



Status Report

Total Records: 77

TOP 3 COUNTY RECORDS

HARDIN 77

TOP 3 MEMBER RECORDS

WEST BADEN GROUP 25 SANDSTONE
 CEDAR BLUFF GRO 20 LIMESTONE
 HANEY 15 LIMESTONE

TOP 3 LOG TYPE RECORDS

Survey Core Study 52
 Other Core Study 7
 Survey Sample Study 5

TOP 3 COAL RECORDS

0

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
KINKAID	LIMESTONE	39.9	37.5	42.2	42.4	42.4	42.4
DEGONIA	SANDSTONE	46.2	7.8	84.6	27.3	21.2	33.3
CLORE	SANDSTONE	54.6	14.8	117.9	46.6	34.0	59.1
PALESTINE	SANDSTONE	82.3	48.8	115.8	82.6	58.7	106.4
MENARD	LIMESTONE	65.7	3.5	222.2	59.4	15.9	94.0
WALTERSBURG	SANDSTONE	80.2	8.8	172.4	35.1	22.7	49.9
VIENNA	LIMESTONE	115.3	31.5	218.7	18.0	0.9	36.3
TAR SPRINGS	SANDSTONE	102.3	9.4	232.4	81.9	16.3	126.4
HARDINSBURG	SANDSTONE	133.9	4.0	366.4	72.7	22.0	101.4
HANEY	LIMESTONE	183.1	20.0	467.8	113.7	35.4	169.9
FRAILEYS	SHALE	243.8	11.3	531.7	51.2	11.3	80.1
BEECH CREEK	LIMESTONE	326.9	161.0	594.0	4.9	2.4	9.4
WEST BADEN GROU		150.8	6.0	596.4	145.7	6.6	268.2
CEDAR BLUFF GRO		244.2	26.6	807.0	82.1	35.4	130.0
NEW ALBANY GROU		13.5	10.6	18.0	45.1	5.2	85.0
DEVONIAN SYSTEM		44.0	13.0	75.0	-	-	-
GRAND TOWER	LIMESTONE	151.5	100.0	203.0	143.5	143.0	144.0
BACKBONE	LIMESTONE	545.5	275.0	816.0	33.5	25.0	42.0
GRASSY KNOB CHE	CHERT	579.0	300.0	858.0	559.5	495.0	624.0
SILURIAN SYSTEM		1138.5	795.0	1482.0	-	-	-
MOCCASIN SPRING	LIMESTONE	1138.5	795.0	1482.0	110.0	95.0	125.0
ST. CLAIR	LIMESTONE	1248.5	890.0	1607.0	44.0	40.0	48.0
SEXTON CREEK	LIMESTONE	1292.5	930.0	1655.0	13.0	12.0	14.0
EDGEWOOD	LIMESTONE	1305.5	942.0	1669.0	95.5	85.0	106.0
ORDOVICIAN SYSTE		1401.0	1027.0	1775.0	-	-	-

MAQUOKETA SHAL	SHALE	1401.0	1027.0	1775.0	219.5	198.0	241.0
PLATTEVILLE GRO		1702.0	1294.0	2110.0	785.0	785.0	785.0
DUTCHTOWN	LIMESTONE	3207.0	3207.0	3207.0	-	-	-
				Net Coal			

MAPID: 06900278000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 7E SECTION: 11 SESW

FOOT (NS): 558 N FOOT (EW): 270 W

QUADRANGLE: HEROD LONGITUDE: -88.407693

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.572151

DATE COLLECTED: 0 / 0 / 1951

SURFACE ELEVATION (FT.): 418.0 LOGGED (FT.): 1045.0

LOG TYPE: Survey Core Study

SOURCE: U S BUREAU OF MINES

WELL TYPE: Misc. Borings 100 Ft. & Deeper

COMMENT: CORE STUDY-DB SAXBY 5/51.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
418.0				8.8	0.0	"OVERBURDEN"
409.2				0.0	8.8	
409.2	MISSISSIPPIAN	WALTERSBURG	SANDSTONE	22.7	8.8	
386.5	MISSISSIPPIAN	VIENNA	LIMESTONE	18.2	31.5	
368.3	MISSISSIPPIAN	TAR SPRINGS	SANDSTONE	107.4	49.7	
260.9			LIMESTONE	58.4	157.1	
202.5	MISSISSIPPIAN	HARDINSBURG	SANDSTONE	95.8	215.5	
106.7	MISSISSIPPIAN	HANEY	LIMESTONE	137.2	311.3	
-30.5	MISSISSIPPIAN	BEECH CREEK	LIMESTONE	3.7	448.5	
-34.2	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	268.2	452.2	
-302.4			LIMESTONE	0.0	720.4	UNCERTAIN TOPS & FAULTING BELOW DB.

MAPID: 06920778000C VERSION: 1

PROJECT: BLM

COUNTY: HARDIN TWP/RNG: 11S 7E SECTION: 11 NW

FOOT (NS): 500 N FOOT (EW): 1320 W

QUADRANGLE: HEROD LONGITUDE: -88.408385

GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.583272

DATE COLLECTED: 10 / 30 / 1979

SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 120.0

LOG TYPE: Drillers Log

SOURCE: Q. RICHEY, DRILLER

WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0			UNCONSOLIDATED	5.0	0.0	
435.0			ROCK	15.0	5.0	
420.0			COAL	1.5	20.0	
418.5			ROCK	98.5	21.5	

MAPID: 06920942000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 7E SECTION: 11 SESE

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: HEROD LONGITUDE: -88.397173

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.571937

DATE COLLECTED: 0 / 0 / 0

SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 100.0

LOG TYPE: Survey Sample Study

SOURCE:

WELL TYPE: Water Well

COMMENT: SAMPLE TOPS-GK MAYNOR 5/87.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
500.0			CLAYSTONE	4.0	0.0	"CLAY 0-4"
496.0				0.0	4.0	
496.0	MISSISSIPPIAN	HARDINBURG	SANDSTONE	26.0	4.0	
470.0	MISSISSIPPIAN	HANEY	LIMESTONE	0.0	30.0	

MAPID: 069274C0001F VERSION: 1

PROJECT: BLM

COUNTY: HARDIN TWP/RNG: 11S 7E SECTION: 11 NWSNW

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: HEROD LONGITUDE: -88.407275

GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.580089

DATE COLLECTED: 0 / 0 / 1961

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 10.0

LOG TYPE:

SOURCE: FLD NOTES-SHAW

WELL TYPE: Strip Mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-			COAL	-		
-			ROCK	10.0		

MAPID: 06900047000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 7E SECTION: 25

FOOT (NS): 1800 S FOOT (EW): 1400 E

QUADRANGLE: HEROD LONGITUDE: -88.381977

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.531104

DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 505.0 LOGGED (FT.): 34.0

LOG TYPE: Survey Core Study

SOURCE: POTSCHE, JOHN P. SR.

WELL TYPE: Misc. Borings Less Than 100 Ft.

COMMENT: CORE STUDY-LE WORKMAN; ASSUME VERTICAL.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
505.0				10.6	0.0	"SURFACE"
494.4	MISSISSIPPIAN	NEW ALBANY GROUP	SHALE	0.0	10.6	

MAPID: 06920746000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 7E SECTION: 36 SENENE

FOOT (NS): 470 S FOOT (EW): 400 E

QUADRANGLE: HEROD LONGITUDE: -88.378656

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.523728

DATE COLLECTED: 12 / 0 / 1978

SURFACE ELEVATION (FT.): 578.0 LOGGED (FT.): 370.0

LOG TYPE: Multiple log types

SOURCE: RECTOR & STONE DRLG. CO.

WELL TYPE: Structure Test

COMMENT: CORE/SAMPLE STUDY-RM CLUFF, ET AL 12/78.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
494.1			SHALE	181.2	83.9	
312.9			SHALE	71.4	265.1	
241.5			LIMESTONE	0.0	336.5	

MAPID: 06900070000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 8E SECTION: 2 NE

FOOT (NS): 1250 N FOOT (EW): 1550 E

QUADRANGLE: KARBERS RIDGE LONGITUDE: -88.287619

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.595642

DATE COLLECTED: 0 / 0 / 1966

SURFACE ELEVATION (FT.): 705.0 LOGGED (FT.): 200.0

LOG TYPE: Drillers Log

SOURCE: LARKIN DRLG CO

WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
705.0				8.0	0.0	"CLAY 0-5', DRIFT 5-8:'"
697.0			SANDSTONE	0.0	8.0	

MAPID: 06920984000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 8E SECTION: 5 SE

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: KARBERS RIDGE LONGITUDE: -88.342224

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.588434

DATE COLLECTED: 0 / 0 / 0

SURFACE ELEVATION (FT.): 545.0 LOGGED (FT.): 296.0

LOG TYPE: Survey Core Study

SOURCE: OZARK MAHONING

WELL TYPE: Mineral Test

COMMENT: CORE TOPS-GK MAYNOR 6/87.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
361.0				0.0	184.0	CORE STARTS AT 184'
361.0			LIMESTONE	14.9	184.0	
346.1	MISSISSIPPIAN	HARDINSBURG	SANDSTONE/SHALE	87.1	198.9	
259.0	MISSISSIPPIAN	HANEY	LIMESTONE	0.0	286.0	

MAPID: 06900045000C VERSION: 1

PROJECT: BLM

COUNTY: HARDIN TWP/RNG: 11S 8E SECTION: 6 SESESENE

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: KARBERS RIDGE LONGITUDE: -88.356743

GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.592559

DATE COLLECTED: 5 / 0 / 1962

SURFACE ELEVATION (FT.): 464.0

LOGGED (FT.): 17.5

LOG TYPE: Drillers Log

SOURCE: ILL. DIVISION OF HIGHWAYS

WELL TYPE: Engineering Test Holes

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
464.0			UNCONSOLIDATED	12.0	0.0	
452.0			COAL	0.5	12.0	SOFT
451.5			ROCK	5.0	12.5	

MAPID: 06900072000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 8E SECTION: 9 SENW

FOOT (NS): 528 S FOOT (EW): 462 W

QUADRANGLE: KARBERS RIDGE LONGITUDE: -88.331544

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.578848

DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 640.0

LOGGED (FT.): 98.0

LOG TYPE: Survey Sample Study

SOURCE: U S FOREST SERVICE

WELL TYPE: Water Well

COMMENT: SAMPLE STUDY-EC COCKRUM 6/42.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0			CLAYSTONE	20.0	0.0	
620.0				0.0	20.0	
620.0	MISSISSIPPIAN	HANEY	LIMESTONE	0.0	20.0	"GOLCONDA"

MAPID: 06900658000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 8E SECTION: 9 SE

FOOT (NS): 100 N FOOT (EW): 950 E

QUADRANGLE: KARBERS RIDGE LONGITUDE: -88.32252

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.577055

DATE COLLECTED: 10 / 0 / 1972

SURFACE ELEVATION (FT.): 620.0

LOGGED (FT.): 475.0

LOG TYPE: Electric Log

SOURCE: BEANLAND, JOHN R.

WELL TYPE: Dry Hole

COMMENT: GR-LOG TOPS-HM BRISTOL 10/72.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0			CLAYSTONE	4.0	0.0	
616.0				0.0	4.0	
616.0	MISSISSIPPIAN	HARDINBURG	SANDSTONE	22.0	4.0	
594.0	MISSISSIPPIAN	HANEY	LIMESTONE	135.0	26.0	"GOLCONDA"
459.0	MISSISSIPPIAN	BEECH CREEK	LIMESTONE	5.0	161.0	
454.0	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	0.0	166.0	

MAPID: 06900073000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 8E SECTION: 11 NENE

FOOT (NS): 485 S FOOT (EW): 420 E

QUADRANGLE: KARBERS RIDGE LONGITUDE: -88.28373

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.582429

DATE COLLECTED: 0 / 0 / 1973

SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 285.0

LOG TYPE: Other Core Study

SOURCE: THOMPSON SCERIAL

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-CO. 7/49.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
530.0				3.5	0.0	"SURFACE"
526.5				0.0	3.5	
526.5	MISSISSIPPIAN	MENARD	LIMESTONE	56.6	3.5	
469.9	MISSISSIPPIAN	WALTERSBURG	SANDSTONE	49.9	60.1	
420.0	MISSISSIPPIAN	VIENNA	LIMESTONE	0.9	110.0	
419.1	MISSISSIPPIAN	TAR SPRINGS	SANDSTONE/SHALE	126.4	110.9	
292.7			LIMESTONE	0.0	237.3	FAULT 243.8'

MAPID: 06900021000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 8E SECTION: 13 SW

FOOT (NS): 865 S FOOT (EW): 1016 W

QUADRANGLE: KARBERS RIDGE LONGITUDE: -88.278814

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.557606

DATE COLLECTED: 11 / 0 / 1957

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 1024.0

LOG TYPE: Other Core Study

SOURCE: NEW JERSEY ZINC CO.

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-NJ ZINC 11/57.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0			SANDSTONE	41.3	0.0	
563.7				0.0	41.3	
563.7	MISSISSIPPIAN	MENARD	LIMESTONE	94.0	41.3	
469.7	MISSISSIPPIAN	WALTERSBURG	SHALE & SANDSTONE	37.6	135.3	
432.1	MISSISSIPPIAN	VIENNA	LIMESTONE	26.3	172.9	
405.8	MISSISSIPPIAN	TAR SPRINGS	SANDSTONE	96.3	199.2	
309.5			LIMESTONE	37.2	295.5	
272.3	MISSISSIPPIAN	HARDINSBURG	SANDSTONE	89.7	332.7	
182.6	MISSISSIPPIAN	HANEY	LIMESTONE	135.8	422.4	"GOLCONDA"
46.8	MISSISSIPPIAN	BEECH CREEK	LIMESTONE	9.4	558.2	INFERRED TOP-GK MAYNOR 6/87
37.4	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	205.8	567.6	
-168.4	MISSISSIPPIAN	CEDAR BLUFF GRO	LIMESTONE	78.9	773.4	"RENAULT & LEVIAS (830.7)"
-247.3			SANDSTONE	19.7	852.3	"ROSICLARE SS"
-267.0			LIMESTONE	0.0	872.0	"FREDONIA"

MAPID: 06900074000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 8E SECTION: 14 NW

FOOT (NS): 257 N FOOT (EW): 705 W

QUADRANGLE: KARBERS RIDGE LONGITUDE: -88.298185

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.569273

DATE COLLECTED: 0 / 0 / 1938

SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 175.0

LOG TYPE: Survey Core Study

SOURCE: HILLSIDE FLUORSPAR

WELL TYPE: Mineral Test

COMMENT: CORE STUDY J. N. PAYNE.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
500.0				0.0	0.0	
-	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	0.0		"BETHEL"
461.8	MISSISSIPPIAN	CEDAR BLUFF GRO	LIMESTONE	76.4	38.2	"RENAULT & LEVIAS (103.1)"
385.4			SANDSTONE	0.0	114.6	"ROSICLARE SS"

MAPID: 06900075000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 8E SECTION: 14

FOOT (NS): 498 N FOOT (EW): 838 W

QUADRANGLE: KARBERS RIDGE LONGITUDE: -88.297735

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.568609

DATE COLLECTED: 12 / 0 / 1944

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 335.0

LOG TYPE: Survey Core Study

SOURCE: U S BUREAU OF MINES

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-JN PAYNE.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0				16.1	0.0	"OVERBURDEN"
463.9				0.0	16.1	
463.9	MISSISSIPPIAN	MENARD	LIMESTONE	15.9	16.1	
448.0	MISSISSIPPIAN	WALTERSBURG	SILTSTONE/SANDSTON	35.2	32.0	
412.8	MISSISSIPPIAN	VIENNA	LIMESTONE	26.5	67.2	
386.3	MISSISSIPPIAN	TAR SPRINGS	SANDSTONE/SHALE	120.2	93.7	
266.1			LIMESTONE	20.8	213.9	
245.3	MISSISSIPPIAN	HARDINBURG	SANDSTONE	0.0	234.7	FAULT 275.4'

MAPID: 06900083000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 8E SECTION: 15 SESWNWNW

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: KARBERS RIDGE LONGITUDE: -88.317621

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.566724

DATE COLLECTED: 0 / 0 / 1952

SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 186.0

LOG TYPE: Survey Core Study

SOURCE: CAMPBELL & CARTER

WELL TYPE: Misc. Borings 100 Ft. & Deeper

COMMENT: CORE STUDY-DB SAXBY 5/52.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0				10.6	0.0	"SOIL AND BOULDERS"
539.4				0.0	10.6	
539.4	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	21.2	10.6	"BETHEL"
518.2	MISSISSIPPIAN	CEDAR BLUFF GRO	LIMESTONE	35.4	31.8	"RENAULT"
482.8			SANDSTONE	14.1	67.2	"ROSICLARE"
468.7			LIMESTONE	0.0	81.3	"FREDONIA"

MAPID: 06900671000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 8E SECTION: 15 NESE

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: KARBERS RIDGE LONGITUDE: -88.303119

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.560723

DATE COLLECTED: 1 / 0 / 1957

SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 483.0

LOG TYPE: Other Core Study

SOURCE: NEW JERSEY ZINC CO.

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-NJ ZINC 1/57.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
495.0				11.3	0.0	"OVERBURDEN"
483.7				0.0	11.3	
483.7	MISSISSIPPIAN	FRAILEYS	SHALE	11.3	11.3	"GOLCONDA", BEECH CREEK ABSENT?
472.4	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	197.8	22.6	
274.6	MISSISSIPPIAN	CEDAR BLUFF GRO	LIMESTONE	88.8	220.4	"RENAULT & LEVIAS (280.4)"
185.8			SANDSTONE	22.5	309.2	"ROSICLARE"
163.3			LIMESTONE	0.0	331.7	"FREDONIA"

MAPID: 06900672000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 8E SECTION: 15 SENE

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: KARBERS RIDGE LONGITUDE: -88.303055

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.564424

DATE COLLECTED: 4 / 0 / 1957

SURFACE ELEVATION (FT.): 536.0 LOGGED (FT.): 757.0

LOG TYPE: Other Core Study

SOURCE: NEW JERSEY ZINC CO.

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-NJ ZINC 4/57.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
536.0				9.4	0.0	"OVERBURDEN"
526.6				0.0	9.4	
526.6	MISSISSIPPIAN	TAR SPRINGS	SANDSTONE	21.6	9.4	
505.0			LIMESTONE	57.8	31.0	
447.2	MISSISSIPPIAN	HARDINSBURG	SANDSTONE	55.0	88.8	
392.2	MISSISSIPPIAN	HANEY	LIMESTONE	138.1	143.8	"GOLCONDA"
254.1	MISSISSIPPIAN	BEECH CREEK	LIMESTONE	5.6	281.9	INFERRED TOP-GK MAYNOR 6/87
248.5	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	236.8	287.5	INFERRED TOP-GK MAYNOR 6/87
11.7	MISSISSIPPIAN	CEDAR BLUFF GRO	LIMESTONE	83.2	524.3	"RENAULT & LEVIAS (582.1)"
-71.5			SANDSTONE	28.7	607.5	"ROSICLARE"
-100.2			LIMESTONE	0.0	636.2	"FREDONIA"

MAPID: 06900085000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 8E SECTION: 21 SENWNE

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: KARBERS RIDGE LONGITUDE: -88.325386

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.55243

DATE COLLECTED: 0 / 0 / 1952

SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 125.0

LOG TYPE: Survey Core Study

SOURCE: OXFORD & PERRY

WELL TYPE: Misc. Borings 100 Ft. & Deeper

COMMENT: CORE STUDY-DB SAXBY 10/52

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
430.0			CLAYSTONE	29.7	0.0	"CLAY, SAND & GRAVEL"
400.3				0.0	29.7	
400.3	MISSISSIPPIAN	CEDAR BLUFF GRO	LIMESTONE	38.9	29.7	"RENAULT & LEVIAS (55.7)"
361.4				2.1	68.6	"ROSICLARE MBR."
359.3			LIMESTONE	0.0	70.7	"FREDONIA MBR."

MAPID: 06900683000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 8E SECTION: 23 SWNE

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: KARBERS RIDGE LONGITUDE: -88.289385

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.549638

DATE COLLECTED: 2 / 0 / 1958

SURFACE ELEVATION (FT.): 560.0 LOGGED (FT.): 182.0

LOG TYPE: Other Core Study

SOURCE: NEW JERSEY ZINC CO.

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-NJ ZINC 2/58.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
560.0				66.0	0.0	"OVERBURDEN-WEATHERED SF & LS."
494.0				0.0	66.0	
494.0			SANDSTONE	40.0	66.0	"ROSICLARE"
454.0			LIMESTONE	0.0	106.0	"FREDONIA"

MAPID: 06900685000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 8E SECTION: 23 NWNW

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: KARBERS RIDGE LONGITUDE: -88.298599

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.553324

DATE COLLECTED: 7 / 0 / 1957

SURFACE ELEVATION (FT.): 545.0 LOGGED (FT.): 269.0

LOG TYPE: Other Core Study

SOURCE: NEW JERSEY ZINC CO.

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-NJ ZINC 7/57.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
545.0				8.0	0.0	"OVERBURDEN"
537.0				0.0	8.0	
537.0	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	73.0	8.0	"BETHEL"
464.0	MISSISSIPPIAN	CEDAR BLUFF GRO	LIMESTONE	62.0	81.0	"RENAULT & LEVIAS (131)"
402.0			SANDSTONE	29.0	143.0	"ROSICLARE"
373.0			LIMESTONE	0.0	172.0	"FREDONIA"

MAPID: 06900091000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 8E SECTION: 26 SENW

FOOT (NS): 360 N FOOT (EW): 660 W

QUADRANGLE: KARBERS RIDGE LONGITUDE: -88.294243

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.535638

DATE COLLECTED: 0 / 0 / 1955

SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 278.0

LOG TYPE: Survey Sample Study

SOURCE: GIBSON DODD

WELL TYPE: Misc. Borings 100 Ft. & Deeper

COMMENT: SAMPLE STUDY-DB SAXBY 1/56.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
603.0				6.0	0.0	"SOIL"
597.0				0.0	6.0	
597.0	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	158.0	6.0	
439.0	MISSISSIPPIAN	CEDAR BLUFF GRO	LIMESTONE	81.0	164.0	"RENAULT & LEVIAS (235)"
358.0			SANDSTONE	18.0	245.0	"ROSICLARE"
340.0			LIMESTONE	0.0	263.0	"FREDONIA"

MAPID: 06900043000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 8E SECTION: 30 SESE

FOOT (NS): 372 S FOOT (EW): 181 W

QUADRANGLE: KARBERS RIDGE LONGITUDE: -88.361808

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.52681

DATE COLLECTED: 0 / 0 / 1900

SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 3306.0

LOG TYPE: Survey Sample Study

SOURCE: MARETTA OIL CO

WELL TYPE: Dry Hole

COMMENT: SS STUDY-SWANN,ET AL 1/64 & LEW,JST 9/50

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
475.0			UNCLASSIFIED	12.0	0.0	SAMPLES START AT 12'.
463.0	MISSISSIPPIAN	NEW ALBANY GROUP	SHALE	85.0	12.0	
378.0			LIMESTONE	106.0	97.0	
272.0	DEVONIAN	GRAND TOWER	LIMESTONE	144.0	203.0	
128.0			LIMESTONE & CONGLO	469.0	347.0	
-341.0	DEVONIAN	BACKBONE	LIMESTONE	42.0	816.0	"LITTLE SALINE"
-383.0	DEVONIAN	GRASSY KNOB CHER	LIMESTONE	624.0	858.0	"BAILEY"
-1007.0	SILURIAN	SILURIAN SYSTEM		0.0	1482.0	
-1007.0	SILURIAN	MOCCASIN SPRINGS	LIMESTONE & CONGLO	125.0	1482.0	
-1132.0	SILURIAN	ST. CLAIR	LIMESTONE	48.0	1607.0	
-1180.0	SILURIAN	SEXTON CREEK	LIMESTONE	14.0	1655.0	
-1194.0	SILURIAN	EDGEWOOD	LIMESTONE	106.0	1669.0	
-1300.0	ORDOVICIAN	ORDOVICIAN SYSTE		0.0	1775.0	
-1300.0	ORDOVICIAN	MAQUOKETA SHALE	SHALE	241.0	1775.0	
-1541.0			LIMESTONE	94.0	2016.0	"KIMMSWICK"
-1635.0	ORDOVICIAN	PLATTEVILLE GROU	LIMESTONE	785.0	2110.0	"PLATTIN FM."
-2420.0			DOLOMITE	312.0	2895.0	
-2732.0	ORDOVICIAN	DUTCHTOWN	DOLOMITE	0.0	3207.0	

MAPID: 06900044000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 8E SECTION: 30 NWSW

FOOT (NS): 330 N FOOT (EW): 330 E

QUADRANGLE: KARBERS RIDGE LONGITUDE: -88.373302

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.532341

DATE COLLECTED: 11 / 0 / 1952

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 2948.0

LOG TYPE: Multiple log types

SOURCE: ST JOSEPH LEAD

WELL TYPE: Dry Hole

COMMENT: SAMPLE/E-LOG TOPS-CO. 12/52.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0			CLAYSTONE	75.0	0.0	
555.0	DEVONIAN	DEVONIAN SYSTEM	CLAYSTONE	0.0	75.0	
555.0			LIMESTONE	200.0	75.0	
355.0	DEVONIAN	BACKBONE	LIMESTONE	25.0	275.0	
330.0	DEVONIAN	GRASSY KNOB CHER	LIMESTONE	495.0	300.0	"BAILEY"
-165.0	SILURIAN	SILURIAN SYSTEM	LIMESTONE	0.0	795.0	
-165.0	SILURIAN	MOCCASIN SPRINGS	LIMESTONE	95.0	795.0	
-260.0	SILURIAN	ST. CLAIR	LIMESTONE	40.0	890.0	
-300.0	SILURIAN	SEXTON CREEK	LIMESTONE	12.0	930.0	
-312.0	SILURIAN	EDGEWOOD	LIMESTONE	85.0	942.0	
-397.0	ORDOVICIAN	ORDOVICIAN SYSTE		0.0	1027.0	
-397.0	ORDOVICIAN	MAQUOKETA SHALE	SHALE	198.0	1027.0	
-595.0			LIMESTONE	69.0	1225.0	
-664.0	ORDOVICIAN	PLATTEVILLE GROU	LIMESTONE	0.0	1294.0	"DECORAH-PLATTIN." ?TOPS BELOW PLATTE.

MAPID: 06900048000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 8E SECTION: 30

FOOT (NS): 1800 N FOOT (EW): 3300 W

QUADRANGLE: KARBERS RIDGE LONGITUDE: -88.365566

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.535588

DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 46.0

LOG TYPE: Survey Core Study

SOURCE: POTSCH, JOHN P. SR.

WELL TYPE: Misc. Borings Less Than 100 Ft.

COMMENT: CORE STUDY-LE WORKMAN.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
495.0				18.0	0.0	"OVERBURDEN, WEATHERED SH."
477.0	MISSISSIPPIAN	NEW ALBANY GROUP	SHALE	5.2	18.0	
471.8			LIMESTONE	0.0	23.2	"ALTO 23.2-37.2."

MAPID: 06900096000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 8E SECTION: 31 SWNENW

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: KARBERS RIDGE LONGITUDE: -88.371099

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.523112

DATE COLLECTED: 0 / 0 / 1955

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 295.0

LOG TYPE: Survey Core Study

SOURCE: CRIDER W ETAL

WELL TYPE: Misc. Borings 100 Ft. & Deeper

COMMENT: CORE STUDY-SAXBY & SCHAWLB 10/55.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0				13.0	0.0	"SOIL"
467.0	DEVONIAN	DEVONIAN SYSTEM		0.0	13.0	
467.0			LIMESTONE	87.0	13.0	
380.0	DEVONIAN	GRAND TOWER	LIMESTONE	143.0	100.0	
237.0				0.0	243.0	

MAPID: 06920795000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 11S 8E SECTION: 33

FOOT (NS): 1320 S FOOT (EW): 2640 W

QUADRANGLE: KARBERS RIDGE LONGITUDE: -88.329794

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.51458

DATE COLLECTED: 0 / 0 / 0

SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 764.0

LOG TYPE: Survey Core Study

SOURCE: OZARK-MAHONING CO.

WELL TYPE: Mineral Test

COMMENT: CORE STUDY (20-274.3)-JDT 3/83.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0				0.0	20.0	CORE STARTS AT 20'
400.0			LIMESTONE	12.4	20.0	CORE TOP-JD TREWORGY 3/83
387.6	MISSISSIPPIAN	HARDINSBURG	SANDSTONE	94.7	32.4	CORE TOP-JD TREWORGY 3/83
292.9	MISSISSIPPIAN	HANEY	LIMESTONE	61.3	127.1	CORE TOP-JD TREWORGY 3/83
231.6	MISSISSIPPIAN	FRAILEYS	SHALE	80.1	188.4	CORE TOP-JD TREWORGY 3/83
151.5	MISSISSIPPIAN	BEECH CREEK	LIMESTONE	5.8	268.5	CORE TOP-JD TREWORGY 3/83
145.7	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	206.7	274.3	CORE TOP-JD TREWORGY 3/83
-61.0	MISSISSIPPIAN	CEDAR BLUFF GRO	LIMESTONE	97.0	481.0	CORE TOP-GM 6/87. POSS. FLT.
-158.0			SILTSTONE/SANDSTON	18.2	578.0	CORE TOP-GM 6/87.
-176.2			LIMESTONE	165.2	596.2	CORE TOP-GM 6/87.
-341.4			LIMESTONE	0.0	761.4	?CORE TOP-GM 6/87

MAPID: 06900097000C VERSION: 1

PROJECT: CUSMAP

COUNTY: HARDIN TWP/RNG: 11S 9E SECTION: 2 SESW

FOOT (NS): 250 S FOOT (EW): 200 W

QUADRANGLE: SALINE MINES LONGITUDE: -88.184511

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.585348

DATE COLLECTED: 9 / 0 / 1942

SURFACE ELEVATION (FT.): 364.0 LOGGED (FT.): 1270.0

LOG TYPE: Geologic Tops

SOURCE: TODD JAMES E

WELL TYPE: Dry Hole

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	UNIT OVERBURDEN	COMMENT
-906.0	BASE OF PENN.		UNCLASSIFIED	-	1270.0	

MAPID: 069275C0002F VERSION: 1

PROJECT: BLM

COUNTY: HARDIN TWP/RNG: 11S 9E SECTION: 2 NESWNE

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: SALINE MINES LONGITUDE: -88.176864

GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.594687

DATE COLLECTED: 6 / 8 / 1954

SURFACE ELEVATION (FT.): 380.0 LOGGED (FT.): 0.0

LOG TYPE: Measured section

SOURCE: FLD NOTES-H STONEHOUSE

WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	UNIT OVERBURDEN	COMMENT
380.0			ROCK	-	0.0	CARBONACEOUS SHALE ON DUMP.

MAPID: 06900099000C VERSION: 1

PROJECT: CUSMAP

COUNTY: HARDIN TWP/RNG: 11S 9E SECTION: 11 NWNE

FOOT (NS): 330 S FOOT (EW): 330 E

QUADRANGLE: SALINE MINES LONGITUDE: -88.176884

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.581837

DATE COLLECTED: 11 / 0 / 1948

SURFACE ELEVATION (FT.): 359.0 LOGGED (FT.): 1120.0

LOG TYPE: Electric Log

SOURCE: ASHLAND OIL&REF. CO.

WELL TYPE: Dry Hole

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	UNIT OVERBURDEN	COMMENT
-761.0	BASE OF PENN.		UNCLASSIFIED	-	1120.0	

MAPID: 06900172000C VERSION: 1

PROJECT: CUSMAP

COUNTY: HARDIN TWP/RNG: 11S 9E SECTION: 27 SENESW

FOOT (NS): 125 S FOOT (EW): 100 E

QUADRANGLE: SALINE MINES LONGITUDE: -88.199732

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.529592

DATE COLLECTED: 0 / 0 / 1938

SURFACE ELEVATION (FT.): LOGGED (FT.): 110.0

LOG TYPE: Company Sample Stud

SOURCE: MAHONING MINING DIV

WELL TYPE: Stratigraphic Test

COMMENT:

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

MAPID: 069275C0001F VERSION: 1

PROJECT: BLM

COUNTY: HARDIN TWP/RNG: 11S 9E SECTION: 32 NWSWSW

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: SALINE MINES LONGITUDE: -88.244654

GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.51356

DATE COLLECTED: 6 / 25 / 1954

SURFACE ELEVATION (FT.): 820.0 LOGGED (FT.): 5.5

LOG TYPE: Measured section

SOURCE: FLD NOTES-STONEHOUSE

WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	UNIT OVERBURDEN	COMMENT
-			ROCK	4.0		
-			COAL	1.5		

MAPID: 06900405000C VERSION: 1

PROJECT: CUSMAP

COUNTY: HARDIN TWP/RNG: 11S 10E SECTION: 19 NWNESW

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: SALINE MINES LONGITUDE: -88.147103

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.546394

DATE COLLECTED: 0 / 0 / 1947

SURFACE ELEVATION (FT.): LOGGED (FT.): 96.0

LOG TYPE: Survey Sample Study

SOURCE: MINERVA OIL CO

WELL TYPE: Producer-Oil and Gas

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	UNIT OVERBURDEN	COMMENT
-	BASE OF PENN.		UNCLASSIFIED	-	96.0	

MAPID: 06900406000C VERSION: 1

PROJECT: CUSMAP

COUNTY: HARDIN TWP/RNG: 11S 10E SECTION: 20 NWNW

FOOT (NS): 425 N FOOT (EW): 777 E

QUADRANGLE: SALINE MINES LONGITUDE: -88.132474

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.553775

DATE COLLECTED: 2 / 0 / 1949

SURFACE ELEVATION (FT.): 459.1 LOGGED (FT.): 313.0

LOG TYPE: Drillers Log

SOURCE: MINERVA OIL CO

WELL TYPE: Producer-Oil and Gas

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	UNIT OVERBURDEN	COMMENT
146.1	BASE OF PENN.		UNCLASSIFIED	-	313.0	

MAPID: 06900407000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 7E SECTION: 11 SENE

FOOT (NS): 325 N FOOT (EW): 55 E

QUADRANGLE: SHETLERVILLE LONGITUDE: -88.396293

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.491803

DATE COLLECTED: 7 / 0 / 1945

SURFACE ELEVATION (FT.): 482.0 LOGGED (FT.): 252.0

LOG TYPE: Survey Core Study

SOURCE: CRYSTAL FLUORSPAR CO

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-FE TIPPIE 7/45

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
482.0				8.0	0.0	"OVERBURDEN"
474.0				0.0	8.0	
474.0	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	150.7	8.0	"CYPRESS-BETHEL", FAULT 150.7-158.7
323.3			LIMESTONE	0.0	158.7	FAULT 150.7-158.7

MAPID: 06900409000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 7E SECTION: 11 W2NESW

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: SHETLERVILLE LONGITUDE: -88.408551

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.487341

DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 204.0

LOG TYPE: Survey Core Study

SOURCE: HILLSIDE FLUORSPAR

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-FE TIPPIE 7/41

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
437.0				0.0	13.0	CORE STARTS AT 13'
437.0			LIMESTONE	10.4	13.0	"LEVIAS"
426.6			SANDSTONE	26.8	23.4	"ROSICLARE"
399.8			LIMESTONE	0.0	50.2	"FREDONIA"

MAPID: 06900411000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 7E SECTION: 12 NENWSW

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: SHETLERVILLE LONGITUDE: -88.392742

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.488136

DATE COLLECTED: 0 / 0 / 1956

SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 449.0

LOG TYPE: Survey Core Study

SOURCE: HUMM, J. C., ETAL

WELL TYPE: Misc. Borings 100 Ft. & Deeper

COMMENT: CORE STUDY-DB SAXBY 3/56.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
500.0				12.0	0.0	"SURFACE"
488.0				0.0	12.0	
488.0			SANDSTONE	16.3	12.0	"ROSICLARE"
471.7			LIMESTONE	123.0	28.3	"FREDONIA"
348.7			LIMESTONE	0.0	151.3	

MAPID: 06900413000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 7E SECTION: 14 NE

FOOT (NS): 1800 N FOOT (EW): 2350 E

QUADRANGLE: SHETLERVILLE LONGITUDE: -88.404509

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.476788

DATE COLLECTED: 8 / 0 / 1942

SURFACE ELEVATION (FT.): 465.0 LOGGED (FT.): 175.0

LOG TYPE: Survey Core Study

SOURCE: FLUORSPAR PROD

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-FE TIPPIE 8/42.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
465.0				55.2	0.0	"ALLUVIUM"
409.8				0.0	55.2	
409.8			LIMESTONE	0.0	55.2	

MAPID: 06900416000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 7E SECTION: 23 SWNW

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: SHETLERVILLE LONGITUDE: -88.412381

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.461813

DATE COLLECTED: 7 / 0 / 1945

SURFACE ELEVATION (FT.): 515.0 LOGGED (FT.): 440.0

LOG TYPE: Survey Core Study

SOURCE: CRYSTAL FLUORSPAR CO

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-FE TIPPIE 7/45.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
515.0				39.2	0.0	"OVERBURDEN"
475.8				0.0	39.2	
475.8	MISSISSIPPIAN	CEDAR BLUFF GRO	LIMESTONE	73.7	39.2	"RENAULT & LEVIAS (96.1)"
402.1			SANDSTONE	25.2	112.9	"ROSICLARE"
376.9			LIMESTONE	157.9	138.1	"FREDONIA"
219.0			LIMESTONE	0.0	296.0	FAULT 340.2-346.7'

MAPID: 06900419000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 7E SECTION: 23 SWNE

FOOT (NS): 53 N FOOT (EW): 446 W

QUADRANGLE: SHETLERVILLE LONGITUDE: -88.404098

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.46342

DATE COLLECTED: 10 / 0 / 1945

SURFACE ELEVATION (FT.): 465.0 LOGGED (FT.): 435.0

LOG TYPE: Survey Core Study

SOURCE: CRYSTAL FLUORSPAR CO

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-FE TIPPIE 9/45.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.0				10.6	0.0	"OVERBURDEN"
454.4				0.0	10.6	
454.4	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	63.9	10.6	"BETHEL"
390.5	MISSISSIPPIAN	CEDAR BLUFF GRO	LIMESTONE	110.8	74.5	"RENAULT & LEVIAS (169.2)'"
279.7			SANDSTONE	10.7	185.3	"ROSICLARE", FLT. 189.4- 190.3"
269.0			SANDSTONE	27.6	196.0	"ROSICLARE"
241.4			LIMESTONE	0.0	223.6	"FREDONIA"

MAPID: 06900423000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 7E SECTION: 24

FOOT (NS): 1800 S FOOT (EW): 1750 W

QUADRANGLE: SHETLERVILLE LONGITUDE: -88.390669

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.45746

DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 370.0 LOGGED (FT.): 329.0

LOG TYPE: Survey Core Study

SOURCE: CRYSTAL FLUORSPAR CO

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-FE TIPPIE 8/42.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
370.0			CLAYSTONE & LIMEST	14.1	0.0	
355.9				0.0	14.1	
355.9			LIMESTONE	0.0	14.1	"FREDONIA"

MAPID: 06900017000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 7E SECTION: 36 SESENW

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: SHETLERVILLE LONGITUDE: -88.389004

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.431628

DATE COLLECTED: 0 / 0 / 1900

SURFACE ELEVATION (FT.): 355.0 LOGGED (FT.): 176.0

LOG TYPE: Survey Core Study

SOURCE: COX

WELL TYPE: Misc. Borings 100 Ft. & Deeper

COMMENT: CORE STUDY-DB SAXBY 5/56

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
355.0				13.1	0.0	"SURFACE"
341.9			SANDSTONE	0.0	13.1	

MAPID: 06900427000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 7E SECTION: 36 NENW
QUADRANGLE: SHETLERVILLE LONGITUDE: -88.392381
CONFIDENTIAL: N LATITUDE: 37.43605
SURFACE ELEVATION (FT.): 370.0 LOGGED (FT.): 317.0
SOURCE: MINNETTE J
COMMENT: CORE STUDY-DB SAXBY

FOOT (NS): 660 N FOOT (EW): 0 W
GEOLOGIST: GK MAYNOR
DATE COLLECTED: 0 / 0 / 1954
LOG TYPE: Survey Core Study
WELL TYPE: Mineral Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
370.0				14.8	0.0	"SURFACE"
355.2				0.0	14.8	
355.2	MISSISSIPPIAN	CLORE	CALCAREOUS SHALE	34.0	14.8	
321.2	MISSISSIPPIAN	PALESTINE	SANDSTONE	58.7	48.8	
262.5	MISSISSIPPIAN	MENARD	LIMESTONE	0.0	107.5	?TOPS & POSS. FAULTING BELOW 141.4'

MAPID: 06900431000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 7 NWNE
QUADRANGLE: ROSICLARE LONGITUDE: -88.365382
CONFIDENTIAL: N LATITUDE: 37.494244
SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 436.0
SOURCE: ROSI LEAD & FLUORSR
COMMENT: CORE STUDY-FE TIPPIE 6/45

FOOT (NS): 0 FOOT (EW): 0
GEOLOGIST: GK MAYNOR
DATE COLLECTED: 6 / 0 / 1945
LOG TYPE: Survey Core Study
WELL TYPE: Mineral Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
490.0				97.3	0.0	"OVERBURDEN"
392.7				0.0	97.3	
392.7			LIMESTONE	98.0	97.3	
294.7			LIMESTONE	40.0	195.3	FAULT 235.3'
254.7			LIMESTONE	0.0	235.3	FAULT 235.3', "WARSAW"

MAPID: 06900433000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 8 SWSE
QUADRANGLE: ROSICLARE LONGITUDE: -88.346211
CONFIDENTIAL: N LATITUDE: 37.48323
SURFACE ELEVATION (FT.): 385.0 LOGGED (FT.): 476.0
SOURCE: ROSI LEAD & FLUORSR
COMMENT: CORE STUDY-FE TIPPIE 1/44

FOOT (NS): 0 FOOT (EW): 0
GEOLOGIST: GK MAYNOR
DATE COLLECTED: 1 / 0 / 1944
LOG TYPE: Survey Core Study
WELL TYPE: Mineral Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
385.0				48.3	0.0	"OVERBURDEN"
336.7				0.0	48.3	
336.7			LIMESTONE	0.0	48.3	?TOPS & FAULTING BELOW 172'

MAPID: 06900435000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 14 NWSWNE

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: ROSICLARE LONGITUDE: -88.292004

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.476596

DATE COLLECTED: 0 / 0 / 1952

SURFACE ELEVATION (FT.): 468.0 LOGGED (FT.): 268.0

LOG TYPE: Survey Core Study

SOURCE: OXFORD OWEN A

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-DB SAXBY 4/52.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
468.0			CLAYSTONE	12.6	0.0	"SOIL CLAY & SS BOULDERS"
455.4				0.0	12.6	
455.4	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	16.6	12.6	"BETHEL", PROB. FLT. 29.2'
438.8	MISSISSIPPIAN	CEDAR BLUFF GRO	CALCAREOUS SHALE	51.2	29.2	"SHET.", PROB. FLT. 29.2'
387.6			SANDSTONE	25.2	80.4	"ROSICLARE"
362.4			LIMESTONE	0.0	105.6	"FRED.", PROB. FLT. 123.7-126.9'

MAPID: 06900436000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 14 SWSWNE

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: ROSICLARE LONGITUDE: -88.292027

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.474783

DATE COLLECTED: 0 / 0 / 1952

SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 532.0

LOG TYPE: Survey Core Study

SOURCE: OXFORD OWEN A

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-DB SAXBY 6/52.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0			CALCAREOUS CLAYSTO	27.6	0.0	
412.4				0.0	27.6	
412.4			LIMESTONE	210.7	27.6	"FREDONIA", FLTS. 207.9-235.5'
201.7			LIMESTONE	0.0	238.3	FLT. 302-304.8'

MAPID: 06900438000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 16 NWNW

FOOT (NS): 970 S FOOT (EW): 203 E

QUADRANGLE: ROSICLARE LONGITUDE: -88.335276

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.480306

DATE COLLECTED: 6 / 0 / 1944

SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 311.0

LOG TYPE: Survey Core Study

SOURCE: ROSI LEAD & FLUORSR

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-FE TIPPIE 6/44.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
415.0				22.6	0.0	"OVERBURDEN"
392.4				0.0	22.6	
392.4	MISSISSIPPIAN	MENARD	LIMESTONE	38.0	22.6	
354.4	MISSISSIPPIAN	WALTERSBURG	SHALE & SILTSTONE	29.9	60.6	
324.5	MISSISSIPPIAN	VIENNA	LIMESTONE	4.3	90.5	
320.2	MISSISSIPPIAN	TAR SPRINGS	SANDSTONE	0.0	94.8	"FAULT ZONE 135-142.1?"

MAPID: 06900439000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 16 NWSW

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: ROSICLARE LONGITUDE: -88.337018

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.472161

DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 350.0 LOGGED (FT.): 261.0

LOG TYPE: Survey Core Study

SOURCE: COX JOHN

WELL TYPE: Misc. Borings 100 Ft. & Deeper

COMMENT: CORE STUDY-FE TIPPIE 5/43.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
350.0				28.3	0.0	"OVERBURDEN"
321.7				0.0	28.3	
321.7			LIMESTONE W/ SHALE	29.7	28.3	"?CORRELATION"
292.0	MISSISSIPPIAN	HARDINSBURG	SANDSTONE	0.0	58.0	"?CORRELATION"

MAPID: 06900448000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 17 NWSW

FOOT (NS): 1021 N FOOT (EW): 428 E

QUADRANGLE: ROSICLARE LONGITUDE: -88.354779

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.471096

DATE COLLECTED: 0 / 0 / 1950

SURFACE ELEVATION (FT.): 578.0 LOGGED (FT.): 438.0

LOG TYPE: Survey Core Study

SOURCE: U S BUREAU OF MINES

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-DB SAXBY 2/50.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
578.0				7.5	0.0	"OVERBURDEN"
570.5			SANDSTONE	34.7	7.5	
535.8				0.0	42.2	
535.8	MISSISSIPPIAN	KINKAID	LIMESTONE	42.4	42.2	
493.4	MISSISSIPPIAN	DEGONIA	SANDSTONE	33.3	84.6	
460.1	MISSISSIPPIAN	CLORE	LIMESTONE W/ SHALE	0.0	117.9	MULTIPLE FLTS. & ? CORREL. 128.6'-TD

MAPID: 06900451000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 17 NWNE

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: ROSICLARE LONGITUDE: -88.346235

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.479518

DATE COLLECTED: 11 / 0 / 1943

SURFACE ELEVATION (FT.): 385.0 LOGGED (FT.): 353.0

LOG TYPE: Survey Core Study

SOURCE: ROSI LEAD & FLUORSR

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-FE TIPPPIE 11/43.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
385.0				56.7	0.0	"OVERBURDEN"
328.3				0.0	56.7	
328.3	MISSISSIPPIAN	CLORE	LIMESTONE W/ SHALE	59.1	56.7	
269.2	MISSISSIPPIAN	PALESTINE	SANDSTONE/SILTSTON	106.4	115.8	
162.8	MISSISSIPPIAN	MENARD	LIMESTONE	0.0	222.2	

MAPID: 06900458000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 18 SESE

FOOT (NS): 340 N FOOT (EW): 780 E

QUADRANGLE: ROSICLARE LONGITUDE: -88.360651

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.469225

DATE COLLECTED: 0 / 0 / 1949

SURFACE ELEVATION (FT.): 477.0 LOGGED (FT.): 531.0

LOG TYPE: Survey Core Study

SOURCE: OZARK MAHONING MNG

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-DB SAXBY 10/49.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
477.0				79.9	0.0	"OVERBURDEN"
397.1				0.0	79.9	
397.1			LIMESTONE	0.0	79.9	

MAPID: 06900461000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 19 SWSW
QUADRANGLE: ROSICLARE LONGITUDE: -88.37387
CONFIDENTIAL: N LATITUDE: 37.453495
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 231.0
SOURCE: U S BUREAU OF MINES
COMMENT: CORE STUDY-FE TIPPIE 1/44.

FOOT (NS): 625 N FOOT (EW): 140 E
GEOLOGIST: GK MAYNOR
DATE COLLECTED: 1 / 0 / 1944
LOG TYPE: Survey Core Study
WELL TYPE: Mineral Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0				7.8	0.0	"OVERBURDEN"
402.2				0.0	7.8	
402.2	MISSISSIPPIAN	DEGONIA	SHALE & SILTSTONE	21.2	7.8	
381.0	MISSISSIPPIAN	CLORE	CALCAREOUS SHALE	0.0	29.0	?TOPS & FLTS. BELOW 37.5'

MAPID: 06900462000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 19 SWSW
QUADRANGLE: SHETLERVILLE LONGITUDE: -88.377415
CONFIDENTIAL: N LATITUDE: 37.451967
SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 306.0
SOURCE: U S BUREAU OF MINES
COMMENT: CORE STUDY-FE TIPPIE 2/44.

FOOT (NS): 1171 N FOOT (EW): 1157 E
GEOLOGIST: GK MAYNOR
DATE COLLECTED: 2 / 0 / 1944
LOG TYPE: Survey Core Study
WELL TYPE: Mineral Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
445.0			CLAYSTONE	37.5	0.0	"OVERBURDEN"
407.5				0.0	37.5	
407.5	MISSISSIPPIAN	KINKAID	LIMESTONE	0.0	37.5	?TOPS & FAULTING BELOW 66.4'

MAPID: 06900466000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 19 NESW
QUADRANGLE: ROSICLARE LONGITUDE: -88.369672
CONFIDENTIAL: N LATITUDE: 37.457972
SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 445.0
SOURCE: U S FLUORAR
COMMENT: CORE STUDY-FE TIPPIE 5/44.

FOOT (NS): 360 N FOOT (EW): 412 E
GEOLOGIST: GK MAYNOR
DATE COLLECTED: 5 / 0 / 1944
LOG TYPE: Survey Core Study
WELL TYPE: Mineral Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.0				32.4	0.0	"OVERBURDEN"
437.6				0.0	32.4	
437.6			LIMESTONE	0.0	32.4	"FAULT ZONE"

MAPID: 06900469000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 21
QUADRANGLE: ROSICLARE LONGITUDE: -88.334554
CONFIDENTIAL: N LATITUDE: 37.4535
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 203.0
SOURCE: ROSI LEAD & FLUORSR
COMMENT: CORE STUDY-FE TIPPIE 7/44.

FOOT (NS): 688 S FOOT (EW): 1389 W
GEOLOGIST: GK MAYNOR
DATE COLLECTED: 7 / 0 / 1944
LOG TYPE: Survey Core Study
WELL TYPE: Mineral Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
410.0				11.3	0.0	"OVERBURDEN"
398.7				0.0	11.3	
398.7			LIMESTONE	109.6	11.3	FAULT 119.3-121'
289.1			LIMESTONE	0.0	120.9	FAULT 119.3-121'

MAPID: 06900475000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 21
QUADRANGLE: ROSICLARE LONGITUDE: -88.338012
CONFIDENTIAL: N LATITUDE: 37.452516
SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 137.0
SOURCE: ROSI LEAD & FLUORSR
COMMENT: CORE STUDY-FE TIPPIE 9/44.

FOOT (NS): 326 S FOOT (EW): 389 W
GEOLOGIST: GK MAYNOR
DATE COLLECTED: 8 / 0 / 1944
LOG TYPE: Survey Core Study
WELL TYPE: Mineral Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
415.0				2.1	0.0	"OVERBURDEN"
412.9				0.0	2.1	
412.9			SANDY LIMESTONE	10.6	2.1	"ROSICLARE"
402.3			LIMESTONE	0.0	12.7	"FREDONIA"

MAPID: 06900476000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 21
QUADRANGLE: ROSICLARE LONGITUDE: -88.323069
CONFIDENTIAL: N LATITUDE: 37.459441
SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 396.0
SOURCE: TEMS R S
COMMENT: CORE STUDY-FE TIPPIE 12/42.

FOOT (NS): 2620 N FOOT (EW): 620 E
GEOLOGIST: GK MAYNOR
DATE COLLECTED: 0 / 0 / 1942
LOG TYPE: Survey Core Study
WELL TYPE: Mineral Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
390.0				32.1	0.0	"OVERBURDEN W/ SS BOULDERS"
357.9				0.0	32.1	
357.9			LIMESTONE	0.0	32.1	"FREDONIA"

MAPID: 06900478000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 22 NENW
QUADRANGLE: ROSICLARE LONGITUDE: -88.311738
CONFIDENTIAL: N LATITUDE: 37.464072
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 107.0
SOURCE: PATTON J W & SONS
COMMENT: CORE STUDY-FE TIPPIE

FOOT (NS): 410 S FOOT (EW): 30 E
GEOLOGIST: GK MAYNOR
DATE COLLECTED: 3 / 0 / 1944
LOG TYPE: Survey Core Study
WELL TYPE: Mineral Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0				64.7	0.0	"MUD & SS BOULDERS"
330.3			LIMESTONE	14.1	64.7	
316.2	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	0.0	78.8	"BETHEL"

MAPID: 06900481000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 28
QUADRANGLE: ROSICLARE LONGITUDE: -88.336937
CONFIDENTIAL: N LATITUDE: 37.450863
SURFACE ELEVATION (FT.): 397.0 LOGGED (FT.): 238.0
SOURCE: ROSI LEAD & FLUORSR
COMMENT: CORE STUDY-FE TIPPIE.

FOOT (NS): 272 N FOOT (EW): 703 W
GEOLOGIST: GK MAYNOR
DATE COLLECTED: 8 / 0 / 1944
LOG TYPE: Survey Core Study
WELL TYPE: Mineral Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
397.0				21.7	0.0	"OVERBURDEN"
375.3				0.0	21.7	
375.3			LIMESTONE	53.8	21.7	"FREDONIA"
321.5			LIMESTONE	0.0	75.5	"TOP, FLT. 209.6"

MAPID: 06900488000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 29 NWSE
QUADRANGLE: ROSICLARE LONGITUDE: -88.345665
CONFIDENTIAL: N LATITUDE: 37.441588
SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 523.0
SOURCE: HILLSIDE FLUORSPAR
COMMENT: CORE STUDY-FE TIPPIE 2/43.

FOOT (NS): 455 S FOOT (EW): 392 E
GEOLOGIST: GK MAYNOR
DATE COLLECTED: 2 / 0 / 1943
LOG TYPE: Survey Core Study
WELL TYPE: Mineral Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0				10.0	0.0	"SURFACE"
380.0				0.0	10.0	
380.0	MISSISSIPPIAN	HARDINBURG	SANDSTONE	79.1	10.0	
300.9	MISSISSIPPIAN	HANEY	LIMESTONE	148.9	89.1	"GOLCONDA"
152.0	MISSISSIPPIAN	BEECH CREEK	LIMESTONE	3.7	238.0	INFERRED TOP-GK MAYNOR 6/87
148.3	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	226.6	241.7	
-78.3	MISSISSIPPIAN	CEDAR BLUFF GRO	CALCAREOUS SHALE	38.7	468.3	"RENAULT", FLT. 476.5'
-117.0			LIMESTONE	0.0	507.0	"FREDONIA"

MAPID: 06900498000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 29 NWSE

FOOT (NS): 780 S FOOT (EW): 140 E

QUADRANGLE: ROSICLARE LONGITUDE: -88.344768

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.44249

DATE COLLECTED: 6 / 0 / 1943

SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 401.0

LOG TYPE: Survey Core Study

SOURCE: HILLSIDE FLUORSPAR

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-FE TIPPIE 6/43.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0				20.0	0.0	"OVERBURDEN"
400.0				0.0	20.0	
400.0	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	6.6	20.0	"BETHEL"
393.4	MISSISSIPPIAN	CEDAR BLUFF GRO	LIMESTONE	96.9	26.6	"RENAULT & LEVIAS (122.2)"
296.5			SANDSTONE	17.6	123.5	"ROSICLARE"
278.9			LIMESTONE	238.2	141.1	"FREDONIA", FLT. 334'
40.7			LIMESTONE	0.0	379.3	

MAPID: 06900505000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 29 NWSE

FOOT (NS): 1300 S FOOT (EW): 870 E

QUADRANGLE: ROSICLARE LONGITUDE: -88.347262

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.443912

DATE COLLECTED: 7 / 0 / 1943

SURFACE ELEVATION (FT.): 391.0 LOGGED (FT.): 146.0

LOG TYPE: Survey Core Study

SOURCE: HILLSIDE FLUORSPAR

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-FE TIPPIE 7/43.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
391.0				38.0	0.0	"OVERBURDEN"
353.0				0.0	38.0	
353.0	MISSISSIPPIAN	TAR SPRINGS	SHALE & SANDSTONE	16.3	38.0	
336.7			LIMESTONE	48.7	54.3	
288.0	MISSISSIPPIAN	HARDINBURG	SANDSTONE/SHALE	0.0	103.0	

MAPID: 06900517000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 29 NE

FOOT (NS): 353 N FOOT (EW): 177 E

QUADRANGLE: ROSICLARE LONGITUDE: -88.339988

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.450648

DATE COLLECTED: 6 / 0 / 1943

SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 500.0

LOG TYPE: Survey Core Study

SOURCE: ROSI LEAD & FLUORSR

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-FE TIPPIE 6/43.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
420.0				12.1	0.0	"OVERBURDEN"
407.9				0.0	12.1	
407.9			SANDSTONE	17.3	12.1	"ROSICLARE"
390.6			LIMESTONE	99.6	29.4	
291.0			LIMESTONE	0.0	129.0	"TOP, MANY SMALL FLTS."

MAPID: 06900520000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 29 NE

FOOT (NS): 554 S FOOT (EW): 716 W

QUADRANGLE: ROSICLARE LONGITUDE: -88.346456

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.445618

DATE COLLECTED: 9 / 0 / 1943

SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 330.0

LOG TYPE: Survey Core Study

SOURCE: ROSI LEAD & FLUORSR

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-FE TIPPIE 9/43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
381.4				0.0	41.6	CORE STARTS AT 41.6'
381.4	MISSISSIPPIAN	TAR SPRINGS	SANDSTONE	59.5	41.6	
321.9			LIMESTONE	45.3	101.1	
276.6	MISSISSIPPIAN	HARDINSBURG	SANDSTONE	100.1	146.4	
176.5	MISSISSIPPIAN	HANEY	LIMESTONE	35.4	246.5	FAULT 267.6-281.9'
141.1			LIMESTONE	0.0	281.9	FAULT 267.6-281.9', "FREDONIA"

MAPID: 06900538000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 29
QUADRANGLE: ROSICLARE LONGITUDE: -88.343082
CONFIDENTIAL: N LATITUDE: 37.446818
SURFACE ELEVATION (FT.): 508.0 LOGGED (FT.): 426.0
SOURCE: ROSI LEAD & FLUORSR
COMMENT: CORE STUDY-FE TIPPIE

FOOT (NS): 1739 N FOOT (EW): 1046 E
GEOLOGIST: GK MAYNOR
DATE COLLECTED: 11 / 0 / 1944
LOG TYPE: Survey Core Study
WELL TYPE: Mineral Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
508.0				9.3	0.0	"OVERBURDEN"
498.7				0.0	9.3	
498.7			SANDSTONE	7.8	9.3	"ROSICLARE"
490.9			LIMESTONE	106.5	17.1	"FREDONIA"
384.4			LIMESTONE	0.0	123.6	FAULT 273.6-283.7'

MAPID: 06900542000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 29
QUADRANGLE: ROSICLARE LONGITUDE: -88.346158
CONFIDENTIAL: N LATITUDE: 37.438474
SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 466.0
SOURCE: ROSI LEAD & FLUORSR
COMMENT: CORE STUDY-FE TIPPIE 4/45.

FOOT (NS): 690 S FOOT (EW): 1883 E
GEOLOGIST: GK MAYNOR
DATE COLLECTED: 4 / 0 / 1945
LOG TYPE: Survey Core Study
WELL TYPE: Mineral Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
415.0				8.7	0.0	"OVERBURDEN"
406.3				0.0	8.7	
406.3	MISSISSIPPIAN	HARDINSBURG	SANDSTONE	45.6	8.7	
360.7	MISSISSIPPIAN	HANEY	LIMESTONE	136.1	54.3	"GOLCONDA"
224.6	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	208.5	190.4	
16.1	MISSISSIPPIAN	CEDAR BLUFF GRO	CALCAREOUS SHALE	0.0	398.9	"RENAULT"

MAPID: 06900543000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 29 NWNE

FOOT (NS): 1083 N FOOT (EW): 960 W

QUADRANGLE: ROSICLARE LONGITUDE: -88.345532

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.448626

DATE COLLECTED: 11 / 0 / 1945

SURFACE ELEVATION (FT.): 394.0 LOGGED (FT.): 720.0

LOG TYPE: Survey Core Study

SOURCE: ROSI LEAD & FLUORSR

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-FE TIPPIE 11/45.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
394.0				24.3	0.0	"OVERBURDEN"
369.7				0.0	24.3	
369.7	MISSISSIPPIAN	MENARD	LIMESTONE	67.8	24.3	
301.9	MISSISSIPPIAN	WALTERSBURG	SHALE & SANDSTONE	24.4	92.1	"?TOP"
277.5	MISSISSIPPIAN	VIENNA	CALCAREOUS SHALE	36.3	116.5	"?TOP"
241.2	MISSISSIPPIAN	TAR SPRINGS	SHALE & SANDSTONE	97.7	152.8	FAULT 221.7'
143.5			LIMESTONE	4.3	250.5	FAULT 254.8'
139.2	MISSISSIPPIAN	TAR SPRINGS	SHALE & SANDSTONE	3.8	254.8	
135.4			LIMESTONE	59.7	258.6	
75.7	MISSISSIPPIAN	HARDINSBURG	SHALE & SANDSTONE	95.9	318.3	
-20.2	MISSISSIPPIAN	HANEY	LIMESTONE	89.1	414.2	"GOLCONDA", FLT. 455.2-455.5'
-109.3			LIMESTONE	0.0	503.3	

MAPID: 06920794000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 31 NENE

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: ROSICLARE LONGITUDE: -88.36113

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.434807

DATE COLLECTED: 0 / 0 / 0

SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 1314.0

LOG TYPE: Survey Core Study

SOURCE: OZARK-MAHONING CO.

WELL TYPE: Mineral Test

COMMENT: CORE STUDY (461.7-596.4)-JDT 6/83

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
356.6				0.0	88.4	CORE STARTS AT 88.4'
356.6	MISSISSIPPIAN	MENARD	LIMESTONE	84.0	88.4	CORE TOP-GK MAYNOR 6/87
272.6	MISSISSIPPIAN	WALTERSBURG	SHALE & SANDSTONE	46.3	172.4	CORE TOP-GK MAYNOR 6/87
226.3	MISSISSIPPIAN	VIENNA	LIMESTONE	13.7	218.7	CORE TOP-GK MAYNOR 6/87
212.6	MISSISSIPPIAN	TAR SPRINGS	SANDSTONE	87.6	232.4	CORE TOP-GK MAYNOR 6/87
125.0			LIMESTONE	46.4	320.0	CORE TOP-GK MAYNOR 6/87
78.6	MISSISSIPPIAN	HARDINSBURG	SANDSTONE	101.4	366.4	CORE TOP-GK MAYNOR 6/87
-22.8	MISSISSIPPIAN	HANEY	LIMESTONE	63.9	467.8	CORE TOP-JD TREWORGY 6/83.
-86.7	MISSISSIPPIAN	FRAILEYS	CALCAREOUS SHALE	62.3	531.7	CORE TOP-JD TREWORGY 6/83.
-149.0	MISSISSIPPIAN	BEECH CREEK	LIMESTONE	2.4	594.0	CORE TOP-JD TREWORGY 6/83.
-151.4	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	210.6	596.4	CORE TOP-JD TREWORGY 6/83.
-362.0	MISSISSIPPIAN	CEDAR BLUFF GRO	LIMESTONE	95.5	807.0	CORE TOP-GK MAYNOR 6/87
-457.5			SANDSTONE/LIMESTON	13.4	902.5	CORE TOP-GK MAYNOR 6/87
-470.9			LIMESTONE	0.0	915.9	CORE TOP-GK MAYNOR 6/87

MAPID: 06900548000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 32 SW

FOOT (NS): 35 N FOOT (EW): 620 E

QUADRANGLE: ROSICLARE LONGITUDE: -88.351259

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.429606

DATE COLLECTED: 11 / 0 / 1942

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 610.0

LOG TYPE: Survey Core Study

SOURCE: ROSI LEAD & FLUORSR

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-FE TIPPIE 11/42

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
398.0	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	212.3	12.0	CORE STARTS AT 12'
185.7	MISSISSIPPIAN	CEDAR BLUFF GRO	LIMESTONE	101.9	224.3	"RENAULT & LEVIAS (307.5)'"
83.8			SANDSTONE/LIMESTON	17.8	326.2	"ROSICLARE"
66.0			LIMESTONE	0.0	344.0	"FREDONIA", FLT. 463.2- 474.4'

MAPID: 06900552000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 32 NE

FOOT (NS): 1321 N FOOT (EW): 295 W

QUADRANGLE: ROSICLARE LONGITUDE: -88.348119

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.432912

DATE COLLECTED: 2 / 0 / 1943

SURFACE ELEVATION (FT.): 375.0 LOGGED (FT.): 406.0

LOG TYPE: Survey Core Study

SOURCE: ROSI LEAD & FLUORSR

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-FE TIPPIE 3/43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
375.0				34.0	0.0	"OVERBURDEN"
341.0				0.0	34.0	
341.0	MISSISSIPPIAN	HANEY	LIMESTONE	169.9	34.0	"GOLCONDA"
171.1	MISSISSIPPIAN	BEECH CREEK	LIMESTONE	4.0	203.9	INFERRED TOP-GK MAYNOR 6/87
167.1	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	83.3	207.9	FAULT 291.2'
83.8	MISSISSIPPIAN	CEDAR BLUFF GRO	LIMESTONE	0.0	291.2	FAULT 291.2', "RENAULT"

MAPID: 06900557000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 32
QUADRANGLE: ROSICLARE LONGITUDE: -88.347219
CONFIDENTIAL: N LATITUDE: 37.435735
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 341.0
SOURCE: ROSI LEAD & FLUORSR
COMMENT: CORE STUDY-FE TIPPIE 4/45.

FOOT (NS): 300 N FOOT (EW): 2180 E
GEOLOGIST: GK MAYNOR
DATE COLLECTED: 4 / 0 / 1945
LOG TYPE: Survey Core Study
WELL TYPE: Mineral Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
395.0				20.8	0.0	"OVERBURDEN"
374.2				0.0	20.8	
374.2	MISSISSIPPIAN	HARDINSBURG	SANDSTONE	53.2	20.8	
321.0	MISSISSIPPIAN	HANEY	LIMESTONE	113.7	74.0	
207.3	MISSISSIPPIAN	BEECH CREEK	LIMESTONE	4.1	187.7	INFERRED TOP-GK MAYNOR 6/87
203.2	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	81.9	191.8	FAULT 267-268'
121.3	MISSISSIPPIAN	CEDAR BLUFF GRO	LIMESTONE	0.0	273.7	"RENAULT"

MAPID: 06900564000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 32
QUADRANGLE: ROSICLARE LONGITUDE: -88.346829
CONFIDENTIAL: N LATITUDE: 37.423025
SURFACE ELEVATION (FT.): 345.0 LOGGED (FT.): 241.0
SOURCE: ROSI LEAD & FLUORSR
COMMENT: CORE STUDY-FE TIPPIE

FOOT (NS): 4906 N FOOT (EW): 2102 E
GEOLOGIST: GK MAYNOR
DATE COLLECTED: 2 / 0 / 1943
LOG TYPE: Survey Core Study
WELL TYPE: Mineral Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
345.0				6.4	0.0	"OVERBURDEN"
338.6				0.0	6.4	
338.6			SANDSTONE	21.9	6.4	"ROSICLARE"
316.7			LIMESTONE	0.0	28.3	"FREDONIA"

MAPID: 06900565000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 12S 8E SECTION: 32
QUADRANGLE: ROSICLARE LONGITUDE: -88.349817
CONFIDENTIAL: N LATITUDE: 37.423414
SURFACE ELEVATION (FT.): 385.0 LOGGED (FT.): 231.0
SOURCE: ROSI LEAD & FLUORSR
COMMENT: CORE STUDY-FE TIPPIE 3/43.

FOOT (NS): 4760 N FOOT (EW): 2529 W
GEOLOGIST: GK MAYNOR
DATE COLLECTED: 3 / 0 / 1943
LOG TYPE: Survey Core Study
WELL TYPE: Mineral Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
385.0				11.3	0.0	"SURFACE"
373.7				0.0	11.3	
373.7	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	132.1	11.3	FAULT 108.3-120' & 138.8-139.6'
241.6	MISSISSIPPIAN	CEDAR BLUFF GRO	LIMESTONE	47.1	143.4	"RENAULT", FLT. 185.2-190.5'
194.5			LIMESTONE	0.0	190.5	FLT. 185.2-190.5', "FREDONIA"

MAPID: 06900612000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 13S 8E SECTION: 5
QUADRANGLE: ROSICLARE LONGITUDE: -88.359344
CONFIDENTIAL: N LATITUDE: 37.413602
SURFACE ELEVATION (FT.): 347.0 LOGGED (FT.): 455.0
SOURCE:
COMMENT: CORE STUDY-FE TIPPIE 9/42.

FOOT (NS): 3377 N FOOT (EW): 300 W
GEOLOGIST: GK MAYNOR
DATE COLLECTED: 0 / 0 / 1942
LOG TYPE: Survey Core Study
WELL TYPE: Mineral Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
347.0				20.5	0.0	"OVERBURDEN"
326.5				0.0	20.5	
326.5	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	199.1	20.5	
127.4	MISSISSIPPIAN	CEDAR BLUFF GRO	LIMESTONE	129.1	219.6	"RENAULT & LEVIAS (313.9)'"
-1.7			SANDSTONE	0.0	348.7	"ROSICLARE"

MAPID: 06900614000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 13S 8E SECTION: 5

FOOT (NS): 3642 N FOOT (EW): 1100 W

QUADRANGLE: ROSICLARE LONGITUDE: -88.356598

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.412851

DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 344.0 LOGGED (FT.): 373.0

LOG TYPE: Survey Core Study

SOURCE:

WELL TYPE: Mineral Test

COMMENT: CORE STUDY-FE TIPPIE 9/42

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
344.0				71.1	0.0	"STS, LS & SS BOULDERS"
272.9				0.0	71.1	
272.9	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	100.7	71.1	"BETHEL"
172.2	MISSISSIPPIAN	CEDAR BLUFF GRO	LIMESTONE	126.4	171.8	"RENAULT & LEVIAS (261.8)"
45.8			SANDSTONE	14.7	298.2	"ROSICLARE"
31.1			LIMESTONE	0.0	312.9	"FREDONIA"

MAPID: 06900617000C VERSION: 1

PROJECT: CUS-PILOT

COUNTY: HARDIN TWP/RNG: 13S 8E SECTION: 5 SWSW

FOOT (NS): 0 FOOT (EW): 0

QUADRANGLE: ROSICLARE LONGITUDE: -88.358137

GEOLOGIST: GK MAYNOR

CONFIDENTIAL: N LATITUDE: 37.410258

DATE COLLECTED: 0 / 0 / 1900

SURFACE ELEVATION (FT.): 350.0 LOGGED (FT.): 400.0

LOG TYPE: Other Core Study

SOURCE: FAIRVW FLUOR & LEAD

WELL TYPE: Mineral Test

COMMENT: ASSUME VERTICAL BORING.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
350.0				0.0	0.0	
-	MISSISSIPPIAN	WEST BADEN GROUP	SANDSTONE	0.0		"BETHEL"
245.0	MISSISSIPPIAN	CEDAR BLUFF GRO	LIMESTONE	130.0	105.0	"RENAULT-L. O'HARA"
115.0			SANDSTONE	20.0	235.0	"ROSICLARE"
95.0			LIMESTONE	0.0	255.0	"FREDONIA"