

# Status Report

**Total Records: 188**

Top 3 County Records		Top 3 Log Type Records		Top 3 Coal Records		Top 3 Member Records	
Pope	188	Measured section	73	WILLIS	4	MENARD LIMESTONE	17
		Drillers Log	46	BATTERY ROCK	2	KINKAID LIMESTONE	10
		Survey Core Study	21	GENTRY	1	MENARD UNKNOWN	9

## Data Summary

Cross-tabulation of all selected logs, individual logs will vary.

Tabulation of logged intervals only, individual logs will vary.

*Depth and Thickness measurements in feet*

Member	Lithology	Avg. Depth	Min. Depth	Max. Depth	Avg. Thk	Min. Thk	Max. Thk
<b>CEDAR BLUFF GROUP</b>		<b>269.3</b>	7.3	692.3	<b>109.7</b>	67.4	132.5
<b>DELWOOD</b>	COAL	<b>51.9</b>	51.9	51.9	<b>3.0</b>	3.0	3.0
<b>WILLIS</b>	COAL	<b>88.6</b>	11.0	166.2	<b>1.5</b>	0.3	2.3
<b>GRINDSTAFF</b>	SANDSTONE	<b>197.7</b>	197.7	197.7	<b>32.5</b>	15.0	50.0
<b>FINNIE</b>	SANDSTONE	<b>99.4</b>	99.4	99.4	<b>57.5</b>	55.0	60.0
<b>POUNDS</b>	SANDSTONE	<b>12.0</b>	12.0	12.0	<b>66.5</b>	58.0	75.0
<b>DRURY</b>	SHALE	<b>70.0</b>	70.0	70.0	<b>100.0</b>	100.0	100.0
<b>GENTRY</b>	COAL	<b>100.0</b>	100.0	100.0	<b>1.0</b>	1.0	1.0
<b>BATTERY ROCK</b>	SANDSTONE	<b>51.7</b>	3.0	170.0	<b>23.0</b>	1.0	100.0
<b>WAYSIDE</b>	SANDSTONE	<b>20.0</b>	20.0	20.0	-	-	-
<b>KINKAID</b>	LIMESTONE	<b>65.1</b>	55.6	70.0	<b>75.2</b>	8.0	162.1
<b>DEGONIA</b>	SANDSTONE	<b>231.8</b>	231.8	231.8	<b>29.3</b>	15.0	43.6
<b>CLORE</b>	SANDSTONE	<b>8.5</b>	8.5	8.5	<b>96.9</b>	96.9	96.9
<b>FORD STATION</b>	LIMESTONE	<b>275.4</b>	275.4	275.4	<b>4.7</b>	4.7	4.7
<b>PALESTINE</b>	SANDSTONE	<b>105.4</b>	105.4	105.4	<b>4.0</b>	4.0	4.0
<b>MENARD</b>	LIMESTONE	<b>16.0</b>	3.0	40.0	<b>55.1</b>	20.5	96.5
<b>WALTERSBURG</b>	SANDSTONE	<b>46.4</b>	0.1	103.6	<b>19.6</b>	16.9	22.2
<b>VIENNA</b>	LIMESTONE	<b>29.1</b>	0.6	57.6	<b>10.1</b>	5.8	13.0
<b>TAR SPRINGS</b>	SANDSTONE	<b>28.6</b>	4.6	69.1	<b>97.9</b>	84.3	111.4
<b>HARDINBURG</b>	SANDSTONE	<b>110.6</b>	20.0	230.9	<b>68.1</b>	1.3	108.7
<b>HANEY</b>	LIMESTONE	<b>190.8</b>	26.0	327.5	<b>98.8</b>	59.0	119.5
<b>FRAILEYS</b>	SHALE	<b>197.6</b>	8.7	386.5	<b>64.9</b>	63.9	65.8
<b>BEECH CREEK</b>	LIMESTONE	<b>263.8</b>	74.5	450.4	<b>3.2</b>	2.2	4.1
<b>WEST BADEN GROUP</b>		<b>140.3</b>	4.5	453.5	<b>164.2</b>	2.8	238.8
				<b>Net Coal</b>	<b>5.5</b>		

## Coal Logs

This report contains non-confidential coal log descriptions from the Coal Section's stratigraphic database in the county listed. Coal logs are sorted by township/range and section. For each log, North American Datum 1983 (NAD83) Longitude/Latitude coordinates in decimal degrees are provided as well as a legal description which uses the Public Land Survey System (PLSS). The following are two examples of coal log locations:

**Example location 1: COUNTY: SALINE TWP/RNG: 7S 5E SECTION: 19 QUARTERS/FOOTAGES: 330'S line, 330'W line of SE NE  
LONGITUDE: -88.691911 LATITUDE: 37.900435**

This log is from a borehole located in Saline County, Township 7 South, Range 5 East, 330 feet from the south line and 330 feet from the west line of the southeast quarter of the northeast quarter of section 19.

**Example location 2: COUNTY: SALINE TWP/RNG: 9S 5E SECTION: 36 QUARTERS/FOOTAGES: 530'N, 530'W, SE/c NE NW  
LONGITUDE: -88.60834 LATITUDE: 37.700006**

This log is from a borehole located in Saline County, Township 9 South, Range 5 East, 530 feet north and 530 feet west of the southeast corner of the northeast quarter of the northwest quarter of section 36.

Beneath the header is geology information for that data point. The Coal Section stratigraphic database from which this .PDF file is derived is a multi-project database which contains drill hole and outcrop descriptions of Pennsylvanian stratigraphy in Illinois. Consequently, the level of detail and accuracy in the data and their interpretation vary (sometimes widely) with the geologist, project type, or original data source. Multiple descriptions of a particular location may be present. Note that both the coal stratigraphic database and this .PDF listing are only a subset of the total amount of data available from the ISGS Geologic Records Library archives, and reflect only coal-specific data and interpretations of past and present Coal Section geologists. They are not a comprehensive listing of all data that may be available from the ISGS.

**MAPID:** 15100160000C    **VERSION:** 1    **PROJECT:** COGEOMAP  
**COUNTY:** POPE    **TWP/RNG:** 11S 4E    **SECTION:** 2    **QUARTERS/FOOTAGES:** 1600' S line, 600' W line  
**QUADRANGLE:** STONEFORT    **LONGITUDE:** -88.742888    **GEOLOGIST:** BARGH  
**CONFIDENTIAL:** N    **LATITUDE:** 37.589752    **DATE COLLECTED:** 11 / 25 / 1957  
**SURFACE ELEVATION (FT.):** 525.0    **LOGGED (FT.):** 72.5    **LOG TYPE:**  
**SOURCE:** HART & HART    **WELL TYPE:** Coal Test  
**COMMENT:** DRILL HOLE NO 1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
525.0			CLAYSTONE	10.0	0.0
515.0			SHALE	6.5	10.0
508.5			SHALE	5.5	16.5
503.0			SANDSTONE	9.0	22.0
494.0			SANDSTONE	3.5	31.0
490.5			SHALE	13.8	34.5
476.7			COAL	0.1	48.3
476.7			SHALE	6.7	48.3
470.0			SHALE	17.5	55.0

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MAPID: 15100159000C VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 2 QUARTERS/FOOTAGES: 1650' N line, 300' W line

QUADRANGLE: STONEFORT LONGITUDE: -88.635092 GEOLOGIST: BARGH

CONFIDENTIAL: N LATITUDE: 37.594617 DATE COLLECTED: 11 / 25 / 1957

SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 67.0 LOG TYPE:

SOURCE: HART & HART WELL TYPE: Coal Test

COMMENT: DRILL HOLE #4

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
420.0			CLAYSTONE	9.5	0.0
410.4			CLAYSTONE	2.5	9.6
408.0			SHALE	3.3	12.0
404.7			SHALE	8.3	15.3
396.5			SANDSTONE	6.2	23.5
390.3			COAL	0.1	29.7
390.2			UNDERCLAY	1.8	29.8
388.5			SANDSTONE	9.5	31.5
379.0			SHALE	3.5	41.0
375.5			SANDSTONE	22.5	44.5

MAPID: 15100161000C VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 2 QUARTERS/FOOTAGES: 1600' N line, 2100' W line

QUADRANGLE: STONEFORT LONGITUDE: -88.628846 GEOLOGIST: BARGH

CONFIDENTIAL: N LATITUDE: 37.59476 DATE COLLECTED: 11 / 25 / 1957

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 37.0 LOG TYPE:

SOURCE: HART & HART WELL TYPE: Coal Test

COMMENT: DRILL HOLE #3

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
630.0			CLAYSTONE	6.0	0.0
624.0			SANDSTONE	1.5	6.0
622.5			CLAYSTONE	7.5	7.5
616.0			SANDSTONE	10.3	14.0
605.7			SHALE	2.3	24.3
603.5			COAL	0.1	26.5
603.4			UNDERCLAY	0.9	26.6
602.5			SHALE	9.5	27.5

**MAPID:** 15100421700M    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 11S 5E    **SECTION:** 2    **QUARTERS/FOOTAGES:** SW SE  
**QUADRANGLE:** EDDYVILLE    **LONGITUDE:** -88.624583    **GEOLOGIST:** BARGH M.  
**CONFIDENTIAL:** N    **LATITUDE:** 37.586606    **DATE COLLECTED:** 0 / 0 / 1916  
**SURFACE ELEVATION (FT.):** 440.0    **LOGGED (FT.):** 2.3    **LOG TYPE:** Measured section  
**SOURCE:** FLD NOTES-BROKAW    **WELL TYPE:** Underground mine  
**COMMENT:** FRANK DURFEE COALBANK-PICTURE IN NOTEBOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SANDSTONE	-		
-	ABBOTT	WILLIS	COAL	2.3		
-	ABBOTT		SHALE	-		

**MAPID:** 151273C0003F    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 11S 5E    **SECTION:** 2    **QUARTERS/FOOTAGES:** NE NW NE NW  
**QUADRANGLE:** STONEFORT    **LONGITUDE:** -88.629662    **GEOLOGIST:** BARGH M.  
**CONFIDENTIAL:** N    **LATITUDE:** 37.598728    **DATE COLLECTED:** 0 / 0 / 1926  
**SURFACE ELEVATION (FT.):** 460.0    **LOGGED (FT.):** 14.0    **LOG TYPE:** Measured section  
**SOURCE:** FLD NOTES-HENBEST    **WELL TYPE:** Outcrop  
**COMMENT:** TRAVERSE N DOWN HILL HOLLOW

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	6.0		
-			COAL	0.4		
-			ROCK	7.6		

**MAPID:** 151273C0005F    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 11S 5E    **SECTION:** 2    **QUARTERS/FOOTAGES:** SW NW SW SE  
**QUADRANGLE:** STONEFORT    **LONGITUDE:** -88.626333    **GEOLOGIST:** BARGH M.  
**CONFIDENTIAL:** N    **LATITUDE:** 37.587064    **DATE COLLECTED:** 0 / 0 / 1926  
**SURFACE ELEVATION (FT.):** 550.0    **LOGGED (FT.):** 92.0    **LOG TYPE:** Measured section  
**SOURCE:** FLD NOTES-HENBEST    **WELL TYPE:** Underground mine  
**COMMENT:** COAL MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SANDSTONE	20.0		
-			SHALE	-		
-			COAL	2.0		
-			SHALE & SANDSTONE	20.0		
-			SANDSTONE	50.0		

**MAPID:** 151273C0104F    **VERSION:** 1    **PROJECT:** COGEOMAP  
**COUNTY:** POPE    **TWP/RNG:** 11S 5E    **SECTION:** 3    **QUARTERS/FOOTAGES:** SE NE  
**QUADRANGLE:** STONEFORT    **LONGITUDE:** -88.638415    **GEOLOGIST:** BARGH  
**CONFIDENTIAL:** N    **LATITUDE:** 37.59382    **DATE COLLECTED:** 0 / 0 / 1916  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 0.0    **LOG TYPE:** Measured section  
**SOURCE:** FLD NOTES-BROKAW    **WELL TYPE:** Roadcut  
**COMMENT:** IN SE CORNER NE STRIKE/DIP IS S80E22

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SANDSTONE	0.0		

**MAPID:** 151273C0105F    **VERSION:** 1    **PROJECT:** COGEOMAP  
**COUNTY:** POPE    **TWP/RNG:** 11S 5E    **SECTION:** 3    **QUARTERS/FOOTAGES:** NW SW  
**QUADRANGLE:** STONEFORT    **LONGITUDE:** -88.652053    **GEOLOGIST:** BARGH  
**CONFIDENTIAL:** N    **LATITUDE:** 37.590275    **DATE COLLECTED:** 0 / 0 / 1916  
**SURFACE ELEVATION (FT.):** 400.0    **LOGGED (FT.):** 0.0    **LOG TYPE:** Measured section  
**SOURCE:** FLD NOTES-BROKAW    **WELL TYPE:** Outcrop  
**COMMENT:** NE CORNER NWSW STRIKE S60W25E

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0			SANDSTONE	0.0	0.0	

**MAPID:** 151273C0106F    **VERSION:** 1    **PROJECT:** COGEOMAP  
**COUNTY:** POPE    **TWP/RNG:** 11S 5E    **SECTION:** 3    **QUARTERS/FOOTAGES:** SE  
**QUADRANGLE:** STONEFORT    **LONGITUDE:** -88.640769    **GEOLOGIST:** BARGH  
**CONFIDENTIAL:** N    **LATITUDE:** 37.588446    **DATE COLLECTED:** 0 / 0 / 1926  
**SURFACE ELEVATION (FT.):** 460.0    **LOGGED (FT.):** 60.0    **LOG TYPE:** Measured section  
**SOURCE:** FLD NOTES-HENBEST    **WELL TYPE:** Outcrop  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SHALE	1.0		
459.0			SANDSTONE	59.0	1.0	

MAPID: 151273C0108F VERSION: 1

PROJECT: COGEO MAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 4 QUARTERS/FOOTAGES: NW SE SE

QUADRANGLE: STONEFORT LONGITUDE: -88.657761 GEOLOGIST: BARGH

CONFIDENTIAL: N LATITUDE: 37.587521 DATE COLLECTED: 0 / 0 / 1916

SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-BROKAW WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-			SANDSTONE	0.0	

MAPID: 151273C0107F VERSION: 1

PROJECT: COGEO MAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 4 QUARTERS/FOOTAGES: NE

QUADRANGLE: STONEFORT LONGITUDE: -88.658765 GEOLOGIST: BARGH

CONFIDENTIAL: N LATITUDE: 37.595733 DATE COLLECTED: 0 / 0 / 1916

SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-BROKAW WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-			SANDSTONE	0.0	

MAPID: 15100146000C VERSION: 1

PROJECT: COGEO MAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 5 QUARTERS/FOOTAGES: NW

QUADRANGLE: STONEFORT LONGITUDE: -88.686307 GEOLOGIST: BARGH

CONFIDENTIAL: N LATITUDE: 37.595535 DATE COLLECTED:

SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 60.0 LOG TYPE:

SOURCE: STONEFORT COAL CO. WELL TYPE: Coal Test

COMMENT: DRILL HOLE #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
540.0			UNCONSOLIDATED	8.0	0.0
532.0			SANDSTONE	52.0	8.0

MAPID: 15100147000C VERSION: 1

PROJECT: COGEO MAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 5 QUARTERS/FOOTAGES: 400' N line, 1' E line of NW  
 QUADRANGLE: STONEFORT LONGITUDE: -88.681573 GEOLOGIST: BARGH  
 CONFIDENTIAL: N LATITUDE: 37.598121 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 65.2 LOG TYPE:  
 SOURCE: STONEFORT COAL CO. WELL TYPE: Coal Test  
 COMMENT: DRILL HOLE # 2

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
480.0			UNCONSOLIDATED	5.0	0.0
475.0			SANDSTONE	24.0	5.0
451.0			COAL	3.2	29.0
447.8			CLAYSTONE	2.0	32.2
445.8			SHALE	31.0	34.2

MAPID: 15100148000C VERSION: 1

PROJECT: COGEO MAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 5 QUARTERS/FOOTAGES:  
 QUADRANGLE: STONEFORT LONGITUDE: -88.681716 GEOLOGIST: BARGH  
 CONFIDENTIAL: N LATITUDE: 37.591936 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 39.1 LOG TYPE:  
 SOURCE: STONEFORT COAL CO. WELL TYPE: Coal Test  
 COMMENT: DRILL HOLE #3

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0			UNCONSOLIDATED	10.0	0.0
510.0			SANDSTONE	26.5	10.0
483.5			COAL	3.1	36.5
481.4			CLAYSTONE	0.0	38.6

MAPID: 15100149000C VERSION: 1

PROJECT: COGEO MAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 5 QUARTERS/FOOTAGES: 1370' N line, 1720' E line  
 QUADRANGLE: STONEFORT LONGITUDE: -88.678252 GEOLOGIST: BARGH  
 CONFIDENTIAL: N LATITUDE: 37.595486 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 75.0 LOG TYPE:  
 SOURCE: STONEFORT COAL CO. WELL TYPE: Coal Test  
 COMMENT: DRILL HOLE #4

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
550.0			UNCONSOLIDATED	5.0	0.0
545.0			SANDSTONE	70.0	5.0

MAPID: 151273C0113F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE

TWP/RNG: 11S 5E

SECTION: 5

QUARTERS/FOOTAGES: NW NW SW

QUADRANGLE: STONEFORT

LONGITUDE: -88.68988

GEOLOGIST: BARGH

CONFIDENTIAL: N

LATITUDE: 37.590978

DATE COLLECTED: 0 / 0 / 1932

SURFACE ELEVATION (FT.): 440.0

LOGGED (FT.): 110.4

LOG TYPE: Measured section

SOURCE: FLD NOTES-WANLESS

WELL TYPE: Roadcut

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
440.0			UNCONSOLIDATED	8.0	0.0
432.0			CONGLOMERATE	1.5	8.0
430.5			SHALE	0.2	9.5
430.3			SHALE	0.3	9.7
430.1			COAL	3.0	9.9
427.1			CLAYSTONE	3.5	12.9
423.6			SANDSTONE	1.0	16.4
422.6			SHALE	8.0	17.4
414.6			SHALE	35.0	25.4
379.6			SANDSTONE	50.0	60.4

MAPID: 151273C0112F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE

TWP/RNG: 11S 5E

SECTION: 5

QUARTERS/FOOTAGES: NW SW SE NE

QUADRANGLE: STONEFORT

LONGITUDE: -88.676437

GEOLOGIST: BARGH

CONFIDENTIAL: N

LATITUDE: 37.593344

DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 540.0

LOGGED (FT.): 0.0

LOG TYPE: Measured section

SOURCE: FLD NOTES-CADY

WELL TYPE: Outcrop

COMMENT: POSSIBLE STEP FAULTS S. SIDE OF HILL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			SANDSTONE	0.0	

MAPID: 151273C0111F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE

TWP/RNG: 11S 5E

SECTION: 5

QUARTERS/FOOTAGES: SW NW NW

QUADRANGLE: STONEFORT

LONGITUDE: -88.689802

GEOLOGIST: BARGH

CONFIDENTIAL: N

LATITUDE: 37.596405

DATE COLLECTED:

SURFACE ELEVATION (FT.): 500.0

LOGGED (FT.): 35.0

LOG TYPE: Measured section

SOURCE: FLD NOTES-CADY

WELL TYPE: Roadcut

COMMENT: FAULTS NOTED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			SANDSTONE	0.0	
-			COAL	0.0	
-			SHALE	25.0	
-			SANDSTONE	15.0	



MAPID: 151273C0109F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 5 QUARTERS/FOOTAGES: SE SE NE SE

QUADRANGLE: STONEFORT LONGITUDE: -88.67309 GEOLOGIST: BARGH

CONFIDENTIAL: N LATITUDE: 37.588779 DATE COLLECTED: 0 / 0 / 1916

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-BROKAW WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT	OVERBURDEN	COMMENT
-			SANDSTONE	0.0		

MAPID: 151273C0114F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 5 QUARTERS/FOOTAGES: NW NW NW

QUADRANGLE: STONEFORT LONGITUDE: -88.689774 GEOLOGIST: BARGH

CONFIDENTIAL: N LATITUDE: 37.598213 DATE COLLECTED: 0 / 0 / 1960

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 277.7 LOG TYPE: Measured section

SOURCE: R.I 214-KOSANKE ETAL WELL TYPE: Roadcut

COMMENT: TYPE SECTION ABBOTT FM. RR TRAVERSE 3 MI

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT	OVERBURDEN	COMMENT
480.0			SANDSTONE	50.0	0.0	
430.0			CONGLOMERATE	1.5	50.0	
428.5			SHALE	0.2	51.5	
428.3			SHALE	0.3	51.7	
428.1	SPOON	DELWOOD	COAL	3.0	51.9	
425.1			CLAYSTONE	1.5	54.9	
423.6			CLAYSTONE	2.0	56.4	
421.6			SANDSTONE	1.0	58.4	
420.6			SHALE	40.0	59.4	
380.6	ABBOTT	FINNIE	SANDSTONE	60.0	99.4	
320.6				3.0	159.4	
317.6			SHALE	3.5	162.4	
314.1				0.3	165.9	
313.8	ABBOTT	WILLIS	COAL	0.3	166.2	
313.5				0.2	166.5	
313.3			UNDERCLAY	3.0	166.7	
310.3			SHALE	3.0	169.7	
307.3			SHALE	25.0	172.7	
282.3	ABBOTT	GRINDSTAFF	SANDSTONE	50.0	197.7	
232.3			CONGLOMERATE	30.0	247.7	

MAPID: 151273C0110F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 5 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: STONEFORT LONGITUDE: -88.674558

GEOLOGIST: BARGH

CONFIDENTIAL: N LATITUDE: 37.597482

DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 540.0

LOGGED (FT.): 4.0

LOG TYPE: Measured section

SOURCE: FLD NOTES-CADY

WELL TYPE: Underground mine

COMMENT: DRIFT MINE, DIP N-NW

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			SANDSTONE	0.0	
-			SHALE/COAL	2.0	
-			COAL	2.0	

MAPID: 15100091400M VERSION: 1

PROJECT: BLM

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 6 QUARTERS/FOOTAGES: SE SW NE NE

QUADRANGLE: STONEFORT LONGITUDE: -88.693838

GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.595953

DATE COLLECTED: 11 / 3 / 1970

SURFACE ELEVATION (FT.): 540.0

LOGGED (FT.): 25.2

LOG TYPE:

SOURCE: MINE NOTES-HOPKINS E & L C C

WELL TYPE: Strip Mine

COMMENT: SAMPLED SECTIONS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
540.0			UNCONSOLIDATED	8.0	0.0
532.0			ROCK	14.0	8.0
518.0			COAL	2.9	22.0
515.1			ROCK	0.3	24.9

MAPID: 151273C0117F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 6 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: STONEFORT LONGITUDE: -88.706409

GEOLOGIST: BARGH

CONFIDENTIAL: N LATITUDE: 37.597391

DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 600.0

LOGGED (FT.): 0.0

LOG TYPE: Measured section

SOURCE: FLD NOTES-CADY

WELL TYPE: Roadcut

COMMENT: FAULTED AREA. TRAV.FROM ROAD DOWN RAVINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0			SANDSTONE	0.0	0.0
-			SHALE	0.0	
-			SANDSTONE	0.0	
-			SHALE	0.0	
-			SANDSTONE	0.0	
-			SHALE	0.0	
-			SANDSTONE	0.0	

MAPID: 151273C0116F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 6 QUARTERS/FOOTAGES: NW NE NE  
 QUADRANGLE: STONEFORT LONGITUDE: -88.694382 GEOLOGIST: BARGH  
 CONFIDENTIAL: N LATITUDE: 37.598223 DATE COLLECTED: 0 / 0 / 1926  
 SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section  
 SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop  
 COMMENT: OUTCROP IN RAVINE COAL TEST PITS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SANDSTONE	0.0		
-			CONGLOMERATE	0.0		

MAPID: 151273C0115F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 6 QUARTERS/FOOTAGES: SW NW NE  
 QUADRANGLE: STONEFORT LONGITUDE: -88.698985 GEOLOGIST: BARGH  
 CONFIDENTIAL: N LATITUDE: 37.596434 DATE COLLECTED: 0 / 0 / 1926  
 SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 152.0 LOG TYPE: Measured section  
 SOURCE: FLD NOTES-CADY WELL TYPE: Roadcut  
 COMMENT: TRAVERSE ALONG ROAD. ELEV, QUESTIONABLE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SANDSTONE	30.0		
550.0				60.0	30.0	
490.0			SANDSTONE	50.0	90.0	
440.0			SHALE	40.0	140.0	
400.0				2.0	180.0	
-			SANDSTONE	0.0		

MAPID: 151273C0135F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 6 QUARTERS/FOOTAGES: NE NW SE  
 QUADRANGLE: STONEFORT LONGITUDE: -88.696766 GEOLOGIST: BARGH  
 CONFIDENTIAL: N LATITUDE: 37.590963 DATE COLLECTED: 0 / 0 / 1926  
 SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 30.0 LOG TYPE: Measured section  
 SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
490.0			SANDSTONE	30.0	0.0	
-			SANDSTONE	0.0		

MAPID: 151273C0118F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 7 QUARTERS/FOOTAGES: NE SW NE

QUADRANGLE: STONEFORT LONGITUDE: -88.696898 GEOLOGIST: BARGH

CONFIDENTIAL: N LATITUDE: 37.580046 DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 400.0 LOG TYPE:

SOURCE: FLD NOTES-WANLESS WELL TYPE:

COMMENT: SECTION ALONG ICRR

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0			SANDSTONE	5.0	0.0
515.0			SANDSTONE	0.0	5.0
515.0			SHALE	0.0	5.0
515.0			SHALE	10.0	5.0
505.0			SANDSTONE	35.0	15.0
470.0			SHALE	3.5	50.0
466.5			UNKNOWN	2.0	53.5
464.5			SANDSTONE	7.0	55.5
457.5			UNKNOWN	300.0	62.5
157.5			UNKNOWN	20.0	362.5
137.5			SANDSTONE	8.0	382.5

MAPID: 15100226000C VERSION: 1

PROJECT: BLM

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 8 QUARTERS/FOOTAGES: SW NW NW

QUADRANGLE: STONEFORT LONGITUDE: -88.690002 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.581924 DATE COLLECTED: 6 / 0 / 1968

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 110.0 LOG TYPE: Drillers Log

SOURCE: RICHEY, DRILLER WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
460.0			CLAYSTONE	10.0	0.0
450.0			SHALE	2.0	10.0
448.0			SANDSTONE	33.0	12.0
415.0			SANDSTONE	65.0	45.0

MAPID: 15100022000C    VERSION: 1

PROJECT: CUSMAP

COUNTY: POPE    TWP/RNG: 11S 5E    SECTION: 9    QUARTERS/FOOTAGES: 400' N line, 500' W line of NW NW

QUADRANGLE: STONEFORT    LONGITUDE: -88.670933

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 37.58356

DATE COLLECTED: 8 / 0 / 1916

SURFACE ELEVATION (FT.): 410.0    LOGGED (FT.): 578.0

LOG TYPE: Drillers Log

SOURCE: PIERCE I C

WELL TYPE: Stratigraphic Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-168.0	BASE OF PENN.		UNCLASSIFIED	-	578.0

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MAPID: 15100022000C VERSION: 2

PROJECT: BLM

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 9 QUARTERS/FOOTAGES: 400' N line, 500' W line of NW NW

QUADRANGLE: STONEFORT LONGITUDE: -88.670933 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.58356 DATE COLLECTED: 8 / 0 / 1916

SURFACE ELEVATION (FT.): 417.0 LOGGED (FT.): 3075.0 LOG TYPE: Multiple log types

SOURCE: PIERCE, I. C. WELL TYPE: Oil and Gas Test

COMMENT: 1,4 SAMPLE STUDY BY CADY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
417.0			UNCONSOLIDATED	35.0	0.0
382.0			BLACK SHALE	25.0	35.0
357.0			SANDSTONE	70.0	60.0
287.0			SILTSTONE	40.0	130.0
247.0			SANDSTONE	50.0	170.0
197.0			SILTSTONE	45.0	220.0
152.0			SANDSTONE	102.0	265.0
50.0			SILTSTONE	8.0	367.0
42.0			SANDSTONE	10.0	375.0
32.0			SILTSTONE	5.0	385.0
27.0			SANDSTONE	139.0	390.0
-112.0			SILTSTONE	56.0	529.0
-168.0			LIMESTONE	38.0	585.0
-206.0			ROCK	9.0	623.0
-215.0			LIMESTONE/SILTSTONE	127.0	632.0
-342.0			SANDSTONE	6.0	759.0
-348.0			SILTSTONE/LIMESTONE	60.0	765.0
-408.0			SANDSTONE	10.0	825.0
-418.0			SILTSTONE/LIMESTONE	35.0	835.0
-453.0			SILTSTONE	13.0	870.0
-466.0			LIMESTONE	5.0	883.0
-471.0			SILTSTONE/SANDSTONE	82.0	888.0
-553.0			LIMESTONE	3.0	970.0
-556.0			SANDSTONE	53.0	973.0
-609.0			LIMESTONE/SILTSTONE	74.0	1026.0
-663.0			SILTSTONE	5.0	1080.0
-758.0			SANDSTONE/LIMESTONE	90.0	1175.0
-853.0			SILTSTONE/LIMESTONE	94.0	1270.0
-947.0			UNKNOWN	332.0	1364.0
-1279.0			UNKNOWN	204.0	1696.0
-1530.0			LIMESTONE/SILTSTONE	1128.0	1947.0

MAPID: 15100028000C    VERSION: 1

PROJECT: CUSMAP

COUNTY: POPE                    TWP/RNG: 11S 5E            SECTION: 10            QUARTERS/FOOTAGES: 927' S line, 296' E line of SE

QUADRANGLE: STONEFORT                    LONGITUDE: -88.637488

GEOLOGIST:

CONFIDENTIAL: N                    LATITUDE: 37.57294

DATE COLLECTED: 12 / 0 / 1940

SURFACE ELEVATION (FT.): 627.0            LOGGED (FT.): 30.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Producer-Oil and Gas

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
597.0	BASE OF PENN.		UNCLASSIFIED	-	30.0

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MAPID: 15100028000C VERSION: 2

PROJECT: BLM

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 10 QUARTERS/FOOTAGES: 927' S line, 296' E line of SE

QUADRANGLE: STONEFORT LONGITUDE: -88.637488 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.57294 DATE COLLECTED: 12 / 0 / 1940

SURFACE ELEVATION (FT.): 627.0 LOGGED (FT.): 1692.0 LOG TYPE: Multiple log types

SOURCE: OHIO OIL CO. WELL TYPE: Oil and Gas Test

COMMENT: 1,4 C#667 SS# 5926

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
627.0			UNCONSOLIDATED	20.0	0.0	
607.0			SANDSTONE	10.0	20.0	
597.0			LIMESTONE	20.0	30.0	
577.0			SHALE	5.0	50.0	
572.0			LIMESTONE	55.0	55.0	
517.0			SHALE	35.0	110.0	
482.0			LIMESTONE	42.0	145.0	
440.0			SHALE	48.0	187.0	
392.0			LIMESTONE	28.0	235.0	
364.0			SHALE & SANDSTONE	25.0	263.0	
339.0			LIMESTONE	4.0	288.0	
335.0			SANDSTONE	23.0	292.0	
312.0			LIMESTONE	5.0	315.0	
307.0			SHALE & SANDSTONE	99.0	320.0	
208.0			SHALE/COAL	2.0	419.0	
206.0			SANDSTONE	26.0	421.0	
180.0			SHALE	18.0	447.0	
180.0			LIMESTONE	45.0	447.0	
135.0			CALCAREOUS SHALE	143.0	492.0	
-8.0			SANDSTONE	40.0	635.0	
-48.0			SHALE	41.0	675.0	
-89.0			LIMESTONE	6.0	716.0	
-95.0			SHALE	17.0	722.0	
-112.0			SANDSTONE	70.0	739.0	
-127.0			LIMESTONE	86.0	754.0	
-188.0			UNKNOWN	27.0	815.0	
-413.0			UNKNOWN	131.0	1040.0	
-544.0			UNKNOWN	126.0	1171.0	
-670.0			UNKNOWN	62.0	1297.0	
-732.0			UNKNOWN	25.0	1359.0	
-757.0			UNKNOWN	54.0	1384.0	
-811.0			UNKNOWN	0.0	1438.0	



MAPID: 151273C0119F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 10 QUARTERS/FOOTAGES: SE SW SE SE  
 QUADRANGLE: STONEFORT LONGITUDE: -88.639316 GEOLOGIST: BARGH  
 CONFIDENTIAL: N LATITUDE: 37.57087 DATE COLLECTED: 0 / 0 / 1916  
 SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 0.0 LOG TYPE:  
 SOURCE: FLD NOTES-BROKAW WELL TYPE:  
 COMMENT: SEV. NOTES FOR THIS AREA, ELEV QUESTION.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0			SANDSTONE	0.0	0.0

MAPID: 151273C0120F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 11 QUARTERS/FOOTAGES: SW SE SW  
 QUADRANGLE: STONEFORT LONGITUDE: -88.630648 GEOLOGIST: BARGH  
 CONFIDENTIAL: N LATITUDE: 37.571224 DATE COLLECTED: 0 / 0 / 1926  
 SURFACE ELEVATION (FT.): 700.0 LOGGED (FT.): 600.0 LOG TYPE:  
 SOURCE: FLD NOTES-CADY WELL TYPE:  
 COMMENT: THICKNESSES APPROX. TRAV. DOWN Ravine

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
700.0			SANDSTONE	10.0	0.0
690.0			SANDSTONE	8.0	10.0
682.0			SHALE	16.5	18.0
665.5			SHALE	3.5	34.5
662.0			SANDSTONE	6.0	38.0
656.0				5.0	44.0
-			SANDSTONE	8.0	
-			SANDSTONE	5.5	
-			SHALE	5.5	
-				0.0	

MAPID: 15100001000C VERSION: 1

PROJECT: CUSMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 12 QUARTERS/FOOTAGES: 1000' N line, 1500' E line  
 QUADRANGLE: EDDYVILLE LONGITUDE: -88.604332 GEOLOGIST:  
 CONFIDENTIAL: N LATITUDE: 37.581786 DATE COLLECTED: 0 / 0 / 1938  
 SURFACE ELEVATION (FT.): 731.0 LOGGED (FT.): 279.0 LOG TYPE: Drillers Log  
 SOURCE: WHITLOCK C C ETAL WELL TYPE: Stratigraphic Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
452.0	BASE OF PENN.		UNCLASSIFIED	-	279.0

MAPID: 15100151000C VERSION: 1

PROJECT: CUSMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 13 QUARTERS/FOOTAGES: 330' N line, 330' W line of NE NW  
 QUADRANGLE: EDDYVILLE LONGITUDE: -88.612068 GEOLOGIST:  
 CONFIDENTIAL: N LATITUDE: 37.569273 DATE COLLECTED: 7 / 0 / 1956  
 SURFACE ELEVATION (FT.): 782.0 LOGGED (FT.): 705.0 LOG TYPE: Electric Log  
 SOURCE: PLEDGER ROY WELL TYPE: Producer-Oil and Gas  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
77.0	BASE OF PENN.		UNCLASSIFIED	-	705.0

MAPID: 15100003000C VERSION: 1

PROJECT: CUSMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 15 QUARTERS/FOOTAGES: NE NE  
 QUADRANGLE: STONEFORT LONGITUDE: -88.63874 GEOLOGIST:  
 CONFIDENTIAL: N LATITUDE: 37.568577 DATE COLLECTED: 0 / 0 / 1900  
 SURFACE ELEVATION (FT.): LOGGED (FT.): 195.0 LOG TYPE: Drillers Log  
 SOURCE: MID EGYPT OIL & GAS WELL TYPE: Producer-Oil and Gas  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	BASE OF PENN.		UNCLASSIFIED	-	195.0

MAPID: 15100003000C VERSION: 2

PROJECT: BLM

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 15 QUARTERS/FOOTAGES: NE NE  
 QUADRANGLE: STONEFORT LONGITUDE: -88.63874 GEOLOGIST: BARGH,M  
 CONFIDENTIAL: N LATITUDE: 37.568577 DATE COLLECTED: 11 / 11 / 1921  
 SURFACE ELEVATION (FT.): 700.0 LOGGED (FT.): 660.0 LOG TYPE: Drillers Log  
 SOURCE: MID-EGYPT GAS & OIL WELL TYPE:  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
700.0			UNDERCLAY	35.0	0.0
665.0			SILTSTONE	10.0	35.0
655.0			COAL	1.0	45.0
654.0			SILTSTONE	14.0	46.0
640.0			SANDSTONE	107.0	60.0
533.0			SILTSTONE	28.0	167.0
505.0			LIMESTONE	40.0	195.0
465.0			SILTSTONE/LIMESTONE	210.0	235.0
255.0			SANDSTONE/SILTSTONE	85.0	445.0
170.0			LIMESTONE	10.0	530.0
160.0			SILTSTONE/LIMESTONE	40.0	540.0
120.0			LIMESTONE	80.0	580.0

**MAPID:** 151273C0122F    **VERSION:** 1    **PROJECT:** COGEOMAP  
**COUNTY:** POPE    **TWP/RNG:** 11S 5E    **SECTION:** 16    **QUARTERS/FOOTAGES:** SE NE  
**QUADRANGLE:** STONEFORT    **LONGITUDE:** -88.656934    **GEOLOGIST:** BARGH  
**CONFIDENTIAL:** N    **LATITUDE:** 37.56497    **DATE COLLECTED:** 0 / 0 / 1916  
**SURFACE ELEVATION (FT.):** 540.0    **LOGGED (FT.):** 0.0    **LOG TYPE:**  
**SOURCE:** FLD NOTES-BROKAW    **WELL TYPE:**  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-			LIMESTONE	0.0	

**MAPID:** 151273C0121F    **VERSION:** 1    **PROJECT:** COGEOMAP  
**COUNTY:** POPE    **TWP/RNG:** 11S 5E    **SECTION:** 16    **QUARTERS/FOOTAGES:** NE NE NE SE  
**QUADRANGLE:** STONEFORT    **LONGITUDE:** -88.655248    **GEOLOGIST:** BARGH  
**CONFIDENTIAL:** N    **LATITUDE:** 37.562644    **DATE COLLECTED:** 0 / 0 / 1916  
**SURFACE ELEVATION (FT.):** 690.0    **LOGGED (FT.):** 0.0    **LOG TYPE:**  
**SOURCE:** THE NOTES-BROKAW    **WELL TYPE:**  
**COMMENT:** OTHER NOTES BY BROKAW IN THIS AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-			SANDSTONE	0.0	

**MAPID:** 151273C0123F    **VERSION:** 1    **PROJECT:** COGEOMAP  
**COUNTY:** POPE    **TWP/RNG:** 11S 5E    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW NE NE  
**QUADRANGLE:** STONEFORT    **LONGITUDE:** -88.658049    **GEOLOGIST:** BARGH  
**CONFIDENTIAL:** N    **LATITUDE:** 37.567777    **DATE COLLECTED:** 0 / 0 / 1926  
**SURFACE ELEVATION (FT.):** 430.0    **LOGGED (FT.):** 0.0    **LOG TYPE:**  
**SOURCE:** FLD NOTES-HENDRICKS    **WELL TYPE:**  
**COMMENT:** "OUTCROPS ALL THE WAY UP GULLY"

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-			SANDSTONE	0.0	

MAPID: 151273C0125F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 17 QUARTERS/FOOTAGES: SW NW SW  
 QUADRANGLE: STONEFORT LONGITUDE: -88.690267 GEOLOGIST: BARGH  
 CONFIDENTIAL: N LATITUDE: 37.560088 DATE COLLECTED: 0 / 0 / 1926  
 SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 160.0 LOG TYPE:  
 SOURCE: FLD NOTES-HENDRICK WELL TYPE:  
 COMMENT: MEASURED DOWN INTO RAVINE TO E

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
630.0			SHALE	20.0	0.0
610.0			SANDSTONE	90.0	20.0
520.0			SHALE	50.0	110.0

MAPID: 151273C0124F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 17 QUARTERS/FOOTAGES: SW SW SW SW  
 QUADRANGLE: STONEFORT LONGITUDE: -88.690906 GEOLOGIST: BARGH  
 CONFIDENTIAL: N LATITUDE: 37.55599 DATE COLLECTED: 0 / 0 / 1926  
 SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 140.0 LOG TYPE:  
 SOURCE: FLD NOTES-CADY WELL TYPE:  
 COMMENT: SECTION DOWN RAVINE INTO SEC. 18

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0			SANDSTONE	80.0	0.0
520.0			SHALE	60.0	80.0

MAPID: 151273C0126F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 18 QUARTERS/FOOTAGES: SE SW NE NW  
 QUADRANGLE: STONEFORT LONGITUDE: -88.703343 GEOLOGIST: BARGH  
 CONFIDENTIAL: N LATITUDE: 37.56672 DATE COLLECTED: 0 / 0 / 1933  
 SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 62.2 LOG TYPE:  
 SOURCE: FLD NOTES-WANLESS WELL TYPE:  
 COMMENT: NORTH PORTAL RR TUNNEL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
480.0	ABBOTT	FINNIE	SANDSTONE	55.0	0.0
425.0			BLACK SHALE	3.0	55.0
422.0			SHALE	3.5	58.0
418.5			BLACK SHALE	0.3	61.5
418.2			COAL	0.3	61.8
417.9			BLACK SHALE	0.2	62.1
417.8			UNDERCLAY	3.0	62.2

MAPID: 151273C0127F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 18 QUARTERS/FOOTAGES: NE SW SE NW

QUADRANGLE: STONEFORT LONGITUDE: -88.703381 GEOLOGIST: BARGH

CONFIDENTIAL: N LATITUDE: 37.563959 DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 57.7 LOG TYPE:

SOURCE: FLD NOTES-WANLESS WELL TYPE:

COMMENT: PORTAL 250 YDS SOUTH OF N. PORTAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
500.0	ABBOTT	FINNIE	SANDSTONE	0.0	0.0	
-				15.0		
485.0			SHALE	0.2	15.0	
484.8			UNDERCLAY	3.0	15.2	
481.8			SHALE	3.0	18.2	
478.8			SANDSTONE	20.0	21.2	
458.8			SHALE	15.0	41.2	

MAPID: 15100030000C VERSION: 1

PROJECT: CUSMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 19 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: STONEFORT LONGITUDE: -88.693967 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.542601 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 708.0 LOGGED (FT.): 598.0 LOG TYPE: Survey Sample Study

SOURCE: GARDENHEIR & SMITH WELL TYPE: Stratigraphic Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
110.0	BASE OF PENN.		UNCLASSIFIED	-	598.0	

MAPID: 15100030000C VERSION: 2

PROJECT: BLM

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 19 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: STONEFORT LONGITUDE: -88.693967 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.542601 DATE COLLECTED: 8 / 0 / 1940

SURFACE ELEVATION (FT.): 708.0 LOGGED (FT.): 1160.0 LOG TYPE: Drillers Log

SOURCE: GARDEN HEIR & SMITH WELL TYPE: Oil and Gas Test

COMMENT: SUMMARY SAMPLE STUDY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
708.0			UNKNOWN	245.0	0.0
463.0			SANDSTONE	55.0	245.0
408.0			SHALE/COAL	20.0	300.0
388.0			SANDSTONE	25.0	320.0
363.0			SHALE	3.0	345.0
360.0			SANDSTONE	247.0	348.0
113.0			BLACK SHALE	3.0	595.0
110.0			CALCAREOUS SHALE	209.0	598.0
-99.0			UNKNOWN	155.0	807.0
-254.0			SANDSTONE	104.0	962.0
-358.0			LIMESTONE	94.0	1066.0

MAPID: 151273C0129F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 19 QUARTERS/FOOTAGES: NW NE NE

QUADRANGLE: STONEFORT LONGITUDE: -88.694937 GEOLOGIST: BARGH

CONFIDENTIAL: N LATITUDE: 37.554531 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 570.0 LOGGED (FT.): 70.0 LOG TYPE: Measured section

SOURCE: FLD NOTES - CADY WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
570.0			SANDSTONE	10.0	0.0
560.0			BLACK SHALE	20.0	10.0
540.0			SANDSTONE	10.0	30.0
530.0			UNKNOWN	10.0	40.0
520.0			SHALE	10.0	50.0
510.0			UNKNOWN	20.0	60.0
-			SANDSTONE	0.0	

MAPID: 151273C0128F VERSION: 1

PROJECT: COGEO MAP

COUNTY: POPE

TWP/RNG: 11S 5E

SECTION: 19

QUARTERS/FOOTAGES: NE SW SW

QUADRANGLE: STONEFORT

LONGITUDE: -88.706535

GEOLOGIST: BARGH

CONFIDENTIAL: N

LATITUDE: 37.543496

DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 700.0

LOGGED (FT.): 160.0

LOG TYPE:

SOURCE: FLD NOTES-CADY

WELL TYPE:

COMMENT: DOWN RAVINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
700.0			UNKNOWN	4.0	0.0
696.0			SANDSTONE	38.0	4.0
658.0				82.0	42.0
576.0			SANDSTONE	0.0	124.0

MAPID: 15120309000C VERSION: 1

PROJECT: BLM

COUNTY: POPE

TWP/RNG: 11S 5E

SECTION: 20

QUARTERS/FOOTAGES: SW NE NW

QUADRANGLE: STONEFORT

LONGITUDE: -88.685728

GEOLOGIST: BARGH,M

CONFIDENTIAL: N

LATITUDE: 37.552685

DATE COLLECTED: 9 / 5 / 1977

SURFACE ELEVATION (FT.): 700.0

LOGGED (FT.): 333.0

LOG TYPE: Drillers Log

SOURCE: BEANLAND, DRILLER

WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
700.0			CLAYSTONE	4.0	0.0
696.0			SANDSTONE/SHALE	44.0	4.0
652.0			SHALE	8.0	48.0
644.0			SANDSTONE	83.0	56.0
561.0			SHALE	61.0	139.0
500.0			SANDSTONE	133.0	200.0

MAPID: 151273C0130F VERSION: 1

PROJECT: COGEO MAP

COUNTY: POPE

TWP/RNG: 11S 5E

SECTION: 20

QUARTERS/FOOTAGES: NE SE SE NW

QUADRANGLE: STONEFORT

LONGITUDE: -88.68288

GEOLOGIST: BARGH

CONFIDENTIAL: N

LATITUDE: 37.549418

DATE COLLECTED: 0 / 0 / 1916

SURFACE ELEVATION (FT.): 580.0

LOGGED (FT.): 0.0

LOG TYPE: Measured section

SOURCE: FLD NOTES-BROKAW

WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
580.0			SANDSTONE	0.0	0.0
-			SHALE	0.0	

MAPID: 151273C0131F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE

TWP/RNG: 11S 5E

SECTION: 20

QUARTERS/FOOTAGES: NE SE SE SW

QUADRANGLE: STONEFORT

LONGITUDE: -88.682998

GEOLOGIST: BARGH

CONFIDENTIAL: N

LATITUDE: 37.54204

DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 670.0

LOGGED (FT.): 47.7

LOG TYPE: Measured section

SOURCE: FLD NOTES - CADY

WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
670.0			SANDSTONE	10.0	0.0
660.0				0.0	10.0
660.0			SANDSTONE	3.0	10.0
657.0			BLACK SHALE	7.0	13.0
650.0			UNKNOWN	10.0	20.0
-			SANDSTONE/SHALE	0.0	
-			SHALE	5.0	
-			SHALE	0.7	
-				2.0	
-				3.0	
-			SANDSTONE	7.0	

MAPID: 151273C0132F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE

TWP/RNG: 11S 5E

SECTION: 21

QUARTERS/FOOTAGES: NW NW

QUADRANGLE: STONEFORT

LONGITUDE: -88.670674

GEOLOGIST: BARGH

CONFIDENTIAL: N

LATITUDE: 37.553454

DATE COLLECTED: 0 / 0 / 1916

SURFACE ELEVATION (FT.): 700.0

LOGGED (FT.): 0.0

LOG TYPE: Measured section

SOURCE: FLD NOTES-BROKAW

WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
700.0			SANDSTONE	0.0	0.0
-			BLACK SHALE	0.0	
-			COAL	0.0	



**MAPID:** 15100421800M    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 11S 5E    **SECTION:** 22    **QUARTERS/FOOTAGES:** 660' S line, 900' W line  
**QUADRANGLE:** STONEFORT    **LONGITUDE:** -88.65166    **GEOLOGIST:** BARGH M.  
**CONFIDENTIAL:** N    **LATITUDE:** 37.542703    **DATE COLLECTED:** 0 / 0 / 1939  
**SURFACE ELEVATION (FT.):** 620.0    **LOGGED (FT.):** 50.2    **LOG TYPE:** Measured section  
**SOURCE:** FLD NOTES-WANLESS    **WELL TYPE:** Underground mine  
**COMMENT:** "SEVERAL COAL ENTRIES IN WORKING COND"

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			ROCK	8.3	
611.7			COAL	0.9	8.3
610.8			ROCK	26.0	9.2
584.8			UNKNOWN	15.0	35.2

**MAPID:** 151273C0020F    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 11S 5E    **SECTION:** 22    **QUARTERS/FOOTAGES:** NE NW SW SW  
**QUADRANGLE:** STONEFORT    **LONGITUDE:** -88.653058    **GEOLOGIST:** BARGH M.  
**CONFIDENTIAL:** N    **LATITUDE:** 37.544102    **DATE COLLECTED:** 0 / 0 / 1926  
**SURFACE ELEVATION (FT.):** 755.0    **LOGGED (FT.):** 188.5    **LOG TYPE:** Measured section  
**SOURCE:** FLD NOTES-CADY    **WELL TYPE:** Outcrop  
**COMMENT:** TRAVERSE ALONG TRAIL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
755.0			UNCONSOLIDATED	10.0	0.0
745.0			ROCK	117.1	10.0
627.9			COAL	0.4	127.1
627.5			ROCK	55.3	127.5
572.2			COAL	0.2	182.8
572.0			ROCK	0.0	183.0

**MAPID:** 151273C0021F    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 11S 5E    **SECTION:** 28    **QUARTERS/FOOTAGES:** SW NW NW NW  
**QUADRANGLE:** STONEFORT    **LONGITUDE:** -88.672636    **GEOLOGIST:** BARGH M.  
**CONFIDENTIAL:** N    **LATITUDE:** 37.5392    **DATE COLLECTED:** 0 / 0 / 1926  
**SURFACE ELEVATION (FT.):** 690.0    **LOGGED (FT.):** 0.2    **LOG TYPE:** Measured section  
**SOURCE:** FLD NOTES-CADY    **WELL TYPE:** Outcrop  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			ROCK	-	
-			COAL	0.2	
-			UNDERCLAY	-	
-			ROCK	-	

**MAPID:** 151273C0022F    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 11S 5E    **SECTION:** 28    **QUARTERS/FOOTAGES:** NE NE SW NW  
**QUADRANGLE:** STONEFORT    **LONGITUDE:** -88.669263    **GEOLOGIST:** BARGH M.  
**CONFIDENTIAL:** N    **LATITUDE:** 37.53655    **DATE COLLECTED:** 0 / 0 / 1926  
**SURFACE ELEVATION (FT.):** 640.0    **LOGGED (FT.):** 0.0    **LOG TYPE:** Measured section  
**SOURCE:** FLD NOTES-CADY    **WELL TYPE:** Outcrop  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	-		
-			COAL	-		
-			UNDERCLAY	-		

**MAPID:** 151273C0023F    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 11S 5E    **SECTION:** 28    **QUARTERS/FOOTAGES:** NE NE NE SW  
**QUADRANGLE:** STONEFORT    **LONGITUDE:** -88.664765    **GEOLOGIST:** BARGH M.  
**CONFIDENTIAL:** N    **LATITUDE:** 37.533022    **DATE COLLECTED:** 0 / 0 / 1926  
**SURFACE ELEVATION (FT.):** 620.0    **LOGGED (FT.):** 0.0    **LOG TYPE:** Measured section  
**SOURCE:** FLD NOTES-CADY    **WELL TYPE:** Outcrop  
**COMMENT:** OTHER FLD NOTES FOR THIS RAVINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SHALE	-		
-			COAL	-		
-			UNDERCLAY	-		

**MAPID:** 15100031000C    **VERSION:** 1    **PROJECT:** CUSMAP  
**COUNTY:** POPE    **TWP/RNG:** 11S 5E    **SECTION:** 29    **QUARTERS/FOOTAGES:** 330' N line, 330' E line of SW NW  
**QUADRANGLE:** STONEFORT    **LONGITUDE:** -88.688266    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 37.536231    **DATE COLLECTED:** 7 / 0 / 1941  
**SURFACE ELEVATION (FT.):** 730.0    **LOGGED (FT.):** 490.0    **LOG TYPE:** Drillers Log  
**SOURCE:** CLARO ANTHONY ETAL    **WELL TYPE:** Producer-Oil and Gas  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
240.0	BASE OF PENN.		UNCLASSIFIED	-	490.0	

MAPID: 15100031000C VERSION: 2

PROJECT: BLM

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 29 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW NW

QUADRANGLE: STONEFORT LONGITUDE: -88.688266 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.536231 DATE COLLECTED: 7 / 0 / 1941

SURFACE ELEVATION (FT.): 730.0 LOGGED (FT.): 1236.0 LOG TYPE: Drillers Log

SOURCE: CLARO, ANTHONY WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
730.0			SANDSTONE/SHALE	350.0	0.0
380.0			SANDSTONE/SHALE	130.0	350.0
240.0			LIMESTONE W/ SHALE	200.0	490.0
40.0			SHALE & SANDSTONE	30.0	690.0
10.0			CALCAREOUS SHALE	110.0	720.0
-100.0			SANDSTONE	93.0	830.0
-193.0			UNKNOWN	140.0	923.0
-333.0			UNKNOWN	47.0	1063.0
-380.0			UNKNOWN	22.0	1110.0
-402.0			UNKNOWN	25.0	1132.0
-427.0			SANDSTONE	76.0	1157.0
-503.0			SANDSTONE	0.0	1233.0

MAPID: 151273C0133F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 29 QUARTERS/FOOTAGES: NE NE NE NE

QUADRANGLE: STONEFORT LONGITUDE: -88.673767 GEOLOGIST: BARGH

CONFIDENTIAL: N LATITUDE: 37.540102 DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 700.0 LOGGED (FT.): 46.3 LOG TYPE: Measured section

SOURCE: FLD NOTES-WANLESS WELL TYPE: Outcrop

COMMENT: TRAVERSE DOWN RAVINE. SLIGHT DIP SW

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
700.0	ABBOTT	GRINDSTAFF	SANDSTONE	15.0	0.0
685.0	ABBOTT		COAL	0.0	15.0
685.0	ABBOTT		UNDERCLAY	1.3	15.0
683.7	ABBOTT		UNDERCLAY	1.7	16.3
682.0	ABBOTT		SANDSTONE	1.3	18.0
680.7	ABBOTT		SANDSTONE	15.0	19.3
665.7	CASEYVILLE		SANDSTONE	12.0	34.3

MAPID: 15100032000C VERSION: 1

PROJECT: BLM

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 30 QUARTERS/FOOTAGES: 330' N line, 480' E line  
 QUADRANGLE: STONEFORT LONGITUDE: -88.693374 GEOLOGIST: C.P.WEIBEL  
 CONFIDENTIAL: N LATITUDE: 37.539851 DATE COLLECTED: 12 / 0 / 1940  
 SURFACE ELEVATION (FT.): 726.0 LOGGED (FT.): 2132.0 LOG TYPE: Multiple log types  
 SOURCE: GARNIER CO. WELL TYPE: Oil and Gas Test  
 COMMENT: 4,5

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
114.0			UNKNOWN	-	612.0	
114.0			UNKNOWN	49.0	612.0	
65.0			UNKNOWN	158.0	661.0	
65.0			LIMESTONE	53.0	661.0	
12.0			SHALE	78.0	714.0	
-66.0			LIMESTONE	27.0	792.0	
-93.0			UNKNOWN	175.0	819.0	
-268.0			SANDSTONE	96.0	994.0	
-364.0			UNKNOWN	115.0	1090.0	
-479.0			SANDSTONE	52.0	1205.0	
-531.0			UNKNOWN	19.0	1257.0	
-550.0			SANDSTONE	97.0	1276.0	
-647.0			UNKNOWN	77.0	1373.0	
-724.0			UNKNOWN	45.0	1450.0	
-769.0			UNKNOWN	105.0	1495.0	
-874.0			UNKNOWN	104.0	1600.0	
-978.0			UNKNOWN	7.0	1704.0	
-985.0			UNKNOWN	-	1711.0	

MAPID: 151273C0026F VERSION: 1

PROJECT: BLM

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 30 QUARTERS/FOOTAGES: NW NW SE

QUADRANGLE: STONEFORT LONGITUDE: -88.69963 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.532784 DATE COLLECTED: 8 / 31 / 1926

SURFACE ELEVATION (FT.): 700.0 LOGGED (FT.): 5.3 LOG TYPE: Measured section

SOURCE: FLD NOTES-HENBEST WELL TYPE: Roadcut

COMMENT: HORIZONTAL TRAVERSE THRU R R TUNNEL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
700.0			ROCK	-	0.0
-			COAL	0.7	
-			ROCK	-	
-			COAL	1.3	
-			ROCK	-	
-			COAL	1.5	
-			ROCK	-	
-			COAL WITH SHALE	1.8	
-			ROCK	-	

MAPID: 151273C0102F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 30 QUARTERS/FOOTAGES: NW SW SE

QUADRANGLE: STONEFORT LONGITUDE: -88.699593 GEOLOGIST: BARGH

CONFIDENTIAL: N LATITUDE: 37.529231 DATE COLLECTED: 0 / 0 / 1960

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 360.6 LOG TYPE: Measured section

SOURCE: FLD NOTES-KOSANKE WELL TYPE: Roadcut

COMMENT: CASEYVILLE REF.SECTION FROM RI 214

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	CASEYVILLE	POUNDS	SANDSTONE	75.0	0.0
525.0	CASEYVILLE		SHALE	10.0	75.0
515.0	CASEYVILLE		SHALE	15.0	85.0
500.0	CASEYVILLE	GENTRY	COAL	1.0	100.0
499.0	CASEYVILLE		UNDERCLAY	3.0	101.0
496.0	CASEYVILLE		SHALE	2.0	104.0
494.0	CASEYVILLE	BATTERY ROCK	SANDSTONE	100.0	106.0
394.0	CASEYVILLE		COAL	0.3	206.0
393.7	CASEYVILLE		SHALE	15.0	206.3
378.7	CASEYVILLE		CLAYSTONE	1.0	221.3
377.7	CASEYVILLE			125.0	222.3
252.7	CASEYVILLE		CLAYSTONE	1.3	347.3
251.4			LIMESTONE	12.0	348.6

MAPID: 151273C0134F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 30 QUARTERS/FOOTAGES:

QUADRANGLE: STONEFORT LONGITUDE: -88.700577

GEOLOGIST: BARGH

CONFIDENTIAL: N LATITUDE: 37.533679

DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 700.0

LOGGED (FT.): 195.0

LOG TYPE: Measured section

SOURCE: FLD NOTES-CADY

WELL TYPE: Roadcut

COMMENT: LOG OF SHAFT AT TUNNEL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
700.0			SANDSTONE	50.0	0.0
650.0			SHALE	74.0	50.0
576.0			SHALE	8.0	124.0
568.0			SANDSTONE	58.0	132.0
510.0			CONGLOMERATE	5.0	190.0

MAPID: 151273C0028F VERSION: 1

PROJECT: BLM

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 31 QUARTERS/FOOTAGES: NE NE NW SE

QUADRANGLE: STONEFORT LONGITUDE: -88.697022

GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.518806

DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 500.0

LOGGED (FT.): 53.5

LOG TYPE: Measured section

SOURCE: FLD NOTES-CADY

WELL TYPE: Roadcut

COMMENT: R. R. CUT

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			ROCK	26.3	
-			COAL	1.5	
-			ROCK	25.8	

MAPID: 151273C0029F VERSION: 1

PROJECT: BLM

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 31 QUARTERS/FOOTAGES: SE SE NW NE

QUADRANGLE: STONEFORT LONGITUDE: -88.696885

GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.523357

DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 600.0

LOGGED (FT.): 210.7

LOG TYPE: Measured section

SOURCE: FLD NOTES-FULLER

WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0			ROCK	8.0	0.0
592.0			UNKNOWN	2.0	8.0
590.0			ROCK	55.7	10.0
534.3			COAL	0.8	65.7
533.5			ROCK	72.2	66.5

MAPID: 151273C0030F VERSION: 1

PROJECT: BLM

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 31 QUARTERS/FOOTAGES: NW NW SE SE  
 QUADRANGLE: STONEFORT LONGITUDE: -88.695992 GEOLOGIST: BARGH M.  
 CONFIDENTIAL: N LATITUDE: 37.515166 DATE COLLECTED: 0 / 0 / 1961  
 SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 7.9 LOG TYPE: Measured section  
 SOURCE: FLD NOTES-PARHAM WELL TYPE: Outcrop  
 COMMENT: R. R. CUT

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
500.0			SANDSTONE	-	0.0
-			COAL	0.5	
-			COAL	0.8	
-			SHALE	0.1	
-			COAL	0.1	
-			UNDERCLAY	3.3	
-			ROCK	3.0	

MAPID: 151273C0027F VERSION: 1

PROJECT: BLM

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 31 QUARTERS/FOOTAGES: SW SE SE SE  
 QUADRANGLE: STONEFORT LONGITUDE: -88.693783 GEOLOGIST: BARGH M.  
 CONFIDENTIAL: N LATITUDE: 37.512442 DATE COLLECTED: 0 / 0 / 1926  
 SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 72.5 LOG TYPE: Measured section  
 SOURCE: FLS NOTES-CADY WELL TYPE: Outcrop  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			ROCK	35.0	
425.0			COAL	1.5	35.0
423.5			ROCK	36.0	36.5

MAPID: 151273C0001F VERSION: 1

PROJECT: BLM

COUNTY: POPE TWP/RNG: 11S 5E SECTION: 31 QUARTERS/FOOTAGES: SE SW NE SE  
 QUADRANGLE: STONEFORT LONGITUDE: -88.694834 GEOLOGIST: BARGH M.  
 CONFIDENTIAL: N LATITUDE: 37.516074 DATE COLLECTED: 6 / 0 / 1954  
 SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 1.6 LOG TYPE: Measured section  
 SOURCE: FLD NOTES-STONEHOUSE WELL TYPE: Roadcut  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			COAL	1.6	

**MAPID:** 151273C0031F    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 11S 5E    **SECTION:** 32    **QUARTERS/FOOTAGES:** SE SE NE NE  
**QUADRANGLE:** STONEFORT    **LONGITUDE:** -88.674101    **GEOLOGIST:** BARGH M.  
**CONFIDENTIAL:** N    **LATITUDE:** 37.522921    **DATE COLLECTED:** 0 / 0 / 1926  
**SURFACE ELEVATION (FT.):** 600.0    **LOGGED (FT.):** 46.3    **LOG TYPE:** Measured section  
**SOURCE:** FLD NOTES-CADY    **WELL TYPE:** Outcrop  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			ROCK	52.0	
548.0			COAL	0.3	52.0
547.7			ROCK	35.0	52.3

**MAPID:** 15100034000C    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 11S 5E    **SECTION:** 33    **QUARTERS/FOOTAGES:** NW NE SW NE  
**QUADRANGLE:** STONEFORT    **LONGITUDE:** -88.661542    **GEOLOGIST:** BARGH,M  
**CONFIDENTIAL:** N    **LATITUDE:** 37.522186    **DATE COLLECTED:** 0 / 0 / 1941  
**SURFACE ELEVATION (FT.):** 440.0    **LOGGED (FT.):** 73.0    **LOG TYPE:** Drillers Log  
**SOURCE:** U. S. FOREST SERVICE    **WELL TYPE:** Water Well  
**COMMENT:** "SUMMARY SAMPLE STUDY"

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
440.0			CLAYSTONE	26.0	0.0
414.0			LIMESTONE	4.0	26.0
414.0			SANDSTONE	20.0	26.0
394.0			SHALE	20.0	46.0
374.0			ROCK	3.0	66.0

**MAPID:** 151273D0003F    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 11S 5E    **SECTION:** 35    **QUARTERS/FOOTAGES:** NE SE NE SE  
**QUADRANGLE:** EDDYVILLE    **LONGITUDE:** -88.61892    **GEOLOGIST:** BARGH M.  
**CONFIDENTIAL:** N    **LATITUDE:** 37.516677    **DATE COLLECTED:** 0 / 0 / 1934  
**SURFACE ELEVATION (FT.):** 680.0    **LOGGED (FT.):** 16.5    **LOG TYPE:** Measured section  
**SOURCE:** FLD NOTES-WANLESS    **WELL TYPE:** Underground mine  
**COMMENT:** ABANDONED DRIFT MINE. SEE CADY NOTES

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			ROCK	13.5	
-			COAL	1.0	
-			UNDERCLAY	2.0	



MAPID: 151273D0002F VERSION: 1

PROJECT: BLM

COUNTY: POPE

TWP/RNG: 11S 5E

SECTION: 35

QUARTERS/FOOTAGES: NE SE NE SE

QUADRANGLE: EDDYVILLE

LONGITUDE: -88.61892

GEOLOGIST: BARGH M.

CONFIDENTIAL: N

LATITUDE: 37.516677

DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 680.0

LOGGED (FT.): 28.0

LOG TYPE: Measured section

SOURCE: FLD NOTES-CADY

WELL TYPE: Underground mine

COMMENT: COAL BANK IN SS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SANDSTONE	25.0		
655.0			COAL	3.0	25.0	

MAPID: 151273D0004F VERSION: 1

PROJECT: BLM

COUNTY: POPE

TWP/RNG: 11S 5E

SECTION: 36

QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: EDDYVILLE

LONGITUDE: -88.612656

GEOLOGIST: BARGH M.

CONFIDENTIAL: N

LATITUDE: 37.516223

DATE COLLECTED: 0 / 0 / 1934

SURFACE ELEVATION (FT.): 700.0

LOGGED (FT.): 31.2

LOG TYPE: Measured section

SOURCE: FLD NOTES-WANLESS

WELL TYPE: Outcrop

COMMENT: OUTCROP NEAR COAL MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	21.1		
678.9			COAL	1.5	21.1	
677.5			ROCK	2.1	22.5	
675.4			UNKNOWN	3.0	24.6	
672.4			ROCK	3.6	27.6	

MAPID: 15120398000C VERSION: 1

PROJECT: NCRDS99

COUNTY: POPE TWP/RNG: 11S 6E SECTION: 8 QUARTERS/FOOTAGES: 350' N line, 2660' W line

QUADRANGLE: EDDYVILLE LONGITUDE: -88.569719 GEOLOGIST: C KOROSE

CONFIDENTIAL: N LATITUDE: 37.583823 DATE COLLECTED: 11 / 13 / 1985

SURFACE ELEVATION (FT.): LOGGED (FT.): 141.0 LOG TYPE: Survey Core Study

SOURCE: COGEOMAP E-2 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
-	ABBOTT		SANDSTONE	15.0	10.0	WITH YELLOW CLAY; BROWN
-	ABBOTT		SHALE	2.2	25.0	SANDY; GRAY
-	ABBOTT		SANDSTONE	14.1	27.2	BROWN
-	ABBOTT		SANDSTONE	29.8	41.3	COAL STRINGERS AT 31.6; GRAY
-	ABBOTT		SHALE	6.5	71.0	SANDY, CARBONACEOUS AT TOP, GRAY
-	ABBOTT		SANDSTONE	7.3	77.5	SHALEY
-	ABBOTT		LIMESTONE	9.6	84.8	VERY THIN COAL STRINGER AT TOP
-	ABBOTT		SHALE	5.0	94.3	DARK, SANDY, WITH BURROWS
-	ABBOTT		SANDSTONE	5.7	99.3	
-	ABBOTT		CLAYSTONE & SILTSTONE	12.0	105.0	
-	ABBOTT		SANDSTONE	24.0	117.0	HARD

MAPID: 15120399000C VERSION: 1

PROJECT: NCRDS99

COUNTY: POPE TWP/RNG: 11S 6E SECTION: 9 QUARTERS/FOOTAGES: 1150' N line, 575' E line

QUADRANGLE: EDDYVILLE LONGITUDE: -88.543875 GEOLOGIST: C KOROSE

CONFIDENTIAL: N LATITUDE: 37.581473 DATE COLLECTED: 11 / 14 / 1985

SURFACE ELEVATION (FT.): 820.0 LOGGED (FT.): 141.0 LOG TYPE: Survey Core Study

SOURCE: COGEOMAP E-3 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
820.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
812.0	ABBOTT		SANDSTONE	17.0	8.0	CLAYEY, BROWN; MURRAY BLUFF
795.0	ABBOTT		SANDSTONE	86.0	25.0	BROWN
709.0	ABBOTT		SHALE	10.0	111.0	LOST 9.0
699.0	ABBOTT		SHALE	5.2	121.0	DARK
693.8	ABBOTT		SANDSTONE	2.6	126.2	BROWN
691.2	ABBOTT		SHALE & SANDSTONE	0.8	128.8	
690.4	ABBOTT		COAL	0.4	129.6	WITH PYRITE
690.0	ABBOTT		UNDERCLAY	3.0	130.0	GRAY
687.0	ABBOTT		CLAYSTONE & SILTSTONE	1.3	133.0	DARK
685.7	ABBOTT		SANDSTONE	0.3	134.3	HARD
685.4	ABBOTT		SANDSTONE	1.3	134.6	
684.2	ABBOTT		SANDSTONE	5.2	135.8	DARK TO LIGHT; BROWN

**MAPID:** 15100156000C    **VERSION:** 1    **PROJECT:** CUSMAP  
**COUNTY:** POPE    **TWP/RNG:** 11S 6E    **SECTION:** 14    **QUARTERS/FOOTAGES:** 330' S line, 330' E line of NW  
**QUADRANGLE:** EDDYVILLE    **LONGITUDE:** -88.515859    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 37.563793    **DATE COLLECTED:** 3 / 0 / 1957  
**SURFACE ELEVATION (FT.):** 785.0    **LOGGED (FT.):** 747.0    **LOG TYPE:** Survey Sample Study  
**SOURCE:** DITTERLINE, MILO    **WELL TYPE:** Stratigraphic Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
38.0	BASE OF PENN.		UNCLASSIFIED	-	747.0	

**MAPID:** 151273D0001F    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 11S 6E    **SECTION:** 16    **QUARTERS/FOOTAGES:** SE SW NW NE  
**QUADRANGLE:** EDDYVILLE    **LONGITUDE:** -88.549606    **GEOLOGIST:** BARGH M.  
**CONFIDENTIAL:** N    **LATITUDE:** 37.566895    **DATE COLLECTED:** 6 / 16 / 1954  
**SURFACE ELEVATION (FT.):** 580.0    **LOGGED (FT.):** 5.3    **LOG TYPE:** Measured section  
**SOURCE:** MINE NOTES-STONEHOUSE    **WELL TYPE:** Outcrop  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK		3.4	
576.6			COAL	1.3	3.4	
575.2			UNDERCLAY	0.5	4.8	

**MAPID:** 15100199000C    **VERSION:** 1    **PROJECT:** CUSMAP  
**COUNTY:** POPE    **TWP/RNG:** 11S 6E    **SECTION:** 25    **QUARTERS/FOOTAGES:** SE SW  
**QUADRANGLE:** HEROD    **LONGITUDE:** -88.49922    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 37.528393    **DATE COLLECTED:** 10 / 0 / 1943  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 157.5    **LOG TYPE:** Survey Sample Study  
**SOURCE:** FRAZIER ETAL    **WELL TYPE:** Producer-Oil and Gas  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	BASE OF PENN.		UNCLASSIFIED	-	157.5	

MAPID: 15120451000C VERSION: 1

PROJECT: NCRDS99

COUNTY: POPE TWP/RNG: 11S 6E SECTION: 32 QUARTERS/FOOTAGES: 2600' N line, 2500' E line

QUADRANGLE: EDDYVILLE LONGITUDE: -88.570157 GEOLOGIST: C KOROSE

CONFIDENTIAL: N LATITUDE: 37.519169 DATE COLLECTED: 8 / 7 / 1986

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 181.0 LOG TYPE: Survey Core Study

SOURCE: COGEOMAP E-4 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
618.0	CASEYVILLE	POUNDS	SANDSTONE	16.0	12.0	YELLOW/ORANGE STAINS; GRAY
602.0	CASEYVILLE	POUNDS	SANDSTONE	10.0	28.0	WHITE
592.0	CASEYVILLE	POUNDS	SANDSTONE	18.0	38.0	COAL STREAKS; LIGHT
574.0	CASEYVILLE	POUNDS	SANDSTONE	14.0	56.0	LIGHT
560.0	CASEYVILLE	DRURY	SHALE	10.0	70.0	SANDY, DARK TO GREEN
550.0	CASEYVILLE	DRURY	SANDSTONE	3.0	80.0	
547.0	CASEYVILLE	DRURY	SHALE	4.0	83.0	SILTY
543.0	CASEYVILLE	DRURY	SHALE	33.0	87.0	BLACK
510.0	CASEYVILLE	DRURY	SHALE	26.0	120.0	GRAY
484.0	CASEYVILLE	DRURY	SHALE	14.0	146.0	SILTY, DARK, VERY HARD WITH COAL
470.0	CASEYVILLE	DRURY	SHALE	10.0	160.0	SILTY, DARK, BURROWED, PLANT DEBRIS
460.0	CASEYVILLE	BATTERY ROCK	SHALE	5.0	170.0	SANDY; DARK
455.0	CASEYVILLE	BATTERY ROCK	SANDSTONE	6.0	175.0	LIGHT

MAPID: 15125539000C VERSION: 1

PROJECT:

COUNTY: POPE TWP/RNG: 11S 6E SECTION: 33 QUARTERS/FOOTAGES: 764' N line, 15' E line of SE SE

QUADRANGLE: EDDYVILLE LONGITUDE: -88.543239 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.513336 DATE COLLECTED: 5 / 4 / 1982

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 17.5 LOG TYPE: Drillers Log

SOURCE: ENERGY SUPPLY INC WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0	PLEISTOCENE		CLAY	8.5	0.0	
451.5			GRAY SHALE	6.7	8.5	
444.9			COAL	2.3	15.1	

**MAPID:** 151273D0022F    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 11S 6E    **SECTION:** 35    **QUARTERS/FOOTAGES:** SW SE SW  
**QUADRANGLE:** EDDYVILLE    **LONGITUDE:** -88.519015    **GEOLOGIST:** BARGH M.  
**CONFIDENTIAL:** N    **LATITUDE:** 37.512839    **DATE COLLECTED:** 0 / 0 / 1927  
**SURFACE ELEVATION (FT.):** 460.0    **LOGGED (FT.):** 0.0    **LOG TYPE:** Measured section  
**SOURCE:** FLD NOTES-HENBEST    **WELL TYPE:** Outcrop  
**COMMENT:** "COAL DUG OUT OF CREEK BED"

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			COAL	-		

**MAPID:** 15100036000C    **VERSION:** 1    **PROJECT:** CUS-PILOT  
**COUNTY:** POPE    **TWP/RNG:** 11S 7E    **SECTION:** 5    **QUARTERS/FOOTAGES:** 500' N line, 2500' E line  
**QUADRANGLE:** HEROD    **LONGITUDE:** -88.45852    **GEOLOGIST:** GK MAYNOR  
**CONFIDENTIAL:** N    **LATITUDE:** 37.598777    **DATE COLLECTED:** 7 / 0 / 1936  
**SURFACE ELEVATION (FT.):** 476.0    **LOGGED (FT.):** 455.0    **LOG TYPE:** Survey Sample Study  
**SOURCE:** CLARK O B ETAL    **WELL TYPE:** Dry Hole  
**COMMENT:** SAMPLE STUDY-LE WORKMAN.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
476.0				40.0	0.0	"SOIL, GRAVEL, MUD & WATER"
436.0				0.0	40.0	
436.0	MISSISSIPPIAN	MENARD	LIMESTONE	0.0	40.0	INFERRED FROM GEOLOGIC MAP-GKM 6/87.

**MAPID:** 15100053000C    **VERSION:** 1    **PROJECT:** CUS-PILOT  
**COUNTY:** POPE    **TWP/RNG:** 11S 7E    **SECTION:** 27    **QUARTERS/FOOTAGES:** 1960' S line, 430' E line  
**QUADRANGLE:** HEROD    **LONGITUDE:** -88.415532    **GEOLOGIST:** GK MAYNOR  
**CONFIDENTIAL:** N    **LATITUDE:** 37.531579    **DATE COLLECTED:** 11 / 0 / 1943  
**SURFACE ELEVATION (FT.):** 450.0    **LOGGED (FT.):** 225.0    **LOG TYPE:**  
**SOURCE:** U.S. BUREAU OF MINES    **WELL TYPE:** Misc. Borings 100 Ft. & Deeper  
**COMMENT:** CORE STUDY-FE TIPPIE 11/43.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0				37.5	0.0	"OVERBURDEN"
412.5				0.0	37.5	
412.5			LIMESTONE	0.0	37.5	

MAPID: 15120404000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: POPE TWP/RNG: 11S 7E SECTION: 33 QUARTERS/FOOTAGES: S2 SE NE

QUADRANGLE: HEROD LONGITUDE: -88.43437 GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.519906 DATE COLLECTED:

SURFACE ELEVATION (FT.): 384.0 LOGGED (FT.): 696.0 LOG TYPE: Survey Core Study

SOURCE: WELL TYPE: Mineral Test

COMMENT: CORE STUDY-DB SAXBY 01/50.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
384.0				8.7	0.0	"SURFACE SOIL"
375.3				0.0	8.7	
375.3	MISSISSIPPIAN	FRAILEYS	SHALE	65.8	8.7	"GOLCONDA"
309.5	MISSISSIPPIAN	BEECH CREEK	LIMESTONE	3.4	74.5	INFERRED TOP-GK MAYNOR 6/87.
306.1	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	233.9	77.9	
72.2	MISSISSIPPIAN	CEDAR BLUFF GROU	LIMESTONE	112.6	311.8	"D.B., SHET. & LEVIAS (399.7)"
-40.4			SANDSTONE	9.9	424.4	"ROSICLARE"
-50.3			LIMESTONE	0.0	434.3	"FREDONIA", FAULT 569.8- 574.6"

MAPID: 15100064000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: POPE TWP/RNG: 11S 7E SECTION: 34 QUARTERS/FOOTAGES: 2810' S line, 2455' E line

QUADRANGLE: HEROD LONGITUDE: -88.422562 GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.519226 DATE COLLECTED: 10 / 0 / 1943

SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 254.0 LOG TYPE: Survey Core Study

SOURCE: WELL TYPE: Misc. Borings 100 Ft. & Deeper

COMMENT: CORE STUDY-FE TIPPIC 10/43.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
425.0				33.8	0.0	"OVERBURDEN"
391.2				0.0	33.8	
391.2			LIMESTONE	0.0	33.8	"PROBABLE FAULT 171"

MAPID: 15100067000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: POPE TWP/RNG: 11S 7E SECTION: 34 QUARTERS/FOOTAGES: 350' N line, 650' E line of NE NW

QUADRANGLE: HEROD LONGITUDE: -88.425352 GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.525304 DATE COLLECTED: 12 / 0 / 1943

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 282.0 LOG TYPE: Survey Core Study

SOURCE: U.S. BUREAU OF MINES WELL TYPE: Mineral Test

COMMENT: CORE STUDY-FE TIPPIE 12/43.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
460.0				4.5	0.0	"OVERBURDEN"
455.5				0.0	4.5	
455.5	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	2.8	4.5	"BETHEL"
452.7	MISSISSIPPIAN	CEDAR BLUFF GROU	LIMESTONE	111.2	7.3	"RENAULT FM."
341.5			SANDSTONE	20.9	118.5	"ROSICLARE"
320.6			LIMESTONE	0.0	139.4	"FREDONIA", FAULT 148.7'

MAPID: 151273C0088F VERSION: 1

PROJECT: BLM

COUNTY: POPE TWP/RNG: 12S 5E SECTION: 2 QUARTERS/FOOTAGES: NW NW SW

QUADRANGLE: STONEFORT LONGITUDE: -88.635356 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.503396 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 660.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop

COMMENT: TRAVERSE N. TO NW CORNER OF SEC 2

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
660.0			SHALE	-	0.0	
-			SANDSTONE	-		
-			CLAYSTONE	-		
-			CLAYSTONE	-		
-			CLAYSTONE	3.0		
-			SANDSTONE	2.0		
-	CASEYVILLE		SANDSTONE	-		

MAPID: 151273C0093F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 12S 5E SECTION: 2 QUARTERS/FOOTAGES: NW NW NW NW  
 QUADRANGLE: STONEFORT LONGITUDE: -88.635914 GEOLOGIST: BARGH  
 CONFIDENTIAL: N LATITUDE: 37.510958 DATE COLLECTED: 0 / 0 / 1926  
 SURFACE ELEVATION (FT.): 740.0 LOGGED (FT.): 20.0 LOG TYPE: Measured section  
 SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop  
 COMMENT: MASSIVE SS ALONG ROAD

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
740.0			UNKNOWN	0.0	0.0	
-			SANDSTONE	0.0		
-			SHALE	20.0		

MAPID: 151273C0083F VERSION: 1

PROJECT: BLM

COUNTY: POPE TWP/RNG: 12S 5E SECTION: 2 QUARTERS/FOOTAGES: SW  
 QUADRANGLE: STONEFORT LONGITUDE: -88.631958 GEOLOGIST: BARGH,M  
 CONFIDENTIAL: N LATITUDE: 37.500711 DATE COLLECTED: 0 / 0 / 1926  
 SURFACE ELEVATION (FT.): 690.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section  
 SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop  
 COMMENT: MASSIVE SS CROPS THROUGHOUT SEC

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CASEYVILLE			80.0		

MAPID: 151273C0089F VERSION: 1

PROJECT: BLM

COUNTY: POPE TWP/RNG: 12S 5E SECTION: 3 QUARTERS/FOOTAGES: SW NE  
 QUADRANGLE: STONEFORT LONGITUDE: -88.643512 GEOLOGIST: BARGH,M  
 CONFIDENTIAL: N LATITUDE: 37.506386 DATE COLLECTED: 0 / 0 / 1926  
 SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section  
 SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop  
 COMMENT: IN SPRING CREEK VALLEY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNKNOWN	-		
-	CASEYVILLE		BLACK SHALE	1.0		
-	CASEYVILLE			1.0		
-	CASEYVILLE	BATTERY ROCK	COAL	1.0		



**MAPID:** 151273C0090F    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 12S 5E    **SECTION:** 3    **QUARTERS/FOOTAGES:** NW NE NE  
**QUADRANGLE:** STONEFORT    **LONGITUDE:** -88.640036    **GEOLOGIST:** BARGH,M  
**CONFIDENTIAL:** N    **LATITUDE:** 37.510556    **DATE COLLECTED:** 0 / 0 / 1926  
**SURFACE ELEVATION (FT.):** 690.0    **LOGGED (FT.):** 0.0    **LOG TYPE:** Measured section  
**SOURCE:** FLD NOTES-CADY    **WELL TYPE:** Outcrop  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
690.0			SHALE	-	0.0	
-			SANDSTONE	-		
-				-		

**MAPID:** 151273C0092F    **VERSION:** 1    **PROJECT:** COGEOMAP  
**COUNTY:** POPE    **TWP/RNG:** 12S 5E    **SECTION:** 3    **QUARTERS/FOOTAGES:** NE SE SE  
**QUADRANGLE:** GLENDALE    **LONGITUDE:** -88.637643    **GEOLOGIST:** BARGH  
**CONFIDENTIAL:** N    **LATITUDE:** 37.499885    **DATE COLLECTED:** 0 / 0 / 1926  
**SURFACE ELEVATION (FT.):** 570.0    **LOGGED (FT.):** 5.0    **LOG TYPE:** Measured section  
**SOURCE:** FLD NOTES-CADY    **WELL TYPE:** Outcrop  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0			UNKNOWN	5.0	0.0	
565.0	CASEYVILLE		SANDSTONE	0.0	5.0	

**MAPID:** 151273C0091F    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 12S 5E    **SECTION:** 3    **QUARTERS/FOOTAGES:** NW NW NW  
**QUADRANGLE:** STONEFORT    **LONGITUDE:** -88.654255    **GEOLOGIST:** BARGH,M  
**CONFIDENTIAL:** N    **LATITUDE:** 37.510759    **DATE COLLECTED:** 0 / 0 / 1926  
**SURFACE ELEVATION (FT.):** 575.0    **LOGGED (FT.):** 0.0    **LOG TYPE:** Measured section  
**SOURCE:** FLD NOTES-HENBEST    **WELL TYPE:** Outcrop  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
575.0	CASEYVILLE		CONGLOMERATE	-	0.0	

MAPID: 151273C0094F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 12S 5E SECTION: 3 QUARTERS/FOOTAGES: NE NE NW  
 QUADRANGLE: STONEFORT LONGITUDE: -88.647145 GEOLOGIST: BARGH  
 CONFIDENTIAL: N LATITUDE: 37.510656 DATE COLLECTED: 0 / 0 / 1926  
 SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 20.0 LOG TYPE: Measured section  
 SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop  
 COMMENT: THICK LOESS IN THIS VALLEY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	CASEYVILLE		SANDSTONE	20.0	0.0
580.0	CASEYVILLE		CONGLOMERATE	0.0	20.0

MAPID: 151273C0095F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 12S 5E SECTION: 4 QUARTERS/FOOTAGES: NE NW NW  
 QUADRANGLE: STONEFORT LONGITUDE: -88.670005 GEOLOGIST: BARGH  
 CONFIDENTIAL: N LATITUDE: 37.510822 DATE COLLECTED: 0 / 0 / 1926  
 SURFACE ELEVATION (FT.): 740.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section  
 SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop  
 COMMENT: EXAMPLE CADY COLOR-CODED SECTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			SANDSTONE	0.0	
-			SHALE	0.0	
-			SANDSTONE	0.0	

MAPID: 151273C0097F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 12S 5E SECTION: 5 QUARTERS/FOOTAGES: NE SE NW  
 QUADRANGLE: STONEFORT LONGITUDE: -88.683563 GEOLOGIST: BARGH  
 CONFIDENTIAL: N LATITUDE: 37.50787 DATE COLLECTED: 0 / 0 / 1933  
 SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 68.0 LOG TYPE: Measured section  
 SOURCE: FLD NOTES-WANLESS WELL TYPE: Outcrop  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0			SANDSTONE	3.0	0.0
517.0			SANDSTONE	5.0	3.0
512.0			SANDSTONE	5.0	8.0
507.0			SANDSTONE	5.0	13.0
502.0			CONGLOMERATE	50.0	18.0

MAPID: 151273C0098F VERSION: 1

PROJECT: COGEO MAP

COUNTY: POPE TWP/RNG: 12S 5E SECTION: 5 QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: STONEFORT LONGITUDE: -88.674468 GEOLOGIST: BARGH

CONFIDENTIAL: N LATITUDE: 37.509582 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 720.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-CADY WELL TYPE: Roadcut

COMMENT: UP RAVINE TOWARD HOUSE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			SANDSTONE	0.0	

MAPID: 151273C0096F VERSION: 1

PROJECT: COGEO MAP

COUNTY: POPE TWP/RNG: 12S 5E SECTION: 5 QUARTERS/FOOTAGES: SE

QUADRANGLE: STONEFORT LONGITUDE: -88.677676 GEOLOGIST: BARGH

CONFIDENTIAL: N LATITUDE: 37.501426 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			SANDSTONE	0.0	

MAPID: 15120322000C VERSION: 1

PROJECT: BLM

COUNTY: POPE TWP/RNG: 12S 5E SECTION: 6 QUARTERS/FOOTAGES: SW SW SW NW

QUADRANGLE: STONEFORT LONGITUDE: -88.709231 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.505274 DATE COLLECTED: 9 / 8 / 1979

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 240.0 LOG TYPE: Drillers Log

SOURCE: Q. RICHEY, DRILLER WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
640.0			CLAYSTONE	5.0	0.0
635.0			SANDSTONE	137.0	5.0
498.0			COAL	1.5	142.0
496.5			SANDSTONE	76.5	143.5
420.0			SHALE & SANDSTONE	10.0	220.0

MAPID: 151273C0099F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 12S 5E SECTION: 6 QUARTERS/FOOTAGES: SE SW NW SE

QUADRANGLE: STONEFORT LONGITUDE: -88.698952 GEOLOGIST: BARGH

CONFIDENTIAL: N LATITUDE: 37.501906 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 50.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-CADY WELL TYPE: Roadcut

COMMENT: SMALL GULLY ON N. SLOPE OF HILL.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
650.0			CLAYSTONE	40.0	0.0
610.0			COAL	1.0	40.0
609.0			CLAYSTONE	9.0	41.0
-			SANDSTONE	0.0	

MAPID: 151273C0100F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 12S 5E SECTION: 6 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: STONEFORT LONGITUDE: -88.707511 GEOLOGIST: BARGH

CONFIDENTIAL: N LATITUDE: 37.506653 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 180.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-HENDRICKS WELL TYPE: Roadcut

COMMENT: PROFILE OF VALLEY RUNNING N. W.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
640.0			SANDSTONE	40.0	0.0
600.0			SANDSTONE	100.0	40.0
500.0			SANDSTONE	40.0	140.0

MAPID: 151273C0101F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 12S 5E SECTION: 6 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: STONEFORT LONGITUDE: -88.692734 GEOLOGIST: BARGH

CONFIDENTIAL: N LATITUDE: 37.511109 DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 483.0 LOGGED (FT.): 134.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-FULLER WELL TYPE: Roadcut

COMMENT: SECTION ALONG RR CUTS CONT FROM 11S5E31

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
483.0	CASEYVILLE		SANDSTONE	80.0	0.0
-	CASEYVILLE		BLACK SHALE	0.0	
-	CASEYVILLE		SANDSTONE	10.0	
-	CASEYVILLE		SHALE	20.0	
-	CASEYVILLE	BATTERY ROCK	COAL	1.0	
-	CASEYVILLE		UNDERCLAY	3.0	
-	CASEYVILLE		SANDSTONE	20.0	

MAPID: 151273C0103F VERSION: 1

PROJECT: COGEOMAP

COUNTY: POPE TWP/RNG: 12S 5E SECTION: 6 QUARTERS/FOOTAGES: NE SE NE NE

QUADRANGLE: STONEFORT LONGITUDE: -88.692158 GEOLOGIST: BARGH

CONFIDENTIAL: N LATITUDE: 37.510222 DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 70.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-WANLESS WELL TYPE: Roadcut

COMMENT: EAST BLUFF ICRR CUT

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
580.0	CASEYVILLE		CONGLOMERATE	70.0	0.0	

MAPID: 151278A0006F VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 12S 5E SECTION: 13 QUARTERS/FOOTAGES: NE SE NE

QUADRANGLE: WALTERSBURG LONGITUDE: -88.601565 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.477611 DATE COLLECTED: / / 1934

SURFACE ELEVATION (FT.): 660.0 LOGGED (FT.): 70.0 LOG TYPE: Measured section

SOURCE: FLDNOTES - WANLESS WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
660.0	CASEYVILLE		SANDSTONE	20.0	0.0	
640.0	CASEYVILLE		SHALE	0.0	20.0	
640.0	CASEYVILLE	WAYSIDE	SANDSTONE	0.0	20.0	THIN BEDS
640.0	CASEYVILLE		UNKNOWN	50.0	20.0	
590.0	MISSISSIPPIAN	KINKAID	LIMESTONE	0.0	70.0	W CALC SH

MAPID: 151278A0005F VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 12S 5E SECTION: 13 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: WALTERSBURG LONGITUDE: -88.602641 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.480327 DATE COLLECTED: / / 1916

SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 20.0 LOG TYPE: Measured section

SOURCE: FLDNOTES - BROKAW WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0			SANDSTONE	0.0	0.0	MASSIVE NON- CONGLOMERATIC
650.0			BLUE SHALE	20.0	0.0	
630.0	MISSISSIPPIAN		LIMESTONE	0.0	20.0	CHERTY, FINELY XLINE

MAPID: 15100150000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 12S 6E SECTION: 2 QUARTERS/FOOTAGES: 660' N line, 1467' W line

QUADRANGLE: EDDYVILLE LONGITUDE: -88.519615 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.511005 DATE COLLECTED: 3 / 15 / 1956

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 704.0 LOG TYPE: Drillers Log

SOURCE: ALCOA WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0			SANDSTONE	108.5	0.0
511.6			GRAY SHALE	17.1	108.4
494.5			SANDSTONE	8.5	125.5
486.0			GRAY SHALE	1.0	134.0
485.0			SANDSTONE	49.0	135.0
436.0			GRAY SHALE	26.6	184.0
409.4			BLACK SHALE	6.0	210.6
403.4			COAL	0.3	216.6
403.2			UNDERCLAY	3.5	216.8
399.7			GRAY SHALE	4.6	220.3
395.1			SHALE & CLAYSTONE	0.1	224.9
395.0			UNDERCLAY	1.0	225.0
394.0			SHALE	2.0	226.0
392.0			SILTSTONE	4.0	228.0
388.0			GRAY SHALE	1.7	232.0
386.3			SILTSTONE	1.2	233.7
385.1			GRAY SHALE	7.8	234.9
377.3			SANDSTONE	4.5	242.7
372.8			GRAY SHALE	1.0	247.2
371.8			SANDSTONE	0.4	248.2
371.4			GRAY SHALE	0.3	248.6
371.1			SANDSTONE	11.2	248.9
360.0			SANDY SHALE	16.2	260.0
343.8			SANDSTONE	3.6	276.2
340.2			GRAY SHALE	3.5	279.8
336.7			BLACK SHALE	0.9	283.3
335.8			UNDERCLAY	2.8	284.2
333.1			SILTSTONE	9.2	286.9
323.8			SANDSTONE	1.6	296.2
322.3			SILTSTONE	6.6	297.7
315.7			GRAY SHALE	28.3	304.3
287.4			SANDSTONE	66.7	332.6
220.8			SHALE	14.6	399.2
206.2			GRAY SHALE	0.2	413.8
206.0			SILTSTONE	14.0	414.0
192.0			SANDSTONE	23.7	428.0
168.3			SILTSTONE	3.3	451.7
165.0			SANDSTONE	144.4	455.0
20.6			GRAY SHALE	11.1	599.4

9.6	SANDSTONE	10.3	610.4	
-0.7	GRAY SHALE	0.3	620.7	
-1.0	LIMESTONE	0.3	621.0	HOLE CONTINUES BEYOND THIS POINT
-	UNKNOWN	-		UNKNOWN

**MAPID:** 151273D0021F    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 12S 6E    **SECTION:** 2    **QUARTERS/FOOTAGES:** NE NE NW NW  
**QUADRANGLE:** EDDYVILLE    **LONGITUDE:** -88.520752    **GEOLOGIST:** BARGH M.  
**CONFIDENTIAL:** N    **LATITUDE:** 37.511476    **DATE COLLECTED:** 0 / 0 / 1927  
**SURFACE ELEVATION (FT.):** 500.0    **LOGGED (FT.):** 0.0    **LOG TYPE:**  
**SOURCE:** FLD NOTES-HENBEST    **WELL TYPE:** Strip Mine  
**COMMENT:** FAULT ZONE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	UNIT	OVERBURDEN	COMMENT
-			ROCK	-			
-			COAL	-			

**MAPID:** 15100077000C    **VERSION:** 1    **PROJECT:** NCRDS17  
**COUNTY:** POPE    **TWP/RNG:** 12S 6E    **SECTION:** 6    **QUARTERS/FOOTAGES:** 132' S line, 396' W line of SE  
**QUADRANGLE:** WALTERSBURG    **LONGITUDE:** -88.588888    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 37.497524    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 680.0    **LOGGED (FT.):** 257.0    **LOG TYPE:** Survey Sample Study  
**SOURCE:** FLOYD INGRAM    **WELL TYPE:** Coal Test  
**COMMENT:** SUMMARY SAMPLE STUDY BY EARL COCKRUN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	UNIT	OVERBURDEN	COMMENT
680.0	PLEISTOCENE		CLAY	10.0	0.0		
670.0			SANDSTONE	95.0	10.0		PENNSYLVANIAN
575.0			SILTSTONE	25.0	105.0		
550.0			SANDSTONE	42.0	130.0		
508.0			SHALE	20.0	172.0		CARBONACEOUS
488.0			SANDSTONE	3.0	192.0		SOME SH
485.0			SHALE	47.0	195.0		GRAY SLATE

MAPID: 15100257000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 12S 6E SECTION: 7 QUARTERS/FOOTAGES: SE SE NE SW

QUADRANGLE: WALTERSBURG

LONGITUDE: -88.59026

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.486244

DATE COLLECTED: 8 / 13 / 1971

SURFACE ELEVATION (FT.): 620.0

LOGGED (FT.): 150.0

LOG TYPE: Drillers Log

SOURCE: Q RICHEY, DRILLER

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0	
596.0			SHALE	5.0	24.0	
591.0			SANDSTONE	3.0	29.0	
588.0			SHALE	11.0	32.0	
577.0			SANDSTONE/SHALE	81.0	43.0	
496.0	MISSISSIPPIAN		LIMESTONE	26.0	124.0	

MAPID: 15120424000C VERSION: 1

PROJECT: NCRDS99

COUNTY: POPE TWP/RNG: 12S 6E SECTION: 9 QUARTERS/FOOTAGES: 70' N line, 1305' E line

QUADRANGLE: WALTERSBURG

LONGITUDE: -88.548498

GEOLOGIST: C KOROSE

CONFIDENTIAL: N

LATITUDE: 37.497652

DATE COLLECTED: 6 / 2 / 1988

SURFACE ELEVATION (FT.): 690.0

LOGGED (FT.): 280.0

LOG TYPE: Survey Core Study

SOURCE: COGEOMAP W-3

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
690.0	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
674.0	CASEYVILLE	BATTERY ROCK	SANDSTONE	18.5	16.0	BROWN, SILTY, CONGLOMERATE AT BASE
655.5			SHALE	35.3	34.5	FOSSILIFEROUS AT BASE; GRAY
620.2	MISSISSIPPIAN	KINKAID	LIMESTONE	43.3	69.8	PARTLY SHALEY
576.9	MISSISSIPPIAN	KINKAID	SHALE	14.4	113.1	SOME MAROON; GRAY
562.5	MISSISSIPPIAN	KINKAID	LIMESTONE	7.1	127.5	CAVE HILL MEMBER
555.4	MISSISSIPPIAN	KINKAID	LIMESTONE & SHALE	20.7	134.6	
534.8	MISSISSIPPIAN	KINKAID	LIMESTONE	43.4	155.2	GRAY
491.4	MISSISSIPPIAN	KINKAID	SHALE	7.0	198.6	LIMEY
484.5	MISSISSIPPIAN	KINKAID	LIMESTONE	26.3	205.5	GRAY
458.2	MISSISSIPPIAN	DEGONIA	SHALE	33.5	231.8	DARK
424.7	MISSISSIPPIAN	DEGONIA	MUDSTONE	2.3	265.3	
422.4	MISSISSIPPIAN	DEGONIA	CALCAREOUS SHALE	7.8	267.6	CHERTY AT 269.1
414.6	MISSISSIPPIAN	FORD STATION	LIMESTONE	4.7	275.4	SHALEY; DARK



**MAPID:** 151278A0002F    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 12S 6E    **SECTION:** 14    **QUARTERS/FOOTAGES:** SW NW NE SW  
**QUADRANGLE:** WALTERSBURG    **LONGITUDE:** -88.520087    **GEOLOGIST:** BARGH M.  
**CONFIDENTIAL:** N    **LATITUDE:** 37.474566    **DATE COLLECTED:** 6 / 17 / 1954  
**SURFACE ELEVATION (FT.):** 600.0    **LOGGED (FT.):** 2.2    **LOG TYPE:**  
**SOURCE:** FLD NOTES-STONEHOUSE    **WELL TYPE:** Strip Mine  
**COMMENT:** "WANLESS REPORTS 2' OF COAL"

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	ABBOTT	WILLIS	COAL	1.2		

**MAPID:** 151278A0007F    **VERSION:** 1    **PROJECT:** NCRDS17  
**COUNTY:** POPE    **TWP/RNG:** 12S 6E    **SECTION:** 14    **QUARTERS/FOOTAGES:** SW SW NW  
**QUADRANGLE:** WALTERSBURG    **LONGITUDE:** -88.524059    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 37.476917    **DATE COLLECTED:** / / 1934  
**SURFACE ELEVATION (FT.):** 600.0    **LOGGED (FT.):** 13.0    **LOG TYPE:** Measured section  
**SOURCE:** FLDNOTES - WANLESS    **WELL TYPE:** Outcrop  
**COMMENT:** EXPOSURE AT EDGE OF OLD COAL STRIP

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	TRADEWATER		SANDSTONE	0.0	0.0	FLOAT
600.0	TRADEWATER		BLACK SHALE	0.0	0.0	
600.0	TRADEWATER		CLAY	5.0	0.0	
595.0	TRADEWATER		SANDSTONE	0.0	5.0	ROOT TRACES
595.0	TRADEWATER		CLAY	2.0	5.0	
593.0	TRADEWATER		SHALE	4.0	7.0	
589.0	TRADEWATER		SHALE	0.0	11.0	DARK, HARD
589.0	TRADEWATER	WILLIS	COAL	2.0	11.0	
587.0	TRADEWATER	WILLIS	CLAY	0.0	13.0	SOFT CLAY - LIKE MATERIAL

**MAPID:** 15100207000C    **VERSION:** 1    **PROJECT:** CUS-PILOT  
**COUNTY:** POPE    **TWP/RNG:** 12S 6E    **SECTION:** 25    **QUARTERS/FOOTAGES:** 600' S line, 1000' E line of SE  
**QUADRANGLE:** SHETLERVILLE    **LONGITUDE:** -88.492272    **GEOLOGIST:** GK MAYNOR  
**CONFIDENTIAL:** N    **LATITUDE:** 37.440552    **DATE COLLECTED:** 0 / 0 / 1900  
**SURFACE ELEVATION (FT.):** 480.0    **LOGGED (FT.):** 104.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** NO COMPANY    **WELL TYPE:** Misc. Borings 100 Ft. & Deeper  
**COMMENT:** CORE STUDY-JC BRADBURY 10/64.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0				7.1	0.0	"SURFACE"
472.9				0.0	7.1	CORR. W/ CO.# 15100206.
472.9	MISSISSIPPIAN	MENARD	LIMESTONE	96.5	7.1	CORR. W/ CO.# 15100206.
376.4	MISSISSIPPIAN	WALTERSBURG	SANDSTONE	0.0	103.6	CORR. W/ CO.# 15100206.

**MAPID:** 15100093600M    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 12S 6E    **SECTION:** 29    **QUARTERS/FOOTAGES:** SE SE SE SE  
**QUADRANGLE:** WALTERSBURG    **LONGITUDE:** -88.563051    **GEOLOGIST:** BARGH M.  
**CONFIDENTIAL:** N    **LATITUDE:** 37.439116    **DATE COLLECTED:** 0 / 0 / 1975  
**SURFACE ELEVATION (FT.):** 500.0    **LOGGED (FT.):** 19.0    **LOG TYPE:**  
**SOURCE:** MINE NOTES-WESTERN MNG C. SHAWNEE MINE    **WELL TYPE:** Strip Mine  
**COMMENT:** DATA FROM FLD NOTE F278A001 & MINE INDEX

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
500.0	ABBOTT		ROCK	17.0	0.0	
483.0	ABBOTT		COAL	2.0	17.0	
481.0	ABBOTT		UNDERCLAY	-	19.0	

**MAPID:** 151278A0001F    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 12S 6E    **SECTION:** 29    **QUARTERS/FOOTAGES:** SW SE SE SE  
**QUADRANGLE:** WALTERSBURG    **LONGITUDE:** -88.564204    **GEOLOGIST:** BARGH M.  
**CONFIDENTIAL:** N    **LATITUDE:** 37.439112    **DATE COLLECTED:** 0 / 0 / 1974  
**SURFACE ELEVATION (FT.):** 460.0    **LOGGED (FT.):** 19.0    **LOG TYPE:**  
**SOURCE:** MINE NOTES-PEPPERS    **WELL TYPE:** Strip Mine  
**COMMENT:** IN DRAINAGE RAVINE OF MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0	ABBOTT		ROCK	17.0	0.0	
443.0	ABBOTT		COAL	2.0	17.0	
441.0	ABBOTT		UNDERCLAY	-	19.0	

**MAPID:** 15100219000C    **VERSION:** 1    **PROJECT:** NCRDS17  
**COUNTY:** POPE    **TWP/RNG:** 12S 6E    **SECTION:** 32    **QUARTERS/FOOTAGES:** 910' N line, 647' W line of SE  
**QUADRANGLE:** WALTERSBURG    **LONGITUDE:** -88.569482    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 37.428707    **DATE COLLECTED:** 10 / 3 / 1967  
**SURFACE ELEVATION (FT.):** 465.5    **LOGGED (FT.):** 69.3    **LOG TYPE:** Survey Core Study  
**SOURCE:** US FOREST SERVICE    **WELL TYPE:** Coal Test  
**COMMENT:** CORE DESCRIPTIONS BY HOPKINS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.5			SANDSTONE	10.7	0.0	CORE BEGINS
454.9			SHALE	7.2	10.6	
447.7			COAL	1.5	17.8	
446.2			CLAYSTONE	5.2	19.3	
441.1			SILTSTONE	0.3	24.4	
440.8			SANDSTONE	28.7	24.7	

MAPID: 15100221000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 12S 6E SECTION: 32 QUARTERS/FOOTAGES: 785' N line, 931' W line of SE

QUADRANGLE: WALTERSBURG LONGITUDE: -88.568498

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.429052

DATE COLLECTED: 10 / 19 / 1967

SURFACE ELEVATION (FT.): 546.1

LOGGED (FT.): 108.5

LOG TYPE: Survey Core Study

SOURCE: US FOREST SERVICE

WELL TYPE: Coal Test

COMMENT: CORE DESCRIPTIONS BY HOPKINS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
546.1			UNKNOWN	4.2	0.0	
542.0			SANDSTONE	83.2	4.1	
458.8			SHALE	12.8	87.3	
446.0			COAL	1.3	100.1	
444.7			CLAYSTONE	3.5	101.4	
441.2			SILTSTONE	3.5	104.9	

MAPID: 15100223000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 12S 6E SECTION: 32 QUARTERS/FOOTAGES: 689' N line, 178' E line of SW

QUADRANGLE: WALTERSBURG LONGITUDE: -88.572337

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.429315

DATE COLLECTED: 10 / 3 / 1967

SURFACE ELEVATION (FT.): 503.4

LOGGED (FT.): 122.0

LOG TYPE: Survey Core Study

SOURCE: US FOREST SERVICE

WELL TYPE: Coal Test

COMMENT: CORE DESCRIPTION BY HOPKINS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
503.4			UNKNOWN	3.0	0.0	
500.4			SANDSTONE	85.0	3.0	
415.4			CONGLOMERATE	2.5	88.0	
412.9			SHALE	14.8	90.5	
398.2			COAL	1.6	105.2	BASE CRUSHED W/ LEAF COAL
396.6			CLAYSTONE	0.1	106.8	
396.5			COAL	0.1	106.9	
396.4			CLAYSTONE	0.7	107.0	
395.7			COAL	0.3	107.7	
395.4			SILTSTONE	4.0	108.0	
391.4			CLAYSTONE	2.2	112.0	
389.3			SILTSTONE	6.6	114.1	
382.7			SANDSTONE	1.3	120.7	

MAPID: 151278A0009F VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 12S 6E SECTION: 35 QUARTERS/FOOTAGES: SE NW SW

QUADRANGLE: WALTERSBURG LONGITUDE: -88.522338

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.428574

DATE COLLECTED: / / 1926

SURFACE ELEVATION (FT.): 560.0 LOGGED (FT.): 97.9

LOG TYPE: Measured section

SOURCE: FLDNOTES - WORKMAN

WELL TYPE: Outcrop

COMMENT: SECTION OF KINKAID IN RAVINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
560.0			UNCONSOLIDATED	0.0	0.0	DRIFT
560.0	MISSISSIPPIAN	KINKAID	LIMESTONE	8.0	0.0	
552.0	MISSISSIPPIAN		UNKNOWN	5.0	8.0	COVERED
547.0	MISSISSIPPIAN		LIMESTONE/CHERT	0.3	13.0	
546.7	MISSISSIPPIAN		LIMESTONE	1.3	13.3	
545.4	MISSISSIPPIAN		UNKNOWN	5.0	14.6	
540.4	MISSISSIPPIAN		SILTSTONE	0.3	19.6	
540.1	MISSISSIPPIAN		LIMESTONE	0.0	19.9	
540.1	MISSISSIPPIAN		SHALE	0.0	19.9	
540.1	MISSISSIPPIAN		UNKNOWN	42.0	19.9	COVERED
498.1	MISSISSIPPIAN		LIMESTONE	1.8	61.9	
496.2	MISSISSIPPIAN		LIMESTONE/CHERT	2.0	63.8	
494.2	MISSISSIPPIAN		UNKNOWN	6.0	65.8	COVERED
488.2	MISSISSIPPIAN		LIMESTONE	1.5	71.8	
486.7	MISSISSIPPIAN		UNKNOWN	21.0	73.3	COVERED
465.7	MISSISSIPPIAN		LIMESTONE	3.6	94.3	

MAPID: 151278A0008F VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 12S 6E SECTION: 35 QUARTERS/FOOTAGES: NW NE SE

QUADRANGLE: WALTERSBURG LONGITUDE: -88.510924

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.430564

DATE COLLECTED:

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 15.0

LOG TYPE: Measured section

SOURCE: FLDNOTES - WORKMAN

WELL TYPE: Outcrop

COMMENT: S TO N TRAVERSE UP RAVINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0			SHALE	3.0	0.0	
477.0			SANDSTONE	1.0	3.0	BLOCKY
476.0			SHALE	3.0	4.0	SANDY
473.0			SANDSTONE	1.0	7.0	BLOCKY
472.0			SHALE	5.0	8.0	DK BL FISSILE
467.0			LIMESTONE/CHERT	2.0	13.0	CHERT REPLACEMENT OF LS
465.0			CONGLOMERATE	0.0	15.0	

MAPID: 15100213000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: POPE TWP/RNG: 12S 7E SECTION: 9 QUARTERS/FOOTAGES: 517' N line, 602' W line of SW SE

QUADRANGLE: SHETLERVILLE LONGITUDE: -88.43969 GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.484615 DATE COLLECTED: 3 / 0 / 1945

SURFACE ELEVATION (FT.): 407.0 LOGGED (FT.): 597.0 LOG TYPE: Survey Core Study

SOURCE: U.S. BUREAU OF MINES WELL TYPE: Mineral Test

COMMENT: CORE STUDY-FE TIPPIE 3/45

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
407.0				4.6	0.0	"OVERBURDEN"
402.4				0.0	4.6	
402.4	MISSISSIPPIAN	TAR SPRINGS	SANDSTONE	84.3	4.6	
318.1			LIMESTONE	69.1	88.9	
249.0	MISSISSIPPIAN	HARDINBURG	SANDSTONE	108.7	158.0	
140.3	MISSISSIPPIAN	HANEY	LIMESTONE	118.0	266.7	"GOLCONDA"
22.3	MISSISSIPPIAN	BEECH CREEK	LIMESTONE	2.2	384.7	INFERRED TOP-GK MAYNOR 6/87
20.1	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	0.0	386.9	FAULT 438.7-440'

MAPID: 15120330000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: POPE TWP/RNG: 12S 7E SECTION: 19 QUARTERS/FOOTAGES: NW SE

QUADRANGLE: SHETLERVILLE LONGITUDE: -88.477235 GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.459023 DATE COLLECTED:

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 1123.0 LOG TYPE: Survey Core Study

SOURCE: OZARK-MAHONING CO. WELL TYPE: Mineral Test

COMMENT: CORE STUDY (458-641)-JDT 7/83.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
424.6				0.0	35.4	CORE STARTS AT 35.4'
424.6	MISSISSIPPIAN	WALTERSBURG	SHALE	22.2	35.4	CORE TOP-GK MAYNOR 6/87.
402.4	MISSISSIPPIAN	VIENNA	LIMESTONE	11.5	57.6	CORE TOP-GK MAYNOR 6/87.
390.9	MISSISSIPPIAN	TAR SPRINGS	SANDSTONE/SHALE	111.4	69.1	CORE TOP-GK MAYNOR 6/87.
279.5			LIMESTONE W/ SHALE	50.4	180.5	CORE TOP-GK MAYNOR 6/87.
229.1	MISSISSIPPIAN	HARDINBURG	SANDSTONE	96.6	230.9	CORE TOP-GK MAYNOR 6/87.
132.5	MISSISSIPPIAN	HANEY	LIMESTONE	59.0	327.5	CORE TOP-JD TREWORGY 7/83.
73.5	MISSISSIPPIAN	FRAILEYS	SHALE	63.9	386.5	CORE TOP-JD TREWORGY 7/83.
9.6	MISSISSIPPIAN	BEECH CREEK	LIMESTONE	3.1	450.4	CORE TOP-JD TREWORGY 7/83.
6.5	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	238.8	453.5	CORE TOP-JD TREWORGY 7/83.
-232.3	MISSISSIPPIAN	CEDAR BLUFF GROU	LIMESTONE	0.0	692.3	CORE TOP-GK MAYNOR 6/87.

MAPID: 15100084000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: POPE

TWP/RNG: 12S 7E

SECTION: 20

QUARTERS/FOOTAGES: SE NW NW NW

QUADRANGLE: SHETLERVILLE

LONGITUDE: -88.468419

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N

LATITUDE: 37.466792

DATE COLLECTED: 0 / 0 / 1952

SURFACE ELEVATION (FT.): 430.0

LOGGED (FT.): 203.0

LOG TYPE: Survey Core Study

SOURCE:

WELL TYPE: Misc. Borings 100 Ft. & Deeper

COMMENT: CORE STUDY-DB SAXBY 7/52.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.0				8.5	0.0	"SOIL & BOULDERS."
421.5				0.0	8.5	
421.5	MISSISSIPPIAN	CLORE	SHALE	96.9	8.5	
324.6	MISSISSIPPIAN	PALESTINE	SANDSTONE	0.0	105.4	

MAPID: 15120416000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: POPE

TWP/RNG: 12S 7E

SECTION: 20

QUARTERS/FOOTAGES: NW NE

QUADRANGLE: SHETLERVILLE

LONGITUDE: -88.458505

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N

LATITUDE: 37.466244

DATE COLLECTED:

SURFACE ELEVATION (FT.): 450.0

LOGGED (FT.): 368.0

LOG TYPE: Survey Core Study

SOURCE: OZARK-MAHONING CO.

WELL TYPE: Mineral Test

COMMENT: CORE TOPS-GK MAYNOR 6/87.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
284.5				0.0	165.5	CORE STARTS AT 165.5'
284.5			LIMESTONE W/ SHALE	14.4	165.5	
270.1	MISSISSIPPIAN	HARDINBURG	SANDSTONE	79.0	179.9	
191.1	MISSISSIPPIAN	HANEY	LIMESTONE	0.0	258.9	

MAPID: 15100085000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: POPE

TWP/RNG: 12S 7E

SECTION: 22

QUARTERS/FOOTAGES: 17' S line, 1032' E line of NW

QUADRANGLE: SHETLERVILLE

LONGITUDE: -88.427362

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N

LATITUDE: 37.460191

DATE COLLECTED: 0 / 0 / 1954

SURFACE ELEVATION (FT.): 345.0

LOGGED (FT.): 500.0

LOG TYPE: Survey Core Study

SOURCE: MAHONING MINING DIV

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-DB SAXBY 7/54.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
345.0				0.0	0.0	"NO CORE-SOIL"
-				0.0		
332.0	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	111.9	13.0	
220.1	MISSISSIPPIAN	CEDAR BLUFF GROU	LIMESTONE	132.5	124.9	"D.B., SHET. & LEV. (220.6)"
87.6			SANDSTONE	21.8	257.4	"ROSICLARE"
65.8			LIMESTONE	0.0	279.2	"FREDONIA"

MAPID: 15100087000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: POPE TWP/RNG: 12S 7E SECTION: 22 QUARTERS/FOOTAGES: 515' S line, 58' E line of SE NW  
 QUADRANGLE: SHETLERVILLE LONGITUDE: -88.423953 GEOLOGIST: GK MAYNOR  
 CONFIDENTIAL: N LATITUDE: 37.461484 DATE COLLECTED: 0 / 0 / 1942  
 SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 352.0 LOG TYPE: Survey Core Study  
 SOURCE: THOMPSON ETAL WELL TYPE: Mineral Test  
 COMMENT: CORE STUDY-FE TIPPIE 11/43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0				25.1	0.0	"SURFACE & BOULDERS"
384.9				0.0	25.1	
384.9	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	177.5	25.1	"CYPRESS"
207.4	MISSISSIPPIAN	CEDAR BLUFF GROU	LIMESTONE	67.4	202.6	"2" CALCITE VEIN-225.6"(POSS. FAULT?)
140.0			SANDSTONE	24.3	270.0	"ROSICL", FLT. 281.3' & PROB. FLT 294.3'
115.7			LIMESTONE	0.0	294.3	PROBABLE FLT. 294.3',"FRED."

MAPID: 15120417000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: POPE TWP/RNG: 12S 7E SECTION: 33 QUARTERS/FOOTAGES: NW NE  
 QUADRANGLE: SHETLERVILLE LONGITUDE: -88.44063 GEOLOGIST: GK MAYNOR  
 CONFIDENTIAL: N LATITUDE: 37.436677 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 510.0 LOGGED (FT.): 516.0 LOG TYPE: Survey Core Study  
 SOURCE: OZARK-MAHONING CO. WELL TYPE: Mineral Test  
 COMMENT: CORE TOPS-GK MAYNOR 6/87.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
485.3				0.0	24.7	CORE STARTS AT 24.7'
485.3	MISSISSIPPIAN	HARDINBURG	SANDSTONE	1.3	24.7	
484.0	MISSISSIPPIAN	HANEY	LIMESTONE	119.5	26.0	
364.5	MISSISSIPPIAN	BEECH CREEK	LIMESTONE	4.1	145.5	
360.4	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	186.3	149.6	FAULT BRECCIATED SH. FROM 333-334'
174.1	MISSISSIPPIAN	CEDAR BLUFF GROU	LIMESTONE	0.0	335.9	DISPLACED?

MAPID: 15100214000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: POPE TWP/RNG: 12S 7E SECTION: 34 QUARTERS/FOOTAGES: E2 SE SW

QUADRANGLE: SHETLERVILLE LONGITUDE: -88.425761 GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.425717 DATE COLLECTED: 0 / 0 / 1965

SURFACE ELEVATION (FT.): 510.0 LOGGED (FT.): 600.0 LOG TYPE: Survey Sample Study

SOURCE: GWIN DRILLING CO. WELL TYPE: Dry Hole

COMMENT: SAMPLE TOPS-GK MAYNOR 6/87.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
510.0			CLAYSTONE	12.0	0.0	"CLAY 0-12"
498.0				0.0	12.0	
498.0	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	198.0	12.0	
300.0	MISSISSIPPIAN	CEDAR BLUFF GROU	LIMESTONE	125.0	210.0	
175.0			SILTSTONE/LIMESTONE	30.0	335.0	
145.0			LIMESTONE	0.0	365.0	

MAPID: 15100169000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 5E SECTION: 1 QUARTERS/FOOTAGES: 1320' S line, 1320' W line

QUADRANGLE: WALTERSBURG LONGITUDE: -88.606067 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.409246 DATE COLLECTED: 10 / 15 / 1957

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 91.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
670.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
662.0			SANDSTONE	8.0	8.0	
654.0			GRAY SHALE	4.0	16.0	
650.0			SHALE	13.5	20.0	
636.5			SANDSTONE	57.5	33.5	



MAPID: 15190002000C VERSION: 1

PROJECT: NCRDS02

COUNTY: POPE TWP/RNG: 13S 5E SECTION: 1 QUARTERS/FOOTAGES: 1' S line, 1' W line of SE SE  
 QUADRANGLE: WALTERSBURG LONGITUDE: -88.606067 GEOLOGIST: PHILLIPS  
 CONFIDENTIAL: N LATITUDE: 37.409246 DATE COLLECTED: 10 / 8 / 1957  
 SURFACE ELEVATION (FT.): 665.0 LOGGED (FT.): 53.0 LOG TYPE: Drillers Log  
 SOURCE: AYRSHIRE A415 WELL TYPE: Coal Test  
 COMMENT: BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
665.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
655.0	ABBOTT		SANDSTONE	5.0	10.0	RED
650.0	ABBOTT		GRAY SANDSTONE	2.0	15.0	
648.0	ABBOTT		GRAY SHALE	3.0	17.0	
645.0	ABBOTT		GRAY SHALE	5.0	20.0	
640.0	ABBOTT		SANDY SHALE	1.7	25.0	
638.3	ABBOTT		SANDSTONE	17.3	26.7	
621.0	ABBOTT		BLACK SHALE	0.3	44.0	
620.7	ABBOTT		SANDSTONE	1.7	44.3	
619.0	ABBOTT		RASH	0.3	46.0	REYNOLDSBURG?
618.7	ABBOTT		COAL	2.3	46.3	FAIR; REYNOLDSBURG?
616.4	ABBOTT		UNDERCLAY	1.4	48.6	
615.0	ABBOTT		SANDY SHALE	3.0	50.0	

MAPID: 15190005000C VERSION: 1

PROJECT: NCRDS02

COUNTY: POPE TWP/RNG: 13S 5E SECTION: 1 QUARTERS/FOOTAGES: 1' S line, 1' E line of NW SE  
 QUADRANGLE: WALTERSBURG LONGITUDE: -88.60597 GEOLOGIST: PHILLIPS  
 CONFIDENTIAL: N LATITUDE: 37.412903 DATE COLLECTED: 10 / 15 / 1957  
 SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 91.0 LOG TYPE: Drillers Log  
 SOURCE: AYRSHIRE A465 WELL TYPE: Coal Test  
 COMMENT: BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
670.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
662.0			SANDSTONE	8.0	8.0	
654.0			GRAY SHALE	4.0	16.0	
650.0			SHALE	13.5	20.0	BLUE
636.5			SANDSTONE	57.5	33.5	

MAPID: 15190008000C VERSION: 1

PROJECT: NCRDS02

COUNTY: POPE TWP/RNG: 13S 5E SECTION: 1 QUARTERS/FOOTAGES: 155' N line, 1' W line of NE SE

QUADRANGLE: WALTERSBURG LONGITUDE: -88.605875 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 37.416132 DATE COLLECTED: 10 / 15 / 1957

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE A490D WELL TYPE: Coal Test

COMMENT: BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0	
597.0			SANDSTONE	1.5	3.0	
595.5			SANDY SHALE	4.5	4.5	BROWN
591.0			GRAY SANDSTONE	41.0	9.0	

MAPID: 15100170000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 5E SECTION: 6 QUARTERS/FOOTAGES: 1320' S line, ' line

QUADRANGLE: GLENDALE LONGITUDE: -88.710668 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.413671 DATE COLLECTED: 10 / 14 / 1957

SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 113.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
540.0			UNDERCLAY	7.0	0.0	
533.0			SANDSTONE	10.0	7.0	
523.0			SHALE	3.0	17.0	
520.0			SANDSTONE	13.0	20.0	
507.0			SANDY SHALE	17.0	33.0	
490.0			GRAY SHALE	10.0	50.0	
480.0			SANDSTONE	41.3	60.0	
438.8			COAL	1.3	101.2	
437.5			UNDERCLAY	1.2	102.5	
436.4			SANDSTONE	9.3	103.6	

MAPID: 15100011000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 5E SECTION: 12 QUARTERS/FOOTAGES: 4620' N line, 2150' W line

QUADRANGLE: WALTERSBURG LONGITUDE: -88.612428

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.396463

DATE COLLECTED: 9 / 22 / 1954

SURFACE ELEVATION (FT.): 626.0

LOGGED (FT.): 46.3

LOG TYPE: Survey Core Study

SOURCE: STERLING-MIDLAND CC

WELL TYPE: Coal Test

COMMENT: CORE STUDY BY J.A. SIMON

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
626.0			UNCLASSIFIED	5.0	0.0	
621.0			SANDSTONE	1.3	5.0	CORE BEGINS
619.7			CLAY	0.3	6.3	
619.4			SHALE	0.3	6.6	
619.1			SANDSTONE	0.2	6.9	
619.0			SHALE	0.3	7.0	
618.6			SILTSTONE	0.6	7.4	
618.1			SHALE	0.5	7.9	
617.6			SANDSTONE	21.9	8.4	
595.7			SANDSTONE	1.9	30.3	SEVERAL BK SH BANDS
593.8			SANDSTONE	3.1	32.2	
590.7			SHALE	1.5	35.3	
589.2			SANDSTONE	0.1	36.8	
589.0			SHALE	2.9	37.0	DK GRAY

MAPID: 15100012000C VERSION: 1

PROJECT: BLM

COUNTY: POPE TWP/RNG: 13S 5E SECTION: 12 QUARTERS/FOOTAGES: 1250' S line, 2365' W line

QUADRANGLE: WALTERSBURG LONGITUDE: -88.611779

GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.398051

DATE COLLECTED: 1 / 5 / 1958

SURFACE ELEVATION (FT.): 440.0

LOGGED (FT.): 46.5

LOG TYPE: Survey Core Study

SOURCE: SIMON, J. A.

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0			UNCONSOLIDATED	8.0	0.0	
432.0			ROCK	4.8	8.0	
427.2			SHALE	4.7	12.8	
422.6			SANDSTONE	20.3	17.4	
402.2			COAL	3.1	37.8	
399.2			UNDERCLAY	0.7	40.8	
398.5			ROCK	5.0	41.5	

MAPID: 15100014000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 5E SECTION: 12 QUARTERS/FOOTAGES: 1370' N line, 190' E line of NW

QUADRANGLE: WALTERSBURG LONGITUDE: -88.61136 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.405468 DATE COLLECTED: 9 / 27 / 1954

SURFACE ELEVATION (FT.): 682.0 LOGGED (FT.): 52.1 LOG TYPE: Survey Core Study

SOURCE: STERLING-MIDLAND CC WELL TYPE: Coal Test

COMMENT: CORE STUDY C# 3702 BY HOPKINS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
682.0			SANDSTONE	12.6	0.0	
669.4			CLAYSTONE	0.1	12.6	
669.4			SHALE	13.8	12.6	
655.5			SILTSTONE	0.3	26.5	
655.3			SHALE	1.6	26.7	
653.7			SILTSTONE	0.3	28.3	
653.4			SHALE	5.3	28.6	MED GY
648.1			SANDSTONE	0.7	33.9	
647.5			SHALE	5.7	34.5	SL CARBON AT BASE
641.7			UNDERCLAY	0.2	40.3	CORE BROKEN
641.6			SANDSTONE	0.5	40.4	
641.1			UNKNOWN	2.7	40.9	
638.4			COAL	0.5	43.6	DRILLER REPORT, NO CORE
637.9			SANDSTONE	0.3	44.1	
637.6			CONGLOMERATE	0.1	44.4	

MAPID: 15100016000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 5E SECTION: 12 QUARTERS/FOOTAGES: 1320' S line, 1980' E line

QUADRANGLE: WALTERSBURG LONGITUDE: -88.608445 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.398243 DATE COLLECTED: 10 / 18 / 1954

SURFACE ELEVATION (FT.): 664.7 LOGGED (FT.): 55.0 LOG TYPE: Other Core Study

SOURCE: STERLING-MIDLAND CC WELL TYPE: Coal Test

COMMENT: CORE DESC BY OSTRUM. OTHER CORES SEC 12

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
664.7			UNCLASSIFIED	19.0	0.0	
645.7			SANDSTONE	11.0	19.0	
634.7			SANDSTONE/COAL	5.0	30.0	ABUNDANT COAL FRAGMENTS
629.7			UNDERCLAY	5.0	35.0	
624.7			SANDSTONE	5.0	40.0	OCCASIONAL FLAKES OF COAL
-			SANDSTONE	10.0		

**MAPID:** 15100020000C    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 13S 5E    **SECTION:** 12    **QUARTERS/FOOTAGES:** 1755' S line, 2630' W line  
**QUADRANGLE:** WALTERSBURG    **LONGITUDE:** -88.610856    **GEOLOGIST:** BARGH M.  
**CONFIDENTIAL:** N    **LATITUDE:** 37.399438    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 480.0    **LOGGED (FT.):** 44.0    **LOG TYPE:** Drillers Log  
**SOURCE:** H. TAYLOR    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0			ROCK	34.5	0.0	
445.5			COAL	2.5	34.5	
443.0			ROCK	7.0	37.0	

**MAPID:** 15100077600M    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 13S 5E    **SECTION:** 12    **QUARTERS/FOOTAGES:** NW SE SW  
**QUADRANGLE:** WALTERSBURG    **LONGITUDE:** -88.614192    **GEOLOGIST:** BARGH M.  
**CONFIDENTIAL:** N    **LATITUDE:** 37.397363    **DATE COLLECTED:** 0 / 0 / 1936  
**SURFACE ELEVATION (FT.):** 600.0    **LOGGED (FT.):** 0.0    **LOG TYPE:**  
**SOURCE:** MINE NOTES-SISTLER C C    **WELL TYPE:** Strip Mine  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0			UNKNOWN	0.0	0.0	

**MAPID:** 15100091302M    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 13S 5E    **SECTION:** 12    **QUARTERS/FOOTAGES:** SW SE SE SW  
**QUADRANGLE:** WALTERSBURG    **LONGITUDE:** -88.61247    **GEOLOGIST:** BARGH M.  
**CONFIDENTIAL:** N    **LATITUDE:** 37.395064    **DATE COLLECTED:** 6 / 0 / 1970  
**SURFACE ELEVATION (FT.):** 630.0    **LOGGED (FT.):** 24.0    **LOG TYPE:**  
**SOURCE:** MINE NOTES-W. SMITH, MT ZION C C    **WELL TYPE:** Strip Mine  
**COMMENT:** SAMPLE # 2

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SANDSTONE	20.0		
610.0	ABBOTT		COAL	3.0	20.0	
607.0	ABBOTT		CLAYSTONE	1.0	23.0	

**MAPID:** 15100091301M    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 13S 5E    **SECTION:** 12    **QUARTERS/FOOTAGES:** NE NW SE SW  
**QUADRANGLE:** WALTERSBURG    **LONGITUDE:** -88.613616    **GEOLOGIST:** BARGH M.  
**CONFIDENTIAL:** N    **LATITUDE:** 37.397817    **DATE COLLECTED:** 6 / 0 / 1970  
**SURFACE ELEVATION (FT.):** 580.0    **LOGGED (FT.):** 18.4    **LOG TYPE:**  
**SOURCE:** MINE NOTES-W. SMITH, MT. ZION C C    **WELL TYPE:** Strip Mine  
**COMMENT:** SAMPLE # 1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SANDSTONE	15.0		
565.0	ABBOTT		COAL	3.4	15.0	
-	ABBOTT		CLAYSTONE	-		

**MAPID:** 15100098403M    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 13S 5E    **SECTION:** 12    **QUARTERS/FOOTAGES:** SW SE NE SW  
**QUADRANGLE:** WALTERSBURG    **LONGITUDE:** -88.612456    **GEOLOGIST:** BARGH M.  
**CONFIDENTIAL:** N    **LATITUDE:** 37.398724    **DATE COLLECTED:** 11 / 8 / 1978  
**SURFACE ELEVATION (FT.):** 600.0    **LOGGED (FT.):** 42.5    **LOG TYPE:**  
**SOURCE:** MINE NOTES-JOHN NELSON    **WELL TYPE:** Strip Mine  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0			UNCONSOLIDATED	-	0.0	
-	ABBOTT		SANDSTONE	40.0		
-	ABBOTT		COAL	2.5		

**MAPID:** 15100098402M    **VERSION:** 1    **PROJECT:** BLM  
**COUNTY:** POPE    **TWP/RNG:** 13S 5E    **SECTION:** 12    **QUARTERS/FOOTAGES:** SW NE SE SW  
**QUADRANGLE:** WALTERSBURG    **LONGITUDE:** -88.612465    **GEOLOGIST:** BARGH M.  
**CONFIDENTIAL:** N    **LATITUDE:** 37.396894    **DATE COLLECTED:** 10 / 26 / 1977  
**SURFACE ELEVATION (FT.):** 620.0    **LOGGED (FT.):** 29.8    **LOG TYPE:**  
**SOURCE:** MINE NOTES-JOHN NELSON, MARTIN CONSTRUCT    **WELL TYPE:** Strip Mine  
**COMMENT:** PIT # 2

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0			UNCONSOLIDATED	7.0	0.0	
613.0	ABBOTT		SANDSTONE	20.0	7.0	
593.0	ABBOTT		COAL	2.8	27.0	

MAPID: 15100098401M VERSION: 1

PROJECT: BLM

COUNTY: POPE

TWP/RNG: 13S 5E

SECTION: 12

QUARTERS/FOOTAGES: SE SE SW

QUADRANGLE: WALTERSBURG

LONGITUDE: -88.61189

GEOLOGIST: BARGH M.

CONFIDENTIAL: N

LATITUDE: 37.395518

DATE COLLECTED: 10 / 26 / 1977

SURFACE ELEVATION (FT.): 620.0

LOGGED (FT.): 34.3

LOG TYPE:

SOURCE: MINE NOTES-JOHN NELSON, MARTIN CONSTRUCT

WELL TYPE: Strip Mine

COMMENT: PIT # 1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0			UNCONSOLIDATED	7.0	0.0	
613.0	ABBOTT		SANDSTONE	25.0	7.0	
588.0	ABBOTT		COAL	2.3	32.0	
585.7	ABBOTT		CLAYSTONE	-	34.3	

MAPID: 15100171000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE

TWP/RNG: 13S 5E

SECTION: 12

QUARTERS/FOOTAGES: 1320' S line, 2640' E line

QUADRANGLE: WALTERSBURG

LONGITUDE: -88.610725

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.398253

DATE COLLECTED: 10 / 15 / 1957

SURFACE ELEVATION (FT.): 620.0

LOGGED (FT.): 83.0

LOG TYPE: Drillers Log

SOURCE: AYRESHIRE COLL

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
611.0	PLEISTOCENE		SAND	1.0	9.0	
610.0	PLEISTOCENE		CLAY	2.0	10.0	
608.0			ROCK	1.0	12.0	BLACK
607.0			SHALE	4.0	13.0	
603.0			SMUT	0.5	17.0	BLACK
602.5			SHALE	6.5	17.5	
596.0			SANDSTONE	10.0	24.0	
586.0			SHALE	0.5	34.0	DARK
585.5			SANDSTONE	7.0	34.5	
578.5			SHALE	0.5	41.5	
578.0			SANDSTONE	15.5	42.0	
562.5			SHALE	0.5	57.5	
562.0			SANDSTONE	25.0	58.0	

MAPID: 15100187000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 5E SECTION: 12 QUARTERS/FOOTAGES: 2640' S line, 2640' E line

QUADRANGLE: WALTERSBURG LONGITUDE: -88.606095

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.401901

DATE COLLECTED:

SURFACE ELEVATION (FT.): 655.0

LOGGED (FT.): 69.0

LOG TYPE: Drillers Log

SOURCE: FINKE DRILLING CO

WELL TYPE: Coal Test

COMMENT: 4,1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
655.0	PLEISTOCENE		CLAY	4.5	0.0	
650.5	PLEISTOCENE		SAND/CLAY	0.5	4.5	
650.0			SANDSTONE	7.3	5.0	
642.7			SANDSTONE	18.2	12.3	CORE BEGINS. SOME CARBON REMAINS
624.5			SHALE	1.0	30.5	
623.5			SANDSTONE	3.8	31.5	
619.7			SHALE	5.7	35.3	
614.0			SHALE	8.0	41.0	DK GRAY SILTY
606.0			SHALE	10.0	49.0	SS AT BASE
596.0			SHALE	10.0	59.0	

MAPID: 15100188000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 5E SECTION: 12 QUARTERS/FOOTAGES: 1' N line, 1' E line

QUADRANGLE: WALTERSBURG LONGITUDE: -88.618771

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.408346

DATE COLLECTED: 9 / 24 / 1962

SURFACE ELEVATION (FT.): 600.0

LOGGED (FT.): 34.5

LOG TYPE: Drillers Log

SOURCE: FINKE DRILLING

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0	
597.0			SHALE	20.1	3.0	
577.0			COAL	0.4	23.0	
576.5			CLAYSTONE & SHALE	10.3	23.5	
566.3			SANDSTONE	0.8	33.7	



MAPID: 15120298000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 5E SECTION: 12 QUARTERS/FOOTAGES: NW NE SE SW

QUADRANGLE: WALTERSBURG LONGITUDE: -88.613027

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.400101

DATE COLLECTED: 4 / 16 / 1975

SURFACE ELEVATION (FT.): 625.0

LOGGED (FT.):

LOG TYPE: Drillers Log

SOURCE: ROBT MORSE, DRILLER

WELL TYPE: Coal Test

COMMENT: 4.1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
625.0	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0	LOESS
622.0	CASEYVILLE	BATTERY ROCK	SANDSTONE	10.7	3.0	
611.4	CASEYVILLE		CLAYSTONE	1.6	13.6	
609.8	CASEYVILLE		CLAY & COAL	1.3	15.2	
608.5	CASEYVILLE		COAL	1.0	16.5	SHALEY, WEATHERED
607.5	CASEYVILLE		SHALE	2.9	17.5	CARBONACEOUS, THIN COAL LENSES
604.5	CASEYVILLE		UNDERCLAY	0.0	20.5	

MAPID: 15120299000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 5E SECTION: 12 QUARTERS/FOOTAGES: SE SE NE NW

QUADRANGLE: WALTERSBURG LONGITUDE: -88.613004

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.407421

DATE COLLECTED: 4 / 15 / 1975

SURFACE ELEVATION (FT.): 624.1

LOGGED (FT.): 25.6

LOG TYPE: Drillers Log

SOURCE: ROBT MORSE, DRILLER

WELL TYPE: Coal Test

COMMENT: 4.1 FOR MARTIN CC. CORE DESCRIP BY HOPKI

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
624.1	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
620.1	CASEYVILLE	BATTERY ROCK	SANDSTONE	17.0	4.0	
603.1	CASEYVILLE		COAL	3.2	21.0	UPPER 2" COALY CARBON DUST
600.0	CASEYVILLE		SHALE	1.4	24.1	THIN BEDDED CARBONACEOUS

MAPID: 15120300000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 5E SECTION: 12 QUARTERS/FOOTAGES: NE SW SW SE

QUADRANGLE: WALTERSBURG LONGITUDE: -88.608426

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.396407

DATE COLLECTED: 4 / 16 / 1975

SURFACE ELEVATION (FT.): 636.0

LOGGED (FT.): 34.0

LOG TYPE: Drillers Log

SOURCE: ROBT K MORSE DRILLER

WELL TYPE: Coal Test

COMMENT: 4.1 FOR MARTIN CC

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
631.0	PLEISTOCENE		UNCONSOLIDATED	6.0	5.0	
625.0	CASEYVILLE	BATTERY ROCK	SANDSTONE	25.0	11.0	
600.0	CASEYVILLE		COAL	1.7	36.0	THIN BEDDED
598.4	CASEYVILLE		SILTSTONE	1.0	37.6	CARBONACEOUS

MAPID: 151278A0003F VERSION: 1

PROJECT: BLM

COUNTY: POPE

TWP/RNG: 13S 5E

SECTION: 12

QUARTERS/FOOTAGES: NE NW SE SW

QUADRANGLE: WALTERSBURG

LONGITUDE: -88.613616

GEOLOGIST: BARGH M.

CONFIDENTIAL: N

LATITUDE: 37.397817

DATE COLLECTED: 3 / 11 / 1970

SURFACE ELEVATION (FT.): 600.0

LOGGED (FT.): 6.5

LOG TYPE:

SOURCE: MINE NOTES-DAMBERGER

WELL TYPE: Strip Mine

COMMENT: SITE OF SISTLER DRIFT MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	3.5		
596.5			COAL	2.9	3.5	
-			ROCK	0.2		

MAPID: 15190000000C VERSION: 1

PROJECT: NCRDS02

COUNTY: POPE

TWP/RNG: 13S 5E

SECTION: 12

QUARTERS/FOOTAGES: 1' S line, 1' E line of NE SW

QUADRANGLE: WALTERSBURG

LONGITUDE: -88.610732

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE: 37.398258

DATE COLLECTED: 10 / 15 / 1957

SURFACE ELEVATION (FT.): 620.0

LOGGED (FT.): 83.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE A213

WELL TYPE: Coal Test

COMMENT: BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
611.0			SANDSTONE	1.0	9.0	
610.0			CLAYSTONE	2.0	10.0	SOFT, RED
608.0			ROCK	1.0	12.0	BLACK
607.0			DARK SHALE	4.0	13.0	
603.0			SMUT	0.5	17.0	BLACK
602.5			GRAY SHALE	6.5	17.5	
596.0			SANDSTONE	10.0	24.0	
586.0			DARK SHALE	0.5	34.0	
585.5			SANDSTONE	7.0	34.5	
578.5			DARK SHALE	0.5	41.5	
578.0			SANDSTONE	15.5	42.0	
562.5			DARK SHALE	0.5	57.5	
562.0			SANDSTONE	25.0	58.0	

MAPID: 15100013000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 5E SECTION: 13 QUARTERS/FOOTAGES: 5030' N line, 2620' E line

QUADRANGLE: WALTERSBURG LONGITUDE: -88.610667 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.395323 DATE COLLECTED: 9 / 19 / 1954

SURFACE ELEVATION (FT.): 626.0 LOGGED (FT.): 28.3 LOG TYPE: Survey Sample Study

SOURCE: STERLING-MIDLAND CC WELL TYPE: Coal Test

COMMENT: SAMPLE STUDY BY J.A. SIMON

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
626.0			UNCLASSIFIED	5.0	0.0	
621.0			SANDSTONE	6.9	5.0	
614.1			COAL	3.2	11.9	.42 IN CORE BOY
611.0			UNDERCLAY	1.1	15.0	
609.9			SHALE	3.2	16.1	
606.7			SILTSTONE	1.6	19.3	
605.2			SANDSTONE	1.8	20.8	

MAPID: 151278A0010F VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 5E SECTION: 13 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: WALTERSBURG LONGITUDE: -88.617667 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.392854 DATE COLLECTED: / / 1934

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 103.4 LOG TYPE: Measured section

SOURCE: FLDNOTES - WANLESS WELL TYPE: Outcrop

COMMENT: TRAVERSE UP PINE HOLLOW

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0			SANDSTONE	65.0	0.0	MASSIVE. QTZITIC
415.0			UNKNOWN	18.0	65.0	CONCEALED
397.0			SILTSTONE	7.0	83.0	PARTLY CONCEALED
390.0			SANDSTONE	0.8	90.0	
389.2			SHALE	2.0	90.8	LT BL GY
387.2			SANDSTONE	0.6	92.8	W CARBONIZED WOODY MATERIAL
386.6			SHALE	1.0	93.4	
385.6			SILTSTONE	9.0	94.4	FINE SS ON SANDY SH POORLY EXPOSED

MAPID: 15100152000C VERSION: 1

PROJECT: CUSMAP

COUNTY: POPE TWP/RNG: 13S 5E SECTION: 21 QUARTERS/FOOTAGES:

QUADRANGLE: REEVESVILLE LONGITUDE: -88.665653

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.372865

DATE COLLECTED: 0 / 0 / 1956

SURFACE ELEVATION (FT.): 558.0 LOGGED (FT.): 116.0

LOG TYPE: Survey Sample Study

SOURCE: SERGENT, WILLIAM

WELL TYPE: Producer-Oil and Gas

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
442.0	BASE OF PENN.		UNCLASSIFIED	-	116.0	

MAPID: 15100172000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 1 QUARTERS/FOOTAGES:

QUADRANGLE: WALTERSBURG LONGITUDE: -88.60597

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.412903

DATE COLLECTED: 10 / 8 / 1957

SURFACE ELEVATION (FT.): 665.0 LOGGED (FT.): 53.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLL

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
665.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
655.0			SANDSTONE	5.0	10.0	
650.0			GRAY SANDSTONE	2.0	15.0	
648.0			GRAY SHALE	3.0	17.0	
645.0			SANDSTONE	5.0	20.0	
640.0			SANDSTONE/SHALE	1.7	25.0	
638.4			SANDSTONE	17.3	26.6	
621.1			BLACK SHALE	0.3	43.9	
620.7			SANDSTONE	1.7	44.3	
619.1			RASH	0.3	45.9	
618.7			COAL	2.3	46.3	
616.5			UNDERCLAY	1.4	48.5	
615.1			SHALE	3.0	49.9	SOFT

MAPID: 15100206000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 1 QUARTERS/FOOTAGES: 20' S line, 250' W line of NW SW

QUADRANGLE: WALTERSBURG

LONGITUDE: -88.5086

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.41313

DATE COLLECTED: 11 / / 1943

SURFACE ELEVATION (FT.): 440.0

LOGGED (FT.):

LOG TYPE: Other Core Study

SOURCE: U.S. GOVT

WELL TYPE: Coal Test

COMMENT: STUDY BY TIPPIE CORE# C1863

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0			LIMESTONE & SHALE	85.5	0.0	CORE BEGINS
354.5			SHALE	3.0	85.5	
351.5			SILTSTONE	2.0	88.5	
349.5			SHALE	3.2	90.5	
346.3			SILTSTONE	3.5	93.7	
342.8			SHALE	24.7	97.2	
318.1			LIMESTONE	27.7	121.9	
290.4			SILTSTONE	11.8	149.6	

MAPID: 151278A0011F VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 1 QUARTERS/FOOTAGES: SW SW SW SW

QUADRANGLE: WALTERSBURG

LONGITUDE: -88.508099

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.409845

DATE COLLECTED: 7 / 28 / 1926

SURFACE ELEVATION (FT.): 420.0

LOGGED (FT.): 34.5

LOG TYPE: Measured section

SOURCE: FLDNOTES - WORKMAN

WELL TYPE: Outcrop

COMMENT: SECTION OF MENARD

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0	MISSISSIPPIAN	PALESTINE	SANDSTONE	4.0	0.0	
416.0	MISSISSIPPIAN		UNKNOWN	10.0	4.0	COVERED
406.0	MISSISSIPPIAN	MENARD	SHALE	0.2	14.0	
405.9	MISSISSIPPIAN	MENARD	UNKNOWN	2.0	14.1	
403.9	MISSISSIPPIAN	MENARD	LIMESTONE	0.5	16.1	
403.4	MISSISSIPPIAN	MENARD	UNKNOWN	1.0	16.6	
402.4	MISSISSIPPIAN	MENARD	LIMESTONE	1.0	17.6	
401.4	MISSISSIPPIAN	MENARD	SHALE	2.0	18.6	
399.4	MISSISSIPPIAN	MENARD	LIMESTONE	0.8	20.6	
398.6	MISSISSIPPIAN	MENARD	UNKNOWN	0.8	21.4	
397.9	MISSISSIPPIAN	MENARD	LIMESTONE	1.0	22.1	
396.9	MISSISSIPPIAN	MENARD	SHALE	4.0	23.1	FS IN BASE
392.9	MISSISSIPPIAN	MENARD	LIMESTONE	7.3	27.1	

MAPID: 151278A0012F VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 2 QUARTERS/FOOTAGES: NE NW NE SE

QUADRANGLE: WALTERSBURG LONGITUDE: -88.512239

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.416265

DATE COLLECTED: 7 / 27 / 1926

SURFACE ELEVATION (FT.): 496.0 LOGGED (FT.): 22.7

LOG TYPE: Measured section

SOURCE: FLDNOTES - WORKMAN

WELL TYPE: Outcrop

COMMENT: OUTCROP OF WALTERSBURG AND VIENNA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
496.0	MISSISSIPPIAN	WALTERSBURG	SANDSTONE	0.2	0.0	
495.9	MISSISSIPPIAN	WALTERSBURG	SANDSTONE	1.3	0.1	
471.9	MISSISSIPPIAN	WALTERSBURG	SHALE	4.3	24.1	
-	MISSISSIPPIAN	WALTERSBURG	SANDSTONE	1.0		MICACEOUS, STIGMARIA
-	MISSISSIPPIAN	WALTERSBURG	SHALE	2.5		
-	MISSISSIPPIAN	WALTERSBURG	SANDSTONE	1.0		
-	MISSISSIPPIAN	WALTERSBURG	SHALE	6.8		
-	MISSISSIPPIAN	VIENNA	LIMESTONE	2.8		
-	MISSISSIPPIAN	VIENNA	SHALE	3.0		

MAPID: 151278A0004F VERSION: 1

PROJECT: BLM

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 5 QUARTERS/FOOTAGES: SW NE SW SW

QUADRANGLE: WALTERSBURG LONGITUDE: -88.58007

GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.411551

DATE COLLECTED: 0 / 0 / 1934

SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 140.9

LOG TYPE: Measured section

SOURCE: FLD NOTES-WANLESS

WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	3.0		
517.0			UNKNOWN	40.0	3.0	
477.0			ROCK	47.8	43.0	
429.2	CASEYVILLE		COAL	2.2	90.8	
427.1			ROCK	4.0	92.9	
423.1			UNKNOWN	40.0	96.9	
383.1			ROCK	4.0	136.9	

MAPID: 15100173000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 6 QUARTERS/FOOTAGES: SE SE SW SW

QUADRANGLE: WALTERSBURG LONGITUDE: -88.599096

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.411066

DATE COLLECTED: / / 1957

SURFACE ELEVATION (FT.): 700.0

LOGGED (FT.): 114.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLL

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
700.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
694.0			SHALE	8.0	6.0	
686.0			SANDSTONE	9.0	14.0	
677.0			SANDSTONE/SHALE	13.0	23.0	
664.0			SHALE	7.0	36.0	
657.0			SANDSTONE	2.0	43.0	
655.0			LIMESTONE	3.0	45.0	
652.0			SANDSTONE	38.0	48.0	
614.0			SHALE	8.0	86.0	
606.0			SANDSTONE	2.0	94.0	
604.0			BLACK SHALE	2.0	96.0	
602.0			LIMESTONE	8.0	98.0	
594.0			SANDSTONE	8.0	106.0	

MAPID: 15100174000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 6 QUARTERS/FOOTAGES: 1' S line, 1' W line

QUADRANGLE: WALTERSBURG LONGITUDE: -88.599096

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.411066

DATE COLLECTED: / / 1957

SURFACE ELEVATION (FT.): 697.0

LOGGED (FT.): 86.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLL

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
697.0	PLEISTOCENE		UNCONSOLIDATED	12.5	0.0	
684.5			SANDSTONE	10.0	12.5	BR
674.5			SANDSTONE	49.0	22.5	GY
625.5			SANDSTONE	4.0	71.5	GY
621.5			SHALE	2.2	75.5	SANDY
619.4			COAL	3.0	77.6	

MAPID: 15100175000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 6 QUARTERS/FOOTAGES: NE NE SW SW

QUADRANGLE: WALTERSBURG LONGITUDE: -88.599096

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.411066

DATE COLLECTED: / / 1957

SURFACE ELEVATION (FT.): 680.0

LOGGED (FT.): 85.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLL

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
680.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0
669.0			SANDSTONE	36.0	11.0
633.0			SHALE	7.0	47.0
626.0			SANDSTONE	2.0	54.0
624.0			SHALE	10.0	56.0
614.0			SANDSTONE	19.0	66.0

MAPID: 15100177000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 6 QUARTERS/FOOTAGES: NE

QUADRANGLE: WALTERSBURG LONGITUDE: -88.585019

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.421962

DATE COLLECTED: / / 1957

SURFACE ELEVATION (FT.): 680.0

LOGGED (FT.): 70.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLL

WELL TYPE: Coal Test

COMMENT: OTHER LOGS AVAILABLE IN THIS SECTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
680.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0
669.0			SANDSTONE	21.0	11.0
648.0			SHALE	5.0	32.0
643.0			SANDSTONE	33.0	37.0

MAPID: 15100178000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 6 QUARTERS/FOOTAGES: NE NE NW SW

QUADRANGLE: WALTERSBURG LONGITUDE: -88.598877

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.418354

DATE COLLECTED: / / 1957

SURFACE ELEVATION (FT.): 660.0

LOGGED (FT.): 70.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLL

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
660.0	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0
657.0			SANDSTONE	6.0	3.0
651.0			SHALE	13.0	9.0
638.0			SANDSTONE	48.0	22.0



MAPID: 15190003000C VERSION: 1

PROJECT: NCRDS02

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 6 QUARTERS/FOOTAGES: 1' S line, 1' W line of SW SW  
 QUADRANGLE: WALTERSBURG LONGITUDE: -88.601447 GEOLOGIST: PHILLIPS  
 CONFIDENTIAL: N LATITUDE: 37.40924 DATE COLLECTED: 10 / 8 / 1957  
 SURFACE ELEVATION (FT.): 697.0 LOGGED (FT.): 86.0 LOG TYPE: Drillers Log  
 SOURCE: AYRSHIRE A417 WELL TYPE: Coal Test  
 COMMENT: BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
697.0	PLEISTOCENE		UNCONSOLIDATED	12.5	0.0	
684.5	ABBOTT		SANDSTONE	10.0	12.5	
674.5	ABBOTT		GRAY SANDSTONE	49.0	22.5	
625.5	ABBOTT		GRAY SANDSTONE	4.0	71.5	
621.5	ABBOTT		SANDY DARK SHALE	5.2	75.5	
616.3	ABBOTT		COAL	1.3	80.7	FAIR; REYNOLDSBURG?
615.0	ABBOTT		SHALE	0.2	82.0	
614.8	ABBOTT		COAL	0.8	82.2	FAIR; REYNOLDSBURG?
614.0	ABBOTT		SANDSTONE	3.0	83.0	

MAPID: 15190004000C VERSION: 1

PROJECT: NCRDS02

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 6 QUARTERS/FOOTAGES: 1' S line, 1' E line of SW SW  
 QUADRANGLE: WALTERSBURG LONGITUDE: -88.596848 GEOLOGIST: PHILLIPS  
 CONFIDENTIAL: N LATITUDE: 37.409254 DATE COLLECTED: 10 / 8 / 1957  
 SURFACE ELEVATION (FT.): 714.0 LOGGED (FT.): 114.0 LOG TYPE: Drillers Log  
 SOURCE: AYRSHIRE A419 WELL TYPE: Coal Test  
 COMMENT: BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
714.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
708.0			SHALE	8.0	6.0	SOFT
700.0			SANDSTONE	9.0	14.0	
691.0			SANDY SHALE	13.0	23.0	
678.0			SHALE	4.0	36.0	BLUE
674.0			GRAY SHALE	3.0	40.0	
671.0			SANDSTONE	2.0	43.0	
669.0			LIMESTONE	3.0	45.0	
666.0			SANDSTONE	38.0	48.0	
628.0			SHALE	8.0	86.0	
620.0			SANDSTONE	2.0	94.0	
618.0			SHALE	2.0	96.0	BLUE
616.0			LIMESTONE	8.0	98.0	
608.0			SANDSTONE	8.0	106.0	

MAPID: 15190006000C VERSION: 1

PROJECT: NCRDS02

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 6 QUARTERS/FOOTAGES: 1' S line, 1' W line of NW SW

QUADRANGLE: WALTERSBURG LONGITUDE: -88.601337 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 37.412889 DATE COLLECTED: 10 / 14 / 1957

SURFACE ELEVATION (FT.): 660.0 LOGGED (FT.): 113.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE A467 WELL TYPE: Coal Test

COMMENT: BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
660.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
653.0	ABBOTT		GRAY SANDSTONE	10.0	7.0	
643.0	ABBOTT		SHALE	3.0	17.0	BLUE
640.0	ABBOTT		DARK SANDSTONE	13.0	20.0	
627.0	ABBOTT		SANDY DARK SHALE	17.0	33.0	
610.0	ABBOTT		DARK SHALE	10.0	50.0	
600.0	ABBOTT		GRAY SANDSTONE	41.3	60.0	
558.7	ABBOTT		COAL	1.3	101.3	FAIR; REYNOLDSBURG?
557.5	ABBOTT		UNDERCLAY	1.2	102.5	
556.3	ABBOTT		GRAY SANDSTONE	9.3	103.7	

MAPID: 15190007000C VERSION: 1

PROJECT: NCRDS02

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 6 QUARTERS/FOOTAGES: 1' N line, 1' E line of SW SW

QUADRANGLE: WALTERSBURG LONGITUDE: -88.596744 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 37.412888 DATE COLLECTED: 11 / 15 / 1957

SURFACE ELEVATION (FT.): 690.0 LOGGED (FT.): 85.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE A469 WELL TYPE: Coal Test

COMMENT: BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
690.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
679.0			SANDSTONE	36.0	11.0	
643.0			SANDY DARK SHALE	7.0	47.0	
636.0			SANDSTONE	2.0	54.0	
634.0			DARK SHALE	10.0	56.0	
624.0			SANDSTONE	19.0	66.0	

MAPID: 15190009000C VERSION: 1

PROJECT: NCRDS02

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 6 QUARTERS/FOOTAGES: 1' N line, 1' E line of NW SW  
 QUADRANGLE: WALTERSBURG LONGITUDE: -88.59664 GEOLOGIST: PHILLIPS  
 CONFIDENTIAL: N LATITUDE: 37.416531 DATE COLLECTED: 10 / 9 / 1957  
 SURFACE ELEVATION (FT.): 626.0 LOGGED (FT.): 70.0 LOG TYPE: Drillers Log  
 SOURCE: AYRSHIRE A519 WELL TYPE: Coal Test  
 COMMENT: BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
626.0	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0	
623.0			SANDSTONE	2.0	3.0	
621.0			GRAY SANDSTONE	4.0	5.0	
617.0			SANDY SHALE	10.0	9.0	
607.0			SANDY DARK SHALE	3.0	19.0	
604.0			GRAY SANDSTONE	40.0	22.0	
564.0			SANDSTONE	8.0	62.0	DARK GREY

MAPID: 15190010000C VERSION: 1

PROJECT: NCRDS02

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 6 QUARTERS/FOOTAGES: 1' N line, 1' W line of SW NE  
 QUADRANGLE: WALTERSBURG LONGITUDE: -88.59194 GEOLOGIST: PHILLIPS  
 CONFIDENTIAL: N LATITUDE: 37.420162 DATE COLLECTED: 10 / 10 / 1957  
 SURFACE ELEVATION (FT.): 673.0 LOGGED (FT.): 70.0 LOG TYPE: Drillers Log  
 SOURCE: AYRSHIRE A571 WELL TYPE: Coal Test  
 COMMENT: BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
673.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
666.0			GRAY SANDSTONE	30.0	7.0	
636.0			SANDSTONE	21.5	37.0	
614.5			UNKNOWN	1.0	58.5	DROP
613.5			GRAY SANDSTONE	10.5	59.5	

MAPID: 15190011000C VERSION: 1

PROJECT: NCRDS02

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 6 QUARTERS/FOOTAGES: 1' N line, 1' E line of SW NE  
 QUADRANGLE: WALTERSBURG LONGITUDE: -88.587361 GEOLOGIST: PHILLIPS  
 CONFIDENTIAL: N LATITUDE: 37.420153 DATE COLLECTED: 10 / 11 / 1957  
 SURFACE ELEVATION (FT.): 695.0 LOGGED (FT.): 70.0 LOG TYPE: Drillers Log  
 SOURCE: AYRSHIRE A573 WELL TYPE: Coal Test  
 COMMENT: BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
695.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
684.0			SANDSTONE	21.0	11.0	
663.0			GRAY SHALE	1.0	32.0	
662.0			SHALE	4.0	33.0	BLUE
658.0			SANDSTONE	33.0	37.0	

MAPID: 15190012000C VERSION: 1

PROJECT: NCRDS02

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 6 QUARTERS/FOOTAGES: 330' N line, 1' W line of NW NE  
 QUADRANGLE: WALTERSBURG LONGITUDE: -88.591867 GEOLOGIST: PHILLIPS  
 CONFIDENTIAL: N LATITUDE: 37.422886 DATE COLLECTED: 10 / 8 / 1957  
 SURFACE ELEVATION (FT.): 633.0 LOGGED (FT.): 47.0 LOG TYPE: Drillers Log  
 SOURCE: AYRSHIRE A596C WELL TYPE: Coal Test  
 COMMENT: BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
633.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
628.0			SANDSTONE	21.0	5.0	
607.0			SHALE	1.0	26.0	BLUE
606.0			LIMESTONE	5.0	27.0	
601.0			LIMESTONE & SHALE	6.0	32.0	
595.0			SANDSTONE	9.0	38.0	

MAPID: 15190001000C VERSION: 1

PROJECT: NCRDS02

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 7 QUARTERS/FOOTAGES: 1' S line, 330' E line of NE NW  
 QUADRANGLE: WALTERSBURG LONGITUDE: -88.59342 GEOLOGIST: PHILLIPS  
 CONFIDENTIAL: N LATITUDE: 37.405594 DATE COLLECTED: 10 / 9 / 1957  
 SURFACE ELEVATION (FT.): 678.0 LOGGED (FT.): 48.0 LOG TYPE: Drillers Log  
 SOURCE: AYRSHIRE A370B WELL TYPE: Coal Test  
 COMMENT: BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
678.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
667.0			BLACK SHALE	2.0	11.0	
665.0			SANDY SHALE	14.0	13.0	HARD
651.0			SANDSTONE	21.0	27.0	

MAPID: 151278A0013F VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 8 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: WALTERSBURG LONGITUDE: -88.576104

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.400089

DATE COLLECTED: / / 1926

SURFACE ELEVATION (FT.): 520.0

LOGGED (FT.): 55.6

LOG TYPE: Measured section

SOURCE: FLDNOTES - WORKMAN

WELL TYPE: Outcrop

COMMENT: SECTION KINKAID IN RAVINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
464.4	MISSISSIPPIAN	KINKAID	LIMESTONE	3.3	55.6	
-	MISSISSIPPIAN	KINKAID	UNKNOWN	3.7		COVERED
-	MISSISSIPPIAN	KINKAID	LIMESTONE	2.3		
-	MISSISSIPPIAN	KINKAID	UNKNOWN	10.0		
-	MISSISSIPPIAN	KINKAID	LIMESTONE	9.5		FN XLINE, SHALEY TOWARD BASE
-	MISSISSIPPIAN	KINKAID	UNKNOWN	25.0		
-	MISSISSIPPIAN	KINKAID	LIMESTONE	2.0		MED GY

MAPID: 151278A0014F VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 8 QUARTERS/FOOTAGES: SW SE SE

QUADRANGLE: WALTERSBURG LONGITUDE: -88.567843

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.395412

DATE COLLECTED: / / 1934

SURFACE ELEVATION (FT.): 420.0

LOGGED (FT.): 57.7

LOG TYPE: Measured section

SOURCE: FLD NOTES - WANLESS

WELL TYPE: Outcrop

COMMENT: TRAVERSE ALONG E FLOWING RAVINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0	CASEYVILLE		SANDSTONE	8.0	0.0	SLABBY
412.0	CASEYVILLE		UNKNOWN	2.0	8.0	
410.0	CASEYVILLE		SANDSTONE	0.7	10.0	FINE GRAIN
409.4	CASEYVILLE		SILTSTONE	3.0	10.6	W/ THIN SHALE BEDS
406.4	CASEYVILLE		SANDSTONE	2.0	13.6	
404.4	CASEYVILLE		UNKNOWN	2.0	15.6	
402.4	CASEYVILLE		SANDSTONE	40.0	17.6	MASSIVE IN STREAM BED

MAPID: 151278A0015F VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 10 QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: WALTERSBURG LONGITUDE: -88.529144

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.406475

DATE COLLECTED: 7 / 28 / 1926

SURFACE ELEVATION (FT.): 380.0

LOGGED (FT.): 15.0

LOG TYPE: Measured section

SOURCE: FLDNOTES - WORKMAN

WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0	MISSISSIPPIAN	DEGONIA	SANDSTONE	15.0	0.0	X BED IN PLATES 1.5" QTZ SAND

MAPID: 15102031000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 11 QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: WALTERSBURG LONGITUDE: -88.520002 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.402885 DATE COLLECTED: 9 / 23 / 1975

SURFACE ELEVATION (FT.): 380.0 LOGGED (FT.): WELL TYPE: Drillers Log

SOURCE: BEANLAND - DRILLER WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
375.0	MISSISSIPPIAN		LIMESTONE W/ SHALE	31.0	5.0	
344.0	MISSISSIPPIAN		LIMESTONE	44.0	36.0	
300.0	MISSISSIPPIAN		SANDSTONE	6.0	80.0	
294.0	MISSISSIPPIAN		SHALE	44.0	86.0	
250.0	MISSISSIPPIAN		LIMESTONE	30.0	130.0	
220.0	MISSISSIPPIAN		SANDSTONE	4.0	160.0	
216.0	MISSISSIPPIAN		SHALE	21.0	164.0	SANDY

MAPID: 151278A0016F VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 12 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: WALTERSBURG LONGITUDE: -88.507679 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.395631 DATE COLLECTED: 7 / 28 / 1926

SURFACE ELEVATION (FT.): 380.0 LOGGED (FT.): 12.0 LOG TYPE: Measured section

SOURCE: FLDNOTES - WORKMAN WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SANDSTONE	0.0		SHALEY
380.0			SANDSTONE	2.0	0.0	WHITE FINE GRAINED
378.0			SHALE	10.0	2.0	DK GY MICA
368.0	MISSISSIPPIAN	TAR SPRINGS	SANDSTONE	0.0	12.0	

MAPID: 15120290000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 16 QUARTERS/FOOTAGES: SW SW NW

QUADRANGLE: WALTERSBURG LONGITUDE: -88.563191

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.387826

DATE COLLECTED: 7 / 16 / 1974

SURFACE ELEVATION (FT.): 480.0

LOGGED (FT.): 300.0

LOG TYPE: Drillers Log

SOURCE: BEANLAND DRILLER

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0	PLEISTOCENE		CLAY	30.0	0.0	
450.0			SHALE	23.0	30.0	
427.0			LIMESTONE & SHALE	48.0	53.0	
379.0			SANDSTONE	109.0	101.0	
270.0			SHALE	15.0	210.0	GY
255.0			BLACK SHALE	15.0	225.0	
240.0			SHALE	60.0	240.0	GY

MAPID: 15100276000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 17 QUARTERS/FOOTAGES: SE NW NE

QUADRANGLE: WALTERSBURG LONGITUDE: -88.57022

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.391696

DATE COLLECTED: 1 / 15 / 1973

SURFACE ELEVATION (FT.): 540.0

LOGGED (FT.): 675.0

LOG TYPE: Drillers Log

SOURCE: BEANLAND DRILLER

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
540.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
530.0			SANDSTONE	85.0	10.0	BROKEN
445.0	MISSISSIPPIAN		LIMESTONE	45.0	95.0	
400.0	MISSISSIPPIAN		SHALE	30.0	140.0	
370.0	MISSISSIPPIAN		LIMESTONE	110.0	170.0	SH STREAKS
260.0	MISSISSIPPIAN		SANDSTONE	10.0	280.0	
250.0	MISSISSIPPIAN		LIMESTONE	75.0	290.0	SH STREAKS
175.0	MISSISSIPPIAN		SHALE	35.0	365.0	
140.0	MISSISSIPPIAN		LIMESTONE	150.0	400.0	SH STREAKS
-10.0	MISSISSIPPIAN		BLACK SHALE	27.0	550.0	
-37.0	MISSISSIPPIAN		SHALE	25.0	577.0	
-62.0	MISSISSIPPIAN		LIMESTONE	10.0	602.0	
-72.0	MISSISSIPPIAN		SHALE	48.0	612.0	
-120.0	MISSISSIPPIAN		SANDSTONE	15.0	660.0	CHERTY

MAPID: 151278A0017F VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 17 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: WALTERSBURG LONGITUDE: -88.565436

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.3857

DATE COLLECTED: 7 / 29 / 1926

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 48.4

LOG TYPE: Measured section

SOURCE: FLD NOTES - WORKMAN

WELL TYPE: Outcrop

COMMENT: SECTION OF MENARD ON ROADSIDE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0	MISSISSIPPIAN	MENARD	LIMESTONE	3.0	0.0	LIMESTONES GENERALLY DK, FINE GR
477.0	MISSISSIPPIAN	MENARD	UNKNOWN	1.3	3.0	
475.8	MISSISSIPPIAN	MENARD	LIMESTONE	1.7	4.2	
474.1	MISSISSIPPIAN	MENARD	UNKNOWN	1.8	5.9	NOTABLY SH
472.3	MISSISSIPPIAN	MENARD	LIMESTONE	1.6	7.7	
470.7	MISSISSIPPIAN	MENARD	UNKNOWN	1.0	9.3	
469.7	MISSISSIPPIAN	MENARD	LIMESTONE	2.0	10.3	
467.7	MISSISSIPPIAN	MENARD	UNKNOWN	3.0	12.3	
464.7	MISSISSIPPIAN	MENARD	SHALE	0.5	15.3	
464.2	MISSISSIPPIAN	MENARD	LIMESTONE	0.3	15.8	
463.9	MISSISSIPPIAN	MENARD	SHALE	0.3	16.1	
463.6	MISSISSIPPIAN	MENARD	LIMESTONE	3.8	16.4	
459.8	MISSISSIPPIAN	MENARD	SHALE	2.0	20.2	GN GREY FOSSIL LAYER
457.8	MISSISSIPPIAN	MENARD	SHALE	4.5	22.2	GN, WAXY NO FOSSIL
453.3	MISSISSIPPIAN	MENARD	LIMESTONE	1.3	26.7	
452.0	MISSISSIPPIAN	MENARD	SHALE	3.0	28.0	
449.0	MISSISSIPPIAN	MENARD	LIMESTONE	0.8	31.0	
448.2	MISSISSIPPIAN	MENARD	UNKNOWN	10.0	31.8	COVERED
438.2	MISSISSIPPIAN	MENARD	LIMESTONE	1.5	41.8	
436.7	MISSISSIPPIAN	MENARD	UNKNOWN	4.0	43.3	
432.7	MISSISSIPPIAN	MENARD	LIMESTONE	1.0	47.3	



MAPID: 15100718000C VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 18 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: WALTERSBURG LONGITUDE: -88.584416

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.382617

DATE COLLECTED: / / 1936

SURFACE ELEVATION (FT.): 360.0 LOGGED (FT.): 1000.0

LOG TYPE: Survey Sample Study

SOURCE: RODGER, BARGER

WELL TYPE: Coal Test

COMMENT: 4,1 SS #1750 STUDIED BY H. BAY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
360.0	PLEISTOCENE		UNCONSOLIDATED	88.0	0.0	
272.0	MISSISSIPPIAN		LIMESTONE	144.0	88.0	W/ THIN MUD LAYERS
128.0	MISSISSIPPIAN		LIMESTONE & SHALE	133.0	232.0	
-5.0	MISSISSIPPIAN		SANDSTONE	35.0	365.0	SH PTA
-40.0	MISSISSIPPIAN		LIMESTONE	150.0	400.0	THIN SH BEDS
-190.0	MISSISSIPPIAN		SANDSTONE	25.0	550.0	
-215.0	MISSISSIPPIAN		LIMESTONE & SHALE	170.0	575.0	
-385.0	MISSISSIPPIAN		SANDSTONE	230.0	745.0	CORE BEGINS, SOME MISSING
-615.0	MISSISSIPPIAN		LIMESTONE	15.0	975.0	
-630.0	MISSISSIPPIAN		LIMESTONE	10.0	990.0	

MAPID: 151278A0018F VERSION: 1

PROJECT: NCRDS17

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 20 QUARTERS/FOOTAGES: NW NE NE

QUADRANGLE: WALTERSBURG LONGITUDE: -88.567861

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.378511

DATE COLLECTED: 7 / 28 / 1926

SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 13.0

LOG TYPE: Measured section

SOURCE: FLD NOTES - WORKMAN

WELL TYPE: Outcrop

COMMENT: SECTION OF VIENNA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0	MISSISSIPPIAN	VIENNA	LIMESTONE	0.7	0.0	
419.4	MISSISSIPPIAN	VIENNA	SHALE	1.2	0.6	FOSSIL
418.2	MISSISSIPPIAN	VIENNA	LIMESTONE	11.2	1.8	BROWN GRANULAR HEAVY

MAPID: 15100111000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: POPE TWP/RNG: 13S 6E SECTION: 24 QUARTERS/FOOTAGES: NW NW NE

QUADRANGLE: SHETLERVILLE LONGITUDE: -88.498756 GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.3794 DATE COLLECTED: 0 / 0 / 1946

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 54.0 LOG TYPE: Survey Sample Study

SOURCE: BRADY, C. E. WELL TYPE: Water Well

COMMENT: SAMPLE TOPS-GK MAYNOR 6/87.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0			CLAYSTONE & LIMESTONE	50.0	0.0	
410.0				0.0	50.0	
410.0	MISSISSIPPIAN	HARDINBURG	SANDSTONE	0.0	50.0	"SAND ROCK", ?SAMPLE TOP

MAPID: 15120406000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: POPE TWP/RNG: 13S 7E SECTION: 19 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: SHETLERVILLE LONGITUDE: -88.483383 GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.374497 DATE COLLECTED:

SURFACE ELEVATION (FT.): 555.0 LOGGED (FT.): 234.0 LOG TYPE: Survey Sample Study

SOURCE: WELL TYPE: Misc. Borings 100 Ft. & Deeper

COMMENT: SAMPLE TOPS-GK MAYNOR 6/87.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
555.0			CLAYSTONE	20.0	0.0	"BROWN CLAY"
535.0				0.0	20.0	
535.0	MISSISSIPPIAN	HARDINBURG	SANDSTONE	55.0	20.0	
480.0	MISSISSIPPIAN	HANEY	LIMESTONE W/ SHALE	0.0	75.0	