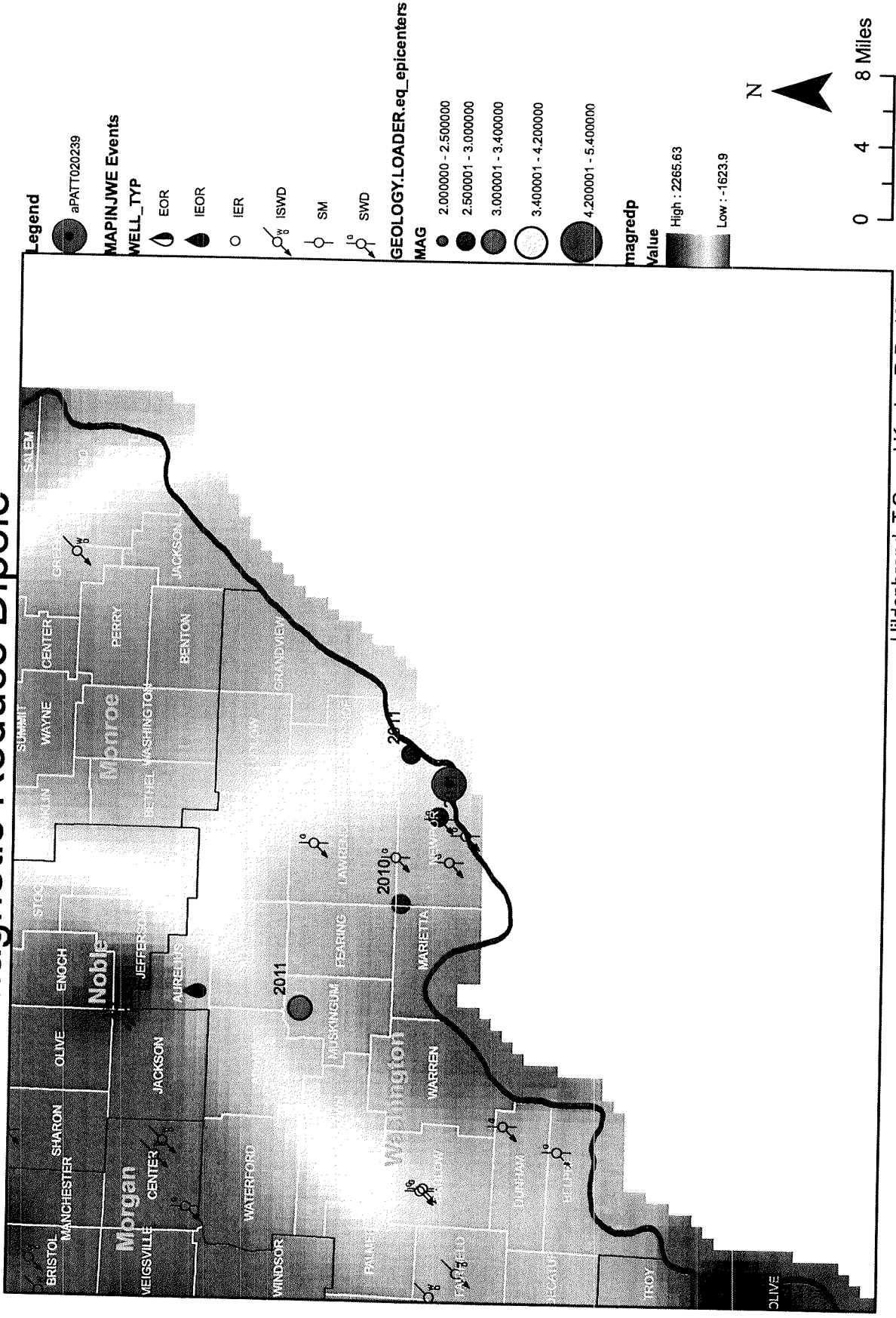
Hildenbrand, T.G. and Kucks, R.P., 1984a

Magnetic Second Derivative



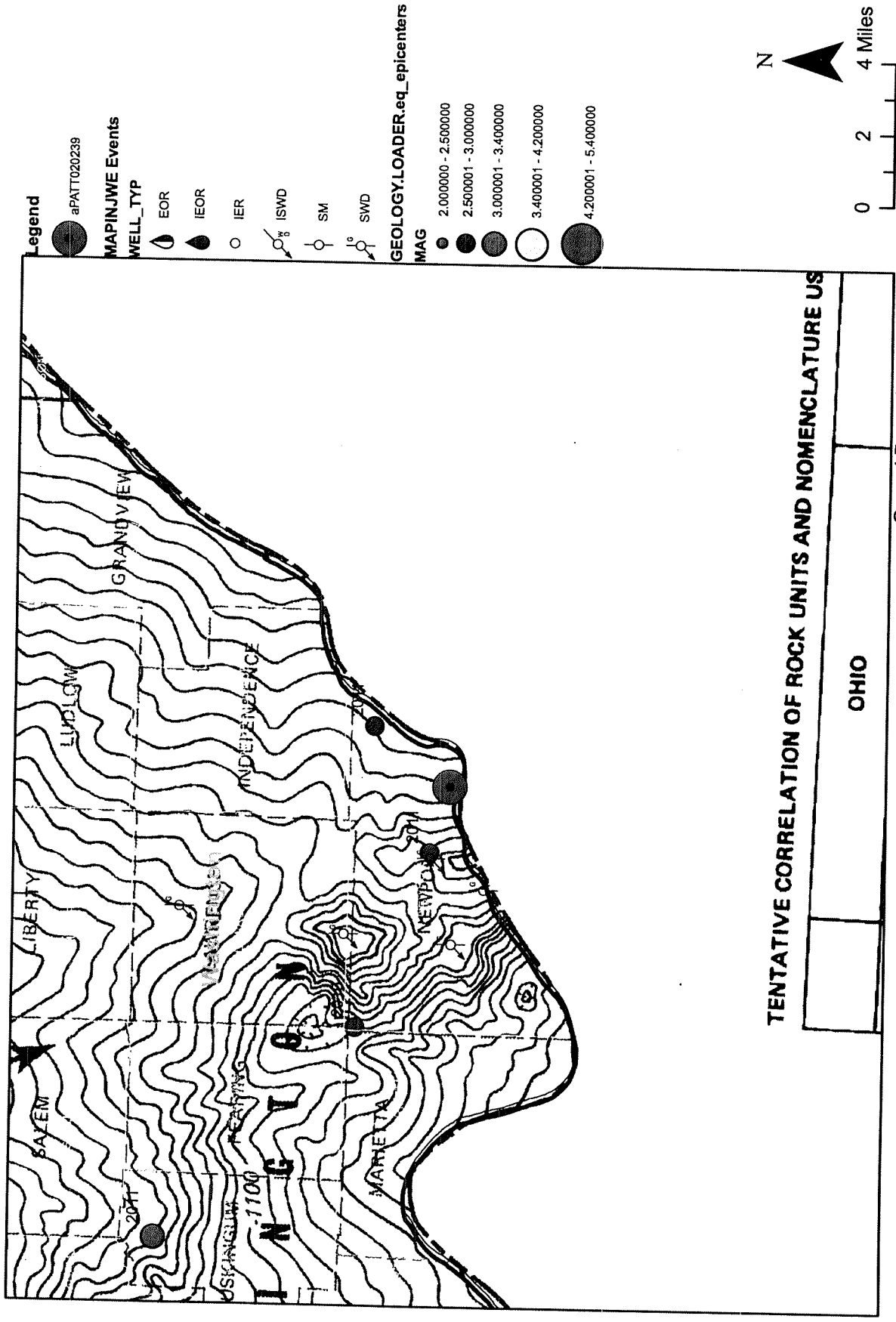
Hildenbrand, T.G. and Kucks, R.P., 1984a

Magnetic Reduce Dipole

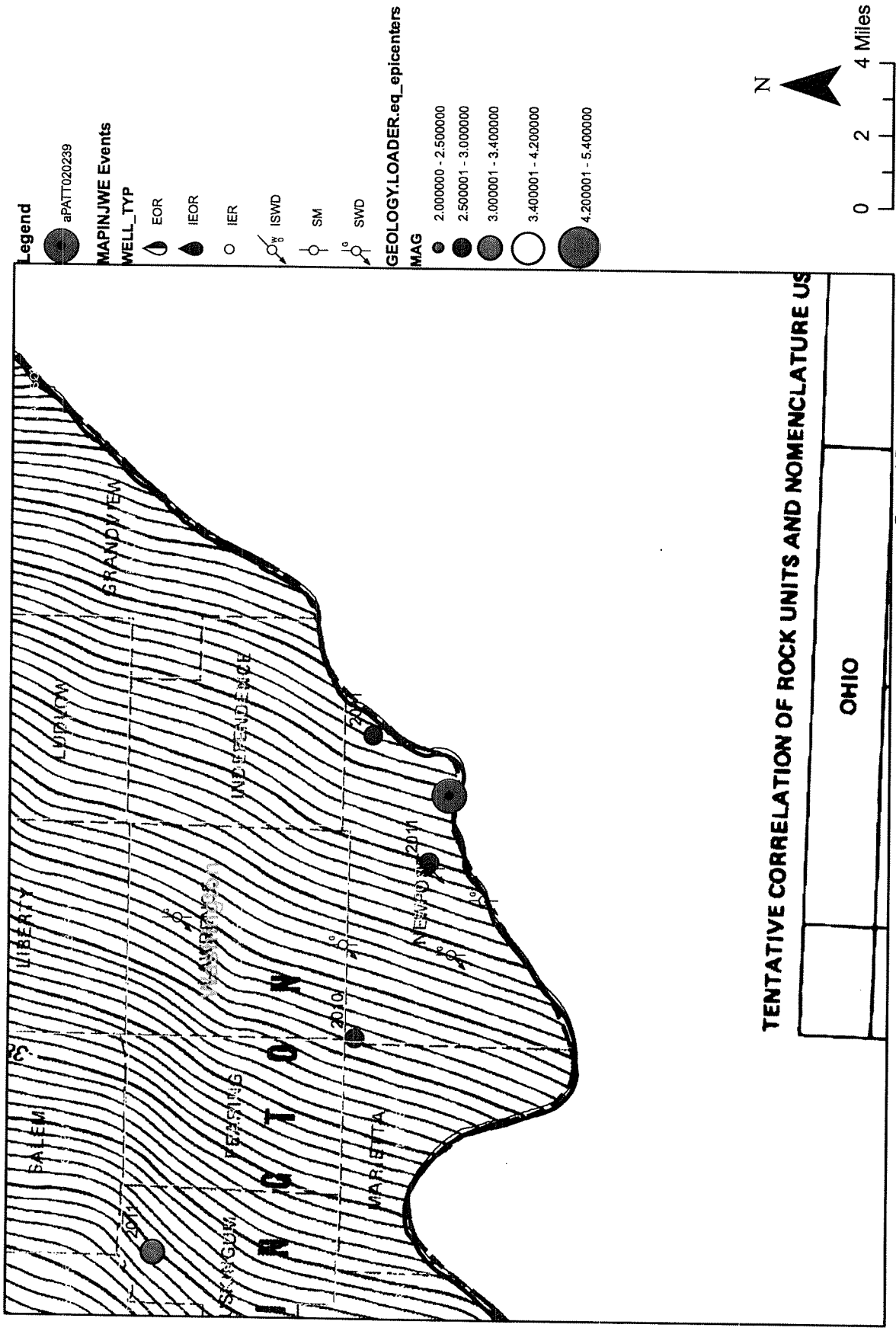


Hildenbrand, T.G. and Kucks, R.P., 1984a

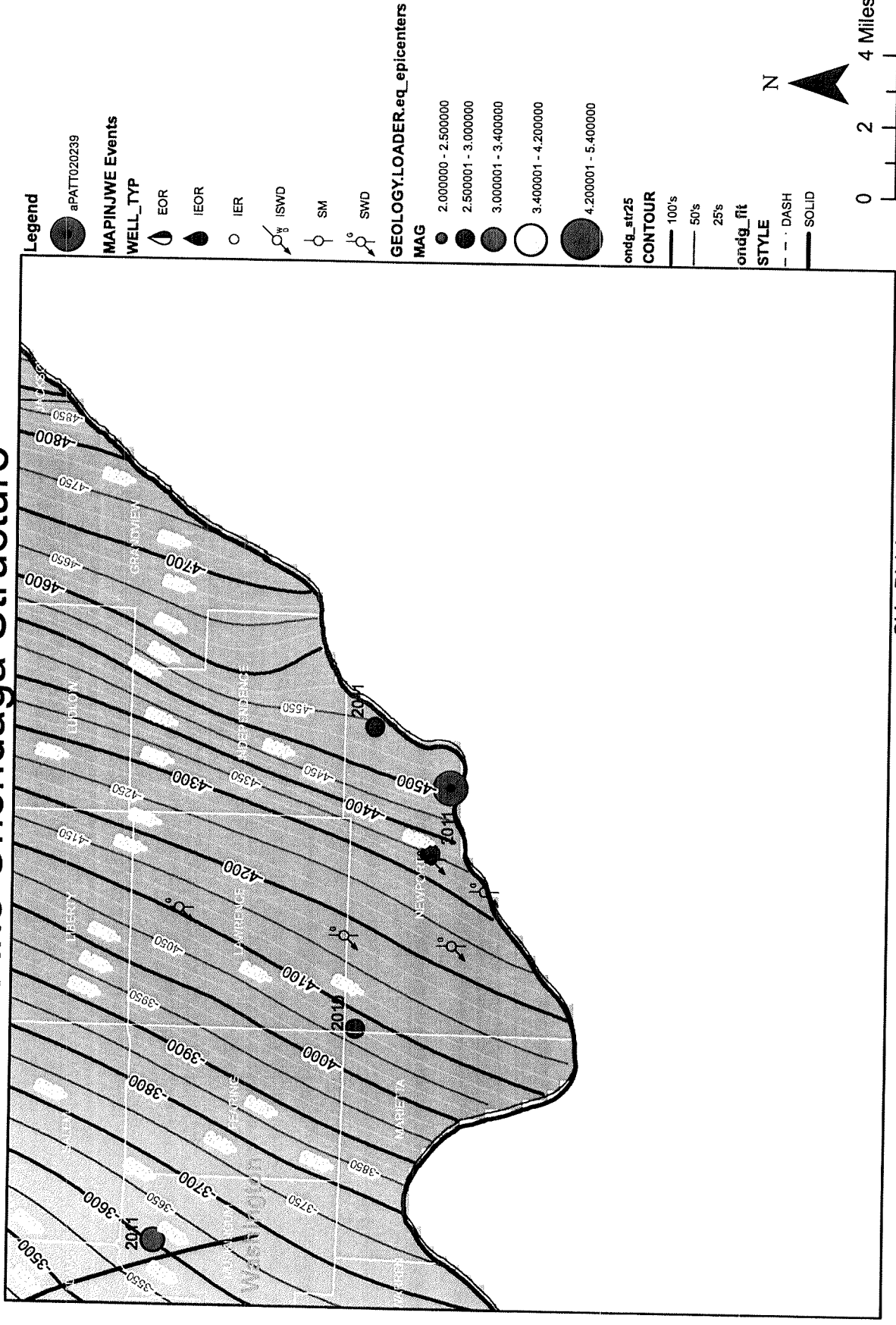
EGSP Berea Structure



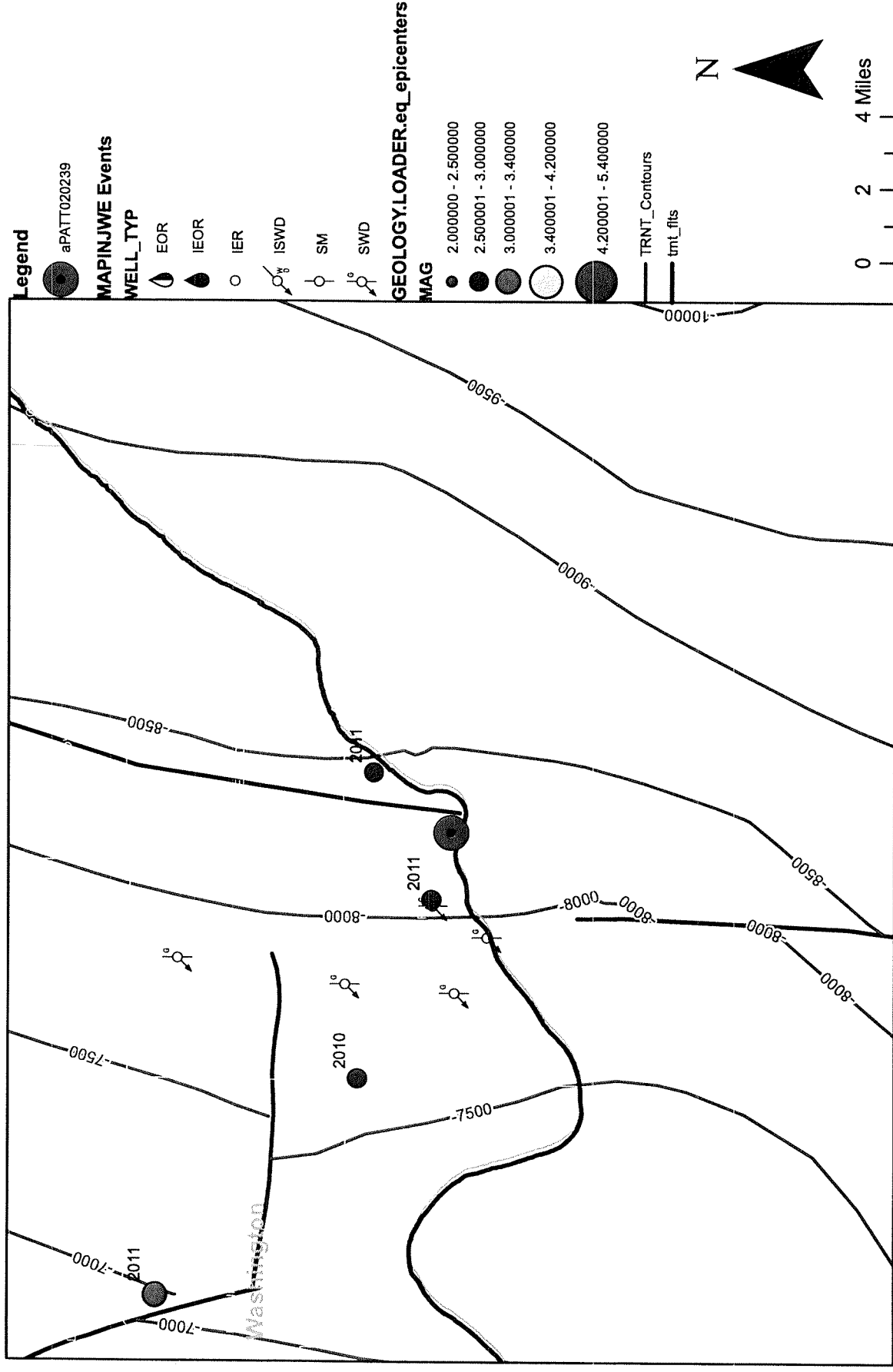
EGSP Onondaga Structure



Fine Onondaga Structure

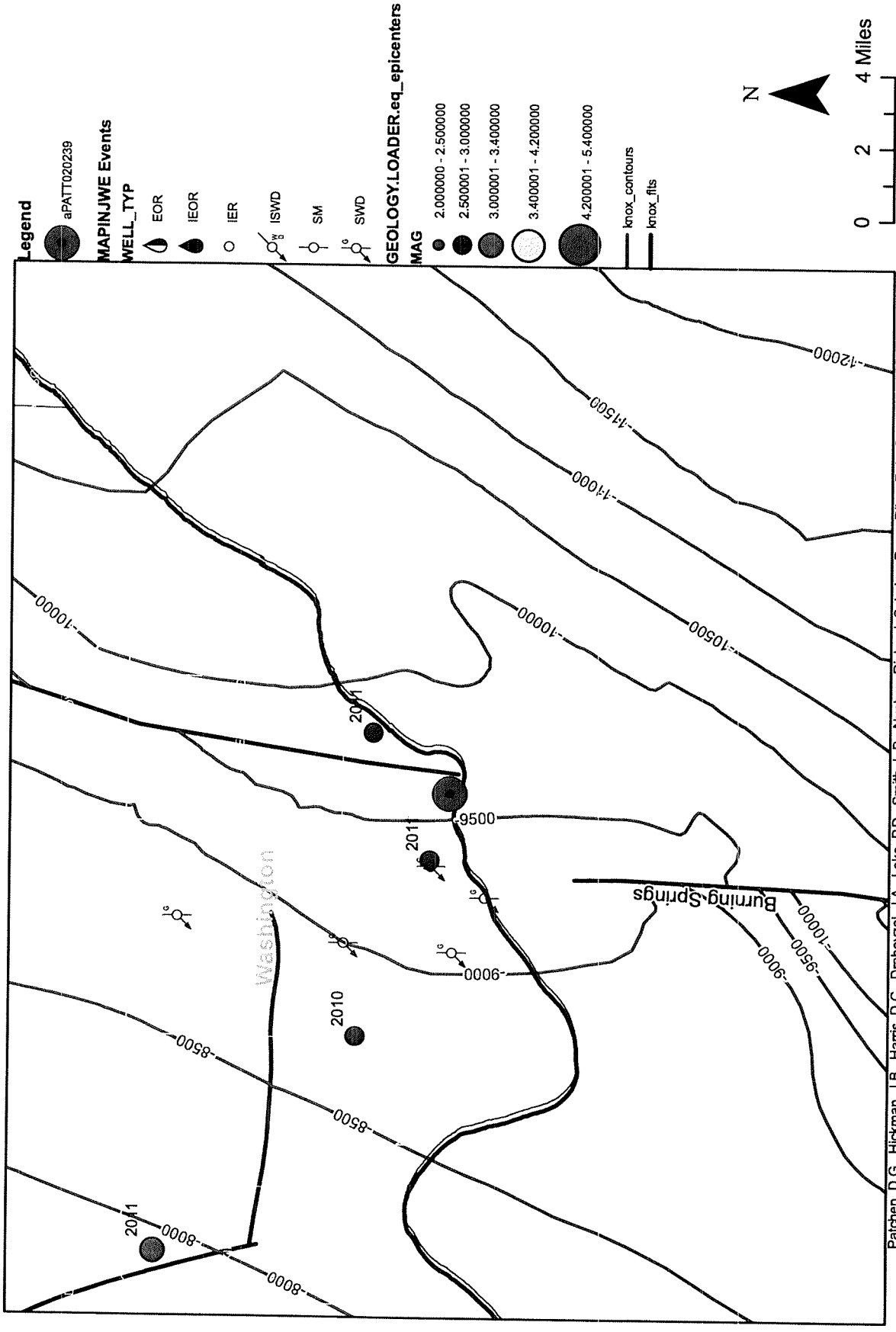


Trenton Structure Contours (C.I. = 500 feet)



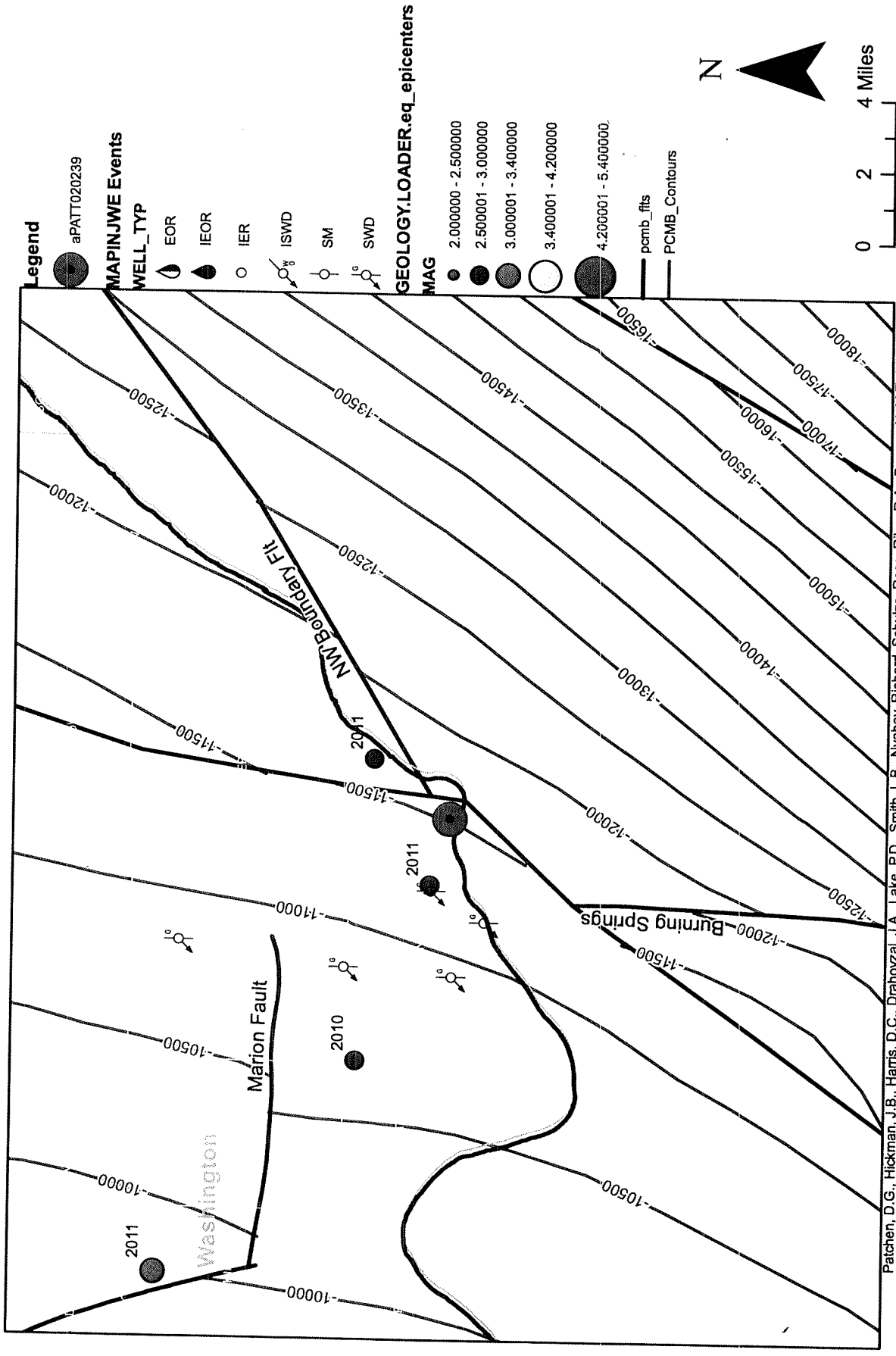
Patchen, D.G., Hickman, J.B., Harris, D.C., Drahovzal, J.A., Lake, P.D., Smith, L.B., Nyahay Richard, Schulze, Rose, Riley, R.A., Baranoski, M.T., Wickstrom, L.H., Laughrey, C.D., Kostelnik, Jaime, Harper, J.A., Avary, K.L., Bocan, John, Hohn, M.E., and McDowell, Ronald, 2006

Knox Structure (C.I. = 500 feet)



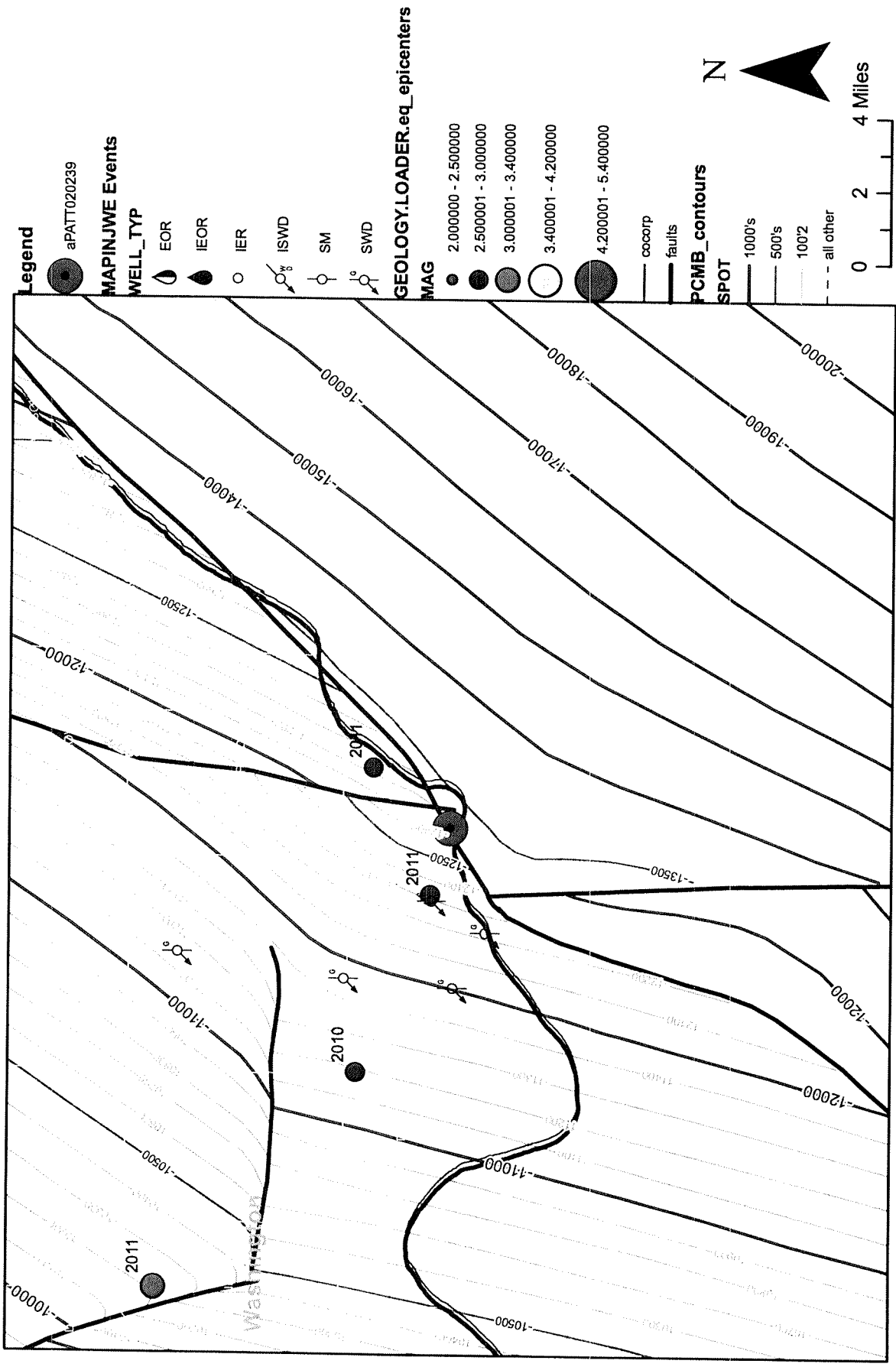
Patchen, D.G., Hickman, J.B., Harris, D.C., Drahovzal, J.A., Lake, P.D., Smith, L.B., Nyahay, Richard, Schulze, Rose, Riley, R.A., Baranoski, M.T., Wickstrom, L.H., Loughtrey, C.D., Kostelnik, Jaime, Harper, J.A., Avary, K.L., Bocan, John, Hohn, M.E., and McDowell, Ronald, 2006

Precambrian Structure Contours (C.I. = 500 feet)

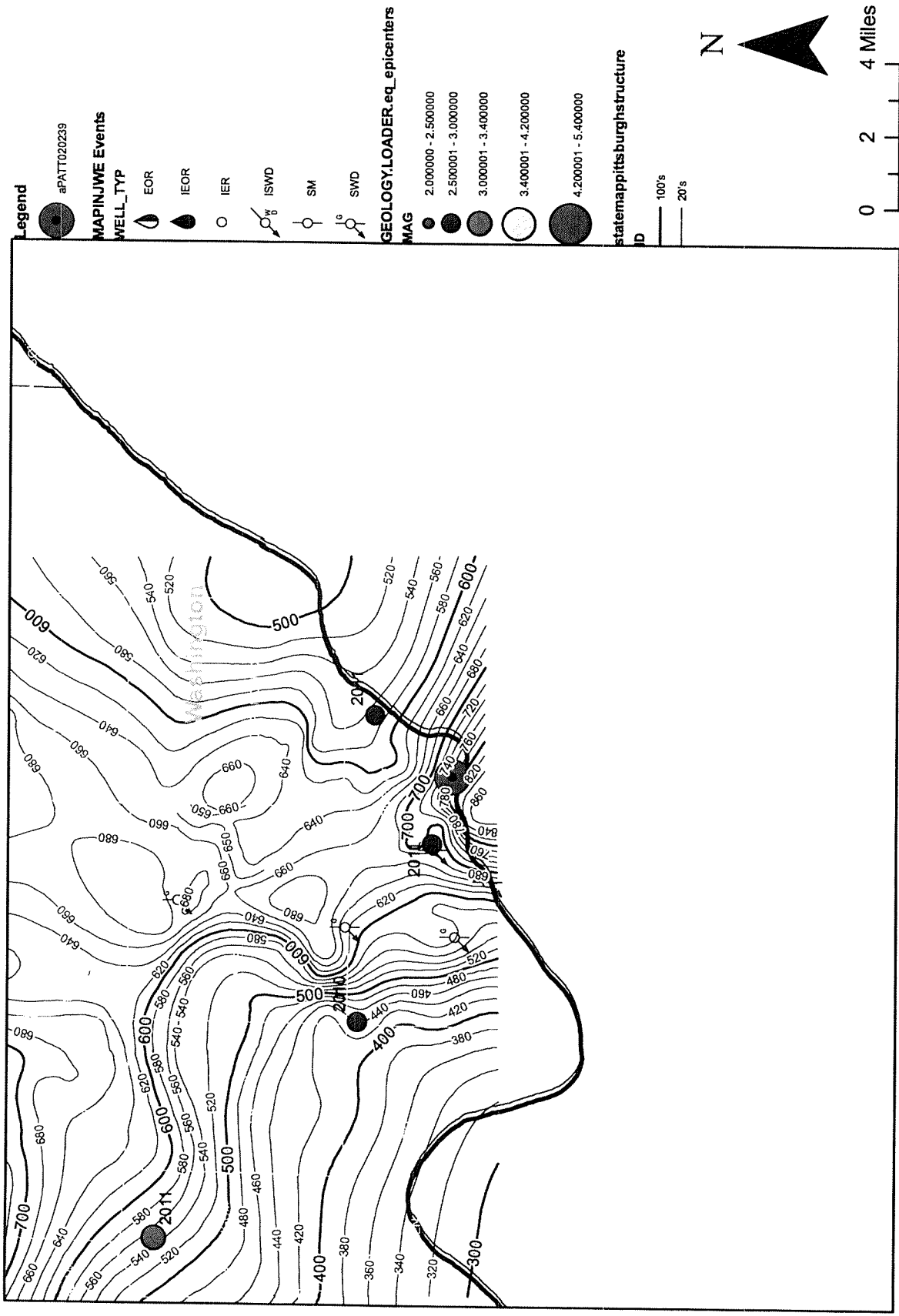


Patchen, D.G., Hickman, J.B., Harris, D.C., Drahovzal, J.A., Lake, P.D., Smith, L.B., Nyahay, Richard, Schulze, Rose, Riley, R.A., Baranowski, M.T., Wickstrom, L.H., Laughrey, C.D., Kostelnik, Jaime, Harper, J.A., Avary, K.L., Bocan, John, Hohn, M.E., and McDowell, Ronald, 2006

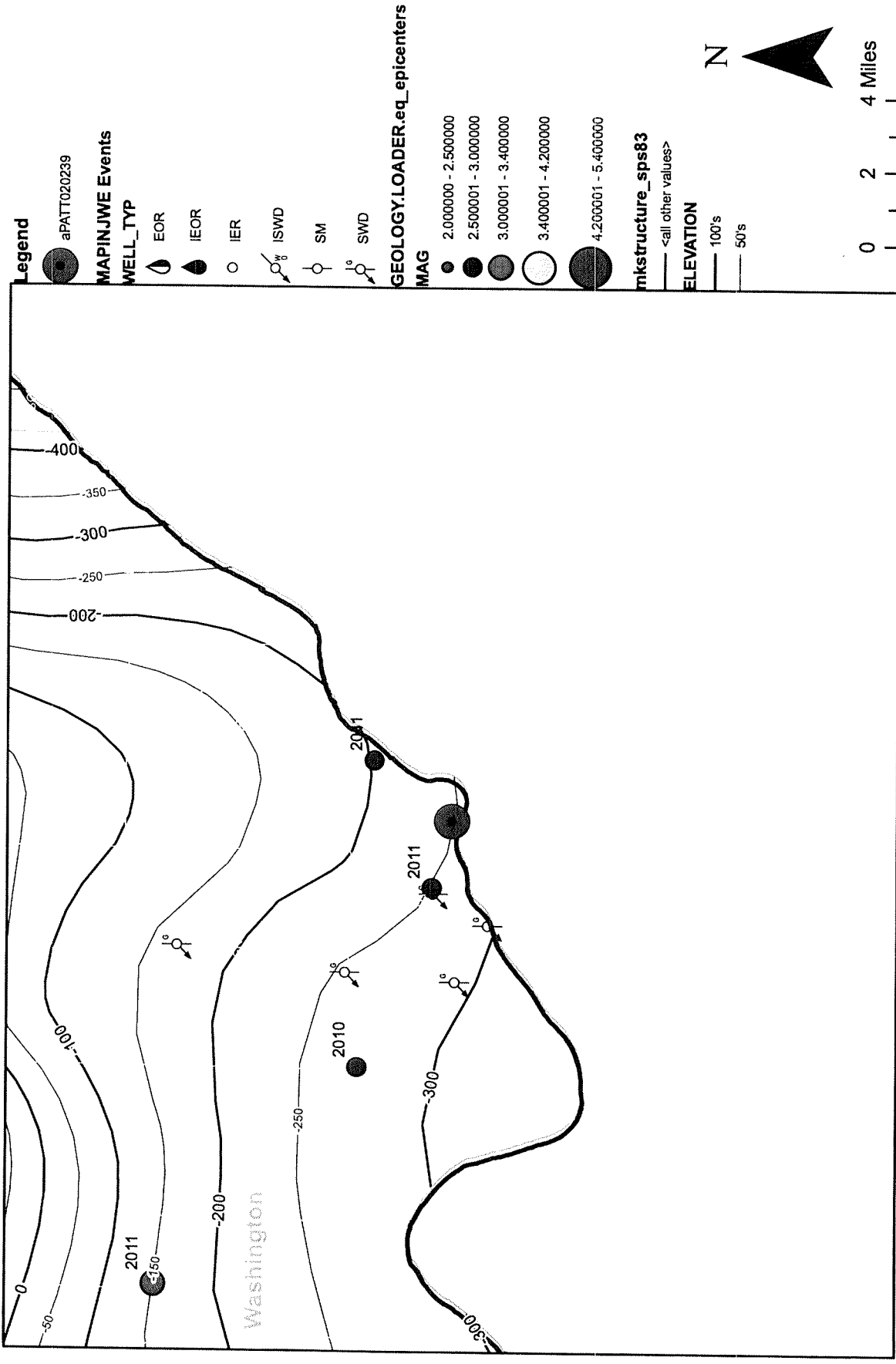
Precambrian Structure Contours from PG-23 (C.I. = 100 feet)



Pittsburgh Coal Structure Contours (C.I. = 20 feet)



Middle Kittanning Coal Structure (C.I. = 50 feet)



Mississippian/Pennsylvanian Unconformity Surface Countours (C.I. = 20 feet)



Oil and Gas Fields

